

ECON 0150 | Final Case Study Project

Project Guidelines

Overview

In this final project, you will demonstrate your ability to analyze real-world data using the tools and techniques learned throughout the semester. You will select a dataset, conduct a comprehensive analysis, and present your findings through both a slide presentation and a written report. Some reports will be chosen to be displayed on the course website after the semester has finished and used as references for future classes.

Learning Objectives

- Apply data analysis techniques using Python or Excel
- Demonstrate proficiency in exploratory data analysis and visualization
- Utilize statistical methods to draw meaningful conclusions
- Effectively communicate findings to a technical audience

Dataset Selection

Choose one of the following approaches:

1. Select a dataset from a database (e.g., FRED, World Bank, BLS, Election Data Source, etc.).
2. Find your own dataset related to an economic question that interests you.
3. Combine multiple datasets to explore relationships between different economic variables.

Requirements

Your analysis must include:

1. **Exploratory Data Analysis**
 - Summary statistics
 - Data cleaning and preparation
 - At least two different types of visualizations
2. **Statistical Analysis**
 - Probability distributions of key variables
 - Hypothesis testing relevant to your research question
 - Regression analysis (if applicable to your research question)
3. **Insights**
 - Clear connection between your analysis and economic concepts

- Discussion of implications and limitations
- Suggestions for further research

Presentation (1-2 slides)

Create 1-2 clear, concise slides highlighting:

- Research question
- Key findings
- Most compelling visualization
- Main conclusions

Be prepared for a 3-minute presentation

Written Report

Submit a report (roughly 1,000 words) including:

1. Introduction and motivation
2. Data description and sources
3. Methodology
4. Results and analysis
5. Conclusions
6. References
7. Appendix with your code/spreadsheet formulas

Evaluation Criteria

Data Analysis (40%)

- Appropriate choice and application of methods
- Technical proficiency
- Depth of analysis

Communication (30%)

- Clarity of presentation
- Quality of visualizations
- Professional writing

Economic Understanding (30%)

- Connection to economic concepts
- Interpretation of the causal/correlational relationships
- Discussion of social/economic implications

Timeline

Project groups due: *Tuesday, November 12*

- Select and submit to me your group.

Project proposal due: *Tuesday, November 19*

- Select a topic/question.

Draft analysis due: *Tuesday, December 3*

- Send me a draft of your writeup, including at least one figure.

Final presentation: *December 12, 12PM, Finals Period*

- Present 1-2 slides, described above.

Written report due: *Tuesday, December 17, 5PM*

Resources

- Office hours for project consultation
- Links to recommended data sources