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

- Parts 1 - 2: Demonstrate proficiency in exploratory data analysis and visualization

- Parts 3 - 5: Use statistical methods to draw meaningful conclusions

- Part 6: Effectively communicate findings to a intermediate-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

   - Visualizations / summaries of relevant variables / relationships

2. **General Linear Model**

   - Statement of the statistical model

   - A summary of the model's results and assumptions

   - Interpretation of the model's results

   - Limitations of the model

3. **Insights**

   - Clear connection between your analysis and social / economic concepts

- Discussion of implications and limitations

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 (1-2 pages)

Submit a short report (roughly 2 pages) including:

1. Introduction and question

2. Data description and sources

3. Methodology

4. Results and analysis

5. Conclusions

6. References

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 (if applicable)

- Interpretation of the relationships

- Discussion of social / economic implications

Timeline

Project groups due: **Friday, March 28 (in Homework)**

- Select and submit to me your group and a descriptive figure from a dataset of interest to you.

Project proposal due: **Friday, April 4 (in Homework)**

- Select a topic/question, a descriptive figure, and a statistical model.

Draft analysis due: **Friday, April 11 (in Homework)**

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

Final presentation: **Finals Period**

- Present 1-2 slides, described above.

Written report due: **Tuesday, April 29, 5PM**