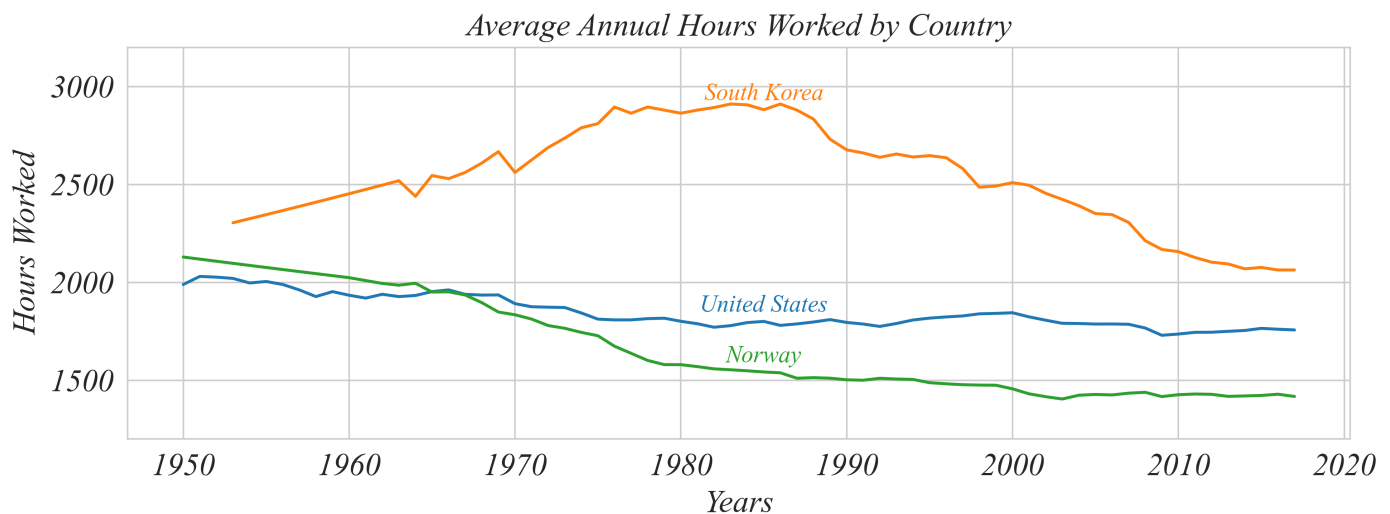# ECON 0150 | Fall 2025 | Homework 1.4

Due: Friday, September 12

Homework is designed to both test your knowlege and challenge you to apply familiar concepts in new applications. Answer clearly and completely. You are welcomed and encouraged to work in groups so long as your work is your own. Submit your figures and answers to Gradescope.

Q1. Numerical Variables by Category

The following data on hours worked is available from Our World in Data. This question is aimed at practicing the skill of making comparisons of continuous variables displayed visually.

Average Annual Hours Worked by Country

a) In which country did people work the most on average?

- South Korea
- United States
- Norway

b) When did Norwegians work less than Americans?

- Before 1965
- During 1965
- After 1965
- Never

c) When was the largest difference between the longest and the shortest annual working time?

- 1960s

- 1980s
- 2000s
- 2010s

d) In the 1980s, roughly how many times more did an average South Korean work than an average Norwegian?

- 2x
- 3x
- 4x
- 5x

Q2. Data Context: `amazon_book_sales.csv`

a) Who collected the data?

b) How was the data collected?

c) Who / what is left out of the dataset?

d) Show the distribution of user rating across Fiction and Non Fiction books.

e) Use the empirical cumulative distribution to find whether user rating tend to be higher for Non Fiction books.

f) How would you describe