Lab 1 Homework: Labor Force Participation

Background

The U.S. Bureau of Labor Statistics (BLS) collects and publishes extensive data on labor force participation, including trends in male and female employment over time. Understanding these trends provides insights into economic growth, changing societal roles, and labor market dynamics. Read the BLS report on labor force statistics for more details about gender trends in labor force participation in the United States.

In the lab manual, you analyzed historical data on births by gender. This assignment asks you to apply similar steps to labor force participation data for men and women in the United States.

Homework

1. The dataset is stored in a .csv file called `labor_force.csv`, available on Canvas. Load the data into R.
2. What variable (column) names are in this dataset?
3. What are the dimensions of the dataset? (How many observations and variables are there?)
4. What years are covered in this dataset?
5. In the lab manual, you observed trends in gender proportions in birth data such that boys were born in greater proportion than girls. Examine the labor force data for men and women: Can you observe a similar trend in proportion of labor force participation of men and women?
6. Create a plot displaying the proportion of men participating in labor force over time. Do you notice any trends?
7. Give the plot a title: *"Proportion of men participating in Labor Force over time."* Which argument did you use to create the title?
8. In how many years did the proportion of men participating in labor force exceed 0.56?
9. In which year did we see the largest total number of labor force participation in the US? (Hint: There are many ways to identify this. To find helpful commands, you can refer to the help files or the R reference card (R reference card).
10. Save your work as a well-organized and commented R Script.