ECON 0150 | Final Project Ideas

These are just some examples. Use them as a starting point. Make them your own.

Proposal 1: The Relationship between Unemployment Benefits on Job Recovery Rates

Research Question: How are changes in unemployment benefits related to the rate of job recovery in the U.S.?

Dataset: Data from the Bureau of Labor Statistics (BLS) on unemployment rates and recovery rates combined with state-level unemployment benefit policies from 2015–2023.

Approach:

1. **Exploratory Data Analysis:**
    - Summary statistics for unemployment rates and benefit levels by state.
    - Visualize trends in unemployment rates before and after benefit policy changes.
2. **Statistical Analysis:**
    - Use hypothesis testing to determine if states with higher benefits experience different job recovery rates.
    - Perform regression analysis to identify the impact of benefit levels on job recovery.
3. **Insights:**
    - Discuss the potential trade-offs between providing financial security and incentivizing job-seeking behavior.

Proposal 2: Gender Wage Gap Trends in Tech Industries

Research Question: What factors are related to the gender wage gap in the technology sector, and how has it evolved over time?

Dataset: Data from Glassdoor on salaries by gender in technology roles, combined with labor market statistics from the FRED database.

Approach:

1. **Exploratory Data Analysis:**
    - Calculate summary statistics for median salaries by gender across tech roles.
    - Create visualizations of wage trends over the past decade.

2. **Statistical Analysis:**

- Examine the distributions of wages for male and female employees.
- Test hypotheses related to differences in wages by role and seniority.

3. **Insights:**

- Suggest potential policy recommendations to address the wage gap.
- Highlight limitations, such as the role of negotiation practices or job responsibilities.

Proposal 3: The Effect of Minimum Wage Increases on Inflation

Research Question: Do state-level increases in the minimum wage contribute to higher inflation rates?

Dataset: State-level minimum wage data from the Department of Labor, paired with inflation data from the World Bank and regional price indices from the BLS.

Approach:

1. **Exploratory Data Analysis:**
    - Compare inflation rates in states with recent minimum wage increases to those without.
    - Visualize correlations between wage changes and inflation trends.
2. **Statistical Analysis:**
    - Conduct hypothesis testing to identify significant differences in inflation rates.
    - Use regression to control for confounding factors such as population size and GDP growth.
3. **Insights:**
    - Discuss implications for policymakers, especially concerning balancing wage growth and economic stability.

Proposal 4: Voter Turnout Analysis Across States

Research Question: What factors were most strongly correlated with voter turnout across states in the 2024 U.S. pre- si- dential election?

Dataset: State-level voter turnout data from the Election Assistance Commission (EAC) or other sources, combined with demographic data from the U.S. Census Bureau.

Approach:

1. **Exploratory Data Analysis:**
    - Analyze turnout rates by state and demographic group.
    - Create visualizations to highlight turnout trends across regions.

2. **Statistical Analysis:**
    - Use regression analysis to assess the relationship between factors such as income, education, and age and turnout.
    - Perform hypothesis testing to compare turnout rates in states with and without mail-in voting policies.
3. **Insights:**
    - Discuss the effectiveness of turnout strategies and potential barriers to voting.

Proposal 5: Analysis of Vote Share by Party

Research Question: How did economic conditions influence vote shares for the two major parties in the 2024 election?

Dataset: County-level vote share data from the Federal Election Commission (FEC) and unemployment rates from the Bureau of Labor Statistics (BLS).

Approach:

1. **Exploratory Data Analysis:**
    - Compare vote shares in counties with different economic profiles.
    - Visualize the relationship between unemployment rates and party vote shares.
2. **Statistical Analysis:**
    - Use correlation analysis to identify relationships between economic conditions and vote shares.
    - Test hypotheses about differences in voting patterns between urban and rural counties.
3. **Insights:**
    - Discuss the relationship between economic conditions and voter behavior.

Proposal 6: Impact of Voting Methods on Election Outcomes

Research Question: Did the availability of early voting or mail-in ballots relate to the outcome of the 2024 presidential election?

Dataset: Data on voting methods and outcomes by state from the National Conference of State Legislatures (NCSL), combined with demographic data from the U.S. Census Bureau.

Approach:

1. **Exploratory Data Analysis:**
    - Analyze the share of votes cast via early voting, mail-in ballots, and in-person voting.
    - Visualize differences in voting methods by state and demographic group.
2. **Statistical Analysis:**

- Test hypotheses about the relationship between voting methods and party vote shares.
- Perform a regression to assess the relationship between the availability of different methods and the election outcome.

3. **Insights:**
    - Discuss the implications of election policy and access to voting.