

Applied Econometrics Project Proposal

Jan C. Bierowiec

The Question:

The econometrics question that will be addressed in this project is the following: Does inflation correlate with salary adjustments in the U.S.? Specifically, as inflation affects the cost of essential goods and services (e.g., groceries, rent, clothing, other utilities), do American companies proportionally adjust their employees' salaries to maintain their purchasing power?

Significance of the Question:

The question is crucial because many Americans live paycheck to paycheck. If a person's salary adjustments lag behind inflation, purchasing power decreases, leading to financial strain. Conversely, if salaries adjust in sync with inflation, it suggests a responsive labor market. Understanding this correlation can help policymakers and employers develop strategies to maintain economic stability.

Hypothesis

When answering this question, the following will be the null and alternative hypotheses:

- H_0 : There is no significant correlation between inflation and salary adjustments.
- H_1 : There is a significant correlation between inflation and salary adjustments.

Key Variables

Here are a few of the key variables that I am considered when developing a model to answer this question.

- **Dependent Variable:** Annual salary changes across different occupations.
- **Independent Variable:** Annual inflation rate.
- **Control Variables:**
 - Occupation/Industry (e.g., healthcare, IT, education, retail)
 - Education level (GED, Bachelor's, Master's, etc.)
 - Marital status (single, married)
 - Number of dependents
 - Age and gender
 - Regional cost of living index

Data Sources/Datasets:

To answer the question and conduct the study, datasets will be needed that contain information about inflation rates, salary trends, and demographic information. Here are some sources that are being considered:

- U.S. Bureau of Labor Statistics (BLS)
 - [Inflation Data: Consumer Price Index \(CPI\)](#) [BLS Inflation Data](#)
 - [Salary Data: Occupational Employment and Wage Statistics \(OEWS\)](#) [BLS Wage Data](#)
- Federal Reserve Economic Data (FRED)
 - [Historical inflation rates, real wages, and employment statistics.](#) [FRED](#)

- U.S. Census Bureau
 - [Income and demographic data based on household surveys.](#) Census Bureau
- National Bureau of Economic Research (NBER)
 - [Research datasets on income, employment, and macroeconomic trends.](#) NBER
- Economic Policy Institute (EPI)
 - [Reports on wage stagnation and inflation-adjusted income trends.](#) EPI Wage Data