Week 7 Lab - Practicing Fundamentals of Statistics

The pew research center collected data to understand “How the U.S. Public and AI Experts View Artificial Intelligence” (https://www.pewresearch.org/internet/2025/04/03/how-the-us-public-and-ai-experts-view-artificial-intelligence/)

The dataset and corresponding metadata is provided in brightspace. Your goal is to understand perceptions of the survey takers on the use of AI in healthcare.

Follow the following steps to clean and prepare your data, and calculate descriptive statistics of the dataset.

1. **Load the Data:**
    a. Load the dataset
    b. Define the key variable for AI in healthcare comfort
    c. Drop 'Don’t know/No answer' for cleaner statistical calculations

2. **Review Measurement Scales:**
    a. Identify what type of variable is “comfort” - nominal, ordinal, or interval and convert the labels to numeric codes before calculating a mean or standard deviation.

3. **Descriptive Statistics:**
    a. Calculate Central Tendency (Mean, Median, Mode)
    b. Calculate Measures of Dispersion (Standard Deviation)

4. **Analyze Skewness and Distribution:**
    a. check the skewness of our comfort variable to see if it's symmetrical (like a normal curve) or if it's skewed toward one end of the scale.

Print and interpret your results. Interpret each calculated value to infer the general perception (comfort) of survey takers towards use of AI in healthcare.

Submit your code (including outputs), and interpretation of results in a single pdf by the deadline.

Your code is worth 6 points, and interpretation is worth 4 points.