Final Project DSC 530

Question

“Is there a relationship between daily screen time and sleep quality among adults?”

Variables

1. Daily Screen Time (continuous): Total hours spent on screens.
2. Sleep Quality (ordinal): Rated from poor to excellent.
3. Age (continuous): Participant’s age.
4. Physical Activity(continuous): Hours of physical activity per day.
5. Caffeine Intake (categorical): Low, medium, or high.

CREATE HISTOGRAM

USE PMF comparison for example compare sleep quality between high screen time (>4 hours) vs low (=<4)

Create a CDF

The purpose of this exploratory data analysis is to see if there is any correlation between the value of the dollar based on inflation and the median household income in America. I went in with the hypothesis that the dollar has outpaced growth compared to the median household income. Why I went in with this hypothesis was due to the financial challenges that many are facing today. The data however showed that the median household income has kept up with the value of the dollar. With the data showing this then it means we do not have a complete picture of the situation that many families are facing. Further investigation must be done to see where the gap in income and the financial needs of families today has changed. My new hypothesis to investigate will be how the budget has been impacted over time. Since the 1960’s when the data started a new level of bills have come into play. The first being the growth of the internet and the cost incurred with having computers and internet access at home. We must also look at the shift in how the household income was earned. My hypothesis is that in the 1960’s most households earned this income with 1 parent working and 1 staying home. Today there seems to be a shift to both parents working. With this there has been a rise in childcare costs. How does this impact the overall budget? The other main points to further investigate is the cost of housing, education, medical and transportation. It is always interesting to find relations in data that one did not initially anticipate, and this will spark a deeper dive to find out where the root of the issue facing families today actually lies.