Data Analysis

# Unemployment

**Summary Characterization (with Kurtosis)**

Adding the kurtosis to our previous analysis, we can characterize the unemployment rate data as follows:

* The data has a **moderate average** around 7.39 with **substantial variability** (standard deviation of 2.46).
* The **wide range** (from 2.87 to 14.12) indicates diverse unemployment rates.
* **Positive skewness** suggests that some observations are higher than the mean, though not overwhelmingly so.
* **Negative kurtosis** (platykurtic) suggests that extreme values are relatively limited, with a flatter distribution around the mean and a lack of heavy tails.

Overall, the data has a somewhat broad but stable distribution, without frequent extreme values, indicating diverse but moderate variations in unemployment rates across observations.

# Crime

**Summary Characterization (Revised)**

Considering the overall minimum of 0 and maximum of 1, we can describe the crime rate data as follows:

* The **average crime rate is low** (approximately 0.37), which is informative in a context where crime rates can be understood as a proportion (0 being no crime and 1 being the highest crime level).
* The **standard deviation of 0.15** indicates moderate variability around the mean, suggesting some areas or times have crime rates that are notably higher or lower.
* The **range spans the full interval from 0 to 1**, demonstrating that the dataset captures both extreme cases of no crime and the highest crime rates possible.
* **Negative kurtosis** still suggests fewer extreme outliers, with a more uniform distribution across the range.

**Final Thoughts**

Overall, this context of bounded values (0 to 1) enhances the understanding of the crime rate distribution. It indicates that while crime rates are relatively low on average, there is still a diversity of experiences regarding crime, with instances of both very low and very high rates. The presence of 0 suggests certain observations are crime-free, which can be significant in analyzing crime trends or policies.