Chapter 3

Numerically summarizing data.

* Measures of central tendency:

Mean → population mean \[ \mu = \frac{\sum x_i}{N} \]

Sample mean \[ \bar{x} = \frac{\sum x_1 + x_2 + \ldots + x_n}{n} \]

Excel command: Average (x1, xn).

Median:
- If \( n \) is odd, the median is the middle observation, in the \( \frac{n+1}{2} \) position.
- If \( n \) is even, the median is the two middle numbers, divided by 2.

Example: 1, 2, 3, 4, 5, 6, 1 \[ \frac{3 + 4}{2} = 3.5 \]
Mode: Most common number in a data set.