Basic Statistics Terms

Measures of Central Tendency (what is "typical.")

Mean: sum of the data values divided by the number of data values (sometimes called "average.")

Median: middle number, when the numbers are in order

Mode: most common data value - generally there 0, 1, or 2 modes.

Measures of Dispersion (how dispersed or spread out the data values are)

Range: Difference between greatest and least.

Standard Deviation: Describes the typical difference between a data value and the mean.

The **standard deviation** σ (read as "sigma") of $x_1, x_2, \ldots, x_n$ is:

σ

$$\sigma = \sqrt{\frac{(x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \cdots + (x_n - \bar{x})^2}{n}}$$

$\bar{x}$ = mean

$$\sigma = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(x_i - \bar{x})^2}$$