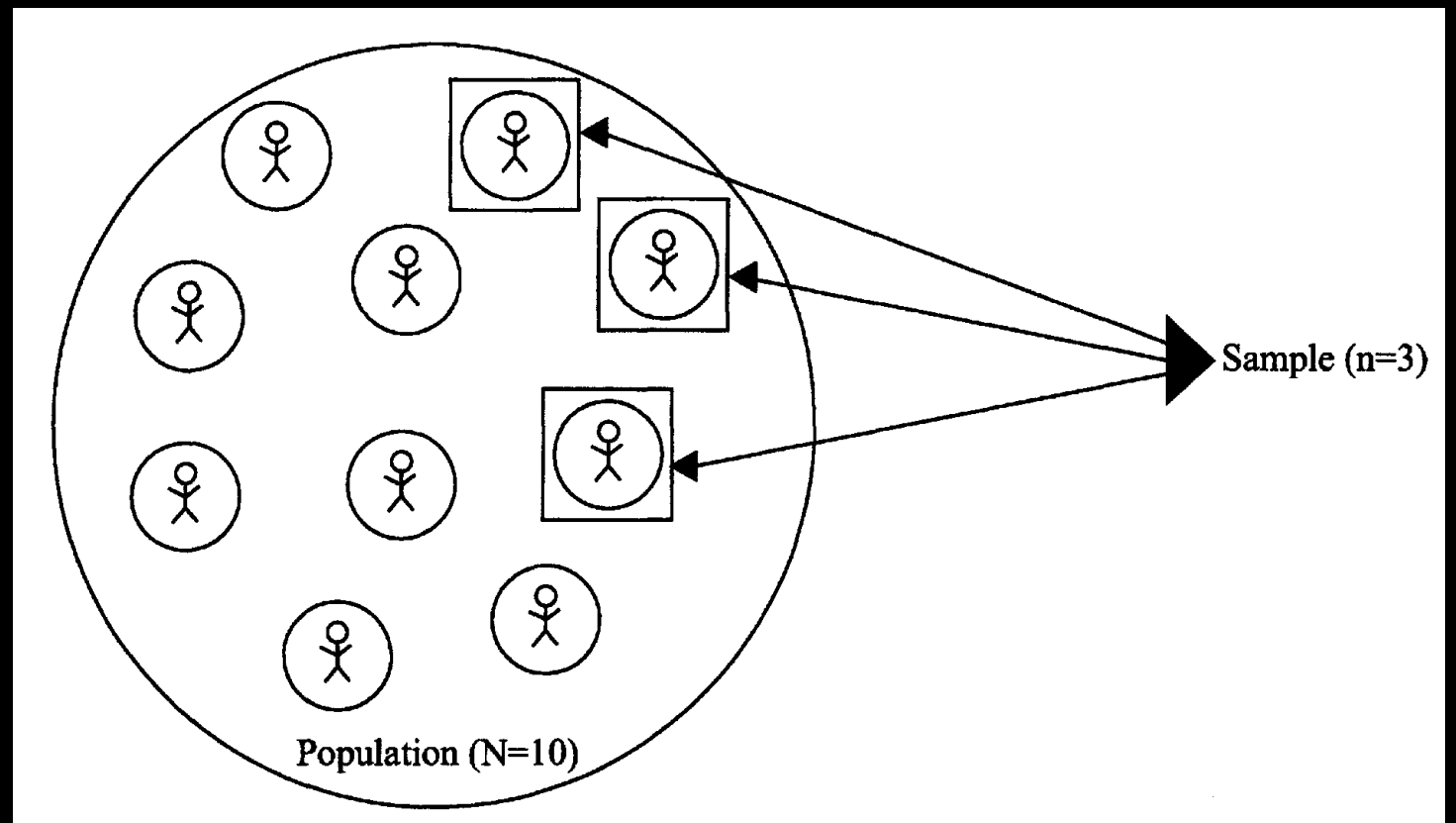


# MOST OF WHAT WE DO USES INFERENTIAL AND DESCRIPTIVE STATISTICS.

**Inferential statistics** applies analyses to a random sample from some population to infer information about it.



# MOST OF WHAT WE DO USES INFERENTIAL AND DESCRIPTIVE STATISTICS.

Descriptive statistics is about two things: central tendencies (i.e., means) and spread of your data (i.e., variance).

Today, we're going to focus on this.

	<i>Population</i>	<i>Estimate Based on a Sample</i>
Variance	$\sigma^2 = \frac{\Sigma(X - \mu)^2}{N}$ <p>where <math>\Sigma</math> = to sum <math>X</math> = a score in the distribution <math>\mu</math> = the population mean <math>N</math> = the number of cases in the population</p>	$s^2 = \frac{\Sigma(X - \bar{X})^2}{n-1}$ <p>where <math>\Sigma</math> = to sum <math>X</math> = a score in the distribution <math>\bar{X}</math> = the sample mean <math>n</math> = the number of cases in the sample</p>
Standard Deviation	$\sigma = \sqrt{\frac{\Sigma(X - \mu)^2}{N}}$ <p>where <math>\Sigma</math> = to sum <math>X</math> = a score in the distribution <math>\mu</math> = the population mean <math>N</math> = the number of cases in the Population</p>	$s = \sqrt{\frac{\Sigma(X - \bar{X})^2}{n-1}}$ <p>where <math>\Sigma</math> = to sum <math>X</math> = a score in the distribution <math>\bar{X}</math> = the sample mean <math>n</math> = the number of cases in the sample</p>

