Samples and Populations

As we start this topic of sampling we need to know what is a sample. To understand this we first need to know what a population is in a statistical sense.

- A **Population** is a group of individuals that can be sampled. Individuals that can be capture of measured are not part of the statistical population. All individuals that can captured of measured are part of the population. Statistical populations are not concerned with breeding individuals just can they be capture and measured.

- A **Sample** is a subset of the population. If the sample is collected with a knowledge of the relationship of sample to the population in space or time, allows the individuals in the sample to represent the unsampled individuals. The cost of using samples is you have to accept some level of error in the estimate. The tradeoff is that you do a fraction of the work need to measure the entire population.

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