Overview of Statistics

Objectives

1. Identify the population and a sample
2. Distinguish between statistical and practical significance

What is Statistics?

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Typically, statisticians gather samples of data to help draw conclusions about the data's population.

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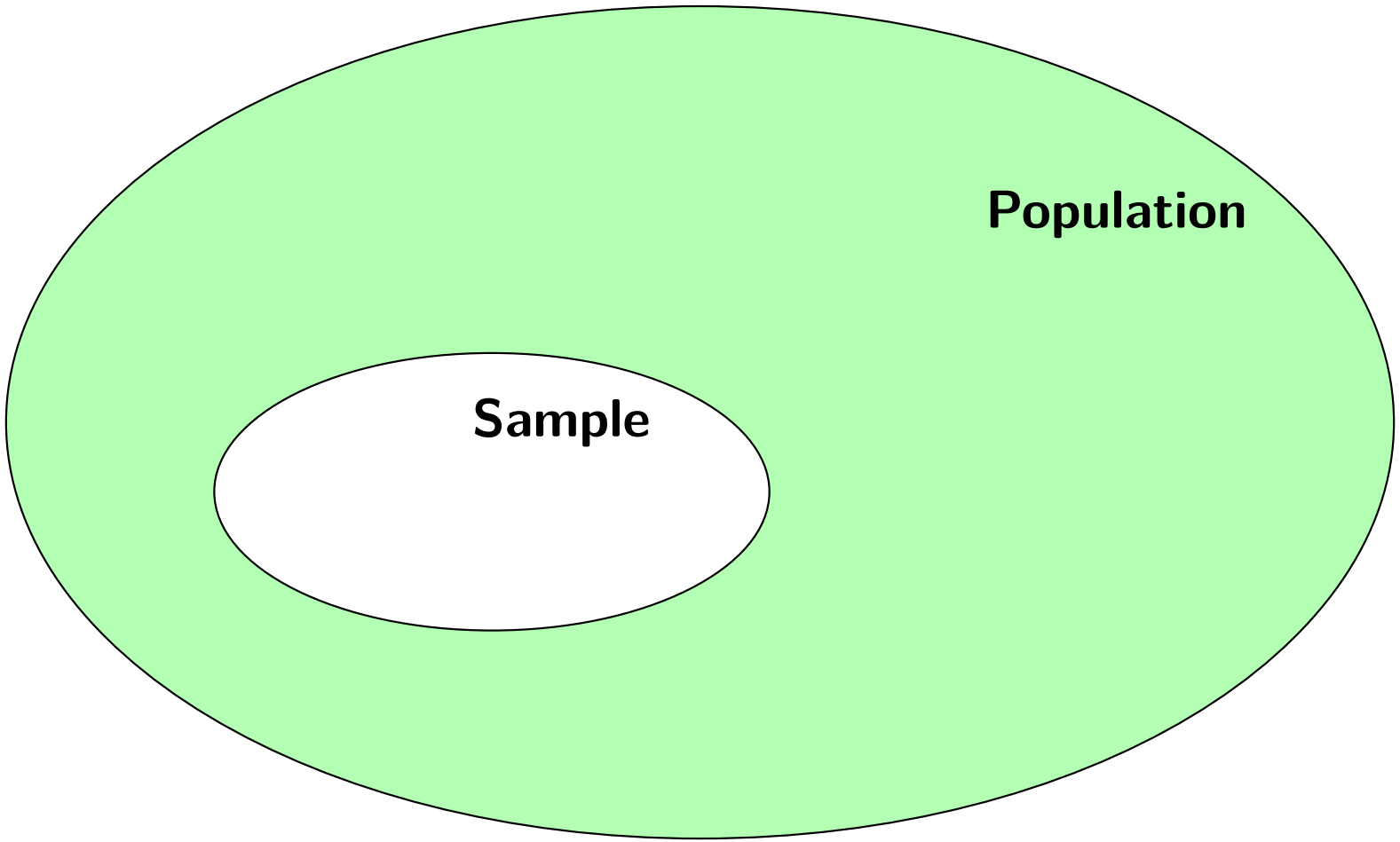
A sample drawn from a population should be a good representation of that population, and should be big enough to include a variety of observations.

Population vs. Sample Visual Interpretation



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(b) Flipping a coin 100 times and getting tails 53 times.

Since we expect the coin to come up heads roughly half the time and tails the other half, this result is not considered statistically significant.

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For instance, an SAT prep course might have statistically significant results (e.g. a high percentage of people did improve their scores), but if the improvement is small, such as 20 points, the results might not be practical enough to purchase it.