

Sec. 12-5 Samples and Surveys

Vocabulary

Quantitative data: has units and can be measured and numerically compared

ex: age: 13 yr.
weight: 162 lbs.
time: 47 min.

Qualitative data: describes a category and cannot be measured or numerically compared

ex: hair color: brown
attitude: optimistic
ZIP code: 33982

Univariate: a set of data that uses only one variable

Bivariate: a set of data that uses two variables

Population: the entire group that you want information about

Sample: the part of a population that is surveyed (when the population is too large to survey in its entirety)
A sample should reflect the population.

Sampling Methods

Random: survey a population at random
ex: pull names from a hat

Systematic: Select a number n at random.
Then survey every n^{th} person.

Stratified: Separate a population into smaller groups, each with a certain characteristic. Then survey at random within each group.

Bias: a sampling error that causes one option to seem better than another. Survey questions or samples can be biased.
A survey question has bias when it contains assumptions that may or may not be true
A sample has bias if it is voluntary-response or if the survey is conducted in a location causing bias.