

AP Statistics

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Chapter 1

Exploring One-Variable Data

1.1 Data Analysis

Statistics is the science of collecting and analyzing data.

A data set is a collection of data on several **individuals**. These individuals can be anything.

Data provides values for **variables**, which describe some characteristic of an individual.

Categorical variables assign labels that place each individual into one of several groups, while **quantitative variables** provide values that describe or measure some characteristic.

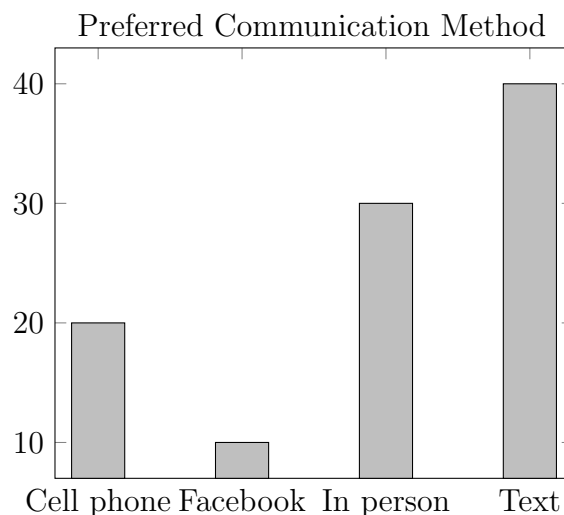
Quantitative variables can either be **discrete**, having some countable set of possible values, or **continuous** having an uncountably infinite set of possible values.

A variable's **distribution** describes the frequency with which a variable takes on its possible values.

1.1.1 Analyzing Categorical Data

A **frequency table** shows the number of individuals that have a certain value while a **relative frequency table** shows the percentage of all individuals in the data set that have that particular value.

Bar graphs show each category as a bar, the height of which corresponds to its frequency.



Pie charts show each category as some fraction of a circle that is bounded by two radii. The areas of each slice is proportional to the frequency.

1.2 Modeling Distributions of Data

1.2.1 Describing Location in a Distribution

Chapter 2

Exploring Two-Variable Data

Chapter 3

Collecting Data

Chapter 4

Probability, Random Variables, and Probability Distributions

Chapter 5

Sampling Distributions

Chapter 6

Inference

6.1 Categorical Data

Proportions