

Statistics Overview

by Sophia



WHAT'S COVERED

This lesson will provide you with an overview of what statistics really is by exploring. Specifically, this lesson covers:

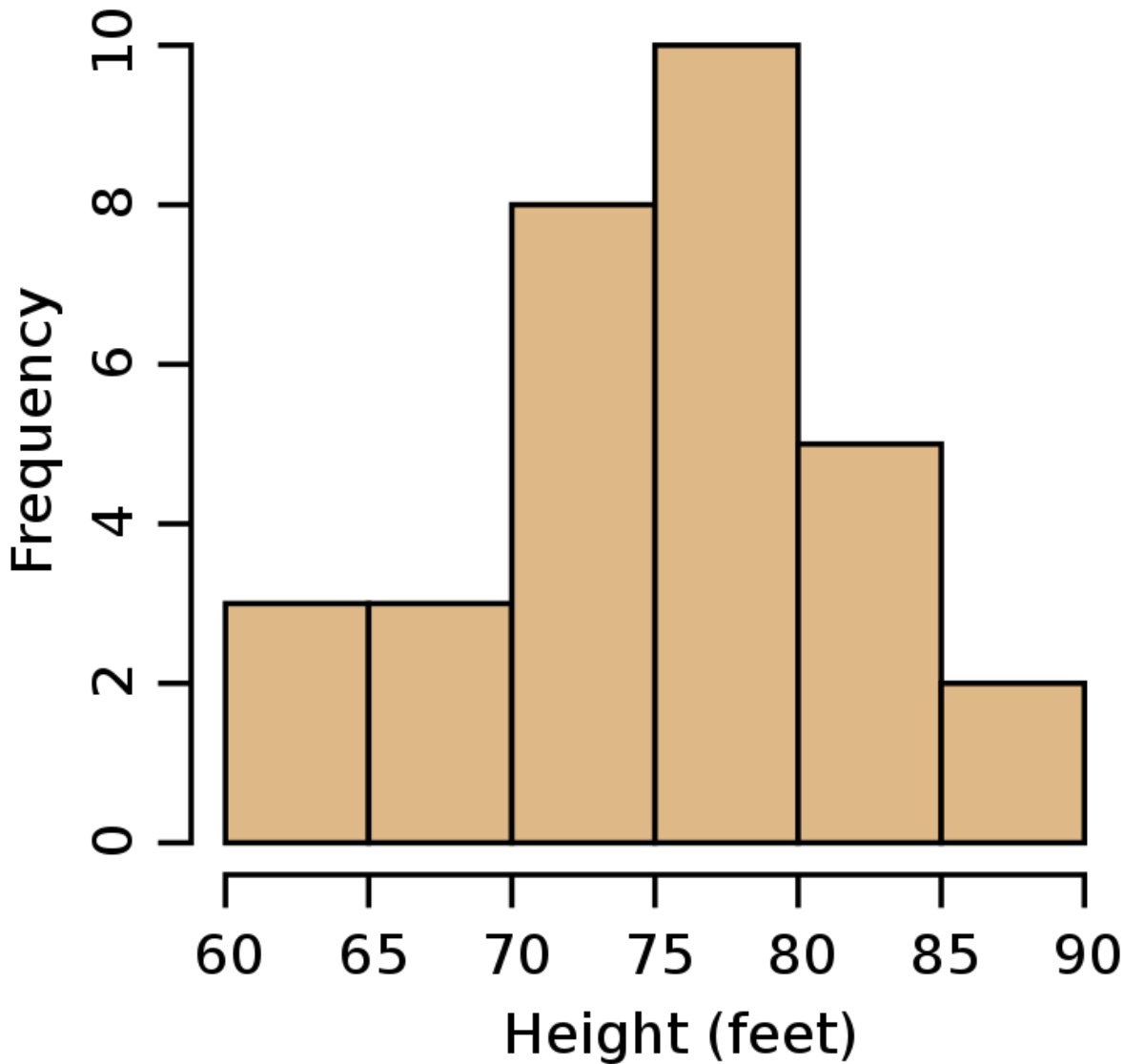
1. [Statistics](#)
2. [Types of Statistics](#)

1. Statistics

You might be wondering, what is statistics? Is it some complicated formula? Is it some goofy graph that you really don't know that much about?

When people refer to statistics, they're usually referring to information called data that's been collected and synthesized within a **statistical study**, and sometimes presented in a graphical form, like this.

Heights of Black Cherry Trees



While the image may be small and difficult to read, you get the idea that a LOT of information can be presented in the form of a graph.

It can also be presented numerically such as "The median household income in the United States is \$46,326."



The practice of statistics deals with four main steps:

1. Collect. Collect the information from a variety of sources
2. Analyze. Analyze the information that you've collected
3. Interpret. Interpret what that analysis means

4. Present. Present it in a way that anyone can understand

Statistics is a neat way to describe a messy world. It's not pretty all the time. But statistics allows us a way to simplify things down.



TERM TO KNOW

Statistical Study

A way to collect information from individuals

2. Types of Statistics

When you use **descriptive statistics**, you are going to analyze what's going on at a *particular point* and use statistics to describe the information that you've obtained.

On the other hand, when you use **inferential statistics**, you are going to use statistics that you've obtained and *make a generalization about the population at large*.

IN CONTEXT

Let's say that you read the newspaper this morning and discovered that the average household income in the United States was reported to be \$46,700.

This information didn't come from sampling every household in the United States. That wouldn't be realistic or feasible to knock on all the doors and speak to all those people. But someone arrived at this number. So, how did they get it?

Well, a sample was taken, and a generalization was made about the entire United States based on that sample.

This is inferential statistics.



TERMS TO KNOW

Descriptive Statistics

Using only the information at hand to describe the selected group of individuals.

Inferential Statistics

Using the information at hand to make a larger, more general statement about the entire population of individuals.



SUMMARY

Statistics allows us to synthesize the information we get from the world around us. There are two types of statistics. Descriptive statistics describe information gathered at a particular point. Inferential statistics gather information and then makes a generalization or prediction about the population.

Good luck!

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ATTRIBUTIONS

- [Black Cherry Tree Histogram](#) | Author: Mwtoews | License: CC SA 3.0 Unported



TERMS TO KNOW

Descriptive statistics

Using only the information at hand to describe the selected group of individuals

Inferential statistics

Using the information at hand to make a larger, more general statement about the entire population of individuals

Statistical analysis

All the ways of collecting, analyzing, and interpreting the data

Statistical study

A way to collect information from individuals

Statistics

The study of collecting, analyzing, interpreting, and presenting information