

1.1 Analyzing Categorical Data (Bar & Pie Graphs)

Learning Targets

1. Display categorical data with a bar graph. Decide if it would be appropriate to make a pie chart.
2. Identify what makes some graphs of categorical data deceptive.

Vocabulary: frequency table, relative frequency table, roundoff error, pie chart, bar graph

Read 7–11

Example: Radio Station Formats (p. 8)

What is the difference between a data table, a frequency table, and a relative frequency table? When is it better to use relative frequency?

Activity: Ticket Class of People on the *Titanic*. Given a frequency table, create a...

- relative frequency table.
- bar graph/chart that displays the distribution of a categorical variable showing the counts for each category.
- bar graph/chart that displays the distribution of a categorical variable showing the relative frequency for each category.
- pie chart

Frequency Table

CLASS	COUNT
First	325
Second	285
Third	706
Crew	885

What is the most important thing to remember when making pie charts and bar graphs? Why do statisticians prefer bar graphs?

When is it inappropriate to use a pie chart?

What are some common ways to make a misleading graph?

What is wrong with the following graph?



*Before making a bar graph or pie chart, always check the **Catagorical Data Conditions**

1.1 HW: page 22 (11, 17, 18) , Read section 1.1