

Section 2.1

Organizing Qualitative Data

Definitions

- Frequency Distribution = lists each category of data and the number of times it occurs for each category
- Relative Frequency =
$$\frac{\text{frequency}}{\text{sum of all frequencies}}$$
- Relative Frequency Distribution = lists each category or data together with the relative frequency

Frequency Distribution (Excel)

- Can use the function =COUNTIF to help build the frequency distribution

Example: =COUNTIF(A1:A25,"Red")

Definitions

- Bar Graph = Constructed by labeling each category of data on a horiz. axis and the freq. or rel. freq. of the category on the vertical axis. Rectangles of equal width are drawn for each category. The height of each rectangle is equal to the freq. of that category or relative freq.

Bar Graph from Freq Dist. (Excel)

1. Put categories in column A, frequencies in column B
2. Highlight them
3. "Insert" Tab -> Column -> 2D Clustered Column

Definitions

- Pareto Chart = A bar graph whose bars are drawn in decreasing order of frequency or relative frequency.
- Side-by-Side Bar Graph = compares two data sets.
- Pie Chart = A circle divided into sectors. Each sector represents a category of data. The area of each sector is proportional to the frequency of the category.

**Pie Chart from Freq Dist.
(Excel)**

1. Put categories in column A, frequencies in column B
2. Highlight them
3. "Insert" Tab -> Pie -> Pie