



Intro to Stats

Graphing Data

Frequency Distributions

- ▶ Represents how often scores occur
- ▶ Scores grouped into ranges of numbers

- ▶ First, choose a class interval
- ▶ Second, count the number of scores in each interval
- ▶ Third, put the information in a table or figure

Choose a Class Interval

- ▶ A range of numbers to be used in a frequency distribution
1. Select class intervals that have meaning (A,B, etc. for grades) and/or easily interpreted numbers (5,10,20)
 2. Select interval that will allow 10–20 to cover all data
 3. Start list with multiple of interval (e.g., 0)
 4. Largest interval is placed at the top of the frequency distribution

Creating a Histogram

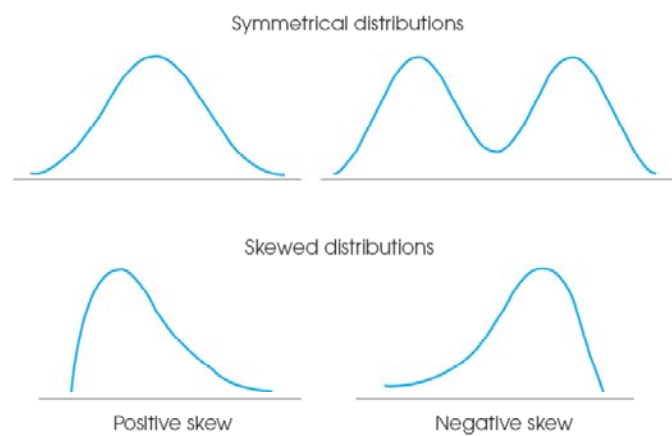
- ▶ Visual representation of frequency distribution
- ▶ The frequencies are the bars

Skewness

- ▶ Measure of lack of symmetry (a long tail)
- ▶ Positive or negative in the direction of the tail

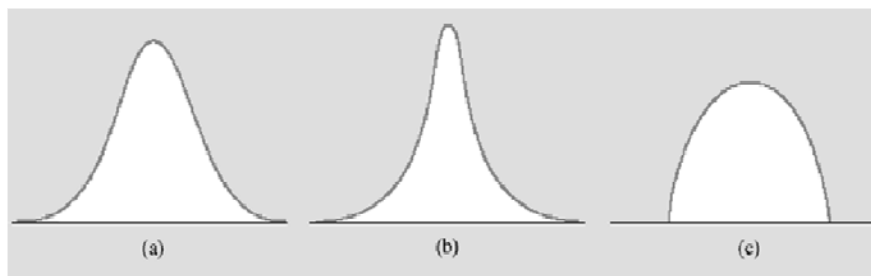
- ▶ Mean $>$ Median, then positive skew
- ▶ Mean $<$ Median, then negative skew

Skewness



Kurtosis

- ▶ The flatness of the distribution
- ▶ Platykurtic – flat relative to a bell
- ▶ Leptokurtic – peaked relative to a bell



Column Charts / Bar Graph

- ▶ Used to compare the frequency of different categories
- ▶ Categories on X, frequency/number on Y