

2.1-OVERVIEW

In this chapter we present a variety of tools that will help us understand the data collected. We will *describe*, *explore* and *compare* data sets.

Two General Divisions of Statistics

descriptive: to describe characteristics of a set of population data

inferential: when we use sample data to make generalizations about a population

Important Characteristics of Data

- 1) **Center:** A representative value - a measure of middle (average)
- 2) **Variation:** A measure of spread or how much the data varies
- 3) **Distribution:** The shape of the distribution of data (bell-shaped, uniform or skewed)
- 4) **Outliers:** Sample values that lie very far away from the vast majority of the other sample values
- 5) **Time:** Changing characteristics of the data over time