- **Data**: pieces of information to which meaning has been attached

- **Statistics**: a collection of methods for planning experiments, obtaining data, and then organizing, summarizing, presenting, analyzing, interpreting, and drawing conclusions based on the data.

- **Basic Terms**

  - **Population**: the complete set of all individuals or units that are of interest in the study
  - **Sample**: the subset of the population that is actually studied

- **Two Key Types of Numbers**

  - **Parameter**: a numerical measurement, usually unknown, describing some characteristic of a population
  - **Statistic**: a numerical measurement describing some characteristic of a sample

- **Branches of statistics**

  - **Experimental Design**: the branch of statistics that deals with planning experiments and obtaining data
  - **Descriptive Statistics**: the branch of statistics that deals with organizing, summarizing and presenting data
  - **Inferential Statistics**: the branch of statistics that deals with analyzing, interpreting, and drawing conclusions based on the data

- **General Method of Statistical Inquiry**

  1. Form a specific question to be answered
  2. Collect data according to some design (randomness)
  3. Analyze data and form conclusions