**TYPES OF STATISTICS**

* Descriptive statistics.
* Inferential statistics.

**Descriptive Statistics**

In the descriptive statistics, the data is described in a summarized way. The summarization is done from the sample of the population using different parameters like mean or standard deviation. Descriptive statistics are a way of using charts, graphs, and summary measures to organize, represent, and explain a set of data.

* Data is typically arranged and displayed in tables or graphs summarizing details such as histograms, pie charts, bars or scatter plots.
* Descriptive statistics are just descriptive and thus do not require generalization beyond the data collected.

**Inferential Statistics**

In the Inferential Statistics, we try to interpret the meaning of descriptive statistics. After the data has been collected, analyzed, and summarized we use Inferential Statistics to describe the meaning of the collected data.

* Inferential Statistics use the probability principle to assess whether trends contained in the research sample can be generalized to the larger population from which the sample originally comes.
* Inferential Statistics are intended to test hypotheses and investigate relationships between variables and can be used to make population predictions.
* Inferential Statistics are used to draw conclusions and inferences, i.e., to make valid generalizations from samples.

**Example**

In a class, the data is the set of marks obtained by 50 students. Now when we take out the data average, the result is the average of 50 students’ marks. If the average marks obtained by 50 students are 88 out of 100, on the basis of the outcome, we will draw a conclusion.

**Stages of Statistics**

1. **Collection of Data:**

This is the first step of statistical analysis where we collect the data using different methods depending upon the case.

1. **Organizing the Collected Data:**

In the next step, we organize the collected data in a meaningful manner. All the data is made easier to understand.

1. **Presentation of Data:**

In the third step we simplify the data. These data are presented in the form of tables, graphs, and diagrams.

1. **Analysis of the Data:**

Analysis is required to get the right results. It is often carried out using measures of central tendencies, measures of dispersion, correlation, regression, and interpolation.

1. **Interpretation of Data:**

In this last stage, conclusions are enacted. Use of comparisons is made. On this basis, forecasting is made.