

STATISTICS DEFINED

The term “Statistics” is used in two different senses and therefore conveys two different meaning: It is used sometimes in the singular number & sometimes in the plural number.

When used in the plural number, the term “Statistics” refers to the Subject-matter of statistics, i.e. numerical data or number reflecting count or measurement or estimate of some kind. In common parlance the term statistics is used in this sense synonymously with the term data e.g. we hear “statistic of exports & imports” or “Statistics of prices in Pakistan”. Here the term is used in the plural number and refers to data (or figures) concerning exports & imports and prices”

The other sense in which the term Statistics is used in singular. Used in this sense, it refers to the subject of statistics as a whole. It then denotes a subject that deals with principles and method of handling numerical data.

At this stage, it becomes necessary to understand the meaning of certain terms associated with the word statistics namely, “statistics method” “Statistics”, theory of statistics .Science of statistics. Each of these terms is explained hereunder.

STATISTICAL MEHTODS “refers to the various devices or techniques which consist of principal. Procedure, formula etc. governing the collection presentation, analysis and interpretation of data. In other words, statistical methods area body of principal and rules relating to the collection presentation, analysis and interpretation of data concerning any problem.

“SCIENCE OF STATISTICS”

The phase “science of statistics “refers to the study or statically method themselves long scientific lines. Various methods to any problem or problems.

“The theory of statistics”: the phase “theory of statistics” refers to a scientific exposition of the various statically methods. This scientific exposition I purely mathematical.

STATISTICS the term “statistics refers to a “statistical measure calculates from a representative sample of data relating to a phenomenon or a problem. Averages. Percentage rates. Coefficients, etc, are all statically measure .each of term id called a “statistics”

APPLIED STATISTICS

The phase “Applied Statistics: refers to that branch of statistics (singular) that only with the application or use of the various statistical method (i.e. rules, principal and formula in handling data relating to problems)in specialized fields.

STATISTICS: SCIENCE ARTS

Statistics is both a science as well as an art .it is a science in –so-far as its method (i.e. the statistical methods) are basically systematic and have general application. It is an art –so-far as successful application of these methods depends to a considerable degree on-

- i. the skills and special experience of the statistics &

- ii. ii. The knowledge of the field of application, e.g. economics, business, population, etc... Possessed by the statistician.

Description and inferential statistics: statistics as subject may be divided into descriptive statistics and infernal statistics.

DESCRIPTIVE STATISTICS: is that branch of statistics which deals with concepts and methods concerned with summarization and description of the important aspects of numerical data. This area of study consists of the consideration of data. Their graphical display and his computation of a few numerical quantities that provides information about the center of the data and indicates the spread of the observation.

INFERENCEAL STATISTICS: deals with procedures for making inference about the characteristics of the larger group of data or the whole, called the population. From the knowledge derived from only a part of the data. Know as, this area includes the estimation of population parameters and testing of statically hypothesis. This of static's is based on probability theory as the inferences which are made on the basis of a small amount of data, cannot be absolutely certain.