**CHARACTERISTICS OF STATISTICS**

**1. It consists of aggregates of facts:**

In the plural sense, statistics refers to data, but data to be called statistics must consist of aggregate of certain facts.

A single and isolated fact or figure like, 60 Kgs. weight of a student or the death of a particular person on a day does not amount to statistics.

For a data may amount to statistics it must be in the form of a set or aggregate of certain facts, viz. 50, 65, 70 Kgs. Weight of students in a class or profits of a firm over different times etc. is liable to be effected by multiplicity of causes.

**2. It is effected by many causes:**

It is not easy to study the effects of one factor only by ignoring the effects of other factors. Here we have to go for the effects of all the factors on the phenomenon separately as well as collectively, because effects of the factors can change with change of place, time or situation.

Here, the overall effect is taken and not of one factor only as in other natural sciences. For example, we can say that result of class XII in board examination does not depend on any single factor but collectively on standard of teachers, teaching methods, teaching aids, practical’s performance of students, standard of question papers and as well as of evaluation.

**3. It should be numerically expressed:**

A data to be called statistics should be numerically expressed so that counting or measurement of data can be made possible. It means that the data or the fact to constitute statistics must be capable of being expressed in some quantitative form as weights of 60, 70, 100 and 90 Kg. or profits of Rs. 10,000, Rs. 20,000 etc. Thus these data must contain numerical figures so that those may be called as numerical statement of facts.

**4. It must be enumerated or estimated accurately:**

As stated above that the statements should be precise and meaningful. For getting reasonable standard of accuracy the field of enquiry should not be very large. If it is infinite or very large, even enumeration of data is impossible and reasonable standard of accuracy may not be achieved. To achieve it we have to make on estimate according to reasonable standard of accuracy depending upon the nature and purpose of collection of data. e.g. we may measure the height of buildings in metres but we cannot measure the length of small things like bricks in the same unit of metre.

**5. It should be collected in a systematic manner:**

Another characteristic of statistics is that the data should be collected in a systematic manner. The data collected in a haphazard manner will lead to difficulties in the process of analysis, and wrong conclusions. A proper plan should be made and trained investigators should be used to collect data so that they may collect statistics. If it is not done, in such cases reliability of data gets decreased. So to get correct results the data must be collected in a precise manner.

**6. It should be collected for a predetermined purpose:**

Before we start the collection of data, we must be clear with the purpose for which we are collecting the data. If we have no information about its purpose, we may not be collecting data according to the needs. We may need some more relevant data to achieve the required purpose, which we would miss in the event of its ignorance.

Suppose we want to get data on imports and exports, we have to know about various segments such as electronics, consumer articles, grains and such other segregations also. If some person on govt. duty is counting the vehicles passing through a road in a unit time is statistics, but same work done by any other person not related to this field, is not statistics because the former is doing it for the Government which wants to make it four lane road-if needed.

**7. It should be capable of being placed in relation to each other:**