

Summary

- The two types of problems of statistical inference are:
 - Estimation
 - Tests of hypothesis
- There are two types of estimations. They are:
 - Point estimation
 - Interval estimation
- In point estimation, the estimated value is given by a single quantity, which is the function of sample observations (that is a statistic).
- Point estimator of a population parameter is a function of the sample information that yields a single number.
- A point estimator is said to be a best estimator if it is unbiased, consistent, efficient and sufficient.
- The sampling distribution of the point estimator should be centered over the true value of the parameter to be estimated.
- As the parameter to be estimated is unknown, neither the error in the point estimate evaluated noted nor it is accurately measured. This greatly reduces the practical utility of point estimation.
- Point estimates are not usually as informative as confidence intervals. Their importance lies in the fact that many statistical formulas are based on them.

