Frequently Asked Questions

1. What do you mean by census or complete enumeration survey?

Answer:

Census survey is a statistical survey in which the whole population is made use of. Under census or Complete Enumeration Survey method, data are collected for each and every unit (like person, household, field, shop etc. as the case may be) of the population or Universe.

2. What are the demerits of Census Survey?

Answer:

- 1) It is a costly method and requires big organization s to handle the process accurately. This is the reason why Govt. alone uses this method for conducting population surveys, production, livestock, land holdings census etc.
- 2) The time and labour required by this method of data collection is immense.
- 3) When the Population is infinite or extremely complex, it is difficult to enquire about each and every item of the universe.
- 4) Sometimes the process of evaluation itself involves destruction of the units.
- 3. Discuss the merits of Census Survey.

Answer:

- 1) Results are more reliable: Since data are obtained from each and every unit of the population, the investigation made is more true and reliable, because every item is enquired. These results are therefore more likely to be accurate and reliable.
- 2) Intensive study: The investigation helps in bringing out some rare phenomenon. Many facts of a problem may be brought to light.
- 3) Wide Use: The data collected in this method has wide acceptance and has a wide purview so that the data collected has many facets so it can be used in more than one problem studies.
- 4) Diverse units: The method is of immense use when the various units of the universe are of diverse characteristics.
- 4. What is Sample survey? Explain with an example.

Answer:

Sampling is simply the process of learning about the population on the basis of a sample. A sample is a part of the population which is selected for the purpose of investigation. It is the one which should exhibit the characteristics of the universe Thus in the sampling technique instead of each and every unit of the population only a part of the universe is studied and the conclusions are drawn on that basis about for the entire universe.

Most of the research work is done through sample surveys. The opinion of the voters in favour of certain proposed election candidates is obtained through sample survey.

5. Sample survey needs reduced cost and time compared to census survey. Explain.

Answer:

As the size of the sample is small as compared to the population, the time and cost involved on sample study are much less than the complete counts. For complete count huge funds are required. There is always a problem of finances. A small sample can be studied in a limited time and total cost of sample study is very small. For complete count, we need a big team of supervisors and enumeration who are to be trained and they are to be paid properly for the work they do.

Thus, the sample study requires less time and less cost. Time is saved not only in the collection of data but also in processing it. For these reasons sample survey provides timely data. However, the amount of effort and expenses involved in collecting the information may be greater per unit of the sample than the complete Census.

6. Explain the situation where it is impossible to use Census Survey.

Answer:

Sometimes the method of evaluation is such that census method of data collection is absolutely impossible. If the population is hypothetical as for example in a coin tossing problem the process may continue indefinitely (any number of times). In such cases sampling method is the only scientific method which can be used for estimating the parameters of the Universe. Moreover, if population or Universe is infinite, sampling is the only possible solution. Hence, Sample Survey remains the only way when the population is hypothetical and consists of infinitely many members.

7. Write a note on reliability of estimates obtained by sample survey.

Answer:

If we collect the information about all the units of population, the collected information may be true. But we are never sure about it. We do not know whether the information is true or is completely false. Thus we cannot say anything with confidence about the quality of information. We say that the reliability is not possible. This is a very important advantage of sampling. The inference about the population parameters is possible only when the sample data is collected from the selected sample

If sampling carries out properly, it can provide more reliable information than census method. This is because:

- 1) It is always possible to determine the extent of sampling errors.
- 2) Other types of errors to which a survey is subject such as inaccuracy of information, incompleteness of returns etc., are likely to be more serious in complete census than in a sample survey. This is because more effective precautions can be taken in a sample survey to ensure that the information is accurate and complete.

- 3) It is possible to avail the services of experts and impart thorough training to the investigators in a sample survey which further reduces the possibility of errors.
- 4) Follow-up work can also be undertaken effectively in the sampling method.
- 8. How the data collected using sample survey is of greater quality?

Answer:

The quality of a study of a population was often better with sampling than with a census. Sampling possesses the possibility of better interviewing (testing), more thorough investigation of missing, wrong, or suspicious information, better supervision, and better processing than is possible with complete coverage. Research findings substantiate this opinion. More than ninety percent of survey error in one study was from non-sampling error one, and ten percent or less was from sampling error two.

Personnel of higher quality can be employed and given intensive training. Because of more careful supervision of the field work, processing of the results becomes feasible when volume of work is reduced. A sample may produce more accurate results than the kind of complete enumeration that can be taken.

9. How a sample survey provides the data of greater scope?

Answer:

In certain types of enquiry highly trained personnel or specialized equipment limited in availability must be used to obtain the data. Thus, surveys that rely on sampling have more scope and flexibility regarding the types of information that can be obtained. On the other hand, if accurate information is wanted for many subdivisions of the population the size of the sample needs to do the job which is sometimes so large that a complete enumeration offers a best solution.

10. Why we have to go for Sample Survey?

Answer:

- Pool of possible cases is too large (e.g., 260 million Americans) -- would cost too much and take too long
- > Don't want to use up the cases:
- It's not necessary to survey all cases: for most purposes, taking a sample yields estimates that are accurate enough.
- The trade-off is that where sampling introduce some error. You didn't interview everybody, so certain opinions or combinations of opinions would not be represented in your data. When the population is very diverse, your sample can't include all the possible combinations of attributes that are found in the population. Such as blacks and whites, men and women, cardiac patients, non-patients, black women, white men with heart trouble.
- 11. Explain how the census was shifted to sample survey in national decennial census.

Answer:

Sampling has come to play a prominent part in national decennial census. In the United States a 5% sample was introduced into the 1940 census by asking extra questions about

occupation, parentage, fertility and the like of those persons whose names fell on two of the 40 lines on each page for the schedule. The use of sampling was greatly extended in 1950.

From a 20% sample (every fifth line) information was obtained on items such as income, years in alcohol, migration and service in armed forces. Sampling was also used to speed up the publication of results. This process continued in the 1960 and 1970 censuses. Except for some basic information required from every person for constitutional or legal reasons, the whole census was shifted to sample basis.

12. How the sample survey is used by government bureaus?

Answer:

In addition to their use in census, continuing samples are employed by government bureaus to obtain current information. In the Unites States, examples are the current population survey, which provides monthly data on the size and composition of the labour force and on the number of unemployed.

On smaller scale local governments – city, state and country are making increased use of sample surveys to obtain information needed for future planning and for meeting the pressing problems.

13. Sample survey is very much used in market research and business. Explain.

Answer:

Market research is heavily dependent on sampling approach to get the estimates of the sizes of television and radio audiences for different programme and newspaper and magazine readership is kept continuously under scrutiny.

Business and industry have many uses of sampling in attempting to increase the efficiency of their internal operations. The important areas of quality control and acceptance sampling where the decisions taken with respect of level or change of quality or to acceptance or rejection of batches are well grounded only if the results obtained from the sample data are valid for the whole batch.

14. Explain the two types of sample surveys.

Answer:

Sample survey can be classified broadly into two types descriptive and analytical.

In descriptive survey the objective is simply to obtain certain information about the large groups. For example: Numbers of men, women, and children who view a television program.

In an analytical survey the comparisons are made between two different subgroups of the population in order to discover whether the difference exist among them and to form or to verify hypothesis about the reasons for these differences. For example: The Indiana polis fertility survey for instance was an attempt to determine the extent to which the married couples plan the number and spacing of children, the husband and wife's attitude towards this planning and the degree of success obtained.

The distinction between descriptive and analytical survey is not of course clear. Many surveys provide data that serve both purposes. Along with the rise in the number of descriptive surveys there has been noticeable increase in surveys taken primarily for analytical purposes, particularly in the study of human behaviour and health.

15. What are the advantages of Sample survey over Census Survey?

Answer:

Sampling has several advantages over the complete count. They are:

- 1) Sample survey is cheaper than a Census survey: The total financial burden of a sample survey is less than that of a complete enumeration survey.
- 2) Sample survey requires less time and labour: Sampling involves a study of the part of the population considerable amount of time and labour is saved not only in collection of data but also in processing it. Hence sample survey provides timely data.
- 3) Well executed sample surveys provide accurate results than census surveys: If sampling is carried out properly it can provide more reliable information than census method. This is because (i) it is always possible to determine the extent of sampling errors (ii) Other types of errors to which survey is subject such as inaccuracy, incompleteness o returns etc. (iii) follow up work can also be undertaken effectively in the sampling method.
- 4) Sample survey is more scientific in nature.
- 5) There is a greater scope in a sample survey than a census survey. Since sampling techniques saves time and money it is possible to collect more detailed information in a sample survey.
- 6) In a sample survey (generally) sampling errors can be reduced by adopting proper techniques.

7) A sample survey generally gives the data of better quality than a census survey.