



Prepared by: **RAJESH KUMAR.S**
HSST (Sel.Gr) Economics
Govt. Model Boys HSS, Attingal

2. COLLECTION OF DATA

SOURCES OF DATA

- ◆ Statistical data can be obtained from two sources of data collection- Primary and Secondary Data.
 - ◆ The purpose of the survey is to collect data.
 - ◆ Primary data is based on first hand information. (eg. researcher collect the data by conducting an enquiry.)
 - ◆ If the data have been collected and processed by some other agency, it is called secondary data. (it is only second hand information)
 - ◆ Secondary data can be obtained from published sources such as government reports, documents, newspapers, and books written by economists or from any other source, for example, a website.
 - ◆ Primary data is more reliable, more accurate, more clarity, precise etc.
 - ◆ Use of secondary data saves time and cost.
 - ◆ The limiting aspect of Primary data is that, it is more time consuming, costly etc.
 - ◆ The limiting aspect of secondary data is that, it is less accurate, less reliable less clarity, and not in precise form.
- The most common type of instrument used in surveys is **questionnaire/ interview schedule**. *While preparing the questionnaire/interview schedule, one should keep in mind the following points:*
- The questionnaire should not be too long. The number of questions should be as minimum as possible.
 - The questionnaire should be easy to understand and avoid difficult words.
 - The questions should be arranged in an order
 - The series of questions should move from general to specific.
 - The questions should be precise and clear.
 - The question should not use double negatives.

- The question should not be a leading question, which gives a clue about how the respondent should answer.

Mode of Data Collection/ Methods or techniques of Primary data collection

- ❖ There are three basic ways of collecting primary data:
- ❖ (i) Personal Interviews,
- ❖ (ii) Mailing (questionnaire) Surveys,
- ❖ (iii) Telephone Interviews.



Personal Interviews

- ❖ This method is used when the researcher has access to all the members. The researcher (or investigator) conducts face to-face interviews with the respondents

Mailing (questionnaire) Surveys

- ❖ When the data in a survey are collected by mail, the questionnaire is sent to each individual by mail with a request to complete and return it by a given date.

Telephone Interviews

- ❖ In a telephone interview, the investigator asks questions over the telephone.

Advantages of Personal Interview

- ✓ Highest Response Rate
- ✓ Allows use of all types of questions
- ✓ Better for using open-ended questions
- ✓ Allows clarification of ambiguous questions.

Disadvantages of Personal Interview

- ★ Most expensive
- ★ Possibility of influencing respondents
- ★ More time-taking.

Advantages of Mailed Interview

- ◆ Least expensive
- ◆ Only method to reach remote areas
- ◆ No influence on respondents
- ◆ Maintains anonymity of respondents
- ◆ Best for sensitive questions

Disadvantages of Mailed Interview



- ★ Cannot be used by illiterates
- ★ Long response time
- ★ Does not allow explanation of unambiguous questions
- ★ Reactions cannot be watched.

Advantages of Telephonic Interviews

- ♣ Relatively low cost
- ♣ Relatively less influence on respondents
- ♣ Relatively high response rate

Disadvantages of Telephonic Interviews

- ★ Limited use
- ★ Reactions cannot be watched
- ★ Possibility of influencing respondents.

Pilot Survey

- Once the questionnaire is ready, it is advisable to conduct a try-out with a small group which is known as *Pilot Survey or Pre-testing* of the questionnaire.
- The pilot survey helps in providing a preliminary idea about the survey. It helps in pre-testing of the questionnaire, so as to know the shortcomings and drawbacks of the questions. Pilot survey also helps in assessing the

suitability of questions, clarity of instructions, performance of enumerators and the cost and time involved in the actual survey.

CENSUS AND SAMPLE SURVEYS

Census or Complete Enumeration



- A survey, which includes every element of the population, is known as Census or the Method of Complete Enumeration.
- In India census is carried out every ten years. A house-to-house enquiry is carried out, covering all households in India. Demographic data on birth and death rates, literacy, employment, life expectancy, size and composition of population, etc., are collected and published by the **Registrar General of India**. The last Census of India was held in 2011.

Population and Sample

- Population or the Universe in statistics means totality of the items under study.
- A population is always all the individuals/items who possess certain characteristics (or a set of characteristics), according to the purpose of the survey.
- The first task in selecting a sample is to identify the population.
- A *sample* refers to a group or section of the population from which information is to be obtained. (*it is a representative item*)
- A good sample (representative sample) is generally smaller than the population and is capable of providing reasonably accurate information about the population at a much lower cost and shorter time.

Random Sampling

- Random sampling is one where the individual units from the population (samples) are selected at random.
- In random sampling, every individual has an equal chance of being selected. This is also called lottery method.

Non-Random Sampling

- In a non-random sampling method all the units of the population do not have an equal chance of being selected.
- Convenience or judgment of the investigator plays an important role in selection of the sample. They are mainly selected on the basis of judgment, purpose, convenience or quota and are non-random samples.

SAMPLING AND NON-SAMPLING ERRORS

- ❖ The difference between the actual value of a parameter of the population and its estimate (from the sample) is the sampling error.
- ❖ It is possible to reduce the magnitude of sampling error by taking a larger sample.



Non-Sampling Errors

- Non-sampling errors are more serious than sampling errors because a sampling error can be minimised by taking a larger sample. It is difficult to minimise non-sampling error, even by taking a large sample.

*Some of the **non-sampling errors** are:*

- Sampling Bias
- Non-Response Errors
- Errors in Data Acquisition

CENSUS OF INDIA AND NSSO

- ✖ There are some agencies both at the national and state level to collect, process and tabulate the statistical data. Some of the agencies at the national level are Census of India, National Sample Survey (NSS), Central Statistics Office (CSO), Registrar General of India (RGI), Directorate General of Commercial Intelligence and Statistics (DGCIS), Labour Bureau, etc.
- ✖ The Census of India provides the most complete and continuous demographic record of population. The Census is being regularly conducted every ten years since 1881. The first Census after

Independence was conducted in 1951. The Census officials collect information on various aspects of population such as the size, density, sex ratio, literacy, migration, rural-urban distribution, etc. Census data is interpreted and analysed to understand many economic and social issues in India.

- ✖ The NSS was established by the Government of India to conduct nationwide surveys on socio-economic issues. The data collected by NSS are released through reports and its quarterly journal *Sarvekshana*.
- ✖ NSS provides periodic estimates of literacy, school enrolment, utilization of educational services, employment, unemployment, manufacturing and service sector enterprises, morbidity, maternity, child care, utilisation of the public distribution system etc.


