

PROBABILITY  
SAMPLING  
TECHNIQUES

Shallu Batra

Assistant Professor in Economics

# Methods of Data Collection

## □ Census

- Complete enumeration technique .
- Enumeration of each and every unit of population.

## □ Sampling

- Part of total group for investigation
- Withdraw a definite number of units from a particular population.

# Sampling Techniques

- Probability Sampling Techniques
  - ▣ Sample is chosen according to law probability.
  - ▣ All the units of population are given some chance of being selected.
- Non-probability Sampling Techniques
  - ▣ Investigator chooses certain items which according to his judgement are the best representatives of the universe .
  - ▣ All the units of population are not given chance of being selected.

# Probability Sampling Techniques

- Simple Random Sampling Technique
- Systematic Random Sampling Technique
- Stratified Random Sampling Technique
- Multistage Random sampling Technique
- Cluster Random Sampling Technique

# Simple Random Sampling Technique

- Unrestricted Random Sampling
- Sample is selected without any bias or purpose on the part of the investigator .
- Each and every item of universe is given equal chance of being selected.
- Sample can be drawn through
  - ▣ Lottery Method
  - ▣ Random Number Table Method

# Systematic Random Sampling Technique

- Periodic interval will be calculated by dividing population size with sample size
- First unit is selected randomly from first interval.
- All other units will be selected systematically at fixed calculated interval starting from first randomly selected unit.
- Suppose a sample of ten students is to be selected from a class of 100 students. First unit will be selected from first ten ( $100/10 = 10$ ) students randomly. Let it be 6. All other units will be selected at interval of 10. Selected units in the sample will be 6, 16, 26, 36, 46, 56, 66, 76, 86, 96

# Stratified Random Sampling Technique

- Applied in case of heterogeneous population.
- Whole population is divided into different homogeneous subgroups called strata.
- Sampling Units are randomly selected from each stratum.
- Sample can be drawn according to
  - ▣ Proportionate Method
  - ▣ Disproportionate Method

# Multistage Random sampling Technique

- Applied in case of large population size.
- Population is divided into stages.
- Initially from the first stage units are selected randomly.
- From the selected units of first stage, sampling units are selected in the second stage and so on till the last stage.



# Cluster Random Sampling Technique

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- Whole population is divided into separate groups, called clusters.
- Sampling units are selected randomly from sampled clusters .

# Characteristics of Probability Sampling Technique

- Economical.
  - ▣ Save Time.
  - ▣ Save Finance.
  - ▣ Save Labour.
  
- Reliable
  
- Scientific in nature.

THANKS

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