

DATA COLLECTION

KEY WORDS & DEFINITIONS

1. Population

Whole set of items that could be sampled.

2. Census

Observations taken from the entire population.

3. Sample

Observations taken from a subset of the population.

4. Sampling Unit

One individual observation set from the population.

5. Sampling Frame

A numbered (or named) list of individual sampling units.

6. Strata

A subset of the population.

TYPES OF SAMPLING

1. Simple Random Sampling

Every sample of a specified size has an equal chance of being selected from a sampling frame.

2. Systematic Sampling

Items are chosen at regular intervals from a sampling frame.

3. Stratified Sampling

Random samples are taken proportionally from mutually exclusive groups or strata.

4. Quota Sampling

Non-random sample is taken to fulfil predetermined quotas for different categories.

5. Opportunity Sampling

Non-random sample is selected from available sampling units.

TYPES OF DATA

1. Quantitative Data

Variables or data associated with a numerical value.

2. Qualitative Data

Variables or data associated with a non-numerical value.

3. Continuous

Variables that can take any value. **Measured.**

4. Discrete

Variables that can only take specific values. **Counted.**

CENSUS VS SAMPLE

	Census	Sample
Advantages	Includes every member of the population to give a fully representative set of data	Less time consuming to collect and process data. Fewer people needed therefore cheaper to conduct.
Disadvantages	Time consuming & expensive. Cannot be used when testing process destroys the item being tested.	May not be fully representative of population. Outliers or whole subgroups possibly excluded.

WHAT DO I NEED TO KNOW?

1. Advantages & Disadvantages

Why is one type of sampling more appropriate than another. Consider time, cost, bias, ease, accuracy of population representation.

2. How to work with Grouped Data

Understand inequalities. Find maximum, minimum & midpoint of each group.

3. How to use the Large Data Set

Be able to clean data, take samples and comment on findings.