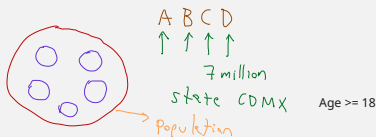


Types of sampling Techniques

Example Exit Poll:

Sample = 10 000



1) Probability Sampling

2) Non Probability Sampling

1) Probability sampling:

a) Simple Random Sampling:

Every member of the population has an equal chance of being selected.

Example: Selecting people randomly

Draw names random from a class of students.

b) Systematic Sampling

Select every n^{th} member of the population after random starting point.

Example Airport ----> Credit Card ----> 5th person, 10th person, 15th person

Feedback survey ----> Selected every $||^{\text{th}}$ member ----> Feedback survey

c) Stratified sampling

Divide the population into strata (groups) based on specific characteristics and then randomly sampling from each strata.

Example:

Divide employers by departament and then randomly select a proportional number, from each departament to form a survey sample.

Example:

Age ----> < 12 12-18 >18 {Politics}
 ↑ ↑ ↑

d) Cluster sampling

Divide the population into clusters, randomly selecting clusters, then sampling all de members from the selected clusters.

Example:

Randomly selected several schools from a district, and surveying all teachers within those schools.

e) Multi stage sampling

Combining several sampling methods. Usually involves selecting clusters then randomly sampling within those clusters.

Example:

Randomly selecting cities, each selected city randomly selecting house holds to survey.

2) Non probability sampling

Select individuals who are easiest to reach.

Example:

Surveying people at mall.

a) Convenience sampling:

Selecting individual who are easiest to reach

b) Judgmental (Purposive) Sampling

Select individuals based on the researcher's judgment → useful or representative

Example:

Choose experts in a field to participate (Data science)

c) Snowball sampling

Existing study subjects recruit future subjects from among their acquaintances.

Example:

Survey members of a rare disease.

d) Quota sampling

Age, group, genders, caste

Selecting the sampling technique depends on usecases.