Survey Research

# Seminar #2: Populations, samples and sampling

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Outline

- Introduction and quick recap

- Group discussion (A): key concepts

- Class discussion (B): critical discussion of sampling strategy

- Q&A

Quick recap: population vs sample

- **Population**: the universe of units from which the sample is to be selected

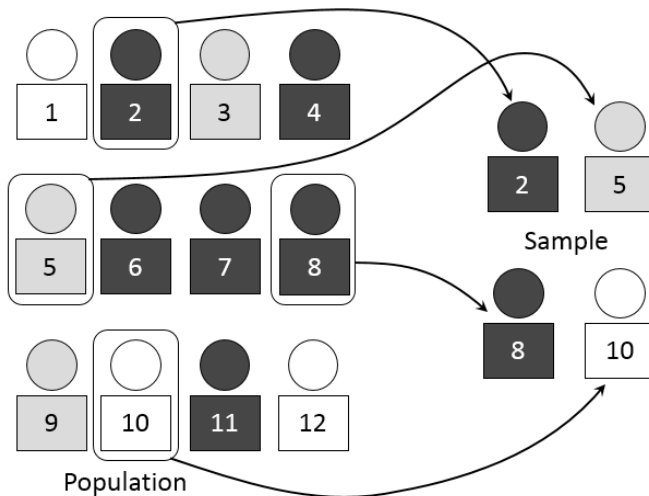- **Sample**: segment of the population selected
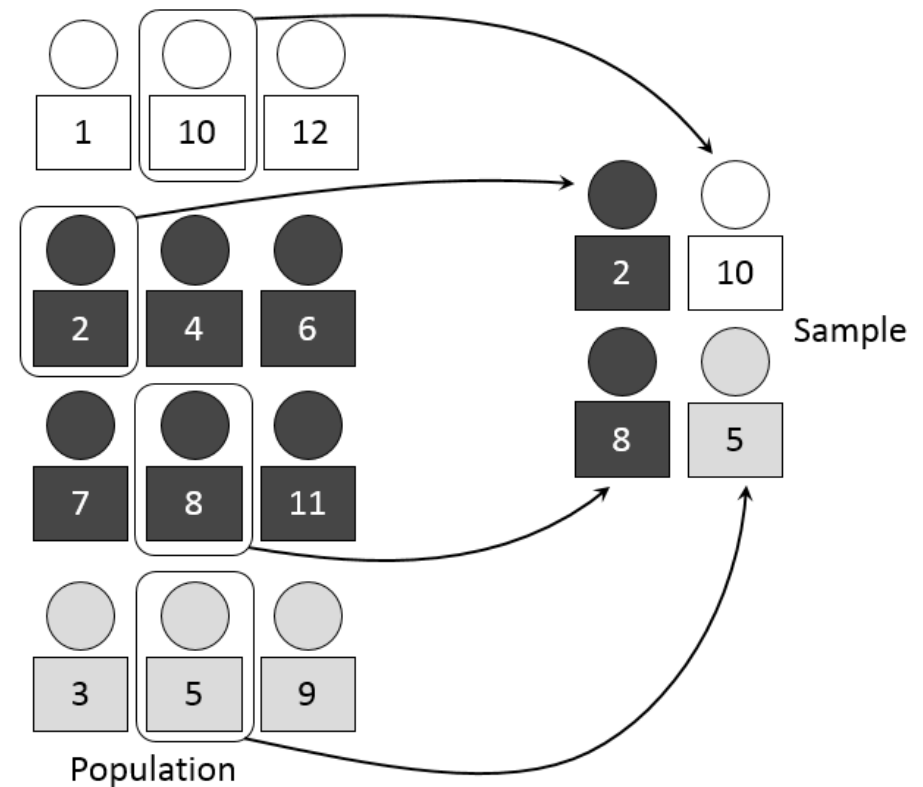
Source: https://upload.wikimedia.org/wikipedia/commons/c/c4/Systematic_sampling.PNG

Probability vs non-probability sampling

- Probability sample:
  - Sample selected **randomly**
  - Aims to keep sample error to a minimum

- Non-probability sample:
  - Sample **not** selected with a **random** selection method
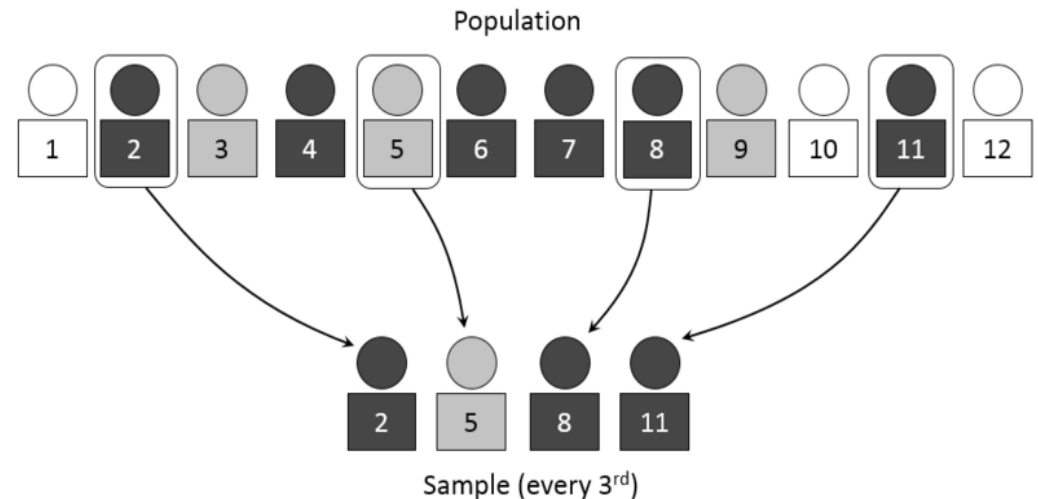 - Some units more likely to be selected

Probability sampling: some methods

Simple random sample (SRS):
each unit has an equal probability

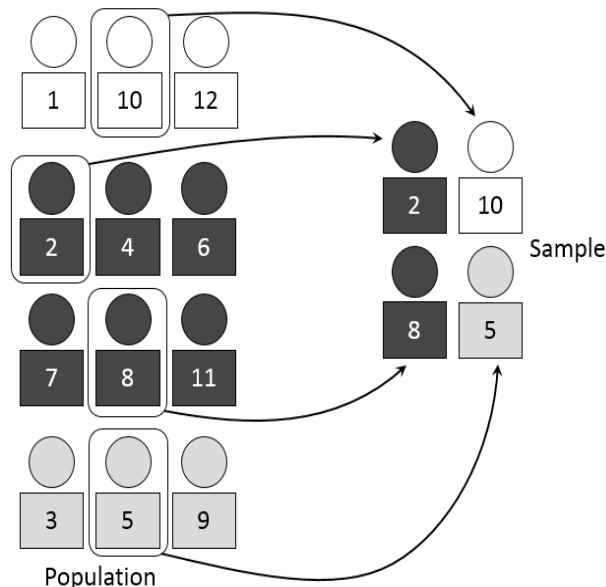Source: https://en.wikipedia.org/wiki/File:Simple_random_sampling.PNG

Systematic sample:
select at intervals, given a random start

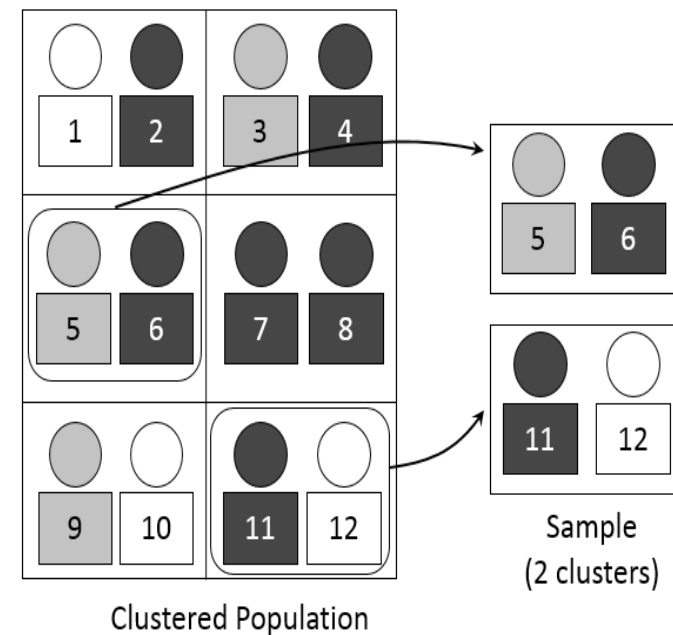Source: https://en.wikipedia.org/wiki/File:Systematic_sampling.PNG

Probability sampling: some methods

Stratified random sampling:
organised by strata (e.g.: department), then randomly selected

Multi-stage cluster sampling:
primary unit is not the population, but the groups. For example: universities first, then SRS for each of them

Non-probability sampling: some methods

- **Convenience** sampling: based on relative ease of access

- **Snowball** sampling: existing study subjects recruit future subjects from among their acquaintances

- **Quota** sampling: according to certain categories, but **not random**!

Working in groups (A): **key concepts**

- Groups of 4 people max

- 15-20 min. discussion per group

- Discuss with all the class

Working in groups (A): **key concepts**

- Work in groups: could you identify and discuss some of the key concepts from the lecture with regard to the design of a survey for this case study? For example:

  - What would be the population?

  - What type of sampling strategy would you use: probability or non-probability? More specifically (e.g. Simple random sample, stratified random sampling, … or combination of several)? Why?

Working in groups (B): **critical discussion**

- For each group:

  - Could you discuss the sampling strategy you decide to use?

- Could you identify the possible limitations in your strategy or the ones proposed by other groups? For example:

  - Might another strategy have been more appropriate?

  - Could another sampling strategy have lead to different results?

That's all! Questions?

Thanks!   ¡Gracias!

Obrigado!

Danke!

Grazie!

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