

WHOM you should ask?

Sociology 310 Discussions, Week 7

Agenda

- Bias
- Sampling
- Representativeness
- Group Work - Assignment #4
- Check Out

Bias

Types / Reasons of Bias

if we go backwards

- After Data Collection
 - response bias; non-response bias
- Sampling Framework (part[s] you cannot manage) / During Data Collection
 - self-selection bias; homophily (bad & central for convenience / snowball sampling)
- Sampling Framework, part[s] you can and should manage
 - does your framework cover your population?
 - are you contacting all people to whom you should reach out?

Frame around Your Population!

To Minimize Bias in Sampling Framework

- First, you need to make it clear **what your population is**.
 - do ***NOT*** sample on your variable(s)
 - specifically looking at experiences of divorced women?
 - or, looking at all women's experiences, and comparing married v.s. divorced?
- Then, ensure that you are *not* manually adjusting probabilities after your framework is fixed.
 - is your sampling pool unbiased? reflecting the probabilities you need? not (un)intentionally excluding potential respondents?

Sampling*

*I am skipping, e.g., snowball sampling, those common for interviews

Population <-> Sample

parameter <-> statistic

- sample statistic is an estimate of the associated population parameter
- Why “large” is generally preferred?
 - Law of Large Numbers - with larger numbers, better approximate to the expected values
 - Central Limit Theorem - with larger numbers, a more reliable estimate of the parameters
- But, “how large is enough” depends...
 - $n \geq 25$ for mean (μ), if normally distributed
 - $np \geq 10$ AND $n(1 - p) \geq 10$ for proportion (p)

Population <-> Sample

sample size

- You must have 40 respondents per group member, so the total should be sufficiently large*
- Therefore, your choice of sampling technique matters heavily

*if you know OLS, please raise your hand

Sampling Techniques

Probability Sample

- Simple Random Sampling
- Weighted Probability Sampling
- Interval Sampling
- Stratified Sampling
- Cluster Sampling

Sampling Techniques

Non-Probability Sample

- Convenience Sampling
 - Prolific without Quota = Convenience Sampling
- Quota Sampling
- Purposive Sampling
- Snowball Sampling

Representativeness

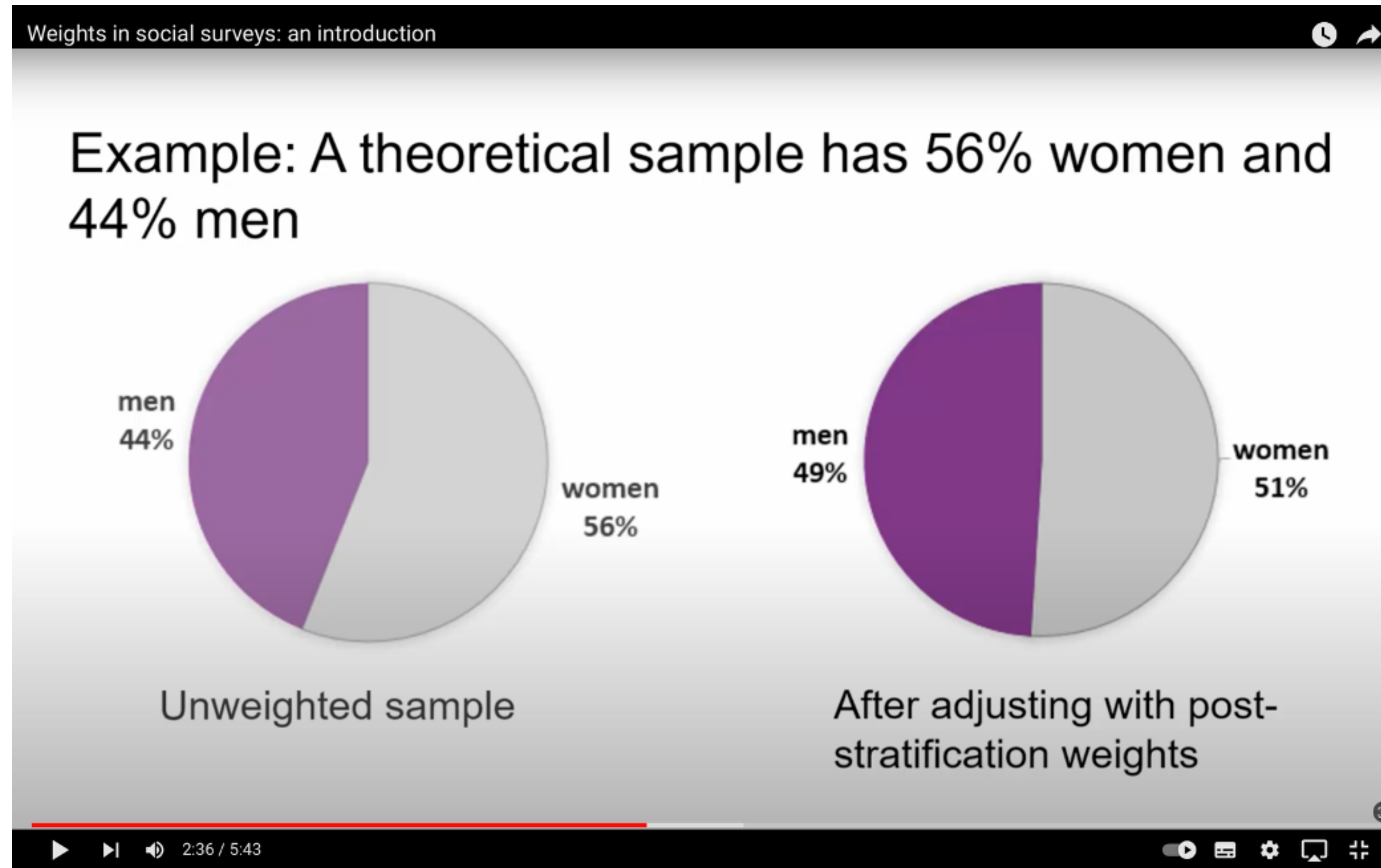
Representativeness

Definition

- the extent / degree to which your sample duplicates the key characteristics, traits, and/or distributions of your population
- usually, the goal is to make your sample demographically representative

Representativeness

Survey Weights*



Men are underrepresented,
Increase the weight of men:
a weight larger than 1
~1.136

Women are overrepresented,
Decrease the weight of women:
a weight smaller than 1
~0.893

*just FYI; don't use unless careful consultation with us

Group Work - Assignment #4

Assignment #4

- What, explicitly, is your targeted population?
- What are the advantages and disadvantages of the sampling technique of your choice?

Check Out

- Please fill in this Check Out Form before you leave
- I will be using this form to track your attendance. This form is also a place where you can share your thoughts, questions, concerns, etc. You can also share your suggestions on how I can improve our sections.
- <https://forms.gle/WTcCYcb3hP6GA8LV9>

