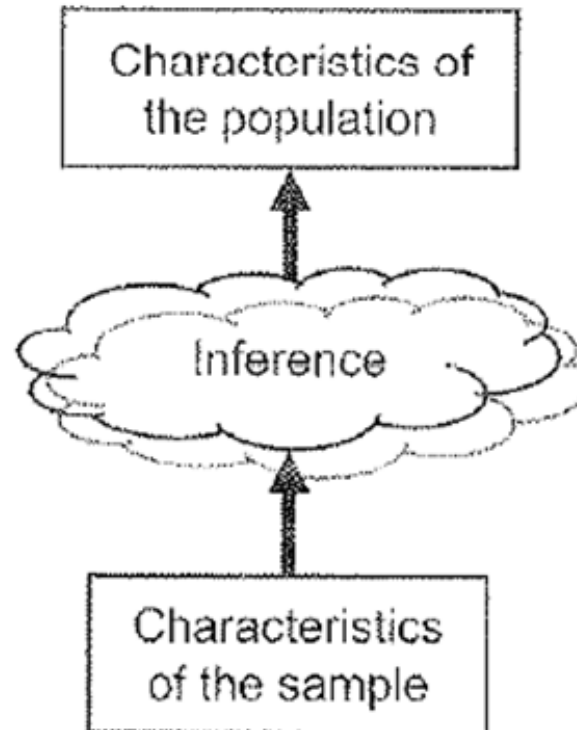


Comparing Survey Modes: Representation Errors

Sandra Walzenbach

„Asking Survey Questions“ September 25-29th, 2017

Inference



(Groves et al. 2009: 39)

Survey Error Framework

*Groves, Robert M., Floyd J. Fowler, Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau (2009): Survey Methodology. Hoboken, NJ: Wiley. Kapitel 2: Inference And Error in Surveys.

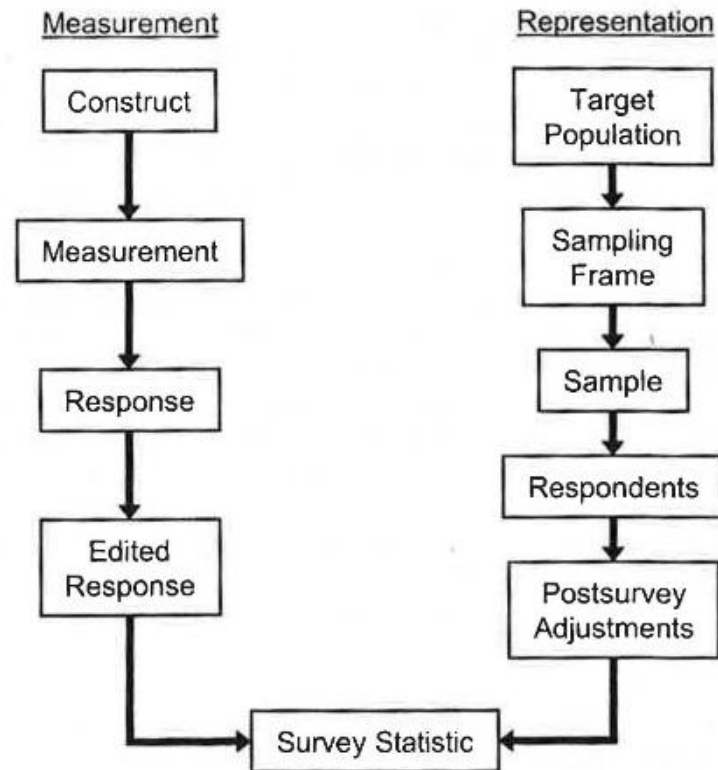


Figure 2.2 Survey lifecycle from a design perspective.

(Groves et al. 2009: 42)

Survey Error Framework

*Groves, Robert M., Floyd J. Fowler, Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau (2009): Survey Methodology. Hoboken, NJ: Wiley. Kapitel 2: Inference And Error in Surveys.

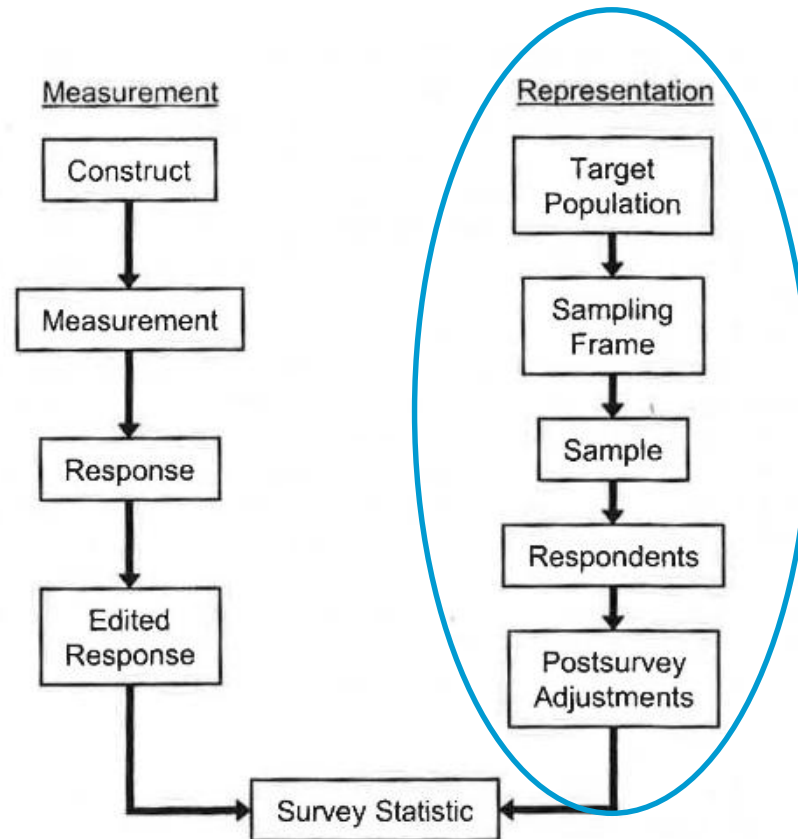


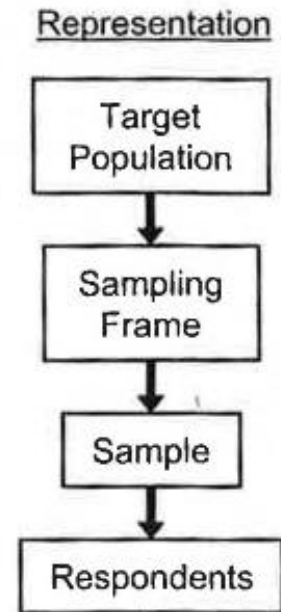
Figure 2.2 Survey lifecycle from a design perspective.

(Groves et al. 2009: 42)

Survey Error Framework

What's what?

- a) group from which you want to take measurements
- b) set of units you want to draw conclusions about
- c) group that you actually get data from
- d) decides about which members of the target population have a chance to be selected into the survey sample („frame population“)



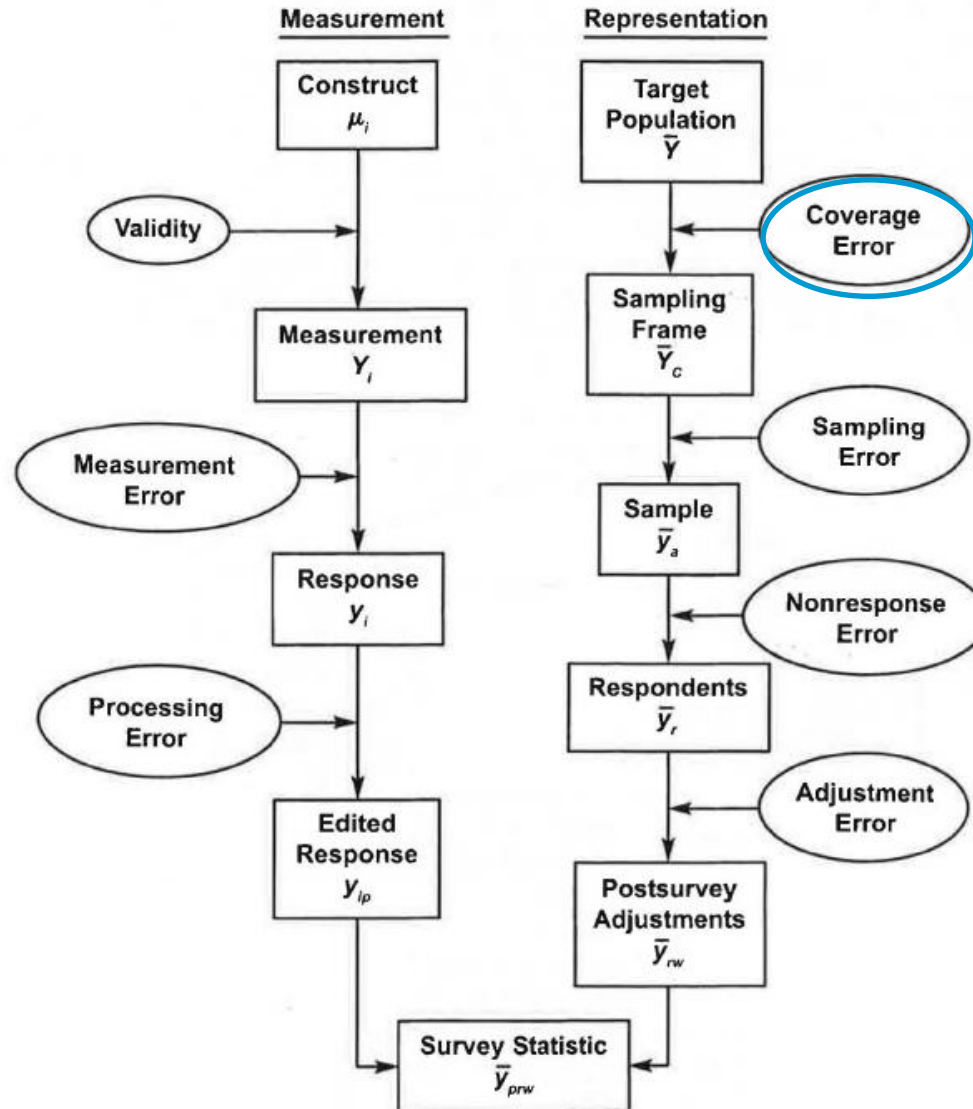


Figure 2.5 Survey life cycle from a quality perspective.

(Groves et al. 2009: 48)

Coverage Error

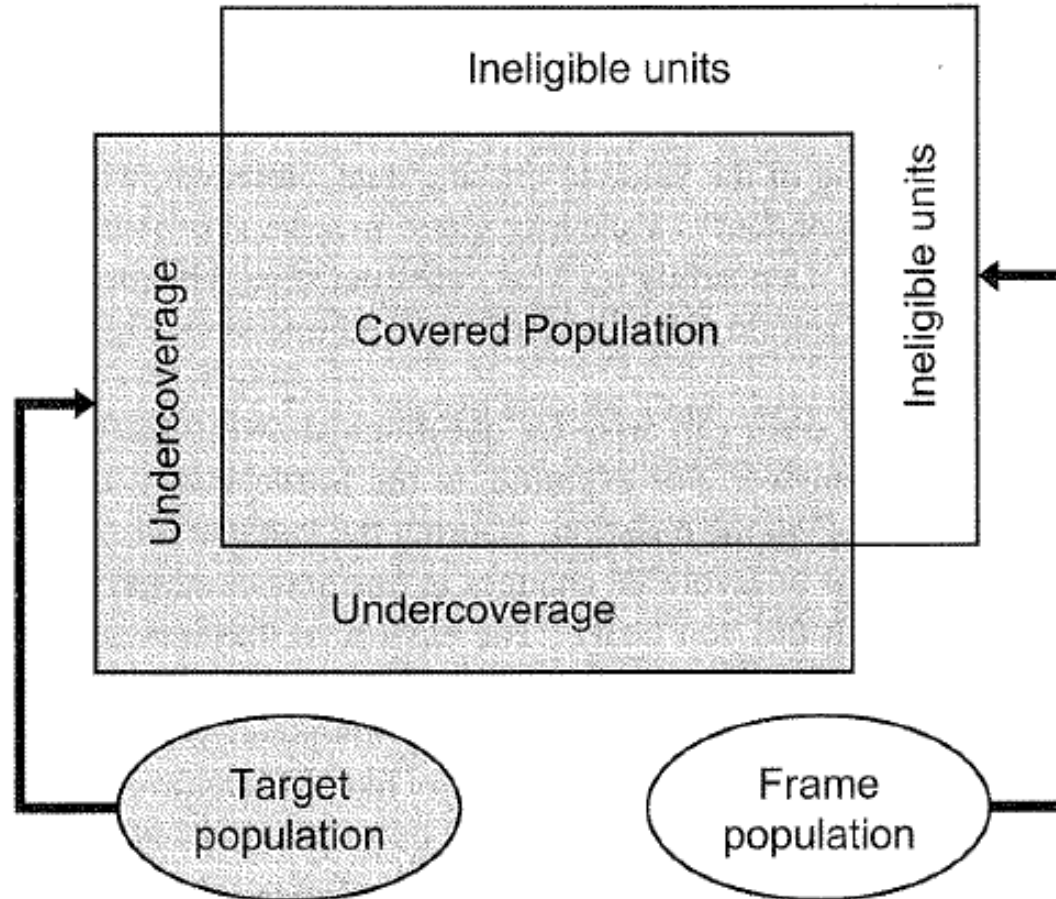
Difference between the target population about which we want to draw conclusions and the frame population that can actually become part of the sample

(e.g. recruiting via landline telephones for a general population survey)

Coverage error occurs when the sampling frame does not completely represent the population of interest. It is a function of the proportion of the population not covered by the sampling frame and the difference between the characteristics of respondents and nonrespondents (see Couper, 2000; Groves, 1989).

(Sue/Ritter 2007: 35)

Coverage Error



(Groves et al. 2004: 55)

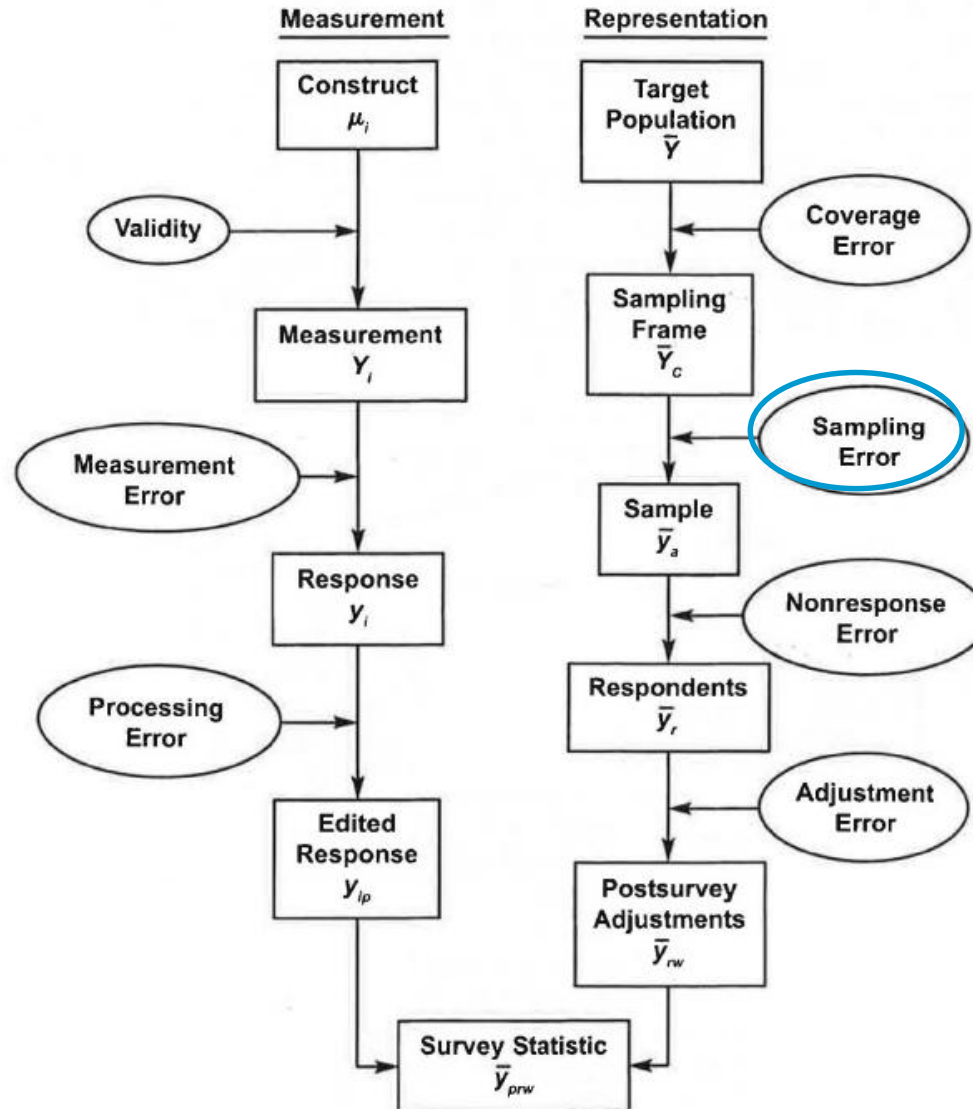


Figure 2.5 Survey life cycle from a quality perspective.

(Groves et al. 2009: 48)

Sampling Error

Frame population <> contacted sample

Bias is very likely to occur if the members of the frame population do not have equal chances to become part of the selected sample.

————— Sampling error occurs when statistical estimates are made based on sample data rather than population data. The particular sample selected for a survey is only one of a number of possible samples that could have been selected. The estimates (e.g., means or proportions) from each sample can therefore vary from sample to sample just due to chance.

(Sue/Ritter 2007: 36)

Sampling Error

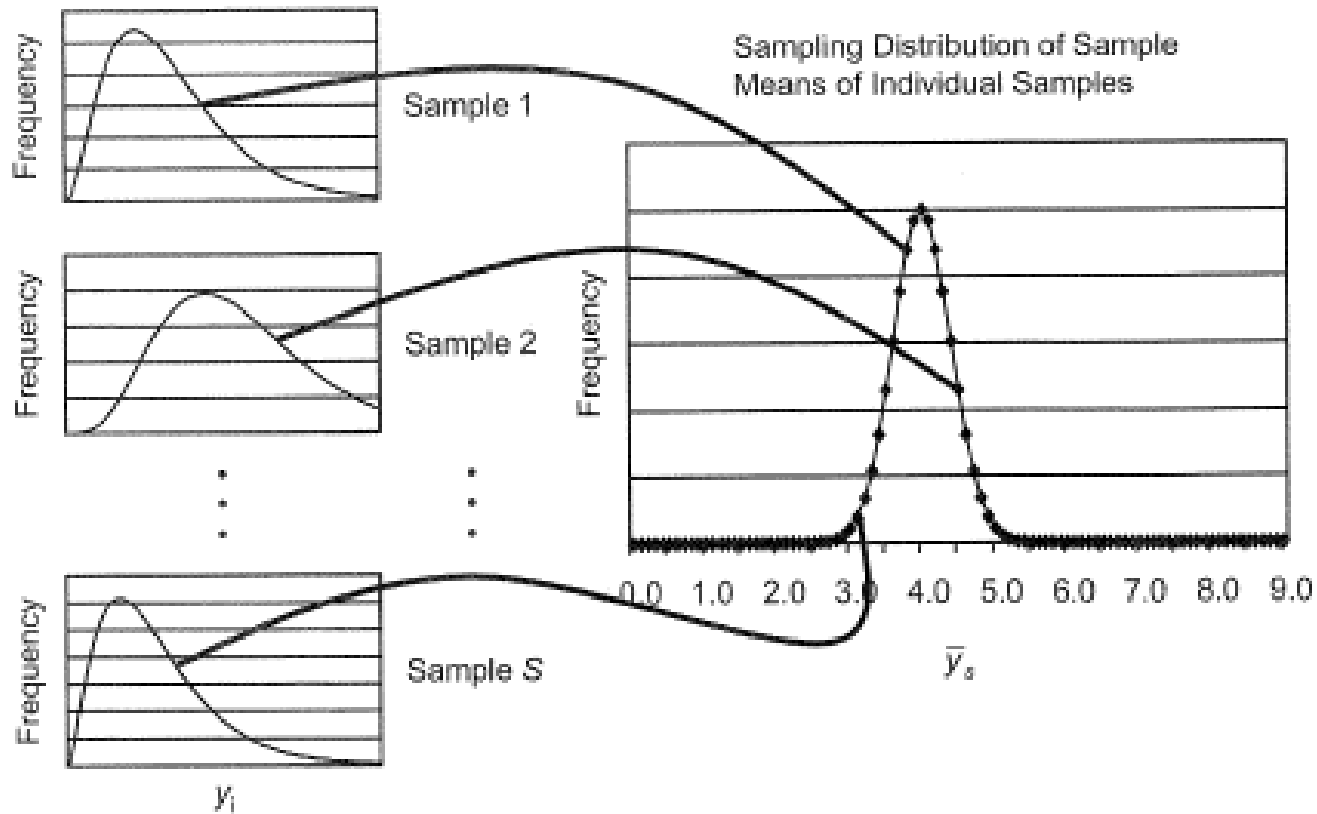


Figure 2.7 Samples and the sampling distribution of the mean.

(Groves et al. 2009: 57)

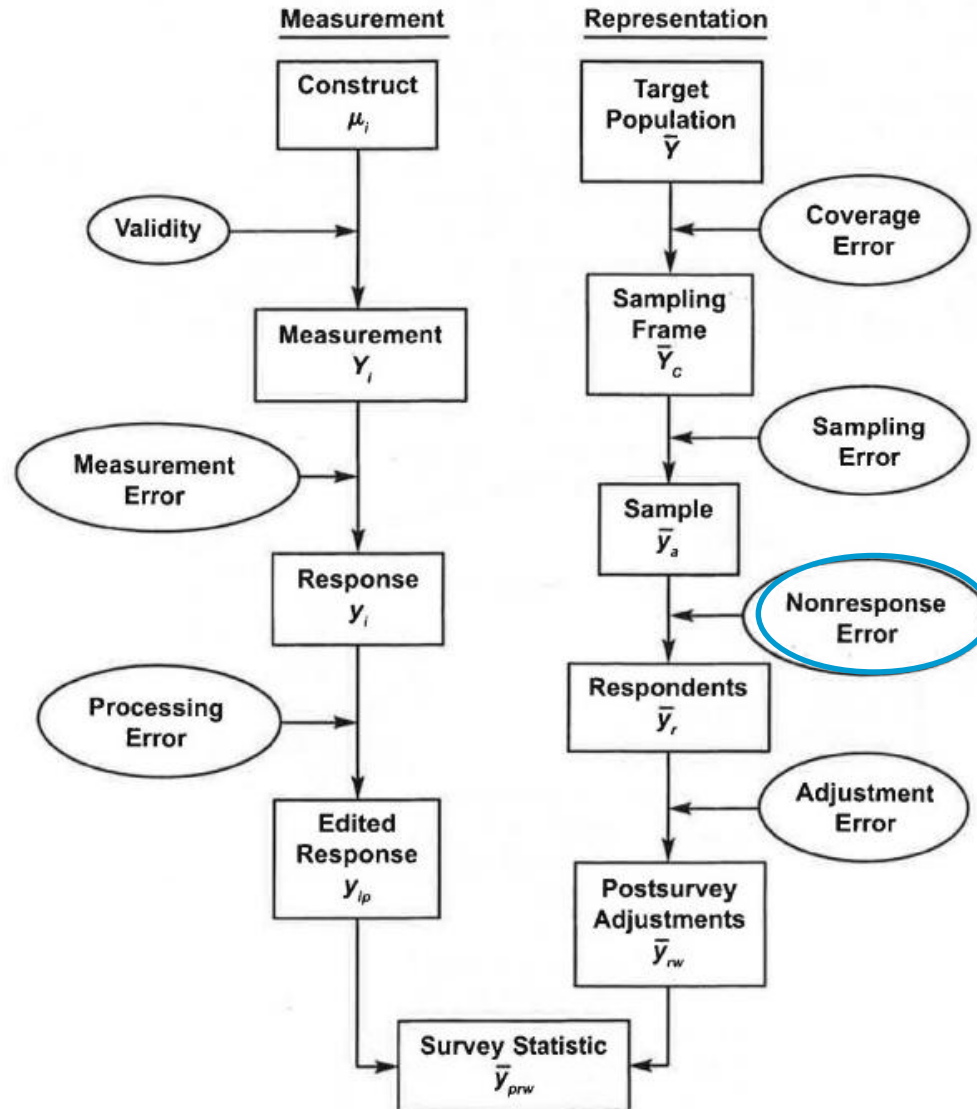


Figure 2.5 Survey life cycle from a quality perspective.

(Groves et al. 2009: 48)

Nonresponse Bias

Contacted sample vs sample of successful contacts
/ actual respondents

- > Unit-Nonresponse
- > Item-Nonresponse

As a general rule for each source of potential error...

Bias only occurs if the people included in the analyses differ from the excluded in regard to the characteristic/variable of interest.

This means that a high share of excluded people (e.g. low response rates) increases the risk for bias, but is not a sufficient condition for it.

Common Survey Modes

- CAPI: Computer Assisted Personal Interview
- CATI: Computer Assisted Telephone Interview
- PAPI: Paper And Pencil Interview
- CASI: Computer Assisted Self Interview

Popular Surveys

NEPS
Nationales Bildungspanel



Basic survey characteristics

- cross-sectional vs panel survey
- frequency of data collection
- survey mode
- target population
- sampling strategy (refresher samples?)
- Who is eligible? (more than sampled individual?)
- incentives
- topic



SOEP



Sources

Groves, Robert M., Floyd J. Fowler, Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau (2009): Survey Methodology. Hoboken, NJ: Wiley.
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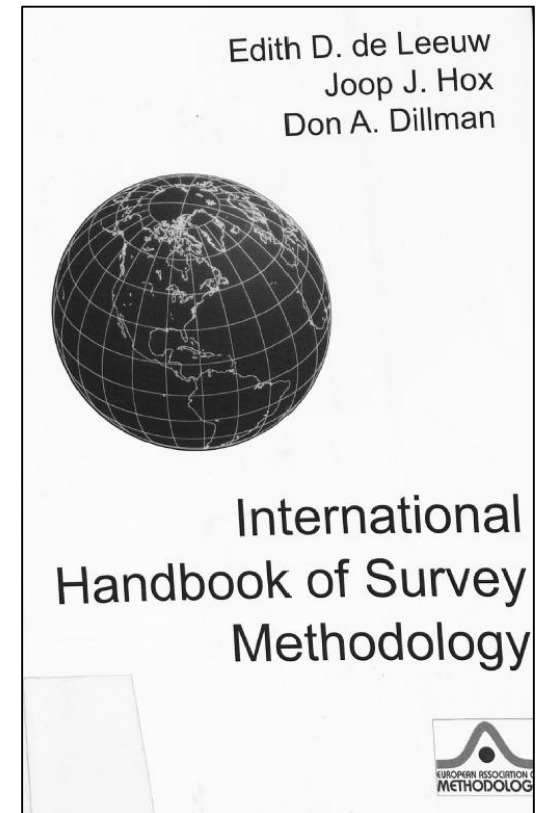
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The following table lists the common survey modes and some dimensions, in which they differ.
Complete the table by filling in the main characteristics of survey modes into the respective cells.

	self-administrative modes		personal interview	
	pen&paper (PAPI)	online (CASI)	face to face (CAPI)	telephone (CATI)
Costs				
Common sampling strategies				
Representativeness				
response rates				
Implications for questionnaire design				