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Issues in Survey Research Design

- After you have designed your
 - sampling plan,
 - data collection strategy and
 - Instrument
- What's left? Managing the Data Collection Process
 - Interviewer example

How can Interviewers affect survey error?

How can interviewers contribute to Representation Error?

- In a household area survey
 - Identifying the sampling frame-household units (Screening)
 - Implementing the sampling strategy
- Successfully recruiting respondents

Interviewers are an extremely important key to ensuring quality- ie low error

- Interviewers failure to carry out sampling methodology leads to non-generalizable estimates
- Interviewers failure to recruit respondents lead to non-generalizable estimates
- Interviewers' cues can lead to inaccurate estimates of phenomena (measurement)
- Clustering of interviewer's responses leads to unstable estimates

How can interviewers contribute to measurement error?

- Systematic Bias
 - Observable Interviewer Traits
 - Race/Ethnicity matching— what do we know?
 - Interviewer Experience
 - Newness of the task – what do we know
 - Others— eg. Directive vs non directive probes
 - examples
- Interviewer Variance
 - Variation in how the interviewers carry out the tasks of data collection
 - Focus on efficiency vs quality

How to detect whether your interviewers are systematically producing different responses?

- Randomly assign interviewers to respondents. Calculate intra-class correlation by variable
 - A measure of correlation of response deviations among respondents of the same interviewer contrasted to deviations across total sample
 - (Analogous to cluster sample example)
- Variation “interpenetrated sample assignments”

Dealing with Differential Interviewer Performance

- Assigning cases:
 - Consider how many interviewers
 - Consider how many cases are assigned per interviewer
- Selection, training, and supervision of interviewers

Ways to Reduce Interviewer Bias

- Good questions!!!
- Train interviewers to motivate respondents to provide accurate careful answers
- Identify and address interviewer expectations
- Include reminders in introduction and instrument about importance of accurate careful answers

Training : One Way to Reduce Interviewer Variance

- Train for professional task orientation
- Train to read questions exactly or
- Train to explain survey procedures and questions & answers to respondent
- Train to probe non-directly or for conversational interviewing
- Train to record answers without interpretation
- Train “a lot”–

RTI Example

- In home study materials: Training Manual
- Training sessions;
 - Covering material in manual: Locating sample dwellings, Contacting, Obtaining Participation, Screening, Administering the questionnaire, Post interview responsibilities, Administrative Procedures, Q by Q
 - Practicing administering the questionnaire—lots of role play

More Ways

- Supervision
 - Paperwork needed beyond the instrument
 - Training Materials, Introductory letters, FAQ, badges, cards, logo
 - Eligible respondent data base or log– who screened, who eligible, who refused, who participated
 - Management of incentives – especially if cash, checks, gift cards
 - Time sheets – payment structure: salary, by hour, by completed interview, reimbursement of travel expenses
 - Providing feedback to interviewers
 - On response rates
 - On completeness of the data
- Monitoring
 - Frequency of contact
 - Frequency of data aggregation
 - Listening in

- An Example?

- Interviewers– how many? Assignments?
- Selection criteria?
- Preparatory materials needed?
- Training?
- Supervision?
- Quality control

Data Management

- Tracking data from sample, to collection, to the master files
- Moving from paper to machine readable
 - Applications that help
 - Double entry?

RECAP

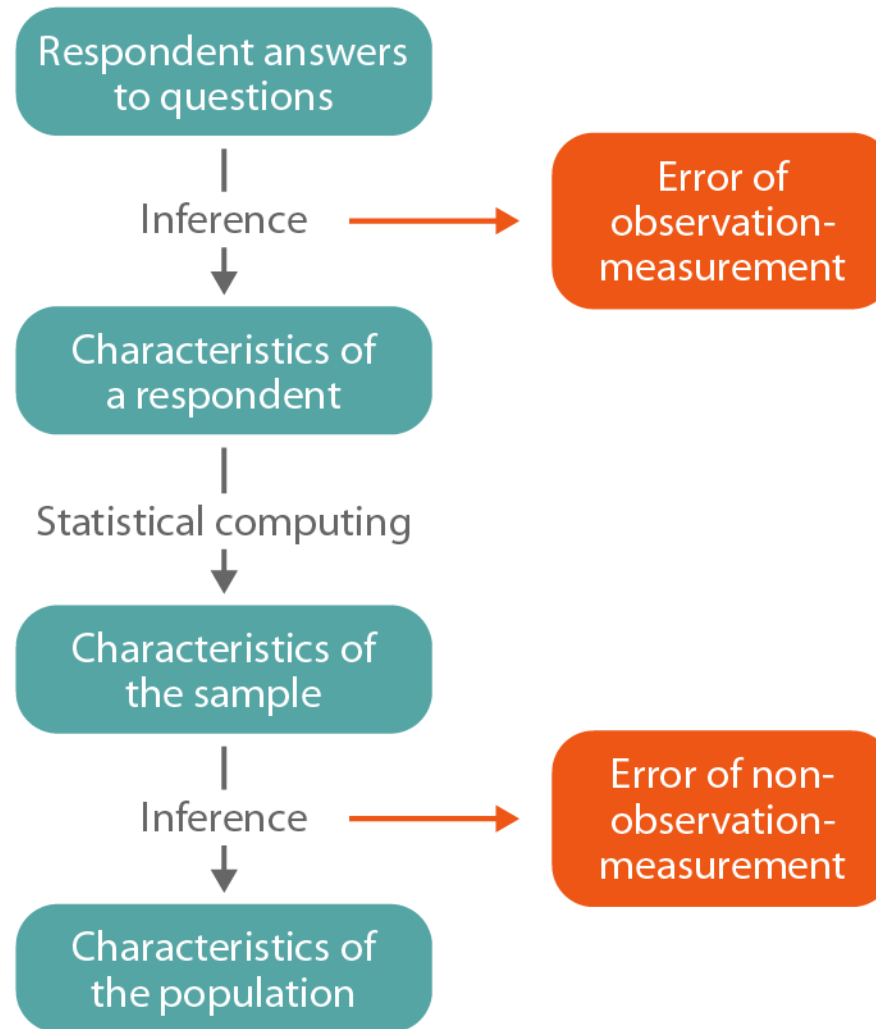
What do we mean by the “quality of a survey?”

- A high quality survey has minimized sources of error

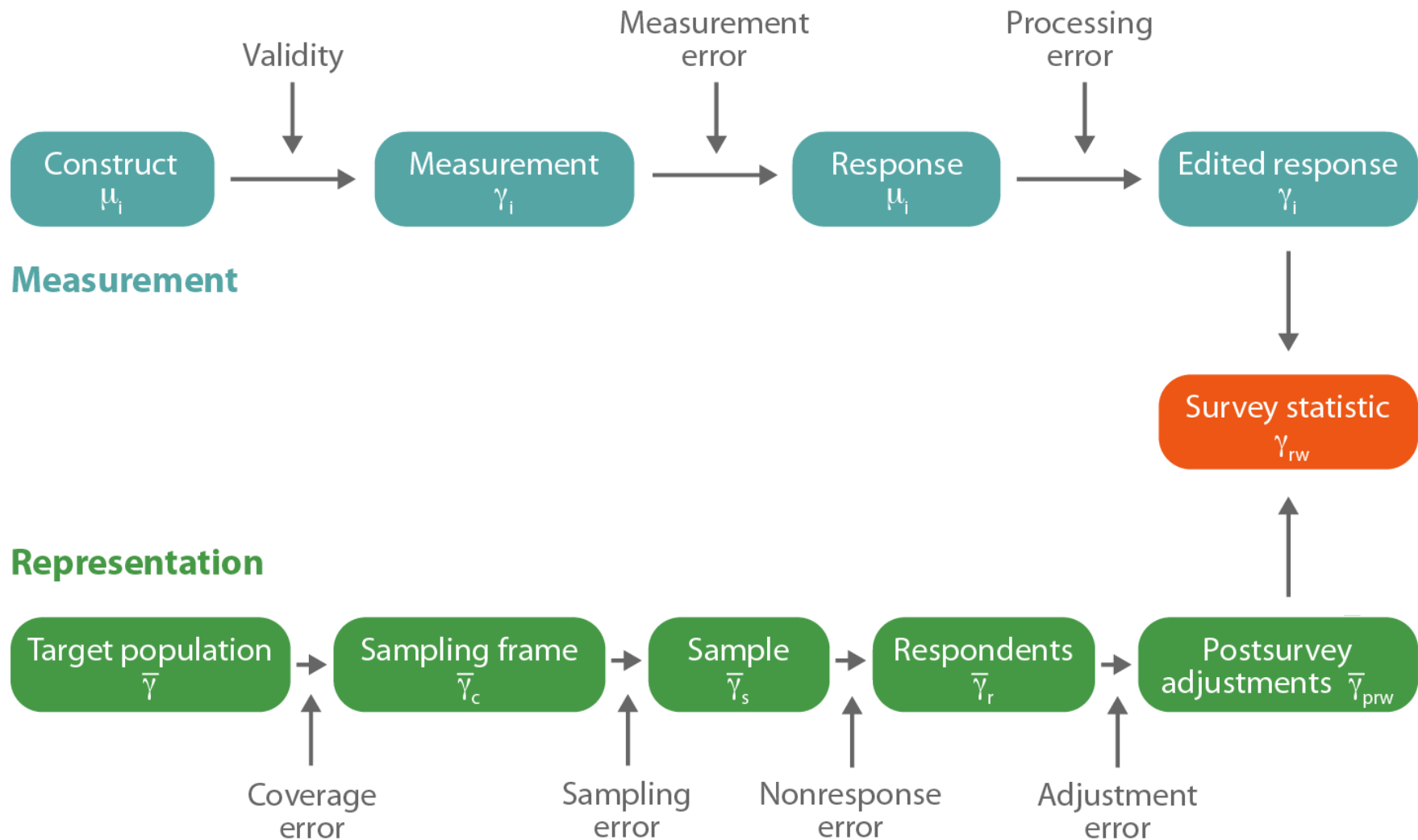
What do we mean by error?

- Not mistakes
- Results deviate from “true value”
 - Can be systematic --- Bias
 - Can be unstable or random -- Variance

Sources of Error in Surveys



Survey Lifecycle from a Quality Perspective



Adapted by CTLT from Groves, R.M., et al. (2009) *Survey Methodology*. Wiley-Interscience.

But there is an arsenal of choices that can reduce error

- sampling approaches
- data collection methods
- development of measures
- Pilot work and pretesting
- Survey administration
 - Especially with regard to training and supervision of interviewers
 - And management of their workloads

It Depends?

- On the population you are studying
- On your concepts of interest
- On your budget constraints

Good Luck

- Don't forget to be kind to survey researchers
- Start by completing your course evaluation survey