

# Module 6: Data quality monitoring

## Video 2 of 6: Interviewer measurement error

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Module 6 – Remote training on Phone Surveys

# Many forms of interviewer errors leading to measurement error...

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- Falsification
- Incorrect inclusion/exclusion of persons in the Roster
- Misunderstanding concepts or definitions
- Reading issues: Not reading the question fully, Misreading the question, etc.
- Probing issues: Not probing enough, Directed probing, etc.
- Not clarifying the respondent's question adequately
- Inappropriate feedback
- Data entry errors .....etc.

Illustrates the importance of interviewer training

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# Falsification

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- Many forms: outright fabrication, cutting corners (especially true in the case of screener questions), duplicating records, etc.
- Number of reasons why falsification occurs: hostile respondents, organizational factors (e.g., underpayment of interviewers), survey factors (e.g., workload), personality reasons, etc.
- The American Association of Public Opinion Research (AAPOR) and the American Statistical Association (ASA) have released a comprehensive report on falsification (DeMatteis et al, 2020).

*[https://www.aapor.org/AAPOR\\_Main/media/MainSiteFiles/AAPOR\\_Data\\_Falsification\\_Task\\_Force\\_Report.pdf](https://www.aapor.org/AAPOR_Main/media/MainSiteFiles/AAPOR_Data_Falsification_Task_Force_Report.pdf)*

# Falsification

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Generally, as surveillance systems have improved so have the methods used by interviewers to falsify. Falsification can occur in subtle ways:

Interviewer: What was your income in 2019 ?

Respondent: Well...

Interviewer: Maybe \$60,000 ?

Respondent: Yes, you could take it as that.

Apart from the obvious problem, this also signals to the respondent that accurate answers are not needed to later questions (is this what this interviewer is hinting at?) – difficult to then detect error at those questions.

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# Roster errors

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- The household Roster is most often the first module in an instrument.
- Incorrect inclusion or exclusion of household members can have a major impact, e.g., household per capita income → policy could be wrongly influenced.
- Interviewers often given (or should be given) extensive training on administering the Roster including definitional issues. Key: Who constitutes a household member ?

Now, I want to make sure that I have the correct number of household members and their details such as name and age. Household members are those who have been living here under the same roof and shared the same kitchen for at least 6 of the last 12 months. Do not include non-resident members, relatives or temporary visitors who have lived here for less than 6 of the last 12 months.

Include servants, paying guests and other relatives who meet this definition. Also, include newly-married women or new-born babies.

Exclude married-out daughters.

Start with the head of the household and follow the specified sequence.

○ 1. Enter [1] to continue

**“My daughter just got married 10 days ago and left this home. But since she’s been with us for almost the entire year, I am going to include her as a household member.”**

*Screenshot from the India Human Development Survey (IHDS), Wave 3 draft instrument (fieldwork scheduled for 2021)*



# Roster issues...

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- Beamon and Dillon (2012) experiment with 4 different definitions:
  1. Living in same space + same household head
  2. 1.+ Eat meals together
  3. 1. + common agriculture/income generation
  4. 2. + 3.
- Hypothesis: More restrictive definitions would produce smaller units.
- One among many findings : Definition #3 actually tends to increase household size → increases probability that at least one farmer resides in the household.
- Important that interviewers understand the correct definition and read/communicate it to the respondent accurately.

Helps the interviewer check the current Roster against the previous waves' composition. Could this lead to other issues?

IHDS3\_Roster

Prior\_Wave\_HH\_Roster



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# Misunderstanding concepts or definitions

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- The Roster is a specific example of an instrument where errors enter by an improper understanding of definitions/concepts.
- But this is a more general issue : The interviewer needs to be clear about definitions and concepts before we expect clarity from the respondents' end.

## Misunderstanding concepts or definitions...

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- Example: the India Human Development Survey (IHDS) records different job types at different sections.
- Returned labour migration: “Have you or any member of your household left home to find work during the last five years and returned to live here again?”
- Respondent: “Yes, my husband keeps going to the neighbouring village for work.”
  - But the interviewer should record this here only if the period of absence was at least a month.

## Misunderstanding concepts or definitions...

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- Wage and Salary section: “Now, besides work on the household farm or in any of the household’s businesses, did anyone in the household do work for payment in cash or kind in the last 12 months?”
- Respondent: “Yes, my husband...he is a plumber.”
- But if the plumbing service is *independently* provided, this should not be recorded here but at the “Household non-farm business” section.

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# Reading errors

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## Interviewer 1

Interviewer1: Are you currently working?

Respondent: No

Interviewer: Have you been laid off?

Respondent: **Yes**

## Interviewer 2

Interviewer: Are you currently working?

Respondent: No

Interviewer: Have you been laid off? **If you have been asked to resume work at a future date do not consider this a lay-off.**

Respondent: **No**



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# Probing errors

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Probing is used to clarify a respondent's answer and obtain an accurate codable response. Often required when the initial response is a non-response. **Not the same as “prompting”**.

## Neutral probing (not an error)

Interviewer: How many kilograms of rice did you buy last month?

Respondent: uh...I don't know...lots...we have a large family...

Interviewer: take your time...please recall how many kilograms of rice you bought *last month*...

# Probing errors

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## Lack of probing

Interviewer: How many kilograms of rice did you buy last month?

Respondent: uh...I don't know...lots...we have a large family...

Interviewer: ok, I see [*marks it as a 'Don't know'*]

# Probing errors

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## Directed probing

Interviewer: How many kilograms of rice did you buy last month?

Respondent: uh...I don't know...lots...we have a large family...

Interviewer: But I don't think this would be more than 20 Kg, right?

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# Inadequate/Inappropriate clarification

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Interviewer: How many kilograms of rice did you **buy** last month?

Respondent: Are you asking how much rice we **consumed** last month?

Interviewer: **Yes, that is fine.**

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# Inappropriate feedback

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Interviewer: How many kilograms of rice did you buy last month?

Respondent: I think it was 20 kg.

Interviewer: Really? That seems a lot...



# Many forms of interviewer error

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- Roster
- Falsification
- Not reading the question fully
- Misreading the question
- Not probing enough
- Engaging in 'directed probing'
- Not clarifying respondent's question adequately
- Inappropriate feedback
- **Data entry errors...**

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**What is the impact of all these errors?**

# The reading-error example revisited...

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## Interviewer 1

Interviewer1: Are you currently working?

Respondent: No

Interviewer: Have you been laid off?

Respondent: **Yes**

## Interviewer 2

Interviewer: Are you currently working?

Respondent: No

Interviewer: Have you been laid off? **If you have been asked to resume work at a future date do not consider this a lay-off.**

Respondent: **No**

# Interviewer effects

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- Interviewers can influence respondent answers by their interviewing styles, e.g. Interviewer 1 will tend to get a higher unemployment rate than Interviewer 2 (all other things being equal).
- So, responses collected from one interviewer tend to be like each other compared to responses from other interviewers. Leads to an 'intra-interviewer correlation' (IIC).
- IIC's are typically small but can have very negative effects on statistical estimates ! *[Groves and Magilavy (1986)]*

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- How do we re-train the interviewer to ‘maintain interaction’, not to miss probing, to adhere to a standardized script, etc.?
  - But before that: how do we even know what occurred between the respondent and interviewer ?
    - Detecting measurement error issues more difficult to detect than issues of non-response.

Need data, tools, and methods to do that; covered in Videos 3-5

*END OF VIDEO 2*