2019 Workshop: Interviewers and Their Effects
from a Total Survey Error Perspective

Sociology, Department of

2-26-2019

Exploring the Impact of Interviewer Perceptions and Interviewer-Respondent Interactions on the Survey of Income and Program Participation: Analysis of CARI recordings

Erica Yu
US Bureau of Labor Statistics, Yu.Erica@bls.gov

Rodney L. Terry
US Census Bureau, Rodney.Terry@census.gov

Alina Kline
US Census Bureau

Holly Fee
US Census Bureau

Robin Kaplan
US Bureau of Labor Statistics, Kaplan.Robin@bls.gov

Follow this and additional works at: http://digitalcommons.unl.edu/sociw

Part of the Quantitative, Qualitative, Comparative, and Historical Methodologies Commons

Exploring Interviewer-Respondent Interactions in the Survey of Income and Program Participation

UNL Interviewer Workshop

February 26, 2019

Erica Yu[1]*, Rodney L. Terry[2]*

Alina Kline[2], Holly Fee[2], Robin Kaplan[1]

[1]U.S. Bureau of Labor Statistics, [2]U.S. Census Bureau

*These authors contributed equally to this work

1

Interviewer Cognitive Processes

- Even with standardized interviewing, interviews are interactive and interviewers must make judgments and decide how to react
- Models of interviewer cognitive processes have acknowledged importance of interviewer perceptions (Sander et al, 1992; Ongena & Dijkstra, 2007; Japec, 2008), for example:
  - Interviewer's evaluation of respondent's willingness to answer the question
  - Interviewer's judgment of whether question length/structure are good for the respondent
- But these models have not yet focused on identifying supporting data
- First step: Identify interviewer behaviors
- Next: Explore whether interviewer perceptions can predict behaviors

Research Questions

- Question Asking:
  - Anticipating problems (Houtkoop-Steenstra, 2000), tailoring to the respondent (Dykema et al, 1997)
  - Do interviewers consider sensitivity or cognitive burden when reading questions?
  - Do deviations from scripted questions lead to increases in adequate responses?

- Response Probing:
  - Repairing inadequate responses (Smit, 1995), using suggestive probes after uncodeable responses (Ongena & Dijkstra, 2006)
  - Do non-neutral probes lead to increases in adequate responses?
  - Do interviewers consider the respondent's initial response when deciding how to probe?

Behavior Coding Study Sample Design

- Survey of Income and Program Participation (SIPP) 2014 Panel Wave 1
  - 30,000 household interviews completed (70% response rate)
  - 68% consented to audio recording
  - Sampled on time in field, number of contact attempts
  - Limit to one case from an interviewer per question
- 3 SIPP survey questions
  - ~200 cases for each question
- Computer Audio-Recorded Interviewing recordings
  - CAPI-triggered question snippets
  - Turn-level interaction/behavior coding
  - Transcripts

Question Asking Codes: Selected examples

Code	Definition	Illustrative Examples
Major Change	Omits or changes key scripted words	
Slight Change	Likely no change to Q meaning	
Tailored	Uses information learned earlier in the interview	I: How much did you pay for those vitamins and supplements for your joint pain?
Distanced	Tells the respondent he/she is not who wants to know the answer	I: Now they want to know how much you spent last year out-of-pocket for your non-prescription healthcare …
Simplified	Cuts out information or uses simpler words	I: How much of your own money did you spend on medicine cabinet type stuff …
Explained	Gives reason why the question is asked or summarizes the Q	I: Now this question is about all of your non-prescription expenses …

Interviewer Behavior Codes: Selected examples

Code	Definition	Illustrative Examples
Actively listened	Acknowledges previous turn	I: Uh-huh.
Built rapport	Builds a connection	I: My husband does the same thing!
Digressed	Statement unrelated to the question topic	I: Please wait for a moment
Clarified	Answers respondent question	I: Yes, expenses for the whole year.
Probing	Follow-up to get codeable response	
Neutral	Non-directive	I: Would you say closer to 50 or 100?
Verification	Verifies what the respondent said	I: You said you had no expenses?
Suggestive	Indicates one response option over another	I: Most people spend about 50 dollars.

Respondent Behavior Codes: Selected examples

Code	Definition	Illustrative Examples
Codeable	Unambiguously matches a response option or response format, or responds to a verification probe	R: 100 dollars.
Vague	Response is relevant but does not match a response option or the response format	R: I spent around 50 or 100 dollars.
Think out loud	Talks out loud as developing response to survey question	R: Let's see, I bought some cold medicine last winter…
Help request	Asks for clarification	R: Is this for all of last year?
Digression	Deviates from survey question	R: And then I missed work because my kids all had colds…
Non-verbal	Inaudible response but later acknowledged by interviewer	[silent]

Overview of Survey Questions

SIPP Question	Cases
Any difficulty in the last year paying rent or mortgage	222
Request to use survey answers in a future interview	193
Amount paid out-of-pocket last year for non-prescription medical expenses	200

Overview of Survey Questions

SIPP Question	Cases	Turns	Turns > 3	Major Change
Any difficulty in the last year paying rent or mortgage	222	531	9%	44%
Request to use survey answers in a future interview	193	693	26%	19%
Amount paid out-of-pocket last year for non-prescription medical expenses	200	892	47%	61%

Rates of Inclusion of Key Concepts

Any difficulty in the last year paying rent or mortgage

"Next are questions about difficulties people sometimes have in meeting their essential household expenses. During 2013, was there ANY time when your household did not pay the full amount of the rent or mortgage?"

Key concept from scripted question	% of cases
"difficulties"	50.2%
"last year" "2013"	91.9%
"rent"	84.8%
"mortgage"	84.3%
"rent" or "mortgage"	100.0%

n = 222 cases

Rates of Inclusion of Key Concepts

Request to use survey answers in a future interview

"We will <u>recontact</u> this household in the future to update information. We would like to use some of the information you have provided today to make that interview shorter and more efficient. When we come back next time, whether we speak to you <u>or someone else</u> you are living with, is it OK if we use some of your answers as a starting point?"

Key concept from scripted question	% of cases
"contact"	92.8%
"or someone else"	67.9%

n = 193 cases

Rates of Inclusion of Key Concepts

Amount paid out-of-pocket last year for non-prescription medical expenses

"Last year, how much was paid <u>out-of-pocket</u> for your <u>non-prescription</u> healthcare products such as vitamins, allergy and cold medicine, pain relievers, quit <u>smoking</u> aids, AND anything else not yet reported?"

Key concept from scripted question	% of cases
"non-prescription" or "over-the-counter"	86.9%
"out-of-pocket"	58.8%
"smoking"	41.2%

n = 200 cases

Changes in Question Length (word count)

SIPP Question	Cases	Q Characteristic	Words	Shorter	Same	Longer
Any difficulty in the last year paying rent or mortgage	222	Forgiving language Sensitive topic	34	12.6%	15.7%	71.8%
Request to use survey answers in a future interview	193	Long script Sensitive topic	64	46.1%	21.2%	32.6%
Amount paid out-of-pocket last year for non-prescription medical expenses	200	Scripted examples Cognitive burden	30	64.3%	6.5%	29.2%

Question Reading Style and Codeable Responses

Question Reading Style	Difficulty Paying Rent		Request to Use Data		Medical Expenses	
	Cases		*Cases*		*Cases*	
Exact reading	41.8%		56.0%		26.2%	
Simplified	30.2%		13.9%		48.5%	
Tailored	22.2%		11.1%		13.9%	
Explained	0.9%		15.3%		4.5%	
All other	4.9%		3.7%		6.9%	

Question Reading Style and Codeable Responses

Question Reading Style	Difficulty Paying Rent		Request to Use Data		Medical Expenses	
	Cases	Codeable	Cases	Codeable	Cases	Codeable
Exact reading	41.8%	91.5%	56.0%	83.5%	26.2%	77.4%
Simplified	30.2%	91.2%	13.9%	76.7%	48.5%	48.0%
Tailored	22.2%	92.0%	11.1%	79.2%	13.9%	57.1%
Explained	0.9%		15.3%	48.5%	4.5%	55.6%
All other	4.9%	81.8%	3.7%		6.9%	71.4%

Proportions of Codeable Responses based on fewer than 9 cases omitted

Overview of Interviewer Probing

SIPP Question	Cases	Q Characteristic	Any Probe	Num. Probes
Any difficulty in the last year paying rent or mortgage	222	Forgiving language Sensitive topic	7.2%	20
Request to use survey answers in a future interview	193	Long script Sensitive topic	9.3%	25
Amount paid out-of-pocket last year for non-prescription medical expenses	200	Scripted examples Cognitive burden	42.0%	121

Respondent Turns Preceding Interviewer Probes

Probe	n	Codeable Response	Help Request	Vague/Think	Non-codeable Response
Suggestive	47	19.1%	12.8%	51.1%	17.0%
Verification	32	71.9%	0.0%	21.9%	6.3%
Neutral	31	22.6%	9.7%	58.1%	9.7%
All other	11	18.2%	9.1%	54.5%	18.2%

n = 121 probes

Respondent Turns Following Interviewer Probes

Probe	n	Codeable Response	Help Request	Non-codeable Response
Suggestive	47	51.1%	2.1%	46.8%
Verification	17	70.6%	0.0%	29.4%
Neutral	34	47.1%	11.8%	41.2%
All other	10	40.0%	10.0%	50.0%

n = 108 probes

Discussion

- Beyond 15% threshold for major changes to scripted questions (Oksenberg et al, 1991; Fowler, 1992; Dykema, 2005)

- Some evidence in support of theories of interviewer-initiated "repair" and "anticipation of problems"

- Not much evidence in support of the effectiveness of those strategies

- Still pending: whether interviewer perceptions are predictive of any of these behaviors
    - Contact History Instrument
    - Neighborhood Observation Instrument

Extra slides

Behavior Coding Methods

- Whether the speaker interrupted the other speaker
- Interviewer Question Asking
  - Major change, slight change, exact reading
  - Changes to scripted question: Tailored, distanced, simplified, explained, other
- Interviewer Reactions (all turns other than question asking)
  - Active listening, rapport building, digression, probing
  - Probe types: Rephrase question, verification, suggestive, distancing, forgiving language
- Respondent Response (all Respondent turns)
  - Codeable answer, active listening, digression, vague, content clarification, process clarification, other clarification, other
  - Hesitation
  - Qualification

Utterance Type

Code	Description
FR Question	The first time the FR reads the question
FR Response Option	The first time the FR reads scripted response options; if response options are not scripted, do not use this code
FR Reaction	Any other utterance from the FR
R Response	Any utterance from the R
End	Reserved for marking the end of a Q-A sequence

Question Reading

Code	Description
Exact reading	• The interviewer reads the question exactly as written. • The interviewer is interrupted by the respondent and finishes the question exactly as worded anyway.
Slight change	• The interviewer reads the question with slight word changes THAT DO NOT ALTER THE MEANING OF THE QUESTION. • The interviewer adds transitional words or contractions (weren't, can't etc.). • The interviewer stumbles and re-reads the question correctly as worded.
Major change	• The interviewer asks the question with major changes to the wording THAT CAN ALTER THE INTENDED MEANING OF THE QUESTION. • The interviewer omits key words. See accompanying list of question-specific key words. • The interviewer paraphrases a question or the interviewer does not finish reading a question, or does not go back to finish reading the question when interrupted by the respondent. • The interviewer adds information to the question (regardless of whether the information is correct). • The interviewer uses probe language during the initial question reading before giving the respondent a chance to respond. • The interviewer does not finish reading the question as scripted due to an interruption. • A Change Type code must be selected when this code is used.

Question Style

Code	Description
Tailored	• The interviewer changes the wording of the question to better match the respondent's situation or concerns.
Distanced	• The interviewer attempts to separate himself or herself from the questionnaire by emphasizing his or her role as an interviewer and not as someone who designed or is in charge of the overall survey or the specific question. • The interviewer reminds the respondent that he or she is required to read the question as scripted.
Simplified	• The interviewer changes the wording of the question to simplify it or make it easier for the respondent to understand.
Explained	• The interviewer explains the question's meaning or intention of the question.
Other	• The interviewer makes a different kind of change. • The interviewer does not finish reading the question due to an interruption.

Interviewer Reaction

Code	Description
Actively listened	• The interviewer acknowledges that he or she heard respondent's answer by saying "okay," "uh-huh," etc.
Built rapport	• The interviewer makes a statement that builds a connection with the respondent, such as "I know what you mean" or "That's too bad."
Digressed	• The interviewer makes a statement that is unrelated to the respondent's response.
Probed	• The interviewer engages in probing of the response with the purpose of getting a codeable response or information for coding a response. • Must follow a respondent response.
Non-probe clarification	• The interviewer answers respondent's question about any topic relevant to the survey.

Probe Type

Code	Description
Neutral	• The interviewer uses a non-directive probe for this question to encourage the respondent to provide a codeable response. • For example, the interviewer says, "So would you say yes or no?"
Exact repeat question	• The interviewer repeats the question exactly as written.
Slight rephrase question	• The interviewer rereads the question with slight word changes THAT DO NOT ALTER THE MEANING OF THE QUESTION • The interviewer adds transitional words or contractions (weren't, can't etc.)
Major rephrase question	• The interviewer reads the question with major changes to the wording THAT CAN ALTER THE INTENDED MEANING OF THE QUESTION or if the interviewer omits key words and phrases (dates, introductions, etc.). • The interviewer paraphrases a question or the interviewer does not finish reading a question, or does not go back to finish reading the question when interrupted by the respondent. • The interviewer adds information to the question (regardless of whether the information is correct).
Verification	• The interviewer verifies information that appears to be previously provided by the respondent. • This code does not indicate that the information the interviewer verified was correct or incorrect, but instead shows that the interviewer's wording was for a verification. • If the interviewer verifies information that is incorrect and the respondent must correct it, use this code.
Suggestive	• The interviewer probes in a way that evokes or references one or more particular responses over other responses.
Distanced	• The interviewer separates himself or herself from the questionnaire by emphasizing his or her role as an interviewer and not someone who designed or is in charge of the overall survey or the specific question.
Forgiving language	• The interviewer uses language that communicates acceptance of behaviors associated with a question or response option.

Respondent Behavior

Code	Description
Codeable answer	• The answer unambiguously matches one of the pre-coded response categories or matches the intended answer format, such as when a question asks about how much money was spent. • The respondent agrees or disagrees with a verification. • Even if an interviewer misreads a question, the respondent's response can be coded as codeable if it follows the above two criteria. • If a respondent provides more than one answer or provides contradictory information within one answer, then use "Uncodeable-Other".
Vague answer	• The respondent gives information that is relevant to the question asked but does not unambiguously match a response option or the response format, such as giving a range rather than a precise value. • The response could fit multiple response options or fit none in an unambiguous way.
Think out loud	• The respondent expresses aloud what they are thinking about as he or she develops a response to the question. • The utterance is directed to him or herself, not to the FR as if expecting a response. • The utterance may or may not be comprehensible. • This type of utterance may be followed by any another respondent behavior code. • This type of utterance may not follow any other respondent behavior code; such an utterance would be a qualification of that respondent behavior code.
Digression	• The respondent gives an answer that deviates from the question topic.
Content clarification	• The respondent asks a question about a survey question's content. • The respondent asks the interviewer to re-read the question because the respondent reports being confused about the survey's content. • The respondent asks for clarification about what the question means because of confusion about the survey's content.
Process clarification	• The respondent answers the question with a question about the survey process. • The respondent asks the interviewer to re-read the question because the respondent reports being confused about the survey process. • The respondent asks for clarification about what the question means because of confusion about the survey process. • Use this code for comments about why the interviewer needs to know the information.
Other clarification	• The respondent asks a question or asks the interviewer to re-read the survey question for any other reason, including when the reason is unclear.
Non-verbal	• The respondent communicates non-verbally to the FR, possibly using body language. • The respondent's response is not audible but can be inferred by the FR's verbal response.

Exclusion Codes:

- Keypresses only; no interaction is heard
- FR does not ask question
- R response is not codeable (not understood or not audible) but FR asks question with a verification probe
- R responds but is not understood or not audible
- R response is not captured at all
- Bad audio quality overall – cannot understand enough to know what is happening
- Language other than English used at all
- Multiple respondents interacting
- File not in CARI/Question not in CARI

Independent variables

- Question characteristics
  - Sensitive (or not)
  - Cognitively burdensome (or not)

- Context characteristics
  - Time in field
  - Number of contact attempts
  - Whether incentive was given
  - Doorstep concerns
  - Neighborhood observations

- Respondent characteristics
  - Demographics

- Interviewer characteristics
  - Tenure
  - Certification score

Context factors associated with Interviewer behaviors

Do interviewer behaviors vary based on the sensitivity of the interview context?
Do interviewer behaviors vary based on whether the question is cognitively burdensome?

	Model I	Model II	Model III	Model IV
Question characteristics	X	X	X	X
Context characteristics (Case, Field)		X	X	X
Context characteristics (NOI)		X	X	X
Context characteristics (CHI)		X	X	X
Interviewer Characteristics			X	X
Respondent/Household characteristics				X

Interviewer behaviors associated with Respondent behaviors

What interviewer behaviors lead to codeable responses?
What interviewer behaviors reduce help requests and vague or inadequate answers?

	Model I	Model II	Model III	Model IV	Model V
Interviewer interaction behaviors	X	X	X	X	X
Interviewer characteristics		X	X	X	X
Question characteristics			X	X	X
Context characteristics (Case, Field)				X	X
Context characteristics (NOI)				X	X
Context characteristics (CHI)				X	X
Respondent/Household characteristics					X