

Asking Questions About Household Members to Improve Proxy Reporting

Erica Yu

CE Survey Methods Symposium
July 15, 2014



All views expressed in this presentation are those of the author and do not necessarily reflect the views or policies of the U.S. Bureau of Labor Statistics

www.bls.gov

Proxy Reporting

- Advantage: A single respondent provides information about others
- Disadvantage: Proxy information is typically of lower quality than self-report
 - ▶ In studies of expenditures, errors are often missed expenditure reports

(Mathiowetz, 1987; Moore, 1988; Sudman, Schwarz, & Blair, 1989; Sudman, Bickart, Blair, & Menon, 1994)

Proxy Reporting Data Quality: Actor-Observer Differences

Actors

- Attribute behavior as due to the situation

Respondents

- Have richer knowledge of actual events
- Recall circumstances and deviations from typical behavior

Observers

- Attribute behavior as due to disposition

Proxy Respondents

- May not have complete knowledge of events
- Recall the other person's "usual" behavior

Proxy Reporting Data Quality: Household Dynamics

- Higher data quality is associated with:
 - ▶ More communication
 - ▶ Stronger emotional bonds

Proxy Reporting Data Quality: Possible Methods for Improvement

- Remind respondents to consider others
- Cue respondents to recall others' actual events, rather than rely on dispositions
- Cue respondents to recall out-of-the-ordinary deviations from typical behaviors

Proxy Reporting Study: Book & Edgar (2012)

- Simulated CEQ interviews with 20 participants
- Conversational-style protocol
- Initial questions asked participants to consider other household members' hobbies, unusual purchases, vacations
- Probing for additional expenditures during the CEQ

Proxy Reporting Study: Book & Edgar (2012)

- 10 of 18 participants added at least one expenditure
- 18 total additional expenditures
- Median amount added = \$63
- One person added a fridge (\$1,000)
- Median duration of questions = 2m 15s

Research Question

Can we improve proxy reporting with a standardized protocol that can be used in production?

Participant Demographics

- n = 25
- Screened for recent purchases, household > 2 people
- Median education level = college degree
- Median income range = \$40,001-\$60,000
- Household composition

Household type	n
Adult and partner	6
Adult and child(ren)	6
Adult and extended family	5
Adult and roommates	4
Adult and partner and child(ren)	2
Adult and partner, visited by child for summer	1
Adult visited by child regularly	1

Methods: Procedure

- Ask initial questions about others
- Debriefing
- Administer abridged CEQ
 - ▶ Target relevant sections
 - ▶ After completing a section, probe for missed expenditures using information from initial questions about others
- Debriefing

Methods:

Initial Questions about Others

- Reminders to think about all others in the household
- Reminders to think about ways others spend their money
- Encourage thinking about changes to and deviations from typical behavior
- Trigger memories about others' actual events

Methods:

Initial Questions about Others

- Are there some types of things that Joe spends money on that you don't?
- Thinking about the last three months since April 1st, has Joe, Jimmy, or Jane...
 - ▶ Taken any vacations or trips without you?
 - ▶ Made any changes to their normal day-to-day routine that might have changed what they did or did not spend money on?
 - ▶ Bought anything unusual or out of the ordinary?
- Does Joe, Jimmy, or Jane have any hobbies or activities that they like to spend time on?

Methods:

Probes at the Time of Reporting

- You mentioned that your wife made a change to her day-to-day routine. Are there any other expenses that you want to add related to that?

Interim Findings

- With the first 11 participants, no additional expenditures were elicited
- Remember - Book & Edgar (2012) using conversational style probes elicited additional reports from 10 of 18 participants

Modification to Probes

Book & Edgar (2012)

You mentioned that your wife bought some school books, has she done that in the past three months?

Current Study, Round 1

You mentioned that your wife made a change to her day-to-day routine. Are there any other expenses that you want to add related to that?

Current Study, Round 2

You mentioned that your wife started school. Did your wife have any other school-related expenses that we haven't talked about yet?

Self-Rated Knowledge of Others' Spending

How much do you know about how other people in your household spend their money?

	<i>n</i>
A great deal	8
Quite a bit	12
Somewhat	5
Very little	0
Not at all	0

“Very Helpful” Questions

How helpful were the questions about what others spend their money on for reminding you about others’ expenses?

	<i>n</i>
1 Not at all helpful	0
2	0
3	4
4	5
5 Very helpful	15

Sensitive Answers, Not Sensitive Questions

How sensitive, or personal, would you say those questions were?

What do you think other people would say?

		<i>Self</i>	<i>Others</i>
		<i>n</i>	<i>n</i>
1	Not at all sensitive	8	5
2		6	2
3		6	8
4		4	6
5	Very sensitive	1	4

A “Short” Protocol

- Median duration of questions = 2m 40s
- Perceived length of protocol

	<i>n</i>
Short	23
Long	1

1 participant reported that the length was ‘in between’ short and long.

Expenditure Categories Reported

CEQ Section	Average Reports*
6 Appliances, household equipment, other	8
8 Home furnishings and related household items	13
9 Clothing and clothing services	24
12 Vehicle operating expenses	8
16 Educational expenses	4
17 Subscriptions, memberships, books, entertainment	15
18 Trips and vacations**	2
19 Miscellaneous	5

*The average is calculated for those participants reporting an expense. The number of items reported is approximate. When participants did not specify quantity, the interviewer used judgment to estimate.

**A trip was counted as one item.

Added Expenditures

Proxy Question Topic	<i>n</i>	<i>\$</i>
Hobbies	4	\$528
Changes to day-to-day routine	1	\$30
Types of things others spend money on	1	\$30
Vacations or trips without the participant	0	
Unusual purchases	0	

- Fees for participating in races: \$30, \$58
- Fees for participating in kayaking: \$350 (\$50 every 2 weeks)
- Shoes for a visiting child: \$30
- Tennis balls: \$60 (\$15 every month)
- Gasoline for mower: \$30
- Jeans: \$30

Probe Usefulness

... If I had not instructed you to remember their purchases, do you think you would have?

	<i>n</i>
Would have remembered	12
Would not have remembered	12

Summary

Protocol Style	Participants With Additional Expenditures
Conversational	10 of 18
Standardized	0 of 11
In-between	5 of 14

Limitations

- In-lab research is not representative of field interviews or actual respondents
- Only probed up to 3 CEQ sections – could see greater impact if used all information available
- Different household compositions reacted to the protocols differently – needs to be controlled in future

Main Takeaways

- A protocol of questions and probes can improve reporting but...
 - ▶ Probes at the time of reporting should cue respondents with as much detail as possible to encourage them to retrieve memories
 - ▶ Ask about others' hobbies, what others spend their money on, changes to day-to-day routines

Future Research

- What is the marginal effect of the initial proxy questions? of the probes?
 - ▶ If much of the utility is in the initial scripted questions, then no need for complicated conversational-style probing
 - ▶ If much of the utility is in probing at the time of reporting, then no need for initial questions
- How determine with which households to implement the protocol for production?

Contact Information

Erica Yu

Research Psychologist
Office of Survey Methods Research

[*www.bls.gov/osmr*](http://www.bls.gov/osmr)

202-691-7924

yu.eric@bls.gov

