

# Asking Questions About Household Members to Improve Proxy Reporting

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CE Survey Methods Symposium  
July 15, 2014



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# Proxy Reporting

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- Advantage: A single respondent provides information about others
- Disadvantage: Proxy information is typically of lower quality than self-report  
(Mathiowetz, 1987; Moore, 1988; Sudman, Schwarz, & Blair, 1989; Sudman, Bickart, Blair, & Menon, 1994)
  - ▶ In studies of expenditures, errors are often missed expenditure reports

# Proxy Reporting Data Quality: Actor-Observer Differences

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## 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

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

# Proxy Reporting Data Quality: Possible Methods for Improvement

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- 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)

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- 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)

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- 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

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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

<b>Household type</b>	<b>n</b>
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

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- 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

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- 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

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- Are there some types of things that Joe spends money on that you don't?
- Thinking about the last three months since April 1<sup>st</sup>, 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

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- 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

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- 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

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## Book & Edgar (2012)

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

## Current Study, Round 1

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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

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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>	\$
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

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... 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

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

# Limitations

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- 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

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- 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

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- 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

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