

Interviewing Structure in the Consumer Expenditure Surveys

1. Background Statement

Currently the CEQ is a highly structured and standardized CAPI interview. The instrument is programmed to administer the questions in a set order, and the questions are designed to be read by the interviewer exactly as worded. It is organized into sections by expenditure type (e.g., housing, utilities, vehicle expenses, insurance, educational expenses, etc.). Generally, the sections are ordered by topic, for example all housing-related sections are grouped together. However, the adjacent placement of two unrelated sections (e.g., home furnishings and clothing) is sometimes unavoidable. Additionally, within each topic-based section there are a series of individual questions about expenditures in the given category. There are a variety of question formats, but all involve respondents being asked if they had a given type of expenditure, and if so, a set of follow-up questions about each expense.

This paper looks at the potential impact of standardized, structured, interviewing on the CEQ and seeks recommendations on alternative designs and/or research that could be done to determine the best way to design the CE Surveys. During the redesign process, the current interview and diary structure is not a constraint, nor is an interviewer-administered survey. A non-structured interview, or less traditional methods of obtaining expenditure information, could be a possibility.

2. Relevant Work

There are known advantages and disadvantages of a structured interview. The main advantages are that (1) the interview is (for the most part) administered the same way for all respondents, minimizing interviewer effects and keeping potential context effects consistent, and (2) the systematic design ensures coverage of every topic. A secondary advantage is that using a structured instrument is easier to program, manage, and train interviewers to use.

There are also several potential disadvantages with a structured interview. The first is that it seems unlikely the question order aligns with the way information is stored in a respondent's memory, or with the way respondents spend their money. Miller and Downes-Le Guin (1989) looked at the medical expenditure section of the CEQ and found that respondents

often recalled *events* rather than *expenditures*. Therefore, by asking respondents to report their expenditures in the order specified by the interview rather than in the order actually recalled, the CEQ may hinder the natural recall process. Respondents may not remember as many purchases moving through the questions in the specified order, or they may remember a purchase out of order and be reluctant to report it so as not to interrupt the interviewer. Although interviewers are able to "jump" between sections, audit trail data suggest they don't often do so (Chan et al. 2004). That is, the question order defined by the questionnaire designers is the one that almost all respondents get, regardless of any input they may provide. Some CEQ interviewers have said that instead of jumping to another section, they write the expenditure reported out of order on a piece of paper to refer to when they get to the appropriate section.

Respondents make purchases, store and retrieve memories, and store and access their financial records differently; and these individual differences make a 'one-size fit all' structured interview approach less than ideal. For example, some may find it easiest to recall the information by doing a mental walk-through of their home and recalling items or services purchased for each room, while others may find it easier to think about specific events and recall the associated expenditures. In terms of financial records, some meticulous respondents may be able to provide detailed financial records of all their expenditures, while others may only have receipts for a select, unsystematic, portion of their purchases—or none at all. Finally, the consumer market has changed since the CEQ was designed; there are more 'box stores' which allow respondents to purchase an enormous variety of items and services at one place. Asking respondents to report by the specific items purchased during a trip to such a store might be more difficult than grouping the questions by the shopping trip and collecting all the items purchased at that time.

Within a given CEQ section there is also a fixed question order; expenditures must be entered in a set way (e.g., by utility type rather than by month), which may impact the respondent's response process. Consider, for example, a respondent who has retrieved a checkbook for reference during the interview. Ideally, this should improve data quality and make the process easier for the respondent. Instead of allowing respondents to simply go through the checkbook register and report their expenses, however, the CEQ instead asks them to look for specific line items as the interview progresses, reporting each one only as it is asked about. This misalignment of the interview and respondent records may increase respondent

burden, and the chance for reporting errors, as the respondent has to work harder to match records with the interview rather than allowing the checkbook to ease the task of reporting as it potentially could.

At a question level, the CEQ is also standardized, with interviewers trained to read questions exactly as worded. Theoretically this is to reduce interviewer effects and ensure that all required questions are asked. However, in using the CEQ to study respondent comprehension, Conrad and Schober (1997 and 2000) found that respondents often misunderstood survey concepts and that conversational interviewing improved their comprehension. There is similar research showing that when interviewers are allowed to provide non-scripted feedback and information, respondent comprehension and the quality of the data improve.

Finally, the current structure does not provide a simple or easy mechanism for interviewers to quickly add a series of unrelated expenditures. Should a respondent get to the end of an interview and remember a large shopping trip, or if another household member joins the interview process and wants to report a variety of expenditures, the interviewer must manually go to each section and add each expense individually. This probably limits interviewer willingness to add such information, reducing the completeness of the collected data.

3. Key Issues

There are many tradeoffs that need to be considered when debating the issue of standardized interviewing for the CEQ. Conrad and Schober (1997; and 2000) recognize that conversational interviewing results in longer interviews. Longer interviews lead to higher field costs and potentially increase respondent burden, which may then impact response rates and/or data quality.

To fulfill its mission, the CEQ must collect very detailed information (e.g., the cost, the age and gender of the person for whom a sweater was purchased) on a wide variety of expenditure categories. Since it is unrealistic to expect interviewers to know all the required details for each category, the follow-up questions must be programmed into some sort of data collection instrument. Ensuring that all the required information is collected while allowing for a flexible interview may be difficult or even impossible give current CAPI programming limitations.

Finally, to allow interviewers the capacity to modify the interview based on their assessment of the respondent or situation requires them to have a strong grasp of the expenditure data required as well an understanding of the cognitive issues involved in the respondent's recall process. Developing and maintaining a highly trained and qualified interviewing staff would be expensive.

Balancing these tradeoffs, determining the optimal way to structure a data collection process, while collecting the required detailed, monthly, expenditure data, is an issue CEQ needs to address in the redesign process.

4. Discussion Points

A main goal during the CE redesign process is to find a way to allow interviewers and respondents to be flexible when collecting and providing expenditure data, while maintaining enough structure to ensure that all the required data are collected.

1. The Event History Calendar (EHC) is a semi-structured approach to data collection that increases recall of past events by using past experiences as memory cues (Belli 2008). Is there a way to leverage the techniques used in the EHC to increase flexibility in the CEQ while maintaining enough structure to ensure completeness of the collected data?
2. Are there any current, complex large scale surveys that successfully use a non-standardized interview structure?
3. How should CE evaluate the tradeoffs associated with standardized and structured interviewing?
 - a. Standardized interviews that may lead to more systematic interviews vs. longer, more costly, interviews that might yield more accurate data
 - b. Structured interviews ensuring the collection of all required data vs. flexible interviews tailored to respondents which may miss required data elements (or would require complex, expensive instruments).
 - c. Structured, standardized interviews that are straightforward to administer vs. flexible interviews that require a highly trained interviewing staff.

4. Is it realistic to consider tailoring the interview to respondent situations or recall strategies?
5. What should the next steps be to explore and research this issue for a possible change in CE design?

5. References

Belli, B. F., Alwin, D.F., & Stafford, F. P. (2008). *Calendar and Diary Methods in Life Methods Research*. Sage Publications, New York.

Chan, W., Ho, P., Kang, S., Smith, L., & Tan, L. (2004). *CE Interview Audit Trails: Report on Development of Prototype for Data Storage and Analysis*. Internal BLS Report, December 2, 2004.

Miller, L.A. & Downes-Le Guin, T. (1989) Improving comprehension and recall in the Consumer Expenditure Interview Survey: Discrepancies in comprehension and recall as a source of nonsampling error. *Proceedings of the Joint Statistical Meetings, 1989*.

Conrad, F.G. & Schober, M. F. (2000). Clarifying question meaning in a household telephone survey. *Public Opinion Quarterly*, 64, 1-28.

Schober, M.F., & Conrad, F.G. (1997). Does conversational interviewing reduce survey measurement error? *Public Opinion Quarterly*, 61, 576-602.