

## **Proxy Reporting in the Consumer Expenditure Surveys Program**

### **1. Background Statement**

Proxy reports are survey responses provided by a respondent about another member of the sampled unit or household. Proxy reports are used in surveys as an alternative to interviewing all individual sampled unit members, when attempting to obtain individual reports is neither reasonable nor practical (Miller and Tucker 1993). Proxy reporting can also be used when a target respondent isn't available or is incapable of participating. For many household surveys, such as the CEQ or CED, the difficulty and expense of obtaining information firsthand from all sampled household members is simply prohibitive. Instead, proxy reporting is used to collect information about all household members from a single respondent (Kojetin and Jerstad 1997).

Although a common methodological assumption is that the best method of collecting information about a target individual is from that individual directly (Mathiowetz and Groves 1985), a review of the literature on proxy reporting found little evidence that self-reports were inherently superior to data provided by a proxy (Moore 1988). However, this finding should be qualified by Moore's caveat that well designed studies of the self/proxy issue are rare, and the range of topics covered has been limited.

When differences between self and proxy reports have been observed, they seem in varying degree related to the relationship between proxy and self, the type of information being asked about, the importance of the information to the proxy, the characteristics of the proxy, whether the proxy participated in the event, and the method of survey administration (Bickart et al. 1990, Kojetin and Miller 1993, Lee et al. 2004, Mathiowetz and Groves 1985, and Moore 1988).

Currently the CE program uses proxy reporting in both the CEQ and CED surveys. Typically only one person responds to the survey, answering questions about the entire household. The accuracy of the data provided depends on the extent to which the proxy respondent has detailed knowledge about the expenditures of all household members. Given the complexity of many household situations, a proxy respondent may often be unaware of or

unfamiliar with the expenditures of all other household members. Even within a husband-and-wife only household, it is unlikely that one spouse would be able to accurately report all expenses for the household.

There is an obvious tradeoff: the presumed benefits of collecting information from all household members, including more accurate reporting, may or may not justify the costs, burden and risk of increased nonresponse associated with surveying all household members. One approach to eliminating proxy reporting is to provide individual diaries to every household member in conjunction with the household diary in the CED, rather than the current design of a single household diary. There are likely similar options for a modified CEQ design, including the use of different modes for different household members, which would reduce reliance on proxy reporting.

## **2. Relevant Work**

Proxy reporting was identified as a potential weakness early in the history of the CE program. As part of a comprehensive questionnaire design review, Mathiowetz (1987) cited knowledge of other household members' expenditures as a critical area for further investigation, noting that regardless of how well a questionnaire is designed, if a respondent has no knowledge of expenditures by other household members, those purchases will remain unreported.

In an analysis of the agreement between self and proxy reports about common expenditures, Kojetin and Miller (1993) found that accurate proxy reporting can be difficult to obtain for expenditure data. Proxy reporters were likely to underreport expenditures compared to self reporters. Parents in particular tended to be quite poor reporters about their children's expenditures, and this research took place before many school-aged children had their own debit/credit cards and cell phones that could access the internet. Further, when using a survey instrument based on CE questions to examine the agreement between self and proxy reports of specific items, Kojetin and Jerstad (1997) found "distressingly" low levels of proxy accuracy and completeness.

As one approach to assessing the impact of proxy reporting on expenditures, Miller and Tucker (1993) developed a typology of family cohesion for predicting the level of proxy knowledge within CE households. Their purpose was to investigate the feasibility of developing a method, based on the cohesiveness of family members, for estimating the accuracy of proxy

responses from specific households. Using this method as a screening technique, interviews with every family member would only be attempted in those households with a very low probability of accurate proxy knowledge; in all other households, a proxy respondent would be used. In a follow-up analysis, Tucker and Miller (1993) determined that the hypothesized relationship between cohesion and proxy knowledge was only somewhat supported.

At this time, incorporating an individual diary into the design of the CED is the most likely option for implementing a change related to proxy reporting. In a feasibility test of individual diaries conducted by BLS, Edgar et al. (2006) found that it was logistically feasible to place and collect individual diaries from a majority of household members. Although the sample size of the study is too small to draw meaningful conclusions, trends suggest that individual diary households reported higher levels of expenditures than control households. On the other hand, interviewers made more than twice as many visits to complete cases for individual diary households than for control households, leading to higher field costs associated with individual diaries. Other research under consideration includes using an existing CEQ “respondent” code to develop a simple model testing the hypothesis that multiple respondent multi-person households report more expenditures than single respondent multi-person households. Additionally, in an experiment conducted for the Italian Consumer Expenditure survey, Filippucci and Ferrante (1997) found that the use of individual diaries improved reporting for some, but not all, major expenditure items.

### **3. Key Issues**

The response rate-data quality tradeoff is one of the key issues facing the CE redesign. More broadly, there is a generalized tradeoff to consider between increased burden and field costs, on the one hand, and more accurate reporting on the other hand. While other large-scale diary surveys may use individual diaries, their corresponding response rates are generally much lower than CED's approximately 75 percent response rate. Therefore, an important consideration is whether the expected increase in data quality associated with individual diaries, for example, outweighs the expected decrease in response rates and associated higher data collection costs.

#### 4. Discussion Points

We seek recommendations for both alternative designs for the CE Surveys and for research that could be conducted to determine the optimal design. A design change to address proxy reporting, such as using individual diaries in addition to a single household diary, is expected to increase reporting accuracy. However, whether the benefits of this type of change would outweigh possible costs is an unknown. Additionally, the primary constraint to any design change in the survey is that in order to meet its objectives, CE must produce detailed monthly expenditure estimates as well as annual expenditure estimates at the household level. In the discussion of this issue for CE, the following questions might be addressed:

1. What are some key aspects of proxy reporting that the CE program should address during the redesign process?
2. Are there any obvious tradeoffs that CE will need to balance when dealing with the topic of proxy reporting?
  - a. How should the CE program manage the tradeoff between requiring participation from all CU members and allowing for proxy reporting on behalf of refusing members?
  - b. How should the CE program evaluate and make a decision about the tradeoff between increases in respondent burden, increased field costs, and improved reporting quality?
3. What designs could potentially reduce the reliance on proxy reporting:
  - a. For the CEQ?
  - b. For the CED?
4. What are best-practice methods for collecting data from all household members while balancing the impact on response rates as a result of increased overall burden?
5. What should the next steps be to explore and research this issue for a possible change in CE methods?

## 5. References

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