Improving Proxy Reporting
or How to improve reporting by up to 20% in 2 minutes!
Jennifer Edgar
Edgar.Jennifer@bls.gov

Abstract
The Consumer Expenditure Quarterly Interview Survey (CEQ) asks one respondent to report expenditures made by an entire household. The CEQ has long identified this type of proxy reporting as a potentially significant source of underreporting. There are two likely reasons for these omissions: knowledge and recall. Lack of knowledge, stemming from the fact that participants may not know about all purchases by other household members, cannot be corrected through revisions to survey questions. The second reason, that participants may forget to consider other household members and report only for themselves, may be able to be addressed through the survey design. This opportunity was the focus of this study.

A small lab study (n=18) explored the feasibility and effectiveness of collecting information about each household member at the beginning of the study, and using that information to add prompts in relevant sections of the survey. The study found this approach to be effective. All participants were able to provide information specific to other household members upfront, and after hearing the prompts reported an average of $182 of additional expenditure reports; a 6 percent increase in overall reporting.

Study Goals
• Test feasibility of improving proxy reporting through use of personalized probes
• Evaluate impact of semi-scripted proxy probes on expenditure reporting
• Evaluate impact of probes on interview length

Proxy Questions
Questions asked before main interview to identify expenditure categories relevant to other household members:
1. Are there some types of things that [name1] spends money on that you don’t?
2. Do other people in your household have any hobbies or activities they like to do?
3. Have other people in your household taken any vacations or trips without you last year?
4. Has anyone in your household bought anything unusual or out of the ordinary in the past three months?

Proxy Probes
Unscripted probes asked during relevant sections:
“You mentioned your wife bought some school books, has she done that in the past three months?”
“You said that your sister loves to go to concerts, has she bought any concert tickets in the past three months?”

Method
• 18 participants distributed between gender, income and education
• All participant had more than 2 household members (three to nine, average 4.2)
• Asked questions upfront about spending habits, hobbies, vacations and unusual purchases of other household members
• Asked proxy probes in relevant expenditure section based on information collected
Improving Proxy Reporting  
or How to improve reporting by up to 20% in 2 minutes!  
Jennifer Edgar

### Household Composition (* = participant)
- Husband* and wife
- Husband, wife* and minor children
- Husband, wife and adult children*
- Single parent* and minor children
- Financially dependent roommates*
- Uncle* and minor and adult nieces
- Sisters* and their aunt

### Inclusion of Other Household Members
Percent of other household members identified by the proxy questions

<table>
<thead>
<tr>
<th>Proxy Question</th>
<th>Min.</th>
<th>Mean</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of things</td>
<td>25%</td>
<td>63%</td>
<td>100%</td>
</tr>
<tr>
<td>Hobbies</td>
<td>25%</td>
<td>37%</td>
<td>100%</td>
</tr>
<tr>
<td>Trips</td>
<td>0%</td>
<td>35%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Expenditure Categories
Wide range of expenditure categories captured by proxy questions

- Entertainment (15)
- Sports (11)
- Household bills (8)
- Electronics and video games (8)
- Vehicle Expenses (6)

- Clothing (12)
- Groceries (9)
- Cosmetics (6)

### Expenditure Reporting
After answering the expenditure questions once, the proxy probes were asked. Ten of 18 participants added at least one expenditure after the proxy probe.

<table>
<thead>
<tr>
<th>Impact of Proxy Probes</th>
<th>Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean cost of each report added</td>
<td>$182</td>
</tr>
<tr>
<td>Median cost of each report added</td>
<td>$63</td>
</tr>
<tr>
<td>Maximum cost added</td>
<td>$1,000</td>
</tr>
<tr>
<td>Average percent of total expenditure amount added</td>
<td>6.0%</td>
</tr>
<tr>
<td>Maximum percent of total expenditure amount added</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

### Unusual Expenses
Usual proxy question was Intentionally vague question resulted in range of responses.

Important information, as expenses tended to be:
- Expensive (e.g., new TV)
- Habitual (e.g. textbooks)

### Conclusions
- Using personalized probes is feasible and may improve proxy reporting
- A variety of types of expenditures that might have otherwise been missed
- On average, reporting improved 6% with just 2 additional interviewing minutes

### Timing
Minutes spent on proxy questions. Proxy probe timing was not captured.

<table>
<thead>
<tr>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:05</td>
<td>4:20</td>
<td>2:13</td>
<td>2:15</td>
</tr>
</tbody>
</table>