Respondent Record Use in the US Consumer Expenditure Survey

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Consumer Expenditure Survey

- National federal survey, average 65 minutes
- Panel survey, 5 quarterly waves
- Designed to be personal visit (~30% phone)
- Respondents report for the household
- Expenditure questions ranging from large, regular items (mortgage) to small, infrequent (clothing) items
  - Detailed follow-up questions (description, month, cost, sales tax)
- General philosophy: “more is better”
“Most questions are about expenses your household had or bills you’ve received. You will find it helpful to have your checkbook register, credit card statements and other records available as you answer the questions.”

“Please refer to any billing statements or other records you have when answering these questions.”
Respondent Record Use in the CEQ

- Research on CEQ data shows a relationship between record usage and:
  - Reporting levels (Safir & Goldenberg, 2008)
  - Underreporting (Tucker, Meekins & Biemer, 2008)
  - Data quality (Gonzalez & Edgar, 2009)
Data

- April 2006 through March 2008
- Waves 2 through 5
- Interviewer question after interview asking how often respondent used records and what type of records were used
- 44,300 completed personal visit interviews
- 21,011 unique households
Method

Compared record use by
- Respondent characteristics
- Household characteristics
- Interviewer characteristics

All statistical tests (Chi Square and ANOVA) were statistically significant and not reported
- Likely due to sample size
Respondent Characteristics

- Included only unique households
- Several interesting trends in who does and does not use records
- Males were slightly less likely to use records than females
By Education

- Less than High School
- HS Graduate
- Some college, no degree or AA degree
- Bachelor’s degree
- Graduate degree
Household Characteristics: Family Size and Type

- As family size increased, the likelihood that a respondent will use records decreases.
  - Exception: Two-person households were the most likely to use records.
- Husband and wife only households were most likely to use records.
  - Single consumers and ‘other’ household types were least likely.
Household Characteristics: Tenure

- Homeowners without a mortgage were most likely to use records.
- Households residing in student housing were least likely to use records.
Household Characteristics: Income Reporting

- Always
- Almost always
- Mostly
- Occasionally
- Almost never
- Never

Legend:
- Complete Income Reporter
- Incomplete Income Reporter
Interview Characteristics

- Interviews where:
  - The advance letter was reported to have been received were more likely to use records
  - The advance letter was not received were more likely to never use records
  - The Information Booklet was used were more likely to use records
  - The Information Booklet was not used were more likely to never use records
Interview Characteristics: 
By Wave

Always
Almost always
Mostly
Occasionally
Almost never
Never

2
3
4
5
Interview Characteristics: Converted Refusals

<table>
<thead>
<tr>
<th>Frequency</th>
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<th>No</th>
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<tbody>
<tr>
<td>Always</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Almost always</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mostly</td>
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<td>Occasionally</td>
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<tr>
<td>Almost never</td>
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<tr>
<td>Never</td>
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</tbody>
</table>
Interview Characteristics: Number of Contacts

![Bar chart showing the number of contacts for different frequencies.]

- **Always**: 10%
- **Almost always**: 15%
- **Mostly**: 20%
- **Occasionally**: 25%
- **Almost never**: 30%
- **Never**: 40%

Legend:
- ▪️: 1
- □️: 2
- ◼️: 3 to 5
- ▲️: 6 or more
Interview Characteristics:

Interview Length

- Less than 41 minutes
- 41 to 59 minutes
- 60 to 81 minutes
- More than 81 minutes
Some specific CEQ sections probably benefit most from the use of records, (utilities, health-insurance and income)

Respondents who used records took longer to complete these sections than respondents who did not

This trend found in sections not thought to benefit from records (entertainment) too

Record usage relates to longer interviewing time, regardless of topic
Interview Characteristics: Reporting Rates

- Number of expenditures ranged from 0 to 179 items
  - Mean = 29.4
  - Standard deviation = 17.5
Expenditure Amounts

- Total expenditure amount reported by each respondent ranged from $0 to $424,981
  - Mean = $5,180
  - Standard deviation = $8,566
Expenditure Amounts

- First quartile
- Second quartile
- Third quartile
- Fourth quartile

- Always
- Almost always
- Mostly
- Occasionally
- Almost never
- Never
Data Quality

Any type of editing required (imputation or allocation) was identified per expenditure report and summed across an interview.

Proportion of editing calculated

- Ranged from 0.0 (no editing required) to 1.0 (all reports required editing)

Forty two percent of interviews required no editing.

The mean proportion was 0.12, with a standard deviation of 0.16.
Summary

- Certain types of respondents (females, older, highly educated) and households (two person, homeowners) were more likely to use records.
- Respondents who reported receiving the advance letter, and used the Information Booklet were more likely to use records.
- Respondents who had to be convinced to participate were less likely to use records.
- Using records is related to longer interviews, more reports and higher reports…

… but…
Conclusions

...record usage was not consistently related to higher quality data quality.

So, what should we conclude?

- Record use likely increases respondent burden: is it worth it?
- Should we be collecting records rather than respondent answers?
- Is more really better?
Next Steps: Additional Analysis

- Existing data
  - Multivariate analysis: mitigating variables between data quantity and quality?

- New data
  - Section level record usage
  - Information about how respondents use records
  - What “always” vs. “almost always” means to interviewers
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