

# Self vs. Proxy Reporting in the Consumer Expenditure Survey

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# Framing the discussion

- Nature of the Survey Instrument Frames the Research Questions
  - Consumer Expenditure Interview Survey
    - Retrospective Recall
      - How to minimize response error related to long term recall?
  - Consumer Expenditure Diary
    - Completion
      - How to maximize participation by all members of the CU?
- With analytic unit (CU) in mind

# Note.....

We know little with respect to the quality of both self and proxy-based reports for the CE, so research aimed at reducing bias associated with proxy-based reports should not ignore the onerous task facing the self-reporter.

# Literature.....

- Moore: little support for the notion that self response generally better than quality of proxy reports
  - Exception: Turner's study of crime
- Alwin: Lower reliability for proxy reports
  - education, occupation, hours work
- CE Focus
  - Intra-Household Communication Study
    - Self proxy agreement: 63% of the time
    - Self response: more purchases and higher dollar amounts
  - JPSM Teen-Parent Study
    - 24 hour period: 85% agreement rate
    - Mean underreporting dollar amount: \$6.75

# CEI: Cognitive Processing Perspective

- Knowledge/Encoding
  - To what extent does the respondent/recorder have knowledge of the expenditure?
- Retrieval
  - To what extent can the respondent/recorder retrieve the expenditure?
- Reporting
  - To what extent is the respondent/recorder willing to report the expenditure?

# Focus on improving proxy reporting.....

- Understand under what conditions proxy reports are more consistent with self
  - Acquisition of the knowledge, richness of the encoded material
  - Relationship between self and proxy
  - Salient vs. mundane purchases; routine or rare occurrences
- Focus on question wording to improve retrieval strategies
  - Episodic vs. Estimation strategies



# ..or focus on improving overall quality?

- Expand the use of records
  - Usual and expected expenditures
    - Utility bills, mortgages/rent
    - Receipts
- Take advantage of longitudinal nature of CEI
  - Redesign of information book?
  - Inter-interview outreach
  - IVR “tagging” periodically throughout the 3 month period
- Incorporate Technology
  - Barcode readers
  - Smartphone Applications

# Diary...

- Multiple respondents per HH
  - Grootaert (1986)
    - Impact on personal item expenditures
    - Not necessary to get complete participation to be effective
  - Arbitron Radio Diary
  - BLS field study
    - Increase in the number of expenditure items
    - Increased dollar value of items
    - Lower RR; increased number of trips per complete

# Different problem, similar solution

- Expand the use of records
  - Grocery store receipts, restaurant, convenience stores
- Incorporate Technology
  - Barcode readers
  - Smartphone Applications



## Solutions demand full understanding of the problem

- **CEI: how effective is the bounding interview?**
  - To what extent do respondents understand that the use of records would reduce the burden?
- **CEI: what retrieval strategies do respondents use?**
  - Example: CEI as source of expenditures for gasoline
- **CED: what do we know about the communication of the diary to others in the CU?**
  - What reminders exist to help encourage reporting?
  - To what extent do interviewers stress the need for full participation?
- **CED: are there privacy issues within CU that suppresses reporting?**

# Cost:Error Tradeoff

- Presumptive Nature of Tradeoff Questions
  - Poorer quality data for proxy
    - Compared to benchmarks, CE underestimates expenditures. But is this a proxy problem? What do we know about CE quality for self reports?
  - Lower Response Rates
    - Nonreponse bias, not rates
    - Full participation may not be the key to improvement
  - Higher Costs
    - Only if implementing the same approach to field operations

## Burden: Redefine the task

- Examine source of expenditure for CPI and focus efforts within each instrument
  - Reduce Redundancies
    - “all other products, services, and expenses”
  - Divide and conquer: focus diary on “personal” expenditures/those for which diary provides input for the CPI and the CEI on household-level
    - CED: Food, personal care products & services, prescription and non-prescription drugs, housekeeping supplies, clothing
    - Grootaert findings

## Before making changes in the design, consider.....

- Conducting a series of ethnographic and/or observational studies to gather further information about the response process for self and proxy reports.
- Designing studies so as to assess measurement error for both self and proxy reports.
  - Example: partner with Nielson and use their Homescan data as a validation source.
- Expanding the 2006 experimental study of the individual CED.
  - Reduce redundancies between CU level CED and individual diaries.
  - Include non-response follow-up study to address the tradeoff between increased participation and changes in response rates

## With respect to design.....

- Redesign CED so as to capture receipts rather than requiring recording of information by hand.
  - Reduce the burden by pre-identifying common purchases that can be checked off rather than written in by hand.
- Experimenting with more aggressive requests for record keeping that involves all CU members during the first CEI interview.
  - Support and encourage record keeping through the use of outreach, including but not limited to postcards, IVR, email, and incentives.

# Technology.....

- Test the feasibility of incorporating technology in the CED
- If technology feasibility study is positive, consider altering the design of the CED
  - Longer reporting period.
    - Tradeoff between reduced costs of enrollment vs. increased length of time as a diarist. Examine diary fatigue
  - CEI and CED within the same CU
- Experiment with the use of technology for the CEI