

Is There a Trade-Off Between Quality and Cost?

**An Experiment Comparing Telephone vs. Face-to-Face
Responses to the National Beneficiary Survey**

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Introduction

- **Multimode designs are used to boost response rates while controlling costs**
- **Measurement error may occur if the mode affects the interview process**
- **This problem may be exacerbated with certain populations**



Mode Differences

- **Telephone and face-to-face interviews are similar in that both involve an interviewer**
- **The two modes are different in that face-to-face interviews:**
 - **Allow the interviewer to more readily develop a rapport**
 - **Make it easier to match pace, communication style**



Mode Differences (cont'd.)

- **Certain response errors may be more likely to occur in telephone interviews than in face-to-face interviews (Jordan et al. 1980; Jackle et al. 2010)**
- **Krosnick (1991) suggests that the greater the cognitive demand placed on respondents, the more likely they are to satisfice**
- **There is evidence that satisficing may be more pronounced among respondents with limited cognitive ability (Chang and Krosnick 2010)**



Research Question

- **Are there differences in the quality of data collected by telephone versus face-to-face in a study of persons with disabilities?**



National Beneficiary Survey

- **Sponsored by the Social Security Administration (SSA)**
- **Collects information from SSA beneficiaries on their health and well-being, service use, and employment**
- **45-minute, dual-mode survey (CATI/CAPI)**
- **In 2010, 8,038 cases were fielded, and 5,080 were completed**



Experiment Design

- **Randomized control design:**
 - **645 cases were randomly selected from the sample frame for CAPI-only treatment**
 - **The comparison group consisted of regular sample members who were interviewed by telephone**
 - Regular cases sent to CAPI were considered nonrespondents for this experiment
 - **Yielded 1,574 completed cases: 1,229 completed by CATI, and 345 completed by CAPI**
 - 73% = CATI response rate
 - 54% = CAPI response rate



Measures

- **Item nonresponse**
- **Social desirability**
- **Nondifferentiation**
- **Acquiescence**



Item Nonresponse

Individual Items	CATI Non-Response	CAPI Non-Response
Expects to work for pay next year	2.44%	1.45%
Expects to work for pay in the next five years	3.58%	4.64%
Race	5.37%	3.77%
Father's education	35.39%	32.17%
Mother's education	22.13%	19.42%
Respondent's weight	2.85%	2.32%
Household income*	30.68%	43.48%

* $p < .05$



Item Nonresponse (cont'd.)

Series of Items	CATI Non-Response	CAPI Non-Response
Awareness of SSA programs	4.56%	2.32%
Health insurance*	6.83%	1.45%

* $p < .05$



Social Desirability

Questions	CATI Response	CAPI Response
Goals include moving up (yes)*	51.43%	43.32%
Expects to work for pay next year (agree)	30.61%	25.59%
Expects to work for pay in the next five years (agree)*	48.35%	37.99%
Felt need to cut down on drinking (no)	84.60%	79.35%
Used drugs in past 12 months (no)	94.20%	95.94%

* $p < .05$



Social Desirability (cont'd.)

Question	CATI Response	CAPI Response
Household income	\$24,082	\$20,468



Nondifferentiation

Nondifferentiation in Response	CATI	CAPI
Yes	21.48%	20.58%
No	78.52%	81.09%



Acquiescence

Question	CATI Response (Yes)	CAPI Response (Yes)
Heard of Blind Work Expense	7.62%	5.56%
Heard of expedited re-instatement *	12.53%	8.50%
Heard of benefits specialist	20.12%	15.84%
Heard of Ticket to Work *	34.21%	26.61%

* $p < .05$



Conclusions

- **Data collection mode appears to have a modest effect on data quality for this population**

- **Compared to CATI respondents, CAPI respondents tended to exhibit:**
 - **About the same level of item nonresponse and nondifferentiation**
 - **Fewer socially desirable responses**
 - **Less acquiescence**



Conclusions (cont'd.)

- **Vague or demanding items in the telephone interviews showed the greatest drop in quality**
- **Results may reflect differences caused by the mode itself or characteristics of responders in each mode.**

For More Information

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