

Exploring monetary incentives and respondent burden in the Consumer Expenditure Interview Survey

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Outline

1. Burden research
2. Incentive research
3. Research Question
4. Data
5. Methodologies
6. Results
7. Limitations



How to measure burden?

- In recent CE studies of burden, (1) *respondents' views about survey length* and (2) *their interest in survey topic* correlates with their burden experience
- Fricker *et al.* (2015) emphasize taking increased efforts to promote respondents' interest in the survey

What is the role of incentives?

- Incentives are an effective method of increasing respondent's motivation and cooperation (Eyerman *et al.*, 2002)
- Hypothesized relationship:



Research Question

Does providing incentives decrease the amount of burden perceived by respondents?



Consumer Expenditure Surveys (CE)

Interview (CEQ)

- ▶ Large purchases and recurring payments
- ▶ 3 months recall
- ▶ Rotating panel
- ▶ 4 waves
- ▶ In-person and telephone surveys

Diary (CED)

- ▶ Smaller purchases
- ▶ Diary is placed for two weeks
- ▶ Respondents record expenditures

Data

- CE interview survey
 - ▶ from July 2016 to Sept 2017
- Incentive Field Test group (IFT)

- Burden questions were introduced in April 2017 and are asked in 4th wave
- Restricted to sample units who were eligible for Incentive Field Test (IFT) and completed burden questions
 - ▶ A total of 2,741 cases used

Group	Token	Survey	Record	Total
All	\$5	\$40	\$20	Up to \$65
No Token	No	\$40	\$20	Up to \$60
No Record	\$5	\$40	No	Up to \$45
Control	No	No	No	\$0



Data

Year	Month	Interview
2016	July	Interview 1
	August	
	September	
	October	Interview 2
	November	
	December	
2017	January	Interview 3
	February	
	March	
	April	Interview 4
	May	
	June	



**Incentives Test
(Offered only 1st
Interview)**



**Burden Question
(Asked in 4th
Interview)**



Data

■ Incentives vs No Incentives

Incentive		N=2,741
No Incentive	Control group	850
	Up to \$65	599
Incentives	Up to \$60	622
	Up to \$45	670

■ Burdened vs Not Burdened

“How burdensome was this survey to you?”			N=2,741
Not Burdened	1. Not at all		932
	2. A little		829
	3. Somewhat		661
Burdened	4. Very		205
	5. Extremely		114



Data

Demographic	Not Burdened	Burdened
N	932	1,809
Median Survey Length (minutes)*	54.88	60.45
Median Income*	\$34,354	\$48,800
Median Quarterly Expenditures*	\$9,039	\$11,643
Respondent's Education (%)*		
Less than High School	14.27	8.46
High School	26.29	20.12
Some College	22.00	20.40
Undergraduate	27.47	36.48
Postgraduate	9.98	14.54
* Statistically significant at $p < 0.05$		

- Other statistically significant differences
 - ▶ Housing Tenure (owner/renter)
 - ▶ Household size
- Demographics that were not statistically significant
 - ▶ Respondent's race
 - ▶ Respondent's sex
 - ▶ Respondent's age



Methodology

■ First Method - Average Treatment Effect (ATE)

▶ $ATE = E[Y_i(1) - Y_i(0)]$

Treatment Group	Burdened (%)	Not Burdened (%)	N
Incentives	63.6	36.4	1,891
No Incentives	71.3	27.7	850
Difference*	-7.7		

* Statistically significant with $p < 0.05$

■ Second Method - Conditional Average Treatment (CATE)

▶ $CATE = E[Y_i(1) - Y_i(0) | X_i = x]$

Results

■ Treatment Effect Estimates

Treatment	% difference	SE
ATE	7.7%	0.019
CATE	7.1%	0.019

- ▶ CATE was smaller but qualitatively similar to ATE
- ▶ Both were statistically significant at $p < 0.05$

■ Respondents were less likely to report being burden if incentives were offered

Limitations

- CE's burden questions may not accurately measure respondent burden
- Time gap between the event of interest (incentives, 1st wave) and the burden question – 9 month time gap
- Data consists of respondents who completed their 4th wave



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