

Monetary Incentives in the Consumer Expenditure Interview Survey: An Assessment of Data Quality

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Outline

- I. Background
- II. Study Design
- III. Analysis
- IV. Conclusions
- V. Next Steps

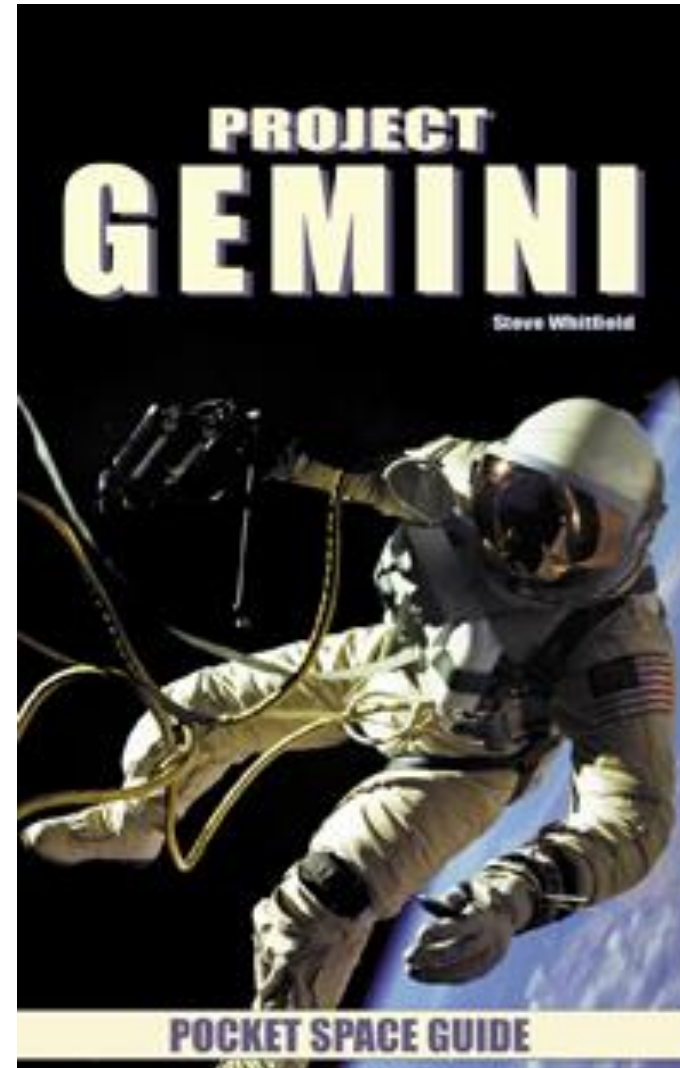


I. Background



Gemini Redesign Project

- “... is the multi-year redesign project for the purpose of researching, developing, and implementing an improved survey design to improve data quality through a verifiable reduction in measurement error.”

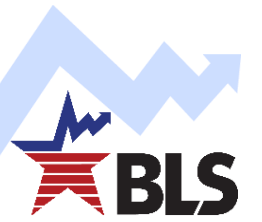


Incentives Test - Background

- Study objectives included developing a plan for -
 - ▶ Operationalizing & implementing incentives
 - ▶ Researching & recommending incentive amounts
 - ▶ Proposing incentive distribution procedures, including procedures to capture respondents that generally do not respond to classic incentives
 - ▶ Analyze test data to make a recommendation regarding incentive implementation
- Past CE incentives research -
 - ▶ Gemini Incentive Structure Review: Summary of Incentive Experiences
 - ▶ CE incentives operational summaries
 - ▶ CE Interview Incentives Test Report
 - ▶ CE Diary Incentives Test Report



II. Study Design



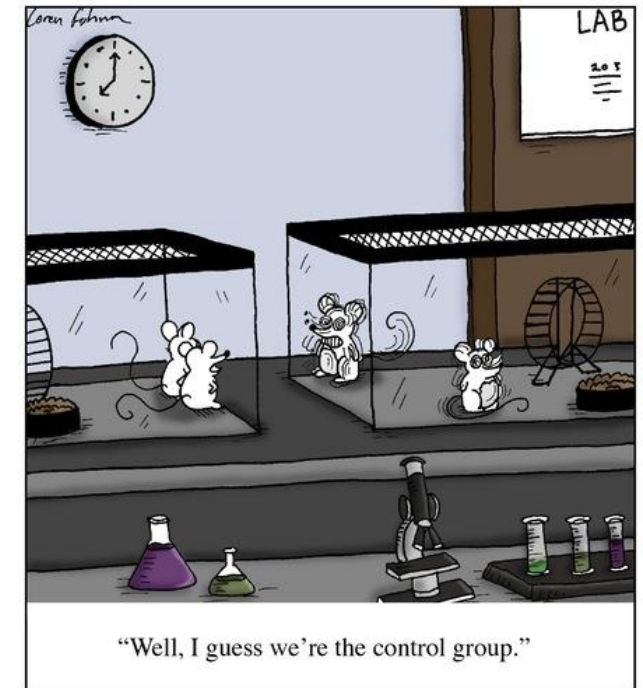
Incentives Test - Overview

- Test Information and Conditions:
 - ▶ July 2016 – March 2017 Experiment
 - ▶ First Interviews
 - ▶ Test Sample Size: 1,350 per treatment group
 - ▶ Control Sample Size: 1,950
 - ▶ Conditional and unconditional incentives



Incentives Test – Treatment & Control Groups

Treatment and Control Groups			
	\$5 Token Incentive (unconditional)	\$40 Survey Incentive (conditional)	\$20 Records Use Incentive (conditional)
All	\$5	\$40	\$20
No Token	None	\$40	\$20
No Record	\$5	\$40	None
Control (1 st Interviews)	None	None	None



III. Analysis



CE Data Quality Indicators

- Response rate
- Total expenditures reported
- Number of expenditures
- Mode – collection level
- Records usage
- Number of contact attempts
- Doorstep concerns
- Converted refusal
- Length of interview



Incentives Test Analysis – Response Rate

Response Rates, First Interview	
	Difference (Treatment Minus Control)
All	4.6 % points
No Token	1.4 % points
No Record	5.0 % points

Response Rates, Second Interview	
	Difference (Treatment Minus Control)
All	5.0 % points
No Token	3.2 % points
No Record	5.1 % points



Incentives Test Analysis – First Interview Total Expenditures Reported

Number of Expenditures, First Interview		
	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All	-\$124.00	-\$97.32
No Token	-\$67.00	+\$1,305.29
No Record	+\$86.00	+\$48.24



No significant differences.



Incentives Test Analysis – Second Interview

Total Expenditures Reported

Number of Expenditures, Second Interview

	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All	+\$85.00	-\$426.60
No Token	+\$446.50	-\$833.66
No Record ¹	+\$295.00	+\$229.51



1. Indicates significant difference from Control Wilcoxon-Mann-Whitney; Z= 2.11, Pr>Z 0.035.

Incentives Test Analysis – Number of First Interview Expenditures

Number of Expenditures, First Interview

	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All	+1.0	+1.1
No Token	+1.0	+1.2
No Record	+1.0	+1.0

No significant differences.



Incentives Test Analysis – Number of Second Interview Expenditures

Number of Expenditures, Second Interview		
	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All	+1.0	+1.6
No Token ¹	+1.5	+2.2
No Record ²	+1.5	+2.4



1. Indicates significant difference from Control Wilcoxon-Mann-Whitney; Z= 2.36, Pr>Z 0.018.

2. Indicates significant difference from Control Wilcoxon-Mann-Whitney; Z= 2.66, Pr>Z 0.008.

Incentives Test Analysis – Mode of Collection

Difference in Mode of Interview (Treatment Minus Control)

	Telephone	In-Person	Mix
All	-5.4 % points	4.5 % points	0.9 % points
No Token	-4.4 % points	4.2 % points	0.2 % points
No Record	-1.8 % points	1.7 % points	1.1 % points



Incentives Test Analysis – Records Usage

Records Usage	
	Difference (Treatment Minus Control)
All	29.6 % points
No Token	29.3 % points
No Record	14.3 % points



Incentives Test Analysis – First Interview Contact Attempts

Median and Mean Number of Contact Attempts, First Interview

	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All	0.0	-0.2
No Token	0.0	-0.4
No Record	0.0	-0.3

No significant differences.

Incentives Test Analysis – Second Interview Contact Attempts

Median and Mean Number of Contact Attempts, Second Interview

	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All	0.0	0.2
No Token	0.0	-0.3
No Record	0.0	-0.3

No significant differences.

Incentives Test Analysis – Doorstep Concerns: All Responders

Doorstep Concerns (Treatment Minus Control)				
	Not Interested/Hostile	Time	Privacy	Other
All	-2.1 % points	-5.9 % points	-5.5 % points	0.6 % points
No Token	1.8 % points	-5.2 % points	-0.1 % points	1.0 % points
No Record	-4.2 % points	-3.0 % points	-2.9 % points	-1.2 % points



Incentives Test Analysis – Doorstep Concerns: Non-Responders

Doorstep Concerns (Treatment Minus Control)				
	Not Interested/Hostile	Time	Privacy	Other
All	1.1 % points	-6.9 % points	-1.2 % points	-0.8 % points
No Token	5.0 % points	-6.6 % points	2.5 % points	0.6 % points
No Record	2.2 % points	-0.6 % points	1.2 % points	-2.6 % points



Incentives Test Analysis – Converted Refusal

Converted Refusals	
	Difference (Treatment Minus Control)
All	-3.3 % points
No Token	-0.9 % points
No Record	-3.4 % points



Incentives Test Analysis – Length of Interview

Total Survey Time		
	Difference in Medians (Control group baseline)	Difference in Means (Control group baseline)
All ¹	2.6 minutes	2.9 minutes
No Token ²	5.5 minutes	3.0 minutes
No Record	0.9 minutes	3.2 minutes



1. Indicates significant difference from Control Wilcoxon-Mann-Whitney; $Z= 1.97$, $Pr>Z$ 0.049.

2. Indicates significant difference from Control Wilcoxon-Mann-Whitney; $Z= 2.12$, $Pr>Z$ 0.027.

IV. Conclusions



Incentives Test - Conclusions

- Increase in response rates
- Increase in expenditures
- Decrease in contact attempts
- Increase in records use
- Decrease in converted refusals
- Increase in interview time

- What does this all mean?



V. Next Steps



Incentives Test – Next Steps

- Continue analysis of expenditure data focusing on imputed expenditures
- Determine impact on respondent burden
- Analyze cost effectiveness



Incentives Test – Next Steps

- Are incentives right for CE?
- What amount is the right amount?
- Are token incentives cost effective?
- What is the most impactful way to distribute incentives?



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