Encouraging Early Participation in a Lengthy Survey That Collects Sensitive Personal Data:
Do Large Monetary Incentives Make a Difference?

Catherine Haggerty[1], Shannon Nelson[1], Kate Bachtell[1]
Steven Pedlow[1], Becki Curtis[1], Anna Joyce[1], Joanne Hsu[2], Maximilian Schmeiser[2], and Kevin Moore[2]
[1]First through Sixth Author's Affiliation, NORC, 55 E. Monroe, Chicago, IL 60603
[2]Seventh through Ninth Author's Affiliation, FRB, 20th and C Streets NW, Washington, DC 20551

Abstract
Every three years the Survey of Consumer Finances (SCF) is conducted to collect personal income and family finance data from a national area probability and list sample with a lengthy and complex survey instrument. The survey uses monetary incentives to encourage participation; unplanned increased incentives have been employed in an attempt to hasten the end of the field period. Since 2004 the field period had to be extended to reach both the targeted response rate and targeted number of completed cases.

During the last quarter of 2014 NORC conducted an experiment on behalf of the Federal Reserve Board to determine if offering larger incentives would encourage early participation among sample members in Census tracts with income in the top quintile in Miami, Los Angeles and New York. The study was presented to respondents in the same way as it would be during a normal triennial SCF, except half of the respondents received a $5 bill with their initial letter. Three hundred randomly selected addresses in each city were randomly assigned to one of three initial incentive groups: $50, $100, and $150. Each incentive group was split into two additional second phase treatments: an escalated ($75, $150, and $250) or the same incentive offer to those respondents who initially refuse to participate.

We present data on the effectiveness of pre and post-paid incentives in encouraging early participation in a high burden survey with respondents in higher income communities. These data will be of great interest to survey professionals and those funding surveys who are struggling to achieve and maintain high response rates.

Key Words: Monetary incentives, prepayment, lengthy survey, sensitive data

1. Background

Sponsored by the Board of Governors of the Federal Reserve System the Survey of Consumer Finances is conducted every three years to develop a profile of American families and their household finances. The survey uses a dual frame sample which

consists of a national area probability sample and a list sample which includes an oversample of the wealthy. The survey collects detailed information about assets, liabilities, employment and retirement benefits. Many of the survey questions are difficult and burdensome for respondents to answer both because they are sensitive and they often require consultation of financial records. The survey is lengthy; it takes 75 minutes, on average, to complete.

While many surveys have experienced declining response rates, the SCF has maintained a response rate just under 70 percent for more than two decades. However, since 2004, we have had to extend the period of data collection to complete the requisite number of completed interviews. The SCF has offered incentives to encourage participation and escalated payments toward the end of the field period to help hasten the end point. However, the use of escalated incentives has not been planned in advance. We now seek to understand how the use of higher incentives may improve early participation and how the use of an escalation strategy might shorten the length of our field period. We identified three research questions:

1. Will a small prepayment influence higher income households to participate early?

2. Will larger incentives persuade higher income households to participate early in a lengthy survey about family finances?

3. Would a quicker escalation strategy with a higher incentive convince more people to participate sooner, thus shortening the field period?

This paper provides a short description of an experiment conducted in 2014 and summarizes the findings from that experiment. A more robust description of that experiment and findings are described elsewhere (Hsu et.al. 2015). The main focus of this paper is the presentation of analyses undertaken using data from the experiment comparing the households in the 2014 SCF Experiment to the 2013 SCF Triennial.

2. Experiment

We designed this experiment to answer the aforementioned research questions. We planned this experiment in the year after the 2013 triennial SCF in order to ensure our experimental protocols were as similar as possible to a normal triennial SCF. There were a few differences between our experimental SCF and a normal SCF which are depicted in Table 1.

Table 1. Differences between the Triennial SCF and 2014 Experimental SCF

Features	Triennial SCF	2014 SCF
Sample	National area probability and list	80th percentile for income in three metro areas
Instrument content	Assets, liabilities, income, retirement savings, demographics	Income, demographics
Average instrument length	75 minutes	10 minutes
Field period (scheduled)	8.5 months	2 months

Sample members in the top 80th percentile for income in major metropolitan areas present the greatest challenge; therefore, that group was the focus of the experiment. We chose three major metropolitan areas: New York, Miami, and Los Angeles and selected a sample of census tracts that had median incomes in the top quintile. Within each of these three metropolitan areas, three hundred households were selected using address-based sampling via a postal address database. We tested the use of a $5 prepaid incentive by including a five dollar bill in half of our advance letters mailed via US post. We also tested larger post-paid incentives in amounts ranging from $50 - $250, with three incentive groups, using an initial amount (Phase I) and then a follow-up amount (Phase II) that was either the same as the initial offer or an increased amount. Households advance to Phase II at the point at which they refused to participate. The incentive structure is depicted in Exhibit 1.

Exhibit 1. Escalation Strategy for 2014 Incentive Experiment
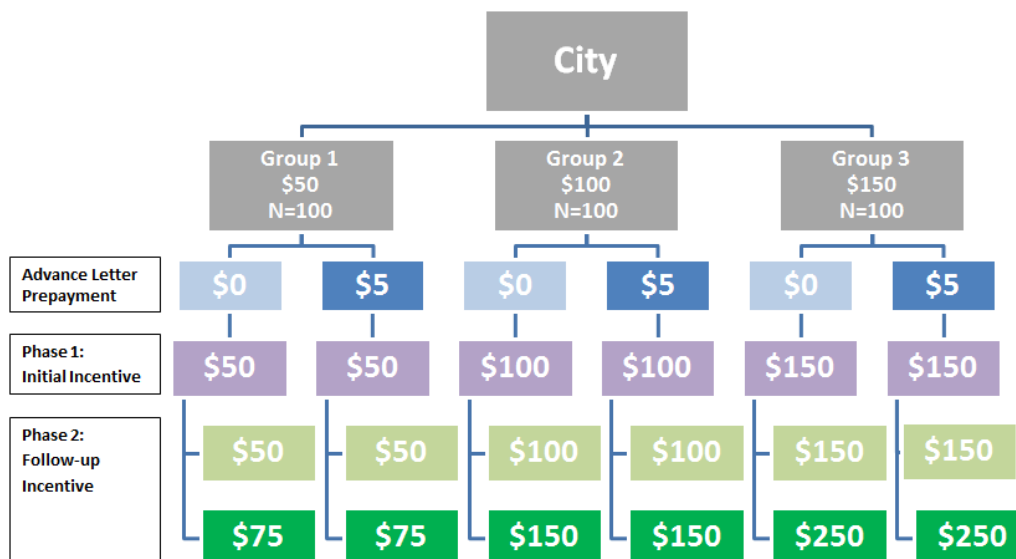
The data collection resulted in 245 completed interviews; 220 were completed during Phase I and 25 were completed in Phase II. Table 2 shows the distribution of completed and refused cases across the three incentive groups and two data collection phases.

Table 2. 2014 Incentive Experiment Results by Subgroup

	Group 1 $50 n=100		Group 2 $100 n=100		Group 3 $150 n=100		All
Phase 1: Initial Incentive							
	$50		$100		$150		Total
Completes	67		75		78		220
$0 Prepayment	30		38		32		100
$5 Prepayment	37		37		46		120
Phase 2: Follow-up Incentive							
	$50	$75	$100	$150	$150	$250	Total
Completes	2	5	3	7	5	3	25
$0 Prepayment	2	4	1	2	3	2	14
$5 Prepayment	0	1	2	5	2	1	11
Refusals	13	13	17	12	8	10	73
$0 Prepayment	4	2	9	4	5	7	31
$5 Prepayment	9	11	8	8	3	3	42

The experiment revealed that a prepaid $5 incentive increased participation in the SCF. Only the $150 group had a statistically significant difference in participation than the $50 group. The $150 and $100 groups were more likely than $50 to result in a live contact in New York and Los Angeles. Access to those in locked buildings and gated communities in Florida was not improved by offering large incentives (Hsu et.al. 2015).

3. Analysis of Early Responders

Offering pre-paid incentives and higher post-paid incentives were meant to encourage early participation but the Experiment did not yield as many completed interviews as we had hoped it would. An important reason for conducting the experiment was to determine if offering higher incentives would motivate households with higher incomes to participate earlier in the field period. While our experiment included only those households living in Census tracts in which the median income was in the top quintile, it is important to point out that there is a broad range of incomes within the top quintile group. We were curious about the characteristics of the households that completed an interview in the Experiment: How were they similar or different from those who participated early, in the middle, or toward the end of the field period during a regular triennial survey? To better understand the outcome of the Experiment and the impact of using higher incentives we examined and compared data from the 2013 SCF triennial and the 2014 SCF Experiment.

To facilitate a comparison of the 2013 SCF triennial and the 2014 SCF Experiment, we isolated from the 2013 SCF triennial dataset only those respondents who were living in Census tracts with a median household income in the 80th percentile nationwide. We then identified three groups within this subset of data:

- Early participants: participated between April 16 - July 29, 2013

- Middle participants: July 30 - November 18, 2013

- Late participants: November 19, 2013 - March 14, 2014

Our analyses of these three groups included simple descriptive statistics (unweighted) for key demographic and economic characteristics and included tests of significance comparing:

1. Early SCF 2013 respondents

2. Middle SCF 2013 respondents

3. Late SCF 2013 respondents

4. 2014 Experiment respondents

First we look for the characteristics of early and late responders to the 2013 SCF. In this and the subsequent tables we have highlighted the significant findings in light orange and use letters **a** through **c** to denote that a given result is significantly different from:

a: Early responders (participated between April 16 and July 29, 2013)

b: Middle responders (participated between July 30 and November 18, 2013)

c: Late responders (participated between November 19, 2013 and March 14, 2014)

Table 3. Characteristics of 2013 AP Respondents in Upper-Income Places (unweighted)

Characteristics of 2013 SCF AP Respondents in Upper-Income Places (unweighted)	Early Responders		Late Responders	
	Figure	SD	Figure	SD
Respondent Characteristics:				
Female (percentage)	48.4%	n/a	43.3%	n/a
Age (mean in years)	52.5[c]	15.3	48.5[a,b]	11.5
College degree (percentage)	55.5%[b,c]	n/a	71.7%[a,b]	n/a
Married (percentage)	60.2%[b,c]	n/a	73.8%[a,b]	n/a
Employed (percentage)	66.2%[b,c]	n/a	80.1%[a,b]	n/a
Household characteristics:				
Total members of household (mean)	2.74[c]	1.50	3.03[a,b]	1.40
Total HH income (median USD, 2012)	$73,666[b,c]	$356,006	$84,550[a,b]	$187,719
Unweighted N without implicates	564		95	

How do the characteristics of the early responders compare to the 2013 SCF triennial? The following describes the key findings when comparing early and late responders (the **a**'s and the **c**'s).

- Age: Early responders tend to be older. They have a mean age of 52.5 years, which is significantly different from late responders, who have a mean age of 48.5 years.

- College degree: Just over half, 52.5%, of early responders have a college degree. This is significantly less than the 71.7% observed among late responders.

- Married: Early responders are less likely to be married than middle and late responders, though the majority of respondents are married in all three groups.

- Employed: Early responders are less likely to be employed than the other two groups (though, again, the majority in all three groups *are* working).

- Total HH income: Finally, early responders earn significantly less than middle and late responders; they have a median household income of around $74,000 (vs. $99,000 and $85,000 for middle and late responders, respectively).

On the whole, early responders are more likely to be retirees, less educated, unemployed, unmarried, and lower-income. Conversely, what are the characteristics of the late responders? Generally they are more likely to be working-age, college-educated, married, and have higher incomes than early responders.

Next we examines the characteristics of the respondents from the 2014 Experiment, the significant findings in this table are also highlighted in light orange, see Table 4 below. Note that the 2014 SCF Experiment had a very short field period of only two months. If the incentives influenced participation we would expect the SCF 2014 Experiment respondents to look different than the early responders from the 2013 SCF triennial.

Table 4. Characteristics of 2014 Experiment Respondents (unweighted)

Characteristics of 2014 Experiment Respondents (unweighted)	All Respondents	
	Figure	SD
Respondent Characteristics:		
Female (percentage)	39.7[a]	n/a
Age (mean in years)	53.4[c]	14.0
College degree (percentage)	72.5[a b]	n/a
Married (percentage)	67.1	n/a
Employed (percentage)	68.8[c]	n/a
Household characteristics:		
Total members of household (mean)	3.1[a b]	1.5
Total HH income (median U.S. 2012 dollars)	$103,376[a c]	$246,272
Unweighted N	247	

3.1 Findings
We found the following differences between the 2014 SCF Experiment respondents and the 2013 SCF Triennial respondents:

- Female: In the experiment we found a lower percentage of women responding than among the early 2013 responders (39.7% vs. 48.4%, respectively).

- College degree: The percentage of respondents with a college degree is higher here than among any of the 3 groups from the 2013 SCF, with significant differences between the experiment and early and middle responders.

- Total HH income: Finally, we find that the experiment respondents earn significantly higher incomes than all of the 2013 groups. They have a median of $103,000 vs. $82,000 among all 2013 respondents.

3.2 Discussion

Early responders tend to be retirees, unemployed, less educated and lower-income respondents. Late responders tend to be working-age, college-educated, married people with higher incomes than early responders. With increased incentives, we reached a higher percentages of male, college-educated, wealthy respondents during a short period. This finding supports the use of higher incentives on the 2016 SCF in order to hasten the end of data collection and to ensure that we do not exclude from participation those respondents with characteristics that are important to the research undertaken with the SCF data.

3.3 Next Steps

Our logical next step is to rule out the possibility that the differences we observe in the 2014 Experiment are due to regional factors. To compare the 2014 SCF Experiment respondents to 2013 SCF triennial respondents who may be more like those included in the experiment we will isolate the 2013 SCF respondents in the three cities that were the focus of the 2014 Experiment.

Additionally, we will test to see if the differences we observe hold up when controlling for other factors. To do this, our analyses will include logistic regression or other multivariate techniques.

Reference

Hsu, Joanne, Maximillian D. Schmeiser, Catherine Haggerty and Shannon Nelson. 2015. The Effect of Large Monetary Incentives on Survey Completion: Evidence from a Randomized Experiment with the Survey of Consumer Finances. American Association for Public Opinion Research, 70th Annual Conference, Hollywood, Florida.