Contacting Strategies and Incentives during the Field Period: Evidence from the SCF

Jesse Bricker[1], Micah Sjoblom[2], Richard Windle[1]
[1]Federal Reserve Board, 20th and C Street, NW, Washington, DC 20551
[2]NORC at the University of Chicago, 55 E. Monroe Street, 20th Floor, Chicago, IL 60603

Abstract

In order to maximize participation in the Survey of Consumer Finances (SCF), the base monetary incentive offer is increased during the field period for many reluctant families. About 25 percent of responding SCF families accepted a monetary incentive that was larger than the $50 base incentive. Though the benefits and costs of offering a base monetary incentive are well-studied, the impact of then offering an increased incentive is less well-known. This paper focuses on how these increased incentive offers influenced participation in the 2013 SCF after factoring in, among other things, how the case had been worked up to that point.

The results shown here indicate that the increased incentive offer increased participation for families that are least likely to participate in the survey (as rated by field staff), and amongst families in high-income areas. A high level of data quality is maintained even with increased incentives. Finally, the data shows a burst in participation in the week after the increased incentive offer is made which quickly fades in subsequent weeks.

Key words: incentives, refusal conversion, paradata

1. Introduction

Gaining cooperation is often a challenge in conducting the Survey of Consumer Finances (SCF), and a considerable amount of effort is expended in these efforts. Each family is introduced to the survey by an in-person visit from a field interviewer. These field staff come prepared with knowledge from a one week training course, specially written letters designed to address specific respondent concerns, a $50 base incentive offer for participation in the SCF, and their personal knowledge of conversion.

However, these tools do not always ensure participation and eventually enhanced conversion tools are used. In particular, after week 16 of the 2013 SCF field period, the offered incentive amount could be increased to a level greater than $50. Increasing the monetary incentive is a potentially expensive appeal, so examining how this increase affects completion rates, particularly in groups defined by data available before the offer is made, could help field staff better target and use this tool.

This analysis will describe how much effort was expended in the 2013 SCF in gaining cooperation, if there are identifiable groups for which the increased incentive is particularly effective, and if families that took the increased incentive gave poorer-quality data.

In the 2013 SCF, a lot of effort was spent pursuing cases that were offered an increased monetary incentive. Often, this effort was unfruitful, as these families never participated in the 2013 SCF.

Ideally, our post-hoc analysis would be able to find groups for which the increased offer was particularly effective and one such group jumps out: the group of cases that were judged to have a low probability of completing. We estimate that the participation rate was at least nine percentage points higher for those families. However, a close examination of other record-of-call data shows little difference in the observable interactions among (eventual) participants and non-participants who were offered an increased monetary incentive.

A worry with using increased incentives is that respondents will be less concerned with accuracy when offered more money. However, 2013 SCF families that accepted an increased monetary incentive provided equally-good data as families that participated and received the base incentive.

2. Background

The primary data are from the 2013 SCF.[1] The SCF is conducted every three years, and gathers detailed information on the finances of U.S. families, including household assets, debts, income, and demographic information. The current form of the survey has been used since 1989. The study is sponsored by the Federal Reserve Board and, since 1992, has been conducted by the NORC at the University of Chicago.

The SCF combines a geographically stratified and nationally-representative area probability (AP) sample and a list sample (LS) that oversamples households that are likely to be wealthy. The AP sample is drawn by NORC at the University of Chicago and provides a nationally-representative sample of families.[2] The LS is drawn by FRB staff. This analysis focuses on AP families only. Most LS families are very wealthy and LS case work begins later in the field period; the differences in reasons for participating in the SCF may be very different for these families.

An incentive offer is sent to all sampled AP addresses and to sampled families in strata one and two of the LS. In early April these families receive a mailing with a letter describing the project, an incentive offer, a brochure about the survey, and a letter from the current Federal Reserve chairman asking for the family's cooperation. In 2013 the incentive offer was $50. Each respondent will receive at least one in-person visit from a trained field interviewer, often to explain the purpose of the SCF and to gain cooperation.[3] Field interviewers are free to discuss the incentive offer when contacting the AP families and the LS families in strata one and two.

The SCF questionnaire is very detailed and can be time-consuming for the respondent. The median length of an SCF interview is nearly 90 minutes, and families with complicated

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[1] See Bricker, Dettling, Henriques, Hsu, Moore, Sabelhaus, Thompson, and Windle (2014) for more information on the 2013 SCF.

[2] See O'Muircheartaigh, et al (2003) and Tourangeau, et al (1993) for more information about the NORC national sample.

[3] However, about half of SCF interviews are completed over the telephone.

finances can be engaged with the survey for more than two hours. The SCF deals with issues that are technical and private. Accordingly, gaining cooperation is often difficult.

The SCF contracting strategy is broken down into three phases. During phase one, the interviewer introduces the study, attempts to build trust, and offers the respondent a $50 incentive to participate. During phase two, the traditional contacting strategy is continued, but the interviewer has increased options and incentives may be increased. During phase three, the interviewer is encouraged to pursue any effort that they believe will help gain compliance. At the discretion of the interviewer and field manager, incentives offered to each respondent could be anywhere from $50 to $300.

The field period for AP cases begins in April, shortly after tax filings are due. Beginning in week 16 of the 2013 field period, field staff are authorized to increase monetary incentives to $100; in week 28 they are authorized to offer up to $200, and in week 42 they are authorized to offer up to $300.

Field interviewers also record the details of their case work in the "record of calls" (ROC) database; from these data we can measure the outcome of the contact (through a disposition code), the number of times that an interviewer attempted to contact a respondent, and identify dates that increased incentive offers were given, and identify when other refusal conversion techniques are used.[4]

Though ROC data allow us to see a summary of each contact attempt, there are many facets that cannot be adequately summarized in the disposition code. Thus, for most ROC entries, the field interviewer must also answer the question: "What is the likelihood of completing this case?" with the 5-point scale: very unlikely, somewhat unlikely, neither likely nor unlikely, somewhat unlikely, very unlikely. With this rating, we can attempt to proxy for unobservable factors that may be correlated with participation (Kennickell (2012), Eckman, et al (2013)).

Each interviewer is trained to use the ROC software and taught the protocol for entering contact data. However, despite these best efforts, ROC data are sometimes entered selectively (Biemer, Chen and Wang, 2011; Kennickell, 2012).

3. Literature Review

The intent of offering a base incentive is to increase survey participation across a wide range of families and thereby potentially reducing non-response bias. For example, families who might place a premium on their time and are unwilling to give it away for free, or those unmotivated by other intangible benefits of participation (Singer, 2002).

In leverage-salience theory, certain survey design attributes have different levels of leverage over a respondent. Their effectiveness depends on how salient such attributes are made by the survey and the field staff. Incentives, topic, and sponsorship can all affect

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[4] These contacts run the gamut from an in-person chat with the respondent, to talking to the respondent's neighbor, to leaving a voicemail with the respondent, to a refusal. As in Dutwin et al (2014), we also take the term "refusal" to mean soft refusals, as well as other "more ambiguous" reasons for non-participation.

respondents to varying degrees and in some cases, an attribute that might encourage participation by one respondent could discourage it for another (Groves, et al, 2000).

However, other literature does confirm that incentives increase participation in general, across demographic groups (Church, 1993, Shettle & Mooney, 2000, Singer 2002). So, while incentives might have different effects on different people, it seems that, on average, across groups it does serve as a positive in gaining compliance. Evidence for this positive effect of incentives has been found in studies of the SCF itself. The initial $50 offer saved 3 contact attempts compared to an offer of $0 dollars (Bricker, 2014).

The literature cited above are examples of incentive used to avert a refusal, but incentives are also used to convince reluctant families to participate in a survey (Dutwin, et al, 2014). The same level of monetary incentive has different effects on different types of families (Trussell and Lavrakas, 2004), so increasing the monetary incentive amount for a reluctant group is sensible. However, there are ethical concern in the research community about these increased incentives and there is far less research on their impact on participation (Dutwin, et al, 2014).

To help fill in the gap, the remainder of this paper will focus on the families in the 2013 SCF that were offered an increased monetary incentive, some of whom accepted the increased monetary incentive before agreeing to participate in the SCF.

4. Results

A lot of effort is expended to complete the SCF. On average in the 2013 SCF, families that completed were attempted to be contacted 12.5 times; 5.2 of these contact attempts resulted in information being successfully left for the respondent (table 1). Families that did not participate were attempted to be contacted 16.8 times; there are about three more unsuccessful contact attempts and one fewer successful contact attempt with this group.

Table 1. Mean # contact attempts, contact types, by participant in 2013 SCF

	Eventually participate	Never participate
Total	12.5	16.8
Successful contact	5.2	4.2
Unsuccessful contact	3.5	6.5
Refusal	0.3	1.6
Non-human contact	0.9	2.2
Other - admin	2.6	2.3

AP cases only; 2013 SCF.

Table 2 displays the contact attempts for families that were not categorized as a final refusal or a final complete by week 16; this is the set of families that is eligible for an increased incentive offer. Here, the mean number of contact attempts for households that completed

the survey after being offered an increased incentive is 25.3, whereas the mean number of contact attempts for those who never completed the survey, even after being offered an increased incentive, is 25.7, virtually identical.

In general, the number of contact attempts before and after the offer are also similar. Prior to the incentive offer, the families that eventually participate were attempted to be contacted 16.1 times, while those that never agree to participate were contacted 15.4 times.

Both sets of families appear equally difficult to contact, as the number of unsuccessful contacts is 5.7 and 5.9 for eventual participant and non-participants, respectively, and number of refusals is also similar across the two groups (1.2 and 1.6, respectively). However, field staff were able to successfully contact the families that eventually participate more often than the families that ultimately never participated.

Even after the first increased incentive offer is made, the number of contact attempts for families that did not participate is only slightly higher than the number of contact attempts for families that participated (10.4 to 9.2).

Table 2. Mean # contact attempts, contact types, by participant in 2013 SCF

	Offered increased incentive	
	Eventually participate	Never participate
Total contact attempts	25.3	25.7
Before incentive offer	16.1	15.4
Successful	5.6	4.3
Unsuccessful	5.7	5.9
Refusals	1.2	1.6
Non-human	2.6	2.4
Other - admin	1.0	1.2
After incentive offer	9.2	10.4

AP cases only, alive in week 16;

Though ROC data allow us to see a summary of each contact attempt, there are many facets of each contact attempt that cannot be adequately summarized in the disposition code of the attempt. The interviewer-rated likelihood of completion allows us to proxy for these unobservable interactions in each contact attempt. As of week 16, we will take the average of each rating and divide families into those with a Low likelihood (those predominantly rated unlikely), High likelihood (those predominantly rated likely), and Agnostic likelihood (those predominantly rated neither likely nor unlikely).

Relative to families that will eventually participate, a greater fraction of cases that will never participate in the SCF are rated as Low (table 3). And, at 24 percent, the average participation rate is lowest for cases rated Low, while participation is highest among cases rated High, at nearly 60 percent (bottom row, table 4). These interviewer ratings, then, appear to be able to effectively rate the probability of eventual survey participation.

Table 3. Share in each likelihood
group, by completer

	Offered increased incentive	
	Eventually participate	Never participate
Low probability (at week 16)	19	29
Agnostic probability (at week 16)	63	59
High probability (at week 16)	18	12
(Total)	(100)	(100)

AP cases only, alive in week 16

Correlating receipt of an increased incentive offer and participation in the SCF is seen through the basic regression model in equation (1):

$$(1)\ participate = X\beta + \varepsilon$$

If X is the vector consisting of a dichotomous variable for receipt of increased incentive, the OLS model will identify differences in means between those with such an offer and those without. A basic assumption of the OLS model, though, is $\text{cov}(X,\varepsilon) < 0$ (unobservable determinants of participation are uncorrelated with observables). This is unlikely to hold in practice here: the families that get the increased incentive offer probably have unobservables that make them less likely to participate. An OLS regression will yield a lower bound on the true β:

$$E\left[\hat{\beta}^{OLS}\right] = \beta + \text{cov}(X,\varepsilon),\ \text{where}\ \text{cov}(X,\varepsilon) < 0.$$

Families with low unobserved reasons for participating are also families that might be those most tempted to participate from a higher incentive offer. The repeated visits and non-pecuniary motives (altruism, social responsibility, or survey topic) do not appear to drive these respondents, while a higher monetary incentive might appeal to their norm of social reciprocity.

Among families with a Low likelihood of participating, the increased incentive offer appears to enhance the likelihood of participating in the SCF (table 4). Families with a Low rating and an increased incentive offer were nine percentage points more likely to participate than were the Low families without an increased incentive offer. Twenty-four

percent of the families in the Low group and active in week 16 eventually participated in the SCF, meaning the magnitude of the 9 percentage point increase is relatively large (especially considering it is a lower bound).

Table 4. Correlation between participating and receiving increased incentive

	Likelihood of completion (week 16, interviewer-reported)		
	Low	Agnostic	High
Increased offer	0.090	-0.052	0.005
	(0.026)	(0.023)	(0.046)
Number of... Successful contacts prior to week 16	0.014	0.025	0.028
	(0.009)	(0.005)	(0.008)
Refusals prior to week 16	-0.043	-0.045	-0.060
	(0.013)	(0.011)	(0.024)
Obs.	1154	1980	487
Mean complete	0.24	0.41	0.56

AP cases that were in play as of week 16. Std. error in (). Model also includes refusal conversion letter dummy, number of unsuccessful contacts, number of non-human contacts, tract median income; all variables are fully interacted with receiving an increased incentive offer. Marginal effects from this model reported above.

In addition to the increased incentive variable, the matrix X in equation (1) also includes variables for refusal conversion letter dummy, number of unsuccessful contacts, number of non-human contacts, tract median income; all variables are fully interacted with receiving an increased incentive offer.

Since this data was not collected in a controlled experiment, an assumption must be made that the control variables work and the unobservables that predict completion are uncorrelated with the increased offer dummy variable. This is probably a reasonable assumption once the sample is divided into the Low, Agnostic, and High groups. If the interviewer can encapsulate the unobserved reasons for completion in their rating then "like" families--some of whom got incentives and some who did not—are being compared.

The point estimates for the Agnostic and High groups are either negative or close to zero. Because these estimates are lower bounds, though, we cannot make meaningful comments on them.

The group who completed the survey for an increased lived in higher-income areas than those that participated with a base incentive (table 5). The increased incentive seems to have improved response rates amongst higher income households. Though the difference is small, it might prove somewhat significant, and possibly warrants further study.

Table 5. Mean Census Tract income, by increased incentive

	$50 base	Increased incentive
Median Census Tract income (thous.)	57	60
Pct. in high income Census Tract	11.6	12.9

AP cases only, alive in week 16

At the end of the SCF, field interviewers also record whether the respondent used documents during the interview and their personal assessment of the level of suspicion the respondent displayed both before and after the interview. Whether or not a respondent chooses to use documents to complete the survey can be used as a proxy for how concerned the respondent is with providing accurate information.

There are no significant differences in the data quality of cases where an increased incentive was offered versus those cases where it was not. The rate of document use between the two groups then is almost identical, so there seems to be no loss in data quality with the offer of an increased incentive. Nor does there appear to be any increase in suspicion. If anything, the incentive serves to decrease suspicion after the interview. The concern that providing an increased incentive might degrade data quality seems unwarranted.

Table 6. Data quality

	$50 base	Increased incentive
Used documents	34	34
Suspicious before IW	50	51
Suspicious after IW	17	14

AP cases only, active in week 16 and complete eventually

Finally, one further result that can be determined is how the increase in incentive affects completion rates over time. According to the data, the increased incentive creates a surge in the likelihood to complete the survey in the following week.

Table 7. Completion by first week of increased incentive

Prob. of completion in...	If incentive increased initially in week...			
	16-20	21-25	26-30	31-35
1 week	25	17	13	13
A later week	1.1	1.5	1.5	2.1
Never complete	50	57	68	71

AP cases, active in week 16. "Complete in a later week" is probability in any given subsequent week.

The probability of completion increases greatly in the first week, but then vanishes in subsequent weeks.

5. Conclusions

As a refusal conversion tool in the 2013 field period, increasing incentive were a useful tool for cases with a low subjective probability of completion. Consistent with leverage-salience theory, these may be the cases for which non-pecuniary motives for participation (the topic of the survey, the sponsor of the survey) are not salient. Further, families that ultimately completed the survey after accepting a higher monetary incentive lived in higher-income areas.

The fear that these increased incentives might reduce data quality by encouraging unenthusiastic respondents to participate simply for a payout, is not supported by the qualitative measures of survey data quality. There was no difference found in the use of documents between those offered incentive increases and those who were not, and incentives actually helped reduce suspicion levels after the survey was completed.

Lastly, the time effectiveness of increased incentives seems to be short-lived, creating a burst in the probability of completing the survey in the week following the increased offer. If agreement to complete the survey is not achieved soon after the incentive increase, it is unlikely to happen at some later date.

Acknowledgements

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