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Does reputation enhance response rates?

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ABSTRACT

Declining response rates and the potential for deterioration in the quality of survey data require reconsideration of the role of incentives to participate in interviews. This article argues that the strategies associated with linking public goods to private goods to establish reputation effects for the private goods involved can also be used to enhance confidence in the objectives of the request for an interview. In this literature, an assured reputation is established for those selling products by offering to contribute some of the proceeds of a sale to charity. The results of our field experiment indicate that combining charity with financial incentives appears to increase confidence in survey objectives for those familiar with the interview process.

KEYWORDS

Charity; reputation; response rates; surveys

JEL CLASSIFICATION

C81; H40; H41

I. Introduction

Recently, Meyer, Mok and Sullivan (2015) have argued that nationally representative household surveys are ‘...the most important innovations in social science research of the last century’ (199). Nonetheless, there are growing concerns about whether the quality of these data will decline due to increases in the unit and item non-response rates over time. Heffetz and Reeves (2016) provide direct evidence of the importance of these concerns using information about the difficulty to reach respondents for three commonly used government surveys – the Current Population Survey, the Behavioral Risk Factor Surveillance System and the Consumer Expenditure Survey. They found that even after adjusting for demographics, key outcome variables selected to represent responses to factual survey questions were strongly related to measures of the difficulty of contacting respondents.

Many survey researchers feel that the potential for erosion in the quality of the information provided by surveys is inevitable. Meyer et al. agree with this assessment. The primary strategy they offer for maintaining quality is to call for increased access to

the individual records for households from administrative data sets. This strategy does nothing to provide sources for the attitude and opinion-related information that can only be obtained through surveys. Heffetz and Rabin’s (2013) research highlighted importance of this distinction using the University of Michigan’s Survey of Consumers. They found that estimates for reported happiness levels across commonly studied demographic groups were distinctly different when the measures were compared for easy-to-reach versus the difficult-to-reach respondents.

This article presents the results of a field experiment that suggests a re-framing of interview requests, together with financial incentives, has the potential to offer an alternative strategy for increasing response rates. We build on existing research in sociology and in economics that suggests the decision of a householder to participate in a survey was based on the ability of interviewers to increase the salience of interview requests by customizing them to address idiosyncratic concerns of potential respondents (see Groves and Cooper 1998). Our approach views the interview decision as an

economic choice for an individual to allocate time in a particular way.¹ Since we do not know the attitudes of those potential respondents presented with different levels and types of incentives, our proposal increases their confidence in the authenticity of the interview request by framing a financial incentive with proposed contributions to charity. Our hypothesis is that this bundling creates a positive reputation.²

Our experiment varied financial incentives and the bundling of the interview request with contributions to a well-recognized charity. The findings indicate that there was no significant difference in response rates when the size of the financial incentive varied between \$10, \$20 and \$30. However, the bundling of the incentives with charity did have a significant effect on response rates. Offers of cash or a choice of cash or donation to the charity were equally effective and superior to an offer to donate the same amounts to the charity.

Our sample offers a unique opportunity for assessing the use of charity to enhance the reputation of an interview request because the survey called for return interviews to housing units that had been part of a 2006 social survey. As a result, we can compare how response rates are affected by the nine randomly assigned combinations of money and type of offer for the old sampled and the new housing units. To the extent the time costs of completing an interview influence the choice to participate, we would expect that if the 'old' housing units had the same individuals who were present at the time a 2006 interview was completed, they would have a better appreciation of the effort involved than those in new housing units. Under this view, the perceived time costs of completing an interview might dampen the effects of the alternative incentive schemes we consider. These time costs are more likely to be known by the old units.

Our results confirm this expectation. The effects of our design with the 'old' housing units are different than with the 'new' units. Both subsamples show no effect of differing financial incentives on response rates. However, the subsample of old units, where we expect some repeat interviewees, indicates a

statistically significant increase in response rates for the cash offer and the offer to allow a respondent to keep or donate the money.

Section II outlines the design of our simple experiment and summarizes the basic results. The last section describes next steps in testing the bundling strategy for enhancing participation rates in household surveys.

II. Experimental design and findings

Our research was conducted by adding an experiment to an ongoing social survey, the Phoenix Area Social Survey (PASS) that is one of the activities of the NSF-sponsored Central Arizona Project Long-Term Ecological Research Project at Arizona State University (ASU). The objective of this survey was to collect information about the knowledge and environmental attitudes of the Phoenix area population with as high a response rate as possible. This experiment was to be undertaken at the outset of the PASS survey activity with the experiment conducted from May to 31 August 2011. The University's Institutional Review Board does not as a rule allow monetary incentives to be offered to some potential respondents and no incentives to others. As a result, our analysis does not include a no-incentive design point. This analysis is limited to the respondents who agreed and completed the survey or who declined or terminated interviews during the experimental period. During the experimental period 557 interviews were completed and 187 were refused or terminated with incomplete interviews during the experimental period. For the eligible sample 367 of these potential respondents were from 'new' sampled housing units that would not have been contacted as part of the 2006 survey. The remainder (377) came from housing units represented in the 2006 survey. Forty-one per cent (154) of the 2006 respondents also completed the 2011 survey.

The sample design followed the 2006 format selecting neighbourhoods based on two criteria: the network of monitoring sites for local ecosystems in the Phoenix metropolitan area and the identification of local communities based on demographic criteria including income, ethnicity and retirement status.

¹Smith and Mansfield (1998) were the first to our knowledge to treat a survey interview exclusively in terms of an economic choice. They used an economic model of the decision to agree to an interview to estimate the opportunity cost of time for decisions that are not linked to work/leisure choices.

²This hypothesis is based on research by Elfenbein and McManus (2010) and Elfenbein et al. (2012) that supports a link between charity as a mechanism for establishing reputation with the purchases of private goods.

The survey used a multimodal format and was administered by the ASU Institute for Social Science Research. A total of 2127 potential respondents were selected as part of the sample design based on two dimensions. All addresses for the 2006 survey respondents were included in the sample. These were supplemented with other residential addresses in the sampled neighbourhoods from an enumerated list of tax assessor parcels. The survey was announced to the sample with several initial mailers.³ First, a postcard in English and Spanish was sent to the selected addresses notifying the potential respondents of the project and the specific, randomly assigned incentive for them to participate. Second, a letter in English and Spanish was sent explaining how to complete the survey along with the same assigned incentive. The letter included a brochure describing the project in both languages, a one-dollar bill and a magnet with a graphic design for the project.

Our experiment varied the incentives offered to potential respondents in two dimensions based on the amount of incentive and the way it was offered. We will label the combination of the incentive amount and the format used to bundle it with charity as a treatment. Three different monetary values (\$10, \$20 and \$30) were used in each of three different sets of bundles: (a) as a monetary incentive to be mailed to respondents after they completed the survey; (b) as a donation of one of the same three amounts to the First Food Bank Alliance when the survey was completed and (c) as either a check for one of the three monetary values *or* a donation of that amount to the food bank upon completion. The respondents to this last combination could select their preferred option. Due to complexity in managing modifications, respondents were not offered the opportunity to modify the amount to be donated.

The original assignment of treatments by neighbourhood was random to the 2127 identified as potential respondents.⁴ The survey's design offers a unique opportunity for our test of reputation and response rates. We can distinguish the housing units that were 'old' in the sense that they completed a 2006 survey and those that did not (i.e. the 'new'

unit). We do not know *ex ante* if the same people have continued to live in the housing unit. This can only be determined for those who completed the 2011 survey. Nonetheless, we can evaluate whether there are differences in the responses to the nine different alternative incentives for subsamples distinguishing old and new housing units.

Random assignment allows our findings to be presented with simple tests based on a cross-tabulation of the effects of the design alternatives on the rate of agreement to take the interview. We consider the test for the full sample and the 'old' and 'new' subsamples. The test evaluates whether the 9 alternatives lead to significant differences in the response rates. Table 1 reports the results. The first three columns report the distribution of responses between agreeing to the survey or refusing for the full sample. The second block of three repeats this for the subsample of 'old' units and the last for the 'new' housing units. The full sample and subsample of 'old' units reject the null hypothesis of equal proportions responding regardless of incentives – both amount of money and the form in which it is offered. The last block indicates the hypothesis cannot be rejected for 'new' housing units where there is no chance any of those contacted would have had experience with this survey before. These results confirm our hypothesis that once a household unit has knowledge

Table 1. Cross tabulation of incentive design and survey participation by sample.

Dollar incentive/ Mode	Full sample			Old housing units			New housing units		
	%No	%Yes	<i>n</i>	%No	%Yes	<i>n</i>	%No	%Yes	<i>n</i>
\$10/Cash	25.35	74.65	71	28.89	71.11	45	19.23	80.77	26
\$20/Cash	17.65	82.35	119	18.18	81.82	44	17.33	82.67	75
\$30/Cash	21.24	78.76	226	21.43	78.57	70	21.15	78.85	156
\$10/Charity	33.33	66.67	48	40.00	60.00	35	15.38	84.62	13
\$20/Charity	43.86	56.14	57	48.65	51.35	37	35.00	65.00	20
\$30/Charity	40.00	60.00	45	43.75	56.25	32	30.77	69.23	13
\$10/Choice	21.82	78.18	55	22.22	77.78	36	21.05	78.95	19
\$20/Choice	28.79	71.21	66	27.91	72.09	43	30.43	69.57	23
\$30/Choice	17.54	82.46	57	17.14	82.86	35	18.18	81.82	22
Chi-square	25.52			20.17			5.20		
<i>p</i> -Value	0.001			0.01			0.736		
Sample size	744			377			367		

³The Appendix A in the Supplemental data provides a brief summary of the details as well as copies of the materials sent to announce the survey.

⁴The final distribution does not appear consistent with a random assignment. Some of this unequal distribution of the nine design alternatives may be due to the goals of the primary survey. It sought to return to the original housing units that were included in the 2006 survey as well as new units as needed to meet the overall sampling goals. The rate in realizing interviews in the existing 40 neighbourhoods (i.e. those sampled in 2006) determined the pace of introducing new housing units from these areas. Each design alternative for the experiment was randomly assigned to each housing unit so there was no link to the demographic features of respondents. As a result, this unequal distribution of alternatives influences the precision of our estimates but not the randomization at the individual respondent level.

of the time costs involved in taking the survey, the offer of a choice of a financial incentive or a gift to charity, where each person decides what happens, appears to enhance the reputation of the process so that agreement to take the survey is more likely. While the differences are not statistically significant if we drop the donation to charity treatments and compare response rates to financial incentives versus choice of cash or charity for 'new' housing units the cash has a numerically larger response rate 80.1% versus 76.6%. By contrast, the same comparison for 'old' housing units is virtually identical at 77.4% compared to 77.2%. The ordering of these responses is what we would expect from designing bundled incentives to enhance response rates when time costs of the survey are considered.

III. Implications

The rich literature on linking charity with the sale of private goods has direct implications for survey research that to this point have been overlooked. People will pay more for products linked to charitable donations. This finding suggests a separate value for the donations that can be used to enhance survey participation. The auction literature interprets contributions to charity as a way to establish a reliable reputation for sellers of products in an online auction context. This effect seemed more important for sellers that did not have an established track record from past sales. We find the opposite, but the difference in our context versus the auction is important. In our case, past experience may be operating to assure potential respondents of the time costs associated with completing an interview. The option of contributing to charity or keeping the cash incentive reinforces the reputation of the survey for this group. For those potential respondents from 'new' units the reputation effect may be offset by the disincentive effects of the uncertainty in how long it would take to complete the interview.

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