

Can a Magnet “Attract” Respondents? Incentive Type and Monetary Value Effects in a RDD Survey

Matt Jans¹, John Rauch², Sherman Edwards², David Grant¹, Royce Park¹

¹UCLA Center for Health Policy Research
10960 Wilshire Blvd. Ste 1550, Los Angeles, CA, 90024

²Westat
1600 Research Blvd, Rockville MD 20850

Abstract

Pre-paid cash incentives increase survey response rates in every mode, yet we still know little about the specific social and psychological mechanisms at work. Non-monetary incentives may activate social psychological mechanisms thought to be responsible for response (e.g., social exchange, norm of reciprocity, liking, social benefit, and positive affect), but cash incentives usually out-perform cash equivalents and gifts. Yet, recent evidence shows that novel incentives (e.g., a refrigerator magnet or pen) can perform as well as cash. To explore these novel findings further, we conducted an experiment in the California Health Interview Survey (CHIS). CHIS is a RDD telephone survey that mails advance letters to address-matched landline sample units prior to calling. We randomized address-matched landline sample units to four prenotification incentive groups: \$2 cash, \$5 cash, thin magnet, or thick magnet. The magnets were about business card size and displayed the CHIS name and logo. Varying magnet thickness and weight allowed us to test whether the feel of the envelope increased cooperation by making the letter more likely to be opened. Results show that cash works better than magnets, but only for screener interview completion (not contact or extended adult interview completion). Methodological limitations of this study, and avenues for future research on novel incentives are discussed.

Key Words: incentives, RDD, advance letter, mail survey, prenotification letter

1. Introduction

Extensive research on incentive effects in surveys shows that pre-paid incentives provided in cash are more effective than promised incentive of equivalent value or incentives provided as gift certificates or other novelty items (e.g., stickers, magnets; see Singer & Ye, [2013] for a review). However, Montaquila and Brick (2012) found that a magnet with the sponsor’s logo obtained return rates similar to those obtained with a \$5 cash incentive. Further, Beatty, Jamoom, and Hsiao (2014) found that a gift of a pen increased response rates to a mail survey of physicians. These may be chance findings, but they cause reconsideration of the mechanisms behind incentive effects. This paper reports on an attempt to produce an effect of a novel incentive in an RDD phone survey. Ultimately, we find that magnets do not do as well as cash in this context, that magnet weight does not have an effect (with major design caveats), and that a \$2 and \$5 incentive perform equally-well.

Although there is wide agreement on the null effect of non-cash incentives, experiments do not usually test a wide range of novel incentive features (e.g., weight, dimensions, color or other characteristics) systematically. There are likely multiple mechanisms through which novel non-cash incentives could work, some of which may explain unique findings like those cited above. Figure 1 shows a general mail response process model highlighting these potential effects. First, if the incentive makes the mailing more noticeable and thus more likely to be opened, it can have an effect by acting on request salience and non-contact nonresponse (e.g., respondents who don't read a prenotification mailing can be considered equivalent to "non-contacts" in the phone and face-to-face context because the researcher has not had a chance to deliver the survey request). Second, if the letter is opened and read, a novelty incentive should have an effect if the respondent has a strong positive reaction to it (i.e., it feels as a good or rewarding as cash). Third, and particularly for prenotification mailings, a novelty incentive could have an effect if it reinforces the survey message or request, or if it reminds the respondent to participate. For example, a magnet that the respondent places on their refrigerator to remind them that an interviewer will be calling could increase contact if the household is more likely to answer the phone. Beatty et al (2014) suggested such a "response facilitation" effect, noting that offering physicians a pen may have aided them in completing the survey immediately.

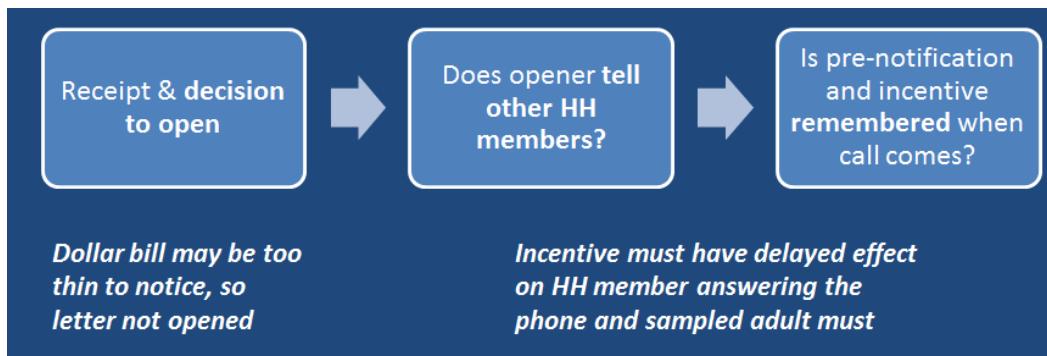


Figure 1: The general mail prenotification process for RDD surveys

Guided by our mail response process model, it seems important to consider the physical dimensions of the incentive to assess the first mechanism above. Beatty et al.'s (2014) finding could also be attributed to the mail packet being more bulky and piquing curiosity in the respondent, causing sampled physicians to open the mailing when they would have otherwise thrown it away. A survey request that is not read cannot be answered, and an incentive that is not made salient cannot have an effect.

Inspired by these unique findings we approached this experiment with two primary research questions and some exploratory hypotheses. We also included a test of cash incentive value.

- 1) Could a novel gift (i.e., magnet) work as well as cash?
 - a. H1: A thicker magnet will lead a household member to notice the mailing, and open the envelope because they feel something inside
 - i. A thicker magnet will do better than a thin one, even if both do worse than cash
- 2) Would additional cash increase response?

- a. A \$5 cash incentive will lead to more contacts, cooperation, and completed adult interviews than \$2 or magnets

Ultimately, our findings are in line with traditional evidence that cash incentives are best.

2. Method

2.1 Experimental Manipulations

We randomly assigned households sampled in the California Health Interview Survey (CHIS) to receive a prenotification mailing with one of the following four conditions. Two-dollars is the usual CHIS prenotification incentive:

- 1) \$2 bill (Thickness: 0.0043", Weight: 0.04 oz. [1g])
- 2) \$5 incentive (Thickness: 0.0043", Weight: 0.04 oz. [1g])
- 3) Thinner magnet (Thickness: 0.013", Weight: < 0.1 oz.)
- 4) Thicker magnet (Thickness: 0.025", Weight: 0.2 oz.)

Unfortunately, mailing processing requirements and cost limitations severely restricted our ability to manipulate the thickness and of the magnet incentive more strongly. To keep the mailing cost-neutral, we needed a magnet that would not increase the entire packet to over 1oz. The thickness of magnet that could be run through the mailing vendor's envelope stuffing machine was also a limiting factor. The issue here was partly the thickness, but also that thicker magnets are stronger, so thicker test magnets caused some stuffed envelopes to stick together. Our budget did not allow for hand-stuffing a thicker magnet, and we were trying to test incentives that could be worked into the normal CHIS workflow and cost structure. These design choices have serious implications for inferences about the lack of effects that will be discussed later.

2.2 Implementation

The experimental manipulations were carried out within the prenotification mailings mailed on April 13, 2014. The letter was mailed in a #10 business security envelope, and explained the survey in six languages. The letter was printed on large paper and folded to fit into the envelope. Calling began on April 26, 2014 for this sample. Readers should know that, on average, mailing addresses can be matched to 40-50% of landline RDD sample units. No cell phone sample cases were included for this experiment because they cannot be reliably matched to addresses.

2.2.1 Outcome measures

We assessed the effect of the pre-paid incentives on phone contact rate, cooperation rate, and interview completion rate.

3. Results

Figure 1 shows that there was no effect of incentive type or amount on contact rate. The two magnet conditions were not significantly lower than the cash conditions at $\alpha = 0.05$.

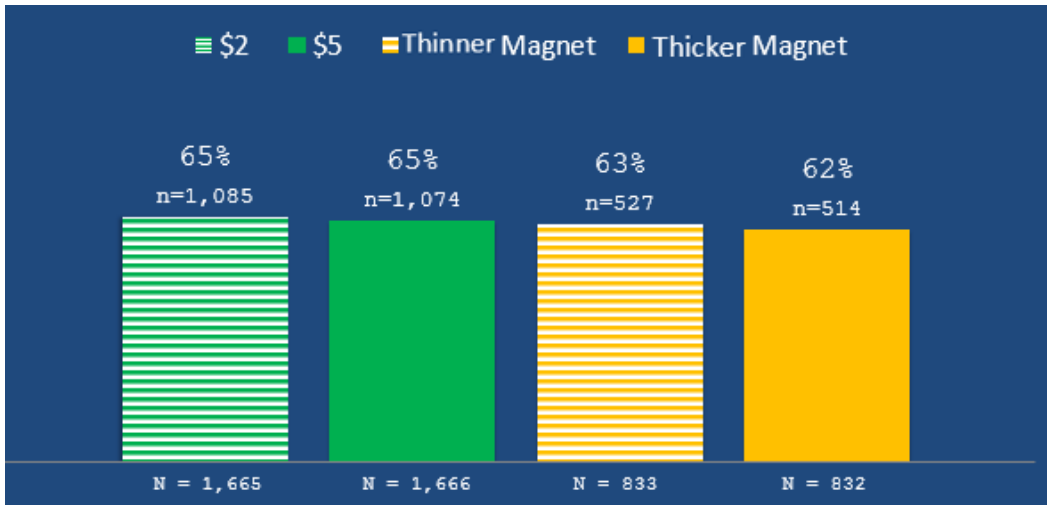


Figure 1: Contact rate by incentive type and amount

Figure 2 shows that cash obtained higher cooperation rates (i.e., screener completes) than the magnet. This was true whether we included only refusals, refusals and other contacted nonrespondents, or also noncontacts in the denominator of the cooperation rate. All differences between cash and magnet in Figure 2 are significant at $\alpha = 0.05$. The small differences between \$2 and \$5 were not significant.

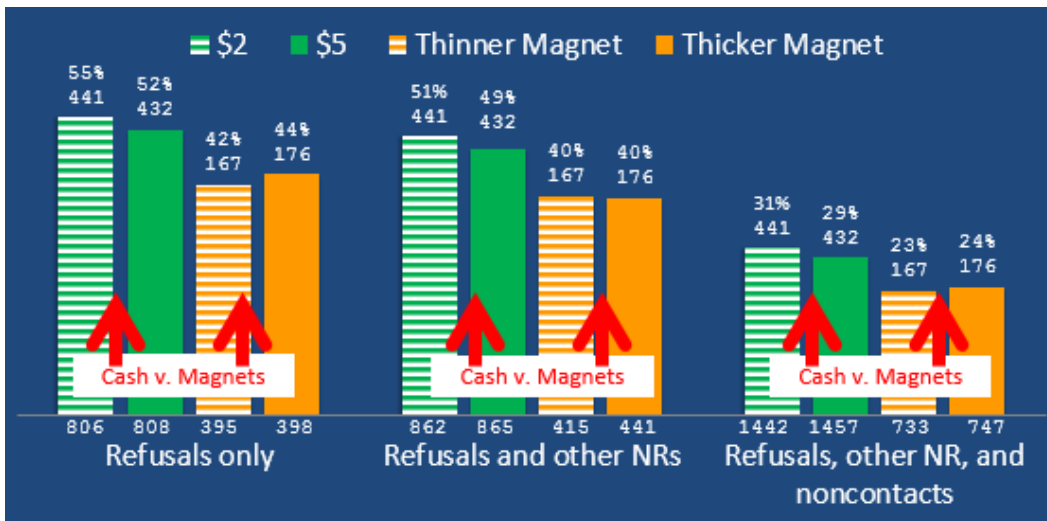


Figure 2: Cooperation rate (i.e., screener completes) by incentive type and amount

Finally, Figure 3 shows that there were no differences in extended adult interview completion rates by incentive value or type. The difference between 53% for the \$5 incentive and 51% for the \$2 incentive is not statistically significant at $\alpha = 0.05$

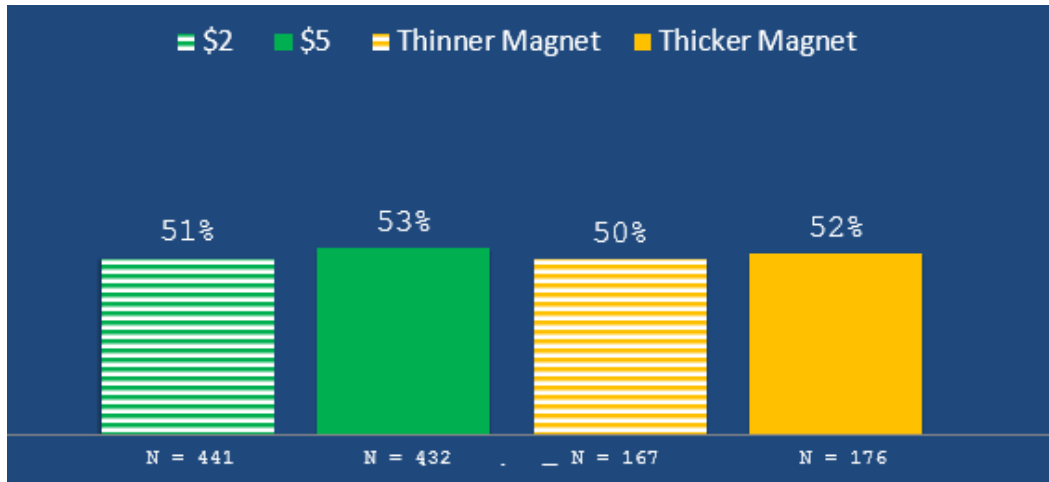


Figure 3: Extended adult interview completion rate by incentive type and amount

4. Discussion

Overall, we found strong support for traditional advice about cash versus novel incentives. Cash was significantly better than the magnet incentives at increasing screener interview completion, but both types of incentives obtained equal contact and adult completion rates. There was no true control condition (i.e., \$0 and no magnet), so we cannot say whether the magnets had no effect at all. They just simply performed equally-well or worse than cash.

Finding that \$2 and \$5 incentives did equally-well is encouraging in an environment of tight survey budgets and ever-increasing survey costs.

While we hypothesized that the extra weight of the magnets would lead respondents to open the mailings more, which would lead to at least higher contact rates, this did not happen. Of course we do not know whether mailings were opened, but the weight and thickness limitations of the magnet seriously impede our inferences about those dimensions (not to mention that weight and thickness are confounded in this design). Impressionistically, the two magnets were almost indistinguishable from each other when handled. When they were put into the envelope with the advance letter, the packets were essentially indistinguishable from each other because the magnets added very little weight beyond the rest of the packet materials. We recommend that researchers interested in testing weight and thickness hypotheses do so outside of production limitations, and that they assemble and handle several variants of the complete packet to assess its overall feel. Further, to disentangle the effect of cash *per se* v. weight/bulk, future designs should cross cash and novel incentive with weight/bulk. For example, could cash incentives have even stronger effects if they are made more salient by being included with a heavy item that increases the likelihood of noticing and opening the mailing? This appears to be an open question in survey methodology.

Mode is an important consideration as well. It is possible that novel incentive effects are only found in mail surveys or other modes where the response action is immediate, or when the incentive aids in response (e.g., providing a pen with a mail questionnaire). The fact that we see a strong effect of cash on screener completes, but not contact, suggests that interviewers mentioning the incentive (which obviously occurs after contact by phone) may

be essential to the effect of the incentive. At any rate, causal paths of incentive effects, particularly in phone surveys, are certainly complex, and we encourage further exploration of *how* and *why*, not just *that* they work. Based on Montaquila and Brick's (2012) and Beatty et al.'s (2014) findings, we still think this is worth exploring with better manipulations driven by theory.

Acknowledgements

We sincerely thank all the CHIS funders, a full list of whom can be found at <http://healthpolicy.ucla.edu/chis/about/Pages/funds.aspx>. We thank The California Endowment, in particular, for the specific funding for this experiment.

References

- Beatty, P., Jamoom, E., & Hsiao, J. (2014). *Continuing experiments on non-monetary incentives in physician surveys*. Presented at the Annual Conference of the American Association for Public Opinion Research, Anaheim, CA.
- Montaquila, J. M., & Brick, J. M. (2012, August). *Transitioning from RDD to ABS with mail as the primary mode*. Presented at the Joint Statistical Meetings, San Diego, California.
- Singer, E., & Ye, C. (2013). The Use and Effects of Incentives in Surveys. *The ANNALS of the American Academy of Political and Social Science*, 645, 112–141. <http://doi.org/10.1177/0002716212458082>