

Applying Incentives to Establishment Surveys: A Review of the Literature

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Abstract

Offering incentives to household survey respondents has been shown to increase response rates and thus decrease the potential for non response error. Oftentimes, this offer of a token of appreciation invokes a norm of reciprocity, prompting the sampled individual to participate in exchange for a monetary or non monetary gift.

Conducting surveys of business organizations provides different challenges from conducting household surveys. While it is possible to leverage the offer of an incentive in establishment surveys to achieve greater cooperation and participation, incentives may not always be as effective as one may expect. Incentives may have surprising and unexpected effects on the response rate if the acceptance of incentives is against company policy. Additional vetting processes may be necessary to ensure incentives would be an appropriate stimulus for increasing response rates in an establishment survey.

When providing incentives in establishment surveys is deemed appropriate, there are a number of factors to consider. Incentives can be given to the establishment being surveyed or to the individual(s) actually completing the survey. Incentives for establishment surveys can be monetary or non-monetary. They can be given before or after the survey is completed. Unlike household surveys, an effective post-completion incentive may include survey results, especially those that benchmark the respondent organization against others in their cohort.

This paper presents a review of published literature on the use of incentives in establishment surveys. Upon reviewing the literature on establishment surveys, we found a lack of studies using experimental designs to determine the effects of incentives. This paper aims to describe the findings of literature on incentive use in establishment surveys, underscore the importance of constructing sound methodologies in this arena and, most importantly, illuminate topic areas and specific incentive manipulations that will benefit from further research.

Key Words: Establishment, incentive, response rate

1. Establishment Surveys and Response Rates

Historically, establishment surveys have yielded low response rates; many under 50% (Blau, 1977; Lincoln and Kalleberg, 1985). An unpublished study of 183 business surveys cited by Dillman (2000) found the average establishment response rate to be 21% (Paxson, 1992). Recently, these low response rates have generated interest in the study of establishment survey nonresponse. Consequently, researchers have studied multiple ways of manipulating variables such as survey mode, addressee, prenotice letters, and follow-ups. The findings show that it is possible to obtain higher response rates in the range of

70% to 90%, depending on the survey mode and number of contacts (Dillman, 2000; Paxson, et al., 1995). Survey budgets and deadlines, however, may restrict options for data collection modes and follow-up.

Despite demonstrated success at increasing response rates in household surveys, the systematic study of incentives in establishment surveys has been limited. This gap in the literature has been acknowledged by Roth and BeVier (1998) who looked at four years of establishment survey literature and found few studies that discussed the use of monetary incentives. Studies that did use incentives reported a 12.2% to 19% increase in response rates, in comparison to control groups. Overall, Roth and BeVier were not able to draw conclusions about the use of monetary incentives because so few studies were related to incentive use.

Dillman et al. (2009) cautioned that some organizations have rules against employees receiving money or gifts; thus, in these cases, the use of incentives could discourage survey response. They also noted that in some cases the use of incentives is traditional, as in physician surveys. They suggested that the closer a business is to being individually owned and operated, the more likely an incentive would be appropriate. In addition, Cycota and Harrison (2002) and Beimer et al. (2007) found that smaller firms and businesses were more likely to respond positively to incentives.

There is little empirical literature to guide researchers on the most effective uses of incentives for establishment surveys where the use of incentives is appropriate. Although there are numerous ways to manipulate incentives, several key questions can help inform the use of incentives:

- Should monetary or nonmonetary incentives be used?
- Should the incentive be prepaid or promised?
- Should the incentive be aimed toward the individual respondent or the establishment?
- What is the impact of incentives on survey cost?

This review aims to answer these questions based on evidence from the published research.

Research findings by White and Luo (2005) and Newby et al. (2003) showed that using incentives in combination with Dillman's Total Design Method increased response rates; however, there are few studies isolating the effects of incentives with experimental designs. This paper reviews the current literature as it relates to the four key research questions, and raises additional questions that merit further research.

2. Methods

According to the Bureau of Labor Statistics (2005), an establishment is “an economic unit that produces goods or services, usually at a single physical location, and is engaged in one or predominantly one activity.” This definition informs the current review, which encompasses studies describing the use of incentives in establishment surveys over the past 16 years. We examined ways that incentives have been manipulated to improve response rates in establishment surveys, including the type of incentive, the time of awarding incentive, and the incentive recipient.

The search parameters included scientific databases (e.g., MEDLINE, PsychInfo, WebSM, Google Scholar), peer-reviewed journal articles (e.g., *Public Opinion Quarterly*, *Evaluation and the Health Professions*), conference proceedings (e.g., AAPOR Proceedings), and books about the use of incentives in survey research of businesses and establishments. Keywords used to conduct the search include: *Incentives, establishment surveys, business surveys, response rates, monetary incentives, promised incentive, nonresponse, organizational, Government*. Only studies researching the establishment as a unit of analysis, as opposed to individual employees within establishments, were included; thus, half of the publications reviewed were deemed not relevant. Ultimately, this project reviewed 40 publications between 1993 and 2009.

3. Literature

3.1 Should Monetary or Nonmonetary Incentives be Used?

Many research studies have examined the use of monetary versus nonmonetary incentives for household surveys (Church, 1993). Establishment surveys, however, pose unique challenges. For example, if the survey is completed by an individual representing the establishment, he or she may feel uncomfortable accepting or be ethically bound not to accept a cash incentive for completing a questionnaire. In this case, a nonmonetary incentive may be better suited because it may benefit the organization as a whole. Both quantitative and qualitative findings illustrate the impact of various types of incentives.

3.1.1 Nonmonetary Incentives

A recent study of forensic laboratory directors—who completed a survey on the analysis of drug samples received at their state laboratory—showed that respondents were more receptive to the nonmonetary incentive offered, a current edition of a popular drug identification dictionary. Feedback from directors indicated that the incentive was ideal for their laboratory, as the dictionary is used daily by staff (Peters et. al., 2008). Jobber and O'Reilly (1998) reviewed surveys of industrial companies that used incentives in various designs, and reported that nonmonetary incentives in the form of a calculator sweepstakes, a journal article, or study results were not effective in two of five studies. Among the three studies with significant incentive effects, two studies showed negative effects. Tables 2 and 3 summarize these findings:

3.1.2 Monetary Incentives

One study found that a cash incentive was preferred over nonmonetary incentives. Establishment respondents were initially given the option between \$50 cash or the *Dun and Bradstreet Small Business Solutions* package (retailing for \$199); 80.2% of respondents requested the \$50 cash incentive. Some respondents who opted for the solutions package asked later to exchange it for the cash incentive (NORC 2005; Mach et al., 2008). In another case, 12 different experiments that included cash amounts of \$2, \$5, or \$10 in establishment mail surveys, found that all of the monetary incentives increased response rates compared with no monetary incentive (Moore and Ollinger 2007).

3.1.3 Cash vs. Debit Card

Other studies looked at whether respondents are more comfortable receiving a cash incentive or a debit card. In one study, the USDA used a \$20 cash card as an incentive, which could be used at any ATM. The use of this incentive increased response rates using regular mail from 30% to 41% (Dillman et al., 2009). In a study of farm and ranch

operations, Beckler and Ott (2007) found that respondents cashed their ATM cards at a rate of 47.6%. The cards had been distributed by mail for those responding by mail and face-to-face for in-person interviews. The authors speculated the low rate was due to cards that had been thrown away unopened or because respondents felt that nonresponse during the mail phase made them ineligible to use the ATM cards even though they later responded in a face-to-face interview.

Deciding whether to offer a cash or cash equivalent incentive while conducting establishment surveys can be challenging. It may be best to include the option for both and work with each organization to determine which type of incentive is appropriate. Pretesting different types of incentives with target populations may help to evaluate their utility. Some clients, however, such as federal agencies, may prefer not to use cash incentives at all because of how these expenditures may be perceived by the public.

3.2 Should the Incentive be Prepaid or Promised?

When providing incentives to study participants, the incentive can either be given up front or they can be given after the participant has completed the survey. We call these two timings prepaid – paid before the participation has taken place– or promised – promised to be paid after the participation has taken place.

One study involving questionnaires mailed to small- and medium-sized establishments used four treatment groups—prenotification mailing, use of colored paper in surveys, follow-up mailings, and promised incentives—and applied Dillmans' Total Design Method. Both the questionnaire using prenotification with two mailings and the single mailing with monetary incentive were most effective. Compared with no treatment, promised monetary incentives raised response rates significantly (Newby et al., 2003). When incentives were promised after the second mailing, more completed surveys were received than for the comparison group. The marginal response rates increased 7% to 10% with promised incentives for three levels of survey quality analyzed.

In 2004, an experiment found that three treatment groups (Table 4) receiving ATM card incentives had significantly higher mail and overall response rates than the control group, which received no incentive. The two prepaid incentive treatment groups outperformed the promised incentive treatment group (Beckler and Ott, 2006).

Jobber et al. (2004) completed a meta-analysis of response rates for 30 experiments using prepaid monetary incentives. The impact of incentives did not differ between household and business surveys. Increasing the incentive value, however, increased response rates by 2% per dollar, at least for the range of incentives offered—mostly 25 cents to a dollar. In earlier research by Jobber and O'Reilly (1998), two studies increased response rates with modest incentives of \$2.50 or \$1.00 promised to a charity or university library.

Table 1: Studies that Experimentally Manipulated Incentives				
Author(s)	Target Group	Incentive Description	Other Manipulations	Response Rate Observations
Cycota & Harrison (2002)	Business executives	\$1 prepaid	Advance notice, follow-up, personalization, firm size	1% increase relative to control group
Newby et al. (2003)	Australian businesses, not publicly held	\$25 promised incentive	Prenotification, no prenotification	6% to 10% increase relative to control group
White and Luo (2005)	Single-store owner	\$10 prepaid	Short vs. long form	11% increase 10% increase, relative to control groups
	Multistore owner	\$20 prepaid		
Beckler & Ott (2007) ^a	Farmers	\$20 prepaid ATM card	Priority mail; First-class mail	7% to 9% increase relative to control group
		\$20 promised ATM card	First-class mail	5% increase relative to control group
Biemer et al. (2007)	More than 10,000 U.S. establishments	\$20 prepaid	None	2% increase relative to control group
Moore & Ollinger (2007)	Various	\$2 prepaid	First-class mail, color background	48% complete
		\$5 prepaid	Priority mail	33%–70% complete
		\$10 prepaid	Priority mail	62%–70% complete
Mach et al. (2008)	Small businesses	\$50 promised	Increases incentive offers over time with nonrespondents/offered business solutions package as alternate incentive to all	35% complete
		\$100 promised		19% complete
		\$200 promised		13% complete
		\$500 promised		11% complete

^a The effect noted was observed in mail phase only. Smaller effects carried over into face-to-face phase.

3.3 Should the Incentive be Aimed Toward the Individual Respondent or the Establishment?

When attempting to gain survey cooperation from an establishment, researchers often question whether to provide individuals with an incentive for participation or to offer incentives to the establishment for facilitating participation. Fisher et al. (2003) identified external environmental factors that influence establishment nonresponse, including both institutional and individual employee characteristics.

3.3.1 Institutional and Individual Employee Characteristics

Institutional characteristics can serve to either facilitate or inhibit cooperation at the company level (Willimack et al., 2002), including: the presence of gatekeepers, company policies, and available resources. Additionally, individual characteristics play a role in survey completion, including the motivation, authority, knowledge, and attitude of the respondent.

Part of the challenge of gaining cooperation in establishment surveys lies in this two-tiered structure. Researchers must first gain access to the company before identifying the correct individual respondent within the company who has the authority to retrieve the data of interest, as well as the knowledge and motivation to do so.

Singer (2002) noted that motivational theory can be operationalized through the use of incentives. In other words, researchers can motivate unmotivated respondents with incentives. This theory can be applied to establishments.

Although a theoretical framework exists for identifying the potential benefits incentives offer to both the institution and individual, there are few empirical studies that address the many operational considerations that accompany incentive use or that provide evidence of their effect.

3.3.2 Organizational Considerations

One operational consideration involves identifying organizational rules regarding the provision of monetary and nonmonetary incentives to employees. Federal employees, for example, are not permitted to receive monetary incentives for completing an establishment survey. Other types of businesses may have restrictions on the monetary value of incentives employees are allowed to receive, assuming they may receive them at all. Researchers need to anticipate these concerns and plan to provide an alternative nonmonetary incentive when necessary.

Some studies have offered incentives to both organizations and employees for their participation. One such project is O*Net, the nation's primary source of occupational information. O*Net provides each employee with an initial \$10 incentive. The study also provides the establishment with an attractive desk clock and a certificate of participation. O*Net may be unique in that it requests that an individual employee serve as a liaison between the researchers and the organization. It is because of this additional burden that both the employee and the institution are provided with incentives.

3.4 What is the Impact of Incentives on Survey Costs?

Research studies are always concerned with the total cost of developing and administering a survey. Many factors, both anticipated and unanticipated, can affect the study budget, such as the significant up-front costs of providing respondent incentives. Using monetary or nonmonetary incentives can be cost-effective when considering overall response rates. Assuming the incentive is effective in reducing nonresponse, the project may indeed experience cost savings by reducing follow-up measures.

3.4.1 Saving Resources

Two studies, for example, concluded that offering incentives resulted in a cost savings to the project, which resulted from increased response rates and a decrease in the number of establishments requiring additional follow-up efforts.

One study for the U.S. Department of Labor (Biemer et al., 2007) used monetary incentive levels of \$10 and \$20, which were paid to the point of contact that provided occupational and employee data on behalf of the organization. Overall, because of the increase in response, project costs were lower when using incentives because costly follow-up telephone calls were not necessary. Additionally, the increase in response resulted in fewer re-mailings of questionnaires to sample members. An agricultural establishment survey (Beckler and Ott, 2006) looked at response rate by incentive type

and calculated the cost per survey to determine if the cost of incentives was justified by the increase in response rate. Taking into account the cost of the mailings and face-to-face follow-ups for nonresponders along with the cost of the incentives, the findings indicated that it is more cost-efficient to include incentives.

3.4.2 Unused Incentives

Beckler and Ott (2006) determined that the use of ATM cards as an incentive provided a cost savings when compared with cash because a large number of the incentives were never claimed; less than half of the respondents cashed the ATM cards. Because the cost of face-to-face follow-ups was so high, and because only a small percentage of ATM cards distributed were cashed, the use of indirect monetary incentives was more cost-effective when doing face-to-face follow-ups with nonresponders than no incentive.

4. Discussion

This review of the literature on the use of incentives in establishment surveys shows that studies aimed specifically at manipulating the use of incentives are uncommon. Many studies used multiple experimental conditions to increase response rates, incentives being only one method. The overall findings of the literature review are summarized by our research questions:

4.1 Should monetary or nonmonetary incentives be used?

Studies show conflicting results on the effects of nonmonetary incentives. When given the choice, respondents prefer cash over nonmonetary incentives. When using monetary incentives, ATM cards may be just as effective as cash, and are often preferred with government surveys.

4.2 Should the incentives be prepaid or promised?

Prepaid incentives appear to increase response rates more than promised incentives. A promised incentive is more effective than no incentive.

4.3 Should the incentive be aimed toward the individual respondent or the establishment?

Incentives can motivate individual respondents to comply with the survey request. The decision should be made with respect to the characteristics of the establishment.

4.4 What is the impact of incentives on survey cost?

Depending on the size of the incentive and the type of follow-up, incentives can potentially decrease overall costs. Using ATM cards may reduce costs, as not all cards will be redeemed.

The initial findings here provide support for the idea that establishment survey incentives may be a valuable tool in the research arsenal. However, the findings should be interpreted cautiously, as they are derived from studies with other uncontrolled variables. Controlled studies need be conducted that allow for direct observation of incentive effects.

5. Future Research

Much work remains to isolate the net benefits that survey researchers can realize through the use of incentives, and best practices need to be developed for using incentives in establishment surveys. To do so, future studies should be replicable, with an emphasis on isolating the effect of incentives on response rates. Studies addressing the above questions in controlled experiments would be particularly valuable to establishment survey researchers.

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