LORE Methodological note 2017:1

Incentivizing the SOM-surveys: Estimating the effects on questionnaire response rates

Sofia Arkhede
SOM Institute, University of Gothenburg
Henrik Oscarsson
Department of Political Science & the SOM Institute, University of Gothenburg
Frida Vernersdotter
SOM Institute, University of Gothenburg

ABSTRACT

In the fall 2016, a large scale experiment on the effects of incentives was embedded in the regional and local SOM-surveys. In this report, we study the effects of incentives (a 30 SEK lottery ticket) on the questionnaire response rate after the first 45 days of fieldwork. Our analysis of the experiment shows that the incentivized respondents – particularly younger age groups – answered the survey much faster than the control group that did not receive any incentives. In the regional SOM-survey, the gross response rate after 45 days of fieldwork was 6.6 percentage points higher in the experiment group than in the control group. The corresponding figure for the local SOM-survey was 6.8 percentage points.

Introduction

Many surveys today are struggling with the effects of lower response rates. Although it has long been known that incentives may substantially boost the response rates in self-administered mail surveys (Singer and Ye 2013; Edwards et al 2003; Church 1993), Swedish public agencies and academia have largely refrained from using incentives in their surveys. The thinking behind this conservative view is that a large scale use of incentives will make surveys more expensive to carry out because respondents will become increasingly accustomed to receiving incentives. In an international comparison, Swedish surveys in the social sciences have had impressive response rates in the past, even without economic incentives. However, in the last 10-15 years, the response rates have gone down in Sweden too. In the case of the annual SOM-surveys they have decreased from around 60-65 percent to closer to 50 percent. The primary concern of the SOM Institute is that the response rates among the younger cohorts of the population is plummeting to levels close to 30 percent while the response rates for older cohorts are unaffected (Vernersdotter 2016).

This report examines the effect of offering the incentive of a lottery ticket to random subsamples of two large-scale surveys of the Swedish population conducted in 2016 by the SOM Institute at the University of Gothenburg. Sufficiently large fractions of the two samples (1,947 out of 7,000 and 1,929 out of 8,000, respectively) were provided a 3 lottery ticket as a conditional incentive to be paid upon survey completion. Although the field work continued longer, this report examines the response rates after 45 days of fieldwork. Building on previous findings on the effects of incentives, we hypothesize that receiving an incentive will lead to a significantly higher response rate.

Data

This study examines the effects of a lottery ticket incentive to two random samples of the Swedish population. The surveys were conducted by the SOM Institute at the University of Gothenburg. The samples were drawn from the national population register and later randomized into two groups, respectively. The experiment was part of two large-scale studies with a total sample size of 15,000 individuals (table 1). The two surveys were directed towards two geographically defined areas. Both surveys were postal and included an option to answer the survey online. The local survey (the SOM-survey in Gothenburg) targets inhabitants 16-85 years old who live in the city of Gothenburg, while the regional survey (the SOM survey in Western Sweden) targets inhabitants 16-85 years who live in the region of Västra Götaland or in the municipality of Kungsbacka.

The two surveys differ in three aspects: 1) The local survey has a more narrow *geographic scope* (Bové 2016). 2) The local survey (9 pages) is considerably shorter than the regional survey (17 pages). 3) The *design of the field work* differs as regards the use of reminders and follow-up contact attempts such as postal reminders, telephone calls and text-reminders. The biggest difference is that the regional survey uses reminders by phone (starting at field day 22), while no such reminders are deployed in the local survey. However, the local survey makes greater use of reminders by text messages instead and text messages were sent out at four occasions. Both surveys were dispatched by the Swedish postal agency (Postnord) on Friday 30th of September 2016. Thus, this study tests the use of incentives separately in two different but closely related cases of academic social and political postal surveys.

The experiment included the total survey sample (Table 1) with exceptions of those in the total sample under the age of 19. Swedish law prohibits the provision of lottery tickets to respondents below 18 years of age and the experiment was therefore carried out among 19-85 year olds[1]. Leaving out those under 19, the total survey sample was randomly assigned into an incentivized group and control group.

[1] Since the surveys were sent out mid-September, a few of the respondents born 1998 included in the total sample were still to be 18 years of age. In order to avoid confusion, only respondents born 1997 or later were included in the sample experiment.

Table 1. Sample sizes in experiment

	Control group	Lottery ticket incentive	Total sample size
Regional survey	5,794	1,929	7,723
Local survey	4,837	1,947	6,784

Note: In Sweden, the law prohibits people under the age of 18 to be given, offered or to buy lottery tickets. The experimental sample therefore differs between the total samples, as persons under the age of 18 were excluded from the experiment. The total sample in the Regional and Local surveys were 8 000 and 7 000, respectively.

Results

Table 2 present the results of two-sided t-tests. In both the regional and local survey, being offered an incentive led to significantly higher response rates, thus confirming the hypothesis. In the local survey, the response rate in the incentivized group was 49.8 percent after 45 days compared to 42.9 percent in the control group (t=5.11, p=0.00).

The regional survey displays a lower response rate overall, approximately 3-4 percentage points lower, but a similar effect of incentives where the incentivized group had a response rate of 45.9 percent and the control group 39.2 percent (t=5.15, p=0.00).

Consequently, we conclude that the differences seen in Table 2 also reach statistical significance, in both cases. In both surveys, providing an incentive thus increases the response rate close to 7 percentage points.

Table 2. Response rates in local and regional SOM-survey 2016 after 45 days of fieldwork (per cent).

	Lottery ticket	Control group	Δ	t	p
Regional survey	45.9	39.2	+6.7	5.146	0.000
Local survey	49.8	42.9	+6.9	5.114	0,000

Comment: Results are from the Local and Regional SOM-surveys 2016.

Summary

Providing incentives are costly, but clearly effective when it comes to improving the percentage of returned surveys after 45 days. The conditional incentive cost about 38 SEK (approximately €4) including the lottery ticket and the postage cost. However, a faster in-flow of questionnaires may reduce the overall cost because of a shorter field work and fewer rounds of reminders. Costs of printing and distributing mail back questionnaires may be reduced substantially if respondents respond to the survey and send in their questionnaires faster. In this study, we found that introducing the incentive of a conditional lottery ticket yielded a significantly higher response rate after 45 field days for two large-scale surveys conducted in Sweden in fall 2016. The difference were 6,7 and 6,9 percentage points respectively. The local survey, which was considerably shorter in length, almost reached a 50 percent response rate within 45 days. If we look at previous SOM

surveys, 50 percent is within a close reach to previous final response rates in the national and regional SOM-surveys (Vernersdotter 2016). However, other aspects of data quality besides the response rates also need to be examined in order to comprehensively evaluate the effects of and potential benefits of incentives.

References

Bové, Klara (2016). Den västsvenska SOM-undersökningen 2016, in Bergström, Annika and Harring, Niklas (eds) *Hållbarhetens horisont.* Gothenburg University: The SOM Institute.

Edwards, P., Roberts, I., Clarke, M., DiGuiseppi, C., Pratap, S., Wentz, R. and Kwan, I. (2002) Increasing response rates to postal questionnaires: Systematic review. *British Medical Journal,* (324):1183

Church, Allan H (1993) "Estimating the effect of incentives on mail survey response rates: A meta-analysis." *Public opinion quarterly* 57.1: 62-79.

Singer, Eleanor., & Ye, C. (2013). The use and effects of incentives in surveys. In D. S. Massey, & R. Tourangeau (eds), The ANNALS of the American Academy of Political and Social Science (pp. 112–141). London, England: Sage

Singer, Eleanor, and Richard A. Kulka (2002). "Paying respondents for survey participation." *Studies of welfare populations: Data collection and research issues* (2002): 105-128.

Vernersdotter, Frida (2016) "Den nationella SOM-undersökningen 2015" in Ohlsson, Jonas, Oscarsson, Henrik and Solevid, Maria (eds) *Ekvilibrium.* Gothenburg: The SOM Institute.