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Postal recruitment into a longitudinal online survey. The effects of different number of reminders.

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Title: Postal recruitment into a longitudinal online panel survey. The effects of different number of reminders.

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ABSTRACT

This working paper reports on an attempt to recruit respondents into a online longitudinal panel survey through mailed postcard invitations to a random population sample. The main questions answered in the report is whether or not it is feasible to use this strategy to recruit respondents into a non-commercial online panel survey, and how large the effects of follow-up contacts and reminders are on the recruitment rate.

The sample consisted of 2000 randomly selected inhabitants of the Gothenburg region in western Sweden in the age between 18 and 70 years. The topic of the recruitment and the longitudinal online survey they were invited to concerned the controversial political issue of the introduction of congestion tolls around the city of Gothenburg. The sample was divided into three groups, where group A only received an invitation, group B one postcard reminder after the initial invitation, and group C a total of up to three follow-up contacts: one postcard reminder, one telephone call, and one last postcard reminder. No incentives were used.

The results show that the recruitment rate in the group with no reminders was 11 percent and the average cost per respondents approximately 6.4 Euros, in the group with one reminder the recruitment rate was 17 percent and the average cost per respondent 7.6 Euros, while in the group with three reminders the recruitment rate was 27 percent and the average cost per recruited respondent 11.6 Euros. Thus the effect of follow-up contacts is about as high for postal recruitment into a longitudinal online panel as previously found for mail surveys. Further, the cost per recruited respondent increases with the recruitment rate, but most pronounced for when moving from 17 percent recruitment rate to 27 percent.

Postal recruitment into a longitudinal online panel. The effects of different number of reminders.

The use of internet based surveys and different kinds of internet panels have seen a dramatic increase in use over the last decades. The potential of lower costs and quicker field work have led to a lot of attention for online panels. However, the main obstacle to this increasingly popular survey mode is the recruitment of respondents. Unlike postal surveys and telephone surveys there is no obvious way of reaching potential respondents. Postal surveys can be sent to samples of postal addresses, and telephone surveys have been able to use the technique of random digit dialing (RDD) to reach respondents. Online though, e-mail addresses or other potential ways of reaching respondents on the internet cannot yet as easily be obtained. The main exception to this is when the population of interest is a specified population like students, doctors, consumers of a specific companies products etc. For the general population no e-mail registers that can be utilized exists. For this reason, most web surveys are conducted via so called access panels, or online panels. Such panels simply constitute databases of pre-registered respondents that have agreed to reveal their e-mail addresses and to receive invitations to online surveys. However, this means that survey companies and academic surveys alike need to contact people and achieve an agreement to participate in the internet survey through some other mode before actually collecting their data.

This study reports on an attempt to recruit people from a random sample of the Swedish population into a longitudinal online panel survey through postal invitations. The online panel survey was conducted by the Laboratory of Opinion Research (LORE) at the University of Gothenburg and the invitations took the form of A5 sized postcards. This constitutes the first attempt to use mailed invitations in order to recruit a probability based online panel by the Laboratory of Opinion Research at the University of Gothenburg. For a previous attempt using telephone as the contact mode for recruitment, see Dahlberg et al (2012).

This first attempt to use postal invitations was set in a favorable context where we utilized two factors expected to increase recruitment rates: geographical proximity to the University of Gothenburg, and a local controversial political issue. The topic of the online panel survey was the introduction of congestion tolls around the city of Gothenburg, which at the time was a hot topic in that area of Sweden and a controversial policy that would affect many people in their daily lives. In the invitation postcard respondents were asked to join an online panel that would run in three waves, in addition to the recruitment survey, during the next twelve months. The recruitment and the survey took place about six months before the planned introduction of the congestion charges. The visual layout of the postcard front can be seen in the appendix to this report.

Previous research and purpose of the study

There is a vast bulk of previous research on how to increase response rates to surveys. Most of this research has examined mail surveys, but more recently, some work has also been done specifically on response rates in web surveys. A meta-analysis from 2002 (Edwards et al.) demonstrates that for mail surveys, a follow-up contact increases the response rate by, on average, between 4 and 10 percentage points, depending on the baseline response rate. In another meta analysis of studies that directly compare response rates between web and mail surveys, however, Shih and Fan (2008) conclude that reminders seem to be less efficient for web surveys than for mail surveys. Despite so many previous studies on survey response rates, we don't know whether this knowledge is directly applicable to recruitment into online panels. Some conclusions are likely to also be valid for recruitment rates, but there might also be reasons to suspect some differences to appear since people make a more or less explicit commitment to answer multiple surveys.

Although scientific studies of recruitment into online panels have started to appear, none of these directly address the influence of reminders and follow-up contacts for the recruitment rate into the panel (e.g. Hansen and Pedersen 2012, Scherpenzeel and Toepoel 2012). However, we should also remember that the recruitment attempt we study in this report does represent a general recruitment into a standing online access panel, but rather recruitment into a longitudinal online three wave panel study on a specific topic.

The main questions addressed in this report are a) to what extent does the number of follow-up contacts influence the recruitment rate into a longitudinal online panel? b) to what extent is the cost of recruitment per respondent increased as more follow-up contacts are added?

Data and design of the study

The recruitment attempt started with a sample of 2 000 Swedish inhabitants aged 18 to 70 years that were randomly selected from the Swedish population register. The targeted area was the Gothenburg region, which consists of the city of Gothenburg and 12 surrounding municipalities. In total, this area has approximately 950 000 inhabitants.

Since the intention was not only to try the feasibility of probability based postal recruitment into a longitudinal online panel survey, but to systematically examine the effects of different numbers of reminders/follow-up contacts on the recruitment rate and on the cost per recruited respondent, we used a randomized design. The 2 000 persons in the sample was divided into three groups where group A (1 000 people) received a post card invitation only, group B (500 people) received an invitation, and later a post card reminder, while group C (500 people) received two additional remainders compared to group B. After the second post card group C received a telephone reminder, and later one last additional post card reminder. Thus, in total group A received one contact attempt, group B up to two contact attempts, and group C up to four contact attempts.

The invitation postcard was received by potential respondents approximately on the 19th of April 2012 (group A, B, and C), while the first reminder postcard was received

approximately one week later, on the 26th of April 2012 (group B and C). In group C, those who had not yet answered the survey three and a half weeks after receiving the initial invitation post card started to receive telephone reminders on the 14th of May where interviewers encouraged them to respond to the survey and sign up for the panel study. Finally, those in group C that had still not signed up about one week after the telephone reminder was finished received one second and last postcard reminder delivered by mail approximately on the 8th of June. Mail delivery dates can sometimes vary slightly between individual respondents.

Concerning the telephone reminder, on average, a publicly available phone number could be found for approximately 80 percent of the part of group C that was to be contacted by phone. During a period of two weeks a telephone survey company made up to three contact attempts for each person, where the aim was to remind and motivate people to answer the survey. This resulted in 165 non-respondents being reached out of 253 telephone numbers (about 63 percent).

To answer the survey respondents had to a) enter an internet address printed on the backside of the post card in their web browser, and b) enter an e-mail address on the first page of the survey. Lastly, they were also asked to enter their personal code (printed on flip side of the post card) to avoid subsequent reminders.

Results

This section begins by presenting the achieved recruitment rates in the three groups. Of the 2 000 persons in our overall sample, 10 addresses turned out to be invalid and undeliverable by mail, which leaves us with a total sample of 1990 people.

Table 1. Response rate and cost per respondent in a probability based postal recruitment into a longitudinal web panel

	Recruitment Rate (%)	n	cost/respondent (Euro)
Group A No reminder	11.3	113	6.4
Group B One postal reminder	17.4	86	7.6
Group C Several reminders	27.2	135	11.6
All groups	16.8	334	8.8

The overall recruitment rate was 17 percent, which means that a total of 334 people signed up for the panel. For those who only received an invitation post card and no further contacts, the recruitment rate was 11 percent. In the part of the sample who received one postal reminder, the achieved recruitment rate was 17 percent instead, thus we conclude that one reminder compared to no reminder caused increase of 6 percentage points in the recruitment rate. In the group assigned to receive two additional follow-up

contacts, however, the final recruitment rate was as high as 27 percent. All of these differences are statistically significant at the 99 % confidence level.

All in all, this experiment revealed that reminders do indeed seem to be efficient for increasing the recruitment rates into longitudinal online panel surveys. Further, the effects seem to be of comparable size to what has previously been found for reminders to cross-sectional mail surveys (e.g. Edwards et al. 2002).

If we consider the costs, however, we clearly see that increasing the recruitment rate also means increasing the cost per recruited respondent. Whether a higher recruitment rate results in higher data quality or in more accurate or representative data is beyond the scope of this report (cf. Groves 2006). The sample size obtained here is too small to enable any meaningful analysis of such matters. However, the increase in cost per respondent when moving from no reminder to one reminder is very small (from 6.4 to 7.6 Euros). Thus, adding a reminder to the invitation post card is likely to be a good investment, despite the slight increase in the cost per respondent.

Concluding discussion

It certainly seems to be a feasible option to recruit a probability based online panel for longitudinal surveys through mailed invitations to random population samples. People do co-operate to a reasonable degree compared to current response rates in other modes, and the costs per recruited respondent are not insurmountable, considering that each recruited respondent can be invited to several online surveys.

A final recruitment rate of 27 percent is indeed quite high if we consider that the chosen survey mode does not facilitate for respondents to sign up for the study. They had to move from reading a postcard, to entering a www-address on some device connected to the internet, and then also agreeing to register an e-mail address. However, this study design does not allow us to estimate how much of this unexpectedly high recruitment rate was due to the "hot topic" being used for the recruitment. For such a comparison, see instead LORE working paper 2013:2 (Andreasson and Martinsson 2013). Even the 11 percent achieved without any follow-up contact is surprisingly high for an invitation with such a discreet contact as a post-card that easily gets lost in the mailbox. This is probably due to the controversial topic highlighted by the invitation. We might suspect that many of those signing up for the survey were not highly motivated to actually participating in the three wave panel survey they signed up for. Rather, they might have simply wished to express their opinion on the controversial topic of congestion tax, thus, a kind of protest behavior. Future studies should explore the survey behavior of respondents recruited with different number of reminders during their recruitment.

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Appendix

First invitation post card

Reminder postcard

Svensk titel: Rekrytering till en webbaserad panelundersökning via postala inbjudningar. Effekter av olika antal påminnelser.
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SAMMANFATTNING

Denna rapport redovisar ett försök att rekrytera nya respondenter till en webbaserad panelstudie genom vykortsutskick till ett slumpmässigt urval av befolkningen. Frågeställningen i rapporten är om detta är en realistisk och genomförbar strategi för att rekrytera respondenter till en icke-kommersiell onlinepanel i termer av effektivitet och kostnader, samt hur stora effekterna av påminnelser är på rekryteringsfrekvensen.

Urvalet till rekryteringen bestod av 2000 slumpmässigt utvalda invånare i Göteborgsregionen som vid rekryteringsperioden var mellan 18 och 70 år. Ämnet för rekryteringen och panelen var den trängselskatt som var på väg att införas i Göteborg. Urvalet delades in i tre grupper, där grupp A enbart fick ett inbjudningsvykort, grupp B fick en påminnelse efter första vykortet, och grupp C fick totalt tre påminnelser: ett vykort, en telefonuppringning och sedan ytterligare ett vykort. Inga incitament användes vid rekryteringen.

Resultaten visar att rekryteringsfrekvensen i gruppen utan påminnelser hamnade på 11 procent, med en genomsnittlig kostnad per respondent på 58 SEK. I gruppen som fick en påminnelse var rekryteringsfrekvensen 17 procent, och den genomsnittliga kostnaden per respondent 69 SEK, medan gruppen som fick tre påminnelser lyckades nå en rekryteringsfrekvens på 27 procent till en genomsnittlig kostnad per rekryterad respondent av 105 SEK. Effekten av påminnelser är därmed ungefär lika stor för postala rekryteringar till webbpaneler som tidigare funnits för postala enkätundersökningar. Vidare ökar kostnaden per rekryterad respondent med rekryteringsfrekvensen, även om kostnadsökningen är klart starkast när rekryteringsfrekvensen går från 17 till 27 procent.

The Laboratory of Opinion Research (LORE) is an academic web survey center located at the Department of Political Science at the University of Gothenburg. LORE was established in 2010 as part of an initiative to strengthen multidisciplinary research on opinion and democracy. The objective of the Laboratory of Opinion Research is to facilitate for social scientists to conduct web survey experiments, collect panel data, and to contribute to methodological development. For more information, please contact us at:

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