

The SOM Institute's Notes on Survey Methodology – 2026:4

Pushed to not complete? - Evaluating push-to-complete reminders in surveys

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ABSTRACT

The present study aimed to evaluate push-to-complete reminders to individuals who had started but not submitted the web questionnaire, to see whether the completion rates were affected. The push-to-complete reminders did not generate any statistically significant effects on completion rates. We instead observed a higher non-response bias, indicating that the additional push-to-complete reminder led to decreased representativity. In conclusion the push-to-complete reminders did not appear to be an effective strategy to mitigate declining response rates and non-response bias. It is nevertheless important to continue to explore new methods aimed not only at encouraging respondents to start surveys, but also to complete them.

INTRODUCTION

To combat issues of declining response rates and non-response bias in surveys, different methods have been tested to remind potential respondents about a questionnaire. For example, text messages have been used as a cost-effective complement to traditional mail (Andersson & Bergquist, 2026). However, over the last couple of years it has become increasingly difficult to identify phone numbers for individuals in Sweden, making it more challenging to remind people about questionnaires (Andersson et al., 2026).

A new contact method has been implemented in Sweden, namely, digital mailboxes to which citizens can receive messages from official organizations and authorities. The messages can only be accessed after logging in with electronic identification connected to the user's social security number, making it a secure and convenient way to receive important mail. According to the Agency of Digital Government (2024), more than six million Swedes used such digital mailboxes in 2023.

A previous study showed that reminders sent via digital mailbox were associated with a higher response rate. Unfortunately, the digital mailbox reminders also seemed to increase the rate of breakoffs and partials, possibly because of a higher proportion of web respondents (Persson, 2026).

In general, surveys completed on paper tend to have better data quality and a higher percentage of questions answered. Respondents participating via web surveys instead tend to drop out at a higher rate, especially when filling out the survey on a mobile phone. Therefore, the present study aimed to evaluate whether sending additional push-to-complete reminders via digital mailbox to individuals who had started but not submitted the web questionnaire could increase the proportion of completed questionnaires and simultaneously decrease the proportion of breakoffs and partials among web respondents.

HYPOTHESES

Respondents who have already started to fill out a questionnaire might be easier to push to also complete the questionnaire and thus the push-to-complete reminder could result in higher response rate in terms of completed questionnaires.

H1. Individuals sent push-to-complete reminders shortly after initiating, but not submitting, the web survey may be more likely to complete the questionnaire than those who are not sent such reminders shortly after starting but not submitting the web survey.

As a continuation of the first hypothesis this would also result in fewer respondents leaving unanswered questions and thus a lower proportion of partials and breakoffs.

H2. Individuals in the sample sent push-to-complete reminders shortly after initiating, but not completing, the web survey may produce better data quality in terms of breakoffs and partials than those who are not sent such reminders shortly after starting but not submitting the web survey.

METHODS AND MATERIALS

PREREGISTRATION

The hypotheses, procedure, exclusion criteria, and analysis plan were preregistered prior to data collection was completed and prior to analyses. The preregistration can be found at <https://osf.io/qztm3/> (Andersson et al., 2025).

SAMPLE

A sample of 8,975 randomly selected individuals registered by the Swedish Tax Authority was drawn on August 12, 2025. Only individuals who were 16 years or older and living in Gothenburg were invited to complete the questionnaire.

PROCEDURE

The assessment was made on a self-administered mixed-mode survey (paper-and-pencil and web questionnaire). The survey had a push-to-web approach; accordingly, the initial invitation only provided the option to submit the questionnaire online. After a few weeks, a paper questionnaire was also sent (See table 1 for the full field period).

Table 1. *Field Period.*

Day	
	Pre-notification postcard
0	Survey invitation (push-to-web)
9	Postcard reminder
17	Survey reminder (including paper questionnaire)
31	Digital mailbox reminder
45	Survey reminder
50	Text message reminder
63	Survey reminder
66	Digital mailbox reminder
79	Survey reminder
84	Text message reminder

Data collection began in September 2025 and was completed in early January 2026.

Prior to being invited to participate in the survey, the sample was randomly assigned to two groups. One group was sent push-to-complete reminders via their digital mailbox if they had started but not completed the web survey, while the other group did not receive such a reminder. The reminder stated that the respondent had started to fill out the questionnaire a couple of days ago and that they could continue to answer the questions by clicking the link provided. The link took the respondent directly to the questionnaire without having to log in.

The push-to-complete reminders were sent in 9 waves throughout the field period to ensure that respondents received the reminder a few days after they had started to fill out the survey (Table 2). It was only possible to receive a push-to-complete reminder once.

Table 2. Number of Push to complete reminders sent.

Day	Treatment group	Control group
	Respondents who were sent push-to-complete reminders shortly after initiating but not submitting the web questionnaire	Respondents who were <u>not</u> sent push-to-complete reminders shortly after initiating but not submitting the web questionnaire at the same point of time
10	96	89
24	40	36
38	130	134
40	73	51
52	16	28
59	19	17
73	73	88
86	10	15
94	3	6
Total	460	464

Apart from the push-to-complete reminder the treatment group had an identical field period as the control group.

ANALYSIS PLAN

The response rate was estimated according to the guidelines for Response Rate 1 (RR1) (AAPOR, 2023), meaning that only those who answered 80 percent or more of the eligible questions were considered a response. The parameters of an OLS regression, which essentially is equal to a t-test in this design, estimated the difference in RR1 between the treatment group and the control group. Robust standard errors were used in the model. To isolate the effect of the push-to-complete reminder, the comparison was made between those who received a push-to-complete reminder and those respondents in the control group who would have received such a reminder if they had been assigned to the treatment group - that is, those in the control group who had also started but not submitted the questionnaire at the same point of time.

To follow up on the response rate in terms of completed questionnaires (more than 80% of the questions answered), data quality was also examined in terms of breakoffs, less than 50% questions answered, and partials, 50-80% questions answered. This was important to see whether the push-to-complete reminder pushed the respondents in any way, not only to complete the survey.

An ordered logistic regression model was used to assess the distribution of breakoffs, partials and completes as a function of the push-to-complete reminder. As in the previous analysis, the comparison was made between those who received a push-to-complete reminder and those respondents in the control group who would have received such a reminder if they had been assigned to the treatment group.

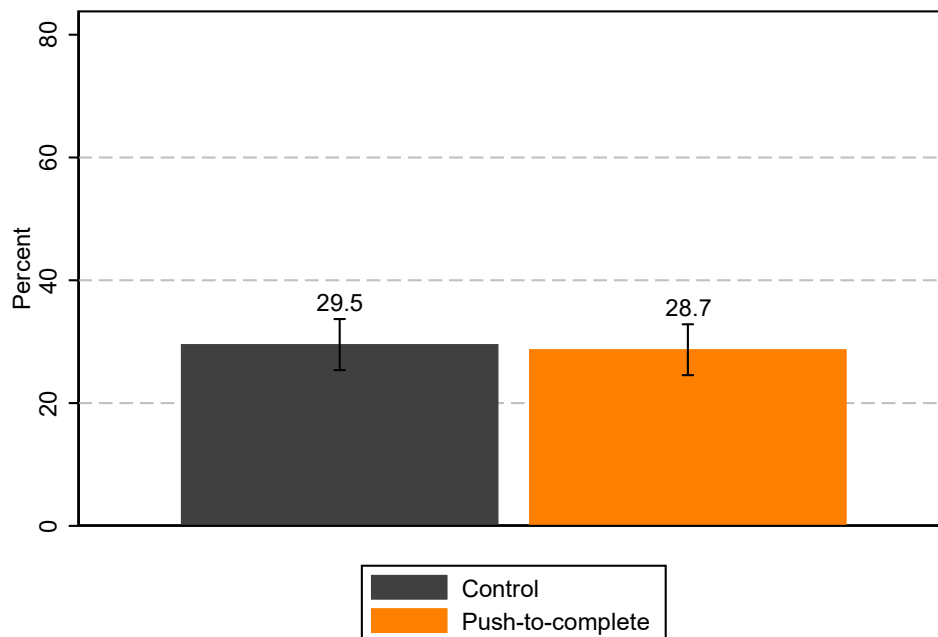
RESULTS

A total of 460 respondents were sent a push-to-complete reminder throughout the field period, 62 of them (13 percent) clicked on the direct link to the questionnaire. If all 62 had completed the questionnaire, the response rate of completed questionnaires would have increased by 1,4 percentage points in the treatment group.

However, as seen in Figure 1 there was no statistically significant difference between the treatment group and the control group regarding RR1 ($b = -0.01$, $SE = .03$, $p = .781$)¹. If anything, the response rate was lower for respondents who were sent the additional push-to-complete reminder (RR1 = 28.7) compared to respondents in the control group who had also started but not submitted the questionnaire (RR1 = 29.5).

¹ As a robustness check, a probit model was also estimated; the results were statistically insignificant.

Figure 1. Response rate (RR1), >80% of the questions answered



As previously mentioned, an extension of the assessment of RR1 was to examine whether the push-to-complete reminder affected the proportion of breakoffs and partials, indicating whether the reminder pushed the respondents in any direction.

The ordered logistic regression showed no significant effect of the push-to-complete reminder on the share of breakoffs and partials ($OR = 1.15$, $SE = .17$, $p = .34$). Thus, the push-to-complete reminder neither decreased nor increased the probability of breakoffs and partials.

As an additional robustness-check a non-response bias analysis was also conducted to see whether the push-to-complete reminder had any effect on the representativity. Non-response bias was estimated using adjusted representativity indicators (adjusted R-indicators). To compare the sample to demographic benchmarks, register data was used on age cohort (16-29; 30-39; 40-49; 50-64; 65-74; 75+), sex, marital status and region of birth. The R-indicator was lower in the group who were sent push-to-complete reminders (R-indicator = .73, 95% CI [.69, .77]) than for those in the control group who would have been sent such a reminder if they would have been in the treatment group (R-indicator = .88,

95% CI[.83, .92]), suggesting that the representativity was negatively affected by the push-to-complete reminder.

CONCLUSION

The main hypothesis of this study was that respondents who had already begun to answer the survey would be more easily encouraged to complete the questionnaire. The general finding was, however, that the push-to-complete reminders did not demonstrate any effects on completion rates in this context. A possible explanation may be that these respondents already had decided not to submit the questionnaire, making it more difficult to persuade them to complete it than individuals who had not yet decided whether to participate. The reminder may also have been perceived as too intrusive, and respondents may have experienced a sense of being monitored.

Another possible explanation could be that both groups already received digital mailbox reminders, and the additional push-to-complete message may simply not have been strong enough to generate an additional effect.

If the push-to-complete reminder would have pushed otherwise hard-to-reach groups to complete the questionnaire, the push-to-complete reminder could have been valuable in increasing representativity even though the overall response rate was not affected. However, the results suggested that it might be the other way around.

In sum, push-to-complete reminders do not appear to be an effective strategy for increasing response rates in surveys in this context. Still, it is important to continue to explore how and under what circumstances respondents who have started filling out a questionnaire can be encouraged to complete them. This study is thus an important piece of the response rate puzzle.

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