

Understanding and Tackling Declining Response Rates: Challenges and Solutions*

Chenhong Huang

February 6, 2024

Surveys serve as crucial instruments for gathering data across diverse fields, providing valuable insights into opinions, behaviors, and preferences. Nevertheless, the declining response rates observed in face-to-face, telephone, and web surveys present significant challenges for researchers. This paper conducts a literature review to explore the factors influencing response rate trends across these survey methods. Additionally, it discusses strategies such as enhancing trust, leveraging AI technology, and providing training for surveyors to improve participation and response rates.

1 Introduction

Surveys play a crucial role in gathering and analyzing data across various fields, providing a systematic approach to extract information from specific audiences. Researchers, businesses, and policymakers use structured questionnaires to comprehend the opinions, behaviors, and preferences of the target population. Surveys offer a cost-effective and scalable means to acquire both quantitative and qualitative insights, aiding decision-making processes. Their effectiveness lies in revealing trends, patterns, and opinions, contributing to informed decision-making and broadening our understanding of the world. The key challenge with surveys is ensuring the sampled group accurately represents the entire population and that the collected data is reliable.

To achieve a representative sample, researchers often employ random sampling, selecting appropriate data frames based on the target population. Surveys are then conducted through various means, such as face-to-face, telephone, and online methods. However, the declining response rates pose a significant challenge. Researchers have observed a downward trend across face-to-face, telephone, and online surveys. This article aims to study the factors influencing

*Code and data are available at: https://github.com/chenhanghuang/sta302/tree/main/starter_folder-main.

response rate trends in these survey methods and explore strategies for improving response rates.

The remainder of this paper is structured as follows. **2 Literature** will discuss the response rate change in face-to-face, telephone, and web survey. Based on these research results, I will discuss the cause and solution on the decline of response rate in **3**.

2 Literature review

Face-to-face survey response rate changes are often overlooked by researchers. One reason for neglecting these changes is that this method typically yields high response rates, making it convenient for research. However, a study by Williams and Brick (2018) on Face-to-face surveys conducted by government, private, and academic organizations in the United States since 2000 found a noticeable decline in response rates, despite remaining above 50%. Compared to other data collection methods, face-to-face surveys are expensive, and the proportion of non-respondents who refuse to answer increases significantly. Response rates are correlated with effort level, and in repeat surveys, respondents mainly participate because they missed previous opportunities to answer questions.

Telephone survey response rates are lower than those of face-to-face surveys. Dutwin and Buskirk (2021) analyzed four sources of telephone sampling surveys, including the Behavioral Risk Factor Surveillance System (BRFSS), Pew national polls, CBS national polls, and ABC national polls. The results showed significant fluctuations in response rates. For instance, the average response rate for NJIS could be 80%, while CBS was less than 20%. Data from 1996 to 2015 also showed a declining trend in telephone survey response rates. Considering differences in response rates among different groups, weighting methods can be employed to improve estimation accuracy.

Daikeler, Bošnjak, and Lozar Manfreda (2020)'s meta-analysis of 45 experiments found that online surveys had response rates 11 percentage points lower than other survey modes. Adjusting online survey response rates can be achieved through pre-notification, sample recruitment measures, improving survey recruitment methods, optimizing target respondent types, and making multiple attempts to contact the target population.

3 Discussion

Although face-to-face surveys have historically had high response rates, they are now becoming increasingly expensive and time-consuming. Moreover, the cost-effectiveness of face-to-face surveys is declining. Due to the inconvenience of face-to-face interactions, respondents may be less willing to participate, leading to higher refusal rates. Telephone surveys also face similar challenges, with fluctuating response rates attributed to changes in communication preferences

and increased reliance on mobile phones. There are significant differences in response rates among telephone sampling surveys, and factors such as call timing, caller ID recognition, and survey length can affect respondent participation. Although online surveys offer cost-effective and scalable data collection, they also encounter obstacles related to email deliverability, respondent fatigue, and perceived legitimacy.

To address the issue of low response rates, researchers should focus on enhancing respondent participation and building trust in survey methodologies. This can be achieved through transparent communication, clear explanations of the survey's purpose, and assurances of data confidentiality. Leveraging social proof and endorsements from reputable organizations can also enhance survey credibility and encourage participation. Additionally, advancements in AI technology provide opportunities to streamline survey processes and improve respondent experiences. Implementing interactive survey interfaces, mobile-friendly designs, and multimedia content can enhance survey participation and reduce respondent burden. Optimizing survey targeting and personalizing survey invitations based on respondent preferences can also improve response rates. Finally, training for surveyors is crucial, as their attitudes and efforts greatly influence response rates, and survey questionnaire design is also an important method for improving response rates.

In conclusion, the declining response rates in face-to-face, telephone, and web surveys underscore the importance of proactive measures to maintain data quality and representativeness. By understanding the underlying factors driving this decline and implementing targeted strategies to enhance respondent participation and trust, researchers can mitigate the challenges associated with declining response rates and ensure the reliability and validity of survey data.

References

- Daikeler, Jessica, Michael Bošnjak, and Katja Lozar Manfreda. 2020. “Web Versus Other Survey Modes: An Updated and Extended Meta-Analysis Comparing Response Rates.” *Journal of Survey Statistics and Methodology* 8 (3): 513–39.
- Dutwin, David, and Trent D Buskirk. 2021. “Telephone Sample Surveys: Dearly Beloved or Nearly Departed? Trends in Survey Errors in the Era of Declining Response Rates.” *Journal of Survey Statistics and Methodology* 9 (3): 353–80.
- Williams, Douglas, and J Michael Brick. 2018. “Trends in US Face-to-Face Household Survey Nonresponse and Level of Effort.” *Journal of Survey Statistics and Methodology* 6 (2): 186–211.