Survey Research's Falling Response Rates: Consequences and Approaches for Correcting Nonresponse Bias*

Heyucheng Zhang

5 February 2024

Table of contents

1 Introduction

The ability to draw precise and representative findings from a sample is essential to the integrity and quality of survey research. However, the apparent drop in response rates across all data-gathering techniques poses a significant challenge to achieving this goal. This pattern calls into question not just the efficacy of conventional survey techniques but also the reliability of the collected data because of possible nonresponse bias. Following a reading of "Special Virtual Issue on Nonresponse Rates and Nonresponse Adjustments (Kristen Olson 2020)," the study examines the reasons behind declining response rates, how they affect survey representativeness and bias, and how to address these issues by developing theory-driven nonresponse propensity models and statistical adjustments.

---

2 Discussion

There is strong evidence of diminishing response rates across a range of data collection formats in recent studies, such as those by Williams and Brick (2017), Dutwin and Buskirk (2020) and Daikeler, Bošnjak, and Lozar Manfreda (2019). When taken as a whole, these studies present a concerning picture of the state of survey research today, showing sharp drops in response rates across online, phone, and in-person data-gathering methods. In addition to casting doubt on the continued applicability of conventional survey techniques, this tendency compels academics to come up with novel solutions through innovation and adaptation. While there is evidence that diminishing response rates are a frequent issue, there appears to be variation in the influence on survey bias and the efficacy of corrective strategies such as weighting modifications. A number of problems including privacy concerns, survey content, and the growth of communication channels, have been blamed for this fall in participation rates. As a result, studies into the underlying reasons for non-response and the creation of successful engagement tactics for potential respondents are desperately needed. The possibility of increased nonresponse bias, in which systematic differences between respondents and nonrespondents may affect survey estimates, is an obvious worry about dropping response rates. Whether non-response is consistently linked to the relevant survey variable is a crucial consideration. This highlights how crucial it is to recognize and comprehend the traits that set respondents apart from non-respondents in order to evaluate and account for potential bias.

A complete approach combining advanced statistical correction techniques and better data-gathering methods is needed to address the issue of nonresponse bias. The creation of theory-based models of nonresponse propensity that make use of additional variables that can forecast survey participation behavior and important findings has been the focus of recent research. The main goals of the study (Wagner et al. (2014),Amaya and Harring (2017) and Peytchev, Presser, and Zhang (2018)) are to improve correction and to better understand survey response mechanisms. These models make it easier to implement targeted treatments, increase the precision of nonresponse bias assessments, and offer post-data collection modification processes. It is especially crucial to regularly monitor changes in response rates and how they affect the quality of survey data as survey research techniques advance. Subsequent investigations should examine whether the decrease in response rates and the transition to online surveys persist, as well as how these modifications impact the bias in survey outcomes. Finding legitimate auxiliary variables for nonresponse adjustment across survey modes and contexts should be a key focus of future studies. The objective of these initiatives is to create and improve methods to guarantee that survey results retain their high levels of validity, reliability, and representativeness in the face of shifting audience preferences and behavior.

Reference

Amaya, Ashley, and Jeffrey R. Harring. 2017. "Assessing the Effect of Social Integration on Unit Nonresponse in Household Surveys." *Journal of Survey Statistics and Methodology*,

April. https://doi.org/10.1093/jssam/smx001.

Daikeler, Jessica, Michael Bošnjak, and Katja Lozar Manfreda. 2019. "Web Versus Other Survey Modes: An Updated and Extended Meta-Analysis Comparing Response Rates." *Journal of Survey Statistics and Methodology* 8 (3): 513–39. https://doi.org/10.1093/jssam/smz008.

Dutwin, David, and Trent D Buskirk. 2020. "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. https://doi.org/10.1093/jssam/smz044.

Kristen Olson, Katherine Jenny Thompson. 2020. "Special Virtual Issue on Nonresponse Rates and Nonresponse Adjustments." https://academic.oup.com/jssam/pages/special-virtual-issue-on-nonresponse-rates-and-nonresponse-adjustments.

Peytchev, Andy, Stanley Presser, and Mengmeng Zhang. 2018. "Improving Traditional Nonresponse Bias Adjustments: Combining Statistical Properties with Social Theory." *Journal of Survey Statistics and Methodology* 6 (4): 491–515. https://doi.org/10.1093/jssam/smx035.

Wagner, J., R. Valliant, F. Hubbard, and L. Jiang. 2014. "Level-of-Effort Paradata and Nonresponse Adjustment Models for a National Face-to-Face Survey." *Journal of Survey Statistics and Methodology* 2 (4): 410–32. https://doi.org/10.1093/jssam/smu012.

Williams, Douglas, and J Michael Brick. 2017. "Trends in u.s. Face-to-Face Household Survey Nonresponse and Level of Effort." *Journal of Survey Statistics and Methodology* 6 (2): 186–211. https://doi.org/10.1093/jssam/smx019.