NORC Research Science

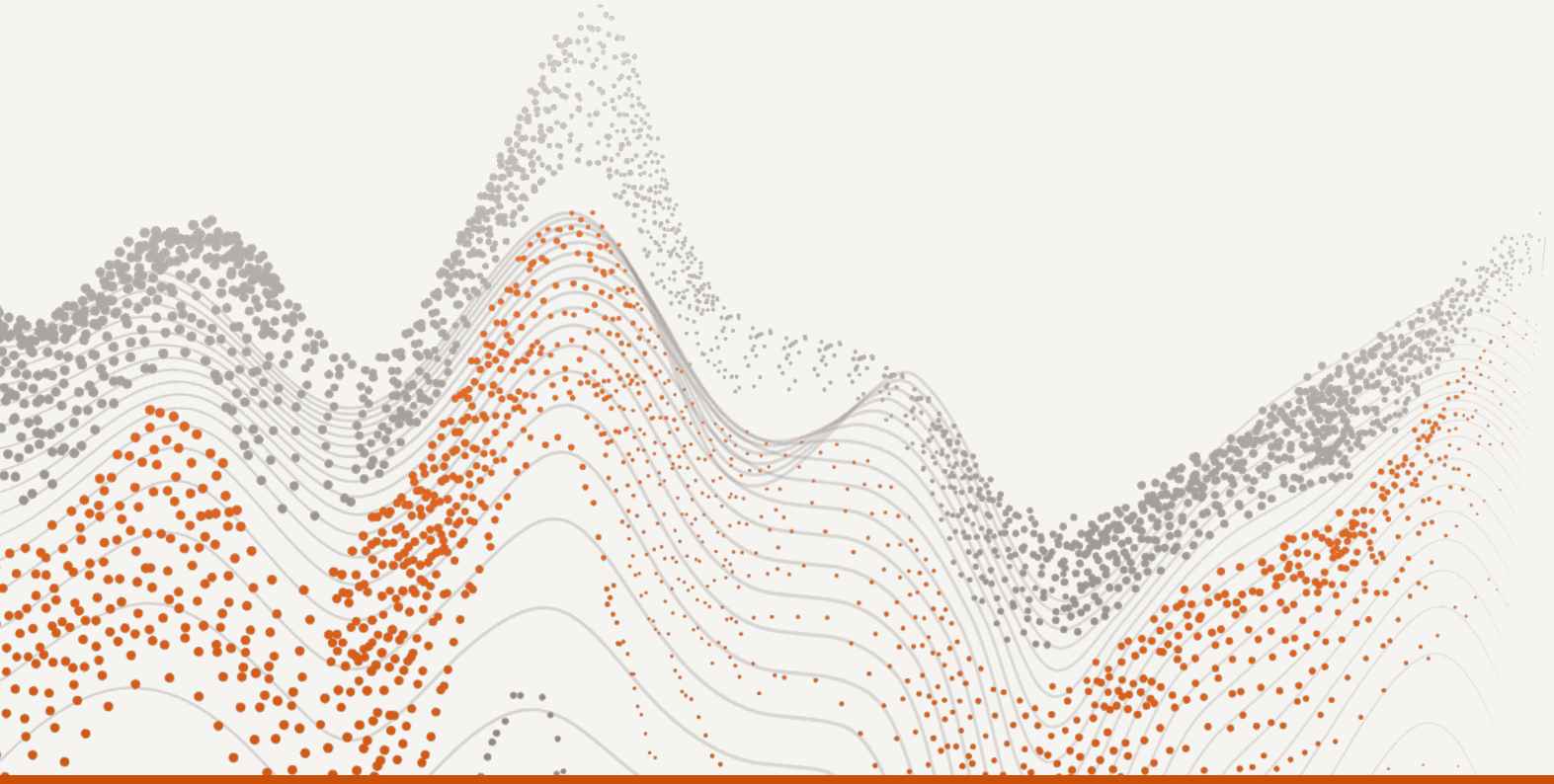
RESEARCH BRIEF
JUNE 2025

Analyzing Incentive Amount Effects:

Evidence from the Religious Landscape Survey

Presented by:
NORC at the University of Chicago

Prepared by:
Juanita Vivas Bastidas
Martha McRoy



Description of the project

The literature on survey research demonstrates that there is a positive relationship between offering incentives and survey response rates. Importantly, in designing surveys, researchers must decide how much incentive to offer. While some studies show that larger incentives may yield larger gains in response, some researchers argue that the relationship between incentive amount and response rates is not linear. This experiment examines the impact of offering a $2 prepaid incentive versus a $5 prepaid incentive in a final contact attempt on response rates, associated costs per completed interview, and respondent composition. Drawing on data from the 2023 Religious Landscape Study III (RLS III), we found that the $5 prepaid incentive had a statistically significant higher response rate (14.8%) compared to the $2 prepaid incentive (12.5%). Additionally, we observed that the $5 prepaid incentive helped reach more harder to respond populations. These findings suggest that investing in higher incentives can not only enhance response rates but also improve the representativeness of survey samples, which is crucial for the validity of research outcomes.

Introduction

In survey research, the influence of monetary incentives on respondent profiles and response rates has been extensively studied. Evidence consistently shows that offering a pre-incentive can significantly enhance response rates and sample representativeness (Mercer et al., 2015). Two primary theories explain this effect: social exchange theory and leverage-saliency theory.

Social exchange theory suggests that individuals are more likely to participate in surveys when they perceive the rewards-to-costs ratio as favorable (Dillman et al., 2014). On the other hand, leverage-saliency theory posits that the impact of an incentive depends on its perceived value and ease of receipt (Groves et al., 2000).

Research has examined both the amount and form of incentives. For example, studies comparing a $2 pre-incentive with a $5 pre-incentive indicate that higher amounts generally improve participation (Dykema et al., 2015; Han et al., 2013). However, there are diminishing returns beyond certain thresholds, where additional increases in incentive amounts do not lead to proportionate increases in participation (Edwards et al., 2005). Mercer et al. (2015) suggest that survey mode and incentive delivery timing also play an important role in the effectiveness of incentives.

Our experiment examined the impact of using a $2 prepaid incentive versus a $5 prepaid incentive on respondent characteristics and response rates. We hypothesized that the $5 prepaid incentive would have higher response rates and increased representativeness by reaching more harder-to-respond populations.

Data and Analysis

Our data came from the 2023 Religious Landscape Study III (RLS III), a nationally representative mixed mode survey of over 35,000 respondents exploring religious beliefs and practices on a variety of measures, such as belief in God and rates of religious service attendance.

The survey of 36,908 adults was conducted July 17, 2023, to March 4, 2024. Interviews were conducted via web, phone, and paper-and-pencil instrument (PAPI), with 25,250 completed by web, 925 completed by phone with a live interviewer, and 10,733 completed by PAPI. Interviews were conducted in English and Spanish, depending on the respondent's preference. All respondents were offered a $10 incentive upon survey completion. The response rate of the survey was 19.4% (AAPOR RR1).

The address-based sample (ABS) was released across two replicates to allow for more precision in hitting the project targets. The experiment took place in replicate I where all sampled households were mailed up to six sequential invitations:

I. Letter mailed via USPS first class mail in a #10 envelope with "peekaboo" window with one $2 bill pre-incentive.

II. 6x9 Postcard mailed via USPS first class mail with PIN obscured by a scratch-off. No pre-incentive.

III. Letter mailed via USPS first class mail in a 6x9 envelope. No pre-incentive.

IV. English only PAPI mailed via USPS first class mail in a 6x9.5 envelope. Bilingual PAPI mailed with both Spanish and English PAPIs via USPS in a 9x12 envelope. Two $1 bills pre-incentive included.

V. 6x9 Postcard mailed via USPS first class mail with PIN obscured by a scratch-off. No pre-incentive.

VI. PAPI mailed via UPS Mail Innovations (UPS MI) using their standard flat envelope to a subsample of addresses. The UPS MI included either two $1 bills or one $5 bill pre-incentive.

Importantly, the experiment in this brief took place in the 6th mailing where a subsample of 60% of nonrespondents were randomly selected to receive the second PAPI mailing. Of those, one-sixth received the $5 pre-incentive and five-sixths received the $2 pre-incentive. Those who received the higher incentive were identified as the hardest-to-reach nonrespondents using predictive modelling through big data classification (Dutwin et al., 2023).

Findings

Effects on response rates and costs per complete

The subgroup of nonrespondents who received the $2 pre-incentive had a response rate of 12.5%. By contrast, those who received the $5 pre-incentive had a statistically significant higher response rate of 14.8% (Table 1).

Importantly, the costs per complete attributed to the pre-incentive for offering the $5 prepaid incentive was $34.51 while costs per complete for offering the $2 prepaid incentive was $16.29 (Table 1).

Table 1. Response Rates and Costs by Prepaid Incentive Amount

	$2 pre-incentive	**$5 pre-incentive**
Complete interviews	5,762	1,356
Total mailings sent	46,922	9,359
AAPOR Response Rate (RR1)	12.5%	14.8%
Cost per complete (prepaid incentive)	$16.29	$34.51

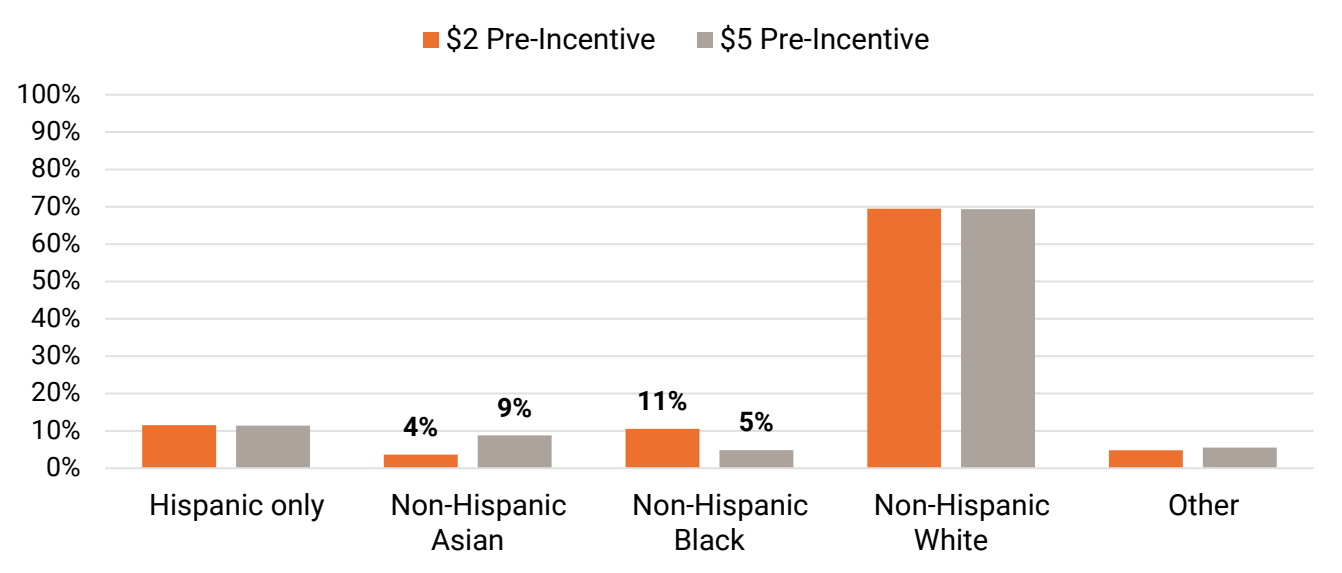
Effects on respondent composition

We analyzed the respondent compositions for the demographic characteristics of age, sex, race and ethnicity, educational attainment, nativity, and voter registration. Consistent with our expectations, the $5 prepaid incentive helped reach more harder to respond populations.

The subgroup that participated after receiving the $5 prepaid incentive were more likely to be in the 65+ age group (<.001), self-classify as male (<.001), and, for those that are US citizens, not be registered to vote (<.001). By contrast, the subgroup who received the $2 prepaid incentive were more likely to be in the 45-64 age group (<.001), self-classify as female (<.001), and be registered to vote (<.001). The relationship between education and incentive amount was not found to be statistically significant.

Figure 1 illustrates the ethno-racial distribution of our sample by pre-paid incentive amount. The subgroup who received the $5 prepaid incentive was more likely to self-classify as non-Hispanic Asian (<.001). Conversely, the subgroup who received the $2 prepaid incentive was more likely to self-classify as non-Hispanic Black (<.001).

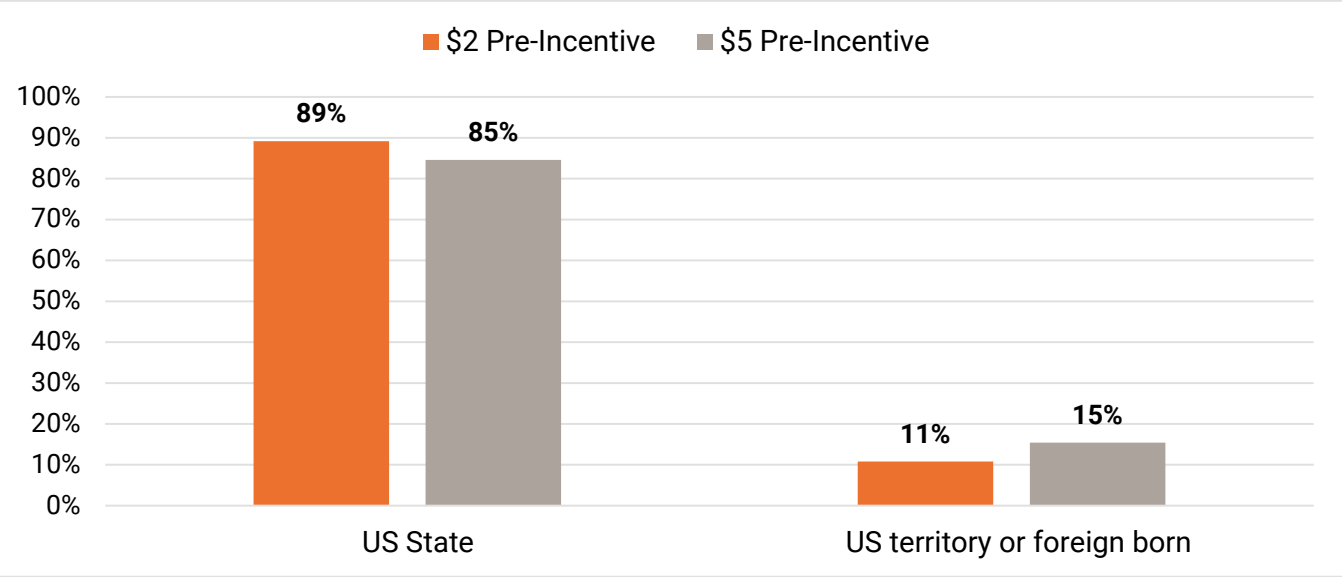
Figure 1. Ethno-racial Distribution by Pre-Incentive



Bold percentages are statistically significant at the alpha = 0.05 level.

Figure 2 shows the nativity distribution by pre-incentive amount. As seen, the subgroup who received the $5 prepaid incentive was more likely to be born in a US territory or foreign nation (<.001). On the other hand, the subgroup who received the $2 prepaid incentive was more likely to be born within one of the 50 US states (<.001).

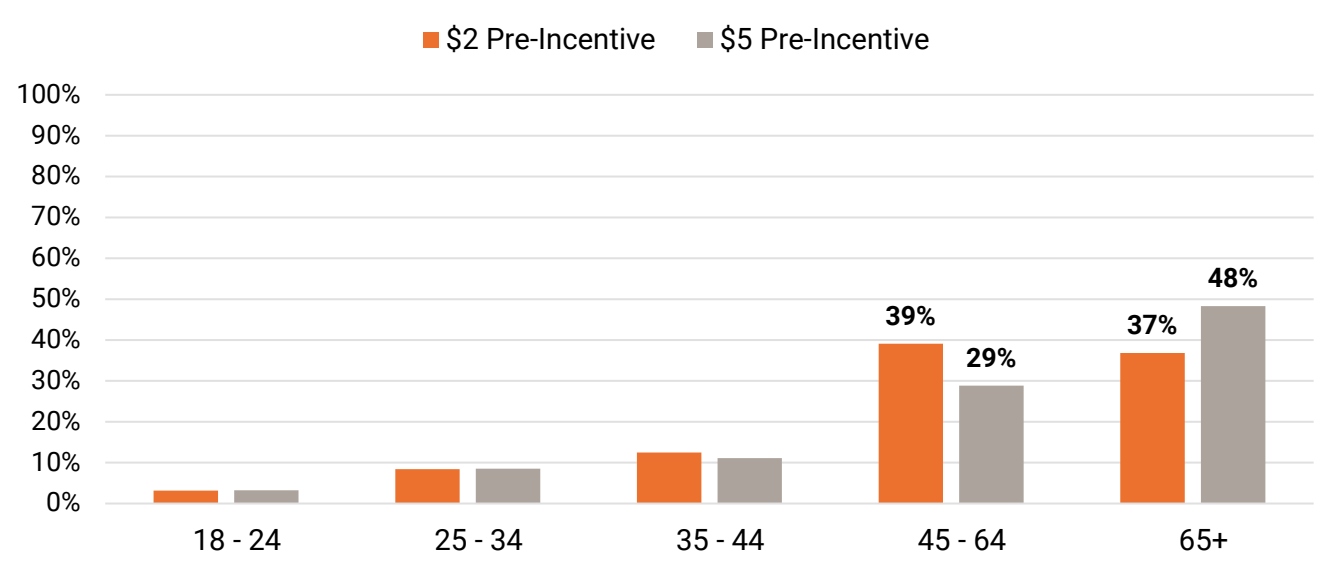
Figure 2. Nativity Distribution by Pre-Incentive



Bold percentages are statistically significant at the alpha = 0.05 level.

Figure 3 shows the age distribution by pre-incentive amount. The subgroup who received the $5 prepaid incentive was more likely to be in the 65+ age group (<.001). On the other hand, the subgroup who received the $2 prepaid incentive was more likely to be in the 45 to 64 age group (<.001).

Figure 3. Age Distribution by Pre-Incentive



Bold percentages are statistically significant at the alpha = 0.05 level.

We also analyzed the relationship between prepaid incentive amount and four key substantive measures in the survey—namely, religion, religious services attendance, the importance of religion in one's life, and belief in God or a universal. Each of the four relationships between the measures on religion and the pre-incentive amount was not statistically significant.

Conclusions

We found that offering the $5 prepaid incentive helped reach more harder to respond populations, though it cost twice as much per complete than offering the $2 prepaid incentive. Drawing on the results presented here, we recommend survey methodologists to determine their recruitment approach based on their target sample. That is, if the research question requires the methodologist to reach some harder to respond populations such as non-Hispanic Asians or those born in a US territory or foreign nation, then offering a $5 prepaid incentive could be advisable. If survey outcomes are not tied to these populations, it may be more cost effective for the methodologist to offer the lower prepaid incentive amount.

References

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method, 4th Edition (4th edition). Wiley.

Dutwin, D., Coyle, P., Lerner, J., Bilgen, I., & English, N. (2023). Leveraging Predictive Modelling from Multiple Sources of Big Data to Improve Sample Efficiency and Reduce Survey Nonresponse Error. *Journal of Survey Statistics and Methodology*, 12(2), 435–457. https://doi.org/10.1093/jssam/smad016

Dykema, J., Jaques, K., Cyffka, K., Assad, N., Hammers, R. G., Elver, K., Malecki, K. C., & Stevenson, J. (2015). Effects of Sequential Prepaid Incentives and Envelope Messaging in Mail Surveys. *Public Opinion Quarterly*, 79(4), 906–931. https://doi.org/https://doi.org/10.1093/poq/nfv041

Edwards, P., Cooper, R., Roberts, I., & Frost, C. (2005). Meta-analysis of Randomised Trials of Monetary Incentives and Response to Mailed Questionnaires. *Journal of Epidemiology and Community Health*, 59(11). https://doi.org/10.1136/jech.2005.034397

Groves, R. M., Singer, E., & Corning, A. (2000). Leverage-Saliency Theory of Survey Participation: Description and an Illustration. *Public Opinion Quarterly*, 64(3), 299–308.

Han, D., Montaquila, J. M., & Brick, J. M. (2013). An Evaluation of Incentive Experiments in a Two-Phase Address-Based Sample Mail Survey. *Survey Research Methods*, 7(3), 207–218.

Mercer, A., Caporaso, A., Cantor, D., & Townsend, R. (2015). How Much Gets You How Much? Monetary Incentives and Response Rates in Household Surveys. *The Public Opinion Quarterly*, *79*(1), 105–129. https://www.jstor.org/stable/24546360