Multi-Mode Political Surveys
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Introduction/Background

Despite the fact that, on average, recent polling in the US has performed no worse than in the past, significant misses in some races have polarized poll watchers concerned about the future of political polling. Of primary concern is the potential biases created by increasing cell-phone only (CPO) households, declining response rates, and the relationship between non-coverage, non-response, and predicting voting outcomes. The increasing costs required to conduct methodologically sound pre-election polling is another concern. All of these concerns are forcing pollsters to adopt new methodologies, one of which is the use of mixed-mode surveys. Mixed-mode surveys are used to combine the strengths of multiple methodologies in order to achieve higher response rates, more representative samples, and better response quality. There is also evidence that using a mixed-mode design increases the efficiency of a survey. This poster explores the feasibility of using a mixed-mode design (web and telephone) to conduct voter surveys by presenting a comparison of survey efficiency, sample representativeness, and survey estimates produced by using telephone and web-based data collection strategies. The data for this poster comes from surveys conducted using list-based samples of registered Pennsylvania voters during the months of June (n=640), August (n=691), and October (n=677), 2015. The potential to improve sample representativeness through mixed mode design is tempered by the fact that using a mixed-mode approach could lead to differences in data depending on the survey method used. A comparison of data collected from this study using web and phone surveys by Chang and Krivisch (2009) indeed found differences in their data, specifically that “telephone data manifested more random measurement error, more survey satisficing, and more social desirability response bias than did the Internet data.” A Pew Research study of over 3,000 respondents randomly assigned to either phone or web found that web respondents more frequently expressed negative views of politicians than phone respondents. They also found that respondents interviewed on the phone were more likely to say they were satisfied and happy with their social life and family than web respondents. Efficiency

Efficiency is measured using the number of interviewing hours it required to obtain one completed interview or hours per complete (HPC). Hours per complete captures response in relation to labor. The efficiency of a survey increases as the HPC decreases. Declining sample efficiency for RDD surveys drove a switch to listed samples (Figure 1). To help isolate the effect of a mixed-mode methodology, HPC was compared for statewide political polls conducted in June, August, and October from 2006 through 2015. Overall, hours per complete is significantly affected by survey methodology (Figure 2).

Survey Estimates

This mixed mode experiment produced few differences in response patterns by mode. In terms of demographics, web respondents were more likely than phone respondents to be under 55 and were less likely to be retired. Web respondents were also less likely to be registered Democrats (see Figure 3). Respondents, whether responding by telephone or on-line, rated the performance of political figures similarly (Figure 4).

Representativeness

Probability sampling operates under the assumption that a small sample accurately represents the features of a large, unobserved population. High response rates have traditionally been used as an indicator that a randomly drawn sample provides the necessary foundations for unbiased inference, but two issues highlight the problem of using response rates to assess validity. First, nonresponse rates have been dramatically increasing; the National Research Council (2013) found a dramatic increase in both nonresponse and refusal rates in six common household surveys from 1990 to 2009. Second, response rates are no longer considered a good measure of sample representativeness. Groves and Couper (1998) first demonstrated that response rates have no direct correlation to survey error. Groves also found no relationship between response rate and absolute relative bias of the survey. Instead of relying on response rates, researchers are now more likely to reference a survey’s representativeness through some type of representativity (R) indicator. R-indicators provide a tool for assessing survey bias and adjusting for nonresponse by comparing information about respondents and nonrespondents that exists within the original sample file. When the respondents and nonrespondents are identical an R-indicator has a theoretical value of 1; however, a value of 0.7 or higher is accepted as representative (Peress 2010, Schouten et al. 2009). In addition, an R-indicator creates a propensity score, or likelihood of responding, for everyone in the sample. The overall R-indicator for these studies is .88, which suggests that the respondents are adequately representative of the original sample in terms of the variables for which we have data. The R-indicator for the unmatched respondents (those without a listed telephone) is actually a bit higher, .90, than the overall study value and suggests that including these respondents improves the overall sample representativeness. The likelihood of a case generating a completed survey is associated with six variables that were included in the listed sample data file. Party registration, having a listed phone number, region of residence, age, and voting history each have an independent effect on the likelihood of completing a survey. The likelihood of completing a survey increases as sampled respondents get older, increases the more frequently a respondent has voted, and is higher for those who live outside of Philadelphia (Table 1).

Conclusions

This study provides evidence that the use of mixed-mode surveys can be a useful strategy for gathering information from registered voters. The approach allowed respondents to choose the most favorable method of response and allowed us to develop a sample that was more representative by including more younger respondents and fewer retirees in our final sample, but also failed to significantly impact other key demographic categories. Contrary to expectations, the study also revealed that political ratings did not differ significantly by survey mode, with web and telephone respondents providing similar ratings of elected officials. In this study, survey efficiency, measured in HPC, is significantly impacted by sampling method, but not by the use of multi-mode data collection methodology.

References

1. The n values represent the total number of completed surveys. The total sample size for each survey was 8,000.
3. This study used the mixed-mode methodology of McFarland et al. 2014. See McFarland et al. (2014) for more information.
4. F(2,2201)=10.122, p < .001, for mixed-methodology (M = 1.243, SD = .049) is significantly higher than both listed methodology (M = .906, SD = .065) and mixed-mode methodology (M = .917, SD = .106), but there is not a significance difference between HPC for listed and mixed-mode methodology.
6. For those interested in response rates, we found that including unmatched respondents via the web increased the overall response rate by about one percentage point.