

Introduction to group activity

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Online, Opt-in Surveys: Fast and Cheap, but are they Accurate?

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<https://5harad.com/papers/dirtysurveys.pdf>

ABSTRACT

It is increasingly common for government and industry organizations to conduct online, opt-in surveys, in part because they are typically fast, inexpensive, and convenient. Online polls, however, attract a non-representative set of respondents, and so it is unclear whether results from such surveys generalize to the broader population. These non-representative surveys stand in contrast to probability-based sampling methods, such as random-digit dialing (RDD) of phones, which are a staple of traditional survey research. Here we investigate the accuracy of non-representative data by administering an online, fully opt-in poll of social and political attitudes. Our survey consisted of 49 multiple-choice attitudinal questions drawn from the probability-based, in-person 2012 General Social Survey (GSS) and select RDD phone surveys by the Pew Research Center. To correct for the inherent biases of non-representative data, we statistically adjust estimates via model-based poststratification, a classic statistical tool but one that is only infrequently used for bias correction. Our online survey took less than one-twentieth the time and money of traditional RDD polling, and less than one-hundredth the time and money of GSS polling. After statistical correction, we find the median absolute difference between the non-probability-based online survey and the probability-based GSS and Pew studies is 7 percentage points. This difference is considerably larger than if the surveys were all perfect simple random samples drawn from the same population; the gap, however, is comparable to that between the GSS and Pew estimates themselves. Our results suggest that with proper statistical adjustment, online, non-representative surveys are a valuable tool for practitioners in varied domains.

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- ▶ Try different approaches to weighting and see how the change the estimates
- ▶ De-identify and open-source data

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- ▶ Collecting survey data
- ▶ Analyzing survey data (data wrangling and post-stratification)
- ▶ Working with Amazon Mechanical Turk
- ▶ Archiving data for other researchers

Remember: This is a learning activity so try whatever you want.

Our recommended work flow:

- ▶ Create survey on Google Forms
- ▶ Deploy to MTurk
- ▶ Take a break



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Following



Just wrapped up the first week of #SICSS2017! On Thursday, we got 50+ online survey responses, all while frolicking in a fountain.



3:24 PM - 24 Jun 2017

Our recommended work flow:

- ▶ Create survey on Google Forms
- ▶ Deploy to MTurk
- ▶ Take a break
- ▶ Validate and pay workers
- ▶ Analyze the much larger sample that we have collected for you
- ▶ De-identify and open-source the data that you collected