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How to Measure Persuasion 98% Cheaper and 90% Faster

Experiments are the most rigorous way campaigns can learn how to increase their impact. However, existing persuasion experiments are expensive, time-consuming, and yield ambiguous results. As a result, campaigns often turn to inferior approaches like models to identify current supporters, lacking real-world treatment and control groups.

We have developed and implemented a new design for persuasion experiments that is considerably **cheaper**, **faster**, and **more precise** than traditional persuasion experiments.

The Traditional Approach and Its Shortcomings

Traditional persuasion experiments follow the design below.

1. **Universe selected.** Campaign defines an experimental universe of voters.
2. **Randomization.** Half these voters are randomly assigned to a treatment group and the remainder to a control group.
3. **Implementation.** The campaign attempts to canvass every voter in the treatment group. Many voters are not reached. The campaign does not attempt to contact the control group.
4. **Telephone Survey.** Phone surveys are attempted with the entire universe.
5. **Analysis.** Comparing the treatment and control groups' opinions reveals the effect of the canvass on voter attitudes and identifies who is most persuaded.

This design requires contacting and surveying excessive numbers of voters for two main reasons:

1. **Low treatment contact rates.** Many voters do not answer when campaigns knock on their doors. Uncontacted voters dilute effects, meaning samples must be larger to detect the true effect.
2. **Low survey response rates.** Campaigns must contact many voters in order to obtain reasonable survey sample sizes, as many voters who are treated will never be measured.

For example, an experiment able to reliably detect a 10 percentage point effect would require:

- Over 22,500 successful canvass contacts, based on 90,000 knocks.
- A control group of 90,000 voters would need to be reserved and not contacted.
- Survey costs of $65,000, and an additional $65,000 if persistence is measured.
- A telephone survey that captures a disproportionately older, whiter audience.

The New Approach

The new approach helps address these shortcomings, using the below design:

1. **Universe selected.** Campaign defines an experimental universe of voters.
2. **Recruitment to panel and pre-survey.** These voters are mailed and asked to join an online survey panel. Voters who complete the survey receive a cash reward.
3. **Randomization of panelists.** We randomize *only the surveyed voters* to treatment or control.

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4. **Canvassing of panelists, with placebo.** Campaign attempts contacting voters in the treatment group with its script and in the control group with an unrelated placebo script.
5. **Survey of contacted voters.** Voters the campaign successfully contacted are resurveyed.
6. **Analysis.** With the pre- and post-treatment surveys, we measure the effectiveness of the campaign and model who is most affected.

Why The New Approach Is Superior

Persuasion field experiments conducted with the new approach yield cost and time savings:

1. **Higher Survey Response Rates = Smaller Experiments.** Because voters receiving the treatment all previously agreed to participate in the panel, almost every voter the campaign canvassed can be measured again. The campaign doesn't need to waste time canvassing voters who will never respond to a measurement survey.
2. **Improved Precision from Baseline Responses.** We increase precision considerably by using the survey responses from the pre-treatment survey.
3. **Longer questionnaires yield more precise measurements.** Asking multiple questions about the topic of the experiment yields more precise measures of voters' views, reducing noise.
4. **Feasibility of the placebo design.** Because of the above advantages, the necessary sample size becomes small enough that campaigns can conduct placebo designs. These designs identify contactable voters in the control group, allowing for an extremely precise comparison to be conducted between contactable voters in treatment and control.

How large are these cost savings? Suppose a campaign wanted to conduct a canvass experiment to detect a 10 percentage point effect. Using the new design, a campaign could learn an answer in a fraction of the time and at significantly lower cost:

10 percentage point experiment:	Traditional Design	New Design
Pre-Survey	-	350 for $5,000
Attempts	90,000	350
Contacts	22,500 for $225,000	200 for $2,000
Immediate Post-Survey	15,000 for $65,000	175 for $2,000
Additional Post Survey	15,000 for $65,000	175 for $2,000
Total Survey Costs	$130,000	$11,000
Conversations	22,500	300
Time	~2 months	~2 days

Want to learn more?

We look forward to working with you on the design, implementation, and analysis of your political persuasion experiment using this new, repeated online panel design. As a first step, check out our user-friendly calculator at elections.berkeley.edu where you can see how the experiment you are considering might benefit from this new design.

About Us

David Broockman (dbroockman@stanford.edu) is an Assistant Professor of Political Economy at the Stanford Graduate School of Business. Before Stanford, David received a Ph.D. at the University of California at Berkeley. He also previously worked at the AFL-CIO, Analyst Institute, CREDO Action, and Google, where he designed and implemented platforms to automate testing of the experimental effects of online advertisements. David has published widely on field experiments, public opinion, voter behavior, and research methodology.

Joshua Kalla (kalla@berkeley.edu) is a Ph.D. student in the Department of Political Science at the University of California, Berkeley. Joshua has conducted over 100 field experiments with political campaigns on political persuasion, voter contact, and grassroots advocacy. Prior to starting Redwood Research, he conducted dozens of experiments at the Analyst Institute since the 2012 election cycle.

Jasjeet Sekhon (sekhon@berkeley.edu) is the Robson Professor of Political Science and Statistics at the University of California, Berkeley and Senior Fellow at the Berkeley Institute for Data Science. Jas served as an advisor to the Democratic National Committee for Bush v. Gore in 2000 and as part of the DNC's Ohio Election Task Force after the 2004 election. In addition to his research on voting irregularities, Jas has developed statistical and computational methods for causal inference, machine learning, and program evaluation, has written widely used open source software for optimization and estimation, and has published extensively on elections, voting behavior, public opinion, applied statistics, and public health.