Pre-Analysis Plan: MP contact experiment

July 15th, 2019

We evaluate the effect of emails on whether supporters of an Anti-Brexit campaign group contact their MP to encourage them to support a second referendum [People's Vote] on the UK's exit from the UK [Brexit] via a randomized field experiment conducted by an anti-Brexit campaign group. Supporters of the campaign group that live in constituencies represented by an MP who has not already expressed support for a second referendum on Brexit are randomly assigned to one of three experimental conditions: Receive one of two emails encouraging them to contact their local MP which includes a direct URL that leads them to a pre-designed email for them to sign and forward to their representative, or to control (no email).

The first treatment group (T1) receives an email encouraging them to contact their MP. The second treatment group (T2) receives the same email with the inclusion of additional information that highlights the existing non-supportive stance of their MP for a second referendum. The control group (C) received no email.

Our aim is to test (1) whether efforts to recruit identified supporters to lobby their MPs to support a second referendum via email are effective, and (2) whether informing supporters of the existing position of their MP makes them more likely to respond to encouragements exercised by the organisation.

Hypotheses

H1: Email contact from the campaign organisation encouraging their pre-identified supporters to contact their MP lobbying for a second referendum on Brexit will mobilise subjects to contact their MP.

H2: The effect of the campaign group's email on emails sent to MPs will be greater amongst those subjects who are also informed of their MP's lack of support for a 2nd referendum.

Sample

Experimental subjects are pre-identified supporters of a 2nd referendum who live in constituencies whose MP has not expressed support for a second referendum on Brexit. The total sample includes 119388 subjects.

The sample size of 119388 provides us with sufficient N to identify ITTs of 1 percentage-point with 80% power.

Random Assignment of Treatment

Using complete random assignment, subjects will be assigned with a probability of 1/3 to three groups. T1, T2, and C.

Treatment

Individuals assigned to T1 will receive an email from the campaign group. The email will encourage recipients to email their MP in order to lobby their support for a second referendum on Brexit. The email received by T1 highlights the need for parliament to vote on a second referendum in order for the people to have a final say on Brexit.

Individuals assigned to T2 will receive an email identical to that received by T1 with one additional feature. The email received by T2 will inform recipients of the existing lack of support of their respective MP in relation to a second referendum on Brexit.

Individuals assigned to C will receive no email from the campaign group.

Data and Outcome Measures

The outcome measure is binary and defined as the successful submission of lobbying emails from supporters to their respective MP via the organisation's online mask. It takes on the value 1 if the email was submitted via the online platform, and the value 0 if no email was submitted. The outcome is measured via a traceable URL that tracks the successful submission of pre-designed emails of supporters using the organisation's platform.

The outcome variable will be collected for 7 days from the delivery of the treatment.

Estimands

We will estimate three Intent-to-Treat Effects on the main outcome measure. The ITTs are defined as:

$$ITT_a = \frac{1}{N}\sum_{i=1}^{N} Y_i(z = 1) - \frac{1}{N}\sum_{i=1}^{N} Y_i(z = 0)$$

$$ITT_b = \frac{1}{N}\sum_{i=1}^{N} Y_i\,(z = 2) - \frac{1}{N}\sum_{i=1}^{N} Y_i\,(z = 0)$$

$$ITT_c = \frac{1}{N}\sum_{i=1}^{N} Y_i\,(z = 2) - \frac{1}{N}\sum_{i=1}^{N} Y_i\,(z = 1)$$

$Y_i\,(z = 1)$ is the potential outcome for individual *i* under assignment to treatment 1, $Y_i\,(z = 2)$ is the potential outcome for individual *i* under assignment to treatment 2, and $Y_i\,(z = 0)$ is the potential outcome for individual *i* under assignment to control.

We will use the difference-in-proportions estimator to estimate the ITT, and the covariate-adjusted OLS estimator to estimate the covariate-adjusted ITT. We will use the following covariates for adjustment: MP's party, donated before, and volunteered before. We will use randomization inference using the ri2 package in R to estimate p-values and confidence intervals.

If data on email bounce-backs is available, we will also estimate and report the corresponding Complier Average Causal Effects (CACE). For the treatment vs control comparisons, we will use 2sls with robust standards errors (HC2), instrumenting whether an email was delivered (d) with treatment assignment z.

For the treatment 2 vs treatment 1 comparison, we will condition on whether the email was delivered (did not bounce back). We can condition on bounce backs because whether an email would be delivered should not be a function of treatment assignment. In this case, the CACE will be the ATE for the subsample of compliers.

We use two-tailed hypothesis tests and alpha=0.05 throughout.