

## **Appendix (For Online Publication)**

### **Respondent Attention**

To assess the risk of careless responses, Study VI included a Screener question (Berinsky, Margolis, and Sances 2014). Respondents were asked their favorite color, then informed the question was in fact an attention check, and that to demonstrate attention they should select both “red” and “green” as their answer. Twenty out of 51 respondents, or 39%, passed the attention check. Table A1 shows the results of regressions used to estimate the relationships between passage, zip code match, and incentives. Cell entries are regression coefficients, with robust standard errors in parentheses. In columns (2) and (3), errors are clustered on zip code, as the incentives were randomized at this level.

Screener passage is positively associated with having a matching zip code, though the result is imprecisely estimated. Among those failing the Screener, the match rate is 71%; among passers, it is 90%. The standard error from the difference in means is 0.108, and the p-value is 0.08. Column (2) shows that 48% of respondents recruited without incentives passed the Screener, while passage is 14% lower among those recruited with incentives; again the difference is imprecisely estimated, with a standard error of 0.142 and a p-value of 0.37.

If incentives had any impact on attention, this did not carry over into differences in match rates. Column (3) shows that the match rate is 76% among those not receiving incentives, and is actually 4% higher among those receiving incentives; the difference is also imprecisely estimated, with a standard error of 13% and a p-value of 0.77.

### **Discrepancies in Facebook Access**

To measure differential access, I divide the number of Facebook users by the population aged 18 and older in a particular zip code. The numerator is obtained by querying the Facebook ad interface for the “potential reach” of an ad within the zip code. The denominator is from the 2016 American Community Survey (five-year estimates).

Table A1: Analysis of respondent attention from Study VI.

	(1)	(2)	(3)
	Zip Code Matched	Passed Screener	Zip Code Matched
Passed Screener	0.190 (0.108)		
Incentives		-0.143 (0.155)	0.0381 (0.129)
Constant	0.710 (0.0832)	0.476 (0.121)	0.762 (0.104)
Sample size	51	51	51

In Figure A1 I plot the proportion of zip code matches against the proportion of Facebook access, by zip code (performing the analysis at the individual level gives substantively similar results). The solid line is a best-fitting line from a linear regression, and the shaded area spans the 95% confidence interval. While there is a slight positive relationship, it is statistically no different from zero. In a regression of a match indicator on standardized access, an additional standard deviation of access is associated with an increase in the match rate of 4 percentage points (robust standard error of 5 points,  $p = 0.4$ ).

## Instructions for Validation Using Survey Items

(NB: This guide assumes knowledge of the basic Facebook advertising workflow, including setting up a campaign, setting up an ad set, and creating an ad. See the citations to the existing literature in the main text for more information.)

Suppose we have an existing ad campaign, and we also have an ad set associated with this campaign, “Zip 38152 Raffle,” targeted toward US adults, aged 18+, living in the zip code 38152.

Figure A1: Access does not explain match rates.

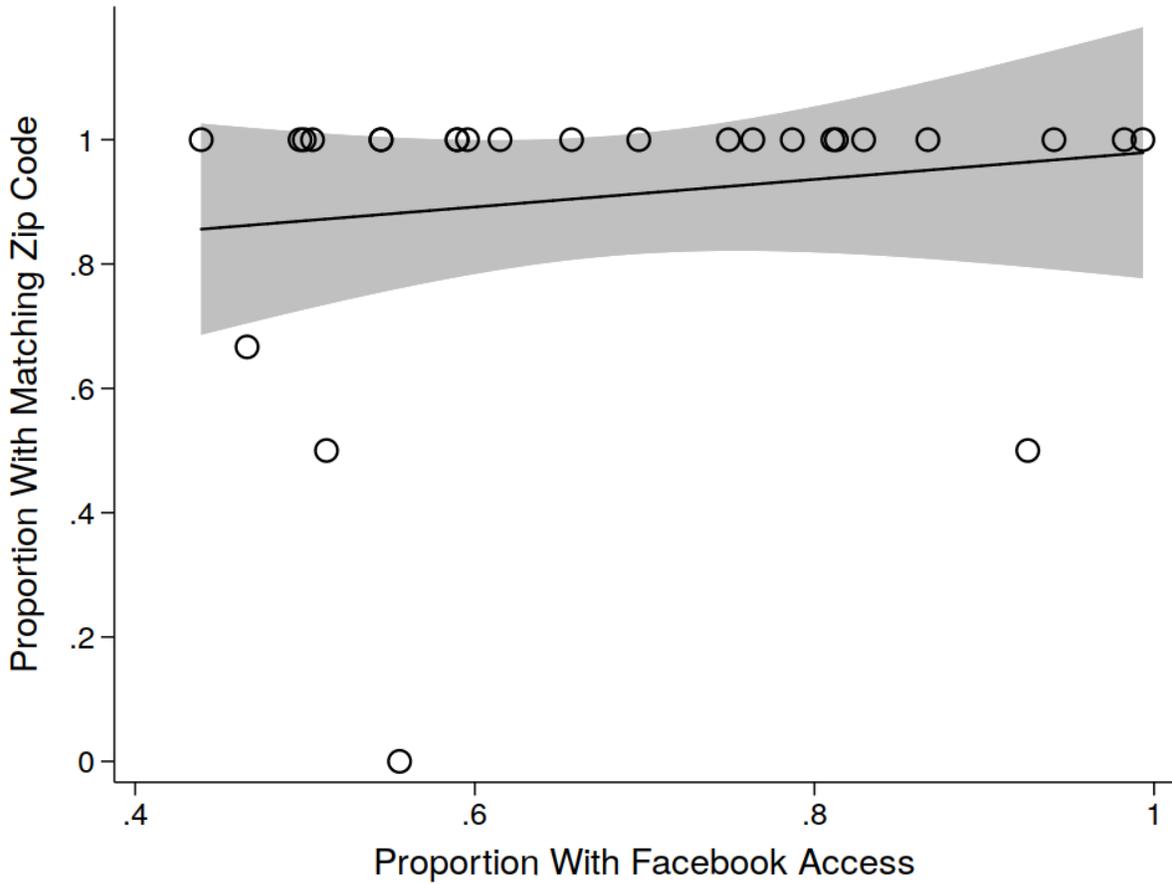


Figure A2 shows a screen shot of this ad set. Note we choose the zip code 38152 (the location of the University of Memphis) arbitrarily for this example, as it was not used in any of the studies.

The next step is to edit the ad to be shown to users meeting these targets. Figure A3 shows the ad editing interface, which links to a Qualtrics survey (shown in the top left). Figure A4 scrolls down and shows fields for specifying ad targets in the form of URL parameters. Here, the parameters are “raffle=1” (in order to tell Qualtrics to include the relevant consent language about incentives) and “zipcode=38152” (to tell Qualtrics that these users have been assigned this zip code by Facebook).

The next step is to prepare Qualtrics to catch these parameters. Figure A5 shows a screen shot of Qualtrics “survey flow” interface. The two embedded data items at the top are set to record the

value of “raffle” as a variable *raffle* and the value of “zipcode” as a variable *zip*. Figure [A5](#) shows the survey item used to record self-reported zip code into a variable *zipcode*. Once the data are collected, we can then simply cross-tabulate *zip* and *zipcode* in order to assess the match rate.

Figure A2: Screen shot of ad set with targets.

The screenshot shows the 'Editing Ad Set' interface for a 'Zip [redacted] Raffle'. The main section is 'Audience', where the target is 'People who live in this location'. The location is set to 'United States' with the zip code '38152'. A map shows the area around the University of Memphis. On the right, the 'Audience Definition' section features a gauge showing the audience is 'Specific' (left side of the gauge) and provides a warning: 'Your audience is too specific for your ads to be shown. Try making it broader.' Below this, 'Estimated Daily Results' are shown: Reach is 74 - 460 and Link Clicks are 7 - 41. A warning states: 'Your results are likely to differ from estimates. We have limited data available to calculate this estimate, so estimates may be less accurate. The accuracy of estimates is based on factors like past campaign data, the budget you entered and market data.' At the bottom, there are buttons for 'Close', 'Discard Draft', and 'Publish'.

Figure A3: Screen shot of ad editing interface with base URL.

The screenshot shows the 'Editing Ad' interface for the same 'Zip [redacted] Raffle'. The 'Website URL' is 'https://'. The 'Text' section contains the message: 'Please participate in our scientific survey of 3 min. You could win a \$25 Amazon gift card (1 in 125 chance). Your voice is important!'. The 'Display Link (optional)' field is empty. The 'Headline' is 'Should Congress Reform Health Care?'. The 'News Feed Link Description' is identical to the text. The 'Call To Action' is set to 'No Button'. On the right, the 'Ad Preview' shows the ad as it will appear in a 'Mobile News Feed'. The ad includes a '2018 Health Reform Survey' sponsored by 'memphis.co1.qualtrics.com' with the headline 'Should Congress Reform Health Care?'. The ad image shows several 'VOTE' buttons. At the bottom, there are buttons for 'Close', 'Discard Draft', and 'Publish'.

Figure A4: Screen shot of ad editing interface with target parameters.

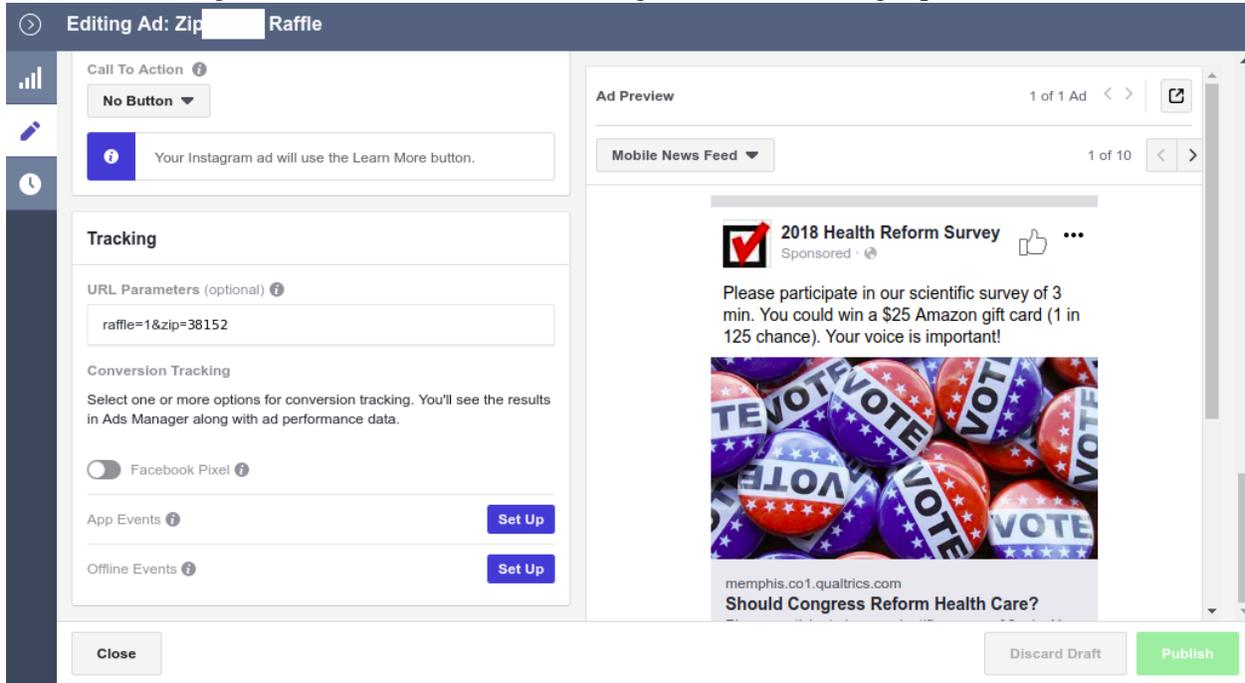


Figure A5: Screen shot of Qualtrics survey flow.

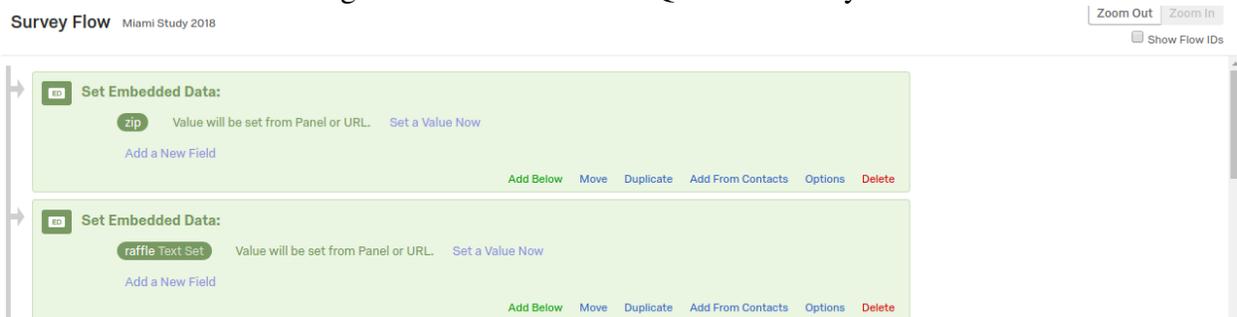


Figure A6: Screen shot of survey item used for zip code validation.

Preview Question

---



May we please have your home zip code? This information is requested for statistical purposes only and will not be used to recontact you.

Powered by Qualtrics

---

Close