# Methodology and Findings of the ANES 2016 Recruitment Pretest Study 

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#### Abstract

The ANES 2016 Recruitment Pretest Study was a test of experimental survey methods to prepare for the internet component of the ANES 2016 Time Series Study. The purpose of the study was to optimize methods to recruit a representative probability sample of adult U.S. citizens by mail to respond to a twowave panel survey on the Internet, and to achieve a high response rate. Using address-based sampling, 1,820 residential addresses were selected from the USPS delivery sequence file (later increased to $2,020)$. The list of sampled addresses was enhanced with publicly and commercially available data about the residents of the addresses, including the residents' names. Addresses were assigned to one of 5 experimental conditions to find effects of differing incentive offers, of screening online or by mail, and of invitations to named persons or "to the family at" the sampled address. Effects on cost, response rate, sample quality, and panel retention were examined. Screening by mail resulted in a significantly lower response rate than screening online. No differences were detected in the response rates among online screening after invitations addressed by name or "to the family," nor were differences detected between the high and low incentive conditions. Name-matching for sample records appears unreliable, and higher incentives are significantly more costly, suggesting that the optimal cost-conscious design for the main study is to address invitations "to the family" living at the address and to offer the lower of the tested incentives.


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## I. Introduction: Purpose and Outline of the Study

The ANES 2016 Recruitment Pretest Study was a test of experimental survey methods to prepare for the internet component of the ANES 2016 Time Series Study. The purpose of the study was to optimize methods to recruit a representative probability sample of adult U.S. citizens by mail to respond to a twowave panel survey on the Internet, lasting an hour or more on each wave, and to achieve a high response rate.

Using address-based sampling, 1,820 residential addresses were selected from the USPS delivery sequence file. The list of sampled addresses was enhanced with publicly and commercially available data about the residents of the addresses, including the residents' names. Addresses for which commercially available data indicated a resident's name and appeared reliable were considered "matched" and could be used to send named invitations to the study.

Addresses were assigned to one of five experimental conditions to test three alternative designs: invitations to named persons or "to the family" living at the sampled address; invitations involving a high up-front incentive or a lower up-front incentive followed by an offer of an increased incentive ("frontloaded" vs. "escalating"); and screening online or by mail.

Data collection occurred at six major steps, summarized as follows and detailed later in this report.

1. Draw address-based sample (ABS)
2. Assign sampled addresses to experimental conditions
3. Enhance the sample with commercial list data
4. Invite participants

- Front-loaded incentives to named persons
- Front-loaded incentives "to the family at" the sampled address
- Escalating incentives to named persons
- Escalating incentives "to the family at" the sampled address
- Invitations to complete and return a screening questionnaire by mail

5. Screen households and administer "pre-election" survey

- Matched case protocol
- Unmatched case protocol

6. Administer "post-election" survey to pre-election completions

This report describes the study's sample, the methods of inviting (recruiting) study participants, and the process of screening households and collecting the data. The remainder of the report describes the outcomes of the study: the response rate and other outcome rates, sample quality, the accuracy of sample enhancements (that is, name matching), and the effects of mailings and incentives. The report concludes with a summary of methodological conclusions applicable to the choice of methods for the internet component of the ANES 2016 Time Series study.

## II. SAMPLING

## Population and sampling frame

The population of interest for the study was citizens of the United States age 18 and older who lived in the 50 states or District of Columbia at the time of the survey.

The sampling frame - that is, the list from which we drew the sample - was the list of residential addresses to which the United States Postal Service delivered mail in the 50 states and District of Columbia. This list is called the USPS Computerized Delivery Sequence File (CDSF or DSF).

Most of the U.S. population lives at an address where the postal service delivers mail, so most of the population of interest for the study was "covered" by the frame, meaning that most of the population had a chance to be included in the study. After excluding drop points, addresses were selected from the DSF using simple random sampling without replacement.

A "drop point" or "drop stop" address is an address associated with more than one dwelling unit where the same mail box or receptacle is used by more than one dwelling unit, and the dwelling units are not differentiated in the address. For example, a building divided into several apartments might receive mail for all of these apartments through one slot in the building's front door, with no apartment designation in the address, and residents would take their mail from this common receptacle.

Drop point addresses were excluded from selection because individual dwelling units cannot be differentiated for such addresses. This means we cannot practically use probability selection methods to select respondents at such addresses. Excluding drop point addresses is a source of bias in the sample design. Drop points account for 1.9 percent of residential addresses nationwide. ${ }^{1}$ They are likely to be urban. They are about 20\% of housing units in New York City, 15\% in Chicago, and 10\% in Boston. Drop point units tend to be substandard rental housing units and are more likely to be occupied by people with lower incomes and members of minority groups.

## Sample size

We selected 1,820 addresses from the DSF and subsequently added 200 additional addresses during data collection to correct an error (described later in this report).

## Experimental conditions

The sample addresses were randomly assigned to one of five experimental conditions, with 364 cases in each condition:

- Condition 1A. Addresses in this condition were selected to receive invitations addressed to a named person (whenever possible, based on match status as defined in step 3), and to receive front-loaded incentive offers to complete the survey online.
- Condition 1B. Addresses in this condition were selected to receive invitations addressed to the residence, and to receive front-loaded incentive offers to complete the survey online.

[^0]- Condition 2A. Addresses in this condition were selected to receive invitations addressed to a named person (whenever possible, based on match status) and to receive escalating incentive offers to complete the survey online.
- Condition 2B. Addresses in this condition were selected to receive invitations addressed to the residence, and to receive escalating incentive offers to complete the survey online.
- Condition 3. Addresses in this condition were selected to receive invitations addressed to the residence, and to receive escalating offers to mail back a screener completed on paper.

These conditions and their variation in how invitations were addressed (to resident in all cases or to a named person whenever appropriate), how incentives were offered (escalating or front-loaded), and how the screener was completed (online or by mail) are summarized in Table 1, below.

Table 1. Experimental conditions for incentive, response, and screening mode

| Incentive <br> \& response | To named person <br> (if matched) | To resident <br> (matched or not) |
| :--- | :--- | :--- |
| Front-loaded <br> Online screener <br> Mailback screener | Condition 1A <br> [not used] | Condition 1B <br> [not used] |
| Escalating <br> Online screener <br> Mailback screener | Condition 2A <br> [not used] | Condition 2B <br> Condition 3 |

Note: Conditions 1A and 2A are a mix of "matched" and "unmatched" cases. The ratio of the mix will depend on the sample draw and final criteria for defining matched cases. See step 3 below.

## Enhancing the sample and matching records

Data for selected addresses were merged with data from a commercial list. Data from the vendor providing the commercial list included names and demographic information about the residents at the selected addresses, as well as voter registration status and voter turnout histories.

All 1,820 sampled addresses were sent to the list vendor for matching. Table 2 shows the status of sample addresses and the matching results.

Table 2. Status of Sample Addresses and Individuals ANES 2016 Recruitment Pretest Study

|  | Addresses | Individuals |
| :---: | :---: | :---: |
| Sample size |  |  |
| Addresses selected from DSF | 1,820 | -- |
| Assigned per test condition (5 conditions) | 364 | -- |
| Result from vendor |  |  |
| Sent to vendor for augmentation/matching | 1,820 | -- |
| Excluded from matching: Illinois | 82 | -- |
| Not matched by vendor | 20 | -- |
| Returned by vendor with additional data | 1,718 | 5,380 |
| Result of ANES filtering |  |  |
| Vendor data deemed unmatched or dropped... |  |  |
| by Stage 1 "deceased" and "deadwood" status | -- | 1,326 |
| by Stage 1 mailing and registered address mismatches | -- | 1,374 |
| by Stage 1 additional rules (dropping individual duplicates etc.) | -- | 281 |
| by Stage 2 rules (dropping doubtful households) | -- | 239 |
| Deemed matched \& mailable | 1,184 | 2,160 |

Addresses from Illinois (numbering 82) were excluded from matching because Stanford University, as a private institution, is not legally allowed access to voter records from that state. Of the remaining 1,738 addresses, 1,718 were matched by the vendor, and the vendor returned data on 5,380 individuals associated with these addresses.

Our purpose in matching addresses to vendor data was to find the name of at least one person we could be very confident was living at the sampled address. We wanted such a name so that we could address a letter to that person in order to screen the household and randomly select one eligible household member to participate in the survey. We believed that, in comparison to addressing letters to "Resident" or "The family living at" the sampled address, sending an invitation letter correctly addressed by name might increase the chance of getting a response from their household. However, we also believed that sending an invitation letter addressed to the name of someone not living at the household could greatly decrease the chance of getting a response. We preferred, therefore, to err on the side of discarding matches if we were not fairly sure of their accuracy, so we developed stringent rules for considering an address "matched."

The matching rules are reproduced in Appendix 1, and the results of applying these rules are shown in Table 2. To be considered matched, the sampled DSF addresses in standardized format were required to match exactly with the vendor's address in standardized format, including street name, number, type (Street, Lane, Avenue, etc.), direction indicator (North, South, etc.), and apartment number. At Stage 1, we excluded individuals that the vendor identified as probably deceased or as "deadwood," meaning that their voter registration data were out of date. This rule excluded 1,326 individuals. We also excluded 1,374 individuals whose mailing address and voter registration address did not match, because this reduced our confidence that the individual lived at the sampled address. Based on the additional Stage 1 rules, we excluded 281 individuals that appeared to be duplicate records or did not appear to be the current resident. At Stage 2, we excluded 239 individuals where the household composition
appeared unlikely, such as those where one housing unit appeared to house more than one family at the same time. After applying these rules, we deemed 2,160 individuals at 1,184 of the sampled addresses to be "matched" and mailable.

After applying the matching rules, some addresses assigned to condition 1 A or 2 A - those experimental conditions designated for named invitations where good matches were obtained - were considered "unmatched" and were subsequently treated, for operational purposes, like the addresses in conditions 1B or 2B. This meant sending invitations addressed "to the family living at" instead of to named individuals because we either had no name associated with the address or were not confident that the names associated with the address were correct. Table 3 shows the number of cases affected. Of the 364 cases assigned to condition 1A, 246 were matched and the remaining 118 were unmatched and were therefore treated like condition 1B for invitations. Of the 364 cases in condition 2A, 230 were matched and the remaining 134 were unmatched and were therefore treated like condition 2B for invitations.

Table 3. Number of cases for each test condition by sample match status

| Condition | Original | Final | Invitation type |
| :--- | ---: | ---: | :--- |
| Condition 1A (front-loaded, addressed by name) | $\mathbf{3 6 4}$ | $\mathbf{2 4 6}$ |  |
| Considered "matched" | 246 | -- | Invited by name |
| Considered "unmatched" or "dropped" | 118 | -- | Treated like 1B for invitations |
| Condition 1B (front-loaded, addressed nameless) | $\mathbf{3 6 4}$ | $\mathbf{4 8 2}$ |  |
| Considered "matched" | -- | By design, names are not used |  |
| Considered "unmatched" or "dropped" | -- | -- | Names not used |
| Condition 2A (escalating, addressed by name) | $\mathbf{3 6 4}$ | $\mathbf{2 3 0}$ |  |
| Considered "matched" | 230 |  | Invited by name |
| Considered "unmatched" or "dropped" | 134 |  | Names not used |
| Condition 2B (escalating, addressed nameless) | $\mathbf{3 6 4}$ | $\mathbf{4 9 8}$ |  |
| Considered "matched" | -- | -- | By design, names are not used |
| Considered "unmatched" or "dropped" | -- | -- | Names not used |
| Condition 3 (mailback screener, addressed nameless) | $\mathbf{3 6 4}$ | $\mathbf{3 6 4}$ |  |
| Considered "matched" | -- | By design, names are not used |  |
| Considered "unmatched" or "dropped" | -- | -- | Names not used |
| TOTAL | -- | $\mathbf{1 , 8 2 0}$ |  |

For each matched address in Condition 1A and Condition 2A we randomly selected one named adult household member from the household's names on the commercial list (after deleting duplicates, deadwood, etc., as described above). This person was the "preselected person" for the purpose of screener invitations.

Note that this preselection did not affect respondent selection for the main survey; preselection was a recruitment strategy to put names on envelopes, not a sampling strategy to select people to answer the main survey.

## Type of sample

This is a complicated study design so it may be helpful to note the following two points about the sample explicitly.

This is not a survey of specifically named persons. Names were used, when deemed reliable, as part of our recruitment strategy, but names were irrelevant to sampling; the availability or use of names affected neither eligibility for the study nor probability of selection.

This sample design is not stratified. Housing units were selected by simple random sampling from the DSF after excluding drop point addresses.

## III. Invitations

We simultaneously followed five invitation protocols, each tailored to one of the five test conditions. Survey announcements and invitations were delivered by FedEx, first class mail, postcard, and Priority Mail. The mail mode, incentives offered and promised, and request are summarized in Table 4 and described in more detail in this section below.

Letters to unmatched cases were addressed to "The family living at" except in 15 cases where the addresses were PO boxes, where the letters were addressed to "[City] resident."

The advance letters were originally planned to be sent using USPS Priority Mail. However, the USPS was not able to deliver a sufficient quantity of Priority Mail envelopes to us within 10 days of our order due to a major snowstorm in the winter of 2016, so we substituted FedEx for this mailing and used Priority Mail for the nonresponse letters.

## Invitations for Condition 1A for matched cases

The invitation protocol has the following key steps. Letter numbers in this list correspond to letter text shown in Appendix 2.

1. Advance letter. Mail an advance letter (letter \#1) to every matched address selected for condition 1A, addressed to the preselected person. Use FedEx 2 day.
2. Collect returned letters. Collect and code results from advance letters returned to sender. Update database accordingly. If the address is marked "Vacant," assign an ineligible disposition to the address and stop working the case. If the person is marked as having moved or addressee unknown, reassign the case status to unmatched and follow the unmatched protocol ("Invitations for Condition 1A unmatched cases and for Condition 1B") from step 1.
3. First class invitation. On the Monday after sending the advance letter, send invitation letter (\#2) via first class mail with $\$ 20$ cash enclosed and a promise of $\$ 80$ to follow when survey is completed online, with URL \& PIN for the survey.
4. Reminder postcard. Wait 6 days, then send a reminder postcard (\#3) to nonrespondents, with URL \& PIN.
5. Reminder postcard 2. Wait 17 days, then send reminder postcard (\#92) to nonrespondents, with URL \& PIN.
6. Nonresponse Priority Mail letter. Wait 18 days, then send nonresponse letter (\#4) with promise of $\$ 80$, URL \& PIN.
7. Reminder postcard 3. Wait 4 days, then send final mailing (postcard \#42) with promise of $\$ 80$, URL \& PIN.

If at any point a sampled household or person contacted us to refuse, we classified the refusal as a Final Refusal or a Not-Final Refusal. Final Refusals received no further contact. Non-Final Refusals received no further contact until 10 days before the close of fielding and then were sent the refusal conversion letter.

Complete details of the contacts for this condition and other conditions are shown in a flowchart in Appendix 3.
Table 4. Summary of initial survey invitation mailings: ANES 2016 Recruitment Pretest Study

| Condition |  | Mail mode, incentive, and request |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mailing 1 | Mailing 2 | Mailing 3 | Mailing 4 | Mailing 5 | Mailing 6 |
| 1A | Named, front-loaded | FedEx 2-day | 1st class | folded postcard | folded postcard | USPS Priority Mail | folded postcard |
|  |  | no cash enclosed | \$20 enclosed | no cash enclosed | no cash enclosed | no cash enclosed | no cash enclosed |
|  |  | \$20 promised in next letter request: read next letter | $\$ 80$ promised request: go online | $\$ 80$ promised request: go online | \$80 promised request: go online | \$80 promised request: go online | \$80 promised request: go online |
| 1B | Family, front-loaded | FedEx 2-day | 1st class | postcard | postcard | USPS Priority Mail | postcard |
|  |  | no cash enclosed | \$20 enclosed | no cash enclosed | no cash enclosed | no cash enclosed | no cash enclosed |
|  |  | \$20 promised in next letter | \$80 promised | \$80 promised | \$80 promised | \$80 promised | \$80 promised |
|  |  | request: read next letter | request: go online | request: go online | request: go online | request: go online | request: go online |
| 2A | Named, escalating | FedEx 2-day | 1st class | postcard | postcard | USPS Priority Mail | folded postcard |
|  |  | no cash enclosed | \$20 enclosed | no cash enclosed | no cash enclosed | no cash enclosed | no cash enclosed |
|  |  | \$20 promised in next letter | \$40 promised | \$40 promised | \$40 promised | \$80 promised | \$80 promised |
|  |  | request: read next letter | request: go online | request: go online | request: go online | request: go online | request: go online |
| 2B | Family, escalating | FedEx 2-day | 1st class | postcard | postcard | USPS Priority Mail | postcard |
|  |  | no cash enclosed | \$20 enclosed | no cash enclosed | no cash enclosed | no cash enclosed | no cash enclosed |
|  |  | \$20 promised in next letter | \$40 promised | \$40 promised | \$40 promised | \$80 promised | \$80 promised |
|  |  | request: read next letter | request: go online | request: go online | request: go online | request: go online | request: go online |
| 3 | Mailback screener | 1st class | postcard | FedEx Priority Overnight | postcard | USPS Priority Mail | [none] |
|  |  | \$5 enclosed | no cash enclosed | no cash enclosed | no cash enclosed | \$20 enclosed |  |
|  |  | no conditional incentive | no cond. incentive | no cond. incentive | no cond. incentive | \$40 promised |  |
|  |  | request: mail back 2 pg quex | request: mailback | request: mailback | request: mailback | request: go online |  |

## Invitations for Condition 1A unmatched cases and for Condition 1B

The steps here are identical to those described above for Condition 1A matched cases, except that the letters are addressed "To the family living at" the address and allow anyone in the household to complete the screener portion of the survey. The procedures for condition 1B are identical to those for unmatched cases in condition 1A.

1. Advance letter. Mail an advance letter (letter \#5) to every unmatched address selected for condition 1A, addressed to "The family living at". Use FedEx 2 day.
2. Collect returned letters. Collect and code results from advance letters returned to sender. Update database accordingly. If the address is marked "Vacant," assign an ineligible disposition to the address and stop working the case.
3. First class invitation. On the Monday after sending the advance letter, send invitation letter (\#6) via first class mail with no forwarding to "The family living at" each live unmatched address in Condition 1A, with $\$ 20$ cash enclosed and a promise of $\$ 80$ to follow when survey is completed online, with URL \& PIN.
4. Reminder postcard. Wait 6 days, then send a reminder postcard (\#7) to nonrespondents, with URL \& PIN.
5. Reminder postcard 2. Wait 17 days, then send reminder postcard (\#91) to nonrespondents, with URL \& PIN.
6. Nonresponse Priority Mail letter. Wait 18 days, then send nonresponse letter with promise of \$80, URL \& PIN.
7. Reminder postcard 3. Wait 4 days, then send final mailing (postcard \#41) with promise of $\$ 80$, URL \& PIN.

## Invitations for Condition 2A for matched cases

The invitation protocol has the following key steps.

1. Advance letter. Mail an advance letter (\#1) to every matched address selected for condition 2A, addressed to the preselected person. Use FedEx 2 day.
2. Collect returned letters. Collect and code results from advance letters returned to sender. Update database accordingly. If the address is marked "Vacant," assign an ineligible disposition to the address and stop working the case. If the person is marked as having moved or addressee unknown, reassign the case status to unmatched and follow the unmatched protocol from step 1.
3. First class invitation. On the Monday after sending the advance letter, send invitation letter (\#9) via first class mail with $\$ 20$ cash enclosed and a promise of $\$ 40$ to follow when survey is completed online, with URL \& PIN.
4. Reminder postcard. Wait 6 days, then send a reminder postcard (\#10) with URL \& PIN.
5. Reminder postcard 2. Wait 17 days, then send a reminder postcard (\#92) with URL \& PIN.
6. Nonresponse Priority Mail letter. Wait 18 days, then send nonresponse letter (\#11) with escalated promise of $\$ 80$, URL \& PIN.
7. Reminder postcard 3. Wait 4 days, then send final mailing (postcard \#42) with promise of $\$ 80$, URL \& PIN.

## Invitations for Condition 2A unmatched cases and for Condition 2B

The steps here are identical to those described above for Condition 2A matched cases, except that the letters are addressed to the family and allow anyone in the household to complete the screener portion of the survey. The procedures for Condition 2B and for the unmatched cases in Condition 2A are identical.

1. Advance letter. Mail an advance letter (\#5) to every unmatched address selected for condition 2 A , addressed to the "The Family living at". Use FedEx 2 day.
2. Collect returned letters. Collect and code results from advance letters returned to sender. Update database accordingly. If the address is marked "Vacant," assign an ineligible disposition to the address and stop working the case.
3. First class invitation. On the Monday after sending the advance letter, send invitation letter (\#12) via first class mail with no forwarding to "The family living at" each live unmatched address in Condition 2A, $\$ 20$ cash enclosed and a promise of $\$ 40$ to follow when survey is completed online, with URL \& PIN.
4. Reminder postcard. Wait 6 days, then send a reminder postcard (\#13) with URL \& PIN.
5. Reminder postcard 2. Wait 17 days, then send a reminder postcard (\#91) with URL \& PIN.
6. Nonresponse Priority Mail letter. Wait 18 days, then send nonresponse letter (\#14) with escalated promise of $\$ 80$, URL\& PIN.
7. Reminder postcard 3. Wait 4 days, then send final mailing (postcard \#41) with promise of $\$ 80$, URL \& PIN.

## Invitations for Condition 3

1. Invitation letter with instrument. Mail a first class invitation letter (\#15), with no forwarding, addressed to "The family living at" each address in condition 3. Enclose $\$ 5$ cash and the screener instrument and return envelope and a pen.
2. Reminder postcard. Wait 7 days, then mail a thank you/reminder postcard (\#16) to all nonresponding addresses.
3. Followup letter with duplicate instrument. Wait 10 days, then send a followup letter (\#17) by FedEx overnight with screener instrument and return envelope enclosed.
4. Second reminder postcard. Wait 6 days, then send a reminder postcard (\#18).
5. Priority Mail nonresponse followup. Wait 13 days, then send a Priority Mail envelope to deliverable screener nonresponse households. Enclose $\$ 20$ and offer $\$ 40$ for web completion using included URL \& PIN. Instruct for person selection using Hagen-Collier method (oldest/youngest male/female) (letter \#19). ${ }^{2}$
[^1]
## Letters

Table 5 indicates the conditions under which each letter was sent. Appendix 2 presents the text of all letters.

Cases selected for named invitations received letters addressed by name, such as the following:

Matthew DeBell
30 Alta Road
Stanford, CA 94305
Letters had a salutation including the full name, such as the following:
Dear Matthew DeBell,
Cases selected for invitations to the family received letters addressed as follows:
To the family living at
30 Alta Road
Stanford, CA 94305

Salutations were as follows for addresses with or without an apartment number, respectively:
To the family living at 30 Alta Road:

To the family living at 30 Alta Road, Apt 2:
When we had only a post office box for the address, letters were addressed to "City Resident," where "City" included the name of the local city, such as the following:

Stanford Resident
PO Box 1234
Stanford, CA 94305
Dear Stanford Resident:

| Letter | Stage | Letter type | Selection status |  | Experiment group/condition |  |  |  |  | Mail mode | $\begin{gathered} \text { First mailing } \\ \text { date } \\ \hline \end{gathered}$ | Content |  |  |  |  | Online start point | Mailing Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Screened |  | 1A | 1B | 2A | 2B | 3 |  |  | Addressee | Enclosed incentive | Promised incentive | Other enclosures | Request |  |  |
| 1 | screen | Advance letter | no | yes | yes |  |  |  |  | FedEx 2 day | 3-Feb | name | 0 | \$20 | FAQ | Open next letter | na | \$3.67 |
| 2 | screen | Invitation letter | no | yes | yes |  |  |  |  | 1st class \#10 | 8-Feb | name | \$20 | \$80 | FAQ | Go online | screener | \$0.49 |
| 3 | screen | Reminder postcard | no | yes | yes |  |  |  |  | folded postcard | 16-Feb | name | 0 | \$80 | none | Go online | screener | \$0.49 |
| 4 | screen | Nonresponse letter | no | yes | yes |  |  |  |  | Priority | 21-Mar | name | 0 | \$80 | FAQ | Go online | screener | \$6.45 |
| 5 | screen | Advance letter | no | no | yes | yes |  |  |  | FedEx 2 day | 3-Feb | family | 0 | \$20 | FAQ | Open next letter | na | \$3.67 |
| 6 | screen | Invitation letter | no | no | yes | yes |  |  |  | 1st class \#10 | 8 -Feb | family | \$20 | \$80 | FAQ | Go online | screener | \$0.49 |
| 7 | screen | Reminder postcard | no | no | yes | yes |  |  |  | postcard | 16-Feb | family | 0 | \$80 | none | Go online | screener | \$0.35 |
| 8 | screen | Nonresponse letter | no | no | yes | yes |  |  |  | Priority | 21-Mar | family | 0 | \$80 | FAQ | Go online | screener | \$6.45 |
| 1 | screen | Advance letter | no | yes |  |  | yes |  |  | FedEx 2 day | 3-Feb | name | 0 | \$20 | FAQ | Open next letter | na | \$3.67 |
| 9 | screen | Invitation letter | no | yes |  |  | yes |  |  | 1st class \#10 | 8 -Feb | name | \$20 | \$40 | FAQ | Go online | screener | \$0.49 |
| 10 | screen | Reminder postcard | no | yes |  |  | yes |  |  | folded postcard | 16-Feb | name | 0 | \$40 | none | Go online | screener | \$0.49 |
| 11 | screen | Nonresponse letter | no | yes |  |  | yes |  |  | Priority | 21-Mar | name | 0 | \$80 | FAQ | Go online | screener | \$6.45 |
| 5 | screen | Advance letter | no | no |  |  | yes | yes |  | FedEx 2 day | 3-Feb | family | 0 | \$20 | FAQ | Open next letter | na | \$3.67 |
| 12 | screen | Invitation letter | no | no |  |  | yes | yes |  | 1st class \#10 | 8 -Feb | family | \$20 | \$40 | FAQ | Go online | screener | \$0.49 |
| 13 | screen | Reminder postcard | no | no |  |  | yes | yes |  | postcard | 16-Feb | family | 0 | \$40 | none | Go online | screener | \$0.35 |
| 14 | screen | Nonresponse letter | no | no |  |  | yes | yes |  | Priority | 21-Mar | family | 0 | \$80 | FAQ | Go online | screener | \$6.45 |
| 15 | screen | Invitation letter | no | no |  |  |  |  | yes | 1st class $9 \times 12$ | 1-Feb | family | \$5 | 0 | Scrn, pen, env. | Return screener | na | \$2.54 |
| 16 | screen | Reminder postcard | no | no |  |  |  |  | yes | postcard | 8 -Feb | family | 0 | 0 | none | Return screener | na | \$0.35 |
| 17 | screen | Followup letter | no | no |  |  |  |  | yes | FedEx priority | 18 -Feb | family | 0 | 0 | Scrn, pen, env. | Return screener | na | \$5.55 |
| 18 | screen | 2nd reminder card | no | no |  |  |  |  | yes | postcard | 24-Feb | family | 0 | 0 | none | Return screener | na | \$0.35 |
| 19 | screen | Nonresponse letter | no | no |  |  |  |  | yes | Priority | 8-Mar | family | \$20 | \$40 | FAQ | Go online (Hagen-Collier) | screener | \$6.45 |
| 20 | pre | Invitation email | yes | no | yes | yes | yes | yes |  | email | 19-Feb | name | 0 | \$40 or \$80 | none | Go online | pre | \$0.00 |
| 21 | pre | Followup email | yes | no | yes | yes | yes | yes |  | email | 25-Feb | name | 0 | \$40 or \$80 | none | Go online | pre | \$0.00 |
| 22 | pre | Invitation letter | yes | no | yes | yes |  |  |  | 1st class \#10 | 16-Feb | name | \$20 | \$80 | FAQ | Go online | pre | \$0.49 |
| 23 | pre | Invitation letter | yes | no |  |  | yes | yes |  | 1st class \#10 | 16-Feb | name | \$20 | \$40 or \$80 | FAQ | Go online | pre | \$0.49 |
| 24 | pre | Reminder postcard | yes | no | yes | yes |  |  |  | folded postcard | 1-Mar | name | 0 | \$80 | none | Go online | pre | \$0.49 |
| 25 | pre | Reminder postcard | yes | no |  |  | yes | yes |  | folded postcard | 22-Feb | name | 0 | \$40 or \$80 | none | Go online | pre | \$0.49 |
| 26 | pre | Nonresponse letter | yes | no | yes | yes | yes | yes |  | FedEx priority | 2-Mar | name | 0 | \$80 | FAQ | Go online | pre | \$5.55 |
| 27 | pre | Invitation letter | yes | no |  |  |  |  | yes | 1st class \#10 | 10-Feb | name | \$10 | \$40 | FAQ | Go online | pre | \$0.49 |
| 28 | pre | Reminder postcard | yes | no |  |  |  |  | yes | folded postcard | 17-Feb | name | 0 | \$40 | none | Go online | pre | \$0.49 |
| 29 | pre | Followup letter | yes | no |  |  |  |  | yes | 1st class \#10 | 4-Mar | name | 0 | \$60 | FAQ | Go online | pre | \$0.49 |
| 30 | end pre | Household refcon | no | no | yes | yes | yes | yes | yes | 1st class \#10 | 24-Mar | family | 0 | highest | FAQ | Go online | screener | \$0.49 |
| 31 | end pre | Person refcon | no | yes | yes |  | yes |  |  | 1st class \#10 | 24-Mar | name | 0 | highest | FAQ | Go online | screener | \$0.49 |
| 32 | end pre | Person refcon | yes | either | yes | yes | yes | yes | yes | 1st class \#10 | 26-Apr | name | 0 | highest | FAQ | Go online | pre | \$0.49 |
| 33 | end pre | Payment letter (pre) | yes | not app. | yes | yes | yes | yes | yes | 1st class \#10 | 16-Feb | name | \$40,60,80 | 0 | none | None | na | \$0.49 |
| 34 | post | Post invitation email | yes | not app. | yes | yes | yes | yes | yes | email | 6-Apr | name | 0 | highest pre | none | Go online | post | \$0.00 |
| 35 | post | Post reminder email | yes | not app. | yes | yes | yes | yes | yes | email | 18-Apr | name | 0 | highest pre | none | Go online | post | \$0.00 |
| 36 | post | Post invitation letter | yes | not app. | yes | yes | yes | yes | yes | 1st class \#10 | 5-Apr | name | 0 | highest pre | none | Go online | post | \$0.49 |
| 37 | post | Post reminder postcard | yes | not app. | yes | yes | yes | yes | yes | folded postcard | 12-Apr | name | 0 | highest pre | none | Go online | post | \$0.49 |
| 38 | post | Post reminder letter | yes | not app. | yes | yes | yes | yes | yes | FedEx priority | 13-May | name | 0 | highest pre | none | Go online | post | \$5.55 |
| 39 | post | Post final email | yes | not app. | yes | yes | yes | yes | yes | email | 25-May | name | 0 | highest pre | none | Go online | post | \$0.00 |
| 40 | post | Payment (post) | yes | not app. | yes | yes | yes | yes | yes | 1st class \#10 | 7-Apr | name | highest pre | 0 | none | None | na | \$0.49 |
| 41 | pre | Reminder postcard 3 | no | no |  | yes |  | yes |  | postcard | 25-Mar | familiy | 0 | \$40 or \$80 | none | Go online | pre | \$0.49 |
| 42 | pre | Reminder postcard 3 | no | yes | yes |  | yes |  |  | folded postcard | 25-Mar | name | 0 | \$40 or \$80 | none | Go online | pre | \$0.49 |
| 91 | pre | Reminder postcard 2 | no | no |  | yes |  | yes |  | postcard | 3-Mar | family | 0 | \$40 or \$80 | none | Go online | pre | \$0.49 |
| 92 | pre | Reminder postcard 2 | no | yes | yes |  | yes |  |  | folded postcard | 3-Mar | name | 0 | \$40 or \$80 | none | Go online | pre | \$0.49 |

## IV. Screening and Followup with Selected Persons

Prospective respondents were screened for the study in different ways depending on the experimental condition to which their address was randomly assigned and whether we were able to match their address to a name.

The purpose of screening was to determine the number of household members who were eligible for the survey and to verify that preselection was done properly or, if preselection was not done at all or was not done properly based on sample address information, to randomly select one eligible household member for the main study.

Online screening was minimally invasive. We asked screener respondents how many adult citizens lived in their household, but in most cases it was not necessary to ask the respondent to complete a roster of household residents, so in most cases we did not do so.

The online screener completion rate, conditional on logging into the online survey, was 99 percent.

Details of the screener protocols are described in the sections below. In addition to these descriptions, consult the flowcharts in Appendix 3 to see details of the screening and procedures for contacting individuals who were selected for the study.

## Matched protocol for pre-election ${ }^{3}$ survey (condition 1A matched and 2A matched)

Preselected persons invited using the protocol described in part III of this report connected to the survey online. Respondents were asked to verify their name and address and the number of adult citizens living in the household. If these numbers matched the preloaded data the respondent proceeded to the main survey. In the event of discrepancies, additional questions were asked to allow random selection of an eligible household member. The flow of questions was complex and can be seen by reviewing the screener flowchart in Appendix 3 or the screener questionnaire. In some cases this included rostering the household.

When a household roster was done, the screener software compared the roster of eligible persons (defined for the pretest as those age 18 or older who are US citizens) to the preloaded list of household members. There were three possible outcomes:
i) If the roster matched the preloaded list, the preselected person was the selected respondent and the respondent completed the rest of the survey.
ii) If the roster differed from the preloaded list, the software randomly selected one eligible person from the roster. If this selected respondent happened to be the preselected person, the preselected person was the selected respondent and the respondent completed the rest of the survey. If the selected respondent was someone else, the preselected person's survey ended, they were paid, and they were be asked to help us contact the selected respondent using the following protocol.
a) Personal invitation. Ask if the person at the computer can get the selected respondent to come to the computer now and take the survey.

[^2]b) First class invitation letter with cash. Send an invitation letter by first class mail with $\$ 20$ cash enclosed and a promise of money to follow when the survey is completed online, with URL \& PIN. The promised incentive is based on the condition (1: \$80, 2 : $\$ 40$, or $\$ 80$ if someone in the household was already escalated to $\$ 80$ ).
c) Email. After 3 days, if we have an email address for the selected respondent, send the selected respondent an email invitation to take the survey. Offer the incentive appropriate for the case condition.
d) Reminder postcard. 6 days after invitation letter, send a reminder postcard with URL \& PIN.
e) Reminder email. 6 days after email (c), send a reminder email with URL \& PIN.
f) Nonresponse FedEx letter. Wait 9 days after mailing reminder postcard (d), then send a nonresponse letter by FedEx overnight with URL \& PIN and a promise of \$80.
iii) If the roster is not completed due to item nonresponse, then the best information we have about household composition comes from the preloaded list and we will assume the list is correct and follow step i.

## Unmatched protocol for pre-election survey (condition 1A unmatched, 1B, 2A unmatched, and 2B)

This procedure applies to cases in conditions 1 B and 2 B and in the unmatched cases in conditions 1 A and 2A.

Initial invitations asked any household member to go online to begin the survey. The screener asked the respondent to confirm the address and to report the number of adult citizens living in the household. The Web-CASI system randomly selected one person. If the selected person was the screener respondent then the screener respondent completed the full interview. If another person was selected then the screener respondent completed a short battery of 19 ANES before being asked to complete a household roster that would allow us to identify the selected person.

If the selected person was not the screener respondent then the screener respondent was paid for their completion of the screener and was asked to invite the selected person to complete the survey. The protocol to invite the selected person was as shown on the previous page for part ii, steps a-f.

## Condition 3 protocol for pre-election survey

Respondents assigned to condition 3 were asked to complete a screening survey by mail. Their initial mailing included a \$5 cash incentive and a two-page questionnaire.

For households that returned the mail-back screener we randomly selected a respondent from among those eligible persons listed in the household and sent invitations to named persons as follows:

1. First class invitation letter. Send invitation letter via first class mail with no forwarding to the named selected person. Enclose $\$ 10$ and promise $\$ 40$ for completion of the online survey. Provide URL \& PIN.
2. Reminder postcard. Wait 6 days, then send a postcard addressed to each nonresponding selected person.
3. Followup letter. Wait 7 days, then send a first class letter to each nonresponding selected person with URL \& PIN and escalated offer of $\$ 60$.

Hagen-Colllier selection for non-responding households

Households in condition 3 that did not return the mail-back screener received a nonresponse followup mailing inviting a person described as the oldest or youngest male or female in the household to go online and take the survey. This invitation was sent by USPS Priority Mail with $\$ 20$ cash enclosed and a promise of $\$ 40$ in return for completing the survey online. Once online, the respondent was asked to verify his or her address and residence at the sampled address and answered questions to enable us to calculate the person's within-household selection probability and evaluate the success of the HagenCollier selection. The respondent the continued to the main survey.

## Errors in Screening or Followup

Three kinds of errors affected within-household selection of individuals for a total of 101 cases during or following screening. In one instance, randomization was unnecessarily performed for 23 cases in conditions 1A and 2A. In another, randomization was not performed where it should have been for 77 cases in condition 1B. Finally, a within-household invitation was performed erroneously for one case in condition 3. These errors are described below.

## Unnecessary Randomization in Conditions 1A and 2A

The within-household selection rules called for fresh sampling of a household member when the number of eligible household members was found to differ from the number of household members initially supposed to be eligible based on the enhanced sample data. An error in loading the initial number of supposed eligible household members resulted in an erroneous selection process that affected 23 screener cases. In these cases in conditions 1A and 2 A (that is, in the cases set for named invitations) the random selection of a household member was repeated unnecessarily during screening. As the error affected approximately 1 percent of the sample its effects on the data are likely to be negligible, but theoretically this re-sampling could have fractionally reduced the response rate by selecting a household member other than the named person who had been invited and was completing the screener, assuming (as we do) that other household members would have a slightly lower response propensity than the person already completing the screener. The variable HHFACTOR computed for the study accounts for each case's probability of selection.

## Randomization Failure in Condition 1B

During data collection in late February it was discovered that within-household selection was not occurring randomly for condition 1B, and instead only the screener respondent was ever selected for the extended interview. This failure of within-household randomization resulted in improperly giving other household members 0 probability of selection in 77 cases where there was more than one eligible household member. There were 66 affected households with 2 eligible adults, 5 households with 3 eligible adults, and 6 households with 4 eligible adults. In expectation, about 42 of these households should have completed the main survey with a different respondent if the randomization had been correctly applied.

To correct this error a replacement sample of 200 addresses was worked. The number of replacement sample addresses was based on an estimate of the number of cases it was necessary to release to produce an expected yield of at least 42 additional respondents. In the replacement sample, in all households with more than one eligible adult the screener respondent was ineligible for the main survey and within-household selection occurred randomly among eligible adults other than the screener respondent.

This problem was discovered on February 24 and the plan to correct it was approved on March 2. Advance letters were sent to these additional addresses on March 7 and data collection for this replacement sample ended on May 6. There were 57 additional interviews completed with the replacement sample, exceeding the requirement of 42 cases to correct the error.

To integrate the cases from the replacement sample with the main sample, and to account for the erroneous selection procedure that affected 77 cases in condition 1B, the household selection factor (HHFACTOR) should be used for any methodological analysis of the data. The variable HHFACTOR provides a household selection factor for all households in the sample. When conducting substantive analyses on the respondents who completed the surveys, the variable Weight (poststratified weights that also include household selection probability) should be used.

## Error in Condition 3

Due to a data entry error, in one case in condition 3 a survey invitation letter was sent to an eligible household member who was not selected for the survey. This person completed the "pre-election" survey. After the error was discovered we decided not extend an invitation to complete the "postelection" survey because the person who completed the "pre" was not the selected person.

## V. Main Data Collection

## Dates

Data collection began with the mailing of invitation letters to the cases in condition 3 on Monday, February 1, 2016, and the mailing of advance letters to cases in conditions 1 and 2 on Wednesday, February 3. The first survey completions occurred on February 10. For the main sample, data collection for the "pre-election" survey ended on Monday, April 4 and data collection for the "post-election" survey ran from Wednesday, April 6 to Friday, May 27. Note that the "pre-election" and "post-election" names of the two waves reflect the respective sources of their questionnaire content on the ANES Time Series survey, but an election did not occur between these two pretest waves.

The 200 cases in the supplemental sample used about the same duration of data collection, but starting and ending about 5 weeks later; the first mailings were sent on March 7 and data collection for the supplemental sample "pre-election" wave began and ended on March 14 and May 6, respectively. The "post-election" wave ran from May 11 through July 1.

## Completion times

The median completion times for the first and second stages were 62 and 76 minutes, respectively.

## Questionnaires

This study was designed as a test of methods for a future online version of the American National Election Studies Time Series survey. To make the questionnaire comparable to an ANES Time Series questionnaire, while reducing the costs of programming the instrument, the questionnaires were edited and simplified versions of the ANES 2012 Time Series questionnaires. They were edited to be timely for administration in 2016 and to eliminate most variable and non-linear components of the questionnaire structure, such as complex skip patterns and dynamic fills of questionnaire content. These edits were made to reduce programming costs, as the study's priority was to test recruitment methods that would not be affected by the more sophisticated back-end programming required for a normal ANES Time Series instrument.

The survey used a paging design (one question per page, with a few exceptions) with no progress bar and a simple graphic layout as shown in the examples below.

The question display looked like this:

## National Public

 Life SurveyDo you APPROVE or DISAPPROVE of the way Barack Obama is handling his job as President?

- Approve strongly
- Approve not strongly
- Disapprove not strongly
- Disapprove strongly

```
Back
Next
```

On a mobile device or narrow computer window it looked like this:

```
National Public
    Life Survey
```

Do you APPROVE or DISAPPROVE of the way Barack Obama is handling his job as President?

Approve strongly
Approve not strongly
Disapprove not strongly
Disapprove strongly

## Back

Next

If the respondent clicked Next without answering the question a non-response prompt was displayed.

We noticed that you did not answer the question below. We would be very grateful if you would be willing to provide your best answer, even if you're not completely sure. But if you'd prefer to skip this question, you can click "Next."

National Public
Life Survey

Do you APPROVE or DISAPPROVE of the way Barack Obama is handling his job as President?

- Approve strongly
- Approve not strongly
- Disapprove not strongly
- Disapprove strongly

Next

## VI. Dispositions and Response Rates

## Pre-election dispositions

The final disposition of every sampled address is shown in Table 6. These dispositions are shown for the entire sample ("overall") and for the five test conditions individually. Due to unequal probabilities of selection the sample dispositions are weighted by the household selection factor (HHFACTOR). The table shows the number of cases where interviews were completed (705), and the number screened out as ineligible for the study (225), those that were determined to be eligible but did not respond (167), and the number where eligibility could not be determined (923).

Dispositions for the pre-election stage are described as follows.
10. "Completed pre-election interview." A screener was completed in the household, an eligible person was selected for the online survey, and this individual completed the survey. A "screener" refers to either the online screening instrument, the paper mail-back questionnaire, or the Hagen-Collier instruction to select a particular household member.
20. "Partial pre-election interview." Started the online survey but did not finish it.
21. "Eligible respondent, non-response." A screener was completed for the household and an eligible member of the household was selected for the main survey.
30. "Incomplete screener." A household informant started the online screener but did not finish it, or the paper screener was mailed back but critical questions were not answered.
31. "Non-resident, temporary stay." Someone responded to the mail invitation by indicating that they did not live at the sampled address and were staying there temporarily.
32. "Non-resident, misdelivery." Someone responded to the mail invitation by indicating that they did not live at the sampled address and the invitation letter had been delivered to them by mistake.
33. "Non-resident, forwarded." Someone responded to the mail invitation by indicating that they did not live at the sampled address and that the letter had been forwarded to them.
34. "Non-resident, other." Someone responded to the mail invitation by indicating that they did not live at the sampled address and that they had received the letter in some other way that was not specified.
40. "Mailed with no response or return." We followed the invitation protocol for the address but no mail was returned and no one ever logged into the online survey.
50. "Screened, no adult citizen." The online or mail screener was completed and the household informant reported that no one living at the address was an adult U.S. citizen.
51. "Screened, not a household." The online or mail screener was completed and the informant reported that the address was an institution or group quarters, not a household.
52. "Returned mail, vacant." Mail to the sampled address was returned to us by the US Postal Service marked "vacant."
53. "Returned mail, no such address." Mail to the sampled address was returned as undeliverable.
54. "Returned mail, other ineligible." Mail to the sampled address was returned for another reason that indicated the sampled address was not an occupied household. Envelope markings assigned this code were "attempted not known," "commercial address," "customer not available or business closed," "no house it burned down," "no mail receptacle, unable to forward," "return to sender, unclaimed," "unclaimed," and "unendorsed bulk business mail."

The modal result was disposition 40, "mailed with no response or return." This occurred for 899 of 2020 cases, or 45 percent of the sample.

Table 6. Sample dispositions, by test condition: ANES 2016 Recruitment Pretest Study

| Code Disposition | Overall | Test condition |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1A: named, front-loaded | 1B: family, front-loaded | 2A: named, escalating | 2B: Family, escalating | $\begin{array}{r} \text { 3: Mail } \\ \text { screener } \end{array}$ |
| Completions |  |  |  |  |  |  |
| 10 Completed pre-election interview | 705 | 132 | 206 | 122 | 141 | 104 |
| Eligible nonresponse |  |  |  |  |  |  |
| 20 Partial pre-election interview | 64 | 11 | 17 | 12 | 10 | 14 |
| 21 Eligible respondent, non-response | 103 | 16 | 9 | 13 | 7 | 58 |
| Unknown eligiblity, contact |  |  |  |  |  |  |
| 30 Incomplete screener | 2 | 0 | 0 | 0 | 0 | 2 |
| 31 Non-resident, temporary stay | 7 | 2 | 2 | 2 | 1 | 0 |
| 32 Non-resident, misdelivery | 4 | 0 | 2 | 1 | 1 | 0 |
| 33 Non-resident, forwarded | 9 | 4 | 1 | 4 | 0 | 0 |
| 34 Non-resident, other | 2 | 1 | 1 | 0 | 0 | 0 |
| Unknown eligibility, non-contact |  |  |  |  |  |  |
| 40 Mailed with no response or return | 899 | 162 | 255 | 164 | 169 | 149 |
| Ineligible |  |  |  |  |  |  |
| 50 Screened, no adult citizen | 14 | 0 | 6 | 3 | 3 | 2 |
| 51 Screened, not a household | 1 | 0 | 1 | 0 | 0 | 0 |
| 52 Returned mail, vacant | 75 | 13 | 25 | 11 | 14 | 12 |
| 53 Returned mail, no such address | 105 | 19 | 30 | 28 | 14 | 14 |
| 54 Returned mail, other ineligible | 30 | 4 | 9 | 4 | 4 | 9 |
| Totals |  |  |  |  |  |  |
| Total sample size (10-54) | 2020 | 364 | 564 | 364 | 364 | 364 |
| Complete interviews (10) | 705 | 132 | 206 | 122 | 141 | 104 |
| Eligible nonresponse (20-21) | 167 | 27 | 26 | 25 | 17 | 72 |
| Unknown eligibility (30-40) | 923 | 169 | 261 | 171 | 171 | 151 |
| Ineligible (50-54) | 225 | 36 | 71 | 46 | 35 | 37 |
| Known eligible (10-21) | 872 | 159 | 232 | 147 | 158 | 176 |
| Screened (10-21, 50, 51) | 887 | 159 | 239 | 150 | 161 | 178 |
| Maximum eligible (10-40) | 1795 | 328 | 493 | 318 | 329 | 327 |
| Max. eligible for screener (10-51) | 1810 | 328 | 500 | 321 | 332 | 329 |
| Screener RR | 0.49 | 0.48 | 0.48 | 0.47 | 0.48 | 0.54 |
| Conditional RR | 0.81 | 0.83 | 0.89 | 0.83 | 0.89 | 0.59 |
| Overall RR | 0.39 | 0.40 | 0.42 | 0.38 | 0.43 | 0.32 |

Note: results are weighted to correct for sampling probability inequalities; see text. Integers are weighted counts.
Totals are sums subject to rounding error.

## Post-election dispositions

As shown in the table above, there were 705 overall completions of the "pre-election" study. These 705 individuals were invited to take the post-election survey. Of these, 584 completed the survey, 37 started the survey but did not finish it (considered "breakoffs"), and 84 did not take the survey. The remaining 1,314 sample cases were not eligible to take the post-election survey because they did not complete the pre-election survey.

## Response rates

We conservatively estimated response rates assuming all addresses with unknown eligibility had an eligible person. This assumption defines the response rate formula known as AAPOR response rate 1 , in
which the numerator for the response rate is the number of completed interviews and the denominator is the maximum number of potentially eligible sample members. Table 6 shows the response rates for the screening interview ("Screener RR"), the proportion of individuals who completed the screener who then continued to complete the main interview ("Conditional RR"), and the overall response rate for the main interview ("Overall RR").

Table 7 presents the study's response rates in more detail, with sampling errors in parentheses, and includes response rates for the second wave of the main survey, known as the "Post-election" survey.

Table 7. Response rates by test condition, with sampling errors: ANES 2016 Recruitment Pretest Study

| Disposition | Fullsample response rates | Response rates by test condition |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1A: named, front-loaded | 1B: family, front-loaded | 2A: named, escalating | 2B: Family, escalating | 3: Mail screener |
| First stage ("Pre-election") |  |  |  |  |  |  |
| Screener RR | 49 | 48 | 48 | 47 | 48 | 54 |
|  | (1.1) | (2.6) | (2.1) | (2.6) | (2.6) | (2.6) |
| Conditional RR | 81 | 83 | 89 | 83 | 89 | 59 |
|  | (0.9) | (2.0) | (1.3) | (2.0) | (1.6) | (2.6) |
| Overall RR | 39 | 40 | 42 | 38 | 43 | 32 |
|  | (1.1) | (2.6) | (2.1) | (2.5) | (2.6) | (2.4) |
| Second stage ("Post-election") |  |  |  |  |  |  |
| Conditional RR | 83 | 88 | 81 | 80 | 79 | 89 |
|  | (0.8) | (2.8) | (2.8) | (3.7) | (3.4) | (3.0) |
| Overall RR | 33 | 35 | 34 | 31 | 34 | 28 |
|  | (1.0) | (2.5) | (2.0) | (2.4) | (2.5) | (2.4) |

Note: results are weighted to correct for sampling probability inequalities; see text.

As shown in Table 7, the screener response rate was 49 percent overall. It was 54 percent for condition 3 (screening by mail) and was 47 to 48 percent for all of the online screening conditions. The numerator for the screener response rate is the number of cases that completed a screening interview, which is defined as dispositions 10 (completed main interview), 20 (partial pre-election interview), 21 (eligible respondent, non-response to the pre-election interview), 50 (screened, no adult citizen), and 51 (screened, not a household). The denominator for the screener response rate is the maximum number of sampled addresses that could have been eligible for the screener, which is the numerator plus the number of cases in dispositions 30 through 40 (incomplete screener and non-resident cases, where we did not determine if anyone eligible for the study lived at the sampled address, and cases mailed with no response or return).

The response rate for the main study conditional on completing the screener was 81 percent overall. It was 59 percent for condition 3 and ranged from 83 to 89 percent for the online screening conditions.

The overall response rate for the main study was 39 percent. It was 32 percent for condition 3 and ranged from 38 to 43 percent for the online screening conditions. The overall response rate for the
online screening conditions, not shown in the table, was 41 percent. The numerator for the overall response rate was the number of complete interviews (disposition 10). The denominator was the maximum number of sample cases that could have been eligible, which is the sum of dispositions 10 through 40 on Table 6. This response rate definition is consistent with AAPOR response rate formula 3.

Sampling errors are shown for the response rates in Table 7. Typically sampling errors are not reported for response rates because response rates merely describe an outcome of the interviewing process. However, in addition to describing the outcome of the interviewing process, these response rates can be considered estimates of the response rate that would be obtained in future studies that followed the same procedures. As such, the sampling errors indicate the precision of these estimates and can be used to determine whether the differences between response rates are statistically significant.

Table 8 presents a comparison of the overall pre-election and post-election response rate differences. Most of the differences in response rate between experimental conditions are not statistically significant. Condition 3 (mailback screener) was significantly worse than conditions $1 \mathrm{~A}, 1 \mathrm{~B}$, and 2B, which had response rates from 8 to 11 points better at the pre-election stage. Condition 1 A was 7 points better than condition 3 at the post-election stage. Other differences were not significant.

Table 8. Comparison of Overall Response Rate Differences

| Comparison | Pre-election |  |  | Post-election |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Difference | SE of diff. | $t$ value | Difference | SE of diff. | $t$ value |
| 1 A vs 1B | -1.5 | 3.3 | -0.47 | 1.7 | 3.2 | 0.53 |
| 1 A vs 2 A | 1.9 | 3.6 | 0.52 | 4.9 | 3.5 | 1.40 |
| 1 A vs 2 B | -2.6 | 3.7 | -0.72 | 1.6 | 3.5 | 0.47 |
| 1 A vs 3 | 8.4 | 3.5 | 2.38 * | 6.9 | 3.4 | 2.01 * |
| 1 B vs 2 A | 3.4 | 3.3 | 1.04 | 3.2 | 3.1 | 1.02 |
| 1 B vs 2 B | -1.1 | 3.3 | -0.32 | 0.0 | 3.2 | -0.02 |
| 1 B vs 3 | 10.0 | 3.2 | 3.11 * | 5.2 | 3.1 | 1.70 |
| 2 A vs 2B | -4.5 | 3.6 | -1.24 | -3.2 | 3.5 | -0.93 |
| 2 A vs 3 | 6.6 | 3.5 | 1.86 | 2.1 | 3.4 | 0.61 |
| 2 B vs 3 | 11.1 | 3.6 | 3.10 * | 5.3 | 3.4 | 1.55 |
| A vs B | -2.9 | 2.4 | -1.19 | -0.7 | 2.3 | -0.30 |
| 1 vs 2 | 4.3 | 2.4 | 1.77 | 2.2 | 2.3 | 0.94 |

The named invitations had an overall response rate at the second stage of 33 percent, and the family invitations had an overall response rate at the second state of 34 percent. The front-loaded invitations had an overall response rate at the second stage of 34 percent, and the escalating invitations had an overall response rate at the second stage of 32 percent

The tests of different invitation strategies show that the online screening worked better than screening by mail, but found all online screening approaches equally effective in terms of overall response rate.

Note that the test of "screening by mail" was not an experiment narrowly testing a mode difference. It tested a different approach overall, with differences in invitations, prepaid incentives, and promised incentives. Therefore the finding of this experiment is not a generalizable result that invitations to
screen by mail are inferior to invitations to go online. The finding is that the package of procedures in condition 3 yielded a lower response rate than the packages of procedures in the other conditions.

Figures $1,2,3$, and 4 are flowcharts showing the path from sampling to final disposition for cases in conditions $1 \mathrm{~A}, 1 \mathrm{~B}, 2 \mathrm{~A}$, and 2 B , respectively. Numbers in the flowchart are weighted by the household selection factor (HHFACTOR), so they may not match the actual number of cases.

Figure 1. CONDITION 1A. Flow chart of the disposition of all respondents in Condition 1A for screener and PRE survey completion (weighted)

${ }^{\text {a }}$ Due to rounding of the weighted estimates, these boxes sum to $129{ }^{\text {b }}$ The few Rs who logged in but did not complete the screener were treated as nonresponsive by Westat. We have counted them as "logging in" instead of non-responsive.

Figure 2. CONDITION 1B. Flow chart of the disposition of all respondents in Condition 1 B for screener and PRE survey completion (weighted)

aThe few Rs who logged in but did not complete the screener were treated as non-responsive by Westat. We have counted them as "logging in" instead of nonresponsive. ${ }^{\text {b }}$ Due to rounding of the weighted estimates, these boxes sum to 246

Figure 3. CONDITION 2A. Flow chart of the disposition of all respondents in Condition 2A for screener and PRE survey completion (weighted)

"The few Rs who logged in but did not complete the screener were treated as non-responsive by Westat. We have counted them as "logging in" instead of nonresponsive. ${ }^{b}$ Due to rounding of the weighted estimates, these boxes sum to 44 . ${ }^{\text {c }}$ Due to rounding of the weighted estimates, these boxes sum to 16 .

Figure 4. CONDITION 2B. Flow chart of the disposition of all respondents in Condition 2B for screener and PRE survey completion (weighted)

aThe few Rs who logged in but did not complete the screener were treated as non-responsive by Westat. We have counted them as "logging in" instead of non-responsive.

## VII. Weights and Data Analysis

There are two weight variables included in this dataset. The first weight variable "Weight" represents the poststratified weights that should be used when conducting substantive analyses. These weights are available for respondents who completed the Pre questionnaire. The construction of these weights is described in greater detail below.

The second weight variable "HHFACTOR" accounts for household selection probability only and is intended for methodological analysis of the data, such as computing response rates. HHFACTOR does not account for person selection probability within the household, nor has it been poststratified to improve the sample's representation of the demographic characteristics of the population. As a result, weighting by HHFACTOR alone does not fully account for respondent selection probability nor does it necessarily optimize the sample's representation of the population. However, because it is available for every household in the sample, it can be used when conducting methodological analyses that include parts of the sample that did not start or complete the surveys.

## Poststratified weights

After accounting for household selection probability, poststratified weights were implemented using raking. Raking uses an iterative process to ensure that sample proportions match benchmark demographic proportions in the population. The current weights were based on the comparison of the ANES recruitment pretest demographic variables to the March 2016 Current Population Survey (CPS). All CPS statistics we present are for U.S. citizens age 18 or older.

First, we compared ANES base-weighted estimates to CPS on demographic variables where the questions used in ANES were measured comparably to CPS. Table 9 presents the benchmark CPS statistics with a comparison to the full sample of ANES Pre completers.

For two variables (race/ethnicity and home tenure), there was some concern that the way the information was measured in ANES was not wholly compatible to CPS. We tested alternative weighting options (e.g., models that excluded home tenure, models that used dummy variables for race and ethnicity instead of the 4-category variable), and we selected the model that appeared to have the best balance among the design effect and accuracy of estimates. We examined the estimates of several variables not included in the raking model, with a particular emphasis on voter turnout and presidential vote choice, to ensure that the estimates behaved as we expected.

We examined age, sex, education, marital status, income, household size, home tenure, geographic region, and nativity for possible inclusion in raking models. We included variables in the raking model with less than $5 \%$ missing data (this excluded income) and with discrepancies in at least one category that exceeded 2 percentage points (this excluded nativity) (see DeBell, M. \& Krosnick, J. A. 2009. Computing Weights for American National Election Study Survey Data. ANES Technical Report series, no. nes012427. Ann Arbor, MI, and Palo Alto, CA: American National Election Studies).

We collapsed categories that had fewer than $5 \%$ of the data. The final model raked on age (18-29, 30-39, 40-49, 50-59, 60-69, 70+), sex (male, female), education (less than high school credential, high school credential, some college/associate degree, bachelor's degree, graduate degree), race/ethnicity (White non-Hispanic, Black non-Hispanic, Hispanic, Other non-Hispanic), marital status (married, previously

Table 9. Comparison of ANES to benchmark statistics

married, never married), household size (1 person, 2 people, 3 people, 4 people, $5+$ people), home tenure (own, rent/other), and region (Northeast, Midwest, South, West).

We used the R program anesrake (Pasek, J. anesrake: ANES Raking Implementation. R package version $0.75)$. Extreme weights were capped at 5 . The average design effect for the final model was 1.568 . The design effect for individual categories ranged from 0.901 to 2.303 . After raking, the total discrepancies between ANES and CPS values on the raked variables were equal to $0.0 \%$. For the variables not included in the raking model, the average ANES-CPS discrepancy for income increased from $0.3 \%$ to $0.9 \%$, and the discrepancy for nativity increased from $0.5 \%$ to $1.4 \%$.

To further examine the poststratification weights, we compared the base-weighted and poststratifcation estimates for the retrospective report of voter turnout for 2012. The percentage of respondents who reported voting in 2012 decreased from $74.5 \%$ (base-weighted) to 69.2\% (poststratification), which was the expected direction of change. The poststratification estimates for vote choice in 2012 (Obama/Romney/other) had an average change of 1 percentage point from the base-weighted estimates (vote for Obama: 57.0\% [base-weighted] to 58.2\% [poststratification]; vote for Romney: $39.1 \%$ [base-weighted] to $37.6 \%$ [poststratification]; vote for other: $3.9 \%$ [base-weighted] to $4.1 \%$ [poststratification]).

## VIII. Sample Quality and Nonresponse Bias Analysis

This section compares estimates from the ANES 2016 Recruitment Pretest study to authoritative population statistics to reveal accuracies and inaccuracies in the ANES estimates, and it analyzes characteristics of responding and non-responding households to estimate the extent of non-response bias.

## Benchmark comparisons for the full sample

As noted above, authoritative statistics are called benchmarks and come from the March 2016 Current Population Survey (CPS). All CPS statistics we present are for U.S. citizens age 18 or older. ANES estimates are weighted for selection probability but are not poststratified.

Table 9 presents benchmark statistics along with ANES estimates for the full sample of Pre completers and for the subgroups of the sample in four experimental categories (online screener only): front-loaded and escalating incentive offers, and letters addressed by name or "to the family" at the sampled address.

In the full sample the age distribution is within 2 points or less of the benchmark in all categories except age 18-29, which is under-represented in the ANES sample ( 16 percent compared to 21 in the population).

For gender, women are over-represented by about 3 points.
Education results had large differences from the benchmark. People with less than a high school credential were under-represented by about 4 percentage points ( 5.5 percent of the sample compared to 9.6 percent of the population) and those with a high school credential were under-represented by about 12 points ( 17 compared to 29 percent). Conversely, those with some college and with a graduate degree were significantly over-represented ( 41 compared to 30 percent with some college and 15 compared to 11 percent with a graduate degree).

Whites were slightly over-represented and blacks and Hispanics were under-represented.
Those who were previously married were over-represented ( 24 percent of the sample compared to 19 percent of the population) and the never married were somewhat under-represented ( 26 percent compared to 28.5 percent).

The income distribution for the sample was within 1 point of the population's distribution.
The distribution of household size over-represented single-person households and under-represented larger households.

Home owners were under-represented in the sample, which is unusual for survey results, and those who rented or had other arrangements were over-represented.

The average absolute difference between ANES estimates and their respective benchmarks was 3.0 points.

## Benchmark comparisons for the experimental groups

Differences between estimates and the benchmarks significant at $\mathrm{p}<.05$ are marked with an asterisk in Table 9.

The average absolute differences between estimates and benchmarks for front-loaded and escalating incentives are 3.4 and 3.9 points, respectively. The differences between named and "to the family" invitations are 3.4 and 4.1 points, respectively. These differences from the benchmarks are all statistically significant, but none of these differences significantly differ from each other.

## Nonresponse bias analysis

Table 10 presents a comparison of the descriptive characteristics of the responding addresses to the full set of sampled addresses. If there is no bias in response these characteristics should only differ at random. As shown in the table, some differences are larger than would be expected due to chance variation. Apartment dwellers were less likely to respond to the survey ( 21 percent of respondents compared to 25 percent of the sample, for a difference of 4 points), and Midwesterners and households with active voters were more likely to respond (differences of 4 and 6 points, respectively).

In the experiment groups, smaller sample sizes made differences harder to detect. Active voters were more likely to respond to the survey in all conditions, although this difference was not significant in the escalating incentive condition.

Table 10. Comparison of Descriptive Characteristics of Sampled and Responding Addresses

| Characteristic | All sampled addresses |  | Responding addresses |  | Difference |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent | s.e. | Percent | s.e. | Percent | s.e. |
| Entire sample |  |  |  |  |  |  |
| Apartment | 25 | 1.0 | 21 | 1.5 | -4 * | 1.8 |
| Household size (mean) | 2.8 | 0.06 | 2.7 | 0.07 | 0 | 0.09 |
| Household age (mean) | 52 | 0.4 | 52 | 0.6 | 0 | 0.7 |
| Male (percent) | 45 | 0.7 | 44 | 1.1 | -2 | 1.3 |
| Active voters (percent) | 49 | 0.9 | 55 | 1.4 | 6* | 1.7 |
| West | 22 | 0.9 | 20 | 1.5 | -2 | 1.7 |
| Northeast | 17 | 0.8 | 17 | 1.4 | -1 | 1.6 |
| South | 39 | 1.1 | 37 | 1.8 | -2 | 2.1 |
| Midwest | 23 | 0.9 | 27 | 1.6 | 4* | 1.9 |
| Front-loaded incentives |  |  |  |  |  |  |
| Apartment | 25 | 1.4 | 23 | 2.2 | -2 | 2.7 |
| Household size (mean) | 2.8 | 0.09 | 2.8 | 0.12 | 0 | 0.15 |
| Household age (mean) | 52 | 0.6 | 52 | 0.9 | 0 | 1.1 |
| Male (percent) | 46 | 1.1 | 43 | 1.6 | -3 | 2.0 |
| Active voters (percent) | 50 | 1.3 | 57 | 2.0 | 7 * | 2.4 |
| West | 22 | 1.4 | 20 | 2.1 | -2 | 2.5 |
| Northeast | 17 | 1.2 | 20 | 2.1 | 3 | 2.5 |
| South | 38 | 1.6 | 34 | 2.5 | -4 | 3.0 |
| Midwest | 23 | 1.4 | 26 | 2.4 | 4 | 2.7 |
| Escalating incentives |  |  |  |  |  |  |
| Apartment | 28 | 1.7 | 22 | 2.6 | -5 | 3.1 |
| Household size (mean) | 2.9 | 0.11 | 2.7 | 0.11 | 0 | 0.15 |
| Household age (mean) | 52 | 0.7 | 51 | 1.0 | -1 | 1.2 |
| Male (percent) | 43 | 1.2 | 43 | 1.8 | 0 | 2.2 |
| Active voters (percent) | 47 | 1.5 | 52 | 2.4 | 5 | 2.8 |
| West | 20 | 1.5 | 19 | 2.5 | -1 | 2.9 |
| Northeast | 17 | 1.4 | 14 | 2.1 | -4 | 2.5 |
| South | 42 | 1.8 | 41 | 3.1 | -1 | 3.6 |
| Midwest | 21 | 1.5 | 26 | 2.7 | 6 | 3.1 |

[^3]Table 10. Comparison of Descriptive Characteristics of Sampled and Responding Addresses -- continued

| Characteristic | All sampled addresses |  | Responding addresses |  | Difference |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent | s.e. | Percent | s.e. | Percent | s.e. |
| Named invitations |  |  |  |  |  |  |
| Apartment | 24 | 1.6 | 20 | 2.4 | -4 | 2.9 |
| Household size (mean) | 2.8 | 0.10 | 2.7 | 0.13 | 0 | 0.17 |
| Household age (mean) | 52 | 0.7 | 52 | 1.1 | 0 | 1.3 |
| Male (percent) | 45 | 1.2 | 45 | 1.8 | 0 | 2.2 |
| Active voters (percent) | 49 | 1.5 | 55 | 2.4 | 6 * | 2.8 |
| West | 22 | 1.6 | 25 | 2.7 | 3 | 3.1 |
| Northeast | 16 | 1.4 | 16 | 2.2 | 0 | 2.6 |
| South | 39 | 1.8 | 34 | 2.9 | -5 | 3.4 |
| Midwest | 23 | 1.6 | 25 | 2.7 | 2 | 3.1 |
| Family invitations |  |  |  |  |  |  |
| Apartment | 28 | 1.5 | 25 | 2.3 | -3 | 2.8 |
| Household size (mean) | 2.9 | 0.1 | 2.8 | 0.1 | 0 | 0.1 |
| Household age (mean) | 52 | 0.6 | 51 | 0.9 | 0 | 1.0 |
| Male (percent) | 44 | 1.1 | 41 | 1.6 | -3 | 2.0 |
| Active voters (percent) | 48 | 1.3 | 55 | 2.1 | 6 * | 2.5 |
| West | 20 | 1.3 | 16 | 2.0 | -5 | 2.4 |
| Northeast | 18 | 1.3 | 18 | 2.1 | 0 | 2.4 |
| South | 40 | 1.6 | 39 | 2.6 | -1 | 3.1 |
| Midwest | 21 | 1.3 | 27 | 2.4 | 6 | 2.7 |

Table 11 presents two models of nonresponse bias analysis. All 2,020 sample cases were entered in the models. The dependent variable is response or nonresponse to the "pre-election" wave of the main survey. (Equivalent models of response or nonresponse to the screener were run, with largely redundant results, and are not shown here.) Independent variables were a dummy variable for housing type, dummy variables for census region, and variables indicating the number of adults living in the household, the percent of those adults indicated by our voting data vendor as active voters, the average age of the adults, and the percentage of the adults who were male. The age and sex variables had some missing data; the other variables had none. Two models are presented, one with all variables included (Model 1) and one that excludes the variables with missing data (Model 2).

In both models residents of apartments responded at a lower rate than other respondents, residents of the South had a lower response than those from the Midwest (the reference category), and having proportionally more voters in the household was positively associated with survey response. In Model 2, in which age and sex were excluded because of their incomplete data, all geographic regions had lower response than the Midwest.

The models suggest nonresponse bias is present but not substantial. The strongest predictor is the percentage of the household identified as "active voters."

The main factor for overall nonresponse is screener nonresponse. Screener nonresponse is non-random and is associated with voting behavior (turnout) as well as region and housing status. Non-response to the main survey conditional on screener completion does not appear to be a significant factor in any non-response bias (results not shown in tables).

Table 11. Nonresponse bias analysis: logistic regression models

| Variable | Model 1 |  | Model 2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | b | s.e. | b | s.e. |
| Housing type: apartment | -0.30 * | 0.12 | -0.26 * | 0.11 |
| Region: NE | -0.26 | 0.17 | -0.35 * | 0.15 |
| Region: S | -0.30 * | 0.14 | -0.40 * | 0.12 |
| Region: W | -0.25 | 0.16 | -0.42 * | 0.14 |
| Household size | -0.17 | 0.47 | -0.17 | 0.44 |
| Percent active voters | 0.60 * | 0.15 | 0.58 * | 0.12 |
| Average age | -0.26 | 0.26 | -- | -- |
| Percent male | -0.25 | 0.17 | -- | -- |
| Intercept | -0.34 | 0.21 | -0.46 * | 0.12 |
| pseudo R-squared | . 02 | -- | . 02 | -- |
| n | 1693 | -- | 2020 | -- |

Reference category for region is midwest.
Dichotomous variables are coded 0 or 1; continuous variables are scaled 0-1.
Weighted using HHFACTOR.

## Nonresponse bias by experimental group

Tables 12 and 13 present models of nonresponse bias for the subgroups of the sample randomly assigned to named invitations, family invitations, front-loaded incentives, and escalating incentives. In these models, region and the percentage of household members who are active voters are consistently predictive of nonresponse. The differences between the models for the conditions are too small to characterize nonresponse bias as significantly better or worse for any particular invitation or incentive strategy.

Table 12. Nonresponse bias analysis (logistic regression) for experiment groups: named or family invitations

| Variable | Named invitations |  |  |  | Family invitations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  | Model 2 |  | Model 1 |  | Model 2 |  |
|  | b | s.e. | b | s.e. | b | s.e. | b | s.e. |
| Housing type: apartment | -0.27 | 0.21 | -0.32 | 0.19 | -0.24 | 0.18 | -0.12 | 0.16 |
| Region: NE | -0.07 | 0.29 | -0.20 | 0.26 | -0.52 * | 0.24 | -0.52 * | 0.22 |
| Region: S | -0.06 | 0.24 | -0.40 | 0.24 | -0.56 * | 0.21 | -0.51 * | 0.18 |
| Region: W | 0.34 | 0.26 | 0.01 | 0.23 | -0.83 * | 0.24 | -0.86 * | 0.22 |
| Household size | -0.19 | 0.82 | -0.50 | 0.79 | -0.28 | 0.65 | -0.13 | 0.60 |
| Percent active voters | 0.80 * | 0.25 | 0.59 * | 0.2 | 0.51 * | 0.21 | 0.69 * | 0.18 |
| Average age | -0.16 | 0.44 | -- | -- | -0.32 | 0.4 | -- | -- |
| Percent male | -0.03 | 0.29 | -- | -- | -0.47 | 0.25 | -- | -- |
| Intercept | -0.97 * | 0.35 | -0.63 * | 0.19 | 0.18 | 0.31 | -0.34 * | 0.17 |
| pseudo R-squared | . 03 | -- | . 02 | -- | . 03 | -- | . 03 | -- |
| n | 611 | -- | 728 | -- | 783 | -- | 928 | -- |

Dichotomous variables are coded 0 or 1; continuous variables are scaled 0-1. Reference category for region is midwest.
Weighted using HHFACTOR.

Table 13. Nonresponse bias analysis (logistic regression) for experiment groups: front-loaded or escalating incentives

| Variable | Front-loaded incentives |  |  |  | Escalating incentives |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  | Model 2 |  | Model 1 |  | Model 2 |  |
|  | b | s.e. | b | s.e. | b | s.e. | b | s.e. |
| Housing type: apartment | -0.19 | 0.18 | -0.11 | 0.16 | -0.25 | 0.21 | -0.28 | 0.19 |
| Region: NE | 0.14 | 0.24 | -0.1 | 0.22 | -0.93 * | 0.29 | -0.75 * | 0.26 |
| Region: S | -0.28 | 0.21 | -0.49 * | 0.18 | -0.39 | 0.23 | -0.46 * | 0.20 |
| Region: W | -0.19 | 0.23 | -0.41 * | 0.21 | -0.41 | 0.27 | -0.52 * | 0.24 |
| Household size | 0.35 | 0.68 | 0.04 | 0.63 | -0.84 | 0.82 | -0.59 | 0.75 |
| Percent active voters | 0.85 * | 0.22 | 0.74 * | 0.18 | 0.43 | 0.24 | 0.51 * | 0.20 |
| Average age | 0.02 | 0.40 | -- | -- | -0.48 | 0.44 | -- | -- |
| Percent male | -0.49 * | 0.25 | -- | -- | 0.08 | 0.30 | -- | -- |
| Intercept | -0.68 * | 0.32 | -0.62 * | 0.17 | -0.05 | 0.34 | -0.28 | 0.20 |
| pseudo R-squared | . 03 | -- | . 02 | -- | . 03 | -- | . 03 | -- |
| n | 779 | -- | 928 | -- | 615 | -- | 728 | -- |

Dichotomous variables are coded 0 or 1; continuous variables are scaled 0-1. Reference category for region is midwest.
Weighted using HHFACTOR.

## IX. Accuracy of Sample Enhancements and Record Matching

As described in section II, all sample addresses were sent to a vendor that provided data for those addresses, including, where available, the names, ages, genders, and voter registration status of all residents of the selected addresses.

Table 14 shows the accuracy of these sample enhancements as gauged by comparisons to the data reported by survey respondents. Comparisons are shown for the screened sample (that is, all households that responded to the screener) and for the matched and screened sample (that is, households where our matching criteria selected a person and where the household responded to the screener, as described in section II). The former shows the correspondence between the screener data and the vendor's data. The latter shows the correspondence between the screener data and the vendor's data after we dropped the records that appeared potentially unreliable.

## Name matching method

The main purpose of obtaining the sample enhancement data was to let us address invitations to a household member by name and thereby increase the invitee's response propensity. It was therefore important to assess the accuracy of the named invitations, to see how many of the named invitations went to a correctly named person who completed a survey.

We assessed name matches for this comparison by using four criteria. A name reported on the survey was considered correctly matched to a name reported by the vendor if any of the following criteria were met:

- Name confirmation. The screener was addressed to a named individual and the respondent answered "yes" to the question, "We mailed our letter to [FIRSTNAME] [LASTNAME]. Is that you?"
- Name match. The name provided during the survey matched a name on the vendor with a Levenshtein distance of 2 or less. This means that 2 or fewer single-character edits (insertions, deletions, or substitutions) would be needed to change to make the two names match exactly. For example, "Sara" and "Sarah" have a Levenshtein distance of 1 because "Sarah" can be changed to "Sara" by deleting the letter h. "Erik" and "Eric" have a Levenshtein distance of 1 because changing one to the other requires substituting one letter.
- Embedded nickname. A substring of at least 3 characters of the name matched between the vendor name and the survey name. For example, "Liz" matches "Elizabeth" and "Matt" matches "Matthew." (Note that these rules do not recognize nicknames of different forms than the full name, such as Bob and Robert.)
- Initials. If the survey response was exactly 3 characters long with all characters consonants, or 2 characters or 1 character (with no vowel restriction), and for 1 character the initial matched the first name's first character or for 2 or 3 character the first and last characters matched the first characters of the first and last name. For example, "S" on the survey matches "Sarah" or "Sandra", etc., and "SHJ" or "SJ" matches "Sara Jones."

We also compared names manually and found substantially the same results.

## Results

As shown in Table 14, we found that after applying our matching criteria, designed to discard addresses where we had low confidence that a name identified a current household resident, the name we preselected was the correct name of a household member 95 percent of the time.

Table 14. Accuracy of Sample Enhancement and Record Matching

| Characteristic | Screened sample Percent | Matched and screened sample Percent |
| :---: | :---: | :---: |
| Name matching |  |  |
| Preselected person from vendor list lived in HH | -- | 95 |
| All vendor and screeer names matched | 13 | 15 |
| Vendor list included all screener-reported names | 58 | 68 |
| Vendor list included at least 1 name reported in screener | 76 | 87 |
| Household size |  |  |
| Vendor list HH size matched screener reported size | 37 | 37 |
| Vendor list HH size > reported size | 45 | 48 |
| Vendor list HH size < reported size | 18 | 14 |
| Vendor list HH size=1 matched report | 48 | 54 |
| Vendor list HH size=2 matched report | 63 | 65 |
| Vendor list HH size=3 matched report | 14 | 13 |
| Vendor list HH size>3 matched report | 1 | 1 |
| Gender matching |  |  |
| HH with same \% female in vendor and ANES data | 28 | 31 |
| Gender matching conditional on HH size match |  |  |
| HH with same \% female in vendor and ANES data | 66 | 68 |

-- not applicable.
Note: Percentages for vendor list including 1 screener-reported name conditional on survey respondent(s) giving any names.

There are relatively minor differences between the results for the screened sample and for the subset of the sample that was also matched. The largest differences are that in the screened sample, the vendor list included all screener-reported names in 58 percent of households, while in the subset that was also considered matched by our criteria, the vendor list included all screener reported names in 68 percent of households, and that at least one of the screener-named persons appeared on the vendor list in 76 percent of all screened households and in 87 percent of matched households. The only other difference that exceeded 4 percentage points was that, for 1 -adult households as indicated by the vendor, the survey screener also found the household contained 1 adult in 48 percent of all screened households compared to 54 percent of matched-and-screened households. Other differences were minor, indicating that our matching efforts did not have dramatic effects on the accuracy of available data. However, our matching did improve accuracy.

The vendor's data on household composition often differed from the data reported by household informants completing our survey. The names listed by the vendor as household residents matched all
of the names reported to us on the survey only 13 percent of the time, and the vendor's list of names included all of the names reported to us 58 percent of the time.

The vendor list included at least one name that was reported in the screener for 76 percent of households (or 87 percent of the matched households). Conversely, the vendor's list contained none of the screener reported names for 24 percent of households.

Data on household size (defined as the number of adults living in the household) were highly discrepant between the screener reports and the sample enhancement data. The vendor's list gave the same number of adults as the screener for only 37 percent of screened households. It gave a larger number of adults for 45 percent of households and a smaller number for 18 percent of households.

Household size matches were most common for households listed by the vendor as having 2 people ( 63 percent accurate). They were 48 percent accurate for vendor-indicated 1-person households, and 14 percent accurate for vendor-indicated 1-person households. They were almost never accurate for households that the vendor indicated as having 4 or more adults, matching only 1 percent of the time.

The vendor and screener data indicated the same percentage of the household as male or female in only 28 percent of cases. However, conditional on having a match for the household size, the gender proportions matched for 68 percent of cases.

If we take the household informant's self-reported household composition as authoritative, these results suggest that, conditional on our criteria for identifying name matches, the vendor's data on the names of household residents is not very accurate. It is exceptional for the vendor's list to be a complete and correct list of all names of household residents; that appeared to be the case 13 percent of the time. It was also exceptional for the vendor's list to have the correct number of adult household residents; this occurred 37 percent of the time, and modally ( 45 percent) the vendor's list included too many names. Perversely, after our careful efforts to remove duplicate records a slightly higher proportion of households included too many names (48 percent). Critically for the purpose of the ANES, in 59 percent of households the person we pre-selected from the vendor's list was not the correct name of the person who ultimately completed the main survey, undermining the aims and effectiveness of preselection.

## X. Effectiveness of Mailings

This section examines the effects of mailing invitations on the completion of the screener and the preelection survey. It compares the response rates and the mailing and incentive costs for the tested recruitment approaches. The section begins with a comparison of front-loaded and escalating incentives and then presents a comparison of invitations by name or "to the family" at the sampled address.

## Effect of mailings for front-loaded vs. escalating incentives

Figure 5 (two pages hence) shows the number of screener completions by day for cases on the standard mailing schedule, and excluding 200 replacement cases, based on the incentive offered.

Table 15 shows the apparent effects of mailings on the marginal response rates for pre-election completion. This shows that there are no substantial differences between the effects of the front-loaded and escalating incentive approaches.

Table 15. Front-loaded versus escalating incentives: effect of each mailing on marginal response rate

| Mailing | Front-loaded (\$80 for all) |  |  |  | Escalating (\$40, raised to \$80) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number receiving mailing | Comps | Marginal RR | Percent of comps | Number receiving mailing | Comps | Marginal RR | Percent <br> of comps |
| Advance letter | 928 | -- | -- | -- | 728 | -- | -- | -- |
| Invitation | 928 | 120 | 13\% | 35\% | 728 | 77 | 11\% | 29\% |
| Reminder card \#1 | 902 | 88 | 10\% | 26\% | 726 | 64 | 9\% | 24\% |
| Reminder card \#2 | 567 | 43 | 8\% | 13\% | 462 | 34 | 7\% | 13\% |
| Nonresponse letter | 502 | 23 | 5\% | 7\% | 415 | 23 | 6\% | 9\% |
| Reminder card \#3 | 352 | 17 | 5\% | 5\% | 385 | 25 | 7\% | 10\% |
| Invitation to new R | 82 | 24 | 29\% | 7\% | 59 | 19 | 32\% | 7\% |
| Reminder card to new $R$ | 50 | 17 | 34\% | 5\% | 39 | 13 | 33\% | 5\% |
| Nonresp. letter to new R | 27 | 8 | 30\% | 2\% | 24 | 9 | 38\% | 3\% |
| Total completions | 338/928 = 36.4\% |  |  |  | 263/728 = 36.1\% |  |  |  |

Notes: Includes replacement cases for condition 1B. Escalation occurred with Nonresponse letter.
Due to rounding of weighted estimates, some numbers may differ from completion flow charts.
Numbers may not sum due to rounding.
"RR" means response rate
"Comps" means pre-election survey completions.
Numbers are weighted.

## Effect of mailings by name or "to the family"

Figure 6 shows the number of screener completions by day for cases on the standard mailing schedule, excluding 200 replacement cases, based on the form of address for the letters (name or to the family).

Table 16 shows the effects of mailings on the marginal response rates for pre-election completion for the two sample groups for invitations by name or invitations addressed "to the family living at" the
sampled address. This shows that for the initial invitations there are no substantial differences between the effects of the named and family invitations. The marginal response rates, which reflect the completions that occurred in the days after the mailing was sent, are within one or two percentage points for the first four invitation mailings, from the Invitation through the nonresponse letter.

For Reminder card \#3, the named invitations yielded a 4\% marginal response rate compared to 8\% for the family invitations. However, this 4 point difference is not statistically significant.

For the invitations to new respondents, the family invitations yielded substantially higher marginal response rates than the named invitations. It is noteworthy that whether they were in the "name" or "family" sample category, most of these invitations would have been addressed by name because they were sent to a sampled individual who was identified by the screener informant during the online screening interview. We have no theoretical reason to expect any difference here, but the 122 invitations in the named group yielded 29 completions, for a 24 percent yield, compared to 159 invitations to the family group yielding 61 completions, for a 38 percent yield (difference $p<.05$ ).

Table 16. Named versus family invitations: effect of each mailing on marginal response rate

| Mailing | Name |  |  |  | Family |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number receiving mailing | Comps | Marginal RR | Percent of comps | Number receiving mailing | Comps | Marginal RR | Percent of comps |
| Advance letter | 728 | -- | -- | -- | 928 | -- | -- | -- |
| Invitation | 728 | 88 | 12\% | 35\% | 928 | 109 | 12\% | 31\% |
| Reminder card \#1 | 724 | 70 | 10\% | 28\% | 904 | 82 | 9\% | 23\% |
| Reminder card \#2 | 441 | 37 | 8\% | 15\% | 588 | 40 | 7\% | 11\% |
| Nonresponse letter | 388 | 17 | 4\% | 7\% | 529 | 29 | 6\% | 8\% |
| Reminder card \#3 | 361 | 13 | 4\% | 5\% | 376 | 29 | 8\% | 8\% |
| Invitation to new R | 61 | 13 | 21\% | 5\% | 80 | 30 | 38\% | 9\% |
| Reminder card to new R | 40 | 11 | 28\% | 4\% | 49 | 19 | 39\% | 5\% |
| Nonresp. letter to new R | 21 | 5 | 24\% | 2\% | 30 | 12 | 40\% | 3\% |
| Total completions |  | 254/728 | = 34.9\% |  |  | 347/92 | = 37.4\% |  |

Notes: Escalation occurred with Nonresponse letter.
Due to rounding of weighted estimates, some numbers may differ from completion flow charts.
Numbers may not sum due to rounding.
"RR" means response rate
"Comps" means pre-election survey completions.
Numbers are weighted.
"Name" cases include those switched to familiy invitations during fielding.

Figure 5. FRONT-LOADED versus ESCALATING. Effect of mailings on pre-election (PRE) completion rates for the front-loaded versus escalating conditions when the mailing schedule for all participants was relevant. This excludes two scenarios: (a) the screener $R$ was not selected to take the PRE, and the new $R$ took the survey on a different day, and (b) the named address was switched to "family" in the field. In both of those scenarios, the mailings were on a schedule specific to each $R$, so those Rs are not included here.


Figure 6. NAMED versus FAMILY. Effect of mailings on pre-election (PRE) completion rates for the named conditions versus the "to the family..." conditions when the mailing schedule for all participants was relevant. This excludes two scenarios: (a) the screener R was not selected to take the PRE, and the new R took the survey on a different day, and (b) the named address was switched to "family" in the field. In both of those scenarios, the mailings were on a schedule specific to each R, so those Rs are not included here.

■ PRE surveys completed for named addresses or switched to "family" in sampling (1A/2A) ( $n=217,38$ completions not shown due to different mailing schedule)
First invitation
letter sent on 2/8
$\square$ PRE surveys completed for "family" addresses (1B/2B) ( $n=249,33$ completions not shown due to different mailing schedule)
252 I

## Cost-effectiveness of mailings and incentives

Tables 17 and 18 show the cost-effectiveness of mailings.
Table 17 shows the costs of mailings and incentives, the total of these two costs, and the variable cost per completion in mailings and incentives paid for each of the online screening conditions. "Mailing" costs include only the cost of postage or shipping, not the costs of printing or labor associated with these mailings.

The highest cost of mailing and incentives was for front-loaded incentives with named invitations, at $\$ 201$ per completion, and the lowest was for escalating incentives with family invitations, at $\$ 146$ per completion.

Table 17. Costs of mailing and incentives by online survey test condition
$\left.\begin{array}{lccccc}\hline & \begin{array}{c}\text { Response } \\ \text { rate }\end{array} & \begin{array}{c}\text { Mailing } \\ \text { cost }\end{array} & \begin{array}{c}\text { Incentive } \\ \text { cost }\end{array} & & \begin{array}{c}\text { Variable } \\ \text { Total cost }\end{array} \\ \text { Condition } & \text { interview }\end{array}\right]$

Variable cost per interview is the component of total cost comprised of mailings and incentives for the combination of the screener and the "pre-election" wave of the survey.

Front-loaded incentives cost more than escalating incentives, at an average of $\$ 199$ compared to $\$ 155$. This was expected, though not a foregone conclusion, as total costs depended on how quickly people responded to the survey and how many mailings were sent.

Named invitations cost more than family invitations, at $\$ 183$ compared to $\$ 176$. This does not consider the added labor costs of managing named invitations.

For a study with a sample size of 1,000 , the variable costs for mailings and incentives would be $\$ 200,613$ using a study design with front-loaded incentives and named invitations, but only $\$ 145,714$ for escalating incentives and invitations addressed "to the family."

These variable costs will scale linearly with sample size, so a study with 3,000 completions would have variable costs for postage and incentives of an estimated $\$ 601,839$ for the front-loaded incentives and named invitations, or $\$ 437,143$ for the escalating incentives addressed to the family.

Put another way, by choosing escalating incentives and family invitations instead of front-loaded invitations by name, a study could significantly increase its sample size at no extra cost.

Table 18. Cost-effectiveness of each mailing based on cost of mailing and response rate increase, by condition

| Mailing | Postage cost per mailing | Households received mailing | Total postage cost | Number of "pre" completions after mailing | Marginal cost per resulting completion (est.) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Condition 1A (front-loaded, named) |  |  |  |  |  |
| Advance letter (FedEx) | \$3.67 | 380 | \$1,394.60 | -- | -- |
| Invitation letter | \$0.49 | 374 | \$183.26 | 43 | \$4.26 |
| Reminder postcard \#1 | \$0.49 | 370 | \$181.30 | 35 | \$5.18 |
| Reminder postcard \#2 | \$0.49 | 224 | \$109.76 | 30 | \$3.66 |
| Nonresponse letter (Priority) | \$6.45 | 185 | \$1,193.25 | 8 | \$149.16 |
| Reminder postcard \#3 | \$0.49 | 171 | \$83.79 | 5 | \$16.76 |
| Invitation letter \& email to new R | \$0.49 | 31 | \$15.19 | 5 | \$3.04 |
| Reminder postcard \& email to new R | \$0.49 | 20 | \$9.80 | 5 | \$1.96 |
| Nonresponse letter to new R (FedEx) | \$5.55 | 9 | \$49.95 | 1 | \$49.95 |
| Total mailing costs, condition 1A | -- | -- | \$3,220.90 | 132 | -- |
| Condition 1B (front-loaded, family) |  |  |  |  |  |
| Advance letter (FedEx) | \$3.67 | 564 | \$2,069.88 | -- | -- |
| Invitation letter | \$0.49 | 564 | \$276.36 | 77 | \$3.59 |
| Reminder postcard \#1 | \$0.49 | 540 | \$264.60 | 53 | \$4.99 |
| Reminder postcard \#2 | \$0.49 | 343 | \$168.07 | 13 | \$12.93 |
| Nonresponse letter (Priority) | \$6.45 | 317 | \$2,044.65 | 15 | \$136.31 |
| Reminder postcard \#3 | \$0.49 | 181 | \$88.69 | 12 | \$7.39 |
| Invitation letter \& email to new R | \$0.49 | 51 | \$24.99 | 19 | \$1.32 |
| Reminder postcard \& email to new R | \$0.49 | 30 | \$14.70 | 12 | \$1.23 |
| Nonresponse letter to new R (FedEx) | \$5.55 | 18 | \$99.90 | 7 | \$14.27 |
| Total mailing costs, condition 1B | -- | -- | \$5,051.84 | 206 | -- |
| Condition 2A (escalating, named) |  |  |  |  |  |
| Advance letter (FedEx) | \$3.67 | 384 | \$1,409.28 | -- | -- |
| Invitation letter | \$0.49 | 384 | \$188.16 | 45 | \$4.18 |
| Reminder postcard \#1 | \$0.49 | 378 | \$185.22 | 35 | \$5.29 |
| Reminder postcard \#2 | \$0.49 | 217 | \$106.33 | 7 | \$15.19 |
| Nonresponse letter (Priority) | \$6.45 | 203 | \$1,309.35 | 9 | \$145.48 |
| Reminder postcard \#3 | \$0.49 | 190 | \$93.10 | 8 | \$11.64 |
| Invitation letter \& email to new R | \$0.49 | 30 | \$14.70 | 8 | \$1.84 |
| Reminder postcard \& email to new R | \$0.49 | 20 | \$9.80 | 6 | \$1.63 |
| Nonresponse letter to new R (FedEx) | \$5.55 | 12 | \$66.60 | 4 | \$16.65 |
| Total mailing costs, condition 2A | -- | -- | \$3,382.54 | 122 | -- |
| Condition 2B (escalating, family) |  |  |  |  |  |
| Advance letter (FedEx) | \$3.67 | 364 | \$1,335.88 | -- | -- |
| Invitation letter | \$0.49 | 364 | \$178.36 | 32 | \$5.57 |
| Reminder postcard \#1 | \$0.49 | 364 | \$178.36 | 29 | \$6.15 |
| Reminder postcard \#2 | \$0.49 | 245 | \$120.05 | 27 | \$4.45 |
| Nonresponse letter (Priority) | \$6.45 | 212 | \$1,367.40 | 14 | \$97.67 |
| Reminder postcard \#3 | \$0.49 | 195 | \$95.55 | 17 | \$5.62 |
| Invitation letter \& email to new R | \$0.49 | 29 | \$14.21 | 11 | \$1.29 |
| Reminder postcard \& email to new $R$ | \$0.49 | 19 | \$9.31 | 7 | \$1.33 |
| Nonresponse letter to new R (FedEx) | \$5.55 | 12 | \$66.60 | 5 | \$13.32 |
| Total mailing costs, condition 2B | -- | -- | \$3,365.72 | 141 | -- |

[^4]Table 18 shows the cost-effectiveness of individual mailings. Note that the costs in the table are the costs of postage or shipping, and exclude printing, labor, and enclosed cash incentives. What stands out about these results is the extraordinary marginal cost of $\$ 98$ to $\$ 149$ per resulting completion for the nonresponse letters that were sent by Priority Mail. These letters were relatively expensive to mail and did not have a higher yield than the much cheaper post cards, which had a marginal cost per resulting completion in the range of $\$ 4$ to $\$ 17$. It is possible that changing the Priority Mail format to a first class letter would improve cost-efficiency. However, it is not possible to fully distinguish the effects of the nonresponse letter from the effects of postcard 3 , and it is possible that postcard 3 could be less effective if the nonresponse letter were not sent by Priority Mail.

## Differential effects by household size

The effectiveness of the invitations addressed by name or addressed "To the family" may differ depending on the size of the household to which the letter is addressed. For someone living alone a letter addressed "To the family" may seem inapplicable to them, depressing the response rate. And for households with two or more adult residents, a letter addressed "To the family" might be opened by any household member, while one addressed by name would most likely be opened only by the addressee. These differences could lead to differential response rates by household size for the invitation methods, such as named invitations being most effective in 1-person households and "To the family" invitations being most effective in larger households.

To look for such differences we compared the screener response rates for households of different sizes as indicated by the number of names considered "matched" by the process described in the Sampling section and detailed in Appendix 1.

Figures 7 and 8 show these results. Figure 7 shows that in unmatched households (labeled "No HH match") the screener response rates were the same regardless of the form of address (1 point difference, not significant). In households with 1 matched person the named invitations did a bit better than the family invitations, by 5 percentage points, when front-loaded incentives were offered, but the difference is not significant. In households with 2 or more matched persons, the letters addressed "To the family" got better response rates, by 4 percentage points (with front-loaded incentives). These results are consistent with our expectations that named invitations are better for respondents who live alone and that "family" invitations are better for respondents who cohabit. However, they are not statistically significant at $p<.05$.

Figure 7. Screener response rates by household size for named and family invitations, front-loaded incentives


Figure 8 shows the opposite result when escalating incentives were used: response rates for 1-person households were 19 points higher for "family" invitations than named invitations, and response rates for 2-or-more-person households were lower (8 points) with "family" invitations. The 19 point difference is statistically significant. We have no theoretical reason to expect such results.

Figure 8. Screener response rates by household size for named and family invitations, escalating incentives


The contradictory results shown in Figures 7 and 8 leave us without consistent evidence to support a strategy to tailor invitations by household size.

We also consolidated the incentive conditions and compared all named to all "family" invitations, and separately compared all front-loaded to escalating response rates by household size (not shown). The differences were not statistically significant.

## XI. Summary of Methodological Conclusions

This section summarizes the report's findings as they apply to methodological research questions about how the study design might be improved for the main ANES 2016 data collection effort.

## 1. Effects of invitations on response rates

Were named invitations more effective than invitations "to the family"?
No. There was no significant difference in the overall response rate between named and family invitations. (The observed response rate for family invitations was 42 percent compared to 39 percent for named invitations.)
2. Incentive effects

Which incentive approach gave a better response rate?
There was no detectable difference in the response rates between escalating and front-loaded incentives. (The observed response rates for both conditions were 41 percent.)

## 3. Mail screening effectiveness

How does the response rate for screening by mail compare to screening online?
Screening by mail resulted in a response rate 11 points lower than the best online screening option ( 32 percent by mail compared to 43 percent for escalating incentives send "to the family"). Mail screening is not a competitive mode for the main study.
4. Screener simplification

Could we meaningfully improve the response rate by simplifying the online screener to reduce screener breakoff?
No. The online screener completion rate, conditional on logging into the online survey, was 99 percent.

## 5. Panel retention

How did panel retention rates compare across the experimental conditions?
There were no statistically significant differences. Observed overall response rates for the second stage ranged from 31 to 35 percent, with the lowest rate for named escalating (31) and the highest for named front-loaded (35). The family escalating and family front loaded rates were 34 percent.
6. Sample quality

How representative was the sample of the population?
The sample substantially under-represented people with low levels of education, which is common for surveys and especially common for internet surveys, and it exhibited other moderate variances from population benchmarks. Some of these errors can be corrected with weighting.

## 7. Non-response bias

Were there substantial differences between online screening conditions in evident non-response bias?
No.
8. Accuracy of vendor data for sample enhancement

How accurate were the vendor's data?
The correspondence between names, household size, and gender composition of households as indicated in the comparison of vendor data to the survey data was low. This indicates that either the vendor's data, the survey data, or both contain many errors. In only 37 percent of households did the vendor's listed number of residents match the survey's listed number. The vendor list included all survey-listed names in 58-68 percent of cases, but included excess names in 45-48 percent of cases, even after our efforts to remove dubious matches.

## 9. Accuracy/effects of our name match rules

In what percentage of cases where we pre-selected a respondent and invited that person by
name did we correctly name the person?
95 percent.

## 10. Effects of mailings

Could we improve the response rate by improving the mailings?
Maybe. There is room for improvement in the response rate. The failure to detect differences in response rates between the front-loaded and escalating promised incentives could result from many respondents not opening or reading the letters.
11. Optimizing tailored incentives and invitations

Does the optimal invitation strategy depend on the size of the household?
Available evidence does not appear to support a tailored strategy.
12. Cost-optimizing the recruitment methods

What recruitment methods were most cost-effective?
Escalating incentives were much cheaper than front-loaded incentives, and family invitations were slightly cheaper than named incentives, with no detectable differences in response rate or data quality. Switching from the most to the least expensive method for a study of $n=3,000$ would save about $\$ 162,000$ in mailing and incentive costs or increase sample size by about 20 percent. Also, using Priority mail to send non-response conversion letters may not be cost effective compared to cheaper mailing methods.

## ApPENDIX 1. Rules used for matching cases (conditions 1A And 2A)

These rules have two stages. Stage 1 cleans up the voter data file mainly by dropping individual records for likely duplicates and people who probably have died or moved away. Stage 2 assigns each address to "matched" or "unmatched" status.

Matched addresses will have one person randomly selected and may receive invitations addressed to that named person (as appropriate for the experimental pretest condition), and unmatched addresses will always receive invitations to "The family at [ADDRESS]".

The rules were implemented in code.

Our priorities are ranked as follows:

1. Exclude from the sampling universe the individuals who probably do not currently live at the sampled address, because we do not want to send invitations to these people or have them affect selection probabilities for other individuals.
2. Include an individual who probably lives at the sampled address now, so that we can address an invitation by name to a current resident.
3. Include all individuals who live at the sampled address now, so that we can correctly sample an individual.

## Stage 1: drop individual duplicates and other ineligibles

(a) Standardize the variables:

Standardize the data so that each variable uses the same format for all cases, e.g. all records with BIRTHDATE may be in mm/dd/yyyy format or in yyyymmdd format, but not a mix of the two.
(b) Drop people whose mailing address does not match:

If there is a mailing address that differs from the registration address the address should be dropped.
(c) Drop people who filed a change of address notification and likely moved away:

If a national change of address notification was filed (NCOAAPPLIED $=\mathrm{Y}$ ) and MAILADDRLINE1 differs from the sampled address, delete the individual record.
(d) Drop people who probably live in a different apartment than the sampled one:

If the sampled address includes an apartment number and the listed individual does not have an apartment number included in their address or has a different apartment number included in their address, delete the individual.
(e) Drop ineligible juveniles:

If BIRTHDATE is 1999 or later delete the individual.
(f) Drop people who are probably deceased based on age and turnout status:

If BIRTHDATE earlier than 1916 and VOTERSTATUS is not "active", delete the individual.
(g) Drop people who are probably deceased based on vendor flag:

If individual is flagged as deceased by vendor, delete the individual.
(h) Drop likely duplicates where names match:

For each address, if FIRSTNAME and LASTNAME match and BIRTHDATEs "do not clearly differ," delete all but one of the apparent duplicate individuals. (Notes: "Delete" means exclude from sampling. If one record contains data and one record has missing data, the two "do not clearly differ," but they also do not match. If one birthdate gives month, day and year and the other gives only a year differing by not more than 1 or reports DOB as January 1 and the years differ by not more than 1, then the birthdates "do not clearly differ.") If a record has VOTERSTATUS=active keep the active one.
(i) Drop likely duplicates where middle names match first names:

If LASTNAME matches and BIRTHDATEs do not clearly differ (see above) and the FIRSTNAME of one individual matches the MIDDLENAME of the other, delete all but one of the apparent duplicate individuals. If a record has VOTERSTATUS=active keep the active one.

Example: in the following hypothetical household we would delete one of the men:

| FIRSTNAME | MIDDLENAME | LASTNAME | GENDER | BIRTHDATE |
| :--- | :--- | :--- | :--- | :--- |
| Pamela | Ann | Jones | female | $01 / 10 / 1970$ |
| Robert | Paul | Jones | male | $9 / 20 / 1970$ |
| Paul |  | Jones | male | $00 / 00 / 1970$ |

(j) Drop likely duplicates where names do not necessarily match:

For each address, if LASTNAME differs by no more than 1 letter and BIRTHDATE matches on two or more individuals, delete all but one of the apparent duplicate individuals. If a record has VOTERSTATUS=active keep the active one.
(k) Drop people who probably don't live at the sampled address anymore who would be in unusual blended households:
If the number of records $>2$ and the number of unique LASTNAMEs $>1$ and for one case VOTERSTATUS=active and for one or more other cases VOTERSTATUS=dropped, delete the individuals for whom VOTERSTATUS=dropped.
(I) Drop duplicate records of women who married or divorced and changed their name: If FIRSTNAME and BIRTHDATE and GENDER match and GENDER=female, keep the individual with the more recent REGISTRATIONDATE, or VOTERSTATUS=active, and drop the other(s).

If the number of records $>2$ and the number of unique LASTNAMEs $>1$ and for at least one case DEADWOOD_MODEL does not equal "POSSDEAD" and for one or more other cases DEADWOOD_MODEL equals "POSSDEAD", delete the individuals for whom DEADWOOD_MODEL equals "POSSDEAD".
(m) Use deadwood model to drop people who probably don't live at the sampled address anymore who would be in unusual blended households.
If the number of records > 2 and the number of unique LASTNAMEs > 1 and for one case
DEADWOOD=NOTDEAD and for one or more other cases DEADWOOD = POSSDEAD or DEADWOOD = unreg, delete the individuals for whom DEADWOOD=POSSDEAD and delete the individuals for whom DEADWOOD=unreg.

## Stage 2: assign matched or unmatched status to addresses

(a) Start with a bias favoring "unmatched":

Set all addresses to "unmatched" by default.
(b) Set to matched if we have an address match and a full name from Catalist for a household member: If a Catalist record exists with entries for FIRSTNAME and LASTNAME and the sampled DSF address matches the Catalist address, set to matched.
(c) Exclude possible nonfamily households because these may be two successive households: If the number of records $>1$ and the number of unique LASTNAMEs $>1$, set to unmatched.

Note: All "restore" instructions below apply only to cases that were set to matched and then reset to unmatched by the step above.
(d) Restore matched status for HHs with >1 last name where we can be fairly confident of the records: If the number of records $=2$ and VOTERSTATUS=active for both records and the primary address, mailing address, and registration address do not differ, set to matched.
(e) Restore matched status for a couple or a family where wife did not take husband's name: If the number of records is 2 and the records include a male and female with different last names whose ages differ by no more than 5 years, set to matched.
(f) Restore matched status for family where wife did not take husband's name and adult child lives at home:
If the number of records is 3 and the records include a male and female with different last names whose ages differ by no more than 5 years and the third person's last name matches one of the older people and the third person is at least 18 years younger than the older female, set to matched.
(g) Restore matched status for family where wife did not take husband's name and 2 adult children live at home:
If the number of records is 4 and the records include a male and female with different last names whose ages differ by no more than 5 years and the third and fourth people's last name(s) match(es) one of the older people and the third and fourth people are at least 18 years younger than the older female, set to matched.
(h) Restore matched status for family where surnames names are blended:

If the LASTNAME matches MIDDLENAME or the LASTNAME of one individual matches at least 4 characters of the LASTNAME or MIDDLENAME of another individual, set to matched.

Example: the following hypothetical household would have been excluded by the third step in this stage and would now be restored to matched status.

| FIRSTNAME | MIDDLENAME | LASTNAME | GENDER | BIRTHDATE |
| :--- | :--- | :--- | :--- | :--- |
| Pamela |  | Diaz-Jones | female | $01 / 10 / 1970$ |
| Robert | Paul | Jones | male | $9 / 20 / 1970$ |

(i) Restore matched status for family where middle names are blended:

If the LASTNAME matches MIDDLENAME or the LASTNAME of one individual matches at least 4 characters of the LASTNAME or MIDDLENAME of another individual, set to matched.

Example: the following hypothetical household would have been excluded by the third step in this stage and would now be restored to matched status.

| FIRSTNAME | MIDDLENAME | LASTNAME | GENDER | BIRTHDATE |
| :--- | :--- | :--- | :--- | :--- |
| Pamela | Diaz | Jones | female | 01/10/1970 |
| Robert | Paul | Diaz | male | $9 / 20 / 1970$ |

(j) Restore matched status in multi-surname households for individuals who appear to live there: If the number of household records $>1$ and the number of unique household LASTNAMEs $>1$ and the individual (VOTERSTATUS=active or VOTERSTATUS=unregistered) and DECEASED=n and (DEADWOOD=notdead or DEADWOOD=unreg) and NCOAAPPLIED=n and the primary address, mailing address, and registration address do not differ, and LASTSEENON is $8 / 01 / 15$ or later, set the address to matched and the individual to not dropped.

## Appendix 2. Text of Letters

This section presents the text of each of the letters used in the study. All standard letters (as distinguished from postcards and emails) were printed on letterhead featuring the logos of the study, Stanford, the University of Michigan, and the National Science Foundation.

## LETTERS 1, 5. ADVANCE LETTER

Congratulations! [You have/Your household has] been selected to participate in the [REDACTED STUDY NAME]. This is a scientific research project to learn what Americans think about life in the United States.

In the next few days you will receive a letter containing details about the study, along with \$20 in cash. The money is our thank-you for taking the time to read the letter.

To learn more about the [REDACTED STUDY NAME] you can visit our website:
[REDACTED].stanford.edu
Please watch your mail - your letter will arrive soon.
Sincerely,


Dr. Roger Tourangeau
Senior Investigator

LETTERS 2, 6, 9, 12 (LONGER ALTERNATE VERSION). INVITATION LETTER

Welcome to the [REDACTED STUDY NAME]!

I am writing to invite you to take part in this important study being done for Stanford University and the University of Michigan.

We are inviting a small number of people to complete a survey on the Internet.
[You have/Your household has] been scientifically selected to be part of this special new way of finding out what Americans think about life in the United States today.

Everyone selected this way who completes the survey will be paid [\$60/\$100]. I am enclosing $\$ 20$ in cash with this letter, and when you take the survey we will send another [ $\$ 40 / \$ 80$ ]. The $\$ 20$ is yours to keep with my thanks for reading this letter.

Your participation is voluntary, of course, and is critical for the success of the study. People find the study interesting and easy to do. We think you will, too.

Answers to Questions about the Study can be found on the back of this letter. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions.

Please take the survey today. To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Thank you very much. We appreciate your help.

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

We're looking forward to hearing from you!

Recently we sent you two letters about the [REDACTED STUDY NAME], an important study to find out what Americans think about life in the United States today.

If you already completed the survey, thank you very much! Your check for $\$[40 / 80]$ should arrive in a week or so.

If you haven't done the survey yet, we hope that now is a good time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].
If you didn't see our letters, we're sorry we missed you. You have been scientifically selected for this important research study. We want to include you, and we will pay you \$[40/80] for your time. It takes about an hour. People find the study easy and enjoyable, and we think you will too.

Thank you!

LETTERS 7, 13. REMINDER POSTCARD, HOUSEHOLD

We're looking forward to hearing from you!

Recently we sent you two letters about the [REDACTED STUDY NAME], an important study to find out what Americans think about life in the United States today.

If you already completed the survey, thank you very much! Your check for $\$[40 / 80]$ should arrive in a week or so.

If you haven't done the survey yet, we hope that now is a good time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

If you didn't see our letters, we're sorry we missed you. Your household has been scientifically selected for this important research study. We want to include you, and we will pay you $\$[40 / 80]$ for your time. It takes just a few minutes get started and find out if someone in your household is eligible by answering a few questions online. People find the study easy and enjoyable, and we think you will too.

Thank you!

We've been trying to reach you so you can be part of the [REDACTED STUDY NAME]. You probably remember the gift of $\$ 20$ in our second letter.

I'm writing to you just one last time to ask for your help.

We would like to ask you about your opinions on a variety of topics related to life in the United States today. The survey is ending in a few days, so this is my last chance to reach you.

Because your participation is critical for the success of the study, we can give you another $\$ \mathbf{8 0}$ as a thank-you for your time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

LETTERS 8, 14. NONRESPONSE LETTER, RESIDENT

We've been trying to reach your household so you can be part of the [REDACTED STUDY NAME]. You may remember the gift of $\$ 20$ in our second letter.

I'm writing to you just one last time to ask for your help.

We would like to ask someone in your household about their opinions on a variety of topics related to life in the United States today. The survey is ending in a few days, so this is my last chance to reach you.

Because your participation is critical for the success of the study, we can give you another $\$ 80$ as a thank-you for your time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 15. INVITATION LETTER, CONDITION 3 (4e-1)

Your household has been selected to participate in the [REDACTED STUDY NAME]. This survey is about public issues and Internet use in your household and can be completed and returned by mail in about 3 minutes.

When you complete this survey, someone in your household may be invited to a follow-up survey. They will be paid $\$ 50$ if they complete the follow-up survey.

Enclosed with this letter we have included the two-page survey, a pen, a return envelope, and \$5 to thank you for your time.

Answers to Questions about the Study can be found on the back of the survey. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions.

Your participation is voluntary, of course, and is critical for the success of the study.
Please answer the survey today and return it in the enclosed envelope. Thank you very much. We appreciate your help.

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 16. REMINDER POSTCARD, CONDITION 3 (4e-2)

We're looking forward to hearing from you!

Recently we sent you a letter with the [REDACTED STUDY NAME], an important study to find out about public issues and Internet use in your household.

If you already completed the survey, thank you very much!

If you haven't done the survey yet, we hope that now is a good time.

You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have questions or need a replacement survey or envelope.

Please answer the survey at your earliest convenience.

Thank you!

## LETTER 17. FOLLOWUP LETTER, CONDITION 3 (4e-3)

Recently we sent your household a postcard and a letter to invite you to participate in the [REDACTED STUDY NAME]. You may remember the $\$ 5$ enclosed with the letter.

If you already returned the survey, thank you very much! If you haven't done the survey yet, we hope that now is a good time.

We are trying to reach you because your household has been scientifically selected to participate in this research study. We cannot substitute another household for yours.

The two-page survey is enclosed. It is about public issues and Internet use in your household. It should take only about 3 minutes to answer the survey and mail it back.

When you complete this survey, someone in your household may be invited to a follow-up survey. They will be paid $\$ 50$ if they complete the follow-up survey.

Answers to Questions about the Study can be found on the back of the survey. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions.

Your participation is voluntary, of course, and is critical for the success of the study.

Please answer the survey today and return it in the enclosed envelope.

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 18. SECOND REMINDER CARD, CONDITION 3 (4e-4)

If you have already answered the [REDACTED STUDY NAME], thank you very much!

If you have not returned your survey yet, please do so as soon as you can. The study is ending soon and we need to hear from you so that your experience will be counted.

The survey only takes about 3 minutes to answer. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have questions or need a replacement survey or envelope.

Please answer the survey at your earliest convenience.

Thank you!

LETTER 19. NONRESPONSE LETTER, CONDITION 3 (4e-5)

We recently tried to reach you about the [REDACTED STUDY NAME]. You may remember the gift of $\$ 5$ in the first letter we sent.

We're writing to you just one last time to ask for your help. The survey is ending in a few days.

Your household was scientifically selected and, as a result, no one else can take your place. Because your participation is so important to us, we are sending you the enclosed $\$ 20$.

We would like to ask the [oldest/youngest] [male/female] in your household who is 17 or older their views on a variety of topics related to life in the United States today. If there is no [male/female] there, then we would like the [oldest/youngest] [male/female] who is 17 or older to take the survey. The mail version of the survey is over, but the survey can still be completed online in the next two days.

We can give this person another $\$ 40$ if [he/she] will go online and take the survey in the next two days. The survey should take about an hour.

To start, just go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Answers to Questions about the Study can be found on the back of this letter. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions. Please accept the enclosed $\$ 20$ with my thanks for taking the time to read this letter.

Please take the survey today -it will be a big help. Thank you very much.
Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 20. INVITATION EMAIL

SUBJECT: [NAME], welcome to the [REDACTED STUDY NAME]
[SCREENER RESPONDENT NAME] in your household recently completed an online interview or questionnaire with the [REDACTED STUDY NAME].

I am writing to invite you to take part in this important study being done for Stanford University and the University of Michigan. You have been scientifically selected to be part of this special new way of finding out what Americans think about life in the United States today.

Your participation is voluntary, of course, and is critical for the success of the study. People find the study interesting. We think you will, too.

To thank you for your time, we will give you [\$40/\$80] for taking the survey. It takes about an hour.

Please take the survey today. To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 21. FOLLOWUP EMAIL

SUBJECT: [NAME], welcome to the [REDACTED STUDY NAME]
[SCREENER RESPONDENT NAME] in your household recently completed an online interview with the [REDACTED STUDY NAME].

You have been scientifically selected to be part of this special new way of finding out what Americans think about life in the United States today. [SCREENER RESPONDENT NAME] gave us your email address so that we could invite you to take part in this important study being done for Stanford University and the University of Michigan.

The survey takes about an hour. To thank you for your time, we will give you [\$40/\$80].
People find the survey interesting and easy to do. We think you will too.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

LETTER 22. INVITATION LETTER TO SECOND PERSON, CONDITION 1 (5-iv)

Welcome to the [REDACTED STUDY NAME]!

I am writing to invite you to take part in this important study being done for Stanford University and the University of Michigan.

Someone in your household recently completed an online interview with the [REDACTED STUDY NAME].

You have been scientifically selected to be part of this special new way of finding out what Americans think about life in the United States today.

Your participation is voluntary, of course, and is critical for the success of the study. People find the study interesting. We think you will, too.

Everyone who completes the survey will be paid $\$ 100$. I am enclosing $\$ 20$ in cash with this letter, and when you take the survey we will send another $\$ 80$. The $\$ 20$ is yours to keep as a thank-you for reading this letter.

Answers to Questions about the Study can be found on the back of this letter. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions.

Please take the survey today. To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Thank you very much. We appreciate your help.

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

LETTER 23. INVITATION LETTER TO SECOND PERSON, CONDITION 2 (5-iv)

Welcome to the [REDACTED STUDY NAME]!

I am writing to invite you to take part in this important study being done for Stanford University and the University of Michigan.

Someone in your household recently completed an online interview with the [REDACTED STUDY NAME].

You have been scientifically selected to be part of this special new way of finding out what Americans think about life in the United States today.

Everyone selected this way who completes the survey will be paid [ $\$ 60 / \$ 100$ ]. I am enclosing $\$ 20$ in cash with this letter, and when you take the survey we will send another [\$40/\$80]. The $\$ 20$ is yours to keep as a thank-you for reading this letter.

Your participation is voluntary, of course, and is critical for the success of the study. People find the study interesting. We think you will, too.

Answers to Questions about the Study can be found on the back of this letter. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions.

Please take the survey today. To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Thank you very much. We appreciate your help.

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 24. REMINDER POSTCARD CONDITION 1

We're looking forward to hearing from you!

Recently we sent you a letter about the [REDACTED STUDY NAME], an important study to find out what Americans think about life in the United States today.

If you already completed the survey, thank you very much! Your check for $\$ 80$ should arrive in a week or so.

If you haven't done the survey yet, we hope that now is a good time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].
If you didn't see our letter, we're sorry we missed you. You have been scientifically selected for this important research study. We want to include you, and we will pay you $\$ 80$ for your time. It takes about an hour. You can learn more about the study on our website. People find the study easy and enjoyable, and we think you will too.

Thank you!

## LETTER 25. REMINDER POSTCARD CONDITION 2

We're looking forward to hearing from you!

Recently we sent you a letter about the [REDACTED STUDY NAME], an important study to find out what Americans think about life in the United States today.

If you already completed the survey, thank you very much! Your check for $\$[40 / 80]$ should arrive in a week or so.

If you haven't done the survey yet, we hope that now is a good time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].
If you didn't see our letter, we're sorry we missed you. You have been scientifically selected for this important research study. We want to include you, and we will pay you \$[40/80] for your time. It takes about an hour. You can learn more about the study on our website. People find the study easy and enjoyable, and we think you will too.

Thank you!

## LETTER 26. NONRESPONSE LETTER (5-vi)

I have recently tried to reach you by sending a letter and a postcard about the [REDACTED STUDY NAME]. You probably remember the gift of $\$ 20$ enclosed with the letter.

I'm writing to you just one last time to ask for your help.

We would like to ask you about your opinions on a variety of topics related to life in the United States today. The survey is ending in a few days, so this is my last chance to reach you.

Because your participation is critical for the success of the study, we can give you \$80 as a thank-you for your time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 27. INVITATION LETTER (5c-1)

Someone in your household recently completed the [REDACTED STUDY NAME] and returned it by mail. Thank you very much for that.

You have been selected for a second part of the study. This is a scientific research project to learn what Americans think about life in the United States.

This part of the study is done on the Internet. To participate, please go to our website and answer questions there. The survey will take about an hour. To thank you, we will send you $\$ 40$.

To start, just go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Answers to Questions about the Study can be found on the back of this letter. You are always welcome to email us at [REDACTED]@westat.com or call toll-free 1-855-809-9988 if you have other questions. Please accept the enclosed $\$ 10$ with my thanks for reading this letter.

Please take the survey today. Thank you very much. We appreciate your help.

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 28. REMINDER POSTCARD (5c-2)

We're looking forward to hearing from you!

Recently we sent you a letter about the [REDACTED STUDY NAME], an important study to find out what Americans think about life in the United States today.

If you already completed the survey online, thank you very much! Your check for $\$ 40$ should arrive in a week or so.

If you haven't done the survey yet, we hope that now is a good time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

If you didn't see our letter, we're sorry we missed you. You have been scientifically selected for this important research study after a member of your household responded to the first part of our survey by mail. We want to include you, and we will pay you $\$ 40$ for your time. It takes about an hour to complete the survey online. People find the study easy and enjoyable, and we think you will too.

Thank you!

## LETTER 29. FOLLOWUP LETTER (5c-3)

I have recently tried to reach you by sending a letter and a postcard about the [REDACTED STUDY NAME]. You probably remember the gift of $\$ 10$ enclosed with the letter.

I'm writing to you just one last time to ask for your help.

We would like to ask you about your opinions on a variety of topics related to life in the United States today. The survey is ending in a few days, so this is my last chance to reach you.

Because your participation is critical for the success of the study, we can give you \$60 as a thank-you for your time.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 30. HOUSEHOLD REFUSAL CONVERSION

Recently your household was scientifically selected to participate in the [REDACTED STUDY NAME], and someone in your household told us that you would not participate.

I hope you won't mind my sending this one last letter to ask you to reconsider and to please take the survey.

Anyone in your household can participate. So if you can't do it, maybe someone else would like to.

Your household was scientifically selected, so we cannot substitute another household for yours. Getting accurate results that correctly describe the United States depends on including your household.

We recognize that your time is valuable, and because the scientific accuracy of the study depends on including your household, we can send you $[\$ 40 / \$ 60 / \$ 80]$ as a thank-you for participating.

Your participation is voluntary and confidential. You can choose not to answer any question that you don't want to answer, and you can stop without finishing if you need to.

The survey is done online, so you can do it at any time of the day or night, at home, or at work, or at a public library, or anywhere with Internet access.

The survey is ending in just a few days, so please do it by [DAY, DATE].

Most people seem to find the survey easy and enjoyable. We hope you will, too.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 31. PRE-SELECTED PERSON REFUSAL CONVERSION

Recently you were scientifically selected to participate in the [REDACTED STUDY NAME], and you told us that you would not participate.

I hope you won't mind my sending this one last letter to ask you to reconsider and to please take the survey.

You were scientifically selected, so we cannot substitute someone else. Getting accurate results that correctly describe the United States depends on including you.

We recognize that your time is valuable, and because the scientific accuracy of the study depends on including you, we can send you $[\$ 40 / \$ 60 / \$ 80]$ as a thank-you for participating.

Your participation is voluntary and confidential. You can choose not to answer any question that you don't want to answer, and you can stop without finishing if you need to.

The survey is done online, so you can do it at any time of the day or night, at home, or at work, or at a public library, or anywhere with Internet access.

The survey is ending in just a few days, so please do it by [DAY, DATE].

Most people seem to find the survey easy and enjoyable. We hope you will, too.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].
Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 32. SCREENED \& SELECTED PERSON REFUSAL CONVERSION

Recently [SCREENER RESPONDENT/someone] in your household answered questions for the [REDACTED STUDY NAME]. You were scientifically selected for the study, but you told us that you would not participate.

I hope you won't mind my sending this one last letter to ask you to reconsider and to please take the survey.

You were scientifically selected, so we cannot substitute someone else. Getting accurate results that correctly describe the United States depends on including you.

We recognize that your time is valuable, and because the scientific accuracy of the study depends on including you, we can send you [\$40/\$60/\$80] as a thank-you for participating.

Your participation is voluntary and confidential. You can choose not to answer any question that you don't want to answer, and you can stop without finishing if you need to.

The survey is done online, so you can do it at any time of the day or night, at home, or at work, or at a public library, or anywhere with Internet access.

The survey is ending in just a few days, so please do it by [DAY, DATE].
Most people seem to find the survey easy and enjoyable. We hope you will, too.

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].
Sincerely,


Dr. Roger Tourangeau
Senior Investigator

## LETTER 33. PAYMENT LETTER FOR PRE

Recently you completed the [REDACTED STUDY NAME] online. As promised, enclosed is a check for $\$[40 / 60 / 80]$.

I hope you found the survey interesting and enjoyable. By completing it you helped assure that Americans' opinions, attitudes, and beliefs about a range of important topics were more accurately represented. Your participation was vital to the success of the study, and I'm happy to report that the study is going very well. Thank you very much for your part in making it work.

Sincerely,
Roy Vounan.
Dr. Roger Tourangeau
Senior Investigator

LETTER 34. POST INVITATION EMAIL
Subject: [REDACTED STUDY NAME]

Thank you again for completing the [REDACTED STUDY NAME] online. I'm writing to invite you to be interviewed online one more time.

Because your participation is so important for our study, we can offer you another $\$[40 / 60 / 80]$ to take the survey. Since you did a survey once before, you are irreplaceable. Please take the survey today.

To start, click here [HYPERLINK TO START SURVEY], or go to [SURVEY URL] and enter the ID [ID CODE].
Sincerely, [SIGNATORY]

LETTER 35. POST REMNINDER EMAIL
Subject: Reminder: [REDACTED] still needs you

Recently you completed the [REDACTED STUDY NAME]. Thank you again for doing the survey. By now you should have received your thank-you check for \$[40/60/80].

I'm writing to invite you to take one more [REDACTED STUDY NAME].

In order for our study to accurately describe what all Americans think and what has changed and what has stayed the same since we interviewed you last time, we need to include you.

Because your participation is so important for our study, we can offer you another $\$[40 / 60 / 80]$ to take the survey. Since you did a survey once before, you are irreplaceable. Please take the survey today.

To start, click here [HYPERLINK TO START SURVEY], or go to [SURVEY URL] and enter the ID [ID CODE].

Sincerely,
[SIGNATORY]

## LETTER 36. POST INVITATION LETTER

Recently you completed the [REDACTED STUDY NAME]. Thank you again for doing the survey. By now you should have received your thank-you check for $\$[40 / 60 / 80]$.

I'm writing to invite you to take one more [REDACTED STUDY NAME].

In order for our study to accurately describe what all Americans think and what has changed and what has stayed the same since we interviewed you last time, we need to include you.

Because your participation is so important for our study, we can offer you another $\$[40 / 60 / 80]$ to take the survey. Since you did a survey once before, you are irreplaceable. Please take the survey today.

To start, go to [SURVEY URL] and enter the ID [ID CODE].

Sincerely,
[SIGNATORY]

## LETTER 37. POST REMNINDER POSTCARD

Thank you for taking the [REDACTED STUDY NAME] recently. Your participation helped make the study a success. By now you should have received your thank-you check for $\$[40 / 60 / 80]$.

We are doing one more survey. We need you to be a part of it to find out what has changed and what is still the same about American public life. This is why we have been trying to reach you recently.

Since you did the survey once before you are irreplaceable, so we can offer you another $\$[40 / 60 / 80]$ to take the survey.

Please take the survey today. To tart, go to [SURVEY URL] and enter the ID [ID CODE].

Thank you!

Recently we sent you an email and a letter in the U.S. mail to invite you to be interviewed online again for the [REDACTED STUDY NAME], conducted by Stanford University and the University of Michigan.

If you completed the survey online before getting this letter, thank you very much. Your check should arrive in the mail in about a week.

You are irreplaceable to the [REDACTED STUDY NAME] because of the interview you completed with us in [MONTH OF PRE INTERVIEW]. This is why we would like to offer you a $\boldsymbol{\$}[40 / 60 / 80]$ payment for your time if you complete an online interview by [DATE]. However, we cannot offer that payment after our study ends on that date.

In order for our study to accurately describe what all Americans think, we need to include you. Unfortunately, we can't interview someone else to replace you.

To start, go to [SURVEY URL] and enter the ID [ID CODE].

This is the last time we will ask to interview you.

Sincerely,
[SIGNATORY]

LETTER 39. FINAL EMAIL
Subject: Reminder: the [REDACTED] is ending soon

Recently we sent you an email and letters delivered by FedEx and the U.S. mail to invite you to be interviewed online in December for the [REDACTED STUDY NAME], conducted by Stanford University and the University of Michigan.

You are irreplaceable to the [REDACTED STUDY NAME] because of the interview you completed with us in [MONTH OF PRE INTERVIEW]. This is why we would like to offer you a $\boldsymbol{\$}[40 / 60 / 80]$ payment for your time if you complete an online interview by [DATE]. However, we cannot offer that payment after our study ends on that date.

In order for our study to accurately describe what all Americans think, we need to include you. Unfortunately, we can't interview someone else to replace you.

This is the last time we will ask to interview you. Please take the survey today.

To start, click here [HYPERLINK TO START], or go to [SURVEY URL] and enter the ID [ID CODE].

Sincerely,
[SIGNATORY]

LETTER 40. POST PAYMENT LETTER.

Recently you completed a second online questionnaire for the [REDACTED STUDY NAME]. As promised, enclosed is a check for $\$[40 / 60 / 80]$.

Thank you very much for your participation in the study.

Sincerely,
[SIGNATORY]

LETTER 41, 42. REMINDER POSTCARD 3 (COND 1A/B AND COND 2A/B)

If you already completed the [REDACTED STUDY NAME] online, thank you very much! Your thank you check will arrive soon.

If you haven't yet, we need you! And to thank you we will send you \$80 if you do the online interview before the study ends on Sunday, April 3.

To start, go to [REDACTED].stanford. edu and enter the ID number <<PIN>>.

Call 855-809-9988 if you need any help.
Thank you!

LETTER 91, 92. REMINDER POSTCARD 2 (COND 1A/B AND 2A/B)

Time is Running Out!

Don't miss your opportunity to participate in the [REDACTED STUDY NAME] and receive \$[40/80].

To start, go to [REDACTED].stanford.edu and enter the ID number [RESPONDENT PIN].

Thank you!

## Answers to Questions about the Study

## Who is sponsoring the study?

The study is being done for Stanford University in collaboration with the University of Michigan, with funding from the National Science Foundation. We are not affiliated with any political or media group.

## Why are you asking me to do this? Why \{will/did\} you send me $\{\mathbf{\$ 1 0} / \mathbf{2 0} \mathbf{2 0}$ in the mail?

The cash is a very cost-effective way to help make sure that people read our letters, know we are serious, and take the survey. Your household was scientifically selected as part of a major effort to learn more about what Americans think and feel.

## What is the purpose of the study? Are you selling anything?

We are not selling anything. The purpose of the study is academic research funded by the National Science Foundation. The only way to know how people really feel about American life today is to hear from people in their own words. This study is a special new way to find out how Americans really think and feel about topics like politics, health, work, school, retirement, and other subjects. By taking part, you help provide an accurate picture of what Americans think.

## What if I don't have a computer or Internet access at home?

If you don't have Internet access at home on a computer, tablet, or smartphone, you can use a computer with an Internet connection anywhere else to take the survey. Most public libraries will provide free Internet access. Call us at 1-855-809-9988 and we'll help you.

## How long will this take?

It takes about 5 minutes to answer a few questions about your household to make sure you or someone there is eligible for the study. Then the survey should take around an hour. You can answer the questions whenever and wherever it's convenient for you.

## How will this research be used?

Researchers from Stanford University, the University of Michigan, and others will publish the study results online and in professional journals, books, and possibly magazines. The results are used in college classes and by policy makers. Your participation is essential to make sure your voice is included.

## Is the information confidential?

Yes. It is very important to us to protect your privacy. The [REDACTED STUDY NAME] project has interviewed more than 50,000 people over the last 65 years and has never revealed anyone's personal information. All information that you or anyone in your household provides will be kept in strict confidence. You or your household will never be identified in any analysis, reports, or publications based on your responses, and no one outside of a small number of researchers working on the study will ever be able to know your household participated.

## What is Westat?

Westat is a nationally known survey research firm based in Rockville, Maryland, that has completed hundreds of important research studies. Westat was carefully selected and is conducting this study on behalf of Stanford University and the University of Michigan. Visit their website to learn more: www.westat.com

## What do I do next?

\{Just watch for our next letter in the mail. It will arrive soon.\}/
\{To take the survey, go to the website shown in your invitation letter, type the ID number shown there, and then answer questions on a variety of topics. You can skip any question you don't want to answer. The survey usually takes around an hour. We'll send you $\$\{40 / 60 / 80\}$ as a thank-you.\}

## Appendix 3. Screening and Contact Flowcharts

The pages that follow use flowcharts to illustrate the process of contact attempts and data collection for the screener, "Pre-Election" and "Post-Election" phases of the study.

The first flowchart is the screener questionnaire. The subsequent flowcharts are the contact procedures for the various experimental conditions for incentives and forms of address.

Dates shown in the procedure flowcharts indicate planned dates. Numbers in parentheses such as "(\#3)" indicate the letter mailed in the indicated circumstance. See Appendix 2 for the text of these letters.












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[^0]:    ${ }^{1}$ Amaya, Ashley, Felicia LeClere, Lee Fiorio, and Ned English. 2014. Improving the utility of the DSF address-based frame through ancillary information. Field Methods 26: 70-86.

[^1]:    ${ }^{2}$ Hagen, D.E. and Collier, C.M. 1983. Must respondent selection procedures for telephone surveys be invasive? Public Opinion Quarterly, 47, 547-556.

[^2]:    ${ }^{3}$ We refer to the first wave of the pretest survey as a "pre-election" survey and to the second wave as a "postelection" survey because these questionnaires used questions from the ANES Time Series pre-election and postelection surveys, respectively. However, an election did not occur between these two waves of the pretest study.

[^3]:    Table continues on next page.

[^4]:    Notes: Total mailing costs exclude \$20 enclosed in advance letters.
    Numbers may not sum to totals due to rounding of weighted estimates.

