# Supplemental Appendix for: <br> THE COMPARATIVE EFFECTIVENESS ON TURNOUT OF POSITIVELY VERSUS NEGATIVELY FRAMED DESCRIPTIVE NORMS IN MOBILIZATION CAMPAIGNS 

FOR ONLINE PUBLICATION ONLY

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## A Supplemental Appendix for Study 1: Experiment Involving a Social Referent and Descriptive Norms (2014 Primary Election among Contacted Ever-Voters in MI, MO, TN)

## A. 1 Treatment Scripts

## FOR ALL SUBJECTS:

```
VAR1 - STATE
VAR2 - DAY
VAR3 - DATE
VAR4 - 2012 TURNOUT
VAR5 - 2012 NON-VOTERS
```

Hi, could I speak to [name1] or [name2]? (please enter id number of target reached)
Hi. My name is [interviewer's first name], and I'm conducting a university research survey of registered voters. You can help us a lot by answering just a few questions. The survey is voluntary and you don't have to answer questions you don't want to. I'm not selling anything, and the entire questionnaire will take fewer than two minutes to complete.

Are you currently a resident of [VAR1]?

01 Yes:
02 No:
03 Other:
04 Wouldn't Disclose:
20 Declined Conversation:
21 Do not call:

GO TO APPROPRIATE GROUPCODE SECTION
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.

FDISPS 30-86 ARE FINALIZED RECORDS BUT DON'T COUNT AS CONTACTS

30 Early Hangup
31 Language Barrier
32 Target Deceased
35 Privacy Manager
80 Wrong Number
81 Disconnected Number
82 Fax/Modem
83 Fast Busy
84 Telephony Error/Circuits Busy
85 Changed Number
86 Tri-tone/No longer in service (catch all)
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]
[enter ID1 into ID field]

## GROUPCODE 01 (Placebo):

Q01 (S1Q1) How many times in the last fourteen days have you been to the grocery store?
1 Response provided [do not record response] Thank you for your help. Goodbye.

96 Other
97 Don't know
98 Refused
99 Hung up

Thank you for your help. Goodbye.
GO TO Q02
GO TO Q02
Thank you for your help. Goodbye.

Q02 (S1Q1a) If you had to guess, how many times in the last fourteen days have you been to the grocery store?
1 Response provided [do not record response]
Thank you for your help. Goodbye.
97 Don't know
Thank you for your help. Goodbye.
98 Refused
Thank you for your help. Goodbye.
99 Hung up
Thank you for your help. Goodbye.

## GROUPCODE 06 (Positive descriptive social norms):

Q28 (S6Q1) This [VAR2] [VAR1] will be holding primary elections to select which candidates will be on the ballot this November. Were you aware that [VAR1]'s primary elections will be held this [VAR2]?

1 Yes
2 No
96 Other
98 Refused
99 Hung up

GO TO Q29
GO TO Q29
GO TO Q29
GO TO Q29
Thank you for your help. Goodbye.

Q29 (S6Q2) In the 2012 primary election, [VAR4] of [VAR1] 's eligible voters actually voted. Many hope this high level of engagement will continue in the upcoming primary election on [VAR2]. We encourage you to continue this high level of participation and vote!
(S6Q3) In talking to people about elections, we often find that a lot of people are not able to vote because they are sick, they have important obligations, or they just don't have time. How likely do you think you are to vote in the primary election this coming [VAR2]?
[IF NECESSARY, PROD WITH:] Are you ...
[START LISTING OPTIONS 1-6 - DO NOT READ 96-99]

| 1 | Absolutely certain to vote | Thank you for your help. Goodbye. |
| :--- | :--- | :--- |
| 2 | Extremely likely | Thank you for your help. Goodbye. |
| 3 | Very likely | Thank you for your help. Goodbye. |
| 4 | Somewhat likely | Thank you for your help. Goodbye. |
| 5 | Not too likely | Thank you for your help. Goodbye. |
| 6 | Not at all likely | Thank you for your help. Goodbye. |
| 96 | Other | Thank you for your help. Goodbye. |
| 97 | Don't know | GO TO Q30 |
| 98 | Refused | GO TO Q30 |
| 99 | Hung up | Thank you for your help. Goodbye. |

Q30 (S6Q3a) If you had to guess, how likely do you think you are to vote in the election this coming [VAR2]?
[IF NECESSARY, PROD WITH:] Are you ...
[START LISTING OPTIONS 1-6 - DO NOT READ 96-99]

| 1 | Absolutely certain to vote | Thank you for your help. Goodbye. |
| :--- | :--- | :--- |
| 2 | Extremely likely | Thank you for your help. Goodbye. |
| 3 | Very likely | Thank you for your help. Goodbye. |
| 4 | Somewhat likely | Thank you for your help. Goodbye. |
| 5 | Not too likely | Thank you for your help. Goodbye. |
| 6 | Not at all likely | Thank you for your help. Goodbye. |
| 96 | Other | Thank you for your help. Goodbye. |
| 97 | Don't know | Thank you for your help. Goodbye. |
| 98 | Refused | Thank you for your help. Goodbye. |
| 99 | Hung up | Thank you for your help. Goodbye. |

GROUPCODE 07 (Negative descriptive social norms):

Q31 (S7Q1) This [VAR2] [VAR1] will be holding primary elections to select which candidates will be on the ballot this November. Were you aware that [VAR1]'s primary elections will be held this [VAR2]?

| 1 | Yes | GO TO Q32 |
| :--- | :--- | :--- |
| 2 | No | GO TO Q32 |
| 96 | Other | GO TO Q32 |
| 98 | Refused | GO TO Q32 |
| 99 | Hung up | Thank you for your help. Goodbye. |

Q32 (S7Q2) In the 2012 primary election, [VAR5] of [VAR1]'s eligible voters did not actually vote. Many fear this low level of engagement will continue in the upcoming primary election on [VAR2]. We encourage you to break from this low level of participation and vote!
(S7Q3) In talking to people about elections, we often find that a lot of people are not able to vote
because they are sick, they have important obligations, or they just don't have time. How likely do you think you are to vote in the primary election this coming [VAR2]?
[IF NECESSARY, PROD WITH:] Are you...
[START LISTING OPTIONS 1-6 - DO NOT READ 96-99]

| 1 | Absolutely certain to vote |
| :--- | :--- |
| 2 | Extremely likely |
| 3 | Very likely |
| 4 | Somewhat likely |
| 5 | Not too likely |
| 6 | Not at all likely |
| 96 | Other |
| 97 | Don't know |
| 98 | Refused |
| 99 | Hung up |

Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
GO TO Q33
GO TO Q33
Thank you for your help. Goodbye.
Q33 (S7Q3a) If you had to guess, how likely do you think you are to vote in the election this coming [VAR2]?
[IF NECESSARY, PROD WITH:] Are you...
[START LISTING OPTIONS 1-6 - DO NOT READ 96-99]

1 Absolutely certain to vote
2 Extremely likely
3 Very likely
4 Somewhat likely
5 Not too likely
6 Not at all likely
96 Other
97 Don't know
98 Refused
99 Hung up

Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.
Thank you for your help. Goodbye.

## A. 2 Sample Filtering and Definition Details

The subject pool in the original experiment was defined using the following procedure. First we obtained a sampling frame of $15,378,656$ registrants from a private vendor for the three states. There were 7,381,393 registrants in MI, 4,039,314 registrants in MO, and 3,957,949 registrants in TN.

We then excluded records that lacked a first or last name or a valid phone number because treatments are phone calls targeting specific individuals that must be matched back to voter files. We required that the phone number be connected with greater than $60 \%$ probability and be able to match to a person with greater than $80 \%$ probability. We also excluded any duplicate phone numbers that remained after randomly selecting subjects from each household.

We also excluded records who could not be matched to a congressional district. Finally, we randomly selected one registrant from each household for the experimental sample. This yields a sample of $2,122,738$ subjects. Next, we used a blocked randomization procedure, blocking on subjects' state of residence, past vote history, and the competitiveness of their congressional district (specifically, whether the congressional district has either a competitive Democratic or Republican primary election), to assign subjects to receive the positive norm treatment call ( $\mathrm{n}=25,274$ ), the negative norm treatment call ( $\mathrm{n}=25,276$ ), or the apolitical placebo call $(\mathrm{n}=50,557)$.

To construct the analysis sample, we further condition the sample on whether the subject was successfully reached and whether they verified their state of residence. This yields 4,406 subjects assigned to placebo, 2,105 subjects assigned to the positive norm condition, and 2,112 subjects assigned to the negative norm condition.
A. 3 Treatment Assignment Probabilities by Randomization Block/Stratum
Table A1: Treatment assignment probabilities by block for the original experimental sample (left panel) and among the analysis sample, defined as subjects who are succesfully contacted and pass the screener verifying their state of residence (right panel). Blocks are defined as unique combinations of the subject's state of residence, the subject's district type (specifically whether either the Republican or Democratic primary election is competitive), and the subject's past vote history.

| Randomization Block / Stratum |  |  |  | Treatment Assignment Rates among Original Subject Pool |  |  |  |  |  |  |  | Treatment Assignment Rates in Analysis Sample |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Block/ |  | Either | Voter Type by Past Vote History | Placebo |  | Positive Norm |  | Negative Norm |  | Total |  | Placebo |  | Positive Norm |  | Negative Norm |  | Total |  |
| Stratum |  | Primary | ( $\mathrm{G}=$ General Election Voters | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Number | State | Competitive? | V=Primary Election Voters) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | MI | No | G (Only Pres. Elec.) | 2,657 | 50.01 | 1,328 | 25 | 1,328 | 25 | 5,313 | 100 | 163 | 48.37 | 91 | 27 | 83 | 24.63 | 337 | 100 |
| 2 | MI | No | G (Any Non-Pres. Elec.) | 2,596 | 50 | 1,298 | 25 | 1,298 | 25 | 5,192 | 100 | 159 | 45.43 | 92 | 26.29 | 99 | 28.29 | 350 | 100 |
| 3 | MI | No | P (Just Pres. Prim.) | 277 | 50.09 | 138 | 24.95 | 138 | 24.95 | 553 | 100 | 22 | 42.31 | 17 | 32.69 | 13 | 25 | 52 | 100 |
| 4 | MI | No | P (Any Non-Pres. Prim.) | 1,519 | 49.97 | 760 | 25 | 761 | 25.03 | 3,040 | 100 | 167 | 52.68 | 68 | 21.45 | 82 | 25.87 | 317 | 100 |
| 5 | MI | Yes | G (Only Pres. Elec.) | 6,802 | 50 | 3,401 | 25 | 3,401 | 25 | 13,604 | 100 | 403 | 49.57 | 208 | 25.58 | 202 | 24.85 | 813 | 100 |
| 6 | MI | Yes | G (Any Non-Pres. Elec.) | 7,054 | 49.99 | 3,528 | 25 | 3,528 | 25 | 14,110 | 100 | 503 | 50.5 | 266 | 26.71 | 227 | 22.79 | 996 | 100 |
| 7 | MI | Yes | P (Just Pres. Prim.) | 720 | 50 | 360 | 25 | 360 | 25 | 1,440 | 100 | 45 | 44.12 | 28 | 27.45 | 29 | 28.43 | 102 | 100 |
| 8 | MI | Yes | P (Any Non-Pres. Prim.) | 4,383 | 50 | 2,191 | 24.99 | 2,192 | 25.01 | 8,766 | 100 | 401 | 48.78 | 208 | 25.3 | 213 | 25.91 | 822 | 100 |
| 9 | MO | No | G (Only Pres. Elec.) | 3,557 | 50.01 | 1,778 | 25 | 1,777 | 24.99 | 7,112 | 100 | 263 | 48.52 | 139 | 25.65 | 140 | 25.83 | 542 | 100 |
| 10 | MO | No | G (Any Non-Pres. Elec.) | 2,995 | 50.01 | 1,497 | 25 | 1,497 | 25 | 5,989 | 100 | 274 | 48.93 | 141 | 25.18 | 145 | 25.89 | 560 | 100 |
| 11 | MO | No | P (Just Pres. Prim.) | 664 | 50.08 | 331 | 24.96 | 331 | 24.96 | 1,326 | 100 | 65 | 47.79 | 39 | 28.68 | 32 | 23.53 | 136 | 100 |
| 12 | MO | No | P (Any Non-Pres. Prim.) | 2,959 | 50.01 | 1,479 | 25 | 1,479 | 25 | 5,917 | 100 | 443 | 49.89 | 226 | 25.45 | 219 | 24.66 | 888 | 100 |
| 13 | TN | No | G (Only Pres. Elec.) | 2,097 | 49.99 | 1,049 | 25.01 | 1,049 | 25.01 | 4,195 | 100 | 195 | 46.43 | 93 | 22.14 | 132 | 31.43 | 420 | 100 |
| 14 | TN | No | G (Any Non-Pres. Elec.) | 1,353 | 50 | 677 | 25.02 | 676 | 24.98 | 2,706 | 100 | 165 | 49.85 | 78 | 23.56 | 88 | 26.59 | 331 | 100 |
| 15 | TN | No | P (Just Pres. Prim.) | 442 | 50 | 221 | 25 | 221 | 25 | 884 | 100 | 78 | 50.32 | 37 | 23.87 | 40 | 25.81 | 155 | 100 |
| 16 | TN | No | P (Any Non-Pres. Prim.) | 1,831 | 50 | 916 | 25.01 | 915 | 24.99 | 3,662 | 100 | 314 | 47.87 | 172 | 26.22 | 170 | 25.91 | 656 | 100 |
| 17 | TN | Yes | G (Only Pres. Elec.) | 1,183 | 50.06 | 590 | 24.97 | 590 | 24.97 | 2,363 | 100 | 115 | 51.11 | 59 | 26.22 | 51 | 22.67 | 225 | 100 |
| 18 | TN | Yes | G (Any Non-Pres. Elec.) | 726 | 49.93 | 363 | 24.97 | 365 | 25.1 | 1,454 | 100 | 86 | 49.14 | 47 | 26.86 | 42 | 24 | 175 | 100 |
| 19 | TN | Yes | P (Just Pres. Prim.) | 183 | 50.41 | 90 | 24.79 | 90 | 24.79 | 363 | 100 | 19 | 48.72 | 10 | 25.64 | 10 | 25.64 | 39 | 100 |
| 20 | TN | Yes | P (Any Non-Pres. Prim.) | 1,028 | 49.98 | 514 | 24.99 | 515 | 25.04 | 2,057 | 100 | 166 | 47.84 | 86 | 24.78 | 95 | 27.38 | 347 | 100 |
| Total |  |  |  | 45,026 | 50 | 22,509 | 25 | 22,511 | 25 | 90,046 | 100 | 4,046 | 48.97 | 2,105 | 25.48 | 2,112 | 25.56 | 8,263 | 100 |

## A. 4 Additional Tables

Table A2: Estimated Effect of Positive and Negative Descriptive Norm Treatments on Turnout in the 2014 Primary Election, Relative to Placebo

| Variable | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Weighted and with Covariates | Weighted and without Covariates | Not Weighted and with Covariates | Not Weighted and without Covariates |
| Positive Descriptive Norm | 0.024** | 0.022* | 0.024** | 0.022* |
|  | (0.010) | (0.013) | (0.010) | (0.013) |
| Negative Descriptive Norm | 0.022** | $0.034 * * *$ | 0.022** | 0.034*** |
|  | (0.010) | (0.013) | (0.010) | (0.013) |
| Constant | -0.063** | 0.322*** | -0.048* | 0.322*** |
|  | (0.028) | (0.007) | (0.026) | (0.007) |
| Observations | 8,263 | 8,263 | 8,263 | 8,263 |
| Weighted? | Y | Y | N | N |
| With Covariates? | Y | N | Y | N |
| With State Fixed Effects? | Y | N | Y | N |
| With State-by-Covariate Interactions? | Y | N | Y | N |
| Placebo Group Mean Turnout | 0.322 | 0.322 | 0.322 | 0.322 |
| Estimated Difference in Mean Effects <br> (Positive - Negative Norms) | 0.00164 | -0.0116 | 0.00162 | -0.0116 |
| Estimated SE of the Difference in Mean Effects (Positive - Negative Norms) | 0.0117 | 0.0147 | 0.0117 | 0.0147 |
| P-Value: Null Hypothesis that Diff. in Mean Effects of Positive and Negative Norms is Zero | 0.889 | 0.428 | 0.890 | 0.428 |

Robust standard errors in parentheses. The omitted treatment category is the placebo group. Covariates not shown include age on Election Day in years, gender, race, years since registration date, missing years since registration date, the total number of past general elections, primary elections, and special elections in which the subject voted, state fixed effects, and state-by-covariate interactions. *** $\mathrm{p}<0.01,{ }^{*}$ p $<0.05$, * $\mathrm{p}<0.1$

Table A3: Number of Subjects by Treatment Arm and by State for Study 1

|  | Michigan |  | Missouri |  | Tennessee |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Treatment Arm | N | Percent | N | Percent | N | Percent | N | Percent |
| Placebo | 1,863 | 49.17 | 1,045 | 49.15 | 1,138 | 48.47 | 4,046 | 48.97 |
| Positive Descriptive Norm | 978 | 25.81 | 545 | 25.63 | 582 | 24.79 | 2,105 | 25.48 |
| Negative Descriptive Norm | 948 | 25.02 | 536 | 25.21 | 628 | 26.75 | 2,112 | 25.56 |
| Total | 3,789 | 100 | 2,126 | 100 | 2,348 | 100 | 8,263 | 100 |

Table A4: Randomization Check for Study 1. We infer that the randomization procedure is valid because we fail to reject the null hypothesis that the covariates are jointly prognostic of treatment assignment (LR test $\left.\chi^{2}(\mathrm{df}=28)=19.81, p=0.87\right)$.

|  | $(1)$ <br> Positive <br> Descriptive <br> Norm | $(2)$ <br> Negative <br> Descriptive <br> Norm |
| :--- | :---: | :---: |
| Variable | 0.008 | -0.005 |
|  | $(0.068)$ | $(0.068)$ |
| State=Missouri | -0.033 | 0.063 |
| State=Tennessee | $(0.067)$ | $(0.067)$ |
| Election day age (in years) | -0.001 | -0.000 |
|  | $(0.002)$ | $(0.002)$ |
| Gender=Male (1=yes) | 0.055 | 0.048 |
|  | $(0.055)$ | $(0.055)$ |
| Gender=Unknown (1=yes) | -0.449 | -0.877 |
|  | $(0.521)$ | $(0.636)$ |
| Race=Black (Yes = 1) | 0.040 | -0.052 |
|  | $(0.091)$ | $(0.093)$ |
| Race=Latino (Yes = 1) | -0.179 | -0.209 |
| Race=Unknown (Yes = 1) | $(0.285)$ | $(0.291)$ |
|  | -0.211 | -1.302 |
| Race=Other (Yes = 1) | $(0.691)$ | $(1.070)$ |
|  | -0.043 | -0.572 |
| Years Since Registration Date | $(0.217)$ | $(0.263)^{* *}$ |
|  | -0.001 | 0.001 |
| Years Since Registration Date Missing | $(0.002)$ | $(0.002)$ |
| Total General Election Votes | $(0.304)$ | 0.261 |
| Total Primary Election Votes | 0.001 | $(0.285)$ |
|  | $(0.035)$ | 0.011 |
| Total Special Election Votes | 0.008 | $(0.036)$ |
| Constant | $(0.021)$ | 0.009 |
| Observations | -0.027 | $-0.021)$ |
| LR Test Chi-Square | $(0.039)$ | $(0.038)$ |
| LR Test p-value | -0.594 | -0.718 |
| Cen | $(0.137)^{* * *}$ | $(0.138)^{* * *}$ |
|  |  | 8,263 |
|  |  | 19.81 |
|  | 0.871 |  |

Cells contain estimated coefficients from a multinomial logit regression of treatment assignment on observed covariates, with standard errors in parentheses. The omitted base category of the dependent variable is the placebo group. ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1$

Table A5: Balance Table for Study 1

| Variable | Treatment Arm |  |  |
| :---: | :---: | :---: | :---: |
|  | Placebo | Positive Descriptive Norm | Negative Descriptive Norm |
| State=Michigan | 0.4605 | 0.4646 | 0.4488 |
|  | [.4985] | [.4989] | [.4975] |
| State=Missouri | 0.2582 | 0.2589 | 0.2539 |
|  | [.4377] | [.4382] | [.4353] |
| State=Tennessee | 0.2813 | 0.2765 | 0.2973 |
|  | [.4497] | [.4474] | [.4572] |
| Election day age (in years) | 62.3237 | 61.9852 | 62.5565 |
|  | [15.6343] | [15.712] | [15.5521] |
| Gender=Male (1=yes) | 0.4058 | 0.4204 | 0.4176 |
|  | [.4911] | [.4937] | [.4933] |
| Gender=Unknown (1=yes) | 0.0037 | 0.0024 | 0.0014 |
|  | [.0608] | [.0487] | [.0377] |
| Race $=$ Black $($ Yes $=1$ ) | 0.0969 | 0.0998 | 0.0933 |
|  | [.2958] | [.2998] | [.2909] |
| Race=Latino $($ Yes $=1)$ | 0.0101 | 0.0086 | 0.008 |
|  | [.1002] | [.0921] | [.0894] |
| Race=Unknown $($ Yes $=1$ ) | 0.0017 | 0.0014 | 0.0005 |
|  | [.0416] | [.0377] | [.0218] |
| Race $=$ Other $($ Yes $=1$ ) | 0.0161 | 0.0157 | 0.009 |
|  | [.1257] | [.1243] | [.0944] |
| Years Since Registration Date | 21.3 | 20.9915 | 21.706 |
|  | [13.9153] | [14.0789] | [14.163] |
| Years Since Registration Date Missing | 0.0079 | 0.0081 | 0.0099 |
|  | [.0886] | [.0895] | [.0993] |
| Total General Election Votes | 2.4902 | 2.4845 | 2.5042 |
|  | [.9061] | [.8951] | [.8958] |
| Total Primary Election Votes | 1.1753 | 1.1653 | 1.2172 |
|  | [1.6459] | [1.6306] | [1.6795] |
| Total Special Election Votes | 0.4605 | 0.4447 | 0.462 |
|  | [.8582] | [.8335] | [.856] |
| Observations | 4046 | 2105 | 2112 |

Cells contain weighted means and weighted standard deviations in brackets.

Table A6: Logit regression of contact and passing the screener question verifying state of residence on treatment assignment, without and with randomization block fixed effects.

|  | $(1)$ <br> Without Block <br> Fixed Effects | $(2)$ <br> With Block <br> Fixed Effects |
| :--- | :---: | :---: |
| Variable |  |  |
| Positive Descriptive Norm | 0.044 | 0.045 |
|  | $(0.028)$ | $(0.028)$ |
| Negative Descriptive Norm | 0.048 | 0.048 |
|  | $(0.028)^{*}$ | $(0.028)^{*}$ |
| Constant | -2.315 | -2.716 |
|  | $(0.016)^{* * *}$ | $(0.058)^{* * *}$ |
| Observations |  |  |
| LR Test Chi-Square | 90,046 | 90,046 |
| LR Test p-value | 3.934 | 3.980 |
| Standard errors in parentheses | 0.140 | 0.140 |
| *** p<0.01, ** $\mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |
|  |  |  |

Table A7: Proportion of subjects successfully contacted and passed screener question verifying state of residence by treatment arm and by randomization block/stratum.

| Randomization Block / Stratum |  |  |  | Percent Contacted and Passed Screener |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Block/ Stratum Number | State | EitherPrimaryCompetitive? | Voter Type by Past Vote History (G=General Election Voters V=Primary Election Voters) |  |  |  |  |
|  |  |  |  | By Treatment Group |  |  |  |
|  |  |  |  | Negative | Placebo | Positive | Total |
| 1 | MI | No | G (Only Pres. Elec.) | 6.25 | 6.13 | 6.85 | 6.34 |
| 2 | MI | No | G (Any Non-Pres. Elec.) | 7.63 | 6.12 | 7.09 | 6.74 |
| 3 | MI | No | P (Just Pres. Prim.) | 9.42 | 7.94 | 12.32 | 9.4 |
| 4 | MI | No | P (Any Non-Pres. Prim.) | 10.78 | 10.99 | 8.95 | 10.43 |
| 5 | MI | Yes | G (Only Pres. Elec.) | 5.94 | 5.92 | 6.12 | 5.98 |
| 6 | MI | Yes | G (Any Non-Pres. Elec.) | 6.43 | 7.13 | 7.54 | 7.06 |
| 7 | MI | Yes | P (Just Pres. Prim.) | 8.06 | 6.25 | 7.78 | 7.08 |
| 8 | MI | Yes | P (Any Non-Pres. Prim.) | 9.72 | 9.15 | 9.49 | 9.38 |
| 9 | MO | No | G (Only Pres. Elec.) | 7.88 | 7.39 | 7.82 | 7.62 |
| 10 | MO | No | G (Any Non-Pres. Elec.) | 9.69 | 9.15 | 9.42 | 9.35 |
| 11 | MO | No | P (Just Pres. Prim.) | 9.67 | 9.79 | 11.78 | 10.26 |
| 12 | MO | No | P (Any Non-Pres. Prim.) | 14.81 | 14.97 | 15.28 | 15.01 |
| 13 | TN | No | G (Only Pres. Elec.) | 12.58 | 9.3 | 8.87 | 10.01 |
| 14 | TN | No | G (Any Non-Pres. Elec.) | 13.02 | 12.2 | 11.52 | 12.23 |
| 15 | TN | No | P (Just Pres. Prim.) | 18.1 | 17.65 | 16.74 | 17.53 |
| 16 | TN | No | P (Any Non-Pres. Prim.) | 18.58 | 17.15 | 18.78 | 17.91 |
| 17 | TN | Yes | G (Only Pres. Elec.) | 8.64 | 9.72 | 10 | 9.52 |
| 18 | TN | Yes | G (Any Non-Pres. Elec.) | 11.51 | 11.85 | 12.95 | 12.04 |
| 19 | TN | Yes | P (Just Pres. Prim.) | 11.11 | 10.38 | 11.11 | 10.74 |
| 20 | TN | Yes | P (Any Non-Pres. Prim.) | 18.45 | 16.15 | 16.73 | 16.87 |

## B Supplemental Appendix for Study 2: Experiment Involving a Self Referent and Information about Subjects' Past Voting Behavior (2014 General Election among Intermittent Voters in MS)

## B. 1 Treatment Mailing

Figure A1: Treatment Mailing Design Template. The key variation distinguishing the positive social pressure treatment mailer and the negative social pressure treatment mailer occurs below the box displaying the subject's past voting record. The positive social pressure treatment states "We noticed you voted" whereas the negative social pressure treatment states "We noticed you didn't vote."


WHETHER OR
NOT YOU VOTE
IS A MATTER OF
PUBLIC RECORD

Dear \{\{firstname\}\},

This year we wanted to remind you that voting is a matter of public record.
The chart below shows your name from the list of registered voters, indicating recent vote history and a question mark for this November's general election.

Voting Record of \{\{firstname lastname \}\}

| Nov 2008 | Nov 2010 | Nov 2011 | Nov 2012 | Nov 2014 |
| :--- | :--- | :--- | :--- | :---: |
| $\{\{$ nov_08_vote\}\} | $\{\{$ nov_10_vote\}\} | \{\{nov_11_vote \}\} | $\{\{$ nov_12_vote\}\} | ? |

\{\{We noticed you voted/didn't vote in November XX\}\}. We hope to see you this Tuesday, November $4^{\text {th }}$.

## B. 2 Sample Filtering and Definition Details

The subject pool was defined using the following procedure. First, the consulting firm provided us with a sampling frame of 830,495 registrants who were intermittent voters and members of selected subgroups that they wished to target in the election. ${ }^{1}$ We then excluded households without a valid mailing address because treatments were delivered by mail. We also excluded registrants for whom the date of voter registration is unknown because we would not be able to adduce whether they were an intermittent voter. We then deduplicated records by a unique person-specific identification number, retaining one record for each registrant from the most reliable voter list available. Finally, we randomly sampled one registrant from each household remaining in the sampling frame, yielding a sample of 244,940 subjects.

## B. 3 Additional Tables and Figures

Table A8: Estimated Effect of Positive and Negative Social Pressure Treatments on Turnout in the 2014 General Election

| Variable | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Weighted and with Covariates | Weighted and without Covariates | Not Weighted and with Covariates | Not Weighted and without Covariates |
| Positive Social Pressure | 0.031*** | 0.033*** | 0.032*** | 0.033*** |
|  | (0.005) | (0.006) | (0.005) | (0.006) |
| Negative Social Pressure | 0.037*** | 0.035*** | $0.037 * * *$ | 0.035*** |
|  | (0.005) | (0.006) | (0.005) | (0.006) |
| Constant | 0.180*** | $0.269 * * *$ | $0.177 * * *$ | 0.269*** |
|  | (0.017) | (0.001) | (0.006) | (0.001) |
| Observations | 224,940 | 224,940 | 224,940 | 224,940 |
| Weighted? | Y | Y | N | N |
| With Covariates? | Y | N | Y | N |
| Control Group Mean Turnout | 0.269 | 0.269 | 0.269 | 0.269 |
| Estimated Difference in Mean Effects: <br> (Positive - Negative Social Pressure) | -0.00560 | -0.00200 | -0.00553 | -0.00200 |
| Estimated SE of the Difference in Mean Effects: (Positive - Negative Social Pressure) | 0.00721 | 0.00777 | 0.00722 | 0.00777 |
| P-Value: Null Hypothesis that Diff. in Mean Effects of Positive and Negative Social Pressure is Zero | 0.437 | 0.797 | 0.443 | 0.797 |
| Robust standard errors in parentheses. The omitted (imputing sample mean if missing), missing age, sex, 2012. $* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ | eatment category race, and dummy | is the control group. variables capturing | Covariates not show prior vote history in | include age in years 008, 2010, 2011, and |

[^0]Table A9: Number of Subjects by Treatment Arm for Study 2

| Treatment Arm | N | Percent |
| :--- | ---: | ---: |
| Control | 210,940 | 93.78 |
| Positive Social Pressure | 7,000 | 3.11 |
| Negative Social Pressure | 7,000 | 3.11 |
| Total | 224,940 | 100 |

Table A10: Randomization Check for Study 2. We infer that the randomization procedure is valid because we fail to reject the null hypothesis that the covariates are jointly prognostic of treatment assignment (LR test $\left.\chi^{2}(\mathrm{df}=54)=55.99, p=0.4\right)$.


Table A11: Balance Table for Study 2

| Variable | Treatment Arm |  |  |
| :---: | :---: | :---: | :---: |
|  | Control | Positive <br> Social <br> Pressure |  |
| Age in Years (impute sample mean if missing) | 56.1102 | 56.2652 | 56.0573 |
|  | [12.1418] | [12.0465] | [12.3752] |
| Missing Age (1=Yes) | 0.4086 | 0.4101 | 0.4031 |
|  | [.4916] | [.4919] | [.4906] |
| Sex=Female ( $1=$ Yes $)$ | 0.5637 | 0.5744 | 0.5689 |
|  | [.4959] | [.4945] | [.4953] |
| Sex=Unknown (1=Yes) | 0.0525 | 0.0526 | 0.0464 |
|  | [.2231] | [.2232] | [.2104] |
| Race=Black ( $1=$ Yes $)$ | 0.1991 | 0.1967 | 0.2041 |
|  | [.3993] | [.3975] | [.4031] |
| Race=Other or Unknown (1=Yes) | 0.6556 | 0.662 | 0.6479 |
|  | [.4752] | [.4731] | [.4777] |
| Turnout in 2008, 10, 11, and 12 General Elections: N, N, Y, N | 0.0053 | 0.0051 | 0.0059 |
|  | [.0725] | [.0715] | [.0763] |
| Turnout in 2008, 10, 11, and 12 General Elections: N, N, Y, Y | 0.0195 | 0.0194 | 0.0191 |
|  | [.1381] | [.138] | [.137] |
| Turnout in 2008, 10, 11, and 12 General Elections: N, Y, N, N | 0.0082 | 0.0089 | 0.0059 |
|  | [.0904] | [.0937] | [.0763] |
| Turnout in 2008, 10, 11, and 12 General Elections: N, Y, N, Y | 0.0158 | 0.0171 | 0.0143 |
|  | [.1248] | [.1298] | [.1187] |
| Turnout in 2008, 10, 11, and 12 General Elections: N, Y, Y, N | 0.0035 | 0.0034 | 0.0041 |
|  | [.0593] | [.0585] | [.0642] |
| Turnout in 2008, 10, 11, and 12 General Elections: N, Y, Y, Y | 0.0414 | 0.0421 | 0.0417 |
|  | [.1991] | [.2009] | [.1999] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, N, N, N | 0.1525 | 0.1473 | 0.1643 |
|  | [.3595] | [.3544] | [.3706] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, N, N, Y | 0.2326 | 0.2356 | 0.2337 |
|  | [.4225] | [.4244] | [.4232] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, N, Y, N | 0.0222 | 0.0221 | 0.0209 |
|  | [.1474] | [.1472] | [.1429] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, N, Y, Y | 0.1984 | 0.203 | 0.1987 |
|  | [.3988] | [.4023] | [.3991] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, Y, N, N | 0.0264 | 0.0273 | 0.023 |
|  | [.1604] | [.1629] | [.1499] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, Y, N, Y | 0.1361 | 0.1344 | 0.1353 |
|  | [.3429] | [.3411] | [.3421] |
| Turnout in 2008, 10, 11, and 12 General Elections: Y, Y, Y, N | 0.0276 | 0.0263 | 0.0237 |
|  | [.1638] | [.16] | [.1522] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, N, N, Y | 0.0168 | 0.0161 | 0.018 |
|  | [.1287] | [.126] | [.133] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, N, Y, N | 0.0011 | 0.0011 | 0.001 |
|  | [.0331] | [.0338] | [.0316] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, N, Y, Y | 0.0053 | 0.0053 | 0.0041 |
|  | [.0729] | [.0725] | [.0642] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, Y, N, N | 0.002 | 0.0026 | 0.0034 |
|  | [.0449] | [.0506] | [.0585] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, Y, N, Y | 0.0045 | 0.0046 | 0.0036 |
|  | [.067] | [.0675] | [.0597] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, Y, Y, N | 0.0008 | 0.0007 | 0.0004 |
|  | [.0279] | [.0267] | [.0207] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, NA, N, Y | 0.0255 | 0.0233 | 0.0264 |
|  | [.1576] | [.1508] | [.1604] |
| Turnout in 2008, 10, 11, and 12 General Elections: NA, NA, Y, N | 0.0028 | 0.0021 | 0.0026 |
|  | [.0528] | [.0462] | [.0506] |
| Observations | 210940 | 7000 | 7000 |

In Study 2, the framing treatments may be weak in cases where subjects rarely voted but the treatment points out the one time they voted or in cases where subjects almost always vote but the treatment points out the one time they did not vote. To test whether this may be occurring, we assess whether there is variation in heterogeneous effects by the number of times subjects previously voted in the last four elections. Evidence of heterogeneity in differential effects would suggest that subjects' perception of their own past voting behavior is a function of an interaction between their actual vote history and their construal of how their past behavior is framed. Focusing on subjects who could have voted in the last four elections ( $\mathrm{n}=211,716$ of the 224,940 total subjects in Study 2), we find no evidence of differential framing effects in any subgroup defined by the number of times one voted in the last four elections (see Figure A2).

Figure A2: Heterogeneous Treatment Effects by the Number of Times Subject Voted in Last 4 Elections, Among Subjects who Could Vote in the Last 4 Elections. This figure plots each treatment effect (as compared to control) with $95 \%$ confidence intervals, by past vote history subgroup.


## C Manipulation Checks (MTurk Survey Experiment)

## C. 1 Design and Procedures

We conducted manipulation checks for each of the field experimental manipulations from Study 1 and Study 2 using a follow-on survey experiment fielded on Amazon Mechanical Turk on January 17, 2018. We recruited 1206 Mechanical Turk workers and randomly assigned each to complete either a manipulation check for Study 1 (group referent, $\mathrm{n}=610$ ) or a manipulation check for Study 2 (self referent, n=596).

## C.1.1 Experimental Design of Manipulation Check for Study 1 (group referent)

Subjects who were assigned to the manipulation check for Study 1 were randomly assigned to receive the positively framed descriptive norm or the negatively framed descriptive norm, and were shown the following text:

Suppose you lived in Texas and received the following message from a nonpartisan, non-profit organization whose mission is to encourage greater political participation.
[IF ASSIGNED TO POSITIVE FRAMED DESCRIPTIVE NORM:] In the 2016 general election, about 9 million eligible Texan citizens VOTED. Many hope this high level of engagement will continue in next year's general election. We encourage you to continue this high level of participation and vote!
[IF ASSIGNED TO NEGATIVELY FRAMED DESCRIPTIVE NORM:]
In the 2016 general election, about 9 million eligible Texan citizens DID NOT VOTE. Many fear this low level of engagement will continue in next year's general election. We encourage you to break from this low level of participation and vote!

Subjects were asked to imagine they were an eligible voter in Texas. We selected Texas because we wanted to pick a state where the number of eligible voters who voted was approximately the same as the number of eligible voters who did not vote. ${ }^{2}$ This allows us to hold fixed the level of voters and non-voters across conditions without deceiving subjects.

On the same screen, subjects were then asked to answer two questions, with the order of the questions randomized:

[^1]
## After receiving that message, how would you answer these two questions?

[RANDOMIZE to A or B] [A: If you had to guess, how likely do you think you would be to vote in the next general election in 2018?] [B: In talking to people about elections, we often find that a lot of people are not able to vote because they are sick, they have important obligations, or they just don't have the time. If you had to guess, how likely do you think you would be to vote in the next general election in 2018?]

- Absolutely certain to vote
- Extremely likely
- Very likely
- Somewhat likely
- Not too likely
- Not at all likely

Which of the following best represents how you would characterize the level of turnout among eligible voters in Texas in the 2016 general election? The percentage of eligible voters who voted was...

- Extremely high
- High
- Somewhat high
- Somewhat low
- Low
- Extremely low


## C.1.2 Experimental Design of Manipulation Check for Study 2 (self referent)

Subjects who were assigned to the manipulation check for Study 2 were randomly assigned to receive the positively framed descriptive norm or the negatively framed descriptive norm, and were shown the following text:

Suppose you received the following campaign mailer before the next general election in November 2018. The sender of the mailer is a nonpartisan, non-profit organization whose mission is to encourage greater political participation.


If the voting record shown in the chart was your voting record, how would you answer these two questions after receiving this piece of mail?

All subjects had vote histories where they voted in 2 of the prior 4 elections and did not vote in the other 2 elections, in order to hold fixed the frequency of one's prior voting and non-voting behavior. This also allows us to avoid the possibility of having a weak treatment in cases where they voted in 3 of the last 4 elections but the treatment emphasizes the 1 election in which they did not vote and in cases where the subject voted in 1 of the last 4 elections but the treatment emphasizes one of the 3 elections in which they did not vote. The combination of elections in which they voted and did not vote were randomized with equal probability. Conditional on assignment to the positively framed or negatively framed descriptive norm condition, the year in which they voted or didn't vote was randomly selected among the years for which their randomized vote history is consistent with the assigned direction of the descriptive norm framing.

Subjects were then asked the following questions on the same screen:

Which of the following statements best represents how you would characterize YOUR past voting behavior?

- I voted a lot
- I often voted
- I sometimes voted
- I rarely voted
- I very rarely voted

If you received this mailer, how likely do you think you would be to vote in the next general election in 2018 ?

- Absolutely certain to vote
- Extremely likely
- Very likely
- Somewhat likely
- Not too likely
- Not at all likely


## C.1.3 Variables and Estimation

For both manipulation checks, the treatment variable is a binary indicator coded 1 if the subject is assigned to the positively framed descriptive norm treatment and 0 if the subject is assigned to the negatively framed descriptive norm treatment.

The main outcome variable of interest for both manipulation checks is the subject's descriptive norm perception. Specifically, for the manipulation check for Study 1 (group referent), the outcome variable is a 6-point scale measuring the subject's perception of the percentage of eligible Texan voters who voted in the 2016 general election [ $0=$ Extremely low; $1=$ Low; $2=$ Somewhat low; $3=$ Somewhat high; $4=$ High; 5=Extremely high]. For the manipulation check for Study 2 (self referent), the outcome variable is a 5-point scale measuring the subject's perception of the frequency of their own past voting behavior (as summarized in the treatment mailer) [ $0=\mathrm{I}$ very rarely voted; $1=\mathrm{I}$ rarely voted; $2=\mathrm{I}$ sometimes voted; $3=\mathrm{I}$ voted often; $4=\mathrm{I}$ voted a lot].

Our primary analyses for the manipulation checks estimate the effect of being assigned to the positively framed descriptive norm (as opposed to the negatively framed descriptive norm) on subjects' perception of the descriptive norm. We estimate this quantity by regressing the outcome on treatment, without and with pre-treatment covariates to show that the result is unaffected by covariate adjustment. The pre-treatment covariates included in the model specification for both manipulation checks are: gender, age, 7-point party identification, state, highest level of educational attainment, ideology, level of political interest, social class identification, citizenship status, and household income level in 2017.

We also collected subjects' stated likelihood of voting as an ancillary outcome measure. This vari-
able is measured on a 6-point scale [ $0=$ Not at all likely; $1=$ Not too likely; $2=$ Somewhat likely; $3=$ Very likely; $4=$ Extremely likely; 5=Absolutely certain to vote]. Although subjects' stated likelihood of voting is not an outcome of interest (because the hypotheses and field experiments we describe in the manuscript concern actual turnout as the primary outcome, a behavior), in the interest of transparency we nonetheless present analyses of the comparative effectiveness of positively versus negatively framed descriptive norms on this outcome.

## C. 2 Results

## C.2.1 Results of Manipulation Check for Study 1 (group referent)

Table A12: Effect of Positively Framed (vs. Negatively Framed) Descriptive Norm Treatment on the Perceived Level of Eligible Texan Voters who Voted in the 2016 General Election

|  | DV: Perceived Turnout Level (0-5, 5=highest) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) |
| Positively Framed Norm Treatment ( $1=$ Yes, $0=\mathrm{No}$, Negatively Framed) | $\begin{gathered} 1.745^{* * *} \\ (0.084) \end{gathered}$ | $\begin{gathered} 1.682^{* * *} \\ (0.089) \end{gathered}$ | $\begin{gathered} 1.756^{* * *} \\ (0.084) \end{gathered}$ | $\begin{gathered} 1.697^{* * *} \\ (0.089) \end{gathered}$ |
| Costs of Voting Prime ( $1=$ Yes, $0=$ No) |  |  | $\begin{gathered} 0.008 \\ (0.084) \end{gathered}$ | $\begin{aligned} & -0.032 \\ & (0.088) \end{aligned}$ |
| Asked Norm Perception Question First (1=Yes, $0=\mathrm{No}$ ) |  |  | $\begin{gathered} -0.146^{*} \\ (0.084) \end{gathered}$ | $\begin{gathered} -0.184^{* *} \\ (0.089) \end{gathered}$ |
| Constant | $\begin{gathered} 1.734^{* * *} \\ (0.062) \end{gathered}$ | $\begin{gathered} 0.608 \\ (0.653) \end{gathered}$ | $\begin{gathered} 1.798^{* * *} \\ (0.084) \end{gathered}$ | $\begin{gathered} 0.624 \\ (0.652) \end{gathered}$ |
| Mean Outcome, Negatively Framed Treatment Group | 1.734 | 1.734 | 1.734 | 1.734 |
| With Covariates? | N | N | Y | Y |
| Observations | 610 | 610 | 610 | 610 |
| Adjusted R ${ }^{2}$ | 0.412 | 0.439 | 0.413 | 0.441 |
| Note: |  | * $\mathrm{p}<0$ | ; ** $\mathrm{p}<0.0$ | ${ }^{* * *} \mathrm{p}<0.01$ |

## C.2.2 Results of Manipulation Check for Study 2 (self referent)

Table A13: Effect of Positively Framed (vs. Negatively Framed) Descriptive Norm Treatment on the Perceived Level of One's Past Voting Behavior

|  | DV: Perceived Turnout Level (0-4, 4=highest) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) |
| Positively Framed Norm Treatment (1=Yes, 0=No, Negatively Framed) | $\begin{gathered} 0.096 \\ (0.066) \end{gathered}$ | $\begin{gathered} 0.099 \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.099 \\ (0.066) \end{gathered}$ | $\begin{gathered} 0.097 \\ (0.071) \end{gathered}$ |
| Vote History: 2012 N; 2014 Y; 2015 N; 2016 Y |  |  | $\begin{gathered} 0.097 \\ (0.116) \end{gathered}$ | $\begin{gathered} 0.150 \\ (0.122) \end{gathered}$ |
| Vote History: 2012 N; 2014 Y; 2015 Y; 2016 N |  |  | $\begin{gathered} 0.118 \\ (0.118) \end{gathered}$ | $\begin{gathered} 0.130 \\ (0.127) \end{gathered}$ |
| Vote History: 2012 Y; 2014 N; 2015 N; 2016 Y |  |  | $\begin{gathered} 0.170 \\ (0.119) \end{gathered}$ | $\begin{gathered} 0.132 \\ (0.127) \end{gathered}$ |
| Vote History: 2012 Y; 2014 N; 2015 Y; 2016 N |  |  | $\begin{gathered} 0.050 \\ (0.117) \end{gathered}$ | $\begin{gathered} 0.060 \\ (0.123) \end{gathered}$ |
| Vote History: 2012 Y; 2014 Y; 2015 N; 2016 N |  |  | $\begin{gathered} 0.030 \\ (0.116) \end{gathered}$ | $\begin{gathered} 0.128 \\ (0.124) \end{gathered}$ |
| Election Emphasized: 2014 |  |  | $\begin{gathered} 0.104 \\ (0.091) \end{gathered}$ | $\begin{gathered} 0.069 \\ (0.097) \end{gathered}$ |
| Election Emphasized: 2015 |  |  | $\begin{gathered} 0.121 \\ (0.092) \end{gathered}$ | $\begin{gathered} 0.053 \\ (0.097) \end{gathered}$ |
| Election Emphasized: 2016 |  |  | $\begin{gathered} 0.125 \\ (0.097) \end{gathered}$ | $\begin{gathered} 0.087 \\ (0.105) \end{gathered}$ |
| Constant | $\begin{gathered} 2.111^{* * *} \\ (0.046) \end{gathered}$ | $\begin{aligned} & 1.091^{* *} \\ & (0.520) \end{aligned}$ | $\begin{gathered} 1.947^{* * *} \\ (0.107) \end{gathered}$ | $\begin{gathered} 0.895 \\ (0.543) \end{gathered}$ |
| Mean Outcome, Negatively Framed Treatment Group | 2.111 | 2.111 | 2.111 | 2.111 |
| With Covariates? | N | N | Y | Y |
| Observations | 596 | 596 | 596 | 596 |
| Adjusted R ${ }^{2}$ | 0.002 | 0.031 | -0.003 | 0.022 |
| Note: |  | ${ }^{*} \mathrm{p}<$ | $1{ }^{* *} \mathrm{p}<0.0$ | ${ }^{* * *} \mathrm{p}<0.01$ |

## C. 3 Additional Analyses

Table A14: Effect of Positively Framed (vs. Negatively Framed) Descriptive Norm Treatment on Subjects' Stated Likelihood of Voting in the Next Election (Study 1 with Group Referent and Study 2 with Self Referent)

|  | DV: Stated Likelihood of Voting in 2018 General Election (0-5, 5=Absolutely certain) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Group Referent |  |  |  | Self Referent |  |  |  |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Positively Framed Norm Treatment | $\begin{aligned} & 0.214^{*} \\ & (0.116) \end{aligned}$ | $\begin{gathered} 0.313^{* * *} \\ (0.109) \end{gathered}$ | $\begin{aligned} & 0.212^{*} \\ & (0.116) \end{aligned}$ | $\begin{gathered} 0.315^{* * *} \\ (0.109) \end{gathered}$ | $\begin{aligned} & -0.135 \\ & (0.109) \end{aligned}$ | $\begin{aligned} & -0.073 \\ & (0.107) \end{aligned}$ | $\begin{aligned} & -0.121 \\ & (0.109) \end{aligned}$ | $\begin{aligned} & -0.063 \\ & (0.108) \end{aligned}$ |
| Constant | $\begin{gathered} 3.514^{* * *} \\ (0.085) \end{gathered}$ | $\begin{aligned} & 1.685^{* *} \\ & (0.799) \end{aligned}$ | $\begin{gathered} 3.592^{* * *} \\ (0.116) \end{gathered}$ | $\begin{aligned} & 1.698^{* *} \\ & (0.800) \end{aligned}$ | $\begin{gathered} 3.108^{* * *} \\ (0.076) \end{gathered}$ | $\begin{gathered} 2.266^{* * *} \\ (0.793) \end{gathered}$ | $\begin{gathered} 3.040^{* * *} \\ (0.177) \end{gathered}$ | $\begin{gathered} 2.395^{* * *} \\ (0.828) \end{gathered}$ |
| Mean Outcome, Negatively Framed Treatment Group | 3.514 | 3.514 | 3.514 | 3.514 | 3.108 | 3.108 | 3.108 | 3.108 |
| With Demographic Covariates? | N | Y | N | Y | N | Y | N | Y |
| With Other Study 1 Treatment Variables? | N | N | Y | Y | - | - | - | - |
| With Other Study 2 Treatment Variables? | - | - | - | - | N | N | Y | Y |
| Observations | 610 | 610 | 610 | 610 | 596 | 596 | 596 | 596 |
| Adjusted R ${ }^{2}$ | 0.004 | 0.247 | 0.004 | 0.245 | 0.001 | 0.170 | -0.0001 | 0.161 |
| Note: |  |  |  |  |  | * $\mathrm{p}<0$. | ** $\mathrm{p}<0.05$; | p $<0.01$ |

Table A15: Effect of Priming the Costs of Voting in the Stated Vote Intention Item on Subjects' Stated Likelihood of Voting in the Next Election (Study 1 with Group Referent Only)

|  | DV: Stated Likelihood of Voting (0-5, 5=Absolutely certain) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) |
| Costs of Voting Prime ( $1=$ Yes, $0=$ No) | $\begin{aligned} & -0.167 \\ & (0.116) \end{aligned}$ | $\begin{aligned} & -0.064 \\ & (0.109) \end{aligned}$ | $\begin{aligned} & -0.064 \\ & (0.170) \end{aligned}$ | $\begin{aligned} & -0.050 \\ & (0.162) \end{aligned}$ |
| Positively Framed Norm Treatment |  |  | $\begin{aligned} & 0.305^{*} \\ & (0.163) \end{aligned}$ | $\begin{aligned} & 0.324^{* *} \\ & (0.154) \end{aligned}$ |
| Costs of Voting Prime * Positively Framed Norm Treatment |  |  | $\begin{aligned} & -0.187 \\ & (0.232) \end{aligned}$ | $\begin{aligned} & -0.022 \\ & (0.221) \end{aligned}$ |
| Constant | $\begin{gathered} 3.712^{* * *} \\ (0.081) \end{gathered}$ | $\begin{aligned} & 1.828^{* *} \\ & (0.803) \end{aligned}$ | $\begin{gathered} 3.546^{* * *} \\ (0.120) \end{gathered}$ | $\begin{aligned} & 1.698^{* *} \\ & (0.800) \end{aligned}$ |
| Mean Outcome, Control Group | 3.712 | 3.712 | 3.712 | 3.712 |
| With Demographic Covariates? | N | Y | N | Y |
| Observations | 610 | 610 | 610 | 610 |
| Adjusted R ${ }^{2}$ | 0.002 | 0.236 | 0.005 | 0.245 |
| Note: |  |  | * | <0.05; ${ }^{* * *} \mathrm{p}<0.01$ |

Table A16: Does the Effect on Perceptions of One's Past Vote History of Positively or Negatively Framed Descriptive Norms Vary by Vote History or by the Election Emphasized? (Study 2 with Self Referent Only)

| DV: Perceived Turnout Level (0-4, 4=highest) |
| :--- |


|  | (1) | (2) |
| :---: | :---: | :---: |
| Positively Framed Norm Treatment ( $1=$ Yes, $0=$ No, Negatively Framed) | $\begin{gathered} 0.078 \\ (0.244) \end{gathered}$ | $\begin{gathered} 0.024 \\ (0.260) \end{gathered}$ |
| Vote History: 2012 N; 2014 Y; 2015 N; 2016 Y | $\begin{gathered} 0.072 \\ (0.177) \end{gathered}$ | $\begin{gathered} 0.107 \\ (0.193) \end{gathered}$ |
| Vote History: 2012 N; 2014 Y; 2015 Y; 2016 N | $\begin{gathered} 0.156 \\ (0.191) \end{gathered}$ | $\begin{gathered} 0.094 \\ (0.204) \end{gathered}$ |
| Vote History: 2012 Y; 2014 N; 2015 N; 2016 Y | $\begin{aligned} & 0.293^{*} \\ & (0.176) \end{aligned}$ | $\begin{gathered} 0.299 \\ (0.186) \end{gathered}$ |
| Vote History: 2012 Y; 2014 N; 2015 Y; 2016 N | $\begin{aligned} & -0.009 \\ & (0.175) \end{aligned}$ | $\begin{gathered} 0.037 \\ (0.181) \end{gathered}$ |
| Vote History: 2012 Y; 2014 Y; 2015 N; 2016 N | $\begin{aligned} & -0.049 \\ & (0.196) \end{aligned}$ | $\begin{aligned} & -0.020 \\ & (0.208) \end{aligned}$ |
| Election Emphasized: 2014 | $\begin{gathered} 0.084 \\ (0.163) \end{gathered}$ | $\begin{aligned} & -0.044 \\ & (0.176) \end{aligned}$ |
| Election Emphasized: 2015 | $\begin{gathered} 0.095 \\ (0.156) \end{gathered}$ | $\begin{gathered} 0.011 \\ (0.166) \end{gathered}$ |
| Election Emphasized: 2016 | $\begin{gathered} 0.177 \\ (0.167) \end{gathered}$ | $\begin{gathered} 0.117 \\ (0.176) \end{gathered}$ |
| Positively Framed Norm Treatment * Election Emphasized 2014 | $\begin{gathered} 0.006 \\ (0.229) \end{gathered}$ | $\begin{gathered} 0.119 \\ (0.243) \end{gathered}$ |
| Positively Framed Norm Treatment * Election Emphasized 2015 | $\begin{gathered} 0.070 \\ (0.226) \end{gathered}$ | $\begin{gathered} 0.059 \\ (0.242) \end{gathered}$ |
| Positively Framed Norm Treatment * Election Emphasized 2016 | $\begin{aligned} & -0.041 \\ & (0.240) \end{aligned}$ | $\begin{gathered} 0.028 \\ (0.251) \end{gathered}$ |
| Positively Framed Norm Treatment * Vote History: 2012 N; 2014 Y; 2015 N; 2016 Y | $\begin{gathered} 0.086 \\ (0.263) \end{gathered}$ | $\begin{gathered} 0.053 \\ (0.281) \end{gathered}$ |
| Positively Framed Norm Treatment * Vote History: 2012 N; 2014 Y; 2015 Y; 2016 N | $\begin{aligned} & -0.086 \\ & (0.266) \end{aligned}$ | $\begin{gathered} 0.029 \\ (0.282) \end{gathered}$ |
| Positively Framed Norm Treatment * Vote History: 2012 Y; 2014 N; 2015 N; 2016 Y | $\begin{aligned} & -0.237 \\ & (0.267) \end{aligned}$ | $\begin{aligned} & -0.342 \\ & (0.283) \end{aligned}$ |
| Positively Framed Norm Treatment * Vote History: 2012 Y; 2014 N; 2015 Y; 2016 N | $\begin{gathered} 0.105 \\ (0.261) \end{gathered}$ | $\begin{gathered} 0.064 \\ (0.274) \end{gathered}$ |
| Positively Framed Norm Treatment * Vote History: 2012 Y; 2014 Y; 2015 N; 2016 N | $\begin{gathered} 0.170 \\ (0.285) \end{gathered}$ | $\begin{gathered} 0.266 \\ (0.299) \end{gathered}$ |
| Constant | $\begin{gathered} 1.950^{* * *} \\ (0.148) \end{gathered}$ | $\begin{aligned} & 0.993^{*} \\ & (0.556) \end{aligned}$ |
| With Covariates? Observations Adjusted R ${ }^{2}$ | $\begin{gathered} \mathrm{N} \\ 596 \\ -0.010 \end{gathered}$ | $\begin{gathered} \mathrm{Y} \\ 596 \\ 0.017 \end{gathered}$ |
| Note: |  | ${ }^{*} \mathrm{p}<0.05$ |


[^0]:    ${ }^{1}$ The groups targeted by the firm were: (1) African Americans in Hinds County, MS, who participated at least once in the 2008, 2010 or 2012 general elections and did not vote in any Republican primary election, and (2) anyone who voted at least once in the 2008, 2010, 2011, and 2012 general elections and who did not vote in any Republican primary election.

[^1]:    ${ }^{2}$ According to the United States Election Project, in the 2016 general election the turnout rate among the voting eligible population in Texas was $51.6 \%$, which translates into about 9 million eligible Texans who voted and 9 million eligible Texans who did not vote. Source: http://www. electproject.org/2016g. Accessed 25 January 2018.

