

The Effects of Certain and Uncertain Incentives on  
Effort and Knowledge Accuracy  
**Supplementary Materials**

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# 1 Appendix A. Reporting Standards for Experiments

In this section of the supplementary materials, we report how the present research meets the standards described in the Reporting Guidelines for Experimental Research (Gerber et al., 2014).

## 1.1 Hypotheses

Hypotheses are discussed in the main body of the manuscript.

## 1.2 Subjects and Context

The recruitment of participants and the context of the study is discussed in detail in the paper, but we provide more detail here.

Participants for both the main study and the pilot study were recruited through the Amazon MTurk marketplace. The main study was conducted through the TurkPrime service to facilitate data collection. The samples were limited to U.S. residents aged 18 years or over at the time of the study. Participants were able to only take the survey once, and participants who participated in the pilot study were not eligible to participate in the main study. Participants were required to have a HIT approval rating above 90%, and to have previously completed over 100 HITs.

## 1.3 Allocation Method

Randomization was conducted within the flow of the survey in Qualtrics. No restrictions were placed on randomization, and we did not employ blocking.

We report results of randomization tests in Appendix E for the main study, and in Appendix H for the pilot study. These results indicate that randomization occurred successfully,

## 1.4 Treatments

We provide a detailed discussion of the treatment conditions in the main body of the manuscript, while full text of the experimental conditions are presented in Appendix B.

We asked comprehension questions and factual manipulation checks to measure attention to the survey questions and check participants understood the treatments of the experiment in the main study. These procedures are described in the body of the manuscript, and the full question wording and coding is presented in Appendix B.

## 1.5 Results

### 1.5.1 Outcome Measures and Covariates

Full question wording and coding procedures are available to view in Appendix B, and they are also described in the Readme file in the replication materials (Jamieson and Weller, 2019).

### 1.5.2 CONSORT Participant Flow Diagram

Figures that describe the flow of the experiment according to the protocols of the CONSORT flow diagram are provided in Appendix B (main study) and Appendix H (pilot study) respectively.

The short duration of the online incentivized survey experiment helped ensure there were no meaningful issues with non-compliance and/or participant attrition. No participants were excluded from the analysis.

### 1.5.3 Statistical Analysis

We report our results in the main body of the manuscript, while additional models and robustness checks are presented in Appendix D. The analysis includes simple comparisons of means, as well as OLS and logit regression where appropriate.

We also conducted causal mediation analysis (reported in the manuscript and Appendix F) and STM analysis (reported in the manuscript and Appendix G) to gain further leverage on the causal pathway from the experimental treatments to knowledge accuracy.

## 1.6 Other Information

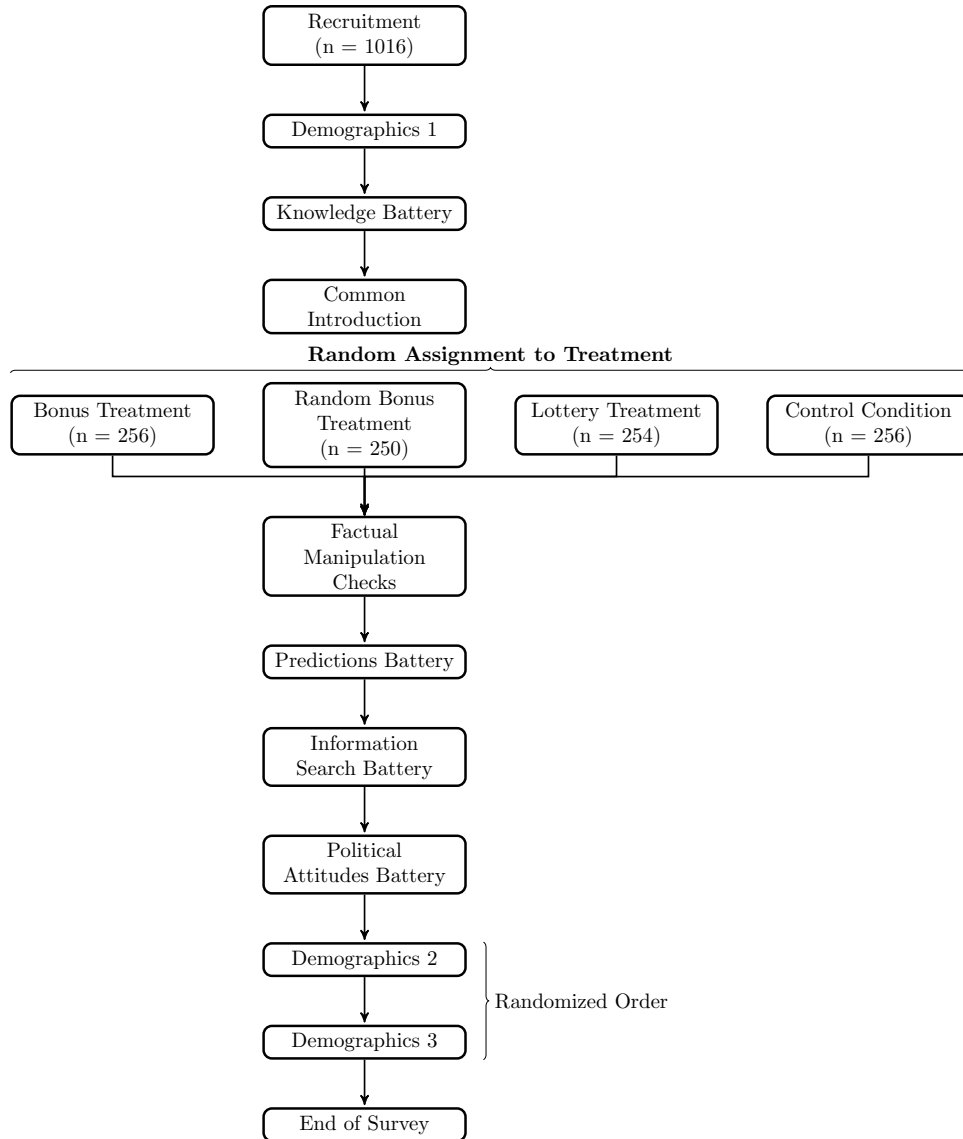
The University of Southern California IRB reviewed the pilot study, providing approval number UP-16-00751 on January 4, 2017, and amendments were approved on August 2, 2017. The University of California, Riverside IRB reviewed the main experiment, providing approval number HS-18-155 on October 5, 2018.

This research was supported by a USC Dornsife Gold Family Fellowship and the University of California, Riverside. These institutions had no role in the experiment or analysis. The authors are aware of no conflicts of interest regarding this research.

The data, code, and any additional materials required to replicate all analyses in this article are available at the Journal of Experimental Political Science Dataverse within the Harvard Dataverse Network, at: <https://doi:10.7910/DVN/WVFZGE>.

## 2 Appendix B. Experimental Design

Figure 1: Experimental Design.



## 2.1 Demographics 1

1. Please enter your age.
2. What is the highest level of school you have completed?
  - Did Not Graduate High School (0)
  - High School Graduate - High School Diploma or the equivalent (1)
  - Some college, no degree (2)
  - Associate degree (3)
  - Bachelor's degree (4)
  - Master's degree (5)
  - Professional or Doctorate degree (6)
3. Please indicate what you consider your racial background to be. We greatly appreciate your effort to describe your background using the standard categories provided. These race categories may not fully describe you, but they do match those used by the Census bureau. It helps us compare our survey respondents to the U.S. population.

Please check one or more categories below to indicate what race(s) you consider yourself to be.

- White (1)
  - Black or African American (2)
  - Hispanic or Latino (3)
  - American Indian or Alaska Native (4)
  - Asian Indian (5)
  - Chinese (6)
  - Filipino (7)
  - Japanese (8)
  - Korean (9)
  - Vietnamese (10)
  - Other Asian (11)
  - Native Hawaiian (12)
  - Guamanian or Chamorro (13)
  - Samoan (14)
  - Other Pacific Islander (15)
  - Some other race (16)
4. What is your current gender identity?



- Male (0)
- Female (1)
- Transgender (2)
- I do not identify as female, male, or transgender (3)

SQ1 Political scientists are often interested to know how much people know political institutions. In a democracy, it is very important that people know enough about politics to make an informed decision when they vote for political candidates. To show to us that you have read this far, please ignore the question and select Four years as your answer to the question.

How long is the term of office for a U.S. Senator?

- Two years (1)
- Four years (2)
- Six years (3)

5. The next question is about the total income of YOUR HOUSEHOLD for the PAST 12 MONTHS. Please include your income PLUS the income of all members living in your household (including cohabiting partners and armed force members living at home). Please count income BEFORE TAXES and from all sources (such as wages, salaries, tips, net income from a business, interest, dividends, child support, alimony, and Social Security, public assistance, pensions, or retirement benefits).

- Under \$25,000 (1)
- Between \$25,000 and \$49,999 (2)
- Between \$50,000 and \$74,999 (3)
- Between \$75,000 and \$99,999 (4)
- Between \$100,000 and \$124,999 (5)
- Between \$125,000 and \$149,999 (6)
- Over \$150,000 (7)

6. Are you now married, widowed, divorced, separated, never married, or living with a partner?

- Married (1)
- Widowed (2)
- Divorced (3)
- Separated (4)
- Never married (5)
- Living with partner (6)

## 2.2 Political Knowledge

### 2.2.1 Common introduction

In the next part of the survey, you will be asked some questions about politics. Many people don't know the answers to these questions, but it is helpful to us if you answer, even if you're not sure of the correct answer.

### 2.2.2 Political Knowledge Questions

1. According to New America, a non-partisan think tank, what percentage of Jihadist terrorists in the U.S. were U.S. CITIZENS OR PERMANENT RESIDENTS at the time of charge or death from September 11, 2001 to August 31, 2018?
  - 40 (0)
  - 55 (1)
  - 70 (2)
  - 85 (3)
  - 100 (4)
2. Who is the current VICE PRESIDENT of the United States? [randomized order of choices]
  - Mike Pence (0)
  - Sarah Huckabee Sanders (1)
  - Jared Kushner (2)
  - Paul Ryan (3)
  - Jeff Sessions (4)
  - Mitch McConnell (5)
3. According to IAmSyria.org, a non-profit campaign, what is the figure CLOSEST to the number of CIVILIANS KILLED IN THE SYRIA CONFLICT from January 1, 2017 to August 31, 2018?
  - 0 (0)
  - 4,000 (1)
  - 8,000 (2)
  - 12,000 (3)
  - 16,000 (4)
  - 20,000 (5)
4. Which of the following countries is NOT a member of NATO? [randomized order of choices]

- Bulgaria (0)
  - France (1)
  - Germany (2)
  - Latvia (3)
  - Poland (4)
  - Turkey (5)
  - Ukraine (6)
5. Special Counsel for the U.S. Department of Justice, Robert Mueller, is leading an investigation into Russian interference in the 2016 Presidential election. What is the figure CLOSEST to the NUMBER OF PEOPLE INDICTED OR GIVEN PLEA DEALS in the investigation up to August 31, 2018?
- 0 (0)
  - 10 (1)
  - 20 (2)
  - 30 (3)
  - 40 (4)
  - 50 (5)
6. Of the following countries, which one is the United States' LARGEST TRADING PARTNER? [randomized order of choices]
- Canada (0)
  - China (1)
  - France (2)
  - Germany (3)
  - Japan (4)
  - Mexico (5)
  - United Kingdom (6)
7. According to the U.S. Refugee Processing Center, what is the figure CLOSEST to the NUMBER OF REFUGEES RESETTLED IN THE U.S. from January 1, 2017 to August 31, 2018?
- 0 (0)
  - 10,000 (1)
  - 20,000 (2)
  - 30,000 (3)
  - 40,000 (4)

- 50,000 (5)
- 60,000 (6)

8. What PERCENTAGE of its budget does the U.S. spend on FOREIGN AID?

- Less than 1% (0)
- 2% (1)
- 4% (2)
- 6% (3)
- 8% (4)
- 10% (5)
- Over 10 % (6)

9. According to iCasualties.org, an independent website to track casualties, what is the figure CLOSEST to the number of U.S. MILITARY DEATHS in and around AFGHANISTAN since Operation Enduring Freedom began in 2001 to August 31, 2018??

- 500 (1)
- 1,500 (2)
- 2,500 (3)
- 3,500 (4)
- 4,500 (5)
- 5,500 (6)

10. What does the G-20 stand for? [randomized order of choices]

- Gang of 20 (0)
- Gathering of 20 (1)
- Global 20 (2)
- Government of 20 (3)
- Group of 20 (4)
- Growth of 20 (5)

### 2.2.3 Confidence in Political Knowledge

1. Of the ten POLITICAL KNOWLEDGE questions, how many questions do you think that you successfully answered?

- 0 (0)
- 1 (1)

- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)

## 2.3 Experimental Treatments

### 2.3.1 Common introduction

In the next part of the survey, you will be asked to make predictions about politics. It is helpful to us if you answer, even if you're not sure of the correct answer.

THERE IS NO DECEPTION IN THIS STUDY.

We encourage you to search the internet for answers you may not know off the top of your head, and to take a guess on every question.

### 2.3.2 Control Condition

The next task is to make five predictions about political events that have not yet occurred in 2018. The outcomes of these events will become known on November 30, 2018.

### 2.3.3 Bonus Treatment

The next task is to make five predictions about political events that have not yet occurred in 2018.

We will pay you a bonus for making accurate predictions. You will earn \$0.50 for every correct prediction.

*So, if 3 of your 5 predictions are accurate, you will earn \$1.50 as a bonus. If you predict all 5 events accurately, you will earn \$2.50 as a bonus. The more predictions you make accurately; the more money you will earn in the form of a bonus.*

*The outcomes for each prediction will become known on November 30, 2018. Shortly after that date, we will provide you with your bonus for the predictions and a report about how well you predicted future events.*

No. Correct Answers	Bonus Payment
0	\$0
1	\$0.50
2	\$1.00
3	\$1.50
4	\$2.00
5	\$2.50

### 2.3.4 Random Bonus Treatment

The next task is to make five predictions about political events that have not yet occurred in 2018.

We will pay you a bonus for making one accurate prediction. That relevant prediction will be selected randomly. You will earn \$2.50 for accurately predicting that outcome.

No. Correct Answers	Odds of Bonus Payment	% Chance of Bonus Payment
0	0/5	0 %
1	1/5	20 %
2	2/5	40 %
3	3/5	60 %
4	4/5	80 %
5	5/5	100 %

*So, if 3 of your 5 predictions are accurate, and the randomly selected prediction is one of the 3 you made correctly, you will earn \$2.50 as a bonus. If the randomly selected prediction is one of the 2 predictions you made incorrectly, you will earn \$0.00 as a bonus. The more predictions you make accurately; the greater the likelihood that you will receive more money in the form of a bonus.*

*The outcomes for each prediction will become known on November 30, 2018. Shortly after that date, we will provide you with your bonus for the predictions and a report about how well you predicted future events.*

### 2.3.5 Lottery Treatment

The next task is to make five predictions about political events that have not yet occurred in 2018.

For every 100 correct predictions by the participants in this study we will conduct a lottery to award \$50 to a randomly-drawn participant. Each accurate prediction will give you a separate lottery ticket and a chance to win a \$50 lottery.

*So, if 3 of your 5 predictions are accurate, you will earn 3 entries into the lottery. If you answer all 5 of the questions correctly, you will earn 5 tickets to the lottery. The more*

No. Correct Answers	Odds of Bonus Payment	% Chance of Bonus Payment
0	0/100	0 %
1	1/100	1 %
2	2/100	2 %
3	3/100	3 %
4	4/100	4 %
5	5/100	5 %

*predictions you make accurately; the greater the likelihood that you will win the \$50 cash prize.*

*The outcomes for each prediction will become known on November 30, 2018. Shortly after that date, the lottery will be drawn and the \$50 cash prizes will be awarded to the winners.*

## 2.4 Factual Manipulation Checks

### 1. Answer If Bonus Treatment Is Displayed

If you predict 2 out of 5 events accurately, how much money will you earn in the form of a bonus?

- \$0.00 (0)
- \$0.50 (1)
- \$1.00 (2)
- \$1.50 (3)
- \$2.00 (4)
- \$2.50 (5)

### 2. Answer If Random Bonus Treatment Is Displayed

If you predict 2 out of 5 events accurately, what is your percentage chance of receiving \$2.50 in the form of a bonus?

- 0% (0)
- 20% (1)
- 40% (2)
- 60% (3)
- 80% (4)
- 100% (5)

### 3. Answer If Lottery Treatment Is Displayed

If you predict 2 out of 5 events accurately, what is your percentage chance of receiving \$50 in the form of a bonus?

- 0% (0)
- 1% (1)
- 2% (2)
- 3% (3)
- 4% (4)
- 5% (5)

## 2.5 Knowledge Accuracy

### 2.5.1 Knowledge Accuracy Questions

1. According to New America, a non-partisan think tank, what will be the figure CLOSEST to the number of Jihadist terrorist attacks in the U.S. committed by people who were U.S. CITIZENS OR PERMANENT RESIDENTS at the time of charge or death from January 1, 2018 to November 30, 2018?
  - 0 (0)
  - 2 (1)
  - 4 (2)
  - 6 (3)
  - 8 (4)
  - 10 (5)
  - 12 (6)
  - 14 (7)
  
2. According to IAmSyria.org, a non-profit campaign, what will be the figure CLOSEST to the number of CIVILIANS KILLED IN THE SYRIA CONFLICT from January 1, 2018 to November 30, 2018?
  - 5,000 (0)
  - 5,500 (1)
  - 6,000 (2)
  - 6,500 (3)
  - 7,000 (4)
  - 7,500 (5)
  
3. Special Counsel for the U.S. Department of Justice, Robert Mueller, is leading an investigation into Russian interference in the 2016 Presidential election. What is the figure CLOSEST to the NUMBER OF PEOPLE INDICTED OR GIVEN PLEA DEALS in the investigation as of November 30, 2018?
  - 0 (0)



- 10 (1)
- 20 (2)
- 30 (3)
- 40 (4)
- 50 (5)
- 60 (6)
- 70 (7)

4. According to the U.S. Refugee Processing Center, what will be the figure CLOSEST to the NUMBER OF REFUGEES RESETTLED IN THE U.S. from January 1, 2018 to November 30, 2018?

- 2,500 (1)
- 5,000 (2)
- 7,500 (3)
- 10,000 (4)
- 12,500 (5)
- 15,000 (6)
- 17,500 (7)
- 20,000 (8)
- 22,500 (9)
- 25,000 (10)

5. According to iCasualties.org, an independent website to track casualties, what will be the figure CLOSEST to the number of U.S. MILITARY DEATHS in and around AFGHANISTAN from January 1, 2018 to November 30, 2018?

- 0 (0)
- 10 (1)
- 20 (2)
- 30 (3)
- 40 (4)
- 50 (5)

## 2.6 Information Search Questions

1. During this survey, did you search for information so that you could answer the prediction about JIHADIST TERRORISM correctly?

- No (0)

- Yes (1)
2. During this survey, did you search for information so that you could answer the prediction about CIVILIANS KILLED IN THE SYRIA CONFLICT correctly?
    - No (0)
    - Yes (1)
  3. During this survey, did you search for information so that you could answer the prediction about the MUELLER INVESTIGATION correctly?
    - No (0)
    - Yes (1)
  4. During this survey, did you search for information so that you could answer the prediction about REFUGEE RESETTLEMENT correctly?
    - No (0)
    - Yes (1)
  5. During this survey, did you search for information so that you could answer the prediction about U.S. MILITARY DEATHS IN AFGHANISTAN correctly?
    - No (0)
    - Yes (1)
  6. During this survey, did you rely more on your own knowledge or did you seek information so that you could make accurate predictions?
    - I relied more on my own knowledge to answer the questions (0)
    - I relied more on information I searched for to answer the questions (1)
    - I guessed to answer the questions (2)
  7. Answer If During this survey, did you search for information. . . Yes Is Selected  
 On a scale from 0 (extremely unconfident) to 100 (extremely confident), what is your overall confidence about the ACCURACY of the information acquired from sources you used to answer the questions?
  8. Of the POLITICAL PREDICTION questions, how many predictions do you expect to be accurate?
    - 0 (0)
    - 1 (1)
    - 2 (2)
    - 3 (3)

- 4 (4)
- 5 (5)

9. Answer If Bonus Treatment or Random Bonus Treatment Is Displayed

How likely do you think you are to win a \$2.50 bonus?

- Very likely (1)
- Likely (2)
- Somewhat likely (3)
- Neither likely nor unlikely (4)
- Somewhat unlikely (5)
- Unlikely (6)
- Very likely (7)

10. Answer If Lottery Treatment Is Displayed

From 0 to 100 percent, please indicate the likelihood that you will win the lottery and receive a \$50 bonus for the POLITICAL PREDICTION questions.

- Very likely (1)
- Likely (2)
- Somewhat likely (3)
- Neither likely nor unlikely (4)
- Somewhat unlikely (5)
- Unlikely (6)
- Very likely (7)

11. Answer If Bonus Treatment Is Displayed

Please indicate what you expect to receive as a bonus payment for the POLITICAL PREDICTION questions.

- \$0.00 (0)
- \$0.50 (1)
- \$1.00 (2)
- \$1.50 (3)
- \$2.00 (4)
- \$2.50 (5)

12. Answer If Random Bonus Treatment Is Displayed

Please indicate what you expect to receive as a bonus payment for the POLITICAL PREDICTION questions.

- \$0.00 (0)
- \$2.50 (1)

13. Answer If Lottery Treatment Is Displayed

Please indicate what you expect to receive as a bonus payment for the POLITICAL PREDICTION questions.

- \$0.00 (0)
- \$50.00 (1)

## 2.7 Motivation and Effort Questions

1. On a scale from 0 (extremely unmotivated) to 100 (extremely motivated), please indicate your LEVEL OF MOTIVATION to make accurate predictions in the POLITICAL PREDICTION questions.
2. On a scale from 0 (extremely low) to 100 (extremely high), please indicate HOW MUCH EFFORT YOU MADE to make accurate predictions in the POLITICAL PREDICTION questions.
3. Please briefly describe WHAT YOU THOUGHT as you answered the POLITICAL PREDICTION questions.

## 2.8 Political Attitudes Questions

**There are no correct answers for these questions, we are just interested in your opinion.**

Please indicate whether you agree or disagree with each statement.

1. The U.S. should ban entry to travelers from Syria, Iran, Libya, Somalia, Sudan and Yemen.
  - Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
2. The U.S. should increase the number of troops deployed in Syria.
  - Strongly agree (3)

- Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
3. The Mueller Investigation should conclude by the end of 2018.
- Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
4. The U.S. should decrease the number of refugees resettled in the U.S.
- Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
5. The U.S. should increase the number of troops deployed in Afghanistan.
- Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)

## 2.9 Demographics 2

Note: These will be randomly assigned to participants before/after the Demographics 3 questions.

1. Which statement best describes your current employment status?
  - Employed full time (1)
  - Employed part time (2)
  - Unemployed looking for work (3)
  - Unemployed not looking for work (4)
  - Retired (5)
  - Student (6)
  - Disabled (7)
  - Other (8)
  
2. Generally speaking, do you think of yourself as a . . .
  - Republican (1)
  - Democrat (2)
  - Independent (3)
  - Another party, please specify: (4)
  - No preference (5)
  
3. Answer If Generally speaking, do you think of yourself as a . . . Republican Is Selected  
Would you call yourself a . . .
  - Strong Republican (1)
  - Not very strong Republican (2)
  
4. Answer If Generally speaking, do you think of yourself as a . . . Democrat Is Selected  
Would you call yourself a . . .
  - Strong democrat (1)
  - Not very strong Democrat (2)
  
5. Answer If Generally speaking, do you think of yourself as a... Independent Is Selected  
And Generally speaking, do you think of yourself as a... Another party, please specify:  
Is Selected And Generally speaking, do you think of yourself as a... No preference Is  
Selected  
Do you think of yourself as closer to the . . .
  - Republican Party (1)

- Democratic Party (2)
6. On a scale from 0 (never) to 100 (all the time), please indicate how much you agree with Republican Party policy positions.
  7. On a scale from 0 (never) to 100 (all the time), please indicate how much you agree with Democratic Party policy positions.
  8. In general, do you think of yourself as...
    - Extremely liberal (1)
    - Liberal (2)
    - Slightly liberal (3)
    - Moderate, middle of the road (4)
    - Slightly conservative (5)
    - Conservative (6)
    - Extremely conservative (7)

## 2.10 Demographics 3

Note: These will be randomly assigned to participants before/after the Demographics 2 questions.

1. Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested.  
 Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?
  - Always (4)
  - Most of the Time (3)
  - Some of the Time (2)
  - Only Now and Then (1)
  - Hardly at all (0)
2. Some people seem to read, listen to, or watch the news most of the time, whether there's an election going on or not. Others aren't that interested.  
 Would you say you read, listen to, or watch the news most of the time, some of the time, only now and then, or hardly at all?
  - Always (4)
  - Most of the Time (3)
  - Some of the Time (2)

- Only Now and Then (1)
- Hardly at all (0)

3. Please think about your news consumption over the past week. In the last week, did you read, listen to, or watch the news?

- No (0)
- Yes (1)

SQ2 One problem faced by democratic countries around the world is that there are sometimes few incentives for people to spend time and effort going to the polls to fulfill their democratic right to vote in free and fair elections. Accordingly, political scientists are interested in voter turnout. To let us know that you have read this much, please answer that you have never voted in a Presidential election in the following question.

Please indicate the last time you voted in a Presidential election.

- 2012 (0)
- 2008 (1)
- 2004 (2)
- 2000 (3)
- 1996 (4)
- 1992 (5)
- 1988 (6)
- Earlier than 1988 (7)
- I have never voted in a Presidential election (8)

4. In the 2016 Presidential election, who did you vote for?

- Hillary Clinton (Democratic Party) (1)
- Gary Johnson (Libertarian Party) (2)
- Jill Stein (Green Party) (3)
- Donald Trump (Republican Party) (4)
- Other candidate/write in (5)
- I did not vote in the Presidential election (6)

5. What is your religion?

- Baptist - any denomination (1)
- Protestant (e.g. Methodist, Lutheran, Presbyterian, Episcopal) (2)
- Catholic (3)
- Mormon (4)



- Jewish (5)
- Muslim (6)
- Hindu (7)
- Buddhist (8)
- Pentecostal (9)
- Eastern Orthodox (10)
- Other Christian (11)
- Other non-Christian (12)
- None (0)

6. How often do you attend religious services? [Reverse Coded)

- More than once a week (5)
- Once a week (4)
- Once or twice a month (3)
- A few times a year (2)
- Once a year or less (1)
- Never (0)

### 3 Appendix C. Descriptive Statistics

Table 1: Descriptive Statistics.

	Count	Mean	Std. Dev.	Min.	Max.
Knowledge Accuracy Score	1016	1.005906	.9845929	0	5
Baseline Political Knowledge	1016	3.580709	1.357839	1	8
Information Search (Time Spent)	1016	11.53656	5.852841	2.3	47.98333
Democrat	1016	.4232283	.4943143	0	1
Republican	1016	.265748	.4419483	0	1
Political Ideology	1016	3.591535	1.750295	1	7
Moderate	1016	.4744094	.4995906	0	1
Dem. Policy Agreement	1016	48.66634	32.24536	0	100
Rep. Policy Agreement	1016	36.44685	32.42524	0	100
Education	1016	3.308071	1.345151	0	6
Income	1016	3.045276	1.579399	1	7
Male	1016	.4724409	.4994858	0	1
Political Interest	1016	2.404528	1.006745	0	4
News Consumption	1016	2.429134	1.057415	0	4
Screening Questions	1016	1.940945	.2358439	1	2
Rel. Attendance	1016	1.32874	1.578863	0	5
Age	1016	39.57677	11.90794	18	81
White	1016	.8326772	.3734477	0	1
Black	1016	.0954724	.2940111	0	1
Hispanic/Latino	1016	.0501969	.2184585	0	1

Table 2: Descriptive Statistics of Correct Individual Knowledge Questions.

	Count	Mean	Std. Dev.	Min.	Max.
Correct Prediction of Jihadist Terrorist Attacks in U.S.	1016	.1240157	.3297618	0	1
Correct Prediction of Civilian Deaths in Syria Conflict	1016	.1978346	.398563	0	1
Correct Prediction of Mueller Indictments and Plea Deals	1016	.2057087	.4044176	0	1
Correct Prediction of Refugee Resettlements in U.S.	1016	.1181102	.3228976	0	1
Correct Prediction of U.S. Military Deaths in Afghanistan	1016	.3602362	.4803053	0	1

## 4 Appendix D. Full Experimental Results

Table 3: Determinants of Cognitive Effort as Measured by Time Spent (Minutes).

	(1)	(2)	(3)
Bonus Treatment	1.066*	1.084*	1.067*
	(0.498)	(0.499)	(0.482)
Random Bonus Treatment	0.981*	0.959 <sup>+</sup>	0.914 <sup>+</sup>
	(0.498)	(0.498)	(0.491)
Lottery Treatment	0.783	0.868 <sup>+</sup>	0.889 <sup>+</sup>
	(0.510)	(0.514)	(0.510)
Democrat		-1.446*	-1.557**
		(0.580)	(0.558)
Republican		0.097	-0.038
		(0.747)	(0.741)
Political Ideology		0.185	0.110
		(0.218)	(0.218)
Moderate		-0.501	-0.597
		(0.433)	(0.426)
Dem. Policy Agreement		0.022*	0.022*
		(0.009)	(0.009)
Rep. Policy Agreement		-0.006	-0.005
		(0.010)	(0.010)
Education			-0.329*
			(0.144)
Income			-0.108
			(0.114)
Male			-1.054**
			(0.363)
Political Interest			0.062
			(0.339)
News Consumption			-0.227
			(0.325)
Religious Attendance			0.187
			(0.131)
Age			0.098***
			(0.017)
White			0.030
			(0.700)
African-American			1.815*
			(0.809)
Hispanic/Latino			1.521 <sup>+</sup>
			(0.889)
Constant	10.831***	10.108***	8.417***
	(0.329)	(0.926)	(1.492)
Observations	1016	1016	1016
$R^2$	0.005	0.014	0.080

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 4: Determinants of Knowledge Accuracy.

	(1)	(2)	(3)
Bonus Treatment	0.375*** (0.084)	0.384*** (0.085)	0.393*** (0.085)
Random Bonus Treatment	0.167* (0.084)	0.174* (0.084)	0.166* (0.085)
Lottery Treatment	0.294*** (0.084)	0.309*** (0.084)	0.315*** (0.084)
Baseline Political Knowledge		0.049* (0.024)	0.058* (0.023)
Democrat		-0.043 (0.098)	-0.029 (0.098)
Republican		0.028 (0.109)	0.002 (0.111)
Political Ideology		-0.032 (0.029)	-0.034 (0.030)
Moderate		-0.039 (0.066)	-0.048 (0.067)
Dem. Policy Agreement		-0.000 (0.002)	-0.000 (0.002)
Rep. Policy Agreement		0.000 (0.002)	0.000 (0.002)
Education			0.004 (0.025)
Income			-0.003 (0.022)
Male			-0.104 <sup>+</sup> (0.063)
Political Interest			-0.079 (0.062)
News Consumption			0.056 (0.059)
Religious Attendance			0.024 (0.021)
Age			0.001 (0.003)
White			-0.038 (0.102)
African-American			-0.191 (0.129)
Hispanic/Latino			0.071 (0.144)
Constant	0.797*** (0.056)	0.748*** (0.172)	0.812** (0.250)
Observations	1016	1016	1016
$R^2$	0.021	0.027	0.037

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 5: Determinants of Knowledge Accuracy, including Screening Questions.

	(1)	(2)	(3)
Bonus Treatment	0.379*** (0.085)	0.388*** (0.085)	0.398*** (0.085)
Random Bonus Treatment	0.168* (0.084)	0.175* (0.084)	0.168* (0.085)
Lottery Treatment	0.292*** (0.084)	0.307*** (0.084)	0.313*** (0.084)
Correct Screening Questions	0.098 (0.119)	0.099 (0.119)	0.123 (0.119)
Baseline Political Knowledge		0.049* (0.024)	0.058* (0.023)
Democrat		-0.048 (0.098)	-0.034 (0.098)
Republican		0.031 (0.109)	0.005 (0.111)
Political Ideology		-0.032 (0.029)	-0.035 (0.030)
Moderate		-0.038 (0.066)	-0.046 (0.067)
Dem. Policy Agreement		-0.000 (0.002)	-0.000 (0.002)
Rep. Policy Agreement		0.000 (0.002)	0.000 (0.002)
Education			0.003 (0.025)
Income			-0.004 (0.022)
Male			-0.105 <sup>+</sup> (0.063)
Political Interest			-0.080 (0.062)
News Consumption			0.058 (0.059)
Religious Attendance			0.025 (0.021)
Age			0.002 (0.003)
White			-0.048 (0.102)
African-American			-0.201 (0.129)
Hispanic/Latino			0.063 (0.144)
Constant	0.607* (0.238)	0.555 <sup>+</sup> (0.289)	0.579 <sup>+</sup> (0.335)
Observations	1016	1016	1016
$R^2$	0.021	0.028	0.038

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 6: Determinants of Knowledge Accuracy, Pooled Across Treatments.

	(1)	(2)	(3)
All Treatments	0.279*** (0.066)	0.289*** (0.067)	0.292*** (0.066)
Baseline Political Knowledge		0.050* (0.024)	0.058* (0.023)
Democrat		-0.037 (0.097)	-0.022 (0.097)
Republican		0.021 (0.110)	-0.006 (0.112)
Political Ideology		-0.032 (0.029)	-0.034 (0.030)
Moderate		-0.040 (0.066)	-0.046 (0.067)
Dem. Policy Agreement		-0.000 (0.002)	-0.001 (0.002)
Rep. Policy Agreement		0.000 (0.002)	0.000 (0.002)
Education			0.004 (0.025)
Income			-0.002 (0.022)
Male			-0.097 (0.063)
Political Interest			-0.073 (0.062)
News Consumption			0.055 (0.059)
Religious Attendance			0.024 (0.021)
Age			0.002 (0.003)
White			-0.038 (0.103)
African-American			-0.184 (0.131)
Hispanic/Latino			0.060 (0.145)
Constant	0.797*** (0.055)	0.752*** (0.171)	0.796** (0.250)
Observations	1016	1016	1016
$R^2$	0.015	0.022	0.031

Standard errors in parentheses

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



Table 7: The Effects of Baseline Knowledge on Knowledge Accuracy in Control Group.

	(1)	(2)	(3)
Baseline Political Knowledge	0.058 <sup>+</sup> (0.035)	0.057 (0.037)	0.073* (0.036)
Democrat		0.248 (0.175)	0.225 (0.172)
Republican		-0.068 (0.165)	-0.082 (0.183)
Political Ideology		-0.010 (0.045)	-0.014 (0.047)
Moderate		0.024 (0.117)	-0.019 (0.122)
Dem. Policy Agreement		-0.002 (0.003)	-0.002 (0.003)
Rep. Policy Agreement		0.002 (0.002)	0.002 (0.003)
Education			-0.033 (0.047)
Income			0.002 (0.044)
Male			-0.083 (0.125)
Political Interest			-0.078 (0.098)
News Consumption			0.043 (0.095)
Religious Attendance			0.028 (0.036)
Age			-0.001 (0.005)
White			-0.110 (0.212)
African-American			-0.381 (0.241)
Hispanic/Latino			0.404 (0.281)
Constant	0.581*** (0.140)	0.516 <sup>+</sup> (0.283)	0.869* (0.399)
Observations	256	256	256
$R^2$	0.009	0.019	0.060

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 8: Determinants of Correct Individual Knowledge Questions (Logit).

	U.S. Jihadist Attacks	Syria Civilian Deaths	Mueller Indictments	U.S. Refugee Resettlements	U.S. Deaths in Afghanistan
Bonus Treatment	0.459 (0.280)	0.546* (0.226)	0.443+ (0.231)	0.288 (0.312)	0.645*** (0.184)
Random Bonus Treatment	0.026 (0.304)	0.349 (0.232)	0.451+ (0.232)	0.810** (0.290)	-0.174 (0.195)
Lottery Treatment	0.650* (0.273)	0.204 (0.236)	0.521* (0.229)	0.601* (0.297)	0.255 (0.187)
Constant	-2.269*** (0.215)	-1.686*** (0.172)	-1.716*** (0.174)	-2.468*** (0.233)	-0.770*** (0.134)
Observations	1016	1016	1016	1016	1016
Pseudo $R^2$	0.011	0.006	0.006	0.013	0.017

Standard errors in parentheses

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## 5 Appendix E. Randomization Tests

Table 9: Randomization Check: F-test of Joint Orthogonality.

	Control	Bonus Treatment	Random Bonus Treatment	Lottery Treatment	P-value from Joint Orthogonality Test of Treatment Arms
Democrat	0.430 (0.031)	0.367 (0.030)	0.436 (0.031)	0.461 (0.031)	0.175
Republican	0.270 (0.028)	0.273 (0.028)	0.236 (0.027)	0.283 (0.028)	0.652
Political Ideology	3.555 (0.113)	3.703 (0.107)	3.432 (0.110)	3.673 (0.109)	0.286
Moderate	0.457 (0.031)	0.469 (0.031)	0.460 (0.032)	0.512 (0.031)	0.578
Dem. Policy Agreement	49.793 (2.041)	44.758 (2.008)	51.824 (2.031)	48.362 (1.999)	0.090
Rep. Policy Agreement	35.980 (2.078)	39.371 (2.039)	33.484 (1.971)	36.886 (2.041)	0.234
Education	3.363 (0.085)	3.254 (0.083)	3.256 (0.085)	3.358 (0.085)	0.666
Income	3.125 (0.098)	3.027 (0.098)	2.920 (0.103)	3.106 (0.098)	0.452
Male	0.484 (0.031)	0.516 (0.031)	0.432 (0.031)	0.457 (0.031)	0.267
Political Interest	2.426 (0.063)	2.480 (0.062)	2.288 (0.067)	2.421 (0.061)	0.173
News Consumption	2.469 (0.063)	2.488 (0.064)	2.324 (0.072)	2.433 (0.066)	0.304
Religious Attendance	1.355 (0.100)	1.363 (0.100)	1.296 (0.098)	1.299 (0.098)	0.942
Age	39.516 (0.742)	39.973 (0.774)	38.912 (0.781)	39.894 (0.692)	0.742
White	0.801 (0.025)	0.844 (0.023)	0.840 (0.023)	0.846 (0.023)	0.470
African-American	0.102 (0.019)	0.094 (0.018)	0.084 (0.018)	0.102 (0.019)	0.888
Hispanic/Latino	0.066 (0.016)	0.051 (0.014)	0.064 (0.016)	0.020 (0.009)	0.061

Standard errors in parentheses

Table 10: Randomization Check: T-tests of the Differences of Means between Variables.

	(1) Control Condition	(2) Bonus Treatment	(3) Random Bonus Treatment	(4) Lottery Treatment	(5) (1) vs. (2), p-value	(6) (1) vs. (3), p-value	(7) (1) vs. (4), p-value	(8) (2) vs. (3), p-value	(9) (2) vs. (4), p-value	(10) (3) vs. (4), p-value	(11) P-value from Joint Orthogonality Test of Treatment Arms
Democrat	0.430	0.367	0.436	0.461	0.149	0.886	0.483	0.115	0.032	0.579	0.175
Republican	0.270	0.273	0.236	0.283	0.921	0.387	0.726	0.335	0.801	0.225	0.652
Political Ideology	3.555	3.703	3.432	3.673	0.341	0.437	0.452	0.077	0.845	0.119	0.286
Moderate	0.457	0.469	0.460	0.512	0.791	0.947	0.217	0.844	0.332	0.245	0.578
Dem. Policy Agreement	49.793	44.758	51.824	48.362	0.079	0.481	0.617	0.014	0.204	0.225	0.090
Rep. Policy Agreement	35.980	39.371	33.484	36.886	0.245	0.384	0.756	0.038	0.389	0.231	0.234
Education	3.363	3.254	3.256	3.358	0.358	0.372	0.967	0.986	0.380	0.395	0.666
Income	3.125	3.027	2.920	3.106	0.479	0.149	0.893	0.450	0.569	0.191	0.452
Male	0.484	0.516	0.432	0.457	0.480	0.238	0.532	0.060	0.184	0.578	0.267
Political Interest	2.426	2.480	2.288	2.421	0.536	0.134	0.959	0.035	0.495	0.140	0.173
News Consumption	2.469	2.488	2.324	2.433	0.828	0.132	0.696	0.089	0.547	0.265	0.304
Religious Attendance	1.355	1.363	1.296	1.299	0.956	0.672	0.689	0.631	0.648	0.982	0.942
Age	39.516	39.973	38.912	39.894	0.670	0.575	0.710	0.335	0.939	0.347	0.742
White	0.801	0.844	0.840	0.846	0.204	0.252	0.177	0.908	0.933	0.842	0.470
African-American	0.102	0.094	0.084	0.102	0.766	0.497	0.976	0.701	0.744	0.479	0.888
Hispanic/Latino	0.066	0.051	0.064	0.020	0.453	0.913	0.009	0.523	0.057	0.013	0.061
<i>N</i>	256	256	250	254							

## 6 Appendix F. Causal Mediation Analysis

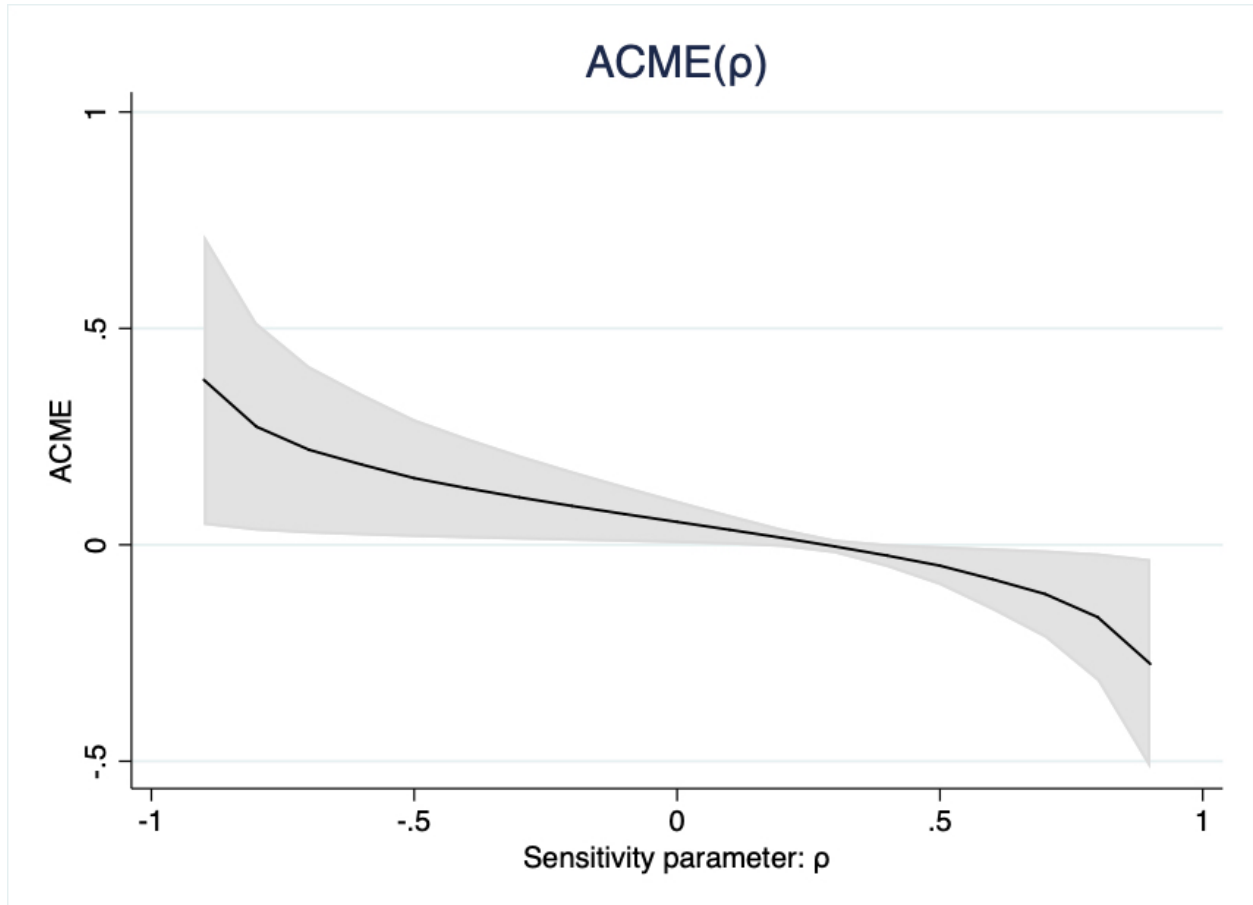
Table 11: Direct Treatment Effects and Mediation Effects of Incentives on Knowledge Accuracy. *Mediating Variable: Time Spent on Survey (minutes)*.

	ACME	Direct Effect	Total Effect	Prop. Total Effect Mediated
Bonus Treatment	0.053 (0.005, 0.107)	0.328 ( 0.168, 0.484)	0.382 (0.225, 0.549)	0.139 (0.097, 0.237)
Random Bonus Treatment	0.034 (-0.001, 0.076)	0.135 (-0.026, 0.292)	0.170 (0.013, 0.336)	0.198 (0.092, 1.246)
Lottery Treatment	0.041 (-0.009, 0 .094)	0.271 (0.115, 0.423)	0.312 (0.157, 0.475)	0.131 (0.087, 0.262)

The results were calculated using 1000 simulations, and 95% confidence intervals are reported in brackets. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

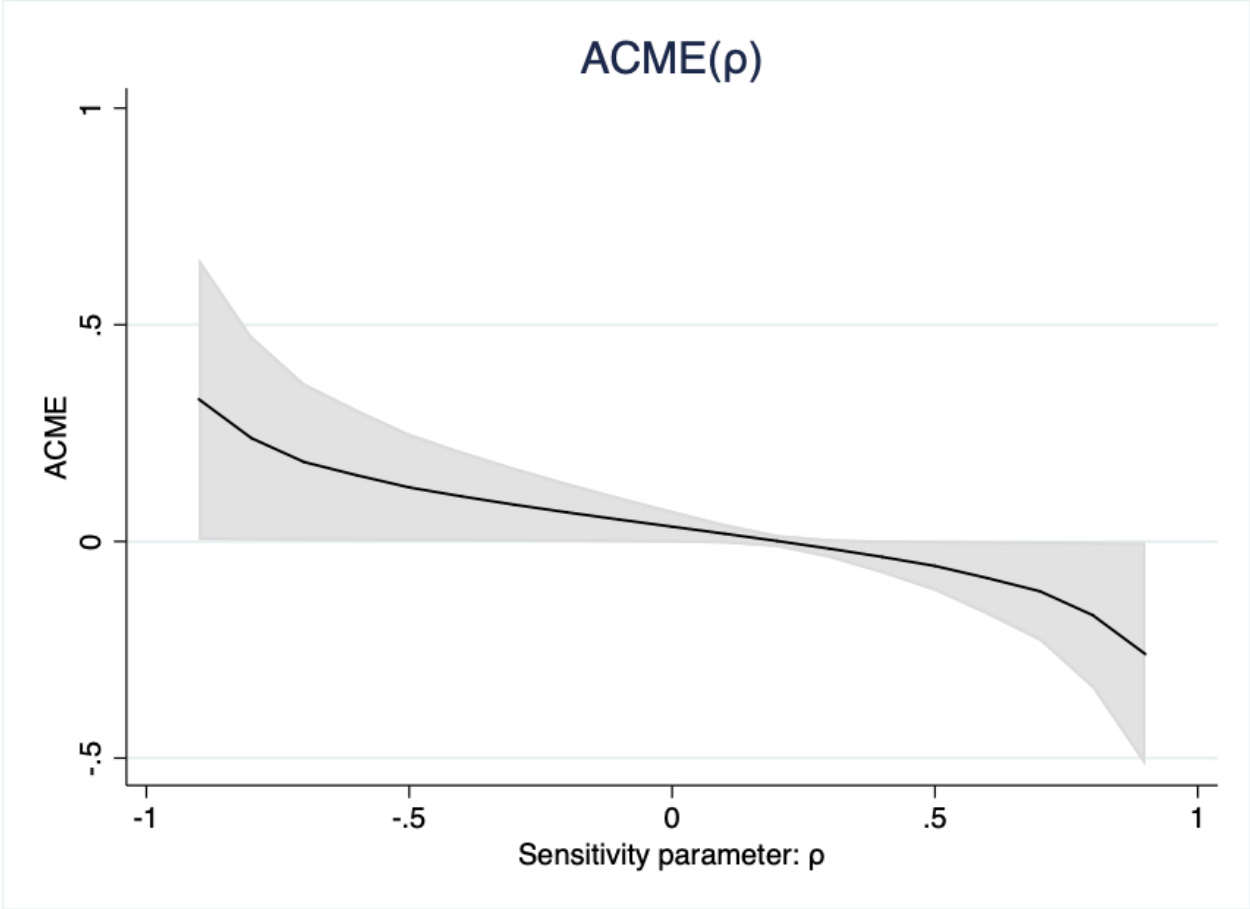
## 6.1 Causal Mediation Sensitivity Analysis

Figure 2: Average Causal Mediation Effect of the Bonus Treatment on Knowledge Accuracy as a Function Degree of Violation of Sequential Ignorability Assumption.



The results were calculated using 1000 simulations with 95% confidence intervals. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

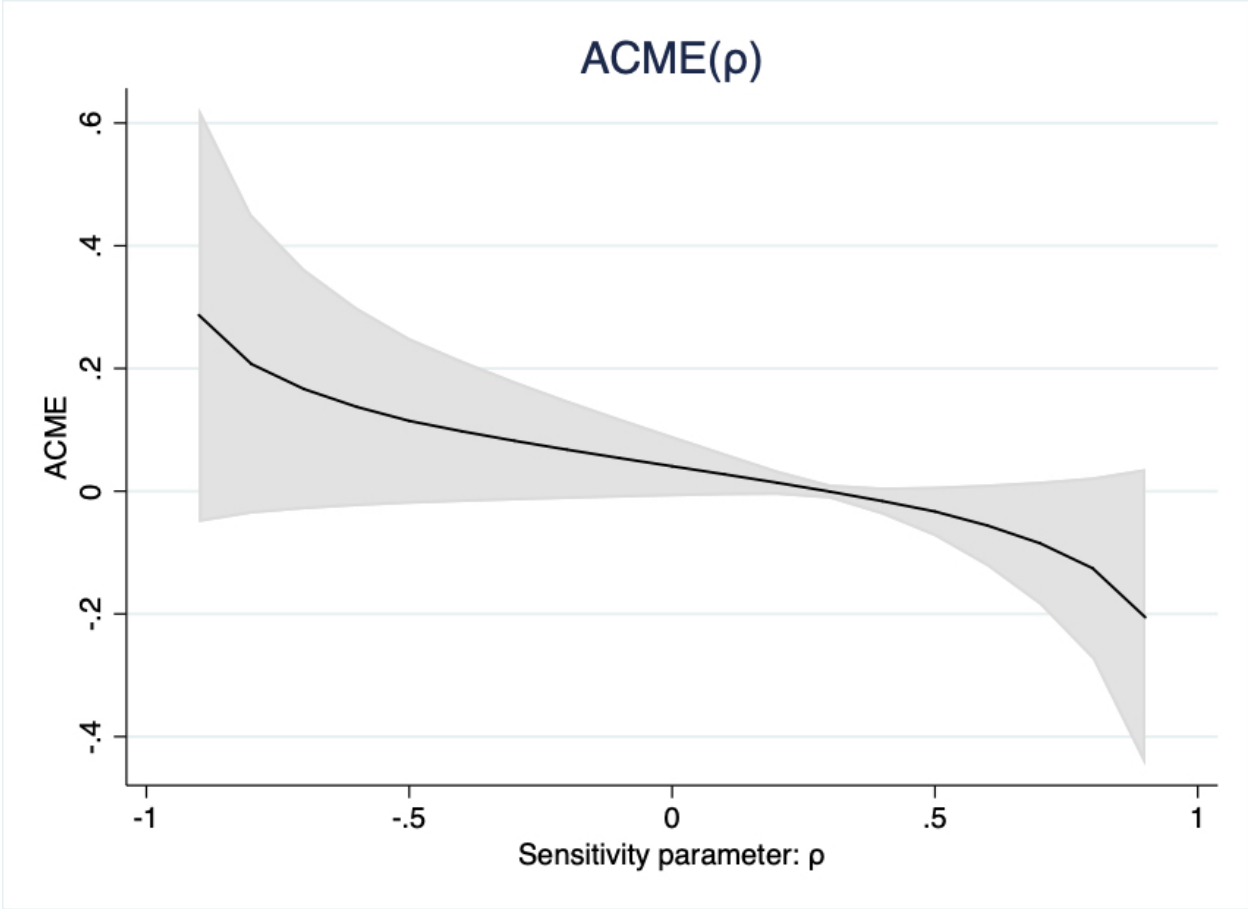
Figure 3: Average Causal Mediation Effect of the Random Bonus Treatment on Knowledge Accuracy as a Function Degree of Violation of Sequential Ignorability Assumption.



The results were calculated using 1000 simulations with 95% confidence intervals. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).



Figure 4: Average Causal Mediation Effect of the Lottery Treatment on Knowledge Accuracy as a Function Degree of Violation of Sequential Ignorability Assumption.



The results were calculated using 1000 simulations with 95% confidence intervals. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

## 6.2 Causal Mediation Analysis using Self-reported Information Search as an Alternative Mediating Variable

Table 12: Direct Treatment Effects and Mediation Effects of Incentives on Knowledge Accuracy. *Mediating Variable: Information Search (Self-report)*.

	ACME	Direct Effect	Total Effect	Prop. Total Effect Mediated
Bonus Treatment	0.096 (0.036, 0.163)	0.285 ( 0.128, 0.439)	0.382 (0.227, 0.550)	0.250 (0.175, 0.423)
Random Bonus Treatment	0.043 (-0.021, 0.108)	0.127 (-0.025, 0.275)	0.170 (0.013, 0.334)	0.246 (0.116, 1.742)
Lottery Treatment	0.011 (-0.051, 0 .074)	0.302 (0.151, 0.449)	0.313 (0.155, 0.473)	0.035 (0.023, 0.071)

The results were calculated using 1000 simulations, and 95% confidence intervals are reported in brackets. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

## 7 Appendix G. STM Analysis

### 7.1 Methods

To better understand the causal mechanisms through which incentives lead to improved knowledge accuracy, we asked participants to indicate what they thought as they made predictions about international affairs.

Participants were asked, “Please briefly describe WHAT YOU THOUGHT as you answered the POLITICAL PREDICTION questions.” To make sense of the unstructured text responses, we used the structural topic model (STM) illustrated by Roberts et al. (2014), using the `stm` package developed by Roberts, Stewart and Tingley (2018) in R.

In short, the STM model uses words ( $w$ ) to draw topics ( $z$ ) from documents. Each document (or response) features a range of different topics, and both prevalence and content are document-specific and can be a function of covariates in the STM, meaning that we can use the model to estimate the effect of treatments on both.

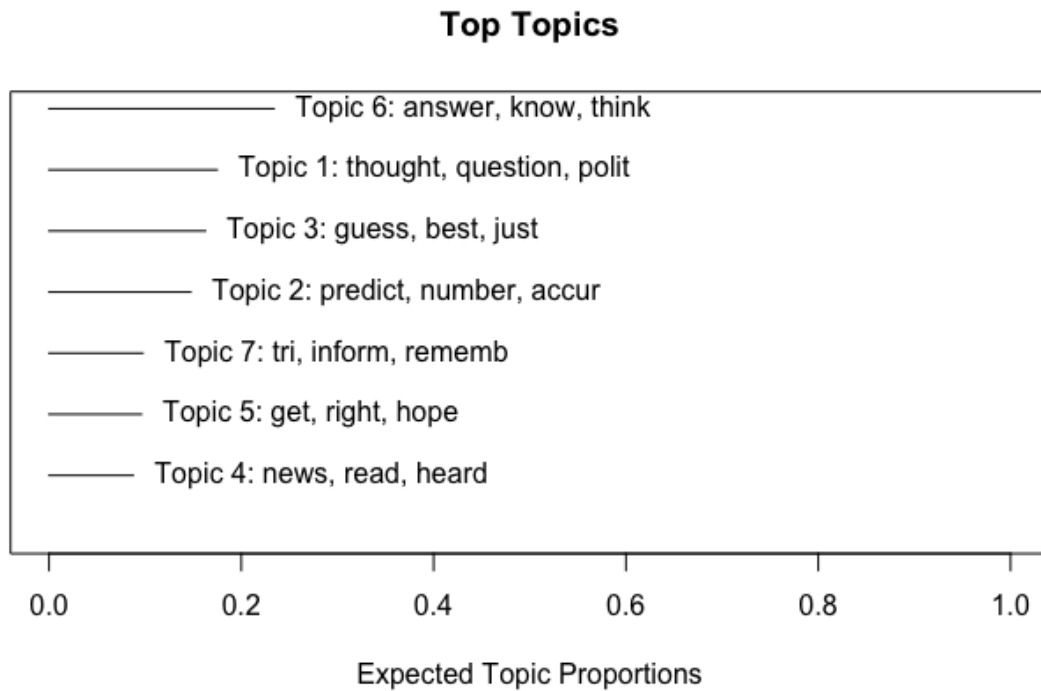
One important challenge is to choose the appropriate number of topics  $K$ . We adopted the suggestion of Grimmer and Stewart (2013), and we selected the number of topics according to substantive fit. We ran multiple iterations of the model, and we settled on four topics because they led to the most appropriate substantive categories of text that were “distinct from other clusters and internally consistent” (Grimmer and Stewart, 2013, 286). The topics are illustrated in Table 13.

Table 13: Topics in the STM

Name	Description	Discriminating Words
Topic 1	Thought	thought, question, polit
Topic 2	Predict	predict, number, accur
Topic 3	Guess	guess, best, just
Topic 4	News	news, read, heard
Topic 5	Right	get, right, hope
Topic 6	Answer	answer, know, think
Topic 7	Inform	tri, inform, rememb

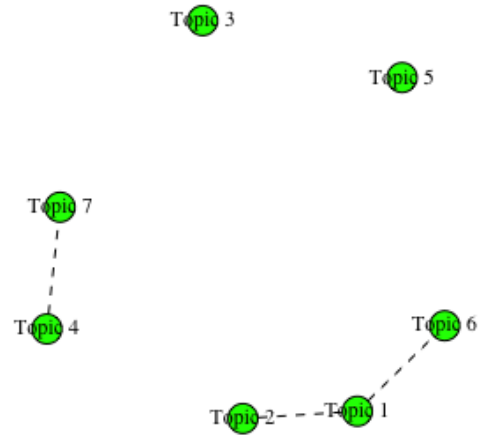
## 7.2 Topics

Figure 5: Topics and Highest Probability Words



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

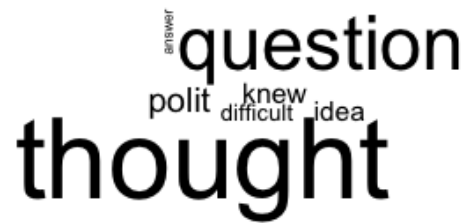
Figure 6: Correlations between Topics



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

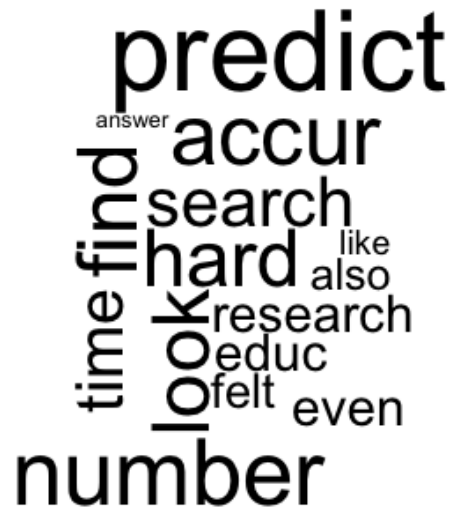
### 7.3 Word Clouds

Figure 7: Topic 1 Word Cloud



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

Figure 8: Topic 2 Word Cloud



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

Figure 9: Topic 3 Word Cloud



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

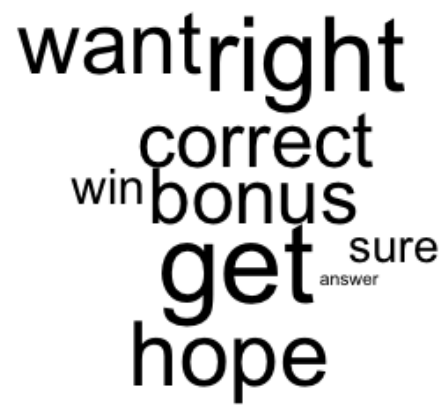


Figure 10: Topic 4 Word Cloud



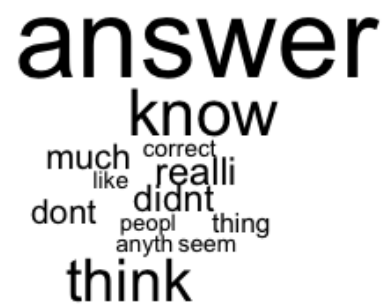
The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

Figure 11: Topic 5 Word Cloud



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

Figure 12: Topic 6 Word Cloud



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

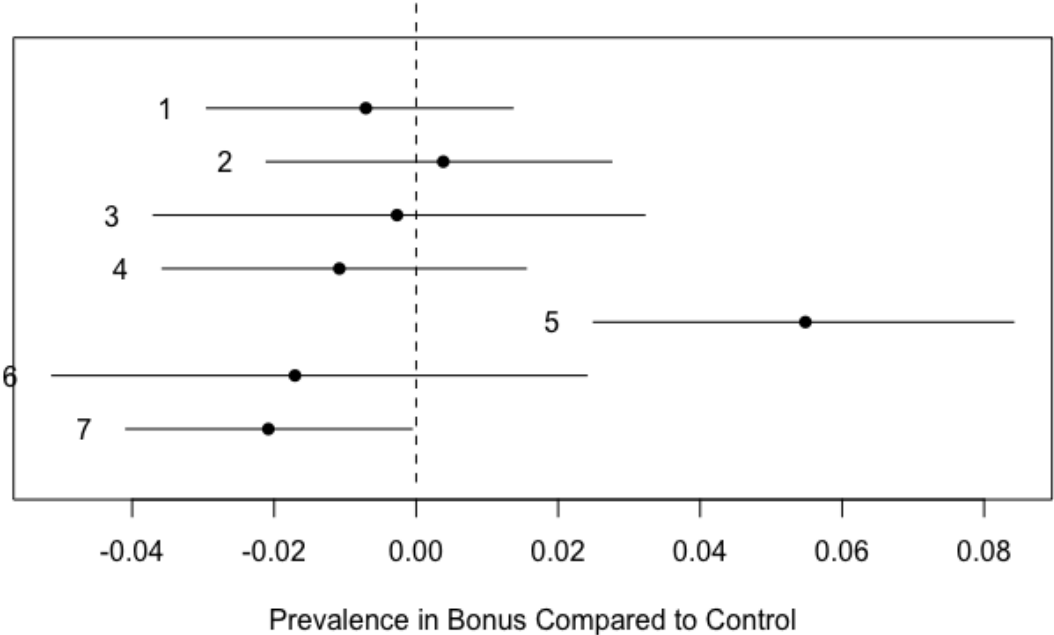
Figure 13: Topic 7 Word Cloud



The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

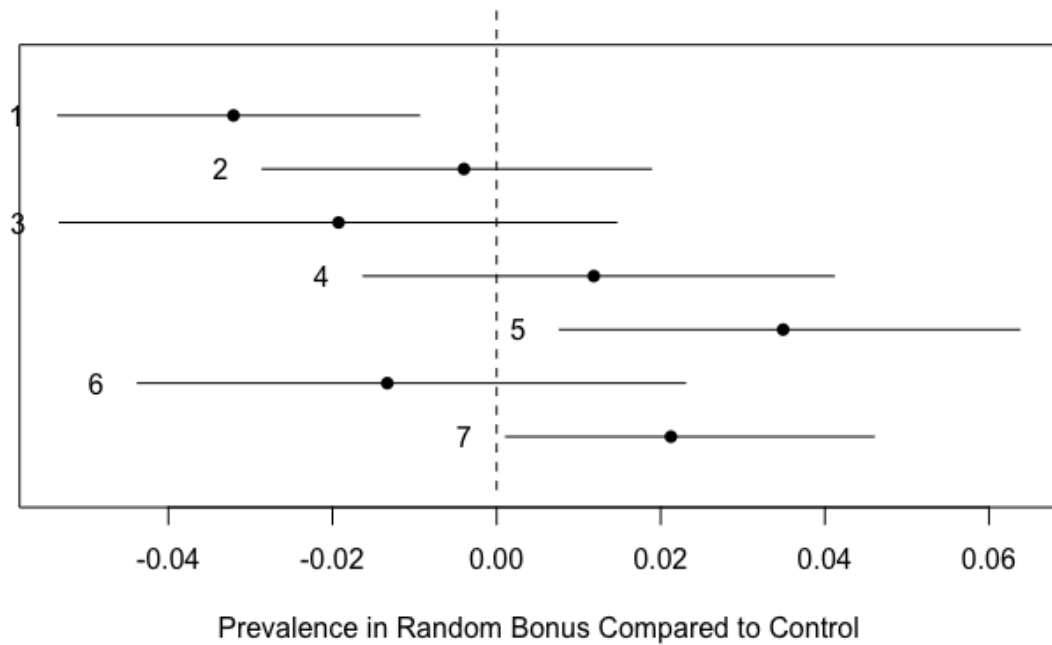
### 7.4 Treatment Effects on Topics

Figure 14: Test Set results for the Bonus Treatment.



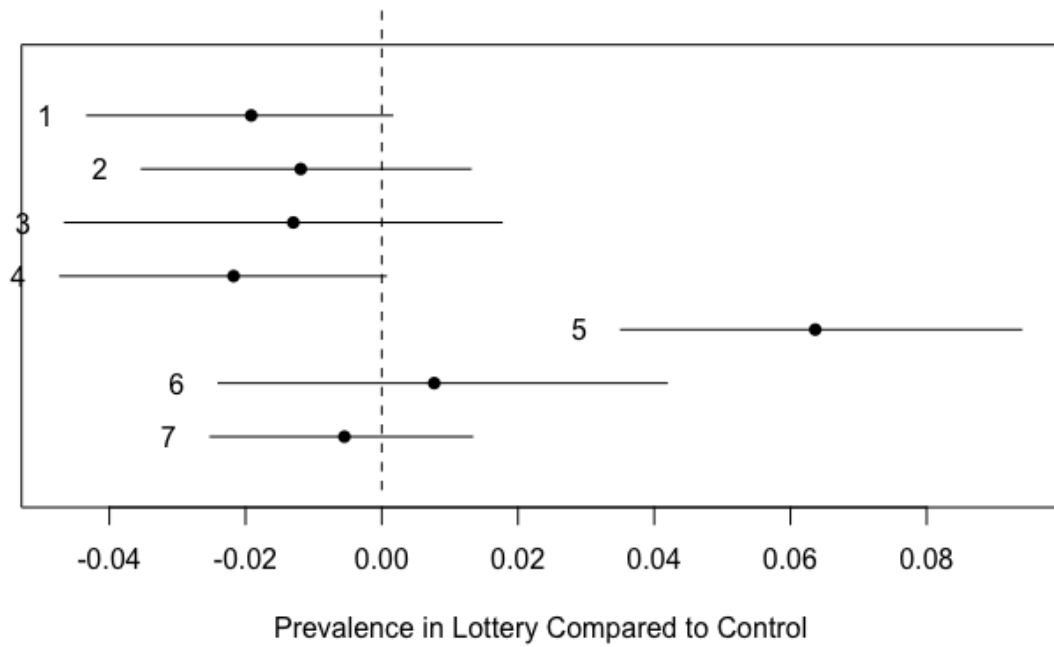
Point estimates and 95% confidence intervals. The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

Figure 15: Test Set results for the Random Bonus Treatment.



Point estimates and 95% confidence intervals. The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

Figure 16: Test Set results for the Lottery Treatment.



Point estimates and 95% confidence intervals. The plot was created using the `stm` package in R (Roberts, Stewart and Tingley, 2018).

## 8 Appendix H. Pilot Experiment Design and Results

### 8.1 Prediction Questions and Correct Answers

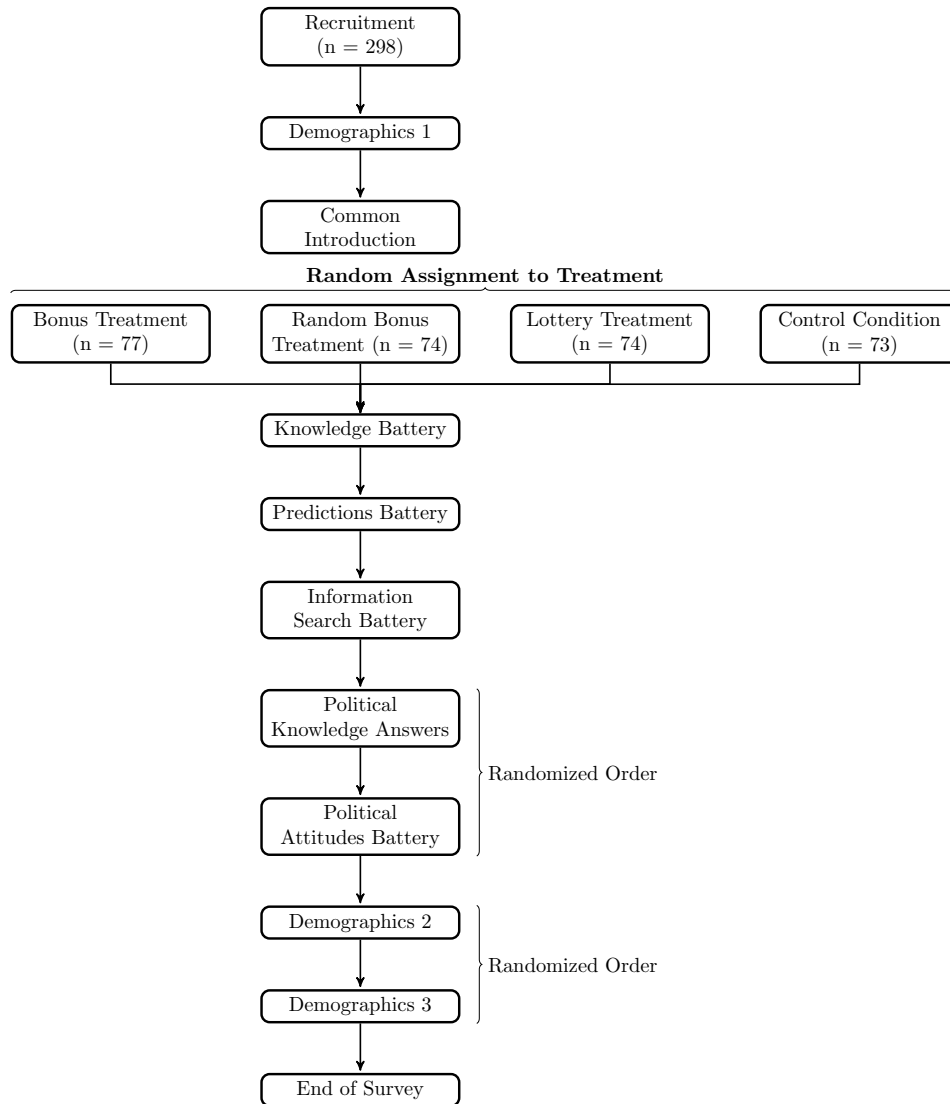
Table 14: Prediction Questions and Correct Answers

No.	Topic	Question	Correct Answer
1	Laptop Ban	To prevent a terrorist attack, will the Department of Homeland Security ban laptops on domestic flights in the United States before September 7, 2017?	No
2	Arctic Sea Ice	Will the National Snow and Ice Data Center report the extent (area) of Arctic Sea Ice on September 7, 2017 to be below or above the extent (area) of Arctic Sea Ice on September 7, 2016?	Below
3	Border Wall	Will construction on a border wall along the U.S.-Mexico start before September 7, 2017?	No
4	Russia Sanctions	Will the U.S. lift sanctions on Russia before September 7, 2017?	No
5	Trump Impeachment	Will the House of Representatives begin impeachment proceedings against President Trump before September 7, 2017?	No
6	Iran Sanctions	Will the U.S. impose economic sanctions on Iran for activities related to a nuclear program before September 7, 2017?	No
7	N.Korea Confrontation	Will a lethal confrontation involving the national military forces of North Korea and the United States result in a fatality for either side before September 7, 2017?	No
8	China Sanctions	Will President Trump impose trade sanctions on China to reduce the trade deficit between the two countries before September 7, 2017?	No



## 8.2 Experimental Design

Figure 17: Experiment 1 Design.



### 8.2.1 Demographics 1

1. Please enter your age.
2. What is the highest level of school you have completed?
  - No formal education (0)
  - 1st, 2nd, 3rd, or 4th grade (1)
  - 5th or 6th grade (2)
  - 7th or 8th grade (3)
  - 9th grade (4)
  - 10th grade (5)
  - 11th grade (6)
  - 12th grade, no diploma (7)
  - High School Graduate - High School Diploma or the equivalent (8)
  - Some college, no degree (9)
  - Associate degree (10)
  - Bachelor's degree (11)
  - Master's degree (12)
  - Professional or Doctorate degree (13)
3. Please indicate what you consider your racial background to be. We greatly appreciate your effort to describe your background using the standard categories provided. These race categories may not fully describe you, but they do match those used by the Census bureau. It helps us compare our survey respondents to the U.S. population.

Please check one or more categories below to indicate what race(s) you consider yourself to be.

- White (1)
- Black or African American (2)
- Hispanic or Latino (3)
- American Indian or Alaska Native (4)
- Asian Indian (5)
- Chinese (6)
- Filipino (7)
- Japanese (8)
- Korean (9)
- Vietnamese (10)
- Other Asian (11)

- Native Hawaiian (12)
- Guamanian or Chamorro (13)
- Samoan (14)
- Other Pacific Islander (15)
- Some other race (16)

4. What is your current gender identity?

- Male (0)
- Female (1)
- Transgender (2)
- I do not identify as female, male, or transgender (3)

SQ1 Political scientists are often interested to know how much people know political institutions. In a democracy, it is very important that people know enough about politics to make an informed decision when they vote for political candidates. To show to us that you have read this far, please ignore the question and select Four years as your answer to the question.

How long is the term of office for a U.S. Senator?

- Two years (1)
- Four years (2)
- Six years (3)

5. The next question is about the total income of YOUR HOUSEHOLD for the PAST 12 MONTHS. Please include your income PLUS the income of all members living in your household (including cohabiting partners and armed force members living at home). Please count income BEFORE TAXES and from all sources (such as wages, salaries, tips, net income from a business, interest, dividends, child support, alimony, and Social Security, public assistance, pensions, or retirement benefits).

- Under \$25,000 (1)
- Between \$25,000 and \$49,999 (2)
- Between \$50,000 and \$74,999 (3)
- Between \$75,000 and \$99,999 (4)
- Between \$100,000 and \$124,999 (5)
- Between \$125,000 and \$149,999 (6)
- Over \$150,000 (7)

6. Are you now married, widowed, divorced, separated, never married, or living with a partner?

- Married (1)
- Widowed (2)
- Divorced (3)
- Separated (4)
- Never married (5)
- Living with partner (6)

## 8.2.2 Experimental Treatments

### Common introduction

In the next part of the survey, you will be asked some questions about politics and international relations. Many people don't know the answers to these questions, but it is helpful to us if you answer, even if you're not sure of the correct answer.

There is NO DECEPTION in this study.

I encourage you to search the internet for answers you may not know off the top of your head, and to take a guess on every question. At the end of the survey, you will see the correct answers to the questions, allowing you to see how many questions you answered correctly.

Please note that some questions refer to your own opinion, where there is not a 'correct' answer. The introduction to these questions indicates in bold and underlined text that these questions relate only to your opinion.

### Control Condition

The first set of questions involve assessments of political knowledge. The answers will be revealed by the end of the survey.

The second set of questions involve assessments of your political predictions in 2017. These will be revealed on September 7, 2017.

### Bonus Treatment

There are two sets of questions for which there are correct answers. I will pay you a bonus for answering these questions correctly. You will earn \$0.50 for every correct answer you give.

So, if you answer 5 of the 8 questions correctly, you will earn \$2.50 as a bonus. If you answer all 8 of the questions correctly, you will earn \$4.00 as a bonus. The more questions you answer correctly; the more money you will earn in the form of a bonus.

The first set of questions involve assessments of political knowledge. The answers will be revealed by the end of the survey, and you will be awarded any bonus you earned for these questions less than 24 hours after you complete the survey.

The second set of questions involve assessments of your political predictions in 2017. These will be revealed on September 7, 2017, and you will be awarded any bonus you earned for these questions on that date.<sup>1</sup>

### **Random Bonus Treatment**

There are two sets of questions for which there are correct answers. I will pay you a bonus for answering one question correctly from each set of questions. The relevant question will be selected randomly. You will earn \$4 for answering this question correctly.

So, if you answer 5 of the 8 questions correctly and the randomly selected question is one of the 5 you answered correctly, you will earn \$4.00 as a bonus. If the randomly selected question is one of the 3 questions you answered incorrectly, you will earn \$0.00 as a bonus. The more questions you answer correctly; the greater the likelihood that you will receive more money in the form of a bonus.

The first set of questions involve assessments of political knowledge. The answers will be revealed by the end of the survey, and you will be awarded any bonus you earned for these questions less than 24 hours after you complete the survey.

The second set of questions involve assessments of your political predictions in 2017. These will be revealed on September 7, 2017, and I will email you with a report about how well you predicted future events. You will be awarded your bonus for these questions on that date.

### **Lottery Treatment**

There are two sets of questions for which there are correct answers. For every question you answer correctly, you earn a ticket to a lottery for a \$400 cash prize for that block of questions.

So, if you answer 5 of the 8 questions correctly, you will earn 5 entries into the lottery. If you answer all 8 of the questions correctly, you will earn 8 tickets to the lottery as a bonus. The more questions you answer correctly; the greater the likelihood that you will win the \$400 cash prize for each set of questions.

The first set of questions involve assessments of political knowledge. The answers will be revealed by the end of the survey. The lottery will be drawn and the \$400 cash prize will be awarded to the winner less than 24 hours after you complete the survey.

The second set of questions involve assessments of your political predictions in 2017. These will be revealed on September 7, 2017, and I will email you with a report about how well you predicted future events. The lottery will be drawn and the \$400 cash prize will be awarded to the winner on that date.

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<sup>1</sup>Adapted from Prior and Lupia (2008).

### 8.2.3 Political Knowledge Questions

1. According to New America, a non-partisan think tank, what is the figure CLOSEST to the total number of people killed in the United States from Jihadist terrorist attacks since 9/11?
  - 0 (0)
  - 100 (1)
  - 200 (2)
  - 300 (3)
  - 400 (4)
  - 500 (5)
  - 600 (6)
  - 700 (7)
  - 800 (8)
  - 900 (9)
  - Over 1,000 (10)
  
2. The 2015 Paris Agreement addressed climate change and imposed targets for states to mitigate against climate change. 195 states signed the treaty. How many states have since ratified the treaty, committing to the targets outlined in the agreement?
  - Between 0 and 19 (0)
  - Between 20 and 39 (1)
  - Between 40 and 59 (2)
  - Between 60 and 79 (3)
  - Between 80 and 99 (4)
  - Between 100 and 119 (5)
  - Between 120 and 139 (6)
  - Between 140 and 159 (7)
  - Between 160 and 179 (8)
  - Between 180 and 199 (9)
  - Over 200 (10)
  
3. The two major political parties in the United States have different positions on what to do about unauthorized immigrants.

The 2016 Republican Party Platform said that “we oppose any form of amnesty for those who, by breaking the law, have disadvantaged those who have obeyed it.”

The 2016 Democratic Party Platform said that they would work “to end the forced and prolonged expulsion from the country that these immigrants endure when trying to adjust their status.”

According to the Pew Research Center, how many unauthorized immigrants lived in the U.S. in 2014?

- 1.1 million (1)
- 3.1 million (2)
- 5.1 million (3)
- 7.1 million (4)
- 9.1 million (5)
- 11.1 million (6)
- 13.1 million (7)
- 15.1 million (8)
- 17.1 million (9)
- 19.1 million (10)

4. During the 2016 Presidential election, the candidates from the two major political parties in the U.S. had different opinions of Russian President Vladimir Putin.

Republican nominee Donald Trump said that Putin had “done a really great job of outsmarting the U.S.” and that he is “highly respected within his own country and beyond.”

Democratic nominee Hillary Clinton said that Putin “is at heart, a bully” and that he is “a very cold-blooded, calculating former KGB agent” who is determined to “enrich himself and his closest colleagues.”

In early 2014, separatist forces invaded the Ukrainian territory of Crimea, with support from the Russian government. Russia subsequently annexed Crimea. Along with several other countries, the U.S. imposed sanctions on Russia as a result.

According to the Office of the United Nations High Commissioner for Human Rights, as of November 2016, what is the figure CLOSEST to the total number of people killed during the Ukrainian conflict?

- 0 (0)
- 1,000 (1)
- 2,000 (2)



- 3,000 (3)
- 4,000 (4)
- 5,000 (5)
- 6,000 (6)
- 7,000 (7)
- 8,000 (8)
- 9,000 (9)
- 10,000 (10)

5. Several branches of the U.S. Government are investigating the possibility that Russian hacks of Democratic National Committee material may have affected the electoral process.

Furthermore, members of Trump’s campaign and his Administration are being investigated for possible collusion with Russian operatives.

Who is the Special Counsel for the Department of Justice investigation into possible collusion between President Trump’s campaign and Russia?

- Robert Mueller (0)
- Jared Kushner (1)
- Carter Page (2)
- Scott Pruitt (3)
- Jeff Sessions (4)
- James Comey (5)
- Rod Rosenstein (6)
- Jason Chaffetz (7)
- Mike Pence (8)
- Jay Sekulow (9)
- Sean Spicer (10)

6. The United States helped negotiate a major nuclear deal framework with Iran in 2015.

The reaction to the deal was mixed in the United States House of Congress.

Most Democrats in Congress supported the deal, but most Republicans opposed it.

Please indicate whether each of the following countries generally supported or opposed the nuclear deal:

- Germany (Supported or Opposed)
- Iraq (Supported or Opposed)
- Israel (Supported or Opposed)
- Russia (Supported or Opposed)
- Saudi Arabia (Supported or Opposed)
- Turkey (Supported or Opposed)
- United Kingdom (Supported or Opposed)

7. National Security experts are concerned with recent North Korean tests of long range ballistic missiles.

According to the CSIS Missile Defense Project, what is the largest maximum known range of North Korean missiles that are currently operational?

- Up to 250 km (0)
- Up to 1,000 km (1)
- Up to 3,000 km (2)
- Up to 5,000 km (3)
- Up to 8,000 km (4)
- Up to 10,000 km (5)
- Up to 11,500 km (6)
- Up to 13,000 km (7)
- Up to 15,000 km (8)
- Up to 17,000 km (9)
- Up to 20,000 km (10)

8. What was the U.S. trade deficit with China in 2016?

- There was no trade deficit with China (0)
- Between \$100 billion and \$200 billion (1)
- Between \$200 billion and \$300 billion (2)
- Between \$300 billion and \$400 billion (3)
- Between \$400 billion and \$500 billion (4)
- Between \$500 billion and \$600 billion (5)
- Between \$600 billion and \$700 billion (6)
- Between \$700 billion and \$800 billion (7)
- Between \$800 billion and \$900 billion (8)
- Between \$900 billion and \$1 trillion (9)
- Over \$ 1 trillion dollars (10)

#### 8.2.4 Prediction Questions

1. To prevent a terrorist attack, will the Department of Homeland Security ban laptops on domestic flights in the United States before September 7, 2017?
  - No (0)
  - Yes (1)
2. Will the National Snow and Ice Data Center report the extent (area) of Arctic Sea Ice on September 7, 2017 to be below or above the extent (area) of Arctic Sea Ice on September 7, 2016?
  - Below (0)
  - Above (1)
3. Will construction on a border wall along the U.S.-Mexico start before September 7, 2017?
  - No (0)
  - Yes (1)
4. Will the U.S. lift sanctions on Russia before September 7, 2017?
  - No (0)
  - Yes (1)
5. Will the House of Representatives begin impeachment proceedings against President Trump before September 7, 2017?
  - No (0)
  - Yes (1)
6. Will the U.S. impose economic sanctions on Iran for activities related to a nuclear program before September 7, 2017?
  - No (0)
  - Yes (1)
7. Will a lethal confrontation involving the national military forces of North Korea and the United States result in a fatality for either side before September 7, 2017?
  - No (0)
  - Yes (1)
8. Will President Trump impose trade sanctions on China to reduce the trade deficit between the two countries before September 7, 2017?
  - No (0)
  - Yes (1)

### 8.2.5 Information Search Questions

1. During this survey, did you search for information so that you could answer the questions correctly?
  - No (0)
  - Yes (1)
2. During this survey, did you rely more on your own knowledge or did you seek information so that you could answer the questions correctly?
  - I relied more on my own knowledge to answer the questions (0)
  - I relied more on information I searched for to answer the questions (1)
3. Answer If During this survey, did you search for information. . . Yes Is Selected

If you used them, which internet search engines did you use? Please tick all that apply.

- Baidu (1)
  - Bing (2)
  - Google (3)
  - Yahoo! (4)
  - Other (5)
4. Answer If During this survey, did you search for information. . . Yes Is Selected  
What sources did you use to answer the questions? Please tick all that apply.
    - Academic sources - e.g. Google Scholar, JSTOR, university libraries (1)
    - Blogs - e.g. FiveThirtyEight, The Monkey Cage (2)
    - Books (3)
    - News sources - e.g. Fox News, MSNBC, New York Times, NPR (4)
    - Official sources - e.g. Government Factsheets, Government Documents, Acts of Congress (5)
    - Results from Search Engines (6)
    - Social media sources - e.g. Facebook, Snapchat, Twitter (7)
    - Wikipedia (8)
    - Other ? please specify (9)
  5. Answer If During this survey, did you search for information. . . Yes Is Selected  
On a scale from 0 (extremely unconfident) to 10 (extremely confident), what is your overall confidence about the TRUTHFULNESS of the information acquired from sources you used to answer the questions?

- 0 (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)

6. Answer If During this survey, did you search for information... Yes Is Selected

On a scale from 0 (extremely unconfident) to 10 (extremely confident), what is your overall confidence about the VALIDITY of the information of the sources you used to answer the questions?

- 0 (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)

7. Of the political knowledge questions with correct answers, how many questions do you think that you successfully answered?

- 0 (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)

8. Of the political prediction questions with correct answers, how many questions do you expect to have successfully answered?

- 0 (0)
- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)

### **8.2.6 Answers to Political Knowledge Questions (Randomly presented to participants before/after political attitudes questions)**

1. According to New America, a non-partisan think tank, what is the figure CLOSEST to the total number of people killed in the United States from Jihadist terrorist attacks since 9/11?

- 0 (0)
- 100 (1)
- 200 (2)
- 300 (3)
- 400 (4)
- 500 (5)
- 600 (6)
- 700 (7)
- 800 (8)
- 900 (9)

- Over 1,000 (10)

**The correct answer was 100. From October 2001 to June 30, 2017, Jihadist terrorist attacks have killed 95 people in the United States in total.**

2. The 2015 Paris Agreement addressed climate change and imposed targets for states to mitigate against climate change. 195 states signed the treaty. How many states have since ratified the treaty, committing to the targets outlined in the agreement?

- Between 0 and 19 (0)
- Between 20 and 39 (1)
- Between 40 and 59 (2)
- Between 60 and 79 (3)
- Between 80 and 99 (4)
- Between 100 and 119 (5)
- Between 120 and 139 (6)
- Between 140 and 159 (7)
- Between 160 and 179 (8)
- Between 180 and 199 (9)
- Over 200 (10)

**The correct answer was between 140 and 159. As of June 30, 2017, 148 states have ratified the Paris Agreement.**

3. The two major political parties in the United States have different positions on what to do about unauthorized immigrants.

The 2016 Republican Party Platform said that "we oppose any form of amnesty for those who, by breaking the law, have disadvantaged those who have obeyed it."

The 2016 Democratic Party Platform said that they would work "to end the forced and prolonged expulsion from the country that these immigrants endure when trying to adjust their status."

According to the Pew Research Center, how many unauthorized immigrants lived in the U.S. in 2014?

- 1.1 million (1)
- 3.1 million (2)
- 5.1 million (3)
- 7.1 million (4)

- 9.1 million (5)
- 11.1 million (6)
- 13.1 million (7)
- 15.1 million (8)
- 17.1 million (9)
- 19.1 million (10)

**The correct answer was that there were 11.1 million unauthorized immigrants living in the United States in 2014, per the research conducted by the Pew Research Center.**

4. During the 2016 Presidential election, the candidates from the two major political parties in the U.S. had different opinions of Russian President Vladimir Putin.

Republican nominee Donald Trump said that Putin had “done a really great job of outsmarting the U.S.” and that he is “highly respected within his own country and beyond.”

Democratic nominee Hillary Clinton said that Putin “is at heart, a bully” and that he is “a very cold-blooded, calculating former KGB agent” who is determined to “enrich himself and his closest colleagues.”

In early 2014, separatist forces invaded the Ukrainian territory of Crimea, with support from the Russian government. Russia subsequently annexed Crimea.

According to the Office of the United Nations High Commissioner for Human Rights, as of November 2016, what is the figure CLOSEST to the total number of people killed during the Ukrainian conflict?

- 0 (0)
- 1,000 (1)
- 2,000 (2)
- 3,000 (3)
- 4,000 (4)
- 5,000 (5)
- 6,000 (6)
- 7,000 (7)
- 8,000 (8)
- 9,000 (9)
- 10,000 (10)



**The correct answer was 10,000. As of December 16, 2016, 9,733 people have been killed during the conflict, including Ukrainian armed forces, civilians, and members of the armed groups involved in the conflict.**

5. Several branches of the U.S. Government are investigating the possibility that Russian hacks of Democratic National Committee material may have affected the electoral process.

Furthermore, members of Trump's campaign and his Administration are being investigated for possible collusion with Russian operatives.

Who is the Special Counsel for the Department of Justice investigation into possible collusion between President Trump's campaign and Russia?

- Robert Mueller (0)
- Jared Kushner (1)
- Carter Page (2)
- Scott Pruitt (3)
- Jeff Sessions (4)
- James Comey (5)
- Rod Rosenstein (6)
- Jason Chaffetz (7)
- Mike Pence (8)
- Jay Sekulow (9)
- Sean Spicer (10)

**The correct answer was Robert Mueller. Mueller was appointed as the Special Counsel by Deputy Attorney General Rod Rosenstein on May 17, 2017.**

6. The United States helped to negotiate a major nuclear deal framework with Iran in 2015.

The reaction to the deal was mixed in the United States House of Congress.

Most Democrats in Congress supported the deal, but most Republicans opposed it.

Please indicate whether each of the following countries generally supported or opposed the nuclear deal:

- Germany (Supported or Opposed)

- Iraq (Supported or Opposed)
- Israel (Supported or Opposed)
- Russia (Supported or Opposed)
- Saudi Arabia (Supported or Opposed)
- Turkey (Supported or Opposed)
- United Kingdom (Supported or Opposed)

**The correct answers are that Germany, Iraq, Russia, Saudi Arabia (with reservations), Turkey, and the United Kingdom all supported the nuclear deal with Iran. Of the countries listed, only Israel opposed the nuclear deal with Iran.**

7. National Security experts are concerned with recent North Korean tests of long range ballistic missiles.

According to the CSIS Missile Defense Project, what is the largest maximum known range of North Korean missiles that are currently operational?

- Up to 250 km (0)
- Up to 1,000 km (1)
- Up to 3,000 km (2)
- Up to 5,000 km (3)
- Up to 8,000 km (4)
- Up to 10,000 km (5)
- Up to 11,500 km (6)
- Up to 13,000 km (7)
- Up to 15,000 km (8)
- Up to 17,000 km (9)
- Up to 20,000 km (10)

**The correct answer is up to 15,000 km. According to the CSIS, the Taepodong-2 missile has the largest range of operational missiles, with its range estimated to be between 4,000-15,000 km.**

8. What was the U.S. trade deficit with China in 2016?
- There was no trade deficit with China (0)
  - Between \$100 billion and \$200 billion (1)
  - Between \$200 billion and \$300 billion (2)
  - Between \$300 billion and \$400 billion (3)

- Between \$400 billion and \$500 billion (4)
- Between \$500 billion and \$600 billion (5)
- Between \$600 billion and \$700 billion (6)
- Between \$700 billion and \$800 billion (7)
- Between \$800 billion and \$900 billion (8)
- Between \$900 billion and \$1 trillion (9)
- Over \$ 1 trillion dollars (10)

**The correct answer was between \$300 billion and \$400 billion. According to the U.S. Census Bureau, the United States had a trade deficit of \$347.016 billion with China in 2016.**

### 8.2.7 Political Attitudes Questions

There are no correct answers for these questions, I am just interested in your opinion.

Please indicate whether you agree or disagree with each statement.

1. The U.S. should ban entry to travelers from Syria, Iran, Libya, Somalia, Sudan and Yemen.
  - Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
  
2. The U.S. should have withdrawn from the Paris Climate Agreement.
  - Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
  
3. The U.S. government should provide a path to citizenship for unauthorized immigrations to the United States.

- Strongly agree (3)
- Agree (2)
- Somewhat disagree (1)
- Neither agree nor disagree (0)
- Somewhat disagree (-1)
- Disagree (-2)
- Strongly disagree (-3)

4. The U.S. should continue to impose trade sanctions against Russia in response to the Ukraine conflict.

- Strongly agree (3)
- Agree (2)
- Somewhat disagree (1)
- Neither agree nor disagree (0)
- Somewhat disagree (-1)
- Disagree (-2)
- Strongly disagree (-3)

5. The U.S. should seek to improve diplomatic relations with Russia.

- Strongly agree (3)
- Agree (2)
- Somewhat disagree (1)
- Neither agree nor disagree (0)
- Somewhat disagree (-1)
- Disagree (-2)
- Strongly disagree (-3)

6. The U.S. should launch a pre-emptive military strike against North Korea.

- Strongly agree (3)
- Agree (2)
- Somewhat disagree (1)
- Neither agree nor disagree (0)
- Somewhat disagree (-1)
- Disagree (-2)
- Strongly disagree (-3)

7. The U.S. should have signed the nuclear deal with Iran in 2015.
  - Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)
  
8. The U.S. should impose greater trade restrictions on China to protect American companies and American workers.
  - Strongly agree (3)
  - Agree (2)
  - Somewhat disagree (1)
  - Neither agree nor disagree (0)
  - Somewhat disagree (-1)
  - Disagree (-2)
  - Strongly disagree (-3)

### **8.2.8 Answers to Prediction Questions**

These will be revealed on September 7, 2017. You will receive an email with a list of correct answers on this date.

### **8.2.9 Demographics 2 (Randomly assigned to participants before/after Demographics 3)**

1. Which statement best describes your current employment status?
  - Employed full time (1)
  - Employed part time (2)
  - Unemployed looking for work (3)
  - Unemployed not looking for work (4)
  - Retired (5)
  - Student (6)
  - Disabled (7)
  - Other (8)
  
2. Generally speaking, do you think of yourself as a . . .

- Republican (1)
  - Democrat (2)
  - Independent (3)
  - Another party, please specify: (4)
  - No preference (5)
3. Answer If Generally speaking, do you think of yourself as a... Republican Is Selected  
Would you call yourself a...
- Strong Republican (1)
  - Not very strong Republican (2)
4. Answer If Generally speaking, do you think of yourself as a... Democrat Is Selected  
Would you call yourself a...
- Strong democrat (1)
  - Not very strong Democrat (2)
5. Answer If Generally speaking, do you think of yourself as a... Independent Is Selected  
And Generally speaking, do you think of yourself as a... Another party, please specify:  
Is Selected And Generally speaking, do you think of yourself as a... No preference Is  
Selected  
Do you think of yourself as closer to the...
- Republican Party (1)
  - Democratic Party (2)
6. On a scale from 0 (never) to 100 (all the time), please indicate how much you agree  
with Republican Party policy positions.
7. On a scale from 0 (never) to 100 (all the time), please indicate how much you agree  
with Democratic Party policy positions.
8. In general, do you think of yourself as...
- Extremely liberal (1)
  - Liberal (2)
  - Slightly liberal (3)
  - Moderate, middle of the road (4)
  - Slightly conservative (5)
  - Conservative (6)
  - Extremely conservative (7)

### 8.2.10 Demographics 3 (Randomly assigned to participants before/after treatments)

1. Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested.

Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?

- Always (4)
- Most of the Time (3)
- Some of the Time (2)
- Only Now and Then (1)
- Hardly at all (0)

2. Some people seem to read, listen to, or watch the news most of the time, whether there's an election going on or not. Others aren't that interested.

Would you say you read, listen to, or watch the news most of the time, some of the time, only now and then, or hardly at all?

- Always (4)
- Most of the Time (3)
- Some of the Time (2)
- Only Now and Then (1)
- Hardly at all (0)

3. Please think about your news consumption over the past week. In the last week, did you read, listen to, or watch the news?

- No (0)
- Yes (1)

SQ2 One problem faced by democratic countries around the world is that there are sometimes few incentives for people to spend time and effort going to the polls to fulfill their democratic right to vote in free and fair elections. Accordingly, political scientists are interested in voter turnout. To let us know that you have read this much, please answer that you have never voted in a Presidential election in the following question.

Please indicate the last time you voted in a Presidential election.

- 2012
- 2008
- 2004
- 2000

- 1996
  - 1992
  - 1988
  - Earlier than 1988
  - I have never voted in a Presidential election
4. In the 2016 Presidential election, who did you vote for?
- Hillary Clinton (Democratic Party) (1)
  - Gary Johnson (Libertarian Party) (2)
  - Jill Stein (Green Party) (3)
  - Donald Trump (Republican Party) (4)
  - Other candidate/write in (5)
  - I did not vote in the Presidential election (6)
5. What is your religion?
- Baptist - any denomination (1)
  - Protestant (e.g. Methodist, Lutheran, Presbyterian, Episcopal) (2)
  - Catholic (3)
  - Mormon (4)
  - Jewish (5)
  - Muslim (6)
  - Hindu (7)
  - Buddhist (8)
  - Pentecostal (9)
  - Eastern Orthodox (10)
  - Other Christian (11)
  - Other non-Christian (12)
  - None (13)
6. How often do you attend religious services? [Reverse Coded]
- More than once a week (5)
  - Once a week (4)
  - Once or twice a month (3)
  - A few times a year (2)
  - Once a year or less (1)
  - Never (0)

### 8.3 Descriptive Statistics



Table 15: Descriptive Statistics.

	Count	Mean	Std. Dev.	Min.	Max.
Predictions Score	298	5.251678	1.276733	1	7
Information Search (Time Spent)	298	18.79508	10.49949	.3	44.86666
Democrat	298	.4765101	.500288	0	1
Republican	298	.204698	.4041594	0	1
Political Ideology	298	3.342282	1.772486	1	7
Moderate	298	.4127517	.493157	0	1
Dem. Policy Agreement	298	53.40268	30.31905	0	100
Rep. Policy Argument	298	30.51007	29.49579	0	100
Education	298	10.18792	1.362653	7	13
Income	298	2.795302	1.447759	1	7
Male	298	.6107383	.488403	0	1
Political Interest	298	2.42953	.9193398	0	4
News Consumption	298	2.399329	.956072	0	4
Screening Questions	298	1.88255	.3524291	0	2
Rel. Attendance	298	1	1.504203	0	5
Age	298	38.57383	12.81162	20	77
White	298	.7315436	.4439018	0	1
Black	298	.1073826	.3101198	0	1
Hispanic/Latino	298	.090604	.287528	0	1

Table 16: Descriptive Statistics of Individual Prediction Questions.

	Count	Mean	Std. Dev.	Min.	Max.
Correct Prediction of Laptop Ban on Domestic Flights	298	.7449664	.4366133	0	1
Correct Prediction of Arctic Sea Ice Extent (Area) vs. 2016	298	.3221477	.4680852	0	1
Correct Prediction of Border Wall Construction	298	.8557047	.35198	0	1
Correct Prediction of Lift Russia Sanctions	298	.8624161	.3450421	0	1
Correct Prediction of Impeachment of Trump	298	.8892617	.3143356	0	1
Correct Prediction of U.S. Sanctions on Iran for Nuclear Deal	298	.647651	.4785055	0	1
Correct Prediction of Lethal Confrontation with N. Korea	298	.8422819	.3650896	0	1
Correct Prediction of U.S. Sanctions on China for Trade	298	.7348993	.4421292	0	1

## 8.4 Full Experimental Results

Table 17: Determinants of Cognitive Effort as Measured by Time Spent (Minutes).

	(1)	(2)	(3)
Bonus Treatment	5.003** (1.632)	4.852** (1.684)	5.079** (1.677)
Random Bonus Treatment	4.223* (1.803)	4.167* (1.809)	4.997** (1.836)
Lottery Treatment	-0.245 (1.579)	-0.501 (1.587)	-0.078 (1.635)
Democrat		-2.025 (1.679)	-1.304 (1.619)
Republican		-3.047 (2.547)	-2.244 (2.748)
Political Ideology		-0.429 (0.664)	-0.534 (0.695)
Moderate		-1.540 (1.365)	-0.498 (1.448)
Dem. Policy Agreement		0.015 (0.038)	0.004 (0.039)
Rep. Policy Agreement		0.056 (0.037)	0.053 (0.037)
Education			-0.260 (0.466)
Income			-1.106** (0.403)
Male			0.051 (1.338)
Political Interest			2.436* (1.201)
News Consumption			-1.677 (1.247)
Religious Attendance			-0.438 (0.383)
Age			0.044 (0.048)
White			0.268 (1.419)
Black			2.502 (2.058)
Hispanic/Latino			1.313 (2.361)
Constant	16.515*** (1.169)	17.786*** (3.830)	19.443** (7.132)
Observations	298	298	298
$R^2$	0.052	0.068	0.123

Standard errors in parentheses

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 18: Determinants of Political Predictions.

	(1)	(2)	(3)
Bonus Treatment	-0.016 (0.202)	0.033 (0.199)	0.053 (0.217)
Random Bonus Treatment	0.198 (0.202)	0.214 (0.202)	0.247 (0.211)
Lottery Treatment	-0.437* (0.220)	-0.421+ (0.223)	-0.338 (0.233)
Democrat		0.085 (0.204)	0.092 (0.204)
Republican		0.199 (0.342)	0.287 (0.308)
Political Ideology		-0.023 (0.098)	-0.027 (0.091)
Moderate		-0.231 (0.185)	-0.152 (0.176)
Dem. Policy Agreement		-0.007+ (0.004)	-0.006+ (0.004)
Rep. Policy Agreement		-0.006 (0.005)	-0.002 (0.004)
Education			0.092 (0.059)
Income			0.067 (0.054)
Male			0.020 (0.156)
Political Interest			0.067 (0.148)
News Consumption			0.012 (0.153)
Religious Attendance			-0.146** (0.054)
Age			0.011+ (0.006)
White			-0.426* (0.187)
Black			-0.131 (0.268)
Hispanic/Latino			-0.434 (0.304)
Constant	5.315*** (0.148)	5.925*** (0.421)	4.475*** (0.793)
Observations	298	298	298
$R^2$	0.033	0.058	0.142

Standard errors in parentheses

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 19: Determinants of Political Predictions, including Screening Questions.

	(1)	(2)	(3)
Bonus Treatment	-0.024 (0.199)	0.025 (0.197)	0.039 (0.214)
Random Bonus Treatment	0.226 (0.202)	0.240 (0.203)	0.258 (0.211)
Lottery Treatment	-0.421 <sup>+</sup> (0.218)	-0.411 <sup>+</sup> (0.221)	-0.335 (0.230)
Correct Screening Questions	0.409* (0.190)	0.373 <sup>+</sup> (0.190)	0.314 (0.202)
Democrat		0.065 (0.202)	0.074 (0.202)
Republican		0.184 (0.341)	0.264 (0.307)
Political Ideology		-0.033 (0.098)	-0.035 (0.091)
Moderate		-0.221 (0.186)	-0.146 (0.177)
Dem. Policy Agreement		-0.007 <sup>+</sup> (0.004)	-0.006 <sup>+</sup> (0.004)
Rep. Policy Agreement		-0.005 (0.005)	-0.001 (0.004)
Education			0.095 (0.058)
Income			0.064 (0.054)
Male			0.020 (0.155)
Political Interest			0.039 (0.151)
News Consumption			0.040 (0.160)
Religious Attendance			-0.136* (0.054)
Age			0.011 <sup>+</sup> (0.006)
White			-0.405* (0.182)
Black			-0.109 (0.260)
Hispanic/Latino			-0.437 (0.305)
Constant	4.537*** (0.401)	5.225*** (0.549)	3.847*** (0.815)
Observations	298	298	298
$R^2$	0.045	0.069	0.149

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 20: Determinants of Political Predictions, Pooled Across Treatments.

	(1)	(2)	(3)
All Treatments	-0.084 (0.171)	-0.056 (0.172)	-0.009 (0.187)
Democrat		0.092 (0.209)	0.096 (0.207)
Republican		0.213 (0.354)	0.300 (0.315)
Political Ideology		-0.002 (0.103)	-0.009 (0.094)
Moderate		-0.236 (0.188)	-0.156 (0.175)
Dem. Policy Agreement		-0.006 (0.004)	-0.006 (0.004)
Rep. Policy Agreement		-0.007 (0.005)	-0.003 (0.004)
Education			0.098 <sup>+</sup> (0.059)
Income			0.072 (0.053)
Male			-0.015 (0.158)
Political Interest			0.036 (0.144)
News Consumption			0.031 (0.151)
Religious Attendance			-0.147 <sup>**</sup> (0.054)
Age			0.013 <sup>*</sup> (0.006)
White			-0.418 <sup>*</sup> (0.191)
Black			-0.123 (0.274)
Hispanic/Latino			-0.436 (0.318)
Constant	5.315 <sup>***</sup> (0.148)	5.832 <sup>***</sup> (0.422)	4.295 <sup>***</sup> (0.806)
Observations	298	298	298
$R^2$	0.001	0.026	0.116

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , <sup>\*</sup>  $p < 0.05$ , <sup>\*\*</sup>  $p < 0.01$ , <sup>\*\*\*</sup>  $p < 0.001$

Table 21: Determinants of Correct Individual Predictions (Logit).

	Laptop Ban	Arctic Sea Ice	Border Wall	Russia Sanctions	Trump Impeachment	Iran Sanctions	N.Korea Confrontation	China Sanctions
Bonus Treatment	0.143 (0.380)	-0.493 (0.345)	-0.405 (0.490)	0.060 (0.530)	0.462 (0.523)	-0.258 (0.339)	0.584 (0.464)	-0.053 (0.360)
Random Bonus Treatment	0.165 (0.385)	-0.436 (0.347)	-0.118 (0.517)	-0.118 (0.517)	0.784 (0.576)	0.021 (0.349)	0.820 <sup>+</sup> (0.497)	0.736 <sup>+</sup> (0.408)
Lottery Treatment	-0.184 (0.369)	-0.633 <sup>+</sup> (0.354)	-0.640 (0.479)	-0.807 <sup>+</sup> (0.470)	-0.095 (0.473)	0.082 (0.351)	-0.229 (0.407)	-0.110 (0.361)
Constant	1.045*** (0.267)	-0.360 (0.238)	2.095*** (0.375)	2.095*** (0.375)	1.841*** (0.341)	0.652** (0.247)	1.438*** (0.298)	0.907*** (0.259)
Observations	298	298	298	298	298	298	298	298
Pseudo $R^2$	0.003	0.010	0.009	0.020	0.016	0.003	0.026	0.017

Standard errors in parentheses

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



## 8.5 Randomization Tests

Table 22: Randomization Check: F-test of Joint Orthogonality.

	Control	Bonus Treatment	Random Bonus Treatment	Lottery Treatment	P-value from Joint Orthogonality Test of Treatment Arms
Democrat	0.466 (0.059)	0.481 (0.057)	0.527 (0.058)	0.432 (0.058)	0.715
Republican	0.260 (0.052)	0.156 (0.042)	0.189 (0.046)	0.216 (0.048)	0.446
Political Ideology	3.438 (0.215)	3.182 (0.191)	3.351 (0.214)	3.405 (0.205)	0.817
Moderate	0.384 (0.057)	0.468 (0.057)	0.378 (0.057)	0.419 (0.058)	0.667
Dem. Policy Agreement	51.795 (3.594)	57.117 (3.366)	55.189 (3.679)	49.338 (3.414)	0.401
Rep. Policy Agreement	31.425 (3.590)	27.909 (3.272)	29.068 (3.533)	33.757 (3.306)	0.630
Education	9.890 (0.184)	10.429 (0.131)	10.324 (0.147)	10.095 (0.163)	0.072
Income	2.836 (0.182)	2.844 (0.168)	2.797 (0.161)	2.703 (0.162)	0.931
Male	0.534 (0.059)	0.662 (0.054)	0.541 (0.058)	0.703 (0.053)	0.078
Political interest	2.411 (0.095)	2.623 (0.091)	2.257 (0.114)	2.419 (0.122)	0.107
News Consumption	2.315 (0.108)	2.571 (0.097)	2.338 (0.111)	2.365 (0.126)	0.327
Religious Attendance	0.658 (0.145)	1.130 (0.183)	1.108 (0.175)	1.095 (0.187)	0.169
Age	38.726 (1.550)	38.221 (1.470)	40.986 (1.530)	36.378 (1.362)	0.182
White	0.726 (0.053)	0.662 (0.054)	0.784 (0.048)	0.757 (0.050)	0.371
Black	0.151 (0.042)	0.143 (0.040)	0.068 (0.029)	0.068 (0.029)	0.182
Hispanic/Latino	0.068 (0.030)	0.143 (0.040)	0.054 (0.026)	0.095 (0.034)	0.243

Standard errors in parentheses

Table 23: Randomization Check: T-tests of the Differences of Means between Variables.

	(1) Control Condition	(2) Bonus Treatment	(3) Random Bonus Treatment	(4) Lottery Treatment	(5) (1) vs. (2), p-value	(6) (1) vs. (3), p-value	(7) (1) vs. (4), p-value	(8) (2) vs. (3), p-value	(9) (2) vs. (4), p-value	(10) (3) vs. (4), p-value	(11) P-value from Joint Orthogonality Test of Treatment Arms
Democrat	0.466	0.481	0.527	0.432	0.858	0.461	0.687	0.571	0.556	0.252	0.715
Republican	0.260	0.156	0.189	0.216	0.116	0.305	0.534	0.590	0.343	0.685	0.446
Political Ideology	3.438	3.182	3.351	3.405	0.372	0.774	0.912	0.554	0.426	0.856	0.817
Moderate	0.384	0.468	0.378	0.419	0.302	0.949	0.665	0.271	0.551	0.617	0.667
Dem. Policy Agreement	51.795	57.117	55.189	49.338	0.281	0.510	0.621	0.699	0.107	0.246	0.401
Rep. Policy Agreement	31.425	27.909	29.068	33.757	0.470	0.640	0.633	0.810	0.211	0.334	0.630
Education	9.890	10.429	10.324	10.095	0.017	0.066	0.407	0.597	0.112	0.297	0.072
Income	2.836	2.844	2.797	2.703	0.973	0.875	0.586	0.841	0.546	0.679	0.931
Male	0.534	0.662	0.541	0.703	0.111	0.940	0.036	0.128	0.597	0.042	0.078
Political interest	2.411	2.623	2.257	2.419	0.108	0.301	0.959	0.012	0.178	0.332	0.107
News Consumption	2.315	2.571	2.338	2.365	0.079	0.884	0.765	0.114	0.193	0.872	0.327
Religious Attendance	0.658	1.130	1.108	1.095	0.047	0.049	0.067	0.932	0.893	0.958	0.169
Age	38.726	38.221	40.986	36.378	0.813	0.301	0.257	0.194	0.360	0.026	0.182
White	0.726	0.662	0.784	0.757	0.401	0.419	0.673	0.097	0.204	0.698	0.371
Black	0.151	0.143	0.068	0.068	0.893	0.107	0.107	0.135	0.135	1.000	0.182
Hispanic/Latino	0.068	0.143	0.054	0.095	0.142	0.717	0.566	0.069	0.364	0.351	0.243
<i>N</i>	73	77	74	74							

## 8.6 Causal Mediation Analysis

Table 24: Direct Treatment Effects and Mediation Effects of Incentives on the Number of Correct Answers for Prediction Questions.

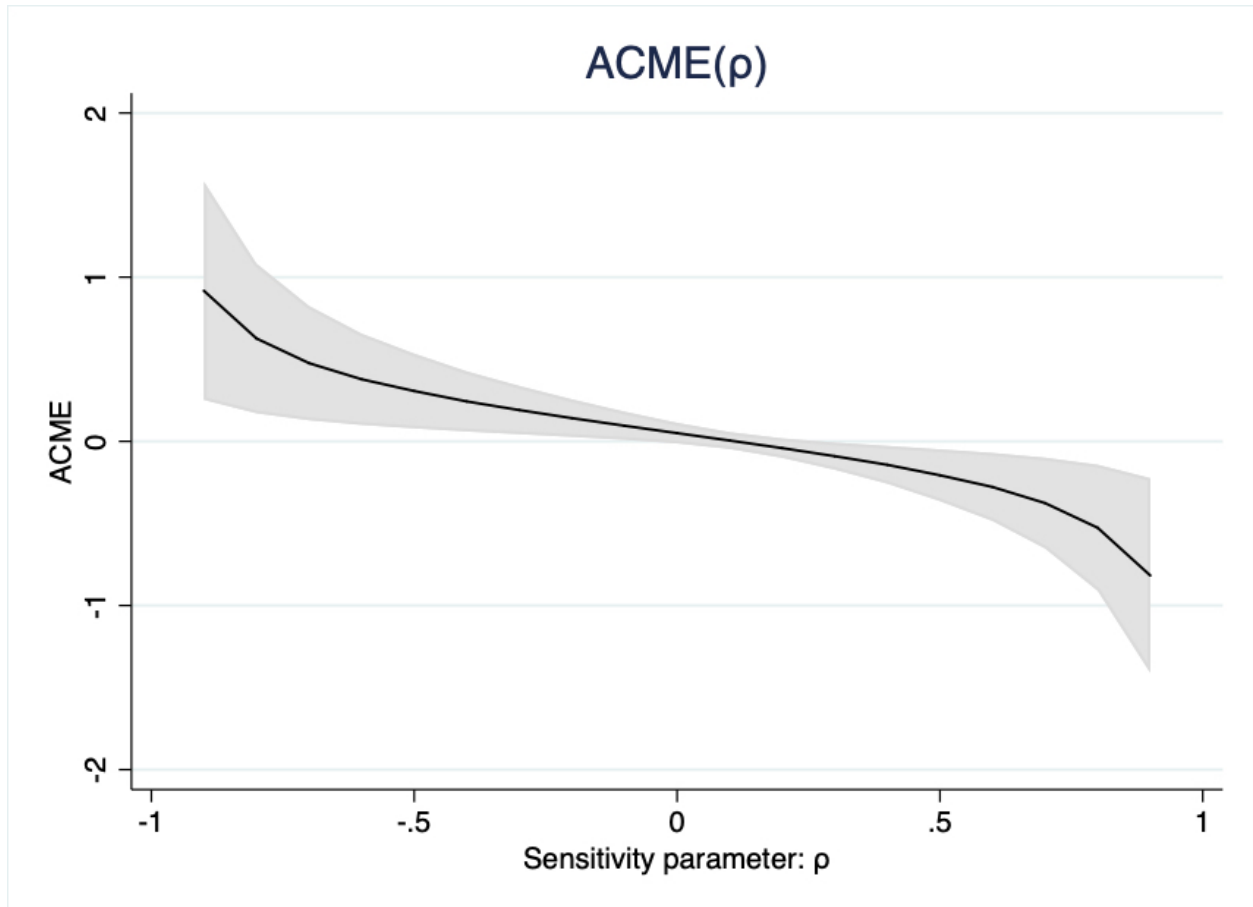
*Mediating Variable: Time Spent on Survey (minutes).*

	ACME	Direct Effect	Total Effect	% Total Effect Mediated
Bonus Treatment	0.050 (0.001, 0.121)	-0.040 (-0.384, 0.294)	0.010 (-0.328, 0.337)	0.134 (-8.008, 4.742)
Random Bonus Treatment	0.035 (-0.005, 0.098)	0.278 (-0.070, 0.615)	0.313 (-0.033, 0.645)	0.109 (-0.247, 0.696)
Lottery Treatment	-0.039 (-0.106, 0.007)	-0.396 (-0.739, -0.064)	-0.435 (-0.779, -0.102)	0.089 (0.048, 0.332)

The results were calculated using 1000 simulations, and 95% confidence intervals are reported in brackets. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

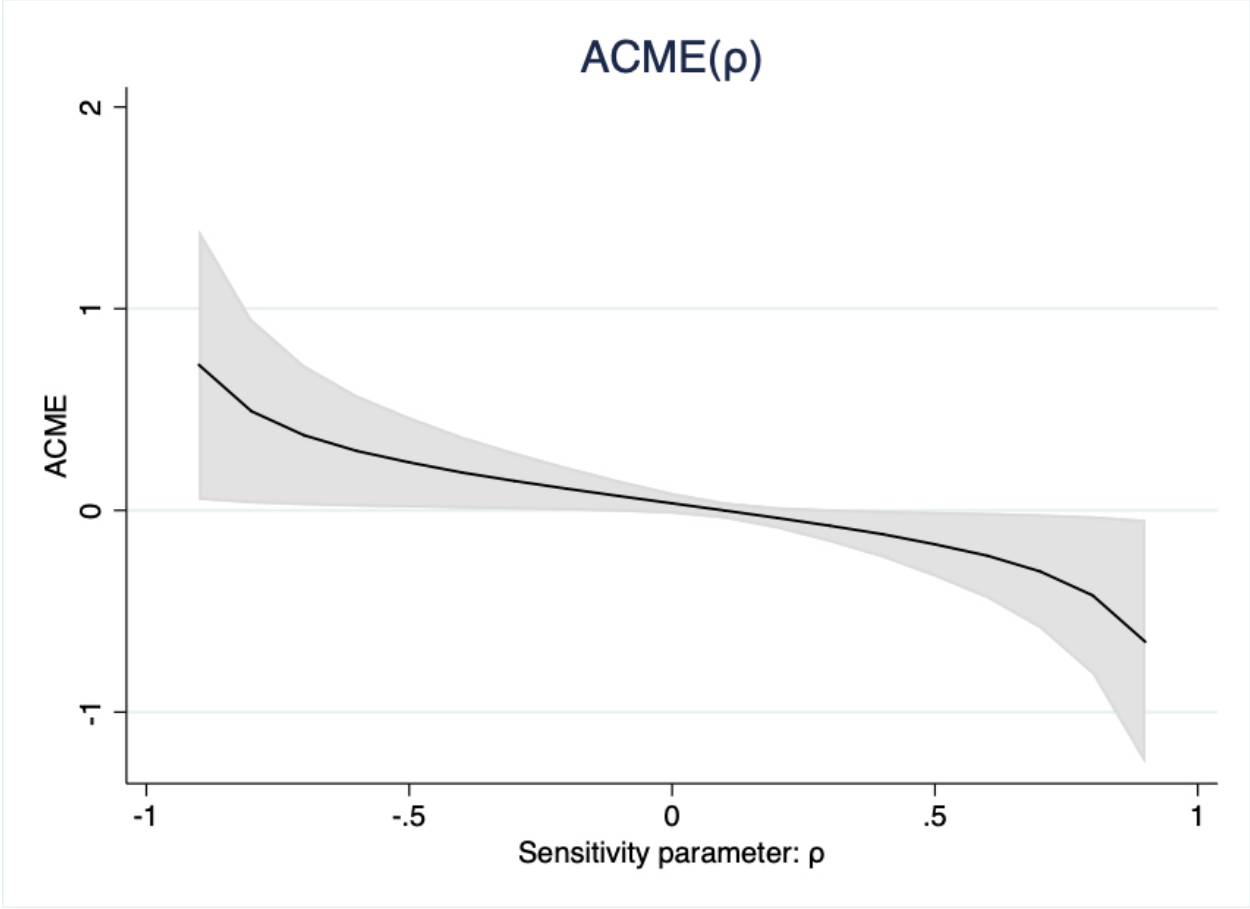
### 8.6.1 Causal Mediation Sensitivity Analysis

Figure 18: Average Causal Mediation Effect of the Bonus Treatment on the Number of Correct Predictions as a Function Degree of Violation of Sequential Ignorability Assumption.



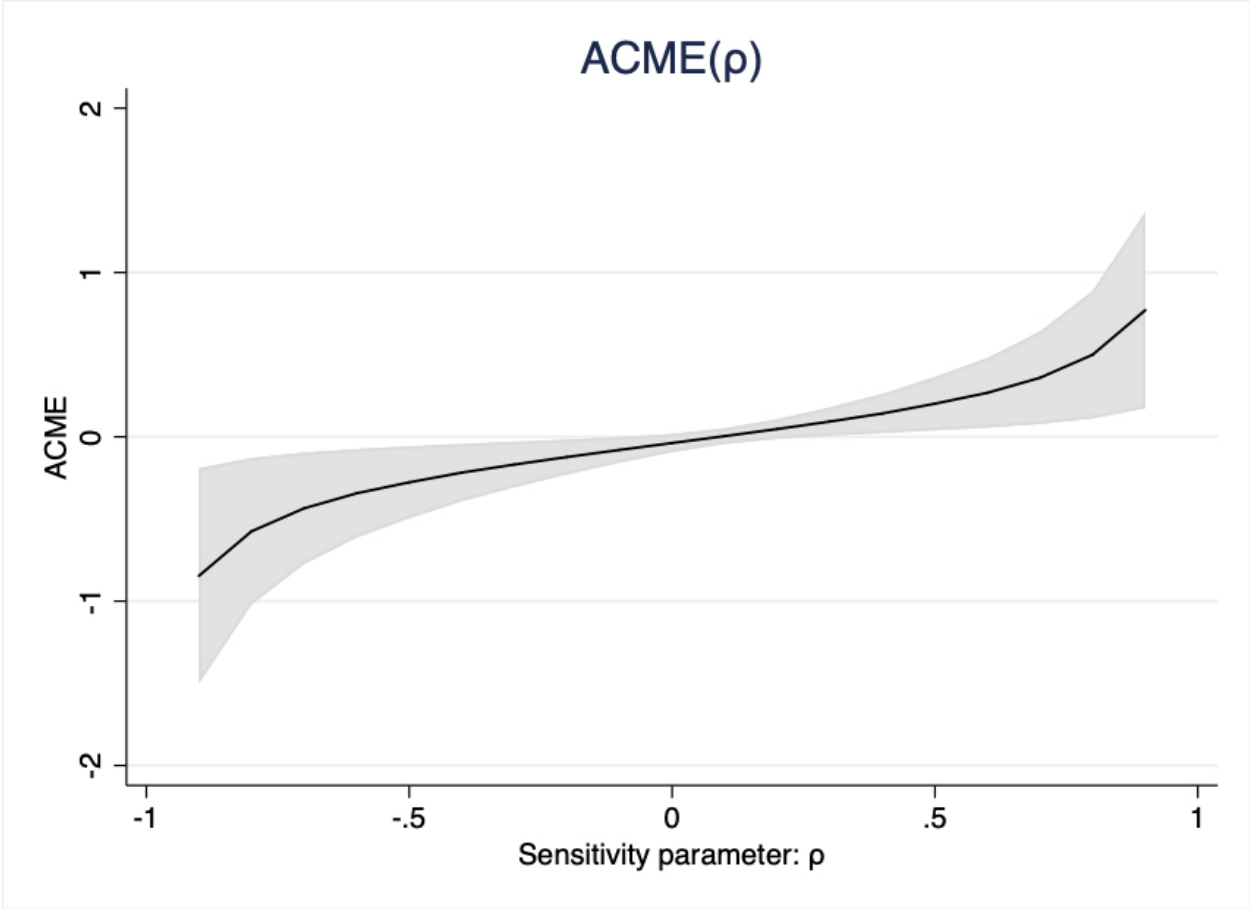
The results were calculated using 1000 simulations with 95% confidence intervals. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

Figure 19: Average Causal Mediation Effect of the Random Bonus Treatment on the Number of Correct Predictions as a Function Degree of Violation of Sequential Ignorability Assumption.



The results were calculated using 1000 simulations with 95% confidence intervals. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

Figure 20: Average Causal Mediation Effect of the Lottery Treatment on the Number of Correct Predictions as a Function Degree of Violation of Sequential Ignorability Assumption.



The results were calculated using 1000 simulations with 95% confidence intervals. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).

### 8.6.2 Causal Mediation Analysis using Self-reported Information Search as an Alternative Mediating Variable

Table 25: Direct Treatment Effects and Mediation Effects of Incentives on the Number of Correct Answers for Prediction Questions.

*Mediating Variable: Information Search (Self-report).*

	ACME	Direct Effect	Total Effect	Prop. Total Effect Mediated
Bonus Treatment	0.042 (-0.008, 0.111)	-0.032 ( -0.378, 0.304)	0.011 (-0.323, 0.337)	0.116 (-5.600, 4.647)
Random Bonus Treatment	-0.006 (-0.045, 0.028)	0.318 (-0.028, 0.653)	0.312 (-0.044, 0.648)	-0.018 (-0.098, 0.058)
Lottery Treatment	-0.011 (-0.052, 0.018)	-0.423 (-0.763, -0.094)	-0.434 (-0.784, -0.104)	0.025 (0.014, 0.098)

The results were calculated using 1000 simulations, and 95% confidence intervals are reported in brackets. The table was created using the `mediation` package in Stata (Hicks and Tingley, 2011).



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