

Supplemental Materials: The Polarizing Implications of the March for Science

March 29, 2018

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Appendix A. Question Wording

Dependent Variables - Affect Toward Scientists, Experts, Academics, etc.

> FEELING THERMOMETERS

PREAMBLE: First, we'd like to get your feelings toward some people and groups in the news these days. Ratings between 50 degrees and 100 mean that you feel favorable toward the person or group. Ratings between 0 degrees and 50 mean that you don't feel favorable toward the person or group and that you don't care too much for that person or group. You would rate the person or group at the 50 degree mark if you don't feel particularly favorable or unfavorable toward the person or group. Please note that you must move the slider in order to record a response.

CHOICES: Scientists, College Professors, Intellectuals

> AGREE-DISAGREE SCALES

PREAMBLE: Please report the extent to which you agree or disagree with each of the following statements

1. Scientists care less about solving important problems than their own personal gain.
 2. Most experts are untrustworthy
- <1> Strongly disagree
<2> Disagree
<3> Neither agree nor disagree
<4> Agree
<5> Strongly agree

Dependent Variables - Attitudes Toward Scientific Research

> AGREE-DISAGREE SCALES

PREAMBLE: Please report the extent to which you agree or disagree with each of the following statements

1. Most scientific research is politically motivated
 2. You simply can't trust most scientific research
- <1> Strongly disagree
<2> Disagree
<3> Neither agree nor disagree
<4> Agree
<5> Strongly agree

Independent and Control Variables

1. Ideology

Q23 We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?

- <1> Extremely liberal
- <2> Liberal
- <3> Slightly liberal
- <4> Moderate; middle of the road
- <5> Slightly conservative
- <6> Conservative
- <7> Extremely conservative

2. Gender

Which of these best describes the gender with which you currently identify?

- <1> Female
- <2> Male
- <3> Other

3. Age

What is your age?

[Open-ended numeric entry]

4. Education

Which of these best describes your highest level of education?

- <1> Less than High School degree (or equivalent)
- <2> High school degree (or equivalent)
- <3> Some college
- <4> Associate's degree
- <5> Bachelor's degree
- <6> Master's degree
- <7> Advanced degree (e.g., MD, PhD, DPHIL, JD, DDS)

5. Income

We would like to get an estimate of your total household income in the past 12 months before taxes. Please select one of the items from the list below:

- <1> Less than \$5,000
- <2> \$5,000 - \$7,499
- <3> \$7,500 - \$9,999
- <4> \$10,000 - \$12,499
- <5> \$12,500 - \$14,999
- <6> \$15,000 - \$19,999

- <7> \$20,000 - \$24,999
- <8> \$25,000 - \$29,999
- <9> \$30,000 - \$34,999
- <10> \$35,000 - \$39,999
- <11> \$40,000 - \$49,999
- <12> \$50,000 - \$59,999
- <13> \$60,000 - \$74,999
- <14> \$75,000 - \$84,999
- <15> \$85,000 - \$99,999
- <16> \$100,000 - \$124,999
- <17> \$125,00 - \$149,999
- <18> \$150,000 - \$174,999
- <19> \$175,000 or more

6. Party ID

FILTER: Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?

- <1> Republican
- <2> Democrat
- <3> Independent

THEN BRANCH IF DEMOCRAT IS SELECTED

Would you call yourself a strong Democrat or a not very strong Democrat?

- <1> Strong Democrat
- <2> Not very strong Democrat

THEN BRANCH IF REPUBLICAN IS SELECTED

Would you call yourself a strong Republican or a not very strong Republican?

- <1> Strong Republican
- <2> Not very strong Republican

THEN BRANCH IF INDEPENDENT IS SELECTED

Do you think of yourself as closer to the Republican Party or the Democratic Party?

- <1> Democratic
- <2> Republican
- <3> Neither

7. Political Interest

How interested are you in information about what's going on in government and politics?

- <1> Extremely interested
- <2> Very interested
- <3> Somewhat interested
- <4> Slightly interested
- <5> Not at all interested

Appendix B. Supplemental Analyses

Table S1a. Summary Statistics - Wave 1

| Variable | Mean | Std. Dev. | N |
|-----------------|---------------|------------------|-----------|
| Liberal | 0.506 | 0.501 | 426 (216) |
| Moderate | 0.237 | 0.426 | 426 (101) |
| Conservative | 0.256 | 0.437 | 426 (109) |
| College Degree | 0.487 | 0.500 | 427 (208) |
| Female | 0.438 | 0.497 | 425 (186) |
| Black | 0.066 | 0.249 | 423 (28) |
| Hispanic | 0.054 | 0.227 | 423 (23) |
| Age | 35 yrs | 10 yrs | 426 |
| Income (Median) | \$40 - 49,999 | – | 424 |

Table S1b. Summary Stats - Wave 2

| Variable | Mean | Std. Dev. | N |
|-----------------|---------------|------------------|-----------|
| Liberal | 0.521 | 0.500 | 349 (182) |
| Moderate | 0.221 | 0.416 | 349 (77) |
| Conservative | 0.256 | 0.437 | 349 (89) |
| College Degree | 0.493 | 0.501 | 349 (172) |
| Female | 0.418 | 0.494 | 347 (145) |
| Black | 0.064 | 0.245 | 349 (22) |
| Hispanic | 0.046 | 0.211 | 349 (16) |
| Age | 35 yrs | 10 yrs | 348 |
| Income (Median) | \$40 - 49,999 | – | 346 |

Note: Means represent unweighted proportions of sample corresponding to each characteristic. N corresponds to total number of valid answers on each variable. For dichotomous variables, counts of individuals earning a value of “1” are displayed in parentheses.

Table S2. Re-Analysis of Table 1, with Partisan Identification

| | Wave One | | Wave Two | | Summary | | Sum. + Covar. | |
|-------------------------------|-----------|-------------|-----------|-------------|---------|----------|---------------|----------|
| | Democrats | Republicans | Democrats | Republicans | D-I-D | <i>p</i> | D-I-D | <i>p</i> |
| Scientist FT | 0.83 | 0.69 | 0.86 | 0.68 | 0.04 | < 0.10 | 0.03 | n.s. |
| Intellectual FT | 0.78 | 0.68 | 0.80 | 0.64 | 0.06 | < 0.05 | 0.06 | < 0.05 |
| Coll. Prof. FT | 0.76 | 0.56 | 0.76 | 0.54 | 0.02 | n.s. | 0.02 | n.s. |
| Index | 0.79 | 0.64 | 0.81 | 0.62 | 0.04 | < 0.05 | 0.04 | < 0.05 |
| Sci. Care About Personal Gain | 0.27 | 0.36 | 0.21 | 0.44 | 0.14 | < 0.05 | 0.14 | < 0.05 |
| Experts are Untrustworthy | 0.25 | 0.39 | 0.23 | 0.42 | 0.05 | < 0.10 | 0.05 | n.s. |
| Index | 0.26 | 0.37 | 0.22 | 0.43 | 0.09 | < 0.05 | 0.09 | < 0.05 |
| Research is Pol. Motivated | 0.28 | 0.50 | 0.26 | 0.50 | 0.01 | n.s. | 0.01 | n.s. |
| Can't Trust Sci. Research | 0.20 | 0.36 | 0.18 | 0.37 | 0.03 | n.s. | 0.04 | n.s. |
| Index | 0.24 | 0.43 | 0.22 | 0.43 | 0.02 | n.s. | 0.02 | n.s. |

N = 286 (Independents excluded; Democratic N = 188, Republican N = 98).

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Note: Multivariate difference-in-difference tests calculated using the DIFF package in Stata 13. Models are run first without controls, and then re-estimated controlling for respondents' gender, race, age, income, interest in politics, and educational attainment. Rows 1-3 are feeling thermometers toward "scientists," "intellectuals," and "college professors," respectively (Row 4 Index $\alpha = 0.85$). Rows 5-6 ask respondents to agree or disagree [1 = Strongly Disagree, 5 = Strongly Agree] with the following statements; (1) "Scientists care less about solving important problems than their own personal gain," (2) "Most experts are untrustworthy." (Row 7 Index $\alpha = 0.76$). Rows 8-9 again ask respondents to agree or disagree with the following: (1) "Most scientific research is politically motivated" and (1) "You simply can't trust most scientific research." (Row 10 Index $\alpha = 0.80$) All variables are scaled to range from 0-1.

Table S3. Re-Analysis of Table 1, with Moderates

| | Wave One | | Wave Two | | Summary | | Sum. + Covar. | |
|-------------------------------|----------|-----------|----------|-----------|---------|----------|---------------|----------|
| | Liberals | Moderates | Liberals | Moderates | D-I-D | <i>p</i> | D-I-D | <i>p</i> |
| Scientist FT | 0.82 | 0.75 | 0.86 | 0.70 | 0.08 | < 0.05 | 0.06 | < 0.05 |
| Intellectual FT | 0.77 | 0.67 | 0.80 | 0.66 | 0.08 | < 0.05 | 0.08 | < 0.05 |
| Coll. Prof. FT | 0.74 | 0.68 | 0.75 | 0.62 | 0.07 | < 0.05 | 0.03 | n.s. |
| Index | 0.78 | 0.71 | 0.80 | 0.66 | 0.07 | < 0.05 | 0.05 | < 0.05 |
| Sci. Care About Personal Gain | 0.26 | 0.30 | 0.20 | 0.31 | 0.08 | < 0.05 | 0.06 | < 0.10 |
| Experts are Untrustworthy | 0.27 | 0.33 | 0.22 | 0.37 | 0.08 | < 0.05 | 0.05 | n.s. |
| Index | 0.26 | 0.32 | 0.21 | 0.35 | 0.07 | < 0.05 | 0.06 | = 0.05 |
| Research is Pol. Motivated | 0.28 | 0.36 | 0.25 | 0.39 | 0.06 | < 0.10 | 0.07 | < 0.05 |
| Can't Trust Sci. Research | 0.20 | 0.29 | 0.17 | 0.31 | 0.04 | n.s. | 0.05 | n.s. |
| Index | 0.28 | 0.36 | 0.25 | 0.39 | 0.06 | < 0.10 | 0.06 | < 0.05 |

N = 271 (Conservatives excluded; Liberal N = 182, Moderate N = 75).

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Note: Multivariate difference-in-difference tests calculated using the DIFF package in Stata 13. Models are run first without controls, and then re-estimated controlling for respondents' gender, race, age, income, interest in politics, and educational attainment. Rows 1-3 are feeling thermometers toward "scientists," "intellectuals," and "college professors," respectively (Row 4 Index $\alpha = 0.85$). Rows 5-6 ask respondents to agree or disagree [1 = Strongly Disagree, 5 = Strongly Agree] with the following statements; (1) "Scientists care less about solving important problems than their own personal gain," (2) "Most experts are untrustworthy." (Row 7 Index $\alpha = 0.76$). Rows 8-9 again ask respondents to agree or disagree with the following: (1) "Most scientific research is politically motivated" and (1) "You simply can't trust most scientific research." (Row 10 Index $\alpha = 0.80$) All variables are scaled to range from 0-1.

Table S4. Differential Attrition Tests

| Outcome | <i>t</i> | <i>p</i> (two-tailed) | Outcome |
|---------------------------|----------|-----------------------|---------------|
| Scientist FT | 0.63 | > 0.10 | No Difference |
| Prof. FT | 1.53 | < 0.10 | Marginal |
| Intel. FT | 1.14 | > 0.10 | No Difference |
| Personal Gain | -0.31 | > 0.10 | No Difference |
| Experts Untrust. | -0.44 | > 0.10 | No Difference |
| Research Pol. Motivated | 0.14 | > 0.10 | No Difference |
| Can't Trust Sci. Research | -0.91 | > 0.10 | No Difference |
| Conservatism | 0.77 | > 0.10 | No Diff. |

Note: Means comparison tests; subtracting average scores from those who took both waves to those who took only Wave 1. The final column summarizes the result of the differential attrition check. There are *no significant differences* at the $p < 0.05$ level, two tailed.

Table S5. Non-equivalent Dependent Variable Tests

| | Wave One | | Wave Two | | Summary | | Sum. + Covar. | |
|--------------|----------|---------------|----------|---------------|---------|----------|---------------|----------|
| | Liberals | Conservatives | Liberals | Conservatives | D-I-D | <i>p</i> | D-I-D | <i>p</i> |
| Muslim FT | 0.60 | 0.39 | 0.63 | 0.43 | 0.02 | > 0.10 | 0.02 | > 0.10 |
| Immigrant FT | 0.68 | 0.50 | 0.68 | 0.52 | 0.02 | > 0.10 | 0.02 | > 0.10 |

N = 271 (Moderates excluded; Liberal N = 182, Conservative N = 89).

Note: Multivariate difference-in-difference tests calculated using the `DIFF` package in Stata 13. Models are run first without controls, and then re-estimated controlling for respondents' gender, race, age, income, interest in politics, and educational attainment. Rows 1-2 are feeling thermometers toward "Muslims" and "Immigrants."