**Monitoring the Economy**

**Supplementary Appendices**

**Appendix A.**

This appendix examines the individual-level attributes associated with the dependent variable, *Information Heard.*

**Appendix B.**

This appendix shows the regression model that interacts economic variables with education as discussed in the text.

**Appendix C.**

This appendix discusses the News-Based Policy Index variable.

**Appendix D.**

This appendix describes the control variables in detail.

**Appendix E.**

This appendix includes six tables that replicate findings from Table 1 and Table B1.

Table E1. Replication of Model 1a by administration.

Table E2. Replication of Model 1a with interactions between race and gender and different administrations.

Table E3. Replication of Table 1 with Average News Heard from the previous month.

Table E4. Replication of Table 1 with 6-Month Group Intervals.

Table E5. Replication of Table 1 with First Wave Respondents.

Table E6. Replication of Table B1 without personal finances.

**Appendix F.**

This appendix discusses the results of short-term effects in greater detail.

**Appendix G.**

This appendix provides a mediation analysis to examine the degree to disentangle the direct effect of unemployment on monitoring from the indirect effect of unemployment through the media on monitoring.

**Appendix H.**

This appendix examines the models when we include GDP.

**References**

**Appendix A. Individual-level covariates.**

Table A1 presents predicted probabilities of recalling 0, 1, and 2 changes in business conditions from the ordered logistic models in Table B1.[[1]](#footnote-1) (We reserve full consideration of the estimation model and other results for the Findings section below.) The relationships mirror those from existing political knowledge studies. Education is by far the strongest covariate. (Note, however, that *all* within category differences are statistically significant, *p<0.01*.) On average, individuals who complete college are almost twice as likely to recall something about the economy as are those who do not finish high school.[[2]](#footnote-2) Including respondent age and age-squared reveals the same curvilinear relationship to *Information Heard* as with other knowledge and sophistication measures: middle-aged respondents are the most voracious news consumers. Income, race, and gender matter as well, but as with findings elsewhere, they exhibit a weaker association.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Prob heard 0 | Prob heard 1 | Prob heard 2 |
| *Education* Incomplete high school High school, no college College degree | 0.600.440.28 | 0.230.280.28 | 0.170.280.45 |
| *Age* 20 50 80 | 0.550.340.53 | 0.250.280.25 | 0.200.380.22 |
| *Income* (per person in household) 10,000 20,000 (mean) 40,000 | 0.430.370.32 | 0.270.280.28 | 0.300.350.40 |
| *Male*Female | 0.370.43 | 0.280.27 | 0.350.30 |
| *White*Non-white | 0.390.48 | 0.280.26 | 0.330.26 |

**Table A1. The predicted probability of hearing 0, 1, or 2 stories for varying individual covariates.** (*Note*: All within-category differences are statistically significant, *p<0.01.*)

**Appendix B. Interacting Education with the Economy.**

Table B1. Ordinal logistic multilevel models with interactions between unemployment and education.

|  |  |
| --- | --- |
|  | Model B1 |
| Education | 0.29\*\*\* |
|  | (0.03) |
| Age | 0.07\*\*\* |
|  | (0.002) |
| Age squared | -.0007\*\*\* |
|  | (0.00002) |
| Mean Income FM (k) | 0.005\*\*\* |
|  | (0.0003) |
| Male | 0.16\*\*\* |
|  | (0.01) |
| White | 0.19\*\*\* |
|  | (0.02) |
| Unemployment Rate | 0.10\*\*\* |
|  | (0.02) |
| UR abs % Δ | 0.01\*\*\* |
|  | (0.002) |
| UR Neg | -0.08 |
|  | (0.08) |
| UR abs % Δ \* Neg | -0.01\*\*\* |
|  | (0.01) |
| CPI % Δ | 0.01 |
|  | (0.01) |
| DJI % Δ | -0.002\*\* |
|  | (0.001) |
| Finances Better | -0.02\*\* |
|  | (0.01) |
| Pres Approval | -0.01\*\*\* |
|  | (0.001) |
| Campaign (6) | -0.05 |
|  | (0.04) |
| Same Admin (6) | 0.01 |
|  | (0.05) |
| New Admin, Same Pty (6) | 0.08 |
|  | (0.09) |
| New Party Admin (6) | 0.18\*\*\* |
|  | (0.05) |
| Crisis (6) | 0.11\*\*\* |
|  | (0.04) |
| Time | -.0005\*\*\* |
|  | (0.0001) |
| News-Based Policy Index | 0.002\*\* |
|  | (0.001) |
| UR \* Education | 0.01\*\* |
|  | (0.003) |
| UR abs % Δ \* Education | 0.0003 |
|  | (0.0005) |
| UR Neg \* Education | -0.01 |
|  | (0.02) |
| UR abs%Δ \* UR Neg \* Educ  | 0.002\*\* |
| News-Based Policy \* Educ | (0.001)0.00003(0.0002) |
| Cutpoint 1 | 3.45\*\*\* |
|  | (0.17) |
| Cutpoint 2 | 4.69\*\*\* |
|  | (0.18) |
| Month variance | 0.03\*\*\* |
|  | (0.003) |
| Number of IndividualsNumber of Months | 84206402 |

A (6) indicates that the variable took on the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Appendix C. Discussion of News-Based Policy Index.**

The Economic Policy Uncertainty group used five newspapers when constructing the index from 1900-1984. An additional four papers were added to the (standardized) index after 1984. All of the results below are robust to using the historical data or only the 1985 and later data. For the variable’s full description, see [http://www.policyuncertainty.com](http://www.policyuncertainty.com/). Because newspaper readership varies by education, we also counted references to “unemployment,” “inflation,” or “recession,” in transcripts of national nightly news programs on *ABC*, *CBS*, and *NBC* using Vanderbilt University’s Television News Archive, as well as first-section stories mentioning any of these terms in the *Chicago Tribune, Los Angeles Times, New York Times,* and *St. Petersburg Times* using Google News Archive. We found the number of television and print stories to be highly correlated, regardless of source. Moreover, in subsequent analyses, we found no significant interactions between media type (television or print), education, and the economy. In addition, the Pew Project for Excellence in Journalism has exhaustively coded newspaper, television, radio, and internet content from January of 2007 through the end of our series in 2013. We compared the television and print measures of unemployment news with those from Pew, and found correlations between 0.47 and 0.67. While the Surveys of Consumers data does not allow us to identify which respondents followed what, if any, news source, we can say with relative assurance that coverage of the economy is similar between nightly broadcast and mainstream first-section print news. Thus, we stick with the *News-Based Policy Index* to capture news specifically about economic uncertainty. While it is beyond the scope of the current paper, future research may also examine how the *tone* of economic news shapes *Information Heard.*

**Appendix D. Control Variables.**

We include several substantively interesting control variables in addition to the socio-demographic covariates in Table 1. Deteriorating finances may cue individuals to pay closer attention, irrespective of the broader economy (Holbrook and Garand 1996), and we include responses to the Surveys’ standard personal finances question. *Finances better* takes on three values according to whether a respondent reports worsening, unchanging, or improving finances. This variable allows us to confirm that differences (if they exist) across education groups do not simply reflect one’s personal economic position.

*Presidential Approval* is scored as the percent of individuals approving of the president’s job performance in the earliest Gallup survey that month. Public opinion running against the administration may breed uncertainty in ways that are both independent and related to the economic environment. We include this control variable to isolate the direct effect of economic uncertainty on monitoring. If public opinion increases monitoring independent of the economy, this variable should have a negative coefficient.

A variable missing in the Surveys of Consumers but associated with economic evaluations is partisanship (Bartels 2002; Enns, Kellstedt, and McAvoy 2012; Evans and Anderson 2006; Gerber and Huber 2010). Uncertainty stemming from a lack of confidence in the administration’s management of the economy may prompt individuals – especially those identifying with the opposition – to pay closer attention (Enns, Kellstedt, and McAvoy 2012). To account for this as best we can, we performed three tests. First, we interacted the political administration variables with demographic indicators associated with party identification: gender and race. This exercise generated no significant shifts in *Information Heard* across groups. Second, we reran the models using change scores in *Information Heard*. Recall that the Surveys include a rotating two-wave panel. The substantive results from this within-subject test remain virtually identical for all of the hypothesized relationships.[[3]](#footnote-3) Third, we ran separate models by each presidential administration and saw no consistent difference between Democratic and Republican administrations. (See the Supplementary Appendix for additional models not shown below.)[[4]](#footnote-4)

In addition, *Time*, a monthly count variable, is included to pick up autocorrelation in *Information Heard* not captured elsewhere.[[5]](#footnote-5)

**Appendix E. Replications.**

Table E1. Replication of Model 1a by administration.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Reagan | BushI | Clinton |
| Education | 0.33\*\*\* | 0.38\*\*\* | 0.37\*\*\* |
|  | (0.01) | (0.02) | (0.01) |
| Age | 0.07\*\*\* | 0.08\*\*\* | 0.10\*\*\* |
|  | (0.004) | (0.01) | (0.01) |
| Age squared | -0.001\*\*\* | -0.001\*\*\* | -0.001\*\*\* |
|  | (0.0004) | (0.0001) | (0.0001) |
| Mean Income FM (k) | 0.01\*\*\* | 0.005\*\*\* | 0.004\*\*\* |
|  | (0.001) | (0.001) | (0.001) |
| Male | 0.20\*\*\* | 0.18\*\*\* | 0.18\*\*\* |
|  | (0.02) | (0.04) | (0.03) |
| White | 0.30\*\*\* | 0.19\*\*\* | 0.12\*\*\* |
|  | (0.04) | (0.06) | (0.04) |
| Unemployment Rate | 0.07\* | 0.29 | 0.24\*\* |
|  | (0.03) | (0.18) | (0.10) |
| UR abs % change | 0.01\*\*\* | 0.02\*\* | 0.02\*\* |
|  | (0.002) | (0.01) | (0.01) |
| UR Neg | 0.06 | 0.12 | 0.02 |
|  | (0.06) | (0.14) | (0.07) |
| CPI % change | -0.03\*\* | 0.02 | 0.03 |
|  | (0.02) | (0.07) | (0.04) |
| DJI % change | 0.003\*\*\* | -0.003 | -0.0001 |
|  | (0.001) | (0.002) | (0.002) |
| Finances Better | 0.01 | -0.05\* | -0.02 |
|  | (0.02) | (0.03) | (0.02) |
| Pres Approval | -0.01\*\* | 0.004 | 0.01\*\*\* |
|  | (0.003) | (0.004) | (0.004) |
| Crisis (6) | 0.79\*\*\* | -0.01 | -0.05 |
|  | (0.17) | (0.15) | (0.06) |
| Campaign (6) | -0.01 | -0.13 | -0.12\*\* |
|  | (0.07) | (0.11) | (0.06) |
| UR Absch \* Neg | -0.002 | -0.01 | -0.01 |
|  | (0.003) | (0.01) | (0.01) |
| Month Indicator | -0.01\*\*\* | -0.001 | -0.005 |
|  | (0.001) | (0.01) | (0.004) |
| News-Based Pol Indx | 0.003\*\* | 0.002 | 0.003\*\*\* |
|  | (0.001) | (0.002) | (0.001) |
| Cutpoint 1 | 2.40\*\*\* | 5.43\*\*\* | 5.24\*\*\* |
|  | (0.61) | (0.79) | (1.62) |
| Cutopoint 2 | 3.63\*\*\* | 6.73\*\*\* | 6.47\*\*\* |
|  | (0.61) | (0.79) | (1.62) |
| Month variance | 0.02\*\*\* | 0.01\* | 0.01\*\* |
|  | (0.004) | (0.01) | (0.004) |
| Number of IndividualsNumber of Months | 2535296 | 954048 | 1827496 |

A (6) indicates that the indicator variable took on the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table E1 (cont). Replication of Model 1a by administration.

|  |  |  |
| --- | --- | --- |
|  | BushII | Obama |
| Education | 0.35\*\*\* | 0.38\*\*\* |
|  | (0.01) | (0.02) |
| Age | 0.08\*\*\* | 0.08\*\*\* |
|  | (0.01) | (0.01) |
| Age squared | -0.001\*\*\* | -0.001\*\*\* |
|  | (0.00005) | (0.0001) |
| Mean Income FM (k) | 0.004\*\*\* | 0.005\*\*\* |
|  | (0.0005) | (0.001) |
| Male | 0.17\*\*\* | -0.0001 |
|  | (0.03) | (0.04) |
| White | 0.15\*\*\* | 0.09\* |
|  | (0.04) | (0.05) |
| Unemployment Rate | 0.13\*\*\* | 0.01 |
|  | (0.04) | (0.03) |
| UR abs % change | 0.02\*\*\* | 0.01\*\*\* |
|  | (0.002) | (0.002) |
| UR Neg | -0.09 | -0.09 |
|  | (0.08) | (0.10) |
| CPI % change | 0.03 | -0.01 |
|  | (0.02) | (0.01) |
| DJI % change | -0.003 | -0.001 |
|  | (0.002) | (0.002) |
| Finances Better | -0.04\*\* | -0.02 |
|  | (0.02) | (0.02) |
| Pres Approval | 0.001 | -0.01\*\*\* |
|  | (0.004) | (0.004) |
| Crisis (6) | 0.03 | -0.33\* |
|  | (0.06) | (0.18) |
| Campaign (6) | -0.13\* | -0.19\*\*\* |
|  | (0.07) | (0.07) |
| UR Absch \* Neg | -0.01\* | -0.01 |
|  | (0.01) | (0.01) |
| Month Indicator | 0.004\*\* | 0.0004 |
|  | (0.002) | (0.003) |
| News-Based Historical Economic Policy Uncertainty | 0.001 | 0.00002 |
|  | (0.001) | (0.001) |
| Cutpoint 1 | 5.43\*\*\* | 2.86\*\*\* |
|  | (0.62) | (0.99) |
| Cutpoint 2 | 6.82\*\*\* | 3.91\*\*\* |
|  | (0.62) | (0.99) |
| Month variance | 0.01\*\*\* | 0.01 |
|  | (0.005) | (0.004) |
| Number of IndividualsNumber of Months | 1805796 | 1232364 |

A (6) indicates that the indicator variable took on the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table E2. Replication of Model 1a with interactions between race and gender and different administrations.

|  |  |  |
| --- | --- | --- |
|  | Separate Admin | Democ Admin |
| Education | 0.36\*\*\* | 0.36\*\*\* |
|  | (0.01) | (0.01) |
| Age | 0.07\*\*\* | 0.07\*\*\* |
|  | (0.002) | (0.002) |
| Age squared | -0.0007\*\*\* | -0.0007\*\*\* |
|  | (0.00002) | (0.00002) |
| Mean Income FM (k) | 0.005\*\*\* | 0.005\*\*\* |
|  | (0.0003) | (0.0003) |
| Male | 0.27 | 0.17\*\*\* |
|  | (0.12) | (0.02) |
| White | 0.23\*\* | 0.22\*\*\* |
|  | (0.18) | (0.02) |
| Unemployment Rate | 0.17\*\*\* | 0.15\*\*\* |
|  | (0.02) | (0.008) |
| UR abs % Δ | 0.01\*\*\* | 0.01\*\*\* |
|  | (0.001) | (0.001) |
| UR Neg | -0.04\*\* | -0.08\*\* |
|  | (0.04) | (0.04) |
| UR abs % Δ \* Neg | -0.004\* | -0.007\*\*\* |
|  | (0.002) | (0.003) |
| CPI % Δ | -0.008 | 0.01\*\* |
|  | (0.006) | (0.01) |
| DJI % Δ | -0.003\*\*\* | -0.002\*\*\* |
|  | (0.0006) | (0.0006) |
| Finances Better | -0.02\*\* | -0.02\*\* |
|  | (0.01) | (0.008) |
| Pres Approval | -0.004\*\*\* | -0.005\*\*\* |
|  | (0.001) | (0.001) |
| Crisis (6) | 0.12\*\*\* | 0.11\*\* |
|  | (0.03) | (0.04) |
| Campaign (6) | -0.06\* | -0.05 |
|  | (0.03) | (0.03) |
| Carter | -0.11 |  |
|  | (0.24) |  |
| Carter \* Male | 0.28\*\* |  |
|  | (0.14) |  |
| Carter \* White | 0.14 |  |
|  | (0.2) |  |
| Reagan | -0.33 |  |
|  | 0.2 |  |
| Reagan \* White | 0.06 |  |
|  | (0.18) |  |
| Reagan \* Male | 0.18 |  |
|  | (0.12) |  |
| Bush I | -0.09 |  |
|  | (0.2) |  |
| Bush I \* White | -0.05 |  |
|  | (0.19) |  |
| Bush I \* Male | 0.14 |  |
|  | (0.13) |  |
| Clinton | -0.25 |  |
|  | (0.2) |  |
| Clinton \* White | -0.16 |  |
|  | (0.18) |  |
| Clinton \* Male | 0.19 |  |
|  | (0.12) |  |
| Bush II  | -0.004 |  |
|  | (0.2) |  |
| Bush II \* White | -0.06 |  |
|  | (0.18) |  |
| Obama | -0.24 |  |
|  | (0.24) |  |
| Obama \* White | -0.05 |  |
|  | (0.19) |  |
| Obama \* Male | -0.16 |  |
|  | 0.13 |  |
| Democratic Admin |  | -0.08\* |
|  |  | (0.04) |
| Democ Admin \* Male |  | -0.006\*\*\* |
|  |  | (0.02) |
| Democ Admin \* White |  | -0.08\*\* |
|  |  | (0.04) |
| Time | -0.0003 | 0.00004 |
|  | (0.0006) | (0.0001) |
| Cutpoint 1 |  | 3.84\*\*\* |
|  |  | (0.13) |
| Cutpoint 2 |  | 5.08\*\*\* |
|  |  | (0.13) |
| Month variance |  | 0.03 |
|  |  | 0.003 |
| Number of IndividualsNumber of Months | 84206402 | 84206402 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table E3. Replication of Table 1 with Average News Heard from the previous month.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model E3a | Model E3b | Model E3c |
| Education | 0.36\*\*\* | 0.36\*\*\* | 0.36\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| Age | 0.07\*\*\* | 0.07\*\*\* | 0.07\*\*\* |
|  | (0.002) | (0.002) | (0.002) |
| Age squared | -0.0007\*\*\* | -0.0007\*\*\* | -0.0007\*\*\* |
|  | (0.00002) | (0.00002) | (0.00002) |
| Mean Income FM (k) | 0.004\*\*\* | 0.004\*\*\* | 0.004\*\*\* |
|  | (0.0003) | (0.0003) | (0.0003) |
| Male | 0.16\*\*\* | 0.16\*\*\* | 0.16\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| White | 0.19\*\*\* | 0.19\*\*\* | 0.19\*\*\* |
|  | (0.02) | (0.02) | (0.019) |
| Unemployment Rate | 0.1\*\*\* | 0.09\*\*\* | 0.1\*\*\* |
|  | (0.009) | (0.009) | (0.009) |
| UR abs % change | 0.01\*\*\* | 0.006\*\*\* | 0.01\*\*\* |
|  | (0.001) | (0.001) | (0.001) |
| UR Neg | -0.12\*\*\* | -0.11\*\*\* | -0.12\*\*\* |
|  | (0.04) | (0.04) | (0.04) |
| UR Absch \* Neg | -0.0004 | 0.000005 | 0.0002 |
|  | (0.002) | (0.002) | (0.002) |
| CPI % change | 0.02\*\*\* | 0.02\*\*\* | 0.02\*\*\* |
|  | (0.004) | (0.004) | (0.004) |
| DJI % change | -0.002\*\*\* | -0.001\* | -0.0009 |
|  | (0.0005) | (0.0006) | (0.0006) |
| Average News Heard Last Month | 0.94\*\*\* | 0.91\*\*\* | 0.84\*\*\* |
|  | (0.1) | (0.1) | (0.1) |
| Finances Better | -0.014\* | -0.01\* | -0.01\* |
|  | (0.008) | (0.008) | (0.008) |
| Pres Approval | -0.002 | -0.002\* | -0.003\*\* |
|  | (0.001) | (0.001) | (0.001) |
| Campaign (6) | -0.03 | -0.03 | -0.02 |
|  | (0.03) | (0.03) | (0.03) |
| Same Admin (6) | 0.007 | 0.008 | 0.006 |
|  | (0.05) | (0.05) | (0.04) |
| New Admin, Same Pty (6) | 0.13 | 0.12 | 0.13 |
|  | (0.09) | (0.08) | (0.08) |
| New Party Admin (6) | 0.11\*\* | 0.13\*\*\* | 0.16\*\*\* |
|  | (0.05) | (0.05) | (0.05) |
| Crisis (6) | 0.07\*\* | 0.06\* |  |
|  | (0.03) | (0.03) |  |
| News-Based Historical Economic Policy Uncertainty |  | 0.0007\*\* | 0.0005 |
|  |  | (0.0003) | (0.0003) |
| Crash 1987 |  |  | 0.19\*\* |
|  |  |  | (0.09) |
| Gulf war |  |  | 0.2\*\* |
|  |  |  | (0.09) |
| WTC 93 |  |  | -0.01 |
|  |  |  | (0.09) |
| WTC 9/11 |  |  | 0.28\*\*\* |
|  |  |  | (0.1) |
| Iraq |  |  | -0.07 |
|  |  |  | (0.09) |
| Katrina |  |  | 0.03 |
|  |  |  | (0.09) |
| Liquidity Crisis |  |  | 0.13 |
|  |  |  | (0.09) |
| Cutpoint 1 | 4.5\*\*\* | 4.54\*\*\* | 4.43\*\*\* |
|  | (0.13) | (0.13) | (0.13) |
| Cutpoint 2 | 5.74\*\*\* | 5.78\*\*\* | 5.68\*\*\* |
|  | (0.13) | (0.13) | (0.13) |
| Month variance | 0.02\*\*\* | 0.02\*\*\* | 0.02\*\*\* |
|  | (0.003) | (0.003) | (0.003) |
| Number of IndividualsNumber of Months | 83918402 | 83918402 | 83918402 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table E4. Replication of Table 1 with 6-Month Group Intervals

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model E4a | Model E4b | Model E4c |
| Education | 0.36\*\*\* | 0.36\*\*\* | 0.36\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| Age | 0.07\*\*\* | 0.07\*\*\* | 0.07\*\*\* |
|  | (0.002) | (0.002) | (0.002) |
| Age squared | -0.0007\*\*\* | -0.0007\*\*\* | -0.0007\*\*\* |
|  | (0.00002) | (0.00002) | (0.00002) |
| Mean Income FM (k) | 0.005\*\*\* | 0.005\*\*\* | 0.005\*\*\* |
|  | (0.0003) | (0.0003) | (0.0003) |
| Male | 0.16\*\*\* | 0.16\*\*\* | 0.16\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| White | 0.19\*\*\* | 0.19\*\*\* | 0.19\*\*\* |
|  | (0.02) | (0.02) | (0.02) |
| Unemployment Rate | 0.15\*\*\* | 0.13\*\*\* | 0.14\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| UR abs % change | 0.01\*\*\* | 0.01\*\*\* | 0.01\*\*\* |
|  | (0.001) | (0.001) | (0.001) |
| UR Neg | -0.06 | -0.07\* | -0.07\* |
|  | (0.04) | (0.04) | (0.04) |
| UR Absch \* Neg | -0.01\*\*\* | -0.01\*\*\* | -0.01\*\* |
|  | (0.003) | (0.003) | (0.003) |
| CPI % change | 0.01 | 0.01 | 0.01 |
|  | (0.01) | (0.01) | (0.01) |
| DJI % change | -0.003\*\*\* | -0.002\*\*\* | -0.002\*\* |
|  | (0.001) | (0.0007) | (0.001) |
| Finances Better | -0.02\*\* | -0.02\*\* | -0.02\*\* |
|  | (0.01) | (0.01) | (0.01) |
| Pres Approval | -0.004\*\*\* | -0.01\*\*\* | -0.01\*\*\* |
|  | (0.001) | (0.001) | (0.001) |
| Campaign (6) | -0.08 | -0.08 | -0.05 |
|  | (0.06) | (0.05) | (0.06) |
| Same Admin (6) | -0.02 | -0.01 | -0.02 |
|  | (0.08) | (0.08) | (0.08) |
| New Admin, Same Pty (6) | 0.06 | 0.05 | 0.05 |
|  | (0.16) | (0.15) | (0.15) |
| New Party Admin (6) | 0.14\* | 0.18\*\* | 0.24\*\*\* |
|  | (0.08) | (0.08) | (0.08) |
| crisis\_6 | 0.10\*\*\* | 0.12\*\*\* |  |
|  | (0.04) | (0.04) |  |
| Time | -0.00 | -0.00\*\*\* | -0.001\*\* |
|  | (0.00) | (0.00) | (0.0002) |
| News-Based Historical Economic Policy Uncertainty |  | 0.002\*\*\* | 0.001\*\*\* |
|  |  | (0.0004) | (0.0004) |
| Crash 1987 |  |  | 0.28\*\* |
|  |  |  | (0.12) |
| Gulf war |  |  | 0.12 |
|  |  |  | (0.10) |
| WTC 93 |  |  | -0.13 |
|  |  |  | (0.10) |
| WTC 9/11 |  |  | 0.44\*\*\* |
|  |  |  | (0.11) |
| Iraq |  |  | -0.02 |
|  |  |  | (0.10) |
| Katrina |  |  | 0.16 |
|  |  |  | (0.10) |
| Liquidity Crisis |  |  | 0.10 |
|  |  |  | (0.10) |
| Cutpoint 1 | 3.75\*\*\* | 3.78\*\*\* | 3.72\*\*\* |
|  | (0.17) | (0.16) | (0.16) |
| Cutpoint 2 | 5.00\*\*\* | 5.03\*\*\* | 4.96\*\*\* |
|  | (0.17) | (0.16) | (0.16) |
| Six month variance | 0.02\*\*\* | 0.01\*\*\* | 0.02\*\*\* |
|  | (0.004) | (0.004) | (0.004) |
| Month variance | 0.02\*\*\* | 0.02\*\*\* | 0.01\*\*\* |
|  | (0.003) | (0.003) | (0.003) |
| Number of IndividualsNumber of MonthsNumber of 6-months | 8420640267 | 8420640267 | 8420640267 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table E5. Replication of Table 1 with First Wave Respondents.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model E5a | Model E5b | Model E5c |
| Education | 0.37\*\*\* | 0.37\*\*\* | 0.37\*\*\* |
|  | (0.005) | (0.005) | (0.005) |
| Age | 0.07\*\*\* | 0.07\*\*\* | 0.07\*\*\* |
|  | (0.002) | (0.002) | (0.002) |
| Age squared | -0.0007\*\*\* | -0.0007\*\*\* | -0.0007\*\*\* |
|  | (0.00002) | (0.00002) | (0.00002) |
| Mean Income FM (k) | 0.004\*\*\* | 0.004\*\*\* | 0.004\*\*\* |
|  | (0.0003) | (0.0003) | (0.0003) |
| Male | 0.18\*\*\* | 0.18\*\*\* | 0.18\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| White | 0.20\*\*\* | 0.20\*\*\* | 0.20\*\*\* |
|  | (0.02) | (0.02) | (0.02) |
| Unemployment Rate | 0.15\*\*\* | 0.13\*\*\* | 0.13\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| UR abs % change | 0.01\*\*\* | 0.01\*\*\* | 0.01\*\*\* |
|  | (0.001) | (0.001) | (0.001) |
| UR Neg | -0.14\*\*\* | -0.13\*\*\* | -0.15\*\*\* |
|  | (0.03) | (0.03) | (0.03) |
| UR Absch \* Neg | -0.004\* | -0.004\* | -0.003 |
|  | (0.002) | (0.002) | (0.002) |
| CPI % change | 0.01\* | 0.01 | 0.01 |
|  | (0.004) | (0.004) | (0.004) |
| DJI % change | -0.002\*\*\* | -0.002\*\*\* | -0.002\*\*\* |
|  | (0.001) | (0.001) | (0.0005) |
| Finances Better | -0.02\*\*\* | -0.02\*\*\* | -0.02\*\*\* |
|  | (0.01) | (0.01) | (0.01) |
| Pres Approval | -0.01\*\*\* | -0.01\*\*\* | -0.01\*\*\* |
|  | (0.001) | (0.001) | (0.001) |
| Campaign (6) | -0.04 | -0.05 | -0.04 |
|  | (0.03) | (0.03) | (0.03) |
| Same Admin (6) | 0.02 | 0.02 | 0.02 |
|  | (0.04) | (0.04) | (0.04) |
| New Admin, Same Pty (6) | 0.17\*\* | 0.16\* | 0.16\*\* |
|  | (0.08) | (0.08) | (0.08) |
| New Party Admin (6) | 0.08\* | 0.10\*\* | 0.10\*\* |
|  | (0.04) | (0.04) | (0.04) |
| Crisis (6) | 0.07\*\* | 0.05\* |  |
|  | (0.03) | (0.03) |  |
| Time | -0.0001 | -0.0003\*\* | -0.0003\*\* |
|  | (0.0001) | (0.0001) | (0.0001) |
| News-Based Historical Economic Policy Uncertainty |  | 0.002\*\*\* | 0.001\*\*\* |
|  |  | (0.0003) | (0.0003) |
| Crash 1987 |  |  | 0.01 |
|  |  |  | (0.08) |
| Gulf War |  |  | 0.11 |
|  |  |  | (0.08) |
| WTC 93 |  |  | 0.17\*\* |
|  |  |  | (0.08) |
| WTC 9/11 |  |  | 0.24\*\*\* |
|  |  |  | (0.09) |
| Iraq |  |  | -0.10 |
|  |  |  | (0.08) |
| Katrina |  |  | 0.10 |
|  |  |  | (0.08) |
| Liquidity Crisis |  |  | 0.09 |
|  |  |  | (0.08) |
| Cutpoint 1 | 3.77\*\*\* | 3.80\*\*\* | 3.76\*\*\* |
|  | (0.11) | (0.11) | (0.11) |
| Cutpoint 2 | 4.97\*\*\* | 5.00\*\*\* | 4.96\*\*\* |
|  | (0.11) | (0.11) | (0.11) |
| Month variance | 0.02\*\*\* | 0.02\*\*\* | 0.02\*\*\* |
|  | (0.003) | (0.002) | (0.002) |
| Number of IndividualsNumber of Months | 113730402 | 113730402 | 113730402 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

Table E6. Replication of Table B1 without Personal Finances.

|  |  |  |
| --- | --- | --- |
|  | Model E6a |  |
| Education | 0.29\*\*\* |  |
|  | (0.03) |  |
| Age | 0.07\*\*\* |  |
|  | (0.002) |  |
| Age squared | -0.0007\*\*\* |  |
|  | (0.002) |  |
| Mean Income FM (k) | 0.005\*\*\* |  |
|  | (0.003) |  |
| Male | 0.16\*\*\* |  |
|  | (0.01) |  |
| White | 0.19\*\*\* |  |
|  | (0.02) |  |
| Unemployment Rate | 0.10\*\*\* |  |
|  | (0.02) |  |
| UR abs % change | 0.01\*\*\* |  |
|  | (0.002) |  |
| UR Neg | -0.08 |  |
|  | (0.08) |  |
| UR Absch \* Neg | -0.01\*\*\* |  |
|  | (0.01) |  |
| CPI % change | 0.01 |  |
|  | (0.01) |  |
| DJI % change | -0.002\*\* |  |
|  | (0.0006) |  |
| Unemployment Rate # Educ | 0.01\*\* |  |
|  | (0.003) |  |
| UR abs % change # Education | 0.0003 |  |
|  | (0.0005) |  |
| UR neg # Education | -0.01 |  |
|  | (0.02) |  |
| UR abs % # UR neg # Educ  | 0.002\*\* |  |
|  | (0.001) |  |
| Pres Approval | -0.01\*\*\* |  |
|  | (0.001) |  |
| Campaign (6) | -0.05 |  |
|  | (0.04) |  |
| Same Admin (6) | 0.01 |  |
|  | (0.05) |  |
| New Admin, Same Pty (6) | 0.08 |  |
|  | (0.09) |  |
| New Party Admin (6) | 0.19\*\*\* |  |
|  | (0.05) |  |
| Crisis (6) | 0.11\*\*\* |  |
|  | (0.04) |  |
| Time | -0.0005\*\*\* |  |
|  | (0.0001) |  |
| News-Based Economic | 0.002\*\* |  |
| Policy Uncertainty | (0.0008) |  |
|  | (0.00) |  |
| Cutpoint 1 | 3.48\*\*\* |  |
|  | (0.18) |  |
| Cutpoint 2 | 4.72\*\*\* |  |
|  | (0.18) |  |
| Month variance | 0.03\*\*\* |  |
|  | (0.004) |  |
| Number of IndividualsNumber of Months | 84332402 |  |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Appendix F. Short-Term Effects.**

|  |  |
| --- | --- |
|  | Model F1 |
| Education | 0.36\*\*\* |
|  | (0.01) |
| Age | 0.07\*\*\* |
|  | (0.002) |
| Age squared | -0.0007\*\*\* |
|  | (0.00002) |
| Mean Income FM (k) | 0.005\*\*\* |
|  | (0.0003) |
| Male | 0.16\*\*\* |
|  | (0.01) |
| White | 0.19\*\*\* |
|  | (0.02) |
| Unemployment Rate | 0.13\*\*\* |
|  | (0.01) |
| UR abs % Δ | 0.01\*\*\* |
|  | (0.001) |
| UR Neg | -0.15\*\*\* |
|  | (0.04) |
| UR abs % Δ \* Neg | -0.004 |
|  | (0.003) |
| CPI % Δ | 0.01 |
|  | (0.01) |
| DJI % Δ | -0.001\*\* |
|  | (0.0006) |
| Finances Better | -0.02\*\* |
|  | (0.01) |
| Pres Approval | -0.01\*\*\* |
|  | (0.001) |
| Campaign (6) | -0.04 |
|  | (0.03) |
| Same Admin (6) | -0.01 |
|  | (0.05) |
| New Admin, Same Pty (6) | 0.09 |
|  | (0.09) |
| New Party Admin (6) | 0.23\*\*\* |
|  | (0.05) |
| Crisis (6) |  |
|  |  |
| Time | -0.0005\*\*\* |
|  | (0.0001) |
| News-Based Policy Index | 0.002\*\*\* |
|  | (0.0004) |
| Crash 1987 | 0.18\* |
|  | (0.09) |
| Gulf war | 0.24\*\* |
|  | (0.10) |
| WTC 93 | -0.01 |
|  | (0.09) |
| WTC 9/11 | 0.50\*\*\* |
|  | (0.10) |
| Iraq | -0.01 |
|  | (0.09) |
| Katrina | 0.15 |
|  | (0.09) |
| Liquidity Crisis | 0.19\* |
|  | (0.10) |
| Cutpoint 1 | 3.65\*\*\* |
|  | (0.13) |
| Cutpoint 2 | 4.89\*\*\* |
|  | (0.13) |
| Month variance | 0.03\*\*\* |
|  | (0.003) |
| Number of IndividualsNumber of Months | 84206402 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Table F1. Ordinal logistic multilevel models with separate indicators for each crisis. Dependent variable is Information Heard (0 1, 2).**

Models 1a and 1b employ a summary measure, *Crisis,* which sets each qualifying event equal to 1 during its first six months. Yet, individual crises may have disparate effects. Table F1 separates out each of the seven crises included in the *Crisis* summary measure. Even as the (often noneconomic) details of Hussein’s sudden invasion of Kuwait in 1990, leading to the Gulf War, and the 9/11 terrorist attacks dominated the news, these two events were accompanied by an increase in the probability of recalling two items of 0.07 and 0.12, respectively. By contrast, neither the 1993 World Trade Center bombing nor the U.S. invasion of Iraq appeared to trigger economic attention. Although the former seriously damaged the building, the perpetrators were soon arrested and the event quickly became regarded as cautionary rather than catastrophic.

Similarly, most Americans experienced the long anticipated U.S. invasion of Iraq in March of 2003 less as a shock than as an inevitability that posed little fresh uncertainty for the economy. The soaring costs of recovery after Hurricane Katrina may have modestly impacted national attention paid to the economy. And both sudden economic shocks – Black Monday’s 1987 stock crash and the financial liquidity crisis preceding the Great Recession – generated significant increases in responses to *Information Heard*.

As mentioned in the text, we also ran 1a, 1b, and F1 as three-level models where the highest grouping contains six-month intervals (that overlap with the crises or administrations). This reduces the number of group observations from 402 to 67, but still produces similar results; namely, coefficients on *Crisis* (in 1a and 1b) and *Crash 1987*, *Gulf War*, *WTC 9/11*, and *Liquidity Crisis* (in F1) are all positive and significant (*p < 0.10*), as is *New Party Administration*. See Appendix E, Table E4.

Of course, increased monitoring may also be a byproduct of greater attention to the news more generally during crises. While we cannot rule out this possibility completely, we control for it by measuring media coverage of the economy and conducting the mediation tests

**Appendix G. Mediation Models**

|  |  |
| --- | --- |
|  | Model G1 |
| **Within Level***Newsheard on:*Education | 0.36\*\*\* |
|  | (0.01) |
| Age | 0.07\*\*\* |
|  | (0.002) |
| Age squared | -0.07\*\*\* |
|  | (0.002) |
| Mean Income (k) | 0.005\*\*\* |
|  | (0.001) |
| Male | 0.16\*\*\* |
|  | (0.01) |
| White | 0.19\*\*\* |
|  | (0.02) |
| **Between Level***News-Based Policy Index on:*Unemployment Rate | 7.21\*\*\* |
|  | (1.08) |
| UR abs % Δ | 0.02 |
|  | (0.16) |
| UR Neg | -1.07\*\*\* |
|  | (0.39) |
| UR abs % Δ \* Neg | 6.17 |
|  | (5.73) |
| *Newsheard on:*News-Based Policy IndexUnemployment RateUR abs % ΔUR NegUR abs % Δ \* NegCPI % Δ | 0.002\*\*\*(0.001)0.09\*\*\*(0.01)0.009\*\*\*(0.001)-0.001(0.003)-0.13\*\*\*()0.04-0.008 |
|  | (0.006) |
| DJI % Δ | -0.001\* |
|  | (0.0006) |
| Finances Better (mean) | -0.61\*\*\* |
|  | (0.001) |
| Pres Approval | -0.005\*\*\* |
|  | (0.0001) |
| Campaign (6) | -0.04 |
|  | (0.04) |
| Same Admin (6) | 0.03 |
|  | (0.05) |
| New Admin, Same Pty (6) | 0.02 |
|  | (0.09) |
| New Party Admin (6) | 0.14\*\*\* |
|  | (0.05) |
| Crisis (6) | 0.12\*\*\* |
|  | (0.04) |
| Time | -0.001\*\* |
|  | (0.001) |
| Age (mean) | -1.05\*\* |
|  | (0.49) |
| Age squared (mean) | 0.16\*\*\* |
|  | (0.05) |
| Education (mean) | -0.04 |
|  | (0.11) |
| White (mean) | 0.55 |
|  | (0.20) |
| Income (mean) | 0.02\*\*\* |
|  | (0.005) |
| *Intercepts:* |  |
|  |  |
| News-Based Policy Index | 102.16\*\*\* |
|  | (7.88) |
| Cutpoint 1 | -0.48 |
|  | (1.21) |
| Cutpoint 2 | -0.77 |
|  | (1.21) |
| *Residual Variances:*Newsheard | 0.03\*\*\* |
| News-Based Policy Index Indirect Effect (new additional parameter) | (0.003)1196.23\*\*\*(84.38)0.01\*\*\*(0.003) |
| Number of IndividualsNumber of Months | 84206402 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Table G1. Mediation Analysis run in M-Plus on ordinal logistic multilevel models.**

We estimated a general multilevel SEM framework using M-Plus to test the indirect and direct effects of Unemployment on News-Based Policy Uncertainty and Newsheard. To calculate the percent of the effect of unemployment rate that is mediated by News-Based Policy Uncertainty, we must divide the indirect effect (0.011) by the total effect – which is the indirect effect plus the direct effect of unemployment rate (0.011+0.087). This calculation (0.011/(0.011+0.087)) equals 0.11, implying that 11 percent of the effect of unemployment is mediated by the *News-Based Policy Index*. In other words, unemployment affects monitoring both directly and indirectly through media coverage of economic uncertainty. Although the mediation effect is significant, all variables retain the same substantive and statistical significance as in the direct effects models.

**Appendix H. Including GDP.**

Table H1 presents two models. H1a replicates Table 1, Model 1a from the main text and includes annualized percentage change in real GDP. H1b replicates Appendix A, Table A1, Model A1a and includes annualized percentage change in real GDP as well as the interaction between annualized percentage change in real GDP and education.

GDP is not significant in either model. The interaction is also not significant; there is no evidence that individuals respond to changes in GDP differently according to their education. Adding GDP does not change the magnitude or significance of other variables in either regression, with the exception of bringing CPI % Δ to significance (*p<0.10*).

Note that each model is run using a multilevel framework with individuals nested within months nested within quarters. Because GDP data is released quarterly, its value is unchanged for all three months in each quarter and this extra level of analysis is necessary.

|  |  |  |
| --- | --- | --- |
|  | Model H1a | Model H1b |
| Education | 0.36\*\*\* | 0.29\*\*\* |
|  | (0.006) | (0.03) |
| Age | 0.07\*\*\* | 0.07\*\*\* |
|  | (0.002) | (0.002) |
| Age squared | -0.0007\*\*\* | -0.0007\*\*\* |
|  | (0.00002) | (0.00002) |
| Mean Income (k) | 0.005\*\*\* | 0.005\*\*\* |
|  | (0.0003) | (0.0003) |
| Male | 0.16\*\*\* | 0.16\*\*\* |
|  | (0.01) | (0.01) |
| White | 0.19\*\*\* | 0.19\*\*\* |
|  | (0.02) | (0.02) |
| Unemployment Rate | 0.15\*\*\* | 0.10\*\*\* |
|  | (0.01) | (0.02) |
| UR abs % Δ | 0.01\*\*\* | 0.01\*\*\* |
|  | (0.002) | (0.003) |
| UR Neg | -0.09\*\* | -0.04 |
|  | (0.04) | (0.08) |
| UR abs % Δ \* Neg | -0.006\* | -0.02\*\*\* |
|  | (0.003) | (0.006) |
| CPI % Δ | 0.01\* | 0.01\* |
|  | (0.007) | (0.007) |
| DJI % Δ | -0.002\*\*\* | -0.002\*\* |
|  | (0.0007) | (0.0008) |
| Finances Better | -0.02\*\* | -0.02\*\* |
|  | (0.008) | (0.008) |
| Pres Approval | -0.004\*\*\* | -0.006\*\*\* |
|  | (0.001) | (0.001) |
| Campaign (6) | -0.05 | -0.06 |
|  | (0.04) | (0.04) |
| Same Admin (6) | 0.03 | 0.03 |
|  | (0.06) | (0.06) |
| New Admin, Same Pty (6) | 0.14 | 0.12 |
|  | (0.11) | (0.10) |
| New Party Admin (6) | 0.21\*\*\* | 0.23\*\*\* |
|  | (0.06) | (0.06) |
| Crisis (6) | 0.14\*\*\* | 0.11\*\*\* |
|  | (0.04) | (0.04) |
| Time | -0.0001 | -0.0004\*\* |
|  | (0.0002) | (0.0002) |
| Real GDP % Δ | 0.003(0.007) | 0.008(0.01) |
| News-Based Policy Index |  | 0.001\*(0.0008) |
|  |  |  |
|  |  |  |
| UR \* Education |  | 0.008\*\*(0.003) |
| UR abs % Δ \* Education |  | 0.0003(0.0006) |
| UR Neg \* Education |  | -0.01(0.02) |
| UR abs % Δ \* UR Neg \* Educ  |  | 0.003\*\*(0.001) |
| Real GDP % Δ \* Education |  | -0.0002(0.002) |
| News-Based Policy \* Educ |  | 0.00002(0.0002) |
| Cutpoint 1 | 3.85\*\*\* | 3.57\*\*\* |
|  | (0.16) | (0.20) |
| Cutpoint 2 | 5.09\*\*\* | 4.82\*\*\* |
|  | (0.16) | (0.20) |
| Month variance | 0.01\*\*\* | 0.01\*\*\* |
|  | (0.002) | (0.002) |
| Quarter variance | 0.02\*\*\*(0.004) | 0.02\*\*\*(0.004) |
| Number of IndividualsNumber of Months | 84206402 | 84206402 |
| Number of Quarters | 135 | 135 |

A (6) indicates that the variable took the value of 1 for the 6 months following each event.

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Table H1. Ordinal logistic multilevel models. Dependent variable is Information Heard (0 1, 2).**

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1. These are population-averaged predictions such that all other variables are held at their values in the sampling population. [↑](#footnote-ref-1)
2. We examined different specifications to see if particular hurdles (e.g., graduating high school) were associated with jumps in *Information Heard*. Instead, the effects were found to be close to linear in the Surveys’ six-category coding (1=no high school; 2=incomplete high school; 3=high school diploma, no college; 4=incomplete college; 5=college degree, no post-grad work; 6= post-graduate work), and we use this measure in the models below. For presentation, predictions are shown for a subset of education groups in Table A1 and in the following figures. [↑](#footnote-ref-2)
3. Partisan differences may also be minimal becausethe dependent variable measures both favorable and unfavorable information about any aspect of the economy. Previous research finds that partisans often interpret economic information differently (Jerit and Barabas 2012), and the level of partisan disagreement varies according to the economy (Parker-Stephen 2013; Stanig 2013). Neither these nor other studies with which we are familiar examines whether partisanship conditions the overall *amount* of information an individual consumes, controlling for other personal attributes (which we do here). [↑](#footnote-ref-3)
4. Running the models separately by administration necessitates a significant reduction in both the number and variation of observations, and in a few cases coefficients decreased in the level of statistical significance. (Recall that all of the macroeconomic and political variables are measured monthly, which means in some models there were as few as 48 macrolevel observations.) [↑](#footnote-ref-4)
5. In addition, to capture between-month correlations in *Information Heard* that are not fully identified by our independent variables, we ran each model with the mean level of *Information Heard* over the past three months. Not surprisingly, this specification slightly reduces the magnitude of other coefficients since the lagged mean dependent variable is strongly associated with individual responses. However, the variables all take on the same significance, and adding this term does not significantly alter the substantive effects for any of the variables. [↑](#footnote-ref-5)