**APPENDIX**

**Appendix A:** Descriptive Information

**Table A. Variable Descriptions and Question Wording**

|  |  |
| --- | --- |
| **Variable (code)** | **Variable Description or Question Wording**  |
| Turned out in Presidential Election (VB2) | “Did you vote in the [first round of the] last presidential elections of (year of last presidential elections)?” (1) yes, (2) no. |
| Vote Choice (VB3) | “Who did you vote for in the last presidential elections of [year]?” Response options are not read aloud. Individuals who respond that they cast an invalid vote are assigned country specific codes in 2008, and the code “00” in 2010 and 2012. |
| Support for Democracy (ING4) | “Changing the subject again, democracy may have problems, but it is better than any other form of government. To what extent do you agree or disagree with this statement?” 1 to 10 scale; higher values = more support for democracy. |
| Preference for Democracy (DEM2) | “Now changing the subject, which of the following statements do you agree with the most: (1) For people like me it doesn’t matter whether a government is democratic or non-democratic, or (2) Democracy is preferable to any other form of government, or (3) Under some circumstances an authoritarian government may be preferable to a democratic one.” The indicator variable codes a strict preference for democracy (response 2) as a 1.  |
| Trust in Elections (B47; B47A) | “To what extent do you trust elections [in this country]?” 1-7 scale; higher values = more trust.  |
| Performance (N1, N3, N9, N11).\* | N1: “To what extent would you say the current administration fights poverty?”; N3: “To what extent would you say the current administration promotes and protects democratic principles?”; N9: “To what extent would you say the current administration combats government corruption?”; N11: “To what extent would you say the current administration improves citizen safety?”. 1-7 scale; higher values = better performance. |
| National Economy Worse (SOCT2) | “Do you think that **the country’s** current economic situation is better than, the same as or worse than it was 12 months ago?” Variable was recoded as a dummy, with 1 indicating “worse” and 0 indicating “the same” or “better.” |
| Own Economy Worse (IDIO2) | “Do you think that **your** current economic situation is better than, the same as or worse than it was 12 months ago?” |
| Alienation (EFF1) | “Those who govern this country are interested in what people like you think. How much do you agree or disagree with this statement?” 1-7 scale; higher values = more efficacy. I then reversed the coding so that lower efficacy (1) became high alienation (7). |
| Age (Q2) | Respondent’s age measured in years, from 16 to 99. |
| Gender (Q1) | Dummy variable: male = 0, female = 1 |
| Education (ED) | Number of years the respondent reports completing (0-18+). |
| Urban (UR) | Interviewer codes if respondent lives in rural (0) versus urban (1) location.  |
| Wealth (R1-R26) | These items ask about household assets (e.g., refrigerator, indoor plumbing, running water). The wealth measure is generated using Principal Component Analysis of these assets for urban and rural regions within each country, and then places respondents into quintiles. See Córdova, Abby. 2009, “Methodological Note: Measuring Relative Wealth using Household Asset Indicators” for more details. <http://www.vanderbilt.edu/lapop/insights/I0806en.pdf>  |
| Knowledge (GI1, GI2, GI3, GI4, GI5, GI7)\*\* | GI1. “What is the name of the current president of the United States of America?” GI2. “What is the name of the president of the legislature in [country]?” GI3. “How many provinces/ departments/ states does [country] have?”GI4. “How long is the presidential term of office in [country]?” GI5. “What is the name of the president of Brazil?” GI7. “How many legislators are there in [the lower house of] the legislature?”Correct answers = 1, incorrect/ don’t know = 0  |
| Political Interest (POL1) | “How much interest do you have in politics: a lot, some, little, or none?” 1 = a lot, 4 = none; I recoded the variable so that lower responses indicated less interest in politics. |
| Protest Participation (PROT3, PROT2 [2008 only])\*\*\* | “In the last 12 months, have you participated in a demonstration or protest march?” 1=yes, 2=no. In 2008: PROT2. “And now thinking about the last 12 months, have you participated in a demonstration or protest march? Have you done it sometimes, almost never or never?” 1=sometimes 0= almost never or never.  |
| **Contextual Variables** | **Source and Description** |
| Mandatory Vote Laws  | I condensed Fornos et al.’s (2004) four-category designation of mandatory voting in Latin America. Countries with legal sanctions for abstention are coded as having mandatory vote laws regardless of enforcement, while countries with no sanctions in place are coded as voluntary. Chile is coded as a voluntary vote country after 2012.Voluntary vote countries: Honduras, Nicaragua, Panama, Venezuela, Costa Rica, Guatemala, El Salvador, Chile (2013).Compulsory voting: Argentina, Bolivia, Ecuador, Paraguay, Peru, Uruguay |
| Election Rounds | The second round election category only includes those countries where second round contests were held, not where they are legally possible. Data were collected from Electoral Management Bodies.Second round held: Costa Rica, Guatemala, El Salvador, Chile, Peru, Uruguay |

\* Following confirmatory factor analysis, I generated an additive index using these variable measures.

\*\* Not all questions were included in all years. Specifically, GI1, GI4, and GI7 were included in 2012 and 2014, GI1, GI3, and GI4 were included in 2010, and GI1, GI2, GI3, GI4, and GI5 were included in 2008. The index was generated for each year, using all available knowledge questions.

\*\*\* Results for the protest variable are robust to changing the coding for PROT2 so those who report “almost never” protesting in the past 12 months are coded as 1’s. Neither of these variables were asked in Guatemala in 2008, so that country year is excluded from the first set of analyses.

**Table A2. Descriptive Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Observations | Mean | Standard Deviation | Minimum | Maximum |
| Invalid | 24482 | 0.033 | .18 | 0 | 1 |
| Abstain | 24482 | 0.189 | 0.39 | 0 | 1 |
| Valid Vote | 24482 | 0.778 | 0.42 | 0 | 1 |
| Support Democracy | 23199 | 5.31 | 1.66 | 1 | 7 |
| Prefer Democracy | 22904 | .799 | .401 | 0 | 1 |
| Trust Elections | 23771 | 4.35 | 1.80 | 1 | 7 |
| Performance | 22536 | 3.96 | 1.55 | 1 | 7 |
| Own Econ. Worse | 24168 | .238 | .426 | 0 | 1 |
| Nat’l Econ. Worse | 23900 | .320 | .467 | 0 | 1 |
| Alienation | 23387 | 4.48 | 1.91 | 1 | 7 |
| Interest | 24185 | 2.12 | .977 | 1 | 4 |
| Knowledge | 24482 | .428 | .440 | 0 | 1 |
| Protest Participation | 22710 | .091 | .287 | 0 | 1 |
| Female | 24482 | .522 | .500 | 0 | 1 |
| Age | 24445 | 39.7 | 16.06 | 16 | 99 |
| Age Squared | 24445 | 1832.8 | 1458.8 | 256 | 9801 |
| Urban Residence | 24482 | 1.32 | .468 | 0 | 1 |
| Education | 24393 | 9.36 | 4.53 | 0 | 18 |
| Wealth (Quintile) | 24270 | 2.93 | 1.42 | 1 | 5 |

**Table A3. Correlations Between Attitudinal Variables**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Prefer Democracy | Trust Elections | Performance | Own Econ. Worse | Nat’l Econ Worse | Alienation | Interest |
| **Anti-System Motivation** |  |  |  |  |  |
| Support Democracy | .20 | .21 | .11 | -.04 | -.06 | -.11 | .12 |
| Prefer Democracy |  | .06 | -.01 | .03 | -.03 | .01 | .05 |
| Trust Elections |  |  | .50 | -.12 | -.18 | -.30 | .17 |
| **Policy Discontent Motivation** |  |  |  |  |
| Performance |  |  |  | -.17 | -.26 | -.43 | .12 |
| Own Econ. Worse |  |  |  |  | .44 | .11 | -.05 |
| Nat’l Econ Worse |  |  |  |  |  | .16 | -.06 |
| **Alienation Motivation** |  |  |  |  |
| Alienation |  |  |  |  |  |  | -.12 |

**Appendix B:** Complete Analyses

**Table B1.** **Multinomial Probit: Protest Motivations of Invalid Voting** (corresponds to Table 1)

|  |  |
| --- | --- |
|  | All Countries |
|  | Abstain vs. Invalid | Valid Vote vs. Invalid |
| **Anti-System Motivation** |
| Support Democracy | -0.017 | 0.013 |
|  | (0.020) | (0.020) |
| Prefer Democracy | 0.058 | 0.092 |
|  | (0.078) | (0.071) |
| Trust Elections | 0.006 | 0.071\*\* |
|  | (0.020) | (0.018) |
| **Policy Discontent Motivation** |
| Performance  | 0.053\* | 0.091\*\* |
|  | (0.027) | (0.024) |
| Own Econ Worse | 0.039 | -0.040 |
|  | (0.082) | (0.074) |
| Nat’l Econ Worse | -0.011 | 0.032 |
|  | (0.073) | (0.069) |
| **Alienation Motivation** |  |
| Alienation | -0.054\*\* | -0.044\* |
|  | (0.019) | (0.018) |
| Political Interest | 0.069 | 0.376\*\* |
|  | (0.040) | (0.037) |
| **Control Variables**  |  |  |
| Knowledge | -0.351\*\* | -0.163\* |
|  | (0.081) | (0.075) |
| Protest Participation | -0.096 | 0.041 |
|  | (0.112) | (0.105) |
| Age | -0.102\*\* | 0.023\* |
|  | (0.010) | (0.009) |
| Age Squared | 0.001\*\* | -0.00 |
|  | (0.00) | (0.00) |
| Education | -0.049\*\* | -0.006 |
|  | (0.009) | (0.008) |
| Female | -0.110 | -0.073 |
|  | (0.061) | (0.056) |
| Urban Residence | 0.050 | 0.075 |
|  | (0.078) | (0.072) |
| Wealth (Quintile) | -0.022 | 0.002 |
|  | (0.023) | (0.022) |
| Constant | 4.758\*\* | 0.825\* |
|  | (0.339) | (0.305) |
| Observations | 18,238 |

Country fixed effects included but not shown. Standard errors in parentheses. \*p<0.05, \*\*p<0.01.

**Table B2. Cross-Level Analyses: Mandatory Vote Laws**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Vote | Abstain | Vote | Abstain | Vote | Abstain | Vote | Abstain |
| *First Level* |  |  |  |  |  |  |  |  |
| Female | -0.04 | -0.13 | -0.042 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 |
|  | (0.09) | (0.10) | (0.08) | (0.10) | (0.09) | (0.10) | (0.08) | (0.10) |
| Age | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* |
|  | (0.02) | (0.018) | (0.015) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) |
| Age Squared | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* |
|  | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) |
| Urban Residence | 0.07 | 0.014 | 0.06 | 0.01 | -0.06 | 0.02 | 0.06 | 0.01 |
|  | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) |
| Years of Education | -0.03\* | -0.07\*\*\* | -0.03 | -0.07\*\*\* | -0.03 | -0.07\*\*\* | -0.07\*\*\* | -0.07\*\*\* |
|  | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) | (0.02) | (0.02) |
|  Wealth | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Support for Democracy | 0.06 | -0.00 | 0.001 | 0.003 | 0.01 | 0.004 | 0.01 | 0.004 |
|  | (0.05) | (0.06) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) |
| Prefer Democracy | 0.17 | 0.16 | 0.09 | -0.02 | 0.16 | 0.16 | 0.16 | 0.16 |
|  | (0.10) | (0.13) | (0.236) | (0.24) | (0.10) | (0.13) | (0.10) | (0.13) |
| Trust Elections | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 | 0.13\* | -0.04 | 0.13 | 0.06 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.04) | (0.06) | (0.03) | (0.04) |
| Performance | 0.123\*\*\* | 0.08 | 0.13\*\*\* | 0.08 | 0.13\*\*\* | 0.08 | 0.10 | 0.10 |
|  | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) | (0.07) | (0.06) |
| Own Econ Worse | -0.08 | -0.01 | -0.08 | -0.01 | -0.08 | -0.02 | -0.08 | -0.01 |
|  | (0.11) | (0.13) | (0.109) | (0.13) | (0.11) | (0.13) | (0.11) | (0.13) |
| Nat’l Econ Worse | 0.04 | 0.08 | 0.036 | 0.08 | 0.04 | 0.08 | 0.04 | 0.08 |
|  | (0.10) | (0.13) | (0.103) | (0.12) | (0.10) | (0.13) | (0.10) | (0.11) |
| Alienation | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07 |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) |
| Political Knowledge | -0.33\*\* | -0.46\*\* | -0.328\* | -0.46\*\* | -0.33\* | -0.46\*\* | -0.33\*\* | -0.46\*\* |
|  | (0.11) | (0.14) | (0.114) | (0.14) | (0.11) | (0.14) | (0.11) | (0.14) |
| Political Interest | 0.54\*\*\* | 0.25\*\*\* | 0.537\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* |
|  | (0.11) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) |
| Constant | 1.88\*\*\* | 6.41\*\*\* | 2.19\*\*\* | 6.52\*\*\* | 2.14\*\*\* | 6.44\*\*\* | 2.22\*\*\* | 6.53\*\*\* |
|  | (0.54) | (0.69) | (0.516) | (0.67) | (0.51) | (0.66) | (0.52) | (0.67) |
| *Second Level* |  |  |  |  |  |  |  |  |
| Compulsory Vote | -0.58 | -1.52\* | -0.96\*\* | -1.67\*\* | -0.90\* | -1.58\*\* | -1.01\*\* | -1.72\*\* |
|  | (0.41) | (0.61) | (0.343) | (0.55) | (0.35) | (0.56) | (0.37) | (0.57) |
| Compulsory\*Support Democracy | -0.06 | 0.011 |  |  |  |  |  |  |
|  | (0.06) | (0.07) |  |  |  |  |  |  |
| Compulsory\*Prefer Democracy | 0.09 | 0.25 |  |  |  |  |
|  |  |  | (0.261) | (0.28) |  |  |  |  |
| Compulsory\*Trust Elections |  |  | 0.00 | 0.03 |  |  |
|  |  |  |  |  | (0.06) | (0.06) |  |  |
| Compulsory\*Performance |  |  |  |  | 0.04 | 0.07 |
|  |  |  |  |  |  |  | (0.07) | (0.08) |
| N | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 |

\*p<0.5, \*\*p<0.01, \*\*\*p<0.001

**Table B2 Cont’d**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Vote | Abstain | Vote | Abstain | Vote | Abstain | Vote | Abstain | Vote | Abstain |
| *First Level* |  |  |  |  |  |  |  |  |  |  |
| Female | -0.04 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 |
|  | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) | (0.08) | (0.10) |
| Age | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* |
|  | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) |
| Age Squared | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* |
|  | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) |
| Urban Residence | 0.06 | 0.01 | 0.06 | 0.01 | -0.06 | 0.01 | 0.07 | 0.02 | 0.07 | 0.02 |
|  | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) |
| Years of Education | -0.03 | -0.07\*\*\* | -0.03\* | -0.07\*\*\* | -0.02\* | -0.07\*\*\* | -0.03\* | -0.07\*\*\* | -0.03 | -0.07\*\*\* |
|  | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) |
| Wealth | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Support for Democracy | 0.01 | 0.004 | 0.01 | 0.01 | 0.01 | 0.003 | 0.01 | 0.01 | 0.01 | 0.004 |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) |
| Prefer Democracy | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
|  | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) |
| Trust Elections | 0.13\*\*\* | 0.06 | 0.13 | 0.06 | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Performance | 0.13\*\*\* | 0.08\* | 0.13\*\*\* | 0.08\* | 0.12\*\*\* | 0.08 | 0.13\*\*\* | 0.08 | 0.13\*\*\* | 0.09 |
|  | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) |
| Own Econ. Worse | -0.05 | 0 | -0.08 | -0.007 | -0.08 | -0.02 | -0.08 | 0.01 | -0.08 | -0.02 |
|  | (0.21) | (0.22) | (0.11) | (0.13) | (0.11) | (0.13) | (0.11) | (0.13) | (0.11) | (0.13) |
| Nat’l Econ. Worse | 0.04 | 0.08 | 0.04 | 0.05 | 0.04 | 0.08 | 0.04 | 0.08 | 0.04 | 0.09 |
|  | (0.10) | (0.13) | (0.20) | (0.22) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) |
| Alienation | -0.08\*\* | -0.07 | -0.08\*\* | -0.07\* | -0.03 | -0.05 | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07 |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.05) | (0.05) | (0.03) | (0.03) | (0.03) | (0.03) |
| Political Knowledge | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* | -0.15 | -0.33 | -0.33\*\* | -0.46\*\* |
|  | (0.11) | (0.14) | (0.11) | (0.14) | (0.11) | (0.14) | (0.26) | (0.30) | (0.11) | (0.14) |
| Political Interest | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.60\*\*\* | 0.10 |
|  | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.11) | (0.11) |
| Constant | 2.12\*\*\* | 6.37\*\*\* | 2.13\*\*\* | 6.43\*\*\* | 1.91\*\*\* | 6.27\*\*\* | 2.06\*\*\* | 6.33\*\*\* | 2.01\*\*\* | 6.65\*\*\* |
|  | (0.49) | (0.65) | (0.49) | (0.65) | (0.53) | (0.67) | (0.49) | (0.65) | (0.52) | (0.67) |
| *Second Level* |  |  |  |  |  |  |  |  |  |  |
| Compulsory Voting | -0.88\*\* | -1.46\*\* | -0.89\*\* | -1.54\*\* | -0.60 | -1.30\* | -0.80\*\* | -1.40\*\* | -0.743\* | -1.83\*\* |
|  | (0.28) | (0.51) | (0.29) | (0.51) | (0.39) | (0.59) | (0.30) | (0.52) | (0.35) | (0.55) |
| Compulsory\*Own Econ. Worse | -0.04 | -0.02 |  |  |  |  |  |  |  |  |
|  | (0.24) | (0.26) |  |  |  |  |  |  |  |  |
| Compulsory\*Nat’l Econ Worse | -0.01 | 0.19 |  |  |  |  |  |  |
|  |  |  | (0.22) | (0.25) |  |  |  |  |  |  |
| Compulsory Voting\*Alienation | -0.06 | -0.03 |  |  |  |  |
|  |  |  |  |  | (0.06) | (0.06) |  |  |  |  |
| Compulsory Voting\*Political Knowledge |  |  |  | -0.22 | -0.16 |  |  |
|  |  |  |  |  |  |  | (0.28) | (0.32) |  |  |
| Compulsory Voting\*Political Interest |  |  |  |  |  |  | 0.08 | 0.21 |
|  |  |  |  |  |  |  |  |  | (0.13) | (0.13) |
| N | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 |

\*p<0.5, \*\*p<0.01, \*\*\*p<0.001

**Table B3. Cross-Level Analyses: Second Round Elections**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Vote | Abstain | Vote | Abstain | Vote | Abstain | Vote | Abstain |
| *First Level* |  |  |  |  |  |  |  |  |
| Female | -0.04 | -0.12 | -0.04 | -0.12 | -0.04 | -0.13 | -0.04 | -0.13 |
|  | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) |
| Age | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* |
|  | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) |
| Age Squared | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* |
|  | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) |
| Urban Residence | -0.07 | 0.01 | -0.06 | 0.01 | -0.07 | 0.01 | -0.06 | 0.01 |
|  | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) |
| Years of Education | -0.03\* | -0.07\*\*\* | -0.03 | -0.07\*\*\* | -0.03\* | -0.07\*\*\* | -0.03 | -0.07\*\*\* |
|  | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) |
| Wealth | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Support for Democracy | 0.004 | -0.001 | 0.01 | 0.004 | 0.007 | 0.004 | 0.01 | 0.004 |
|  | (0.03) | (0.04) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) |
| Prefer Democracy | 0.16 | 0.16 | 0.15 | 0.15 | 0.16 | 0.16 | 0.16 | 0.16 |
|  | (0.10) | (0.13) | (0.12) | (0.16) | (0.10) | (0.13) | (0.10) | (0.13) |
| Trust Elections | 1.30\*\*\* | 0.06 | 0.13\*\*\* | 0.06 | 0.11\*\*\* | 0.05 | 0.13\*\*\* | 0.06 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Performance | 0.12\*\*\* | 0.08 | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.08 | 0.12\*\* | 0.09 |
|  | (0.04) | (0.05) | (0.04) | (0.04) | (0.04) | (0.05) | (0.04) | (0.05) |
| Own Econ. Worse | -0.08 | -0.01 | -0.08 | -0.01 | -0.08 | -0.01 | -0.08 | -0.01 |
|  | (0.11) | (0.13) | (0.11) | (0.13) | (0.10) | (0.13) | (0.11) | (0.13) |
| Nat’l Econ. Worse | 0.04 | 0.08 | 0.04 | 0.08 | 0.04 | 0.08 | 0.04 | 0.08 |
|  | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) |
| Alienation | -0.08\* | -0.07\* | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07\* |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) |
| Political Knowledge | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* |
|  | (0.11) | (0.14) | (0.11) | (0.14) | (0.11) | (0.14) | (0.11) | (0.14) |
| Political Interest | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* |
|  | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) |
| Constant | 2.25\*\*\* | 6.51\*\*\* | 2.19\*\*\* | 6.48\*\*\* | 2.27\*\*\* | 6.52\*\*\* | 2.20\*\*\* | 6.45\*\*\* |
|  | (0.52) | (0.73) | (0.51) | (0.72) | (0.52) | (0.72) | (0.52) | (0.72) |
| *Second Level* |  |  |  |  |  |  |  |  |
| Compulsory Voting | -0.92\* | -1.52\*\* | -0.92\*\* | -1.52\*\* | -0.93\*\* | -1.52\*\* | -0.92\*\* | -1.51\*\* |
|  | (0.29) | (0.52) | (0.28) | (0.52) | (0.29) | (0.52) | (0.28) | (0.52) |
| Second Round | -0.35 | -0.25 | -0.12 | -0.18 | -0.33 | -0.27 | 0.14 | -0.12 |
|  | (0.42) | (0.63) | (0.33) | (0.56) | (0.37) | (0.59) | (0.38) | (0.60) |
| Second Round\* Support for Democracy | 0.05 | 0.02 |  |  |  |  |  |  |
|  | (0.06) | (0.07) |  |  |  |  |  |  |
| Second Round\*Prefer Democracy | 0.03 | 0.02 |  |  |  |  |
|  |  |  | (0.22) | (0.26) |  |  |  |  |
| Second Round\*Trust Elections |  |  | 0.06 | 0.06 |  |  |
|  |  |  |  |  | (0.06) | (0.06) |  |  |
| Second Round\*Performance |  |  |  |  | 0.01 | -0.01 |
|  |  |  |  |  |  |  | (0.07) | (0.08) |
| N | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 |

\*p<0.5, \*\*p<0.01, \*\*\*p<0.001

**Table B3. Cont’d**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Vote | Abstain | Vote | Abstain | Vote | Abstain | Vote | Abstain | Vote | Abstain |
| *First Level* |  |  |  |  |  |  |  |  |  |  |
| Female | -0.04 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 | -0.04 | -0.13 |
|  | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) | (0.09) | (0.10) |
| Age | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* | 0.01 | -0.16\*\*\* |
|  | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) |
| Age Squared | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* | 0 | 0.002\*\*\* |
|  | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) | (0) |
| Urban Residence | 0.06 | 0.01 | -0.07 | 0.01 | -0.06 | 0.02 | -0.07 | 0.02 | 0.07 | 0.01 |
|  | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) | (0.10) | (0.12) |
| Years of Education | -0.03\* | -0.07\*\*\* | -0.03 | -0.07\*\*\* | -0.03 | -0.07\*\*\* | -0.03 | -0.07\*\*\* | -0.03\* | -0.07\*\*\* |
|  | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) | (0.01) | (0.02) |
| Wealth | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 | -0.02 | -0.07 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Support for Democracy | 0.01 | 0.004 | 0.01 | 0.006 | 0.01 | 0.004 | 0.01 | 0.004 | 0.01 | 0.005 |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) |
| Prefer Democracy | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
|  | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) |
| Trust Elections | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 | 0.13\*\*\* | 0.06 |
|  | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) | (0.03) | (0.04) |
| Performance | 0.13\*\*\* | 0.08 | 0.13\*\*\* | 0.08 | 0.13\*\*\* | 0.08 | 0.13\*\*\* | 0.08 | 0.13\*\*\* | 0.08 |
|  | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) | (0.04) | (0.05) |
| Own Econ. Worse | -0.12 | -0.07 | -0.08 | -0.01 | -0.08 | -0.02 | -0.08 | -0.02 | -0.08 | -0.01 |
|  | (0.12) | (0.15) | (0.11) | (0.13) | (0.11) | (0.13) | (0.11) | (0.13) | (0.11) | (0.13) |
| Nat’l Econ. Worse | 0.04 | 0.08 | 0.08 | 0.15 | 0.04 | 0.08 | 0.04 | 0.08 | 0.04 | 0.08 |
|  | (0.10) | (0.13) | (0.11) | (0.14) | (0.10) | (0.13) | (0.10) | (0.13) | (0.10) | (0.13) |
| Alienation | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07\* | -0.07\* | -0.07 | -0.08\*\* | -0.07\* | -0.08\*\* | -0.07\* |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.03) | (0.04) | (0.03) | (0.03) | (0.03) | (0.03) |
| Political Knowledge | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* | -0.33\*\* | -0.46\*\* | -0.30\* | -0.43\*\* | -0.33\*\* | -0.46\*\* |
|  | (0.11) | (0.14) | (0.11) | (0.14) | (0.11) | (0.14) | (0.13) | (0.16) | (0.11) | (0.14) |
| Political Interest | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.54\*\*\* | 0.25\*\*\* | 0.51\*\*\* | 0.26\*\*\* |
|  | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.06) | (0.07) |
| Constant | 2.18\*\*\* | 6.47\*\*\* | 2.19\*\*\* | 6.46\*\*\* | 2.15\*\*\* | 6.45\*\*\* | 2.16\*\*\* | 6.44\*\*\* | 2.248\*\*\* | 6.45\*\*\* |
|  | (0.51) | (0.71) | (0.51) | (0.71) | (0.52) | (0.72) | (0.52) | (0.72) | (0.52) | (0.72) |
| *Second Level* |  |  |  |  |  |  |  |  |  |  |
| Compulsory Voting | -0.90\*\* | -1.51\*\* | -0.94\*\*\* | -1.54\*\* | -0.92\*\* | -1.52\*\* | -0.91\*\* | -1.51\*\* | -0.92\*\* | -1.51\*\* |
|  | (0.29) | (0.52) | (0.28) | (0.52) | (0.28) | (0.52) | (0.28) | (0.52) | (0.29) | (0.52) |
| Second Round | -0.14 | -0.21 | -0.04 | -0.08 | 0.06 | -0.09 | -0.04 | -0.11 | -0.33 | -0.10 |
|  | (0.30) | (0.53) | (0.30) | (0.53) | (0.40) | (0.61) | (0.31) | (0.54) | (0.36) | (0.57) |
| Second Round\*Own Econ Worse | 0.17 | 0.18 |  |  |  |  |  |  |  |  |
|  | (0.24) | (0.27) |  |  |  |  |  |  |  |  |
| Second Round\*Nat'l Econ Worse |  |  | -0.19 | -0.26 |  |  |  |  |  |  |
|  |  |  | (0.22) | (0.26) |  |  |  |  |  |  |
| Second Round\*Alienation |  |  |  | 0.03 | -0.02 |  |  |  |  |
|  |  |  |  |  | (0.06) | (0.06) |  |  |  |  |
| Second Round\* Political Knowledge |  |  |  |  |  | 0.013 | -0.11 |  |  |
|  |  |  |  |  |  |  | (0.25) | (0.31) |  |  |
| Second Round\*Political Interest |  |  |  |  |  |  |  | 0.13 | -0.04 |
|  |  |  |  |  |  |  |  |  | (0.11) | (0.13) |
| N | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 | 15902 | 4107 |

\*p<0.5, \*\*p<0.01, \*\*\*p<0.001

**Appendix C**: Composition and validity of the electoral dataset

Given the challenges associated with predicting past actions using present attitudes, I created an “electoral dataset” using AmericasBarometer data from years when the data collection closely followed an election. A given country was only included in the dataset if data collection occurred within 12 months of the most recent presidential election. Countries were not double-counted—if a country had two presidential elections that were shortly followed by data collection for the AmericasBarometer, I included the year for which the time lapse was shortest. Finally, not all countries are included in the electoral dataset due to the rule establishing a maximum time lapse (No election year data is available for Mexico in the AmericasBarometer, for example). The following countries are included in the analyses for this paper.

**Table C1. Survey and Election Dates, Electoral Dataset**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Country | Election Year | Election Date | LAPOP data: year | LAPOP data: collection date | Time Lapse |
| Argentina | 2007 | October 28 | 2007-8 | December 1 – January 25 | 2 – 3 Months |
| Bolivia | 2009 | December 6 | 2010 | February 1 – March 27 | 2 – 4 Months |
| Chile | 2013 | November 17 & December 15 | 2014 | April 16-May 22 | 4 – 5 Months |
| Costa Rica | 2014 | February 2 | 2014 | March 4 – May 6 | 1-3 Months |
| Ecuador | 2009 | April 26 | 2010 | February 2– March 19 | 9 – 10 Months |
| El Salvador | 2014 | February 2 | 2014 | March 28-April 30 | 1.5 -2 Months |
| Guatemala | 2007 | September 9 & November 4 | 2008 | February 3 – 16 | 5 Months |
| Honduras | 2009 | November 29 | 2010 | February 18-March 26 | 2.5-4 Months |
| Nicaragua | 2011 | November 6 | 2012 | February 4 – March 1 | 3 – 4 Months |
| Panama | 2009 | May 3 | 2010 | January 8 – February 3 | 8 – 9 Months |
| Paraguay | 2013 | April 21 | 2014 | January 18-February 8 | 9 -10 Months |
| Peru | 2011 | April 10 & June 5 | 2012 | January 20-February 10 | 7-9 Months |
| Uruguay | 2009 | October 25 & November 9 | 2010 | March 5 – April 4 | 4 – 5 Months |
| Venezuela | 2006 | December 3 | 2007 | August 2-September 30 | 9-11 Months |

One concern with using public opinion data rather than electoral data to study invalid voting is that self-reports might be biased downward, particularly if casting a blank or spoiled ballot is a sensitive action in a given country or election period. On average, this does not appear to be the case. For each country included in the sample, I compared reported rates of invalid voting to official electoral returns from the national Electoral Commission (see table C2 below). In most countries, rates of invalid voting are quite close to official results (+/- 2.5%). The Nicaraguan government did not report the blank and null vote totals for the 2011 election, so this comparison was not possible in that case.

**Table C2. Accuracy of Electoral Dataset**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Country | Invalid (official) | Invalid (LAPOP) | Difference (Official-LAPOP, retrospective) | Invalid (LAPOP, hypothetical) | Difference (Official-LAPOP, hypothetical) |
| Argentina | 7.61% | 4.61% | **3%** | 11.26% | **-3.65%** |
| Bolivia | 5.7% | 5.65% | -0.05% | 15.87% | **-10.17%** |
| Chile  | 1.55% | 1.22% | 0.33% | 6.66% | **-5.11%** |
| Costa Rica | 2.08% | 2.15% | -0.07% | 2.89% | -0.81% |
| Ecuador | 13% | 11.22% | 1.78% | 25.18% | **-12.19%** |
| El Salvador  | 1.26% | 1.68% | -0.44% | 5.17% | **-3.91%** |
| Guatemala | 9.32% | 1.77% | **7.55%** | 5.75% | **3.57%** |
| Honduras  | 6.69% | 3.90% | **2.79%** | 8.65% | -1.96% |
| Nicaragua | . | 1.30% | **.** | 3.64% | **.** |
| Panama | 3.1% | 2.54% | 0.56% | 7.07% | **-3.97%** |
| Paraguay | 5.47% | 1.43% | **4.04%** | 22.21% | **-16.91%** |
| Peru | 12.29% | 4.64% | **7.65%** | 22.61% | **-10.32%** |
| Uruguay | 2.19% | 3.71% | -1.52% | 7.09% | **-4.9%** |
| Venezuela  | 0.44% | 0.81% | -0.37% | 7.50% | **-6.46%** |

Invalid vote rates are calculated using survey weights, as recommended by LAPOP’s technical information.

Five cases stand out because the difference in invalid votes is greater than 2.5%: Argentina, Guatemala, Honduras, Paraguay, and Peru. In each of these cases, reported rates of blank or spoiled ballots are substantially *lower* than official electoral results. I compared results from the AmericasBarometer survey to those from the cross-national Comparative Study of Electoral Systems (CSES) and local pre-election or exit polls when possible and found that the disparity between reported and official results is present across studies for these countries. Because these data are observational, I am unable to adjudicate the underlying reasons for the underreporting of invalid voting in these cases.[[1]](#footnote-1) However, results from a series of analyses excluding these countries, as well as Nicaragua (where official invalid vote data are not available) yield results similar to those presented in the paper body: across models, performance evaluations are negatively correlated with invalid voting behavior, while political alienation and low interest in politics are positively related to null voting.

Table C2 also compares official invalid vote rates to prospective intention to cast an invalid vote in a hypothetical election reported in the AmericasBarometer data. The hypothetical measure is well above observed invalid vote rates in almost all cases; in contrast to the retrospective measure, the hypothetical measure is within two percentage points of official invalid vote rates in only two of 14 cases.[[2]](#footnote-2) Reports of a prospective and retrospective invalid vote are correlated at rho = 0.28.

**Table C3. Partial Correlations: Contextual Variables and Invalid Voting**

|  |  |  |
| --- | --- | --- |
| Contextual Variable | Reported Invalid Vote Rates | Official - Reported Invalid Vote Rates |
| Compulsory | 0.63\* | 0.28 |
| Second Round | -0.17 | -0.56\* |
| Effective Number of Candidates | 0.15 | 0.79\*\* |

\*p<0.1. When official rates of invalid voting are included, the significant correlation between compulsory voting and reported invalid vote rates is no longer statistically significant.

Finally, Table C3 shows partial correlation coefficients between reported levels of invalid voting, the difference between reported and official rates, and three second-level variables of interest: mandatory vote laws, the presence of second round elections, and the effective number of candidates. Consistent with national level reports, more invalid voting is reported in countries with mandatory vote laws, although the number of candidates and the presence of second round elections have no significant relationship with reported rates of invalid voting. With respect to the difference between official and reported invalid vote rates, neither mandatory vote laws nor the presence of second round elections explains this gap. However, when the number of competitive candidates is greater, the difference between official and reported invalid vote rates is significantly higher than in elections with fewer relevant candidates.

**Appendix D.** Linking Attitudes to Protest Motivations

In the paper body, I use measures of political attitudes as proxies for voters’ motivations for casting blankor spoiled ballots. This appendix validates the use of those protest attitudes as proxies for those attitudes by linking attitudes to participants’ responses to a question that directly taps their motivation for invalidating a ballot. In 2014, AmericasBarometer respondents from the 18 Latin American countries who responded that they had cast a blank or spoiled ballot in the first or single round of the country’s most recent presidential election were asked a follow-up:

**VB101:** “Why did you cast a null or blank ballot in the last presidential election?” [response alternatives not read aloud]:

(1) Was confused

(2) Wanted to express their discontent with all of the candidates; didn’t like any of the candidates

(3) Do not believe in democracy, wanted to protest against the political system

(4) Do not believe in elections/ electoral authorities

(5) Not interested in politics

(6) My vote does not make any difference

(7) Another reason

(88) DK

(98) DA

The question was posed as an open ended item, and interviewers coded respondents’ answers into predetermined answer categories. Response categories were developed to correspond to theoretical motivations for invalid voting posited in existing scholarship of the phenomenon, and were expanded to incorporate additional motivations I identified in a series of focus groups I conducted in Peru in 2013. Figure C1 shows responses to this item. Non-response was low (N=7), so I do not analyze that category here. The most common protest motivation provided by respondents across countries was discontent with the available candidate options, followed closely by disinterest, confusion, and distrust of elections or electoral management bodies.

**Figure D1. Self-Reported Motivations for Invalid Voting (Disaggregated)**

I used this variable to create a series of seven dummy variables, and regressed each of these variables on the attitudinal proxies used in the paper body, as well as demographic variables and country fixed effects. The results of this analysis are presented in Table D1 below.

**Table D1. Attitudinal Variables Associated with Invalid Vote Motivations**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Confusion | Candidate Options | Democracy | Elections | Low Interest | Alienation | Other |
| **Anti-System Variables** |
| Support Democracy | 0.009 | -0.02 | 0.001 | -0.003 | -0.007 | -0.024 | **0.082\*** |
|  | (0.039) | (0.03) | (0.048) | (0.04) | (0.043) | (0.062) | (0.049) |
| Prefer Democracy | -0.071 | -0.109 | -0.032 | 0.039 | -0.139 | 0.103 | **0.527\*\*\*** |
|  | (0.143) | (0.125) | (0.182) | (0.166) | (0.162) | (0.241) | (0.200) |
| Trust Elections | 0.082\* | -0.020 | -0.071 | **-0.17\*\*\*** | 0.068 | 0.040 | 0.064 |
|  | (0.042) | (0.036) | (0.056) | (0.049) | (0.047) | (0.068) | (0.051) |
| **Policy Discontent Variables** |
| Performance | 0.068 | **-0.094\*\*** | 0.040 | 0.023 | -0.027 | -0.017 | 0.081 |
|  | (0.052) | (0.046) | (0.067) | (0.06) | (0.058) | (0.086) | (0.066) |
| Own Econ. Worse | -0.043 | -0.025 | 0.063 | 0.028 | 0.015 | -0.273 | 0.084 |
|  | (0.16) | (0.131) | (0.189) | (0.168) | (0.168) | (0.281) | (0.180) |
| Nat’l Econ Worse | 0.181 | **-0.291\*\*** | 0.222 | -0.001 | -0.067 | -0.258 | 0.308\* |
|  | (0.15) | (0.127) | (0.182) | (0.162) | (0.162) | (0.262) | (0.172) |
| **Alienation Variables** |
| Alienation | -0.019 | **0.069\*\*** | -0.051 | 0.024 | -0.026 | -0.079 | -0.043 |
|  | (0.039) | (0.034) | (0.051) | (0.045) | (0.043) | (0.064) | (0.047) |
| Interest | **0.159\*\*** | **0.178\*\*\*** | 0.0206 | -0.146\* | **-0.577\*\*\*** | 0.001 | 0.119 |
|  | (0.076) | (0.064) | (0.098) | (0.086) | (0.104) | (0.126) | (0.088) |
| **Control Variables** |
| Knowledge | **-0.530\*\*** | 0.172 | 0.070 | 0.313 | 0.0052 | -0.039 | 0.083 |
|  | (0.214) | (0.167) | (0.26) | (0.217) | (0.218) | (0.333) | (0.24) |
| Female | 0.246\* | 0.050 | -0.285\* | -0.200 | 0.128 | -0.325 | -0.032 |
|  | (0.130) | (0.110) | (0.165) | (0.144) | (0.142) | (0.213) | (0.153) |
| Age | -0.019 | 0.021 | -0.017 | -0.033 | 0.017 | -0.007 | 0.030 |
|  | (0.024) | (0.021) | (0.031) | (0.026) | (0.029) | (0.037) | (0.030) |
| Age Sq. | 0.0002 | -0.0001 | 9.92e-05 | 0.0004 | -0.0003 | 0.0001 | -0.0004 |
|  | (0.0003) | (0.0002) | (0.0004) | (0.0003) | (0.0003) | (0.0004) | (0.0003) |
| Urban | 0.237 | -0.037 | 0.299 | -0.170 | -0.146 | -0.167 | -0.164 |
|  | (0.151) | (0.139) | (0.188) | (0.183) | (0.177) | (0.255) | (0.196) |
| Education | -0.016 | 0.021 | -0.002 | 0.0037 | -0.003 | -0.015 | -0.02 |
|  | (0.018) | (0.016) | (0.024) | (0.021) | (0.021) | (0.031) | (0.023) |
| Wealth | -0.054 | -0.012 | 0.034 | -0.010 | 0.0259 | 0.061 | 0.026 |
|  | (0.051) | (0.043) | (0.065) | (0.056) | (0.055) | (0.085) | (0.06) |
| Constant | -1.84\*\* | -1.319\* | -0.779 | 0.305 | -0.395 | -0.916 | -2.381\*\* |
|  | (0.866) | (0.699) | (0.983) | (0.88) | (0.945) | (1.201) | (0.957) |
| Observations | 662 | 662 | 564 | 648 | 640 | 509 | 565 |

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01 Standard errors in parentheses, country fixed effects included but not shown.

These logistic regression results serve as validation of the proxy measures used in the paper body. Although confusion as a motivation for invalid voting is not assessed in this paper, those who report invalidating their ballots because they were confused tend to be less knowledgeable of political facts than other invalid voters. They report more interest in politics than other intentional invalid voters, suggesting relatively low alienation among this group. Those who report that their invalid vote was motivated by the candidate options ranked government performance as lower, both in general and specifically in regard to national economic performance, as expected. Because the proxy measures for this motivation refer to policy outcomes rather than candidate options, the paper names this the policy discontent motivation; however, this motivation appears to be closely linked to discontent with candidates.

 Those who link their invalid vote to low support for democracy are no less supportive of democracy than other respondents, although they are marginally less trusting in elections than other intentional invalid voters (p<0.20). They are more likely to be male. Those who cite distrust in elections, however, are significantly less trusting in elections than other intentional invalid voters. As expected, the variables tapping political alienation are associated with voter reports of alienation: those who say that low interest fueled their invalid vote are less interested in politics than other invalid voters. Those who report that low government responsiveness fueled their invalid vote report lowerlevels of external efficacy than those who provided other motivations, although this variable is not statistically significant. It is worth noting that no variables significantly predict the alienation motivation in this model; this may be because only 3.9 percent of self-identified invalid voters(30 individuals) gave this response in 2014. Finally, those who cite some “other” reason for invalidating their ballots tended to be the most supportive of democracy in the abstract.

While these data cannot causally link individuals’ attitudes to their voting behavior, voters’ self-reported motivations for casting invalid ballots are suggestive of the attitudes that might lead to such behavior. That the theoretically relevant variables used in the paper body are associated with each of these reported motivations as predicted suggests their utility as proxies for these motivations.

1. Invalid voting may be underreported because, in a given year or election, many invalid votes were cast invalidly, or because invalid voting is a sensitive behavior. At the same time, turnout is over reported in nearly all countries analyzed here, which will lead to an under-estimation of the total invalid vote by inflating the denominator (total valid votes) from which it is calculated. Some discrepancies will be due to sampling error, and some invalid votes are likely cast unintentionally. Finally, it is possible that some portion of invalid votes are the result of fraud by election officials. [↑](#footnote-ref-1)
2. I also constructed a database including only countries where a presidential election was held within the twelve months following survey data collection. The hypothetical measure did not align closely with official invalid vote rates in those cases, either. [↑](#footnote-ref-2)