

Online Appendix for “Ideological Signaling and Incumbency Advantage”

Description of CCES Items

Table A.1 reports the CCES question items¹ that I use in the analysis. As discussed in the text, I make several modifications to the raw responses. The 2006 and 2008 ideology locations are on a 0-100 scale while the 2010-2012 are on a seven-point scale. I linearly normalize each set of ideology locations to vary from -0.5 to 0.5 to generate comparability across election cycles. Additionally, household income is measured in nominal terms across the four waves of the CCES that I employ. I adjust for inflation using the Consumer Price Index. Respondents with missing answers are dropped and respondents residing in districts without two major party candidates in the relevant election are dropped as well.

Education level is recorded in the CCES as a categorical response to one education question. I extract the indicator variables, high school education, two-year college completion, four-year college completion, and postgraduate degree used in the analysis from the CCES education item. Similarly, racial identification is also recorded as a categorical response. I use the CCES race item to generate indicator variables for African-American, Latino, and Asian respondents.

While the above table lists all of the variables that I use in the estimation, in some cases I need to rely on other items in the CCES to determine whether the CCES item is inquiring about the Democratic or Republican candidate. Specifically, for the House and Senate candidate questions, the CCES may ask the respondent to identify the ideology of candidate 1 or candidate 2 and then code the partisan affiliation of the candidates in another question item. There is a similar issue with the vote choice questions. In all cases,

¹Ansolabehere (2010*a*; 2011; 2010*b*), Ansolabehere and Schaffner (2012)

Table A.1: CCES Items Used in Estimation

	2006	2008	2010	2012
Voter Ideology:	v3042	CC317a	CC334A	CC334A
Democratic Party Ideology:	v3043	CC317b	CC334D	CC334E
Republican Party Ideology:	v3044	CC317c	CC334E	CC334F
House Ideology Candidate 1:	v3045	CC317k	CC334J	CC334L
House Ideology Candidate 2:	v3046	CC317l	CC334K	CC334M
Senate Ideology Candidate 1:	v3047	CC317i	CC334H	CC334J
Senate Ideology Candidate 2:	v3048	CC317j	CC334I	CC334K
Education:	v2018	V213	V213	educ
Female:	v2004	V208	V208	gender
Race:	v2005	V211	V211	race
Weekly Religious Attendance:	v2026	V217	V217	pew_churatd
Real Household Income (Thousands):	v2032	V246	V246	faminc
Age:	2006 - v2020	2008 - V207	2010 - V207	2012 - birthyr
Partisanship:	v4034	CC307	V212a	pid3
Vote Choice House:	v3054	CC339	CC390	CC390
Vote Choice Senate:	v3056	CC335	CC355	CC355

I use other contextual information encoded in the CCES to determine the relevant party.

Another issue is the presence of multiple Senate elections in a handful of state-years. For example, in 2010 there was a New York special election to fill the Senate seat that Hilary Clinton vacated to become Secretary of State. The CCES records the ideological placement for these special election candidates in a separate question item and I employ this additional information in the analysis.

Differences in Voter Information Across Candidate Experience Levels

In this section, I offer additional evidence that voters have systematically different information about the ideology of House candidates as a function of candidate experience. The simplest way to measure differences in voter information about the ideology of candidates is to examine variation in the willingness of survey respondents to answer the candidate ideology question. I code the binary indicator for respondents who choose to respond to the ideology question from the CCES. I then estimate a linear probability model for the probability that a survey taker responds to the ideology question with the candidate's experience level as the independent variables of interest. Because there are likely to be important differences in awareness of candidates across districts and over time, I include fixed effects for the political jurisdiction and year fixed effects in the regression specification so that the regression equations only employ within-district variation to identify the effect of candidate experience on voters' information about candidate ideology.

Table A.2 reports the results of the linear probability model for House elections. The first column reports the results for Democratic candidates and the second column reports the results for Republican candidates. In House contests, the probability of a voter being willing to estimate candidate ideology is quite responsive to whether the candidate is an incumbent or experienced challenger relative to the omitted category of inexperienced challenger. For Democratic candidates, the probability that a respondent is willing to report an estimate of candidate ideology for incumbents is 28.3 percentage points higher than the 44.9 percent reporting an estimate for an inexperienced challenger. This corresponds to an effect of approximately 63 percent relative to baseline and the effect is statistically different from 0. The results are quite similar for Republican candidates. Consistent with the theoretical perspective and empirical results in the paper, the effect for experienced challengers is large and statistically significant, but the magnitude is significantly smaller

than the incumbent effect. The results reported in Table A.2 are a simple illustration that voters' information about the ideology of House candidates differs systematically across levels of candidate experience.

Table A.2: LPM for Estimate of Ideology (House Elections)

	(1)	(2)
	Democratic Cands.	Republican Cands.
Incumbent	0.283*** (0.0157)	0.258*** (0.0161)
Exp. Chall	0.152*** (0.0174)	0.125*** (0.0165)
Constant	0.449*** (0.0102)	0.418*** (0.0127)
Observations	142413	142413
Year Fixed Effects	Yes	Yes
District Fixed Effects	Yes	Yes

Heteroskedasticity robust standard errors clustered at district level

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Senate elections, the probability that a respondent estimates a candidate's ideology is not nearly as responsive to candidate experience. Table A.3 reports the results for Senate contests. For Democratic candidates the effect of incumbency is quite small and statistically insignificant. For Republican candidates, the estimated effect of incumbency is statistically significant but the magnitude is much smaller than in House elections. Also, note that the constant is much higher in Senate elections than House elections consistent with the perspective that there are higher levels of voter information about candidate ideology in Senate elections than House elections.

Another way of measuring voter information about candidate ideology is to examine the variability of ideological estimates across survey respondents for a given candidate-year. As candidate experience increases, the theoretical perspective suggests that the standard

Table A.3: LPM for Estimate of Ideology (Senate Elections)

	(1)	(2)
	Democratic Cands.	Republican Cands.
Incumbent	0.0143 (0.0140)	0.155** (0.0516)
Constant	0.786*** (0.0181)	0.648*** (0.0546)
Observations	106521	106160
Year Fixed Effects	Yes	Yes
State Fixed Effects	Yes	Yes

Heteroskedasticity robust standard errors clustered at state level

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

deviation in the reported estimates of candidate ideology will decrease. One difficulty with implementing this calculation is that respondents who do not offer an estimate of candidate ideology cannot be included when calculating the standard deviation of ideology estimates. To include respondents who do not offer an estimate of candidate ideology in the calculation, I assume that respondents who refuse to estimate the ideology of a candidate would offer an ideology estimate that is uniformly distributed over the range of the normalized ideological space.² To implement this assumption, I draw ideology estimates from a uniform density with support over the $[-.5, .5]$ interval for the subset of respondents who do not offer an estimate of a candidate's ideology. I then calculate the standard deviation of ideology within candidate-district-years for the House and Senate contests separately. Equipped with the measure of the variability of ideology estimates, I regress this dependent variable on candidate experience and district and year fixed effects.

Table A.4 reports the standard deviation of ideology estimates regression for House elections. Consistent with the previous results, incumbents have the lowest standard deviation of ideology estimates followed by experienced challengers and inexperienced challengers.

²The normalized ideological space is $[-.5, .5]$.

Table A.4: Standard Deviation of Ideology Estimates within Candidate-District-Year (House Elections)

	(1)	(2)
	Democratic Cands.	Republican Cands.
Incumbent	-0.0226*** (0.00227)	-0.0288*** (0.00270)
Exp. Chall	-0.00702*** (0.00192)	-0.00657** (0.00237)
Constant	0.270*** (0.00139)	0.284*** (0.00176)
Observations	1622	1622
Year Fixed Effects	Yes	Yes
District Fixed Effects	Yes	Yes

Heteroskedasticity robust standard errors clustered at state level

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results are quite similar for Democratic and Republican candidates. Table A.5 reports the Senate results. There is a statistically significant effect for Republican candidates in Senate elections comparable to the magnitude of the incumbency effect in House elections, but the effect is much smaller for Democratic candidates and statistically insignificant. The sum of the results illustrates that the information about candidate ideology that voters have at their disposal systematically and monotonically varies with the level of candidate experience in House elections and that the pattern in Senate elections is not as strong.

Table A.5: Standard Deviation of Ideology Estimates within Candidate-State-Year (Senate Elections)

	(1)	(2)
	Democratic Cands.	Republican Cands.
Incumbent	-0.00882 (0.00528)	-0.0260*** (0.00488)
Constant	0.259*** (0.00459)	0.267*** (0.00448)
Observations	132	132
Year Fixed Effects	Yes	Yes
State Fixed Effects	Yes	Yes

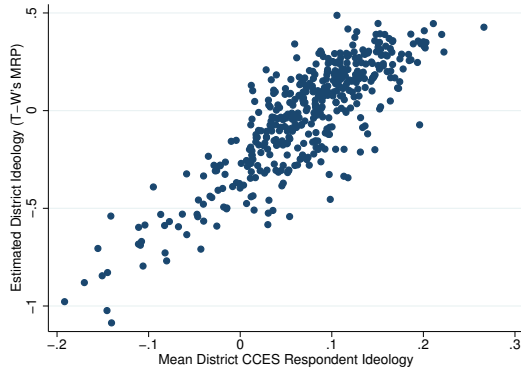
Heteroskedasticity robust standard errors clustered at state level

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

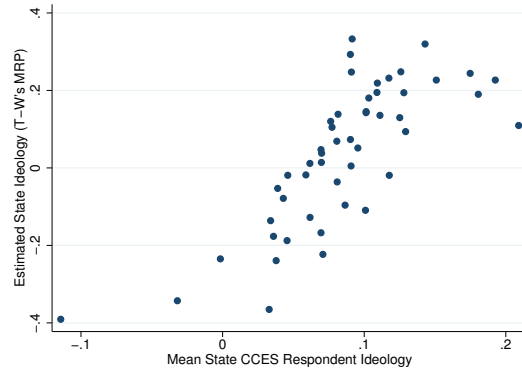
Validity of CCES Ideology Measures

In this subsection, I investigate the face validity of the measures of ideology derived from the CCES respondents. First, I examine the relationship between the average self-reported CCES respondent ideology in districts and states and a distinct and commonly-used measure of district ideology, Tausanovitch and Warshaw’s (2013) multilevel regression and poststratification. Tausanovitch and Warshaw (2013) estimate district ideology using responses to policy questions, as opposed to ideological self-placements, from the CCES and Annenberg National Election Survey. Figure A.1 displays separate scatter plots of this relationship between these measures of district ideology in the House and Senate. As displayed in the figures, there is a strong relationship between CCES self-placements and the Tausanovitch and Warshaw (2013) measure for both districts and states.

Next, I examine the relationship between the CCES respondents average estimates of candidate ideology and Bonica’s (2014) Campaign Finance scores. Both measures display a bimodal distribution of candidate ideology with Democratic candidates clustered on the left of the ideological space and Republicans clustered on the right. Again, there is a



(a) House Elections



(b) Senate Elections

Figure A.1: Scatter plots of Tausanovitch and Warshaw’s (2013) multilevel regression and post-stratification measure of ideology against mean district and state ideology self-placements from the CCES. The left panel displays the plot for House election and the right panel displays the plot for Senate elections.

strong positive relationship between the CCES respondent placements of ideology and the alternative measure of ideology in both House and Senate contests. These two results illustrate that the CCES ideological placements are meaningful measures of citizen and candidate ideology.

As a final validity check that examines both whether voter information varies across levels of candidate experience and the external validity of voter ideology estimates, I examine how the accuracy of the mean candidate ideology estimate varies with candidate experience. To quantify the accuracy of the ideology estimates, I regress the candidate’s CF score on the mean ideology estimate and a constant and compare the R^2 of the regression across different levels of candidate experience.³ First, I report the House regressions. In the first column, I regress House candidate CF score on the mean candidate ideology estimate from

³To make the test more conservative, I only use reported ideology estimates when calculating the candidate mean ideology. I do not impute missing candidate ideology estimates as uniform random draws for this particular test.

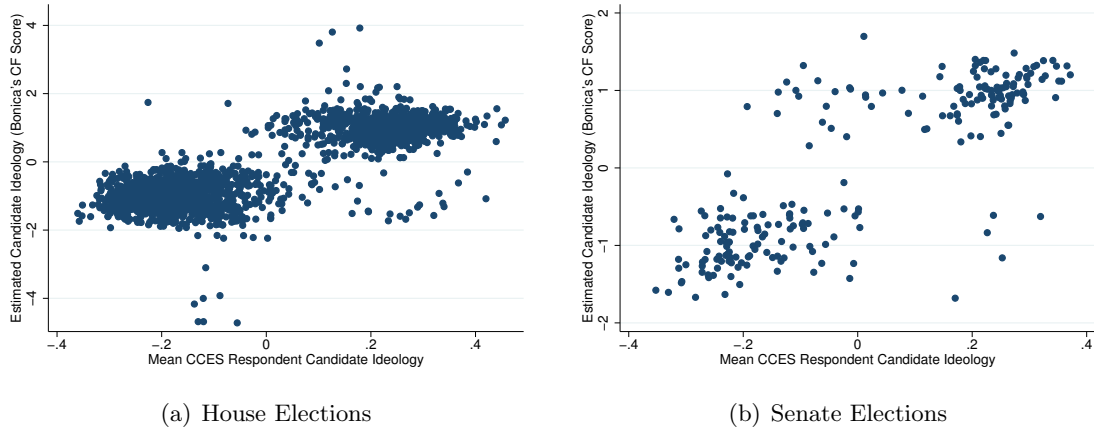


Figure A.2: Scatter plots of Bonica’s (2014) CF score measure of candidate ideology against mean placements of candidates from the CCES. The left panel displays the plot for House election and the right panel displays the plot for Senate elections.

the CCES and a constant for the subset of candidates who are incumbents. In the second and third columns, I repeat this regression with the subset of House candidates who are experienced and inexperienced challengers respectively.

Table A.6: Ideology Estimate Accuracy Regression for House Candidates

	(1)	(2)	(3)
	Incumbents	Exp. Chall	Inexp. Chall
Mean Ideology Estimate	3.698*** (0.0417)	4.555*** (0.118)	5.429*** (0.133)
Constant	-0.0933*** (0.0111)	-0.192*** (0.0254)	-0.302*** (0.0271)
Observations	1035	333	808
R^2	0.862	0.815	0.633

Heteroskedasticity robust standard errors

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

For the sample of incumbents, the R^2 of the regression is 0.862. When I estimate the regression on the sample of experienced challengers the R^2 decreases to 0.815. An even

larger decrease occurs when I restrict the regression to inexperienced challengers where the R^2 falls to 0.633. The pattern is identical in Senate contests. The incumbent sample has an R^2 of 0.757 and the R^2 decreases to 0.646 in the sample of challengers. This pattern, particularly the large difference between the accuracy of ideology estimates for experienced and inexperienced challengers in House elections is consistent with the main findings of the article and provides further evidence on the validity of the CCES ideology estimates.⁴ The results also illustrate that the variation in estimated ideology across candidates is not simply due to reverse causality. A motivated reasoning mechanism where voters place incumbents closer to their own ideology because the voter likes the incumbent for non-ideological reasons is not explaining all of the variation in estimated ideology.

Table A.7: Ideology Estimate Accuracy Regression for Senate Candidates

	(1)	(2)
	Incumbents	Chall.
Mean Ideology Estimate	3.517*** (0.146)	4.058*** (0.198)
Constant	-0.0294 (0.0449)	-0.0387 (0.0544)
Observations	88	143
R^2	0.757	0.646

Heteroskedasticity robust standard errors

⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

⁴The relationship also holds when examining within-party variation. When I restrict the sample to Democratic candidates and Republican candidates respectively, the monotonic increasing relationship of candidate experience and model fit also holds. These results are available upon request.

Robustness Checks

The following tables report the full set of robustness checks that are referred to in the penultimate section of the article. For brevity, I suppress the coefficient estimates and standard errors for the full set of respondent covariates included in the last column of each table. These results are available from the author upon request.

Table A.8: House Elections: Sample Restricted to 2006-2010 Electoral Cycles

	(1)	(2)	(3)	(4)
Party Weight (Incumbent)	0.292 (0.013)	0.300 (0.017)	0.306 (0.018)	0.295 (0.011)
Party Weight (Exp. Chall)	0.445 (0.024)	0.452 (0.046)	0.447 (0.031)	0.433 (0.024)
Party Weight (Inexp. Chall)	0.744 (0.015)	0.769 (0.016)	0.771 (0.015)	0.763 (0.012)
Incumbent	1.185 (0.014)	1.196 (0.014)	1.103 (0.018)	1.102 (0.006)
Experienced Challenger	0.969 (0.021)	0.964 (0.021)	0.990 (0.025)	0.997 (0.013)
Inexperienced Challenger	0.846 (0.017)	0.840 (0.018)	0.904 (0.026)	0.901 (0.011)
Dem Inc Adv (Exp Chall)	0.029 (0.004)	0.031 (0.004)	0.016 (0.004)	0.015 (0.002)
Rep Inc Adv (Exp Chall)	0.033 (0.005)	0.035 (0.004)	0.017 (0.005)	0.016 (0.002)
Dem Inc Adv (Inexp Chall)	0.052 (0.003)	0.055 (0.003)	0.037 (0.004)	0.036 (0.001)
Rep Inc Adv (Inexp Chall)	0.059 (0.003)	0.062 (0.004)	0.039 (0.005)	0.038 (0.001)
Dem Signaling (EC proportion)	0.103 (0.024)	0.113 (0.043)	0.210 (0.082)	0.211 (0.048)
Rep Signaling (EC proportion)	0.046 (0.013)	0.048 (0.025)	0.093 (0.051)	0.091 (0.028)
Dem Signaling (IEC proportion)	0.058 (0.012)	0.064 (0.026)	0.093 (0.033)	0.088 (0.019)
Rep Signaling (IEC proportion)	0.025 (0.006)	0.027 (0.014)	0.041 (0.019)	0.038 (0.010)
Observations	47964	47964	47964	42142
Log-likelihood	-11451	-11268	-10836	-9463
Year FE	Yes	Yes	Yes	Yes
State FE	No	Yes	No	No
District FE	No	No	Yes	Yes
Respondent Covariates	No	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the district level.

Table A.9: House Elections: Probit Models with Rounded Seven-Point Scale in 2006 and 2008

	(1)	(2)	(3)	(4)
Party Weight (Incumbent)	0.316 (0.017)	0.320 (0.02)	0.321 (0.02)	0.308 (0.012)
Party Weight (Exp. Chall)	0.439 (0.018)	0.444 (0.016)	0.442 (0.014)	0.430 (0.014)
Party Weight (Inexp. Chall)	0.703 (0.008)	0.716 (0.01)	0.716 (0.009)	0.710 (0.006)
Incumbent	1.170 (0.01)	1.181 (0.011)	1.105 (0.013)	1.106 (0.005)
Experienced Challenger	0.969 (0.016)	0.968 (0.017)	0.968 (0.016)	0.980 (0.008)
Inexperienced Challenger	0.861 (0.013)	0.850 (0.014)	0.911 (0.016)	0.917 (0.006)
Dem Inc Adv (Exp Chall)	0.029 (0.003)	0.030 (0.003)	0.020 (0.003)	0.018 (0.001)
Rep Inc Adv (Exp Chall)	0.029 (0.003)	0.031 (0.003)	0.020 (0.003)	0.018 (0.002)
Dem Inc Adv (Inexp Chall)	0.050 (0.002)	0.053 (0.002)	0.036 (0.003)	0.034 (0.001)
Rep Inc Adv (Inexp Chall)	0.051 (0.002)	0.054 (0.002)	0.035 (0.003)	0.033 (0.001)
Dem Signaling (EC %)	0.125 (0.027)	0.129 (0.026)	0.175 (0.038)	0.176 (0.027)
Rep Signaling (EC %)	0.061 (0.015)	0.062 (0.013)	0.088 (0.02)	0.081 (0.014)
Dem Signaling (IEC %)	0.072 (0.014)	0.073 (0.015)	0.097 (0.021)	0.093 (0.014)
Rep Signaling (IEC %)	0.035 (0.007)	0.035 (0.007)	0.050 (0.011)	0.044 (0.007)
Observations	64409	64409	64409	56621
Log-likelihood	-15294	-15127	-14663	-12853
Year FE	Yes	Yes	Yes	Yes
State FE	No	Yes	No	No
District FE	No	No	Yes	Yes
Respondent Covariates	No	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the district level.

Table A.10: Senate Elections: Probit Models with Rounded Seven-Point Scale in 2006 and 2008

	(1)	(2)	(3)
Party Weight (Incumbent)	0.707 (0.077)	0.698 (0.072)	0.662 (0.076)
Party Weight (Chall)	0.773 (0.043)	0.766 (0.042)	0.722 (0.036)
Incumbent	1.110 (0.022)	1.107 (0.022)	1.107 (0.021)
Challenger	0.890 (0.022)	0.895 (0.022)	0.892 (0.021)
Dem Inc Adv	0.030 (0.008)	0.028 (0.007)	0.028 (0.006)
Rep Inc Adv	0.035 (0.01)	0.032 (0.007)	0.032 (0.007)
Dem Signaling (proportion)	0.074 (0.111)	0.091 (0.111)	0.081 (0.116)
Rep Signaling (proportion)	0.113 (0.184)	0.083 (0.092)	0.065 (0.089)
Observations	67166	67166	58875
Log-likelihood	-15471	-14682	-12721
Year FE	Yes	Yes	Yes
State FE	No	Yes	Yes
Respondent Covariates	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the state level.

Table A.11: House Elections: Probit Models with Respondent Case Weights

	(1)	(2)	(3)	(4)
Party Weight (Incumbent)	0.310 (0.013)	0.315 (0.017)	0.317 (0.016)	0.303 (0.010)
Party Weight (Exp. Chall)	0.443 (0.020)	0.447 (0.025)	0.446 (0.019)	0.433 (0.015)
Party Weight (Inexp. Chall)	0.732 (0.017)	0.751 (0.015)	0.751 (0.015)	0.740 (0.013)
Incumbent	1.166 (0.011)	1.176 (0.011)	1.100 (0.013)	1.100 (0.006)
Experienced Challenger	0.967 (0.017)	0.965 (0.017)	0.963 (0.017)	0.977 (0.011)
Inexperienced Challenger	0.866 (0.014)	0.859 (0.014)	0.916 (0.017)	0.922 (0.009)
Dem Inc Adv (Exp Chall)	0.029 (0.003)	0.030 (0.003)	0.020 (0.003)	0.018 (0.002)
Rep Inc Adv (Exp Chall)	0.028 (0.003)	0.030 (0.003)	0.019 (0.003)	0.017 (0.002)
Dem Inc Adv (Inexp Chall)	0.050 (0.002)	0.053 (0.002)	0.036 (0.003)	0.034 (0.001)
Rep Inc Adv (Inexp Chall)	0.050 (0.003)	0.052 (0.003)	0.034 (0.003)	0.032 (0.001)
Dem Signaling (EC proportion)	0.137 (0.030)	0.139 (0.036)	0.189 (0.048)	0.190 (0.032)
Rep Signaling (EC proportion)	0.067 (0.017)	0.067 (0.021)	0.095 (0.029)	0.089 (0.018)
Dem Signaling (IEC proportion)	0.078 (0.015)	0.079 (0.020)	0.105 (0.023)	0.099 (0.014)
Rep Signaling (IEC proportion)	0.038 (0.008)	0.038 (0.011)	0.054 (0.013)	0.047 (0.007)
Observations	64409	64409	64409	56621
Log-likelihood	-15036	-14867	-14407	-12629
Year FE	Yes	Yes	Yes	Yes
State FE	No	Yes	No	No
District FE	No	No	Yes	Yes
Respondent Covariates	No	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the district level.

Table A.12: Senate Elections: Probit Models with Respondent Case Weights

	(1)	(2)	(3)
Party Weight (Incumbent)	0.719 (0.076)	0.704 (0.072)	0.693 (0.088)
Party Weight (Chall)	0.781 (0.043)	0.767 (0.040)	0.738 (0.044)
Incumbent	1.123 (0.024)	1.116 (0.025)	1.118 (0.028)
Challenger	0.877 (0.024)	0.886 (0.025)	0.882 (0.028)
Dem Inc Adv	0.038 (0.009)	0.034 (0.009)	0.034 (0.009)
Rep Inc Adv	0.042 (0.011)	0.037 (0.009)	0.037 (0.010)
Dem Signaling (proportion)	0.066 (0.094)	0.081 (0.113)	0.057 (0.135)
Rep Signaling (proportion)	0.093 (0.133)	0.075 (0.095)	0.051 (0.115)
Observations	67166	67166	58875
Log-likelihood	-15329	-14576	-12809
Year FE	Yes	Yes	Yes
State FE	No	Yes	Yes
Respondent Covariates	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the state level.

Table A.13: House Elections: Probit Models with Imputed Candidate Locations

	(1)	(2)	(3)	(4)
Party Weight (Incumbent)	0.349 (0.018)	0.357 (0.019)	0.363 (0.017)	0.320 (0.013)
Party Weight (Exp. Chall)	0.546 (0.025)	0.552 (0.029)	0.546 (0.026)	0.525 (0.028)
Party Weight (Inexp. Chall)	0.755 (0.012)	0.771 (0.012)	0.769 (0.011)	0.757 (0.008)
Incumbent	1.219 (0.010)	1.223 (0.010)	1.131 (0.012)	1.147 (0.006)
Experienced Challenger	0.950 (0.015)	0.951 (0.015)	0.940 (0.013)	0.964 (0.009)
Inexperienced Challenger	0.831 (0.012)	0.827 (0.012)	0.876 (0.013)	0.889 (0.007)
Dem Inc Adv (Exp Chall)	0.042 (0.003)	0.042 (0.003)	0.030 (0.003)	0.029 (0.001)
Rep Inc Adv (Exp Chall)	0.040 (0.003)	0.040 (0.003)	0.029 (0.003)	0.028 (0.001)
Dem Inc Adv (Inexp Chall)	0.065 (0.002)	0.066 (0.002)	0.046 (0.002)	0.046 (0.001)
Rep Inc Adv (Inexp Chall)	0.064 (0.002)	0.065 (0.002)	0.046 (0.002)	0.046 (0.001)
Dem Signaling (EC proportion)	0.214 (0.035)	0.218 (0.039)	0.256 (0.046)	0.272 (0.043)
Rep Signaling (EC proportion)	0.145 (0.026)	0.144 (0.029)	0.186 (0.038)	0.186 (0.034)
Dem Signaling (IEC proportion)	0.139 (0.022)	0.139 (0.024)	0.166 (0.031)	0.169 (0.027)
Rep Signaling (IEC proportion)	0.091 (0.015)	0.089 (0.017)	0.117 (0.024)	0.112 (0.020)
Observations	110194	110194	110194	97392
Log-likelihood	-25057	-24827	-24194	-21190
Year FE	Yes	Yes	Yes	Yes
State FE	No	Yes	No	No
District FE	No	No	Yes	Yes
Respondent Covariates	No	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the district level.

Table A.14: Senate Elections: Probit Models with Imputed Candidate Locations

	(1)	(2)	(3)
Party Weight (Incumbent)	0.695 (0.076)	0.683 (0.066)	0.660 (0.086)
Party Weight (Chall)	0.783 (0.031)	0.773 (0.031)	0.745 (0.031)
Incumbent	1.143 (0.018)	1.122 (0.023)	1.119 (0.025)
Challenger	0.857 (0.018)	0.878 (0.024)	0.881 (0.025)
Dem Inc Adv	0.041 (0.007)	0.035 (0.007)	0.034 (0.008)
Rep Inc Adv	0.046 (0.009)	0.037 (0.008)	0.036 (0.008)
Dem Signaling (proportion)	0.089 (0.075)	0.116 (0.084)	0.111 (0.103)
Rep Signaling (proportion)	0.127 (0.103)	0.108 (0.073)	0.099 (0.089)
Observations	89698	89698	79033
Log-likelihood	-20318	-19535	-16938
Year FE	Yes	Yes	Yes
State FE	No	Yes	Yes
Respondent Covariates	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the state level.

Table A.15: House Elections: Probit Models with Respondent Partisanship

	(1)	(2)	(3)	(4)
Party Weight (Incumbent)	0.192 (0.019)	0.193 (0.019)	0.211 (0.02)	0.192 (0.015)
Party Weight (Exp. Chall)	0.318 (0.03)	0.318 (0.03)	0.324 (0.03)	0.307 (0.013)
Party Weight (Inexp. Chall)	0.613 (0.023)	0.620 (0.024)	0.624 (0.022)	0.613 (0.017)
Incumbent	1.195 (0.011)	1.199 (0.012)	1.137 (0.013)	1.135 (0.008)
Experienced Challenger	0.970 (0.017)	0.973 (0.017)	0.982 (0.017)	0.989 (0.008)
Inexperienced Challenger	0.835 (0.014)	0.828 (0.015)	0.874 (0.017)	0.880 (0.008)
Democrat	0.836 (0.027)	0.787 (0.026)	0.804 (0.025)	0.746 (0.007)
Republican	-0.571 (0.03)	-0.643 (0.026)	-0.651 (0.028)	-0.632 (0.008)
Dem Inc Adv (Exp Chall)	0.027 (0.003)	0.026 (0.003)	0.018 (0.003)	0.017 (0.002)
Rep Inc Adv (Exp Chall)	0.029 (0.003)	0.029 (0.003)	0.019 (0.003)	0.018 (0.002)
Dem Inc Adv (Inexp Chall)	0.046 (0.002)	0.048 (0.002)	0.035 (0.002)	0.034 (0.001)
Rep Inc Adv (Inexp Chall)	0.049 (0.002)	0.051 (0.003)	0.037 (0.003)	0.035 (0.002)
Dem Signaling (EC %)	0.085 (0.023)	0.085 (0.025)	0.107 (0.035)	0.101 (0.016)
Rep Signaling (EC %)	0.021 (0.008)	0.024 (0.009)	0.032 (0.014)	0.024 (0.004)
Dem Signaling (IEC %)	0.048 (0.013)	0.047 (0.013)	0.055 (0.017)	0.050 (0.008)
Rep Signaling (IEC %)	0.012 (0.004)	0.014 (0.005)	0.017 (0.007)	0.012 (0.002)
Observations	64409	64409	64409	56621
Log-likelihood	-13579	-13464	-13016	-11561
Year FE	Yes	Yes	Yes	Yes
State FE	No	Yes	No	No
District FE	No	No	Yes	Yes
Respondent Covariates	No	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the district level.

Table A.16: Senate Elections: Probit Models with Respondent Partisanship

	(1)	(2)	(3)
Party Weight (Incumbent)	0.631 (0.114)	0.632 (0.114)	0.607 (0.118)
Party Weight (Chall)	0.691 (0.059)	0.686 (0.051)	0.648 (0.051)
Incumbent	1.119 (0.018)	1.117 (0.026)	1.118 (0.021)
Challenger	0.881 (0.018)	0.881 (0.026)	0.882 (0.021)
Democrat	1.027 (0.052)	0.866 (0.045)	0.808 (0.04)
Republican	-0.457 (0.043)	-0.637 (0.037)	-0.605 (0.033)
Dem Inc Adv	0.028 (0.006)	0.027 (0.007)	0.027 (0.006)
Rep Inc Adv	0.032 (0.006)	0.030 (0.007)	0.030 (0.006)
Dem Signaling (proportion)	0.058 (0.118)	0.061 (0.132)	0.047 (0.155)
Rep Signaling (proportion)	0.065 (0.119)	0.043 (0.073)	0.029 (0.074)
Observations	67166	67166	58875
Log-likelihood	-13317	-12827	-11309
Year FE	Yes	Yes	Yes
State FE	No	Yes	Yes
Respondent Covariates	No	No	Yes

Block bootstrap standard errors in parentheses are clustered at the state level.

References

- Ansolabehere, Stephen. 2010a. *CCES Common Content, 2006*.
<http://hdl.handle.net/1902.1/14002> V3 [Version].
- Ansolabehere, Stephen. 2010b. *CCES Common Content, 2010*.
<http://hdl.handle.net/1902.1/17705> V3 [Version].
- Ansolabehere, Stephen. 2011. *CCES Common Content, 2008*.
<http://hdl.handle.net/1902.1/14003> V4 [Version].
- Ansolabehere, Stephen and Brian Schaffner. 2012. *CCES Common Content, 2012*.
<http://hdl.handle.net/1902.1/21447> UNF:5:Eg5SQysFZaPiXc8tEbmmRA== CCES V7 [Version].
- Bonica, Adam. 2014. “Mapping the Ideological Marketplace.” *American Journal of Political Science* 58(2):367–386.
- Tausanovitch, Chris and Christopher Warshaw. 2013. “Measuring Constituent Policy Preferences in Congress, State Legislatures, and Cities.” *Journal of Politics* 75(2):330–342.