

Supplementary Materials for “When do voters respond to campaign finance disclosure? Evidence from multiple election types”

Contents

A	Subject Description	ii
B	Citizens United and its Implications For Disclosure	v
C	Summary of State Campaign Finance Laws	vi
D	Additional conjoint screenshots	viii
E	Causal Assumptions	x
F	Additional Results	xv
G	Subjects’ Support For Hypothetical Initiative Campaigns	xxv
H	Statistical tests of model differences across experimental conditions	xxvi

A Subject Description

All subjects were recruited via the CESS Online US subject pool, according to the exclusion restrictions noted in the main paper. The CESS Online US subject pool is an online pool of participants maintained by the Centre for Experimental Social Science at Nuffield College, University of Oxford. Subjects are initially recruited into the pool via Facebook advertisements, targeting different geographic and demographic groups to ensure a more diverse set of potential subjects. Once recruited into the pool, subjects are invited via email to take part in specific experiments run by the Centre. One benefit of this pool is that subjects pre-register for experiments with the centre, and provide basic demographic information including their location. Recruitment emails could therefore be targeted to those who resided in states with direct democratic elections so that subjects were likely familiar, or at least aware of, the ballot initiative process. Further information about the online pool, CESS's experimental procedures, and the centre more generally can be found at <https://cess-nuffield.nuff.ox.ac.uk/>.

Responses were collected between 18th February and 8th March 2019. Table A1 outlines key demographic information about the subjects, and Figure A1 plots the frequency of participants by their state of residence. Post data-collection, 13 respondents who answered that they lived in Alabama were excluded from all analyses since Alabama does not have the initiative process.

To ensure a similar baseline level of understanding across the sample, participants were asked to first read a passage of text describing basic features of candidate and ballot initiative elections, as well as campaign finance. Participants were told they would have to answer three factual questions related to the text, and would be remunerated for each correct answer given. On average, subjects answered 2.4 questions correctly indicating a good level of understanding about these elections having read the information.

Figure A1: Frequency of subject participation by states

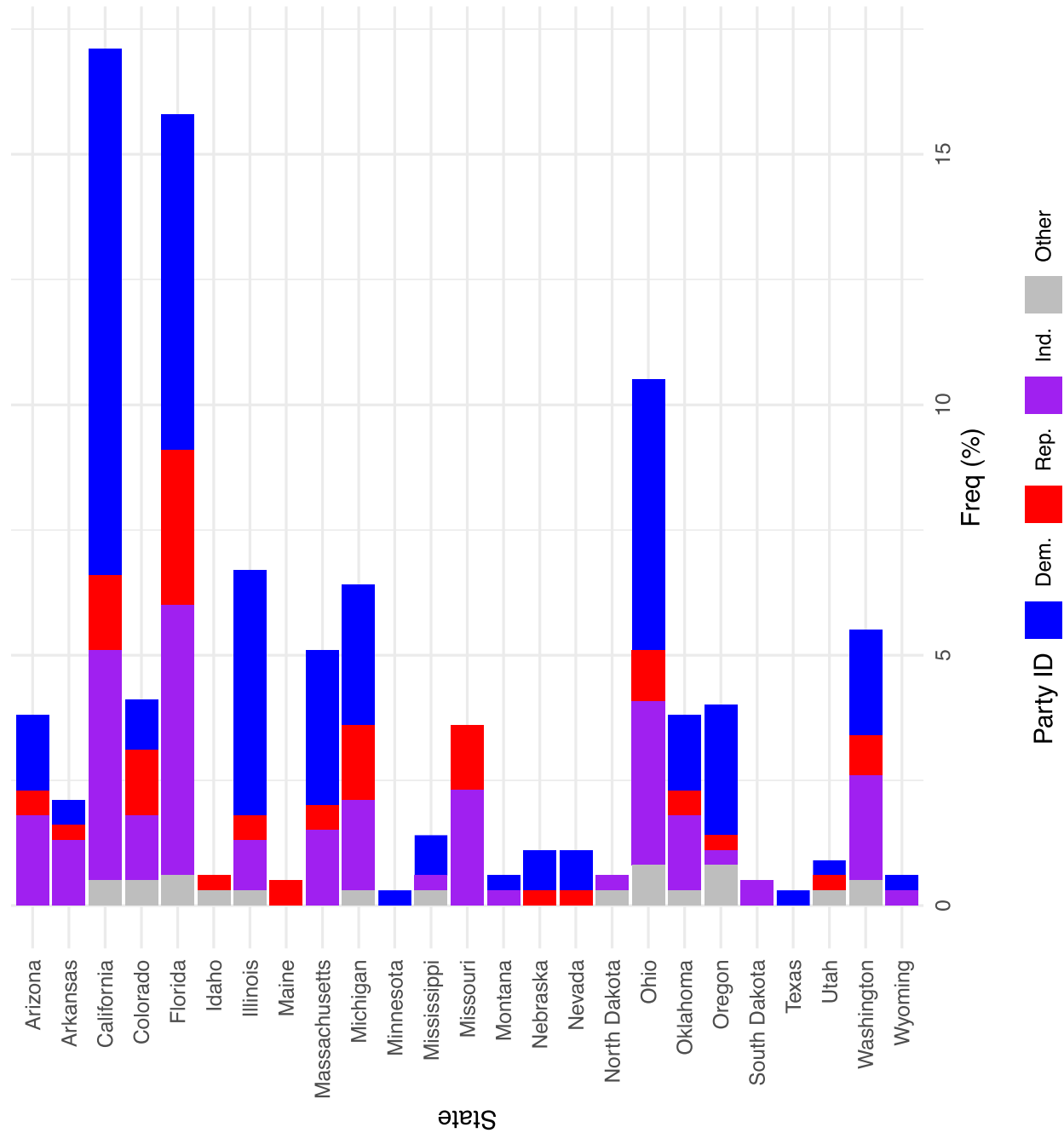


Table A1: Descriptive summary of key demographics for conjoint experiment subjects.

Variable	Value	Freq (%)
Age	<i>Mean</i>	38.00
	<i>Standard Deviation</i>	14.14
Gender	Female	53.80
	Male	44.90
	Other:	0.30
	Prefer not to say	0.30
	Transgender	0.80
Ethnic	American Indian or Alaska Native	1.50
	Asian	6.70
	Black or African American	8.70
	Hispanic or Latino	3.30
	Native Hawaiian or Pacific Islander	0.30
	Other	5.40
	Prefer not to say	2.10
	White	71.80
	(Missing)	0.30
Party ID	A Democrat	46.20
	A Republican	14.60
	An independent	29.70
	Other	4.10
	Prefer not to say	1.30
	(Missing)	4.10
Ideology	<i>Mean</i>	4.26
	<i>Standard Deviation</i>	2.39

B Citizens United and its Implications For Disclosure

The *Citizens United v. FEC* (2010) decision struck down independent expenditure limits on corporations and unions. It did so on the basis of the First Amendment, ruling that freedom of speech extends to incorporated interests. Preventing these organisations from spending on political activity was, the Court ruled, an effective but unconstitutional impediment to their political expression.

As a result of this ruling businesses, unions, and other organisations like non-profit groups can now spend unlimited amounts of money in political races, so long as it is independently coordinated from candidates. This latter clause is crucial – corporations cannot donate unlimited amounts to candidates, there are strict limits at both the federal and state level (which I outline in further detail in the following section). Instead, corporations can *spend* unlimited amounts in favour of a given candidate – for example producing advertisements and signage, holding events, and distributing pamphlets.

Citizens United represents a general weakening of regulation aimed at curbing expenditure in political campaigns. Those institutions typically most able to spend comparatively large amounts of money, compared to regular voters, face fewer obstacles when trying to advocate for candidates or parties. However, businesses themselves have been wary of direct spending in campaigns, and therefore the most visible impact immediately following the ruling has been with respect to non-profit spending (Briffault, 2011).

In and of itself the ruling is not about disclosure. But the changing regulatory landscape after *Citizens United* has at least two notable implications for the disclosure regulation in the United States. First, as limits on political spending are generally weakened, the regulatory ‘workload’ of disclosure has increased (Jiang, 2019). Simply put, without spending limits there are fewer pre-donation regulations that limit the activities of various classes of actors. Thus, the relative input of disclosure on regulating activity increases.

Second, the increase in political spending by non-profit organisations specifically has implications for the transparency of campaign finance activity. As mentioned in the main text, non-profit entities registered under 501(c)(4) terms do not face the same disclosure requirements as other organisations. While these non-profits must disclose what *they* spend, they are not obliged to reveal their donation sources in the same way as candidates or candidate-affiliated PACs. As [Mayer \(2016\)](#) demonstrates, this can lead to complicated and convoluted networks of donations routed via 501(c)(4) organisations such that the original source of campaign spending is not revealed.

This latter feature is extremely consequential for disclosure construed in normative terms. Donors can use hidden funding routes to spend in campaigns without being discovered, potentially misleading voters about the sources of electoral resources and who, ultimately, the benefactors are. If a donor has a negative reputation, or a corporation has a clear vested interest, strategically altering how electoral spending is presented to voters has the potential to change voter behaviour and potentially change electoral results ([Wood and Spencer, 2016](#); [Wood, 2019](#); [Oklobdzija, 2019](#)).

C Summary of State Campaign Finance Laws

As noted in the main text, campaign finance laws for gubernatorial candidates vary in terms of the contribution limits by state. Table [C1](#) details the total amount individuals, PACs, corporations and unions can donate to a single candidate per year (or electoral cycle where relevant). Contribution limits in ballot initiative races are proscribed by federal court rulings.

¹⁹“Mega” PAC’s can contribute \$10,100

²⁰\$5675 for small donor committees.

²¹\$5675 for small donor committees.

²²Gubernatorial candidates with more than \$250,000 independent expenditures are exempt, or if opposition candidate is self-funded (spending over \$250,000.)

²³Independent PACs can contribute up to \$68,000.

Table C1: Contribution limits per year for individuals, PACs, corporations, and unions. Amounts quoted are for gubernatorial candidates. Data from National Conference of State Legislatures.

State	Individual	PAC	Corporate	Union
Arizona	\$5100	\$5100 ¹⁹	Prohibited	Prohibited
Arkansas	\$2700	\$2700	Prohibited	Prohibited
California	\$29200	\$29,200	\$29,200	\$29,200
Colorado	\$575	\$575 ²⁰	Prohibited	\$575 ²¹
Florida	\$3000	\$3000	\$3000	\$3000
Idaho	\$5000	\$5000	\$5000	\$5000
Illinois	\$5600 ²²	\$55,400	\$11,100	\$11,100
Maine	\$1600	\$1600	\$1600	\$1600
Massachusetts	\$1000	\$500	Prohibited	\$500
Michigan	\$6800	\$6800 ²³	Prohibited	Prohibited
Minnesota	\$4000	\$4000	Prohibited	\$4000
Mississippi	Unlimited	Unlimited	\$1000	Unlimited
Missouri	\$2600	\$2600	Prohibited	Prohibited
Montana	\$1990	\$10610	Prohibited	Prohibited
Nebraska	Unlimited	Unlimited	Unlimited	Unlimited
Nevada	\$5000	\$5000	\$5000	\$5000
North Dakota	Unlimited	Unlimited	Prohibited	Prohibited
Ohio	\$12707.79	\$12707.79	Prohibited	Prohibited
Oklahoma	\$2700	\$5000	Prohibited	Prohibited
Oregon	Unlimited	Unlimited	Unlimited	Unlimited
South Dakota	\$4000	Unlimited	\$4000	\$4000
Texas	Unlimited	Unlimited	Prohibited	Prohibited
Utah	Unlimited	Unlimited	Unlimited	Unlimited
Washington	\$2000	\$2000	\$2000	\$2000
Wyoming	\$2500	Unlimited	Prohibited	Prohibited

D Additional conjoint screenshots

Figure D1: Screenshot of candidate conjoint with additional information signals

	Candidate A	Candidate B
Total Donations	\$1 million to \$10 million	\$100,000 to \$200,000
Average Donation	\$1 million	\$75
Origin of Donations	Majority from donors out of state	Majority from donors within the state
Previously held elected office?	Elected to federal office	No previous elected positions
Party	Independent	Democrat
Ideology	Very liberal	Moderate conservative
Largest Donor	Political Advocacy Group	Labor Union
Proportion of Campaign Funds from Largest Donor	50%	10%

If you had to choose, which candidate would you vote for?

Candidate A

Candidate B

On a scale from 1 to 7, where 1 indicates that you strongly disapprove of the candidate and 7 indicates that you strongly approve of the candidate, how would you rate the two candidates?

1 = you strongly **disapprove** of the candidate
7 = strongly **approve** of the candidate

	Strongly Disapprove						Strongly Approve
	1	2	3	4	5	6	7
Candidate A	☐	☐	☐	☐	☐	☐	☐
Candidate B	☐	☐	☐	☐	☐	☐	☐

Figure D2: Screenshot of initiative conjoint

Initiative Title: Marijuana legalisation

If passed, this initiative would legalize the sale of marijuana within the state for recreational use for those aged 21 and over, subject to taxation and regulation by state authorities.

	Support	Opposition
Origin of Donations	Majority from donors out of state	Majority from donors within the state
Average Donation	\$75	\$75
Total Donations	\$100,000 to \$200,000	\$70 million to \$90 million
Largest Donor	Private individual	Corporation/Trade Association
Proportion of Campaign Funds from Largest Donor	90%	50%

init_marij_choice. If you had to choose, would you vote for or against this initiative?

- ☒ For
☐ Against

init_marij_rate.

On a scale from 1 to 7, where 1 indicates that you strongly disapprove of the campaign and 7 indicates that you strongly approve of the campaign, how would you rate the two sides of the campaign?

1 = you strongly **disapprove** of the campaign

7 = strongly **approve** of the campaign

	Strongly Disapprove 1	2	3	4	5	6	Strongly Approve 7
Support	☐	☐	☐	☐	☒	☐	☐
Opposition	☐	☐	☐	☒	☐	☐	☐

E Causal Assumptions

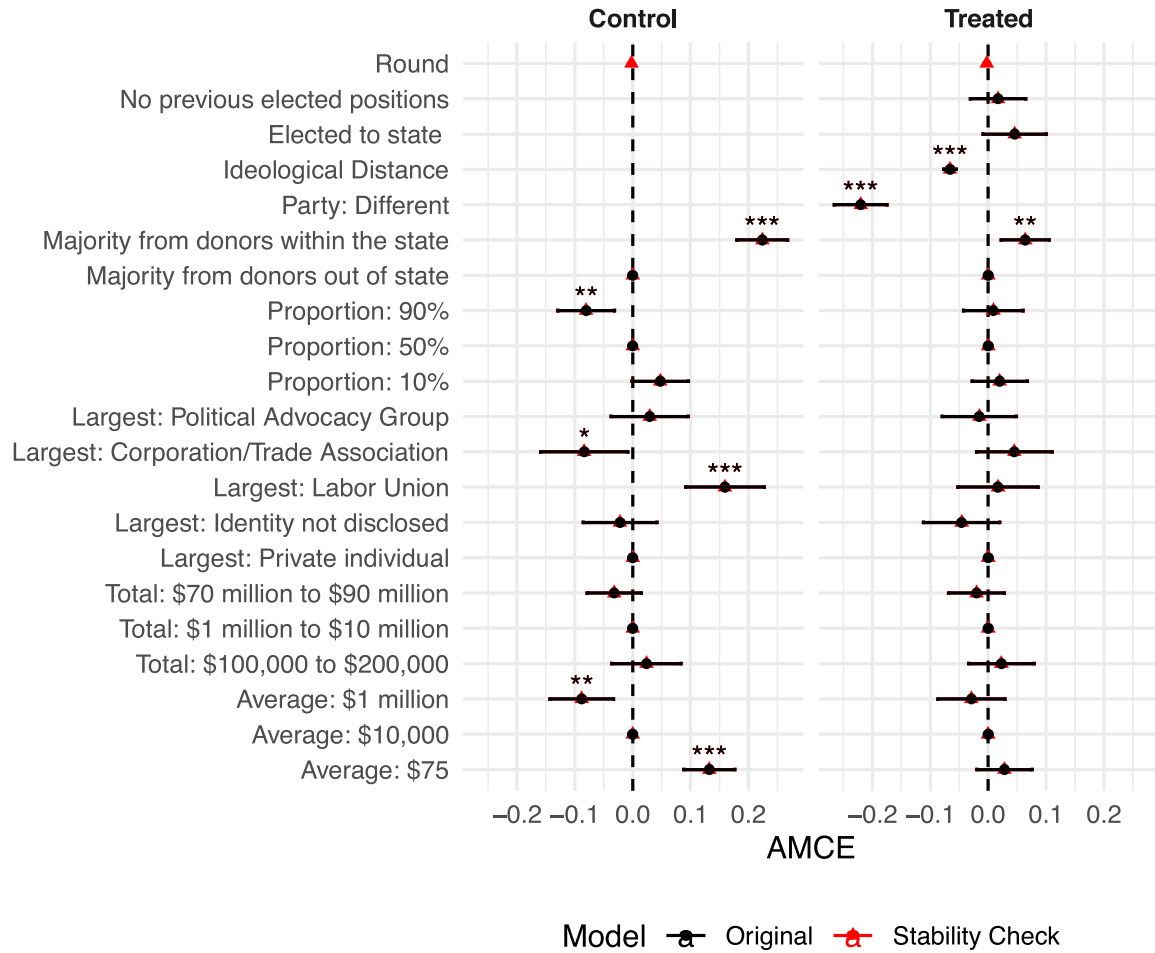
Stability and no carryover. In line with similar conjoint experiments about political candidates, I do not expect there to be carryover effects between rounds of the same conjoint experiment. The marginal effect of disclosing a majority of out-of-state donations, for instance, should remain stable whether it is presented in the first or last round of the experiment. To ensure this assumption holds, I reran the regressions including a numeric control variable for the round the choice-profile was presented in. When this variable is included, the coefficients of the candidate conjoint attribute-levels are substantively unchanged, nor is the round variable statistically significant – suggesting that the stability assumption holds. Figure E1 presents these results compared to the original models.²⁴

No profile-order effects. The profile-order assumption states that there is no distinct effect of the order of profiles within each task i.e. that any effect of a large total donations is constant whether it appears under Candidate A or B. This concern is mitigated, in part, by randomizing the order of attributes across profiles. To the extent I recover the average marginal effect by pooling across subjects and conjoint rounds, any profile-order effect (if present) should be netted-out. As a further robustness check, I regress a new model on the control-condition candidate data, interacting the disclosure variables with the profile indicator (“A” and “B”). None of the interactive terms approach conventional levels of statistical significance ($0.19 < p < 0.95$; see replication code for the full models), suggesting there is no difference whether an attribute was displayed in the first or second profile.

Randomized and atypical profiles. For the estimated marginal effects to be causally robust, the conjoint design should in theory assign non-zero probabilities to every possible

²⁴This check assumes that the direction of any carryover-effect is uniform across attributes. Of course, the cumulative carryover effect could be statistically indistinguishable from zero whereas the marginal carryover effect for each attribute is non-zero. As a further check, one could rerun models on the subset of data for respondents’ ‘uncontaminated’ first choice task alone. The diminished number of observations in this case, however, limits the extent to which this is a useful check.

Figure E1: Comparison of coefficients between models reported in the main text and models including a continuous variable of the conjoint round, to check for stability and any carryover effects.



Coefficients are shown with 95 percent confidence intervals. Stars above coefficients indicate statistical significance at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

vector of treatments. Across the three conjoint experiments, however, I impose a very limited set of restrictions to ensure that the conjoint profiles are plausible. Across all three experiments, I prevented profiles being shown where the average donation exceeded the total value of donations. Furthermore, for the informational equivalence candidate conjoint, I prevented profiles where the candidate was both an “extreme” liberal (conservative) and a Republican (Democrat). Given the limited set of restrictions imposed, the

advantages of external validity and subject engagement outweighed the smaller benefits of including atypical profiles.²⁵

Balanced profiles. Finally, as with any randomisation procedure, it is crucial to show that the mechanics of said randomisation in fact lead to both balanced attribute profiles and subject characteristics. Tables E1 and E2 show the proportion of times each attribute-level was displayed within the three conjoint experiments. No attribute-level was displayed a significantly higher or lower amount of times, relative to the other levels for the same attribute except for those attributes subject to restrictions. Here, it is the case that the unrestricted levels are nonetheless relatively equal in the proportion of times they were presented.

²⁵Very early on in the implementation, a coding error led to a limited number of profiles displaying implausible attribute combinations (these observations were subsequently excluded from the analysis). This prompted a respondent to email the experimental administrator to point out the incomprehensibility of the profiles, suggesting omitting these profiles is indeed the correct design decision.

Table E1: Balance test: proportion of times each attribute-level was displayed to participants in the candidate conjoints

Attribute	Level	Control	Treat
Average	\$1 million	0.24	0.24
Average	\$10,000	0.38	0.40
Average	\$75	0.38	0.36
Cand. Ideology	Centrist		0.22
Cand. Ideology	Moderate conservative		0.23
Cand. Ideology	Moderate liberal		0.24
Cand. Ideology	Very conservative		0.16
Cand. Ideology	Very liberal		0.16
Cand. Ideology	–	1.00	
Largest	Corporation/Trade Association	0.19	0.21
Largest	Identity not disclosed	0.20	0.21
Largest	Labor Union	0.21	0.19
Largest	Political Advocacy Group	0.21	0.20
Largest	Private individual	0.20	0.19
Office	Elected to federal office		0.34
Office	Elected to state office		0.34
Office	No previous elected positions		0.33
Office	–	1.00	
Origin	Majority from donors out of state	0.49	0.49
Origin	Majority from donors within the state	0.51	0.51
Party	Democrat		0.30
Party	Independent		0.37
Party	Republican		0.33
Party	–	1.00	
Prop	10%	0.35	0.33
Prop	50%	0.33	0.35
Prop	90%	0.33	0.31
Total	\$1 million to \$10 million	0.38	0.39
Total	\$100,000 to \$200,000	0.25	0.26
Total	\$70 million to \$90 million	0.37	0.35

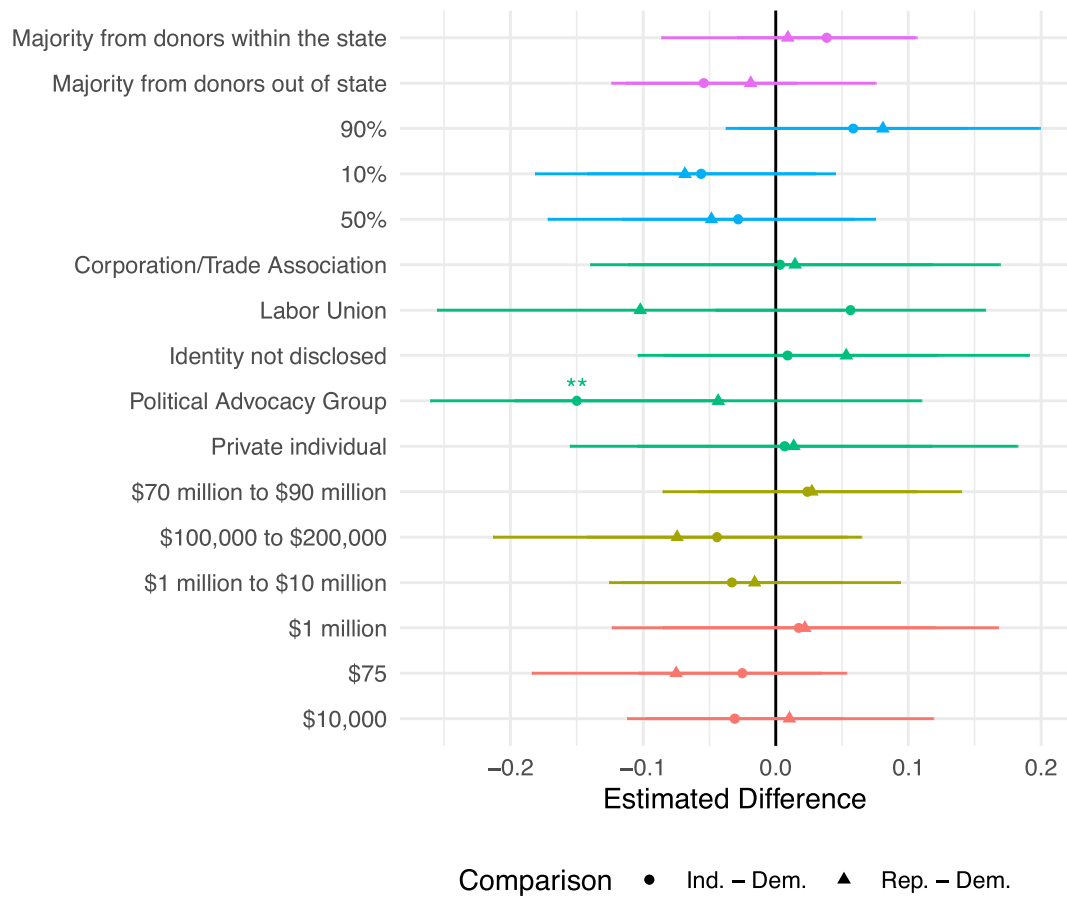
Table E2: Balance test: proportion of times each attribute-level was displayed to participants in the initiative conjoint

Attribute	Level	Bond	Enviro.	Marij.	Wage
Average	\$1 million	0.27	0.23	0.26	0.27
Average	\$10,000	0.38	0.37	0.37	0.35
Average	\$75	0.35	0.40	0.37	0.38
Largest	Corporation/Trade Association	0.22	0.20	0.18	0.23
Largest	Identity not disclosed	0.19	0.22	0.21	0.18
Largest	Labor Union	0.21	0.20	0.18	0.21
Largest	Political Advocacy Group	0.17	0.19	0.22	0.19
Largest	Private individual	0.21	0.19	0.20	0.19
Origin	Majority from donors out of state	0.47	0.49	0.50	0.50
Origin	Majority from donors within the state	0.53	0.51	0.50	0.50
Prop	10%	0.31	0.36	0.35	0.32
Prop	50%	0.31	0.33	0.28	0.33
Prop	90%	0.38	0.31	0.37	0.35
Total	\$1 million to \$10 million	0.38	0.35	0.35	0.39
Total	\$100,000 to \$200,000	0.25	0.27	0.27	0.23
Total	\$70 million to \$90 million	0.37	0.37	0.38	0.38

F Additional Results

Conjoint models

Figure F1: Difference in marginal means for each attribute level by respondents' party identification, for subjects **not** exposed to additional party, ideology, and valence attributes.



Estimated differences are shown with 95 percent confidence intervals. Stars indicate statistically significant differences at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Table F1: Z-score differences between model coefficients for the candidate conjoint experiment (coefficients presented in Figure 8).

	$\beta_{\text{Dem.}}$	$\beta_{\text{Rep.}}$	$\beta_{\text{Ind.}}$	$\Delta_{\text{D-R}}$	$ z _{\text{D-R}}$	$\Delta_{\text{D-I}}$	$ z _{\text{D-I}}$	$\Delta_{\text{R-I}}$	$ z _{\text{R-I}}$
Average: \$75	0.133	0.047	0.154	0.086	1.244	-0.020	0.381	-0.106	1.443
Average: \$1 million	-0.106	-0.123	-0.039	0.017	0.154	-0.067	1.019	-0.084	0.724
Total: \$100,000 to \$200,000	-0.010	-0.055	0.035	0.044	0.447	-0.045	0.665	-0.089	0.835
Total: \$70 million to \$90 million	-0.053	-0.025	-0.002	-0.028	0.349	-0.052	0.981	-0.024	0.294
Largest: Political Advocacy Group	0.093	0.062	-0.019	0.031	0.267	0.112	1.431	0.081	0.649
Largest: Identity not disclosed	-0.006	0.040	-0.015	-0.045	0.438	0.009	0.122	0.055	0.510
Largest: Labor Union	0.194	0.033	0.211	0.161	1.317	-0.017	0.218	-0.178	1.389
Largest: Corporation/Trade Association	-0.055	-0.054	-0.079	-0.001	0.007	0.024	0.278	0.025	0.165
Proportion: 10%	0.076	0.045	0.036	0.032	0.354	0.040	0.756	0.008	0.096
Proportion: 90%	-0.125	0.003	-0.061	-0.128	1.984	-0.064	1.104	0.064	0.938
Majority from donors within the state	0.182	0.211	0.277	-0.029	0.403	-0.095	1.897	-0.066	0.893

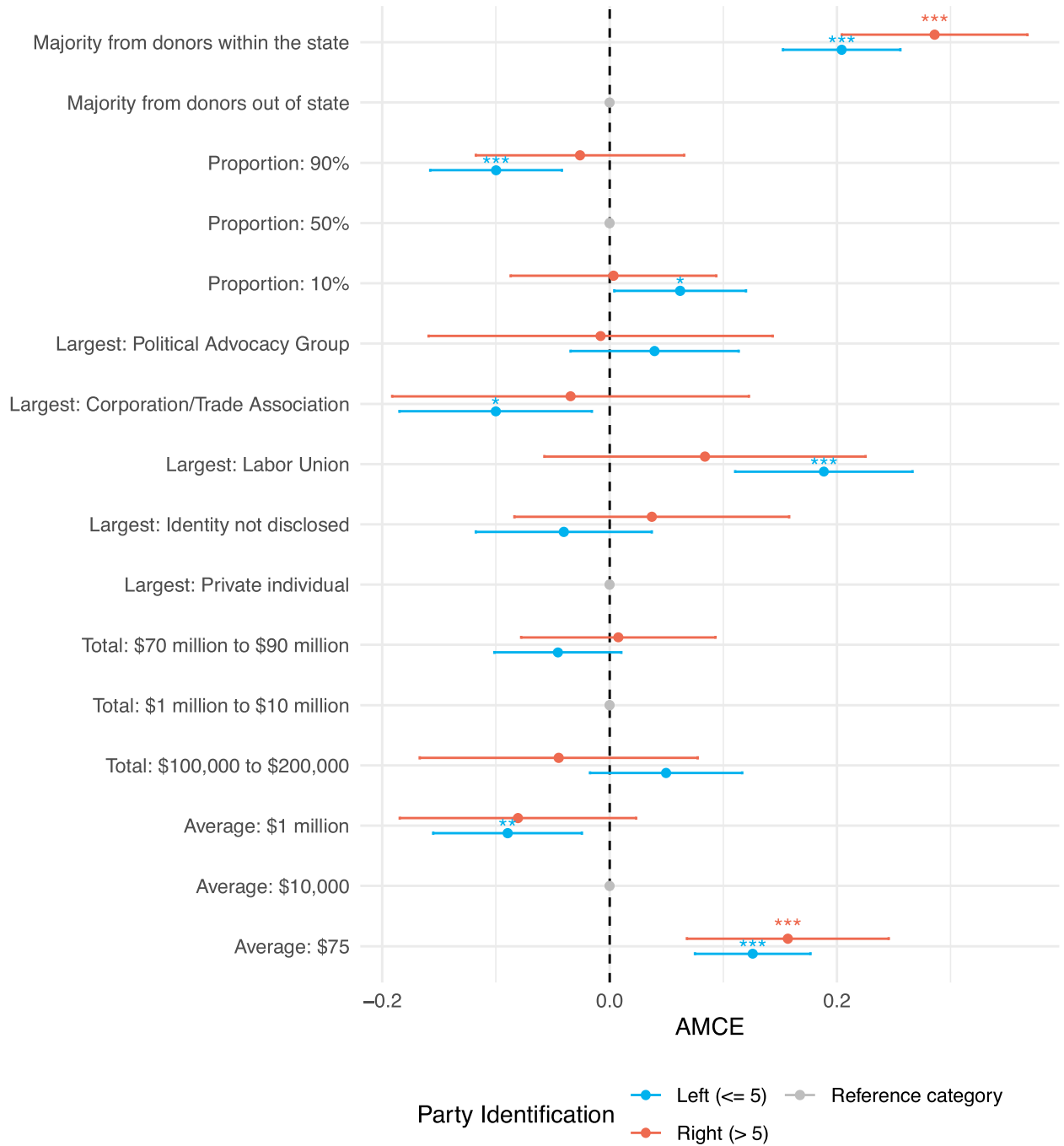
The three models are estimated on those respondents who were *not* exposed to additional political cues. $\Delta_{\text{D-R}}$ denotes the difference in coefficients between Democrat and Republican-identifying subjects (*I* indicates Independents). $|z|_{\text{D-R}}$ denotes the Z-score of $\Delta_{\text{D-R}}$, and is calculated as $|\Delta_{\text{D-R}}/\sqrt{\sigma_{\text{D}}^2 + \sigma_{\text{R}}^2}|$.

Table F2: Z-score differences between model coefficients for the initiative conjoint experiment.

	$\beta_{\text{Dem.}}$	$\beta_{\text{Rep.}}$	$\beta_{\text{Ind.}}$	$\Delta_{\text{D-R}}$	$ z _{\text{D-R}}$	$\Delta_{\text{D-I}}$	$ z _{\text{D-I}}$	$\Delta_{\text{R-I}}$	$ z _{\text{R-I}}$
Average: \$75	0.039	0.007	0.023	0.032	0.509	0.015	0.279	-0.017	0.245
Average: \$1 million	-0.019	0.027	0.008	-0.046	0.601	-0.028	0.477	0.019	0.231
Total: \$100,000 to \$200,000	-0.064	-0.013	-0.017	-0.050	0.806	-0.046	0.795	0.004	0.059
Total: \$70 million to \$90 million	0.009	-0.050	0.041	0.060	0.846	-0.031	0.657	-0.091	1.255
Largest: Political Advocacy Group	0.020	-0.022	-0.048	0.042	0.524	0.068	1.061	0.026	0.303
Largest: Labor Union	0.019	-0.082	0.039	0.100	1.249	-0.021	0.313	-0.121	1.379
Largest: Corporation/Trade Association	-0.042	0.025	-0.020	-0.068	0.789	-0.023	0.362	0.045	0.498
Largest: Identity not disclosed	0.053	-0.007	0.028	0.061	0.747	0.025	0.393	-0.036	0.432
Proportion: 10%	0.055	-0.041	-0.030	0.096	1.337	0.084	1.514	-0.012	0.155
Proportion: 90%	0.045	-0.041	-0.001	0.086	1.222	0.047	0.899	-0.039	0.552
Majority from donors within the state	0.013	0.045	0.067	-0.032	0.539	-0.054	1.297	-0.022	0.364
Issue: Carbon Emissions Tax	-0.008	0.009	0.014	-0.018	0.853	-0.022	1.439	-0.004	0.200
Issue: Marijuana Legalisation	-0.011	-0.007	0.012	-0.005	0.253	-0.023	1.656	-0.019	0.932
Issue: Minimum Wage Increase	0.007	-0.008	0.006	0.015	0.754	0.001	0.041	-0.014	0.650

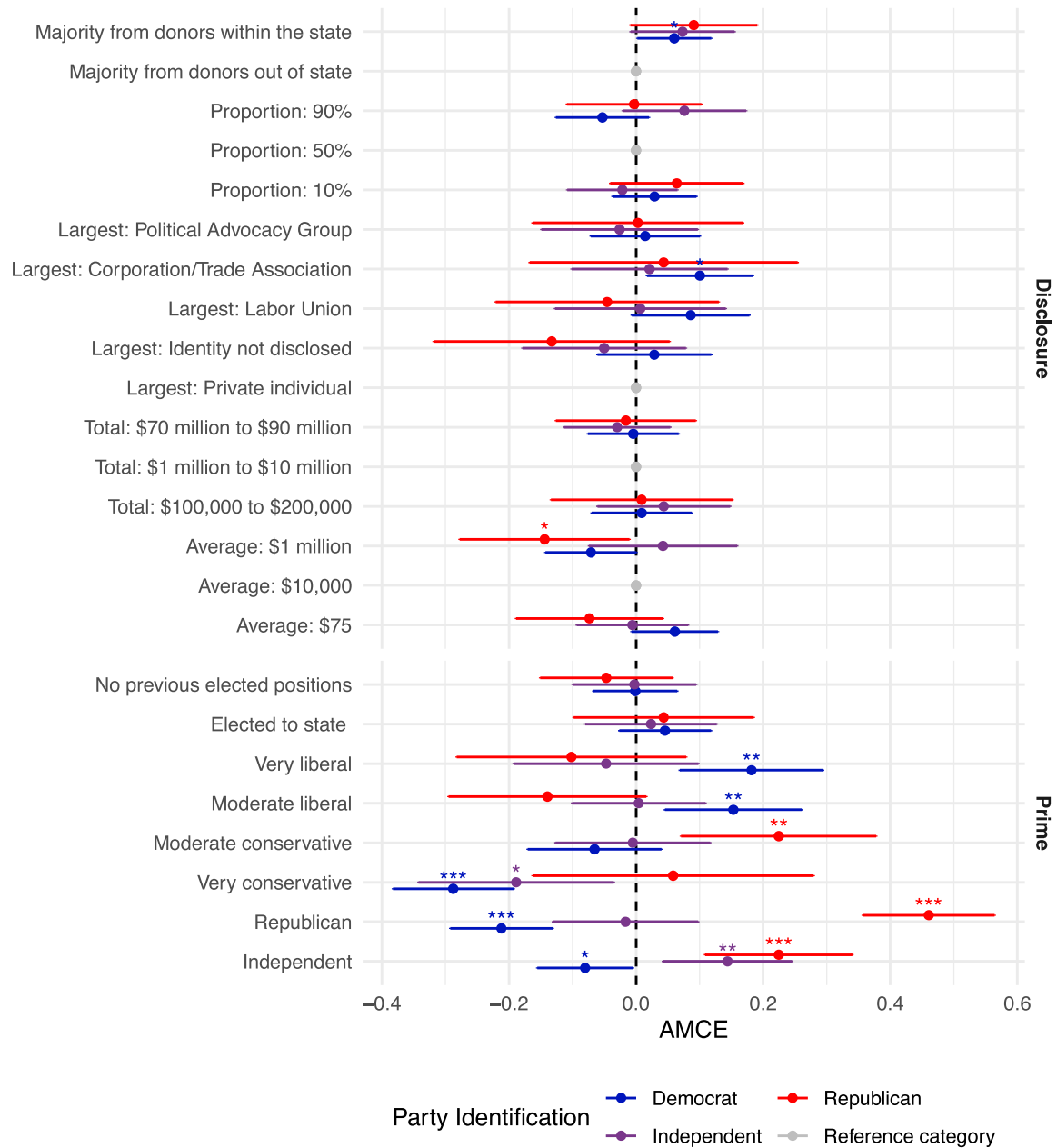
The three models pool observations across each of the four proposed policies, and include issue fixed effects. $\Delta_{\text{D-R}}$ denotes the difference in coefficients between Democrat and Republican-identifying subjects (I indicates Independents). $|z|_{\text{D-R}}$ denotes the Z-score of $\Delta_{\text{D-R}}$ and is calculated as $|\Delta_{\text{D-R}}/\sqrt{\sigma_{\text{D}}^2 + \sigma_{\text{R}}^2}|$.

Figure F2: Comparison of causal effects between left- and right-identifying respondents in the sample, for those *not* exposed to additional political cues.



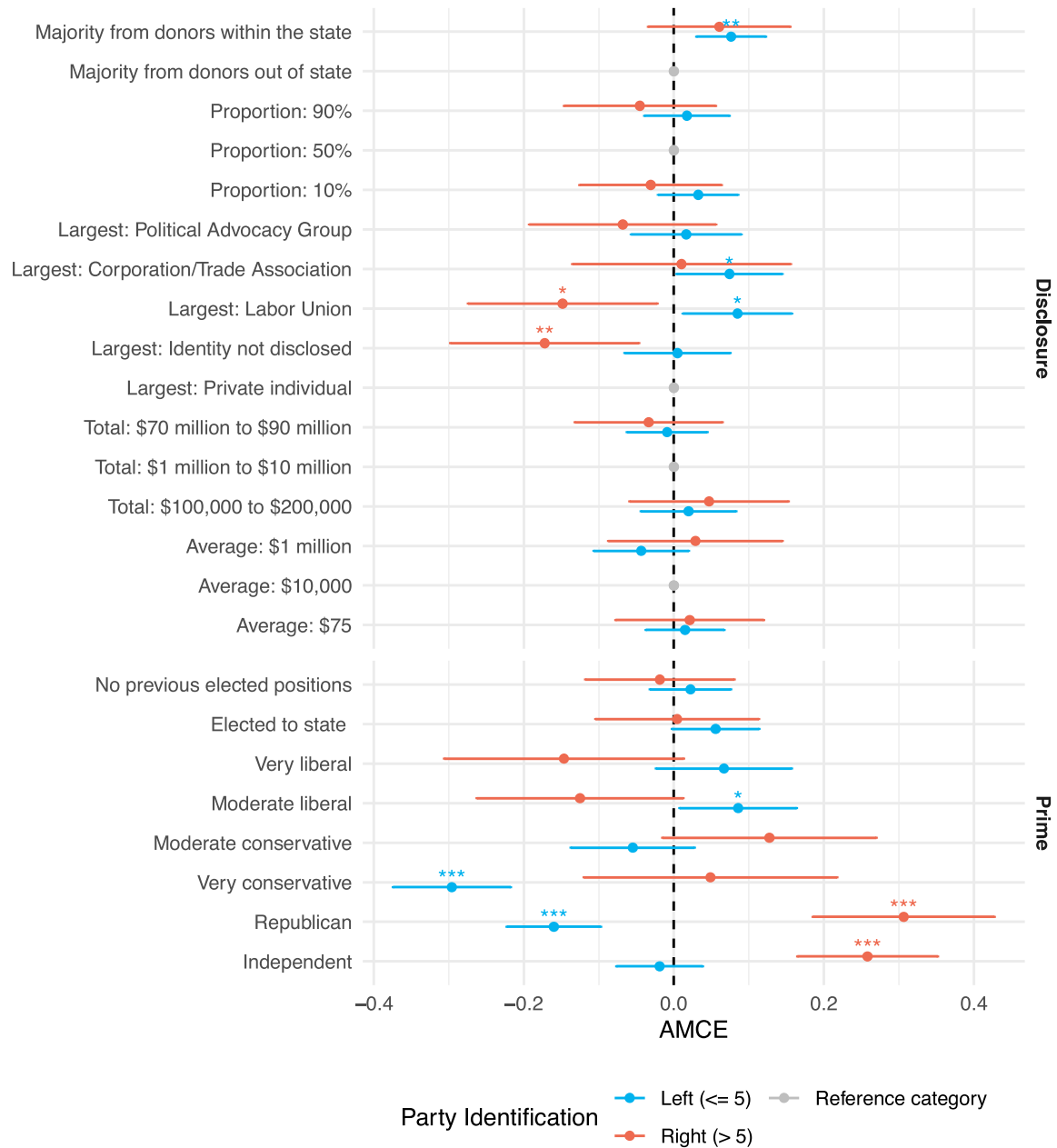
Self-reported ideology was measured on a 0-10 scale. 'Left' is coded as having a score less than or equal to 5 and 'Right' as greater than 5. Coefficients are shown with 95 percent confidence intervals. Stars above coefficients indicate statistical significance at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Figure F3: Comparison of causal effects between Democratic, Independent, and Republican respondents in the sample, for those exposed to additional political cues.



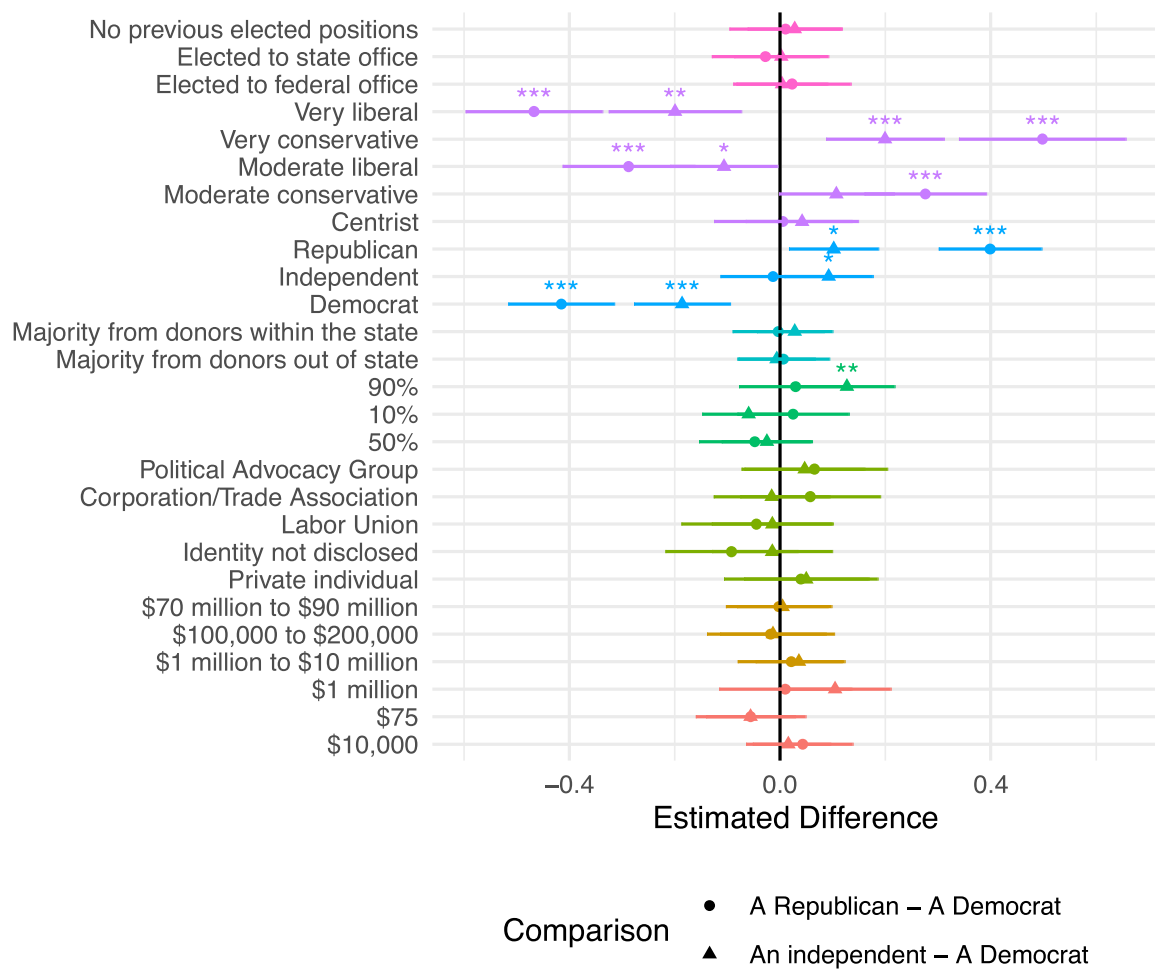
Coefficients are shown with 95 percent confidence intervals. Stars above coefficients indicate statistical significance at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Figure F4: Comparison of causal effects between left- and right-identifying respondents in the sample, for those exposed to additional political cues.



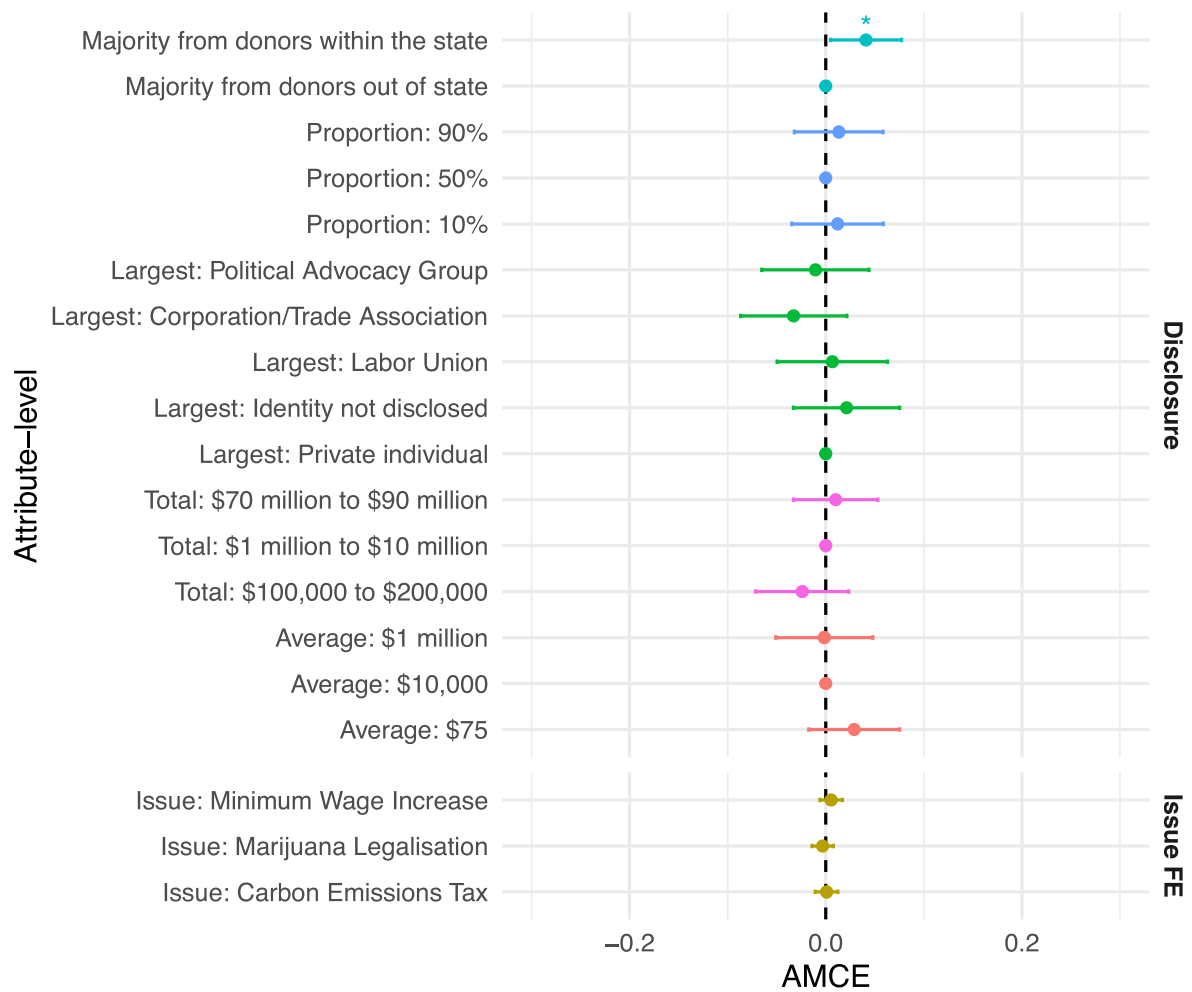
Coefficients are shown with 95 percent confidence intervals. Stars above coefficients indicate statistical significance at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Figure F5: Difference in marginal means for each attribute level by respondents' party identification, for subjects exposed to additional party, ideology, and valence attributes.



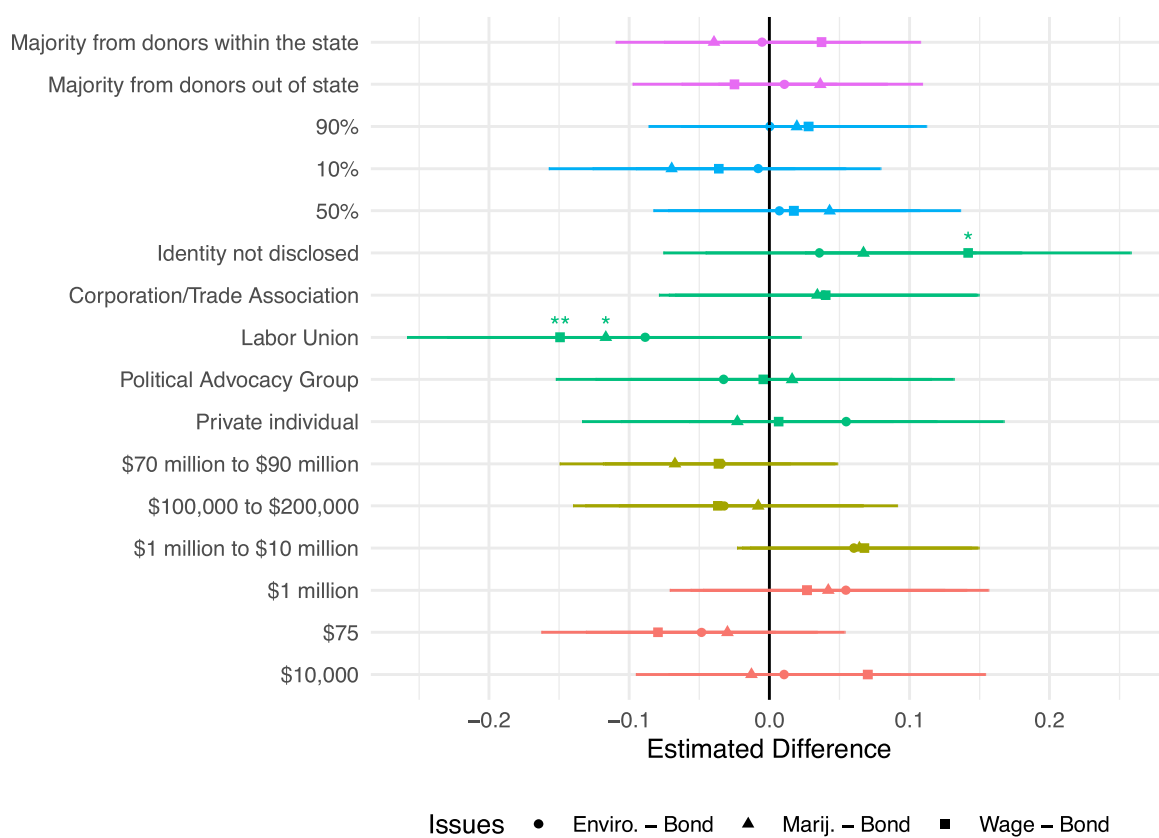
Estimated differences are shown with 95 percent confidence intervals. Stars indicate statistically significant differences at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Figure F6: Initiative conjoint model pooled across all four policy issues, and *including controls for respondents' self-reported partisanship*



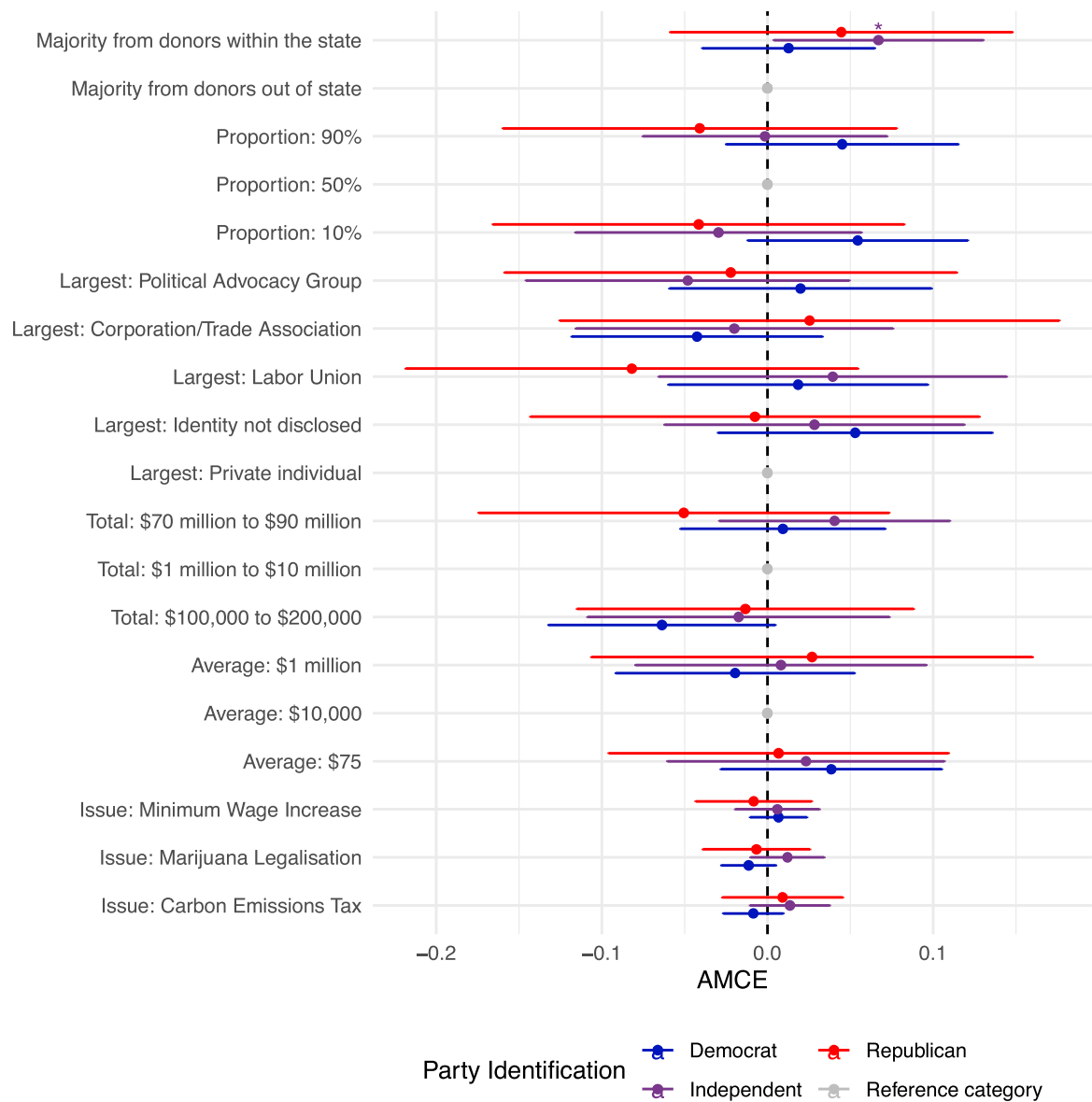
Coefficients are shown with 95 percent confidence intervals. Stars above coefficients indicate statistical significance at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Figure F7: Difference in marginal means by issue for the initiative conjoint.



Estimated differences are shown with 95 percent confidence intervals. Stars indicate statistically significant differences at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

Figure F8: Comparison of estimated AMCEs across respondents' partisan identities for the initiative conjoint experiment



Coefficients are shown with 95 percent confidence intervals. Stars above coefficients indicate statistical significance at $*p < 0.05$, $**p < 0.01$, and $***p < 0.001$.

G Subjects' Support For Hypothetical Initiative Campaigns

Table G1 shows the proportion of participants that voted for each proposal. The sewage bond, marijuana legalization and minimum wage increase initiatives all received greater than 70 percent support. Only the environmental protection initiative was a marginal race. Even without further analysis, therefore, it is clear that voters' opinions on these issues are relatively fixed (given that disclosure attribute levels are completely randomised).

Table G1: Subject support and rating of initiative campaigns

Issue	Vote	Oppose	Support
Bond issuance	0.74	3.51	4.80
Environment tax	0.49	3.96	4.07
Marijuana legalisation	0.78	3.24	5.17
Wage increase	0.72	3.27	5.11

These levels of support accord with evidence at the national level that citizens overwhelmingly favour some policy changes. The Cooperative Congressional Elections Survey (CCES) fielded a set of hypothetical policy questions similar to those in this paper during the 2018 midterm election period ([Ansolabehere, Schaffner and Luks, 2019](#)). 69.9 percent of those interviewed nationwide favoured an increase in the state minimum wage to \$12 an hour (question CC18_414A); a millionaire's tax to fund school and road spending was supported by 70.6 percent of budgets (question CC18_414B); policies granting the Environmental Protection Agency the power to regulate Carbon Dioxide (question CC18_415a) or requiring states to use a minimum amount of renewable fuels (question CC18_415c) both received 61.2 percent support. These questions are not perfectly comparable with those fielded in this conjoint experiment, but they do at least suggest that the levels of support are feasible and not incongruent with other surveys on citizens' policy positions.

Table G1 also reports the mean approval rating of each side of the campaign (on a scale of 1-7), for each issue. Interestingly, there is some variation between subjects' approval of campaigns and their respective vote choice. While a majority voted against the envi-

ronmental initiative, subjects were still marginally more favourable of the proponent side of the debate (albeit by a statistically insignificant amount, $p = 0.43$). And for the other three campaigns, despite the high proportions voting in favour of change, the difference in ratings are substantively closer (albeit statistically significant) than the vote proportions would suggest.

H Statistical tests of model differences across experimental conditions

H.1 Z-score differences

In the main paper, I demonstrate that in the presence of additional political cues, the effect sizes of campaign finance information on vote choice diminish considerably. For this analysis to be valid, the reduction in effect size should itself be statistically significant, for those attribute-levels that were statistically significant in the model without additional cues. To assess these differences statistically, I calculate the Z-score differences between corresponding coefficients from the two candidate conditions. These scores are calculated for each financial attribute-level k as:

$$Z_k = \left(\hat{\beta}_{k,C} - \hat{\beta}_{k,T} \right) / \left(SE_{\hat{\beta}_{k,C}}^2 + SE_{\hat{\beta}_{k,T}}^2 \right),$$

where C denotes the experimental condition *without* additional political cues, and T denotes the experimental condition *with* additional cues. SE denotes the standard error for the respective coefficient β_k .

Table [H1](#) reports the standardised differences and p-values across the two information conditions of the experiment for every coefficient. For all except one coefficient that are statistically significant in [Figure 4](#), the corresponding coefficients in the model *with* addi-

tional cues are statistically distinguishable at the 95 percent confidence level. In each case, the absolute coefficient sizes are substantially reduced once additional cues are included.

Table H1: Z-score differences between the conjoint model without additional cues (as shown in Figure 4) and the model with additional cues (as shown in Figure 5)

Attribute-Level	$\beta_{\text{No additional cues}}$	$\beta_{\text{Additional cues}}$	Z	p
Average: \$75	0.13	0.03	3.14	0.00
Average: \$1 million	-0.09	-0.03	-1.45	0.15
Total: \$100,000 to \$200,000	0.02	0.02	0.02	0.98
Total: \$70 million to \$90 million	-0.03	-0.02	-0.34	0.73
Largest: Identity not disclosed	-0.02	-0.05	0.52	0.60
Largest: Labor Union	0.16	0.02	2.88	0.00
Largest: Corporation/Trade Association	-0.08	0.05	-2.53	0.01
Largest: Political Advocacy Group	0.03	-0.02	0.95	0.34
Proportion: 10%	0.05	0.02	0.80	0.42
Proportion: 90%	-0.08	0.01	-2.46	0.01
Majority from donors within the state	0.22	0.06	5.18	0.00

Coefficients listed in bold were significant ($p < 0.05$) in the model without additional political cues.

H.2 Post hoc power simulations

Another feature that would threaten the validity of the analysis is if the statistically significant results in the experimental condition without additional cues were the result of an under-powered conjoint experiment. If it is unlikely that a model would distinguish effects of that size then the decrease in effect sizes across experimental conditions may reflect a lack of statistical power rather than the impact of other political cues.

I therefore estimate the *post hoc* power of the experimental condition where subjects do not see additional cues. For the analysis to be valid, those statistically significant results should be well-powered. If this is the case, then we can be more confident that the decline in statistical significance (and size of coefficient) is a result of the additional cues.

To estimate the experimental power using the empirical model results, I simulate a conjoint-like experiment in which every observation is randomly assigned attribute-levels for each

of the five campaign finance attributes in the experiment without additional cues. I set the number of observations equal to $195 \text{ subjects} \times 5 \text{ rounds} \times 2 \text{ profiles} = 1950$, which reflects the size and structure of the data used to estimate the model in Figure 4. I model the outcome for each observation as:

$$s \sim \mathcal{N}(X\hat{\beta}, \sigma_{\text{Res.}}),$$

where s is the simulated outcome, X is a matrix of attribute-level assignments, $\hat{\beta}$ is the vector of coefficients from the empirical model, and $\sigma_{\text{Res.}}$ is the standard deviation of the residuals from the empirical model.²⁶ The standard deviation, in other words, represents the (square root of) unexplained variance in the outcome.

Since X is a random variable with equal probabilities of assignment within each attribute, by repeatedly assigning the conjoint levels in X we can estimate the probability of detecting a statistically significant coefficient (at the 95 percent confidence level), using Monte Carlo simulations:

$$\text{Power}_{\beta_k} = \frac{1}{B} \sum_{b=1}^B \mathbb{I}[\text{p-value}_{\beta_k} < 0.05],$$

where k indexes model coefficients and B is the number of simulations.

Table H2 reports the estimated *post hoc* power for each of the campaign finance coefficients *given the observed effect sizes in the actual empirical model*. For the statistically significant coefficients observed in Figure 4 of the main paper, the model is well-powered. For example, the power of the within-state donations level is 1.00, and both the \$75 average donation and the labor union levels have power scores of 0.99. The only significant attribute-level with a lower power value is the ‘Corporation/Trade Association’ largest donor label (0.62), which somewhat limits the strength of inference over this label specifically. In general, however, the results of this analysis are supportive of the main paper’s claim that the decline in

²⁶To better resemble the binary outcome of a conjoint experiment, I transform s to equal either 0 or 1 using 0.5 as the cut-off value.

effect sizes is explained by the presence of other political cues.

Table H2: *Post hoc* power simulations using observed coefficient values reported in Figure 4 of the main paper.

Coefficient	Significant without political cues?	<i>Post hoc</i> power
Average: \$75	Yes	0.992
Average: \$1 million	Yes	0.836
Total: \$100,000 to \$200,000	No	0.188
Total: \$70 million to \$90 million	No	0.250
Largest: Political Advocacy Group	No	0.175
Largest: Identity not disclosed	No	0.147
Largest: Labor Union	Yes	0.985
Largest: Corporation/Trade Association	Yes	0.617
Proportion: 10%	No	0.416
Proportion: 90%	Yes	0.788
Majority from donors within the state	Yes	1.000

Coefficients listed in bold were significant ($p < 0.05$) in the model without additional political cues.

More broadly, with a larger sample the conjoint experiment without additional political cues may have been able to distinguish smaller effects of other attributes on vote choice. With greater statistical precision, it would be possible to test further whether additional political signals crowd out the effects of financial labels that, absent these other information cues, appear less efficacious.

References

- Ansolahehere, Stephen, Brian F. Schaffner and Sam Luks. 2019. "Cooperative Congressional Election Study, 2018: Common Content."
- Briffault, Richard. 2011. "Nonprofits and Disclosure in the Wake of Citizens United." *Election Law Journal: Rules, Politics, and Policy* 10(4):337–361.
- Citizens United v. Federal Election Commission*, 558 U.S. 310. 2010.

- Jiang, Lear. 2019. "Disclosure's Last Stand? The Need to Clarify the "Informational Interest" Advanced By Campaign Finance Disclosure." *Columbia Law Review* 119(2):487–526.
- Mayer, Jane. 2016. *Dark Money: The Hidden History of the Billionaires behind the Rise of the Radical Right*. First edition. ed. New York: Doubleday.
- Oklobdzija, Stan. 2019. "Public Positions, Private Giving: Dark Money and Political Donors in the Digital Age." *Research and Politics* 6(1):1–8.
- Wood, Abby K. 2019. "Show Me the Money: Candidate Selection Based on Campaign Finance Transparency." *SSRN Electronic Journal* .
URL: <https://ssrn.com/abstract=3029095>
- Wood, Abby K. and Douglas M. Spencer. 2016. "In the Shadows of Sunlight: The Effects of Transparency on State Political Campaigns." *Election Law Journal: Rules, Politics, and Policy* 15(4):302–329.