Political Donor Motivations and Public Support of Policies: A Time-Series Analysis

---

The two predominant theories of political donor motivations are the access-oriented model and the consumption model. This paper combines political donation records and social media posts from politicians to examine behaviors predicted by these two theories using a time-series methodology. The access-oriented model of donors predicts that donations from specific groups of donors will precede public support of certain policies. The consumption model predicts that donations from various groups of donors will lag in response to public support of certain policy issues. This paper statistically derives coalitions of similar donors and tests the competing models of political donor motivations. While past research has treated each model monolithically, presuming that all donors operate under one model or the other, I find evidence of both motivational models in different donors. (Word Count: 5293)

Introduction

The amount of money raised and spent by political campaigns in the United States continues to rise with each election cycle (Goldmacher 2020). However, the explanations behind political donor motivations to make contributions remain unsettled. The predominant theories of political donor motivation fall into one of two categories, the access-oriented model or the consumption model. In the access-oriented model, contributions are given in exchange for access to politicians (Francia et al. 2003). The consumption model of donations sees donors as participants in the political process who seek to alter election probabilities in a way that helps one's preferred campaign, similar to how voting seeks to help a campaign achieve election (Ansolabehere, Figueiredo, and Snyder 2003). Despite taking diametric views of political donors, past researchers have predominantly subscribed to a single model and don't consider the possibility of both of the models existing in different donors. In other words, most previous scholarship on political donors does not allow for the possibility that different political donors may have differing reasons for making their contribution.

The present work eschews this zero-sum view of the motivations of political donors. Instead, the two predominant models are both investigated under assumptions that allow them to co-exist by looking for both motivational models among different groups of donors. Researchers readily operate under the idea that individuals can have differing reasons for why and how they vote (e.g. Arceneaux and Nickerson 2009; Feldman 1982; Lau 1985; Rahn, Krosnick, and Breuning 1994; Yiannakis 1981). Then why has so much of past research on donors either pitted the two models of donor motivations against one another (e.g. Welch 1980) or operated exclusively in the domain of either the access-oriented model (e.g. Baker 2020; Fellowes and Wolf 2004; Fouirnaies and Hall 2015; Francia, Green, Herrnson, Powell, and Clyde Wilcox 2003; Herndon 1982; Kalla and Broockman 2016; Langbein 1986; Powell and Grimmer 2016) or consumption model (e.g.

Ansolabehere, Figueiredo, and Snyder 2003)?

This paper makes three main contributions to the literature on political donors. First, it tests the two models of political donors in a way that allows both models to exist among different donors. Second, instead of arbitrary classification of donors, such as large versus small donors, I take a bottom-up network approach to studying political donors where donors are clustered together based on network connections that are in turn based on donations patterns. Finally, I layer social media data on top of fundraising data and show the value of using politicians' social media data in understanding political actors. Using these novel approaches to understanding political donor behavior, we find evidence that both models, the access-oriented and consumption models, likely exist, but within different donors.

Access-Oriented Model

Access-oriented political donors attempt to use their contributions to gain access to politicians. Most often, access-oriented motivations are thought to be the reason behind contributions from large donors. The idea is that donations can gain individuals access to politicians and their staff to influence legislative behaviors (Francia, Green, Herrnson, Powell, and Clyde Wilcox 2003).

Congress is an information ecology where competing facts and perspectives are everywhere and ever-changing. Providing political contributions can allow political contributors to gain direct access by cutting through all the noise of competing information that the legislator may be encountering (Milbrath 1958). Interest groups and individuals hope to gain access to politicians through their financial contributions in order to influence government policies (Baker 2020; Fouirnaies and Hall 2015; Herndon 1982; Powell and Grimmer 2016). These attempts to buy access are successful in gaining meetings with congressional offices for both special interest groups (Langbein 1986) and individual donors (Kalla and Broockman 2016).

3

Contributions from financial (Hayes 2017), telecommunications (Edwards and Figueiredo 2016), education (Constant 2006), environmental (Hogan 2020) and healthcare interest groups (McKay 2018) have all influenced legislation. Whatever connection does exist between campaign contributors and public policy has a stronger impact if the contributions are from organized business interests within a member's district (Hall and Wayman 1990). While it is "nearly universal" (Bonica 2016) that corporate executives of Fortune 500 firms make political contributions (Fremeth, Richter, and Schaufele 2013), there is heterogeneity in their political leanings (Bonica 2016).

Potentially, the influence exerted by contributors when making a contribution is so indirect that it does not always materialize in statistical patterns of legislative voting or public policy. Yet there is evidence of the influence towards the benefit of the financial contributor. Firms that contribute to winning political campaigns have abnormal financial returns after the election (Akey 2015; Cooper, Gulen, and Ovtchinnikov 2010x). In addition to immediately-felt financial returns, donors may systematically contribute money to legislative agenda setters, such as chairs of financial committees, in an effort to set future legislative agendas (Fouirnaies and Hall 2018). Even business executives understand that political contributions are purchases of "good will" which are positive in return but are not frequent nor universal (Gordon, Hafer, and Landa 2007). For example, political contributions reduce the punishment for business executives who are sanctioned for committing fraud (Fulmer, Knill, and Yu 2017); increase the number of "sweetheart" contracts awarded from the government (Ferris, Houston, and Javakhadze 2019); and increase the premium and survivability of Initial Public Offerings (IPOs) (Gounopoulos, Mazouz, and Wood 2021).

As this review makes clear, most of the existing work examines the effect of donations on legislative behaviors. However, this paper instead examines a similar but distinct topic: whether political donations impact position-taking by politicians. The literature in this area is far more sparse, and so my hypotheses are guided by the body of research on

4

legislative behavior.

Specifically, I focus on how the timing of political donations reveals information about donor motivations. Under the access-oriented model of political donor motivations, one would expect to find politicians to be more supportive of certain policy issues after receiving campaign contributions from access-oriented donors. This hypothesis will be tested using a Granger causality model (Granger 1969), which is an econometric methodology to test whether changes in one time series predict future changes in another time series.

H_{1a}: **Donations from coalitions of political donors will precede, or Granger cause, increased public support of certain political issues from the politicians to whom they donate.**

Since access-oriented donors are thought to be wealthier contributors, sometimes seeking access for financial gain, this paper will also examine the amount contributed by members of donor coalitions that are accepted by H_{1a}.

H_{2a}: **Donors from access-oriented coalitions will on average be *larger* contributors to political campaigns than donors not in access-oriented coalitions.**

Consumption Model

While the access-oriented model is centered on donors *influencing* the political process, the consumption model is about donors *participating* in the political process. The consumption model of political donors concludes that political contributions are not vehicles by which donors seek access to politicians but instead are acts of consumption, or in other words, participation (Ansolabehere, Figueiredo, and Snyder 2003). Under this model, individual donors are intrinsically motivated by ideology (Ansolabehere, Figueiredo, and Snyder 2003). People do not receive a direct benefit by making a political donation, but they do experience the indirect benefits of participating in a political campaign that matches their ideology. Put otherwise, for consumption-motivated donors, making a contribution is just an extension of voting on a participatory spectrum. Under this approach,

5

donations are a way for individuals to participate and be responsive to their "perception of the stakes in the election" (Hill and Huber 2017).

Ideological proximity, or the spatial distance between the ideology of candidates and donors, is an important component to the consumption model of political donors (Ensley 2009). It is potentially of greater importance than agreement between the donor and the candidate on specific policy issue positions (Barber, Canes-Wrone, and Thrower 2019), such as taxes, global warming, and gay rights. Studies have shown that the similarity between a donor's policy preferences and a senator's roll-call votes is a predictor of whether a donor makes a contribution (Barber, Canes-Wrone, and Thrower 2017). However, it is unclear if this connection between contributors' policy preferences and legislators' votes holds historically or only recently (Canes-Wrone and Gibson 2019). Divergence of ideology among the candidates for an office, such as a more extreme political opponent, does not impact donors' decisions to make a contribution (Ensley 2009). The theoretical implications for this paper are that consumption-oriented donors will contribute to politicians who already show support for the policy issues, or are ideologically proximate, to themselves. In other words, donors reward for policy proximity between themselves and candidates.

Altogether, under the consumption model of donor motivations, one would expect public support of policy issues to attract political donors who care about that policy, which leads to H_3.

H_{1b}: **Public support from politicians on certain political issues will precede, or Granger cause, donations from coalitions of political donors.**

Individual donors, as opposed to PACs (Political Action Committees), continue to make up a clear majority of donations to political candidates (Heerwig 2016). These individual donors most often exhibit behavior consistent with the consumption model of donations (Barber 2016; Heerwig 2016). Further, individual donors arguably play an even more central role in politics more recently with the growth in small-dollar individual

6

donors.

With the rise of small-dollar donors on the internet and the assumption that these donors fit under the consumption model of donor motivations, this paper will examine the amount of money contributed by members of donor coalitions that are accepted by H_{1b}.

H_{2b}: **Donors from consumption coalitions will on average be *smaller* contributors to political campaigns than donors not in consumption coalitions.**

Rise of Small-Dollar Donors

The growing number of small-dollar donors in the political process suggests that there will be more consumption-oriented donors in the future. The anecdotal examples of the Bernie Sanders and Donald Trump 2016 and 2020 presidential campaigns, all of which received a large number of small-dollar donors (Choma and Voght 2020), illustrate the consumption-oriented model's connection to such donors. Small-dollar donors likely did not directly access or influence the politics of the Sanders or Trump campaigns. Instead, donors reacted to their messages and decided to move further down the participatory spectrum in those campaigns. Individual contributors are mostly participants in politics without an ulterior motive. They are "fickle financiers of elections" whose donation habits can be disrupted by little changes to their lifestyles such as moving to an area that is more or less Democratic or Republican (Kettler and Lyons 2019).

The Democratic Party as a whole has expanded the proportion of its funding that comes from small-dollar donors (Albert and Raja 2020). Moreover, incumbents have been able to sustain their small-dollar fundraising programs (Heberlig and Larson 2020)– suggesting that this trend is not going to go away. This growth in small-dollar donors has created a donorate that is more demographically representative of America but is more ideologically extreme (Albert and Raja 2020) and one that gives indiscriminately to incumbents, challengers, and open seat candidates (Culberson, McDonald, and Rob-

bins 2019). It is conceivable that campaigns that rely on small donors will adopt rhetoric and tout their "outsider" status in an effort to activate these small, more ideologically extreme donors (Arbour 2020). For instance, extremist politicians can leverage polarizing events to raise more money for their campaigns (Oklobdzija 2017). As a result, some have predicted that small-dollar donors will polarize the nation's politics even further (Oklobdzija 2017). Although legislators who receive a large proportion of their funds from small-dollar donors do not become more polarized in their legislative votes when they take up a more polarized agenda, they attract an increased number of small-dollar donors in the subsequent election (Keena and Knight-Finley 2019). This provides further evidence for the consumption model of political donor motivations. Other studies have agreed that mass donors are the cause of partisan polarization (Raja and Wiltse 2012), but this conclusion is not definitive (Harden and Kirkland 2016). Therefore, even though small-dollar donors themselves may not be polarizing, they may provide incentive for politicians to take more polarized positions.

This research paper will also examine the polarization of political donor coalitions and whether consumption-oriented donors and access-oriented donors are in polarized positions in the donor network graph.

H_{3a}: **Consumption-motivated donors will be more polarized in the political donor network than non-consumption donors.**

H_{3b}: **Access-oriented donors will be less polarized in the political donor network than non-access donors.**

Data

Data for this research come from two primary sources: politicians' social media posts and political donation data.

For social media posts, this paper used the Facebook (Barbera, Geisler, and Atteveldt 2017) and Twitter (Kearney 2019) APIs (Application Programming Interfaces) to collect

social media posts from all candidates for the Wisconsin State Senate and Wisconsin State Assembly during the 2016 election cycle (n = 82,851). A random subset of 12,364 posts, or about 15% of the total posts collected, were manually sorted into 27 topical categories. These topical categories included if the post was made in support or opposition to a policy. For example, the "voting liberal" category contains posts that are supportive of repealing voting ID laws and expanding early voting whereas the "voting conservative" category contains posts that are in support of voter ID laws and other conservative voting reforms.

These posts were used to train and test a BERT deep learning transfer model where approximately 90% (or 11,128) were used in the training set and approximately 10% (or 1,236), were used in the test set. This trained model achieved 82.9% accuracy in categorizing the topic of posts in the held-out test set. Furthermore, this model was applied to the rest of the uncategorized corpus that were later used for aggregations and calculations of the topics that politicians were posting about.

BERT, which stands for Bidirectional Encoder Representations from Transformers, is a pre-trained deep learning model to which researchers can add additional output layers to perform certain tasks (Devlin et al. 2019). In this case, we use BERT to classify social media posts into the 27 defined topical categories. BERT is currently a state-of-the-art model in the field of Natural Language Processing (Devlin, Chang, Lee, and Toutanova 2019). BERT and other transfer learning models have yet to be widely adopted by political scientists but are an ideal choice for political science text classification, especially when compared to traditional text-as-data methods in the discipline (Terechshenko et al. 2020). BERT has been applied to other social media research such as the detection of propaganda (Vlad et al. 2019), misinformation (Jiang et al. 2020), hate speech (Mozafari, Farahbakhsh, and Crespi 2020), stance (Tian et al. 2020), and aggression (Ramiandrisoa and Mothe 2020).

Social media can be useful in studying politics because digital communication meth-

ods are similar to traditional political communication and they can be extrapolated to offline characteristics. The differences that are seen in online political communication, such as lowered costs and eased barriers to entry, represent a "difference-of-degree" and not a paradigm shifting "difference-in-kind" (Karpf 2010). There is a strong connection between online channels of communication in the form of social networks and offline connections, including the building and maintenance of social capital from those offline connections (Cranshaw et al. 2010; Ellison and Steinfield 2006; Liben-Nowell et al. 2005; Scellato et al. 2010). Online social networks have also been used to study offline-based actions and beliefs like opinion polarization (Lee et al. 2014), political polarization (Hanna et al. 2013), political participation (Lawrence, Sides, and Farrell 2010) and political discourse (Kushin and Kitchener 2009). Contemporary campaigns discuss similar topics across campaign media, including social media (Kang et al. 2018), meaning that few topic would be exclusive to, or exclusive from, social media.

Individual political donation data for all candidates to the Wisconsin State Legislature during the 2016 election cycle were collected from the Wisconsin Campaign Information System (CFIS). Anonymous contributions were removed, names were made uniform (removed punctuation, made all names lowercase, etc.), and OpenRefine (Ham 2013) was used to stem names to identify people who might be the same person (e.g., Jim Smith and James Smith). To ensure that people who have the same name, but are different people, were not counted as the same individual, their zip code was appended to the end of their name to create a unique identifier. Finally, only contributions from donors who contributed to more than one campaign were used, following previous research that emphasizes the importance of repeat donors, particularly when making inferences (Heerwig 2018). These data pre-processing steps left 28,858 donations from 7,567 donors.

These donations were used to create a network of political donations with candidates and donors serving as nodes and donations between them as edges. This network was clustered into 13 distinct communities so that donors in each community are most similar

to one another based on which campaigns they contributed to. The Louvain method as implemented by Gephi (Bastian, Heymann, and Jacomy 2009) did the clustering, or community detection.

This donor cluster network is visualized in Figure 1 using the Yifan Hu layout algorithm (Hu 2005) with the two political parties clearly divided with two large groups of donors, Democrats on the left, and Republicans on the right. The graph is colored by the statistical community in which the donor and candidates belong.

Figure 1: Network of political donors in Wisconsin in 2016. Each node (dot) is a donor or a campaign. Each edge (line connecting two nodes) represents a contribution. Nodes are sized by their in-degree, the number of contributions the node received. Nodes are colored by their assigned statistical cluster. The large bunch on the left are Democrats. The other large group on the right are Republicans.

Results

Donor Motivation Models

H_{1a} and H_{1b} test the relationships between the social media dataset and the political donation dataset. I tested the two models of political donor motivations using a Granger causality time-series model. Other social media studies have used this methodology (Freelon, McIlwain, and Clark 2018; Lukito 2020). For example, other researchers have used it to study the relationship between social media and non-social media events such as offline protests (Bastos, Mercea, and Charpentier 2015) and stock prices (Park, Leung, and Ma 2017). Granger causality detects whether movements in one time series precedes, lags, has a confounding variable, or is not related to another time series (Granger 1969). An abbreviated version of this methodology takes two time series variables X and Y. First, one builds a vector autoregression (VAR) model to predict the outcome variable Y with Y being the sole predictor in the model. In other words, the model only uses Y to predict Y. Then, a second model is built where both variables X and Y are used to build the VAR to predict Y. Effectively, if the second model, with the inclusion of X, does a better job of predicting Y than the first model alone, as measured by an *F*-statistic, X is said to Granger cause Y. To test for the possibility of counfounding variables, the methodology flips X and Y and performs the same process. If the null is rejected in both instances, then there is likely a confounding variable Z. This analysis was conducted in R (R Core Team 2013) with the `lmtest` package (Zeileis and Hothorn 2002). P-values were adjusted with the Bonferroni method (Haynes 2013). The optimal lag for each model was calculated using a Bayesian Information Criteria (Ahelegbey, Billio, and Casarin 2016) implemented by the `tsDyn` package (Stigler 2010). Altogether, this method allows me to test whether politicians' social media posts and donations from groups of donors are likely related.

I compare two time series, one of social media posts and another of political contributions from clusters of donors. The first time series constsits of the number of social media

posts per day for each topic that were made by campaigns. The analysis only included campaigns that received contributions from a donor cluster. In other words, a time series of donations from a donor coalition was compared to the aggregate count of posts about a given topic made by candidates that the donor cluster contributed to. For example, donations from donor coalition 6 as seen in Table 1 Granger caused politicians that received donations from the coalition to publicly support women's issue and pro-choice policies. Stated another way, donations from coalition 6 predict whether candidates will publicly support pro-women policies. The theoretical connection to political donor psychology is that this behavior is expected under the access-oriented model of political donor motivations. Coalitions and policy topics that are accepted by either H_{1a} or H_{1b} are in Table 1. The full results of the Granger causality tests are visualized in Figure 2.

Table 1: H_{1a} and H_{1b} acceptances

coalition	policy topic	model	Lag	F-statistic	p-value
0	veterans issues: bipartisan	consumption	5	7.6	<.001
1	veterans issues: bipartisan	access	7	7.1	<.001
1	drug abuse: bipartisan	consumption	7	4.5	<.001
3	race issues: liberal	access	4	6.7	<.001
4	guns: conservative	consumption	4	6.5	<.001
6	abortion and women's issues: conservative	access	2	14.2	<.001
7	drug abuse: bipartisan	consumption	7	5.7	<.001
11	infrastructure: liberal	consumption	7	5.8	<.001

There are three donor coalitions that show behavior consistent with the access-oriented model. For these three groups and policy issues, H_{1a} is accepted. These access-oriented coalitions represent 1,572 individual donors or 21.3% of all donors in the dataset; 6,489 individual donations or 22.4% of donations; and $654,577.60 or 16.5% of dollars contributed.

13

Figure 2: Donor Motivation Models

Each of these three coalitions appear to have unique policy and even ideological positions that they support.

In addition to these three access-oriented clusters of donors, five coalitions of donors exhibit behavior that one would expect under the consumption model of donor motivations and are accepted by H_{1b}. In other words, public support of various policy issues from campaigns predicts donations from these coalitions. The five consumption-motivated clusters of donors contain: 2,702 (36.7%) of donors; 11,080 (38.4%) of donations; and a collective contribution of $1,341,129.70 (33.8%). Similar to access-oriented clusters, consumption-oriented coalitions show significant relationships to policy issues across the ideological spectrum.

These results were used to test H_{1a} and H_{1b}. Donor coalitions and the topic of social media posts that were accepted by H_{1a} and H_{1b} are listed in Table 1.

Donor Sizes

Coalitions of donors that were accepted by only H_{1a} or H_{1b} were used to test H_{2a}, that access-oriented donors are on-average larger donors, and H_{2b}, that consumption-oriented donors are on-average smaller donors, with a difference-in-means permutation test. A non-parametric bootstrap was used since the statistical assumptions were not met for an OLS (Ordinary Least Squares) regression. Results to H_{2a} and H_{2b} are in Table 2. Neither the access-oriented donors nor the consumption-oriented donors contributed statistically significantly different amounts of money than the other donors.

Table 2: Difference in Average Donor Size

Hypothesis	Model	Avg. Diff	95% CI	p-value
H_{2a}	access	-48.62	-115.4, 21.47	0.144
H_{2b}	consumption	34.60	-29.21, 118.39	0.310

A histogram showing the total contributions of donors by motivational model are in Figure 3.
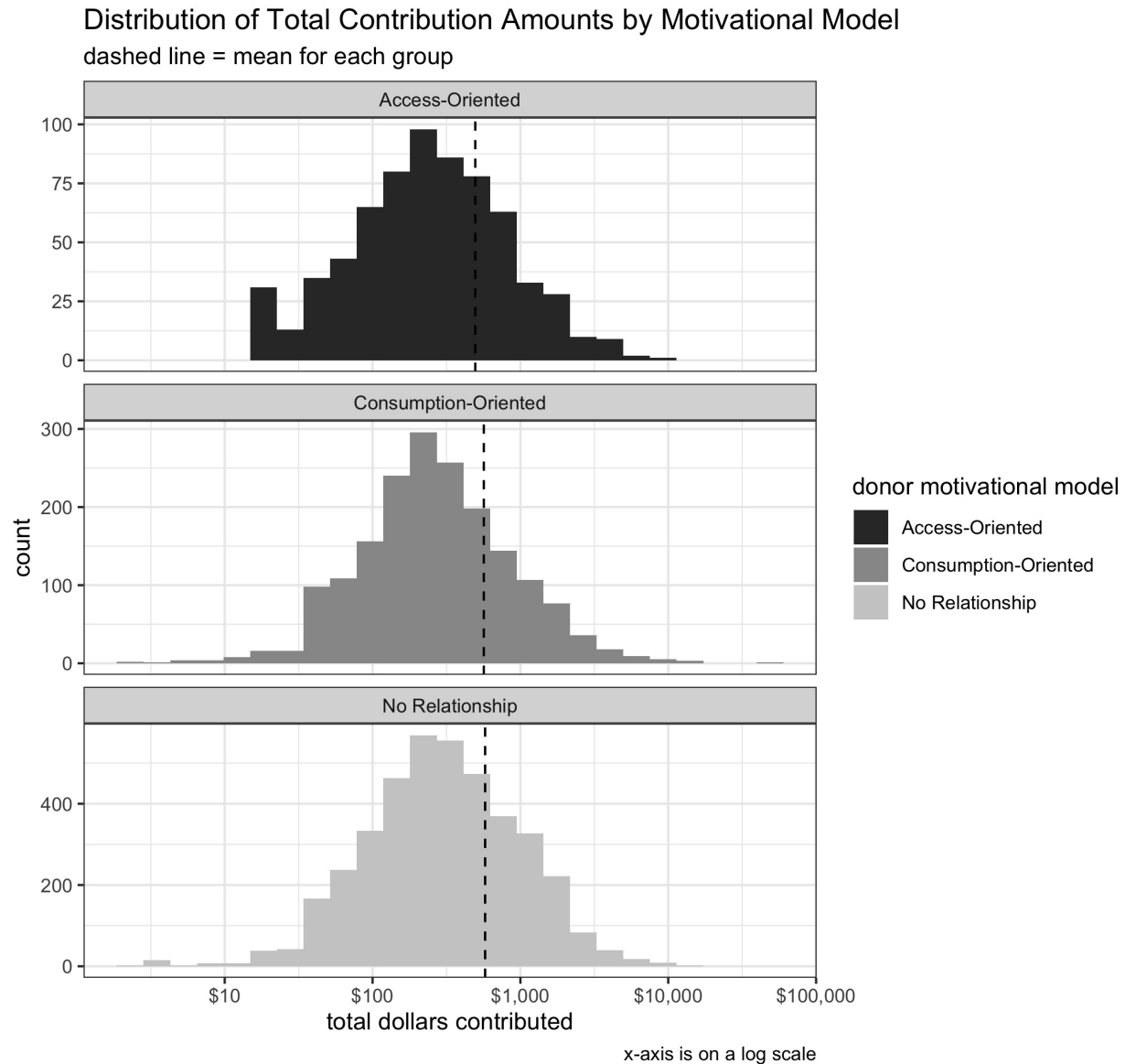

Figure 3: Amount contributed by each donor in the dataset by motivational model.

Donor Spatial Positions

To study the polarization of consumption-motivated donors, I extract the x-coordinate, the axis of ideological position, from the donor network (Figure 1). The positions of all the donors grouped by motivational model is shown in Figure 4.
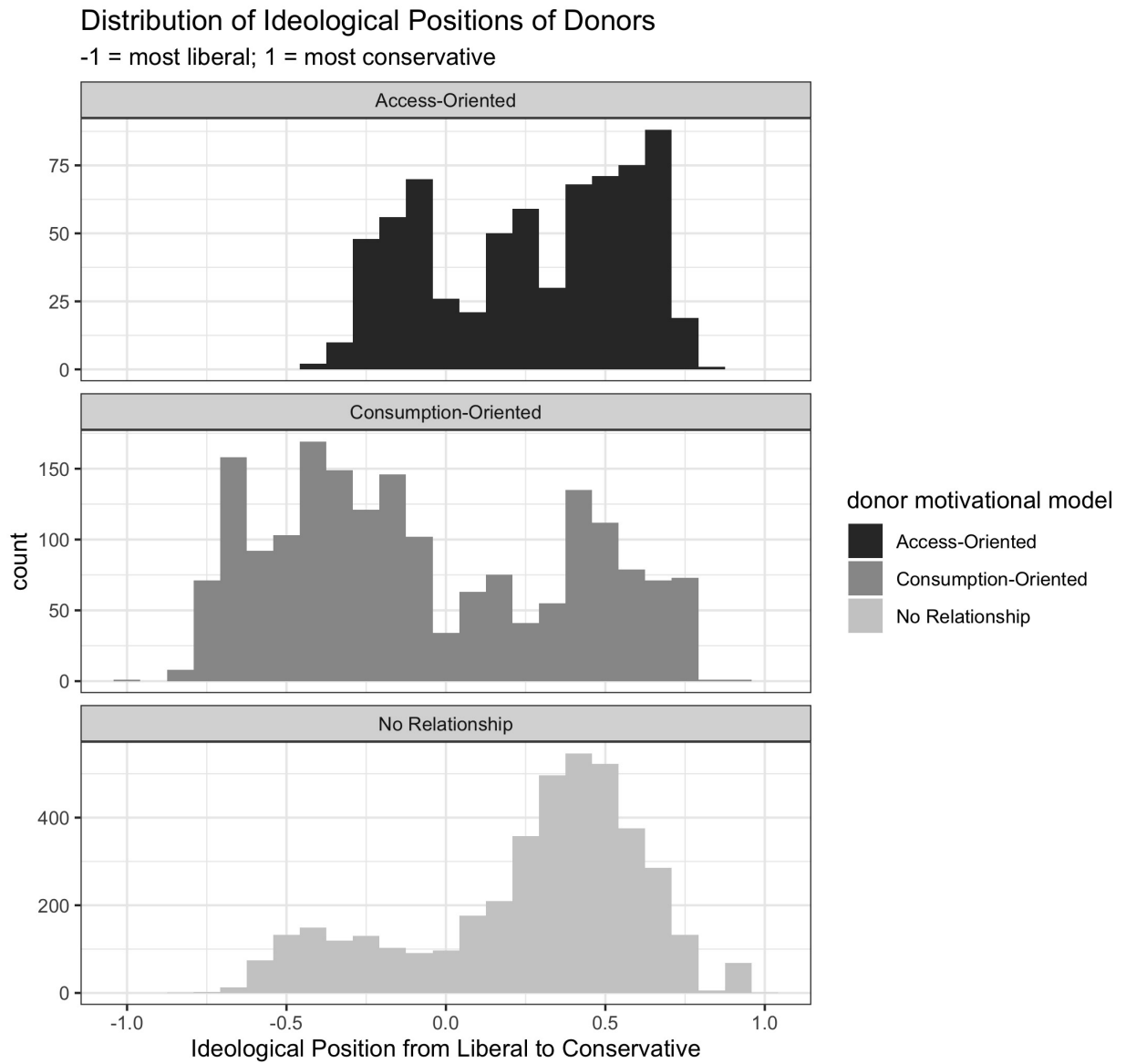
Figure 4: Spatial position along the ideological x-axis of each donor.

Table 3 shows the breakdown of donors who contribute a majority of their money to Democrats and Republicans by motivational model.

Table 3: Percent of donors categorized as each motivational model who contributed a majority of their money to Republicans and Democrats

Motivational Model	% Republican	% Democrat
Access-Oriented only	63.9%	36.1%
Consumption-Oriented only	34.7%	65.3%
No Relationship	74.7%	25.3%

I then rescale the coordinate position to be -1 to 1, with -1 representing the most Democratic node and 1 representing the most Republican node. To test H_{3a}, that consumption-oriented donors are more polarized in the network graph, and H_{3b}, that access-oriented donors are less polarized in the network graph, a difference-in-means permutation test was conducted on the absolute value of the rescaled x-coordinate with the coalition category as a variable. A non-parametric permutation test was used since the statistical assumptions for an OLS regression were not met. This absolute value effectively is the level of polarization in the graph, with the nodes that are on the extremes of the graph being closer to 1 and the central-most nodes, representing bipartisan donors, being closer to 0. Results for H_{3a} and H_{3b} are in Table 4. Consumption-motivated donors are on average in more polarized positions (further to the left and right of the graph) than non-consumption-oriented donors, and access-oriented donors are on average in less polarized positions (closer to the middle of the graph) than non-access-oriented donors.

Table 4: Difference in Average Donor Position Polarization

Hypothesis	Model	Avg. Diff	95% CI	p-value
H_{3a}	access	-0.05	-0.06, -0.03	<.001
H_{3b}	consumption	0.01	0, 0.02	0.014

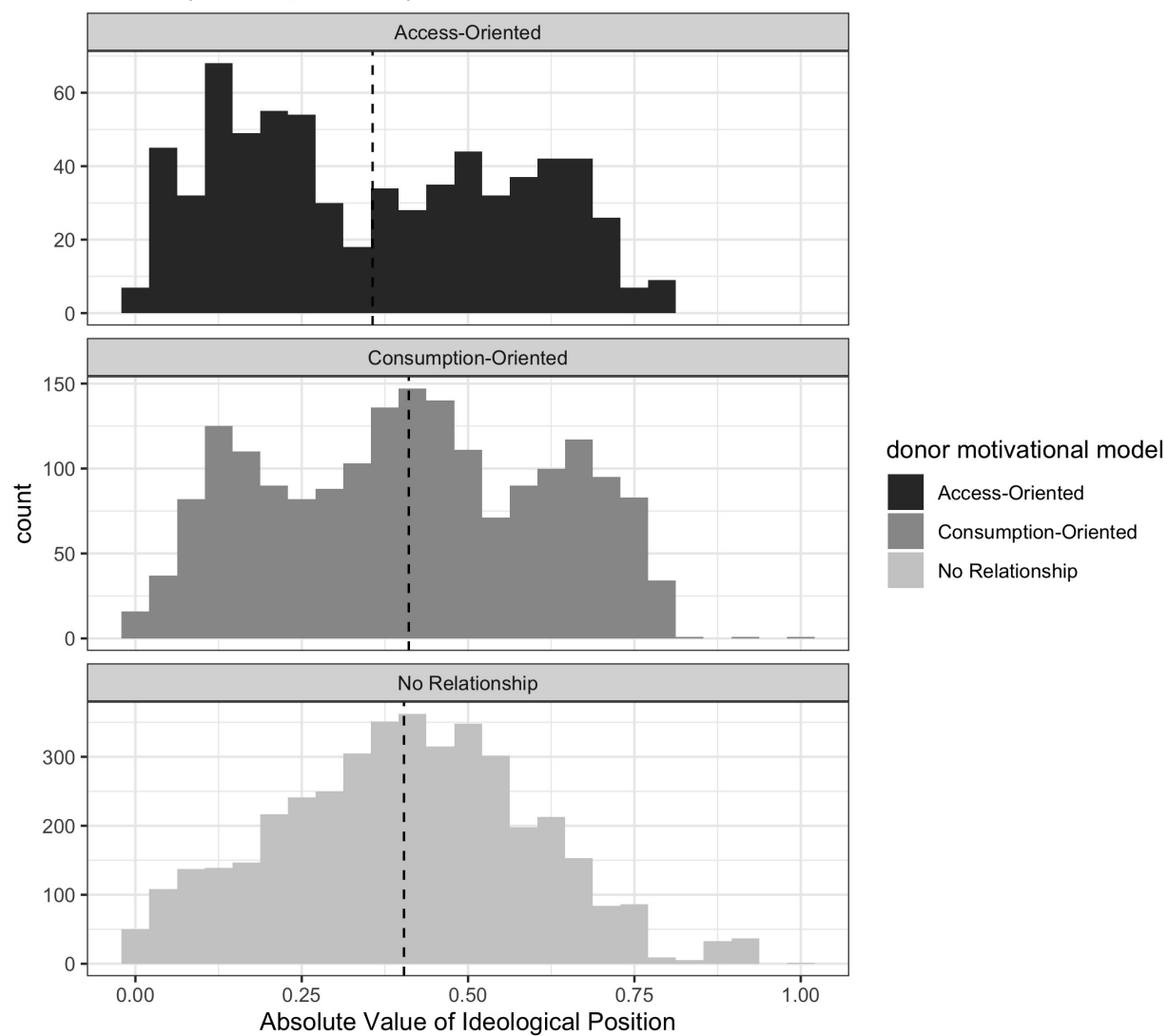The polarized positions of all the donors are shown by group in Figure 5.

Figure 5: Polarized spatial position of each donor.

Discussion

I find evidence that eschews historical scholarship that political donors are monolithic in their motivations. Instead, I find that different donors hold different motivations.

Different donor coalitions exhibited behavior that is in line with both the access-oriented and consumption model of political donations with policy issues across the ideological spectrum of liberal, conservative, and bipartisan. Example social media posts of the various topics can be found in the Appendix.

While much of the popular concern over money in politics is around access-oriented donors manipulating the political system, I find that there are more consumption-oriented–rather than access-oriented–donors (2,702 versus 1,572), donations (11,080 versus 6,489), and total amount of money contributed by each type ($1,341,129.70 versus $654,577.60). While any number of access-oriented donors may remain concerning to some in the public, these results suggest that more people use political donations as a vehicle for increased participation in, not manipulation of, the political process.

One idea about political donors is that access-oriented donors are large-dollar donors with financial incentives, but the results of H_{2a} reject this idea in the context of the 2016 elections in Wisconsin. Donors in access-oriented coalitions do not contribute statistically significantly more money on-average than other donors. Just because a donor is not contributing a large sum of money themselves does not mean that they are not seeking to coax a politician into supporting specific policies. This attempt at influence can be amplified when coalitions of donors operate in conjunction with one another. For example, members of an interest group could each contribute a relatively small amount of money, but in the aggregate, the unified donations could potentially gain that interest group access to a politician. A future study could replicate this analysis with multiple election cycles or study multiple states or federal elections to achieve higher statistical power.

The stereotype of consumption-motivated donors is of small-dollar donors whose con-

tributions are harnessed online. Similar to access-oriented donors, H_{2b} is rejected and consumption-motivated donors are not on-average smaller donors than other contributors. Again, these results suggest a rethinking of the notion that the amount of money one contributes is indicative of one's motivations. If someone is able to contribute a large sum of money and they care about a certain issue, it stands to reason that they may just support politicians who already care about that issue. This paper challenges conventional beliefs on the size of access-oriented versus consumptive donors.

In contrast, this paper concurs with the literature that consumption-motivated donors are in more polarized spatial positions within the donor graph than non-consumptive donors. Access-oriented donors are more centrally located. The acceptances of H_{3a} and H_{3b} are in agreement with past literature. These results provide descriptive context and are not meant to imply any level of causality. Past studies have either suggested or found a connection between donor motivations and political polarization, and this study also finds these descriptive relationships. Future studies should examine the causal mechanisms of these relationships. Do candidates take more polarizing stances in an effort to court consumptive donors? Has an increased number of consumptive donors helped more polarized candidates to win office? Do access-oriented donors seek out campaigns that are more moderate? Or can access-oriented donors influence the ideological extremity of candidates?

In addition to the finding that both models can exist in different donor coalitions, it is also possible that the same cluster can operate under both models. One of the thirteen donor clusters, coalition 1, revealed a duality where they were access-oriented in relation to one policy issue and consumption-oriented in relation to another. While it is possible that this finding is statistical noise, there is additional face validity because the two issues the donor coalition had a relationship with were both bipartisan issues–veterans issues and drug abuse. Few studies have come to the conclusion that donors can operate with both motivational models. While this study finds this behavior to be relatively rare, in

only one donor cluster, it hints at a more complex view as to why donors make a political contribution. Further, public support of one policy issue, veteran's issues, is both Granger caused by donations from a coalition and Granger causes another coalition to make a contribution. This result suggests that issues can play different roles to different groups of political donors. One group of donors can seek access to influence a policy, and another group can display consumptive behavior and reward politicians who already publicly support that policy.

Finally, there has been a debate among campaign-finance scholars as to whether donation motivations are driven by only ideological proximity or specific policy issues. I find that policy issues are a factor in contribution motivations, at least for the specific groups that exhibit access-oriented or consumptive behavior. The policy issues that are connected to donor clusters in this study range the political spectrum, including liberal policies (race issues, public infrastructure), conservative policies (pro-life, pro-gun), and bipartisan issues (drug abuse, veteran's issues). Further, some of the topics are perennial focuses of campaigns, such as pro-life politics. Other issues were particularly salient during this election cycle, such as veterans issues with the Tomah Veterans' Affair hospital scandal (Honl 2016) and King Veterans' Home scandal. These two scandals created an electoral environment in which veterans' issues were in the public focus, and results from this paper suggest that some political donors both sought to influence campaigns to address these issues as well as reward politicians for their focus on the topic.

Six of the thirteen coalitions of donors did not display access-oriented or consumption-oriented behavior with the policy topics tested. The motivations behind these clusters of donors remain unclear. It is possible that they are motivated by ideological proximity in a way that is not adequately tested using the methods in this paper. Future studies should test other potential reasons that people make political contributions, such as individuals contributing to ideologically proximate campaigns, geographically local campaigns, competitive campaigns, or other potential motivations.

Limitations

Like all observational studies, this research cannot claim true causality. While the main methodology employed is formally called "Granger causality," this causality is in an econometric sense and is more akin to predictive value. So while the findings of this paper do have predictive power–for example, donations from certain groups of individuals successfully receiving candidates to publicly support policy issues–true causal claims cannot be made. Future studies should use the findings from this research to conduct lab experiments where causal claims can be made.

I found discrete examples of donor coalitions demonstrating access-oriented or consumptive behavior on specific issues. However, these results do not suggest that these donors only care about those issues or that other donors do not care about these issues. Instead, these donors have a unique statistical relationship where when they contribute money to a political campaign, it either predicts or is predicted by campaigns' public support of policy issues. Future studies can employ surveys to identify if the statistical relationships found in an analysis like this present work concur with people's self conceptions. Do donor coalitions who donate in a consumptive fashion, that is where they contribute to a campaign after they publicly support an issue, actually report that they prioritize that issue? Possibly, these behaviors are subconscious reactions. Donors may not be able to exactly identify *why* they like a candidate or may report some other reason, when it is actually a reinforcement of a concurrence between their policies and the information environment that they consume.

Finally, this study was not meant to find nor did it find exhaustive evidence as to what motivates every single donor in the dataset. Even within the information ecology, this study does not consider things like news stories or personal friend circles. Moreover, there are other potential reasons that explain why donors make contributions, such as geographic proximity to where people donate to their local candidates or the allocation of

24

money to competitive races. Future research can consider these other variables as possible explanations for political donations.

Conclusion

Campaign finance scholars are divided on the motivations of political donors. Do political donors seek to buy access, to participate more in politics, or some combination of both? This study finds that different coalitions of donors, and in one instance, a singular coalition, exhibit behavior that is consistent with different motivational models. Overall, there are more consumptive donors compared to access-oriented donors. In addition, there is no statistical difference in the average contributor size of access-oriented and consumption-oriented donors compared to other donors. However, access-oriented donors are found to be more spatially central within donor networks, and consumptive donors are more polarized. While past research has largely treated political donors as a monolith, with the possibility of operating under a single model, I find that different donors can fit under different motivational models.

Appendix

Table 5: Social Media Examples

example #	topic	campaign	social media site	post
1	race issues: liberal	Bowen 4 Action	Twitter	@ JoyAnnReid: #OscarsSoWhite black people can't even get nominated for the movies about black people...
2	race issues: liberal	Citizens of the 81st for Dave Considine	Twitter	1 in every 9 African-Americans are disenfranchised because of felony convictions in Wisconsin
3	abortion and women's issues: conservative	Ken Skowronski for Assembly	Facebook	Last night I had a great time at the Wisconsin Right to Life Dinner with my fellow colleagues. I am proud to have supported the bold Pro-Life reforms we have put in place and I will continue to defend the rights of those who cannot defend themselves.
4	abortion and women's issues: conservative	Friends & Neighbors of Robin Vos	Twitter	An Assembly committee will vote on a bill to ban the sale of aborted children's body parts on Wednesday.

Table 5: Social Media Examples *(continued)*

example #	topic	campaign	social media site	post
5	abortion and women's issues: conservative	Friends of Chuck Wichgers	Facebook	'I'm glad to know Chuck, who is a solid conservative. He's shown that he understands the principles that secure our freedom and that he will work for them in office. But more than that, I've seen that he is passionate about the God-given dignity of every human life. He knows that every person's right to live and to live freely comes from a much higher source than government.'PATRICK MCILHERAN, FORMER EDITORIAL WRITER, MILWAUKEE JOURNAL SENTINEL
6	veterans issues: bipartisan	Sanfelippo for Assembly	Twitter	Welcome Home Veterans Initiative seeks to solve veteran homelessness in state:

example #	topic	campaign	social media site	post
7	veterans issues: bipartisan	Citizens for Peter Barca	Twitter	Regionalizing Wisconsin's county veterans service offices remains a concern in vet community
8	guns: conservative	Scott Fitzgerald for Senate	Twitter	Thanks to the Wisconsin Game Preserve Association for the honor of their 2015 Legislator of the Year award!
9	guns: conservative	Kremer for Wisconsin	Facebook	This is a fair interview with Frederica Freyberg discussing the 'Campus Carry Act' in Wisconsin. This aired on public television yesterday morning.
10	infrastructure: liberal	Friends of Jonathan Brostoff	Facebook	Dr. Mark Stout has written a compelling alternative to the $1.1 billion highway proposal. This option that would save money and provide a brighter, more progressive, more responsible future for our state. If you haven't yet, please take a look and share widely.

Table 5: Social Media Examples *(continued)*

example #	topic	campaign	social media site	post
11	infrastructure: liberal	Wachs for Assembly	Twitter	WI roads rank 3rd worst in US. Yet Scott Walker isnt ready to put politics aside to solve our infrastructure woes.
12	drug abuse: bipartisan	Michael Schraa for Assembly	Facebook	A great story about the HOPE Agenda and my colleague on Joint Finance, WI State Rep John Nygren's efforts to fight against heroin and opiate addiction.

Method	koRpus	stringi
Word count	5293	5266
Character count	35477	35491
Sentence count	277	Not available
Reading time	26.5 minutes	26.3 minutes

References

Ahelegbey, Daniel Felix, Monica Billio, and Roberto Casarin. 2016. "Bayesian graphical models for STructural vector autoregressive processes." *Journal of Applied Econometrics* 31(2): 357–386. doi: 10.1002/jae.2443.

Akey, Pat. 2015. "Valuing Changes in Political Networks: Evidence from Campaign Contributions to Close Congressional Elections." *The Review of Financial Studies* 28(11): 3188–3223. doi: 10.1093/rfs/hhv035.

Albert, Zachary, and Raymond La Raja. 2020. "Small dollar donors and the evolving democratic party." *APSA Preprints*. doi: 10.33774/apsa-2020-9rnkd.

Ansolabehere, Stephen, John M. de Figueiredo, and James M. Snyder. 2003. "Why is there so little money in u.s. politics." *Journal of Economic Perspectives* 17(1): 105–130. www.jstor.org/stable/3216842.

Arbour, Brian. 2020. "Tiny donations, big impact: How small-dollar donors are eroding the power of party insiders." *Society* 57: 496–506. doi: 0.1007/s12115-020-00520-4.

Arceneaux, Kevin, and David W. Nickerson. 2009. "Who is mobilized to vote? A re-analysis of 11 field experiments." *American Journal of Political Science* 53(1): 1–16. doi: 10.2307/25193864.

Baker, Anne. 2020. "Policies, profits, networks, or duty?: Donors' motivations for contributing to parties and interest groups." *The Social Science Journal* 0(0): 1–16. doi: 10.1080/03623319.2020.1727224.

Barber, Michael. 2016. "Donation motivations: Testing theories of access and ideology." *Political Research Quarterly* 69(1): 148–159. 10.1177/1065912915624164.

Barber, Michael J., Brandice Canes-Wrone, and Sharece Thrower. 2017. "Ideologically sophisticated donors: Which candidates do individual contributors finance?" *American Journal of Political Science* 61(2): 271–288. doi: 10.1111/ajps.12275.

Barber, Michael, Brandice Canes-Wrone, and Sharece Thrower. 2019. "Campaign contributions and donors' policy agreement with presidential candidates." *Presidential Studies Quarterly* 49(4): 770–797. doi: 10.1111/psq.12609.

Barbera, Pablo, Andrew Geisler, and Wouter van Atteveldt. 2017. *Rfacebook*. https://cran.r-project.org/web/packages/Rfacebook/Rfacebook.pdf.

Bastian, Mathieu, Sebastien Heymann, and Mathieu Jacomy. 2009. "Gephi: An open source software for exploring and manipulating networks." http://www.aaai.org/ocs/index.php/ICWSM/09/paper/view/154.

Bastos, Marco T., Dan Mercea, and Arthur Charpentier. 2015. "Tents, Tweets, and Events: The Interplay Between Ongoing Protests and Social Media." *Journal of Communication* 65(2): 320–350. doi: 10.1111/jcom.12145.

Bonica, Adam. 2016. "Avenues of influence: On the political expenditures of corporations and their directors and executives." *Business and Politics* 18(4): 367–394. doi: 10.1515/bap-2016-0004.

Canes-Wrone, Brandice, and Nathan Gibson. 2019. "Developments in congressional responsiveness to donor opinion." In *Can america govern itself?*, SSRC anxieties of democracy, eds. Frances E. Lee and NolanEditors McCarty. Cambridge University Press, p. 69–92. doi: 10.1017/9781108667357.004.

Choma, Russ, and Kara Voght. 2020. "Small-dollar donors powered the 2020 race. Then the pandemic happened." *Mother Jones*. https://www.motherjones.com/politics/2020/04/small-dollar-donors-powered-the-2020-race-then-the-pandemic-happened/.

Constant, Louay M. 2006. "When money matters: Campaign contributions, roll call votes, and school choice in florida." *State Politics & Policy Quarterly* 6(2): 195–219. doi: 10.1177/153244000600600204.

Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov. 2010x. "Corporate political contributions and stock returns." *The Journal of Finance* 65(2): 687–724. doi: 10.1111/j.1540-6261.2009.01548.x.

Cranshaw, Justin, Eran Toch, J. Hong, A. Kittur, and N. Sadeh. 2010. "Bridging the gap between physical location and online social networks." *Proceedings of the 12th ACM international conference on Ubiquitous computing*.

Culberson, Tyler, Michael P. McDonald, and Suzanne M. Robbins. 2019. "Small donors in congressional elections." *American Politics Research* 47(5): 970–999. doi: 10.1177/1532673X18763918.

Devlin, Jacob, Ming-Wei Chang, Kenton Lee, and Kristina Toutanova. 2019. "BERT: Pre-training of deep bidirectional transformers for language understanding." https://arxiv.org/abs/1810.04805.

Edwards, Geoff, and Rui de Figueiredo. 2016. "The market for legislative influence over regulatory policy." 34. doi: 10.1108/S0742-332220160000034007.

Ellison, Nicole, and Charles Steinfield. 2006. "Spatially bounded online social networks and social capital: The role of facebook." *Annual Conference of the International Communication Association*.

Ensley, Michael J. 2009. "Individual campaign contributions and candidate ideology." *Public Choice* 138(1/2): 221–238. http://www.jstor.org/stable/40270840.

Feldman, Stanley. 1982. "Economic self-interest and political behavior." *American Journal of Political Science* 26(3): 446–466. doi: 10.2307/2110937.

Fellowes, Matthew C., and Patrick J. Wolf. 2004. "Funding mechanisms and policy instruments: How business campaign contributions influence congressional votes." *Political Research Quarterly* 57(2): 315–324. https://sites.temple.edu/nickerson/files/2017/07/Butler_Nicke

Ferris, Stephen P., Reza Houston, and David Javakhadze. 2019. "It is a sweetheart of a deal: Political connections and corporate-federal contracting." *Financial Review* 54(1): 57–84. doi: 10.1111/fire.12181.

Fouirnaies, Alexander, and Andrew Hall. 2015. "The exposure theory of access: Why some firms seek more access to incumbents than others." *SSRN Electronic Journal*. doi: 10.2139/ssrn.2652361.

Fouirnaies, Alexander, and Andrew B. Hall. 2018. "How do interest groups seek access to committees?" *American Journal of Political Science* 62(1): 132–147. doi: 10.1111/ajps.12323.

Francia, Peter L., John C. Green, Paul S. Herrnson, Lynda W. Powell, and and Clyde Wilcox. 2003. *The financiers of congressional elections*. New York, NY: Columbia University Press.

Freelon, D, C McIlwain, and M Clark. 2018. "Quantifying the power and consequences of social media protest." *New Media & Society* 20(3): 990–1011. doi: 10.1177/1461444816676646.

Fremeth, Adam, Brian Kelleher Richter, and Brandon Schaufele. 2013. "Campaign contributions over CEOs' careers." *American Economic Journal: Applied Economics* 5(3): 170–88. doi: 10.1257/app.5.3.170.

Fulmer, Sarah, A. Knill, and X. Yu. 2017. "Negation of sanctions: The personal effect of political contributions." *Business History eJournal*.

Goldmacher, Shane. 2020. "The 2020 campaign is the most expensive ever (by a lot)." *The New York Times Magazine*. https://www.nytimes.com/2020/10/28/us/politics/2020-race-money.html.

Gordon, Sanford C., Catherine Hafer, and Dimitri Landa. 2007. "Consumption or investment? On motivations for political giving." *The Journal of Politics* 69(4): 1057–1072.

Gounopoulos, Dimitrios, Khelifa Mazouz, and Geoffrey Wood. 2021. "The consequences of political donations for IPO premium and performance." *Journal of Corporate Finance* 67: 101888. doi: 10.1016/j.jcorpfin.2021.101888.

Granger, C. W. J. 1969. "Investigating causal relations by econometric models and cross-spectral methods." *Econometrica* 37(3): 424–438. http://www.jstor.org/stable/1912791.

Hall, Richard L., and Frank W. Wayman. 1990. "Buying time: Moneyed interests and the mobilization of bias in congressional committees." *American Political Science Review* 84(3): 797–820. doi: 10.2307/1962767.

Ham, Kelli. 2013. "OpenRefine (version 2.5). Http://openrefine.org. Free, open-source tool for cleaning and transforming data." *Journal of the Medical Library* 101(3): 233–234.

doi: 10.3163/1536-5050.101.3.020.

Hanna, Alex, Chris Wells, Peter Maurer, Lew Friedland, Dhavan Shah, and Jörg Matthes. 2013. "Partisan alignments and political polarization online: A computational approach to understanding the french and US presidential elections." In *Proceedings of the 2nd workshop on politics, elections and data*, PLEAD '13, New York, NY, USA: Association for Computing Machinery, p. 15–22. doi: 10.1145/2508436.2508438.

Harden, Jeffrey J., and Justin H. Kirkland. 2016. "Do campaign donors influence polarization? Evidence from public financing in the american states." *Legislative Studies Quarterly* 41(1): 119–152. doi: 10.1111/lsq.12108.

Hayes, Thomas J. 2017. "Bankruptcy reform and congressional action: The role of organized interests in shaping policy." *Social Science Research* 64: 67–78. doi: 10.1016/j.ssresearch.2016.09.

Haynes, Winston. 2013. "Bonferroni correction." In *Encyclopedia of systems biology*, eds. Werner Dubitzky, Olaf Wolkenhauer, Kwang-Hyun Cho, and Hiroki Yokota. New York, NY: Springer New York, p. 154–154. doi: 10.1007/978-1-4419-9863-7_1213.

Heberlig, Eric, and Bruce Larson. 2020. "Gender and small contributions: Fundraising by the democratic freshman class of 2018 in the 2020 election." *Society* 57: 534–539. doi: 10.1007/s12115-020-00528-w.

Heerwig, Jennifer A. 2016. "Donations and dependence: Individual contributor strategies in house elections." *Social Science Research* 60: 181–198. doi: 10.1016/j.ssresearch.2016.06.001.

Heerwig, Jennifer A. 2018. "Money in the middle: Contribution strategies among affluent donors to federal elections, 1980–20081." *American Journal of Sociology* 123: 1004–1063.

Herndon, James F. 1982. "Access, record, and competition as influences on interest group contributions to congressional campaigns." *The Journal of Politics* 44(4): 996–1019. https://www.jstor.org/stable/2130670.

Hill, Seth J., and Gregory A. Huber. 2017. "Representativeness and motivations of the contemporary donorate: Results from merged survey and administrative records." *Political Behavior* 39(1): 3–29. doi: 10.1007/s11109-016-9343-y.

Hogan, Robert E. 2020. "Legislative voting and environmental policymaking in the american states." *Environmental Politics* 0(0): 1–20. doi: 10.1080/09644016.2020.1788897.

Honl, Ryan. 2016. "Here are the facts about the tomah VA scandal." *The Cap Times*. https://madison.com/ct/opinion/column/ryan-honl-here-are-the-facts-about-the-tomah-va-scandal/article_03393fbd-c5d4-5856-b162-8a0fb532c562.html.

Hu, Yifan. 2005. "Efficient, high-quality force-directed graph drawing." *Mathematica Journal* 10(1): 37–71. doi: 10.1.1.353.4547.

Jiang, Shan, Miriam Metzger, Andrew Flanagin, and Christo Wilson. 2020. "Modeling and measuring expressed (dis)belief in (mis)information." *Proceedings of the International AAAI Conference on Web and Social Media* 14(1): 315–326. https://ojs.aaai.org/index.php/ICWSM/article/view/7302.

Kalla, Joshua L., and David E. Broockman. 2016. "Campaign contributions facilitate access to congressional officials: A randomized field experiment." *American Journal of Political Science* 60(3): 545–558. doi: 10.1111/ajps.12180.

Kang, Taewoo, Erika Franklin Fowler, Michael M Franz, and Travis N Ridout. 2018. "Issue consistency? Comparing television advertising, tweets, and e-mail in the 2014 senate campaigns." *Political Communication* 35(1): 32–49.

Karpf, David. 2010. "Online political mobilization from the advocacy group's perspective: Looking beyond clicktivism." *Policy & Internet* 2(4): 7–41. doi: 10.2202/1944-2866.1098.

Kearney, Michael W. 2019. "Rtweet: Collecting and analyzing twitter data." *Journal of Open Source Software* 4(42): 1829. doi: 10.21105/joss.01829.

Keena, Alex, and Misty Knight-Finley. 2019. "Are small donors polarizing? A longitudinal study of the senate." *Election Law Journal: Rules, Politics, and Policy* 18(2): 132–144. doi: 10.1089/elj.2018.0498.

Kettler, Jaclyn J., and Jeffrey Lyons. 2019. "The fickle financiers of elections? The impact of moving on individual contributions." *Journal of Elections, Public Opinion and Parties*

0(0): 1–19. doi: 10.1080/17457289.2019.1652620.

Kushin, Matthew J., and Kelin Kitchener. 2009. "Getting political on social network sites: Exploring online political discourse on facebook." *First Monday* 14(11). doi: 10.5210/fm.v14i11.2645.

Langbein, Laura I. 1986. "Money and access: Some empirical evidence." *The Journal of Politics* 40(4): 1052–1062. https://www.jstor.org/stable/2131013.

Lau, Richard R. 1985. "Two explanations for negativity effects in political behavior." *American Journal of Political Science* 29(1): 119–138. doi: 10.2307/2111215.

Lawrence, Eric, John Sides, and Henry Farrell. 2010. "Self-segregation or deliberation? Blog readership, participation, and polarization in american politics." *Perspectives on Politics* 8(1): 141–157. http://www.jstor.org/stable/25698520.

Lee, Jae Kook, Jihyang Choi, Cheonsoo Kim, and Yonghwan Kim. 2014. "Social Media, Network Heterogeneity, and Opinion Polarization." *Journal of Communication* 64(4): 702–722. doi: 10.1111/jcom.12077.

Liben-Nowell, David, Jasmine Novak, Ravi Kumar, Prabhakar Raghavan, and Andrew Tomkins. 2005. "Geographic routing in social networks." *Proceedings of the National Academy of Sciences* 102(33): 11623–11628. doi: 10.1073/pnas.0503018102.

Lukito, Josephine. 2020. "Coordinating a multi-platform disinformation campaign: Internet research agency activity on three u.s. Social media platforms, 2015 to 2017." *Political Communication* 37(2): 238–255. doi: 10.1080/10584609.2019.1661889.

McKay, Amy. 2018. "What do campaign contributions buy? Lobbyists' strategic giving." *Interest Groups & Advocacy* 7(1). doi: 10.1057/s41309-018-0031-7.

Milbrath, Lester W. 1958. "The political party activity of washington lobbyists." *The Journal of Politics* 20(2): 339–352. https://www.jstor.org/stable/2127043.

Mozafari, Marzieh, Reza Farahbakhsh, and Noël Crespi. 2020. "A BERT-based transfer learning approach for hate speech detection in online social media." *Complex Networks and Their Applications VIII. COMPLEX NETWORKS 2019. Studies in Computational In-*

telligence 881. doi: 10.1007/978-3-030-36687-2_77.

Oklobdzija, Stan. 2017. "Closing down and cashing in: Extremism and political fundrais-
ing." *State Politics & Policy Quarterly* 17(2): 201–224. doi: 10.1177/1532440016679373.

Park, J., H. Leung, and K. Ma. 2017. "Information fusion of stock prices and sentiment in
social media using granger causality." In *2017 IEEE international conference on multisen-
sor fusion and integration for intelligent systems (MFI)*, p. 614–619. doi: 10.1109/MFI.2017.8170390.

Powell, Eleanor Neff, and Justin Grimmer. 2016. "Money in exile: Campaign contribu-
tions and committee access." *The Journal of Politics* 78(4): 974–988. doi: 10.1086/686615.

R Core Team. 2013. *R: A language and environment for statistical computing*. Vienna, Austria:
R Foundation for Statistical Computing. http://www.R-project.org/.

Rahn, Wendy M., Jon A. Krosnick, and Marijke Breuning. 1994. "Rationalization and
derivation processes in survey studies of political candidate evaluation." *American
Journal of Political Science* 38(3): 582–600. doi: 10.2307/2111598.

Raja, Raymond J. La, and David L. Wiltse. 2012. "Don't blame donors for ideological po-
larization of political parties: Ideological change and stability among political dontrib-
utors, 1972-2008." *American Politics Research* 40(3): 501–530. doi: 10.1177/1532673X11429845.

Ramiandrisoa, Faneva, and Josiane Mothe. 2020. "Aggression identification in social
media: A transfer learning based approach." In *Proceedings of the second workshop on
trolling, aggression and cyberbullying*, Marseille, France: European Language Resources
Association (ELRA), p. 26–31. https://www.aclweb.org/anthology/2020.trac-1.5.

Scellato, Salvatore, Cecilia Mascolo, Mirco Musolesi, and Vito Latora. 2010. "Distance
matters: Geo-social metrics for online social networks." In WOSN'10, USA: USENIX
Association, p. 8.

Stigler, Matthieu. 2010. *Threshold cointegration: Overview and implementation in r*. https:
//cran.r-project.org/web/packages/tsDyn/vignettes/ThCointOverview.pdf.

Terechshenko, Zhanna, Fridolin Linder, Vishakh Padmakumar, Fengyuan Liu, Jonathan
Nagler, Joshua A. Tucker, and Richard Bonneau. 2020. "A comparison of methods in

political science test classification: Transfer learning models for politics." Presented at the XXXVII PolMeth Annual Meeting.

Tian, Lin, Xiuzhen Zhang, Yan Wang, and Huan Liu. 2020. "Early detection of rumours on twitter via stance transfer learning." In *Advances in information retrieval*, eds. Joemon M. Jose, Emine Yilmaz, João Magalhães, Pablo Castells, Nicola Ferro, Mário J. Silva, and Flávio Martins. Cham: Springer International Publishing, p. 575–588.

Vlad, George-Alexandru, Mircea-Adrian Tanase, Cristian Onose, and Dumitru-Clementin Cercel. 2019. "Sentence-level propaganda detection in news articles with transfer learning and BERT-BiLSTM-capsule model." In *Proceedings of the second workshop on natural language processing for internet freedom: Censorship, disinformation, and propaganda*, Hong Kong, China: Association for Computational Linguistics, p. 148–154. doi: 10.18653/v1/D19-5022.

Welch, W. P. 1980. "The allocation of political monies: Economic interest groups." *Public Choice* 35(1): 97–120. doi: 10.1007/BF00154752.

Yiannakis, Diana Evans. 1981. "The grateful electorate: Casework and congressional elections." *American Journal of Political Science* 25(3): 568–580. doi: 10.2307/2110819.

Zeileis, Achim, and Torsten Hothorn. 2002. "Diagnostic checking in regression relationships." *R News* 2(3): 7–10. https://CRAN.R-project.org/doc/Rnews/.