Predicting Political Contributions from Major Corporate Donors

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1 Introduction

The purpose of this project is to create a model that can accurately predict how political donations from the US' largest corporate donors change in response to votes made by individual legislators in the House of Representatives. This inverts the design of traditional research looking into how votes in Congress may be influenced by campaign contributions.

There is a long history of literature discussing the incentives of corporate influence on political decision-making, either by lobbying or through direct contributions to political campaigns. Especially in the case of PACs (Political Action Committees) there is little doubt that these kinds of campaign contributions are interested money. Analyses rooted in game theory consider the relationship as a repeat-play reciprocal favor model (instead of a spot market model, i.e. a direct quid pro quo), where corporations make campaign contributions over a prolonged time period and the respective legislator provides favors when the opportunity arises (Calvert, 1989).

The effect of campaign contributions on roll-call votes in the U.S. Congress is a widely studied subject. Roscoe and Jenkins (2005) conclude in their meta-analysis of campaign contributions and roll-call voting that one-third of all votes are motivated by donor influence and further emphasizes that the connection between contributions and voting is certainly no reflection of friendly giving.

Bonica (2018) uses campaign contribution data to infer roll-call scores using a supervised machine learning methodology (Support Vector Regression and Random Forests) and shows that predicting roll-call votes based on fundraising data of non-incumbents is as accurate as predicting votes based on the votes cast by a legislator during the first two years in office.

Regardless of whether corporate campaign contributions can be explained as the promotion of ideological close politicians, a quid pro quo spot market of votes, or just buying access to legislators during their tenure, there are implicit behavioral expectations in the donation that, if unmet, might result in the channeling of funds elsewhere. If legislators cannot deliver on those expectations, it is reasonable to assume that the respective contributions will diminish or halt entirely. Kroszner and Stratmann (2005) use the percentage of repeat givers to members of the U.S. House as a proxy for reputational development and find that greater reputational development (i.e. higher clarity regarding the positions of a politician) is rewarded with greater PAC contributions. As the voting behavior of legislators is certainly an important tool for gaining access to donor funds, we will build on the assumption by focusing on how donors respond to unfavorable voting behavior by their 'investments.'

While existing machine learning has focused on the individual legislator as the main unit of analysis in relation to donor funds, we have inverted this analysis hoping to understand how corporate donors react to roll-call votes made by Members of the House (MoHs). By focusing on a few specific corporations that have donated significant amounts of money to a range of MoHs from both parties over a prolonged period of time, we want explore whether and to what degree it is possible to predict further distributions and shifts of donations made by those corporations.

To achieve a high predictability and to be able to find causal relationships of interest, we will include several attributes that are likely to mediate between

our variables of interest. We are planning to include certain characteristics of MoHs (e.g. age, party, tenure) and characteristics of their respective election districts (e.g. competitiveness, rural vs. city). Moreover, we will create broad topic-based categories for the bills that are voted on and – if feasible – will include a ideology score for MoHs.

2 Motivation

By creating a model that focuses on the donor as the principle unit of investigation, we hope to illuminate how specific corporate donors respond to 'slippage' or 'disloyal votes' in the electoral system.

The influence of corporate money on politics is well known, thoroughly researched, and confirmed through many studies cited in this project proposal. The particular strategies and tactics used by corporate donors are however under-researched. Through our project, we hope to create a model that can reliably predict when donors sanction individual legislators by withholding campaign funds or donating to challengers in a general election (i.e. certain thresholds of 'disloyal votes'), in what electoral contexts they are most responsive (i.e. safe seats/districts), as well as the magnitude of donor response.

As many politicians running for office are highly dependent on corporate money for their election campaigns, our results could reveal the repercussions of those donations through mapping donor behavior and strategies while expanding quantitative research into corporations as key actors in electoral systems. Moreover, our results can help to better understand the influence that corporations might exert via campaign contributions and the extent to which legislators face financial retribution for voting against corporate interest.

3 Evaluation

As the nature of this project is simultaneously to create a model with high predictability as well as to make claims on corporate behavior, successes in this project are potentially manifold if there are large differences in predictability for sub-sections of the data. For instance, donors may be more responsive to roll-call votes in competitive districts where the seat is more likely to change to the other party. In such situations, donors may be more sensitive to 'disloyalty' when they can support a challenger with a high probability of winning. However in the same electoral context, donors may hedge their bets by donating to candidates from both parties – a phenomenon not too uncommon. In situations like this they may be less likely to penalize a legislator, but rather ensure access to the seat regardless of which person or party holds it. This would lead to low predictability in our model

High predictability of the model is a success in itself, and we anticipate that donor response will be stronger as 'disloyal' votes accumulate. Identifying any thresholds or contexts in which donors generally shift donation strategies would be a major success. If predictability is generally very low, it could indicate that either legislative behavior is too seldom contrary to donor interest or that donor strategies are not responsive regardless of individual roll call votes.

4 Resources

The following sources are a non-exhaustive list of resources for our data, but are a solid starting point to begin the project.

1. GovTrack. Voting results for all Members of Congress (by bill):

   https://www.govtrack.us/congress/votes

2. Justfacets. Bills (by No.) sorted into issue categories:

   https://justfacts.votesmart.org/bills/NA/2020/3/H

3. LegislatoR. Data on personal characteristics of Legislators:

   https://github.com/saschagobel/legislatoR

4. Open Secrets. Corporate Contributions to Members of Congress:

   https://www.opensecrets.org/outside-spending/corporate-contributions

5 Contributions

Mitchell Burns and Georg Peter will be working as a group of two and will equally share in the technical and reporting tasks required to complete the project.

References

[1] *Here is a link to our Github accounts https://github.com/jmitchellb14 and https://github.com/HertieGeorg*

[2] Kroszner, R. S., Stratmann, T. (2005). Corporate campaign contributions, repeat giving, and the rewards to legislator reputation. *The Journal of law and Economics*, 48(1), 41-71.

[3] Roscoe, D. D., Jenkins, S. (2005). A meta-analysis of campaign contributions' impact on roll call voting. *Social Science Quarterly*, 86(1), 52-68.

[4] Bonica, A. (2018). Inferring Roll-Call Scores from Campaign Contributions Using Supervised Machine Learning. *American Journal of Political Science*, 62(4), 830-848.

[5] Calvert, R. (1989). Reciprocity among self-interested actors: Uncertainty, asymmetry, and distribution. *Models of strategic choice in politics*, 269-293.