

Systemic and Sequential Links between Campaign Donations and Lobbying*

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December 6, 2023

Abstract

We study the interconnectedness of campaign contributions and lobbying — two distinct interest group activities often studied separately. We construct the most comprehensive dataset to date on the two linked political activities based on over 75 million U.S. federal lobbying reports and campaign contribution records since 1999. To systematically analyze the interplay between campaign donations and lobbying, we compare future lobbying activities of firms that donated to a politician against a set of comparable firms with no donation history to the *same* politician. Our large-scale analysis demonstrates that special interest groups strategically donate to legislators who they anticipate will be involved in legislative activities pertinent to future lobbying objectives. Specifically, we find that previous donations are associated with an 8-11 percentage point increase in the likelihood of the targeted politician’s involvement in lobbied legislative bills. The estimated effects are large, increase over time, and are particularly pronounced for committee-related activities.

Key Words: Lobbying, campaign donations, corporate non-market strategy

*Kim acknowledges financial support from the National Science Foundation (SES-1725235, SES-2017315), and the Russell Sage Foundation (# 1908-17912). Any opinions expressed are those of the principal investigator alone and should not be construed as representing the opinions of the Foundation. Stuckatz acknowledges support from the French Agence Nationale de la Recherche (under the Investissement d’Avenir programme, ANR-17-EURE-0010). Wolters Freiheit acknowledges financial support from the Alfried Krupp von Bohlen und Hallbach-Foundation. We thank Michael Becher, Rémi Cura, Arnaud Dellis, Benjamin Egerod, Thomas Groll, Jake Grumbach, Zoltan Fazekas, Josh McCrain, Brian Kelleher Richter, Hye Young You, and Erik Wang for helpful comments. We also thank participants at the 2021 UQAM-Columbia Workshop on Interest Groups, the 2021 APSA Pre-Conference: Frontiers on Money in Politics Research, the 2021 Copenhagen Business School Workshop on Money in Politics, the 2021 EPSA Annual Meeting, the 2020 APSA Annual Meeting, as well as seminar participants at Seoul National University and the Institute for Advanced Study in Toulouse who provided useful comments and feedback. We also thank Adam Rauh for superb computing assistance.

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Are campaign donations and lobbying activities linked? Although a vast literature exists on money in politics, scholars sharply disagree on why interest groups make donations to certain politicians, and whether contributions are actually related to subsequent lobbying and legislative behavior (Powell, 2014). Some argue that campaign donations are driven primarily by electoral competition and ideology (e.g., Poole and Romer, 1985), while others contend that campaign donations are long-term investments made strategically by special interest groups in order to gain and maintain access to legislators whom they later lobby (e.g., Austen-Smith, 1995; Esterling, 2007). Another enduring theme in this literature is whether lobbying, independent of donations, conveys significant informational value as politicians efficiently gather information (Austen-Smith and Wright, 1992; Potters and Van Winden, 1992) or whether it can serve as a legislative subsidy to support natural political allies to achieve their legislative objectives (Hall and Deardorff, 2006).

Despite the significance of this theoretical debate, empirical studies have been constrained by the difficulties of associating these two prevalent political activities: Unlike campaign donations, interest groups do not openly disclose *whom* they lobby, and hence there is no direct link between lobbying activity and specific politicians. Consequently, campaign donations and lobbying have been studied separately in most empirical work, and scholars had to rely primarily on anecdotal evidence, interviews, or survey experiments involving particular lobbyists, interest groups, and politicians (Wright, 1990; Kalla and Broockman, 2016; Bertrand, Bombardini, and Trebbi, 2014). Though these inquiries have yielded substantial insights, they are limited in scale and treat only a few individuals and policy domains in isolation. One notable exception is the seminal study by Ansolabehere, Snyder, and Tripathi (2002) who show that lobbying and campaign donations are related to the extent that interest groups that engage in both activities account for “70% of all interest group [lobbying] expenditures and 86% of all PAC contributions.” Although this study

shows that only a few interest groups dominate the political marketplace in terms of financial expenditure, it still raises the question of whether the two types of activities are indeed related and involve the very *same* political actors and their interactions. In fact, the authors identified the lack of a direct link between lobbying and individual political actors as an important limitation in the empirical study of money in politics (Ansolabehere, Snyder, and Tripathi, 2002, pp.142-143).

In this article, we analyze the systematic link between campaign donations and lobbying. To overcome the empirical challenges of linking the two activities, we construct the most comprehensive dataset to date encompassing over 75 million lobbying reports and campaign contribution filings since 1999, merging the two distinct activities at the level of interest groups and legislators. Specifically, we trace lobbying activities of over 84,000 interest groups concerning all legislative bills introduced since the 106th Congress, and identify those politicians whose legislative activities are directly related to the lobbied bills in terms of their committee memberships, bill sponsorship, and bill co-sponsorship. We then relate this information to all pairwise instances of campaign donations made by those interest groups to the politicians in question. Using this massive data set, we examine whether interest groups employ campaign contributions and lobbying as strategic complements, providing donations to politicians they later lobby. To the best of our knowledge, this is the first empirical study that directly connects lobbying and donations activities at the level of special interest groups and legislators.

To empirically evaluate this link between lobbying and donations, we compare future lobbying activities of firms that donated to a politician against a set of comparable firms with no donation history to the same politician. Our empirical strategy accounts for a time trend while non-parametrically adjusting for various other selection mechanisms that has been widely documented in the literature. Specifically, we compare an interest group that makes a *first-time* donation to

a certain politician within a given period against other interest groups with no donation history to the politician that are comparable in terms of their observable characteristics (e.g., firm size and past donation patterns). That is, we compare the differences in political activities involving a specific interest group–politician pair against all the other pairs that involve the *same* politician in order to account for unobservable politician-specific heterogeneity, such as their legislative productivity and ideology.

We find that previous donations are associated with an 8 to 11 percentage point increase in the likelihood of the targeted politician’s legislative involvement in the lobbied legislative bills. This effect is substantial given that the underlying probability of observing any lobbying activity involving a random firm–politician pair is nearly zero. Furthermore, we also examine within-interest group heterogeneity by considering the important distinctions across individual donors and Political Action Committees (PACs) in their incentives to engage in political activities (e.g., Barber, 2016; Li, 2018). That is, we keep track of the campaign donations made not only by corporate PACs, but also by individual employees such as CEOs, government affairs team members, and ordinary workers affiliated with each individual firm. We consistently find a strong association between the two activities even at these granular levels of analysis. We emphasize that we are not asserting a causal relationship between campaign donations and lobbying actions. Instead, our primary contribution is to provide robust empirical evidence that special interest groups strategically donate to legislators who they foresee being involved in legislative behaviors aligned with their future lobbying objectives at the firm–politician pair level.¹

Our large-scale observational analysis of specific firm–politician pairs not only considers the

¹As we detail below, we find no evidence that lobbying is followed by donations, for instance, to reward politicians after successful lobbying.

direct complementarities between campaign donations and lobbying activities, but also extends the important study by Kalla and Broockman (2016) whose experimental treatment focuses on general donation activities (i.e., “I am a donor”) rather than targeted donations (i.e., “I have donated to you”), and whose outcome are responses to general meeting requests with donors rather than bill- and committee-specific lobbying activities. Consistent with studies that underscore the importance of Congressional committee memberships (Fourinaies and Hall, 2018; Lorenz, 2020), we find that donations to a politician are followed especially by increased lobbying efforts on the bills that are assigned to the committees on which the targeted politicians serve. Furthermore, we find that the link is long-term (Snyder, 1990) in the sense that the relationship between campaign donations and lobbying activities gets larger two or three years after the donation is made. The immediate effect in the donation year is in line with Powell and Grimmer (2016) who find that PACs tend to seek *short-term* access to legislators.

Finally, we also show that interest groups do not necessarily make campaign donations to improve the electoral prospects of candidates and parties. Unlike the common finding that individuals, contrary to corporate PACs, tend to be ideological, we show that certain individuals (e.g., CEOs) may also donate strategically (Gordon, Hafer, and Landa, 2007; Barber, Canes-Wrone, and Thrower, 2017). By connecting individual donations to their employers’ lobbying, we show that individual donors’ political preferences are directly correlated with the political activities of their employers (Stuckatz, 2021). Taken together, our study significantly extends the empirical studies of money in politics by providing robust evidence that interest groups not only target politicians strategically when they make donations, but also arrange the two activities sequentially.

Our data, linking lobbying and campaign donation activities of interest groups including firms in the service industry, various PACs, as well as industry associations and peak organizations, will

be made fully publicly available at the Dataverse repository.

A Theoretical Scope: Donation-Lobbying Links

A large amount of qualitative evidence indicates that donations and lobbying might be systematically linked. For instance, Mick Mulvaney, a former Republican Representative (SC-5), said in a 2018 speech: “We had a hierarchy in my office, in Congress. If you’re a lobbyist who never gave us money, I didn’t talk to you. If you’re a lobbyist who gave us money, I might talk to you”.² And Sheila Krumholz, the Executive Director of the Center for Responsive Politics, declared in a CNBC documentary on the lobbying industry that “the biggest ones [corporations] are all making PAC donations and even direct individual donations. So sending an army of lobbyists up to work Capitol Hill to follow that donation is kind of, you know, the one-two punch. You first give the donation, and you next have your lobbyist pay a call.” (Hadavi and Jacobson, 2020).

In this paper, we delve into the well-established theoretical connection between donations and lobbying activities at the level of interest groups and politicians with a focus on their sequential relations. Specifically, we evaluate the “access-buying” hypothesis, which suggests donations are intended to secure access to policymakers, as opposed to offering direct rewards for political favors. Once “access” has been established, these connections enable interest groups to engage in lobbying to inform legislators and to influence legislative content. In contrast, interest groups might not even need to engage in costly lobbying activities if their donations, serving as a “reward” for future legislative activities, have been effective. In this regard, we also follow the literature to consider lobbying as “information provision” activities (Potters and Van Winden, 1992). That is, our

²Speech given by Mick Mulvaney as Acting Director of the Consumer Financial Protection Bureau at the American Bankers Association Annual Conference in Washington, D.C., on April 24, 2018.

study examines the sequential link between donation and lobbying activities, whereby campaign contributions are sequentially followed by lobbying.³

To be sure, there are numerous alternative mechanisms that could intertwine donations and lobbying, including those aligning with the “legislative subsidy” theory of lobbying (Hall and Deardorff, 2006). Legislators may solicit expertise from lobbyists on specific bills, or lobbyists might identify legislators with shared interests before initiating donations and lobbying. These scenarios could establish enduring or spurious relationships between lobbying and donation activities with no clear theoretically expected sequential ordering between the two activities. Moreover, some might anticipate that groups donate to politicians as a reward for specific legislative actions (Snyder, 1990), suggesting that donations will sequentially follow lobbying.⁴ Therefore, we center our empirical investigation on a particular sequential link whereby interest groups initiate their donation efforts in order to target legislators whom they anticipate will participate in legislative activities pertinent to their lobbying objectives.

Recognizing that lobbying activities could target a variety of legislative actions that remain hidden from researchers, our attention narrows down to the following three distinct types of legislative behaviors.

Bill sponsorship: First, interest groups may want to influence *bill introduction* by lobbying members of Congress who regularly sponsor bills. While many bills are very broad in nature, others, such as specific tariff reduction bills, can be extremely narrow in scope and thus potentially

³Considering the time constraints and resource limitations that politicians face, along with the continual need to attract donor contributions (Hall and Deardorff, 2006), we also anticipate a relatively immediate connection between donations and lobbying activities.

⁴In our empirical analysis, we also investigate this reverse theoretical direction wherein lobbying precedes subsequent donations. However, we found no empirical support for this hypothesis. See Figure K.1 in the appendix.

provide highly concentrated benefits to special interest groups. Indeed, Huneeus and Kim (2019) show that most sponsored bills in Congress are lobbied by only 1 or 2 interest groups. As interest groups seek particularistic benefits from individual pieces of legislation and look to shape which bills get introduced in the first place (Kim, 2017), they will want to access politicians who sponsor relevant pieces of legislation. We therefore hypothesize that interest groups that have donated to a particular politician are more likely to lobby bills sponsored by that same politician than similar interest groups that have not made campaign contributions.

Bill co-sponsorship: Second, interest groups may want to influence Congressional *coalition-building* by lobbying legislators who co-sponsor bills in Congress. Co-sponsorship of specific bills is a relatively costless signaling activity (Mayhew, 1974; Kessler and Krehbiel, 1996), and is regularly included in formal scorecards interest groups use to determine member support (Koger, 2003). Politicians, particularly those with limited information, thus often take cues from interest groups as to which bills they should support, and legislative endorsements of bills by powerful interest groups has been shown to increase the number of the bills' co-sponsors (Box-Steffensmeier, Christenson, and Craig, 2019). The number, diversity, and expertise of bill co-sponsors is in turn related to a bill's likelihood of advancing in Congress (Wilson and Young, 1997). We therefore hypothesize that interest groups that have donated to a particular politician are more likely to lobby bills co-sponsored by that same politician than similar interest groups that have not made any such campaign contributions.

Committee membership: Third, interest groups may want to influence legislative texts by lobbying members of Congress who sit on committees that largely *shape bill content*. Scholars have long noted that the influence of moneyed interests in Congress is more likely to manifest themselves

at the committee stage than on the floor during votes (Hall and Wayman, 1990; Hojnacki and Kimball, 1998). For the vast majority of bills Congressional committees are the first and most drastic winnowing point; over the past decade, committee neglect has been the cause of death of 82% of all bills (Lorenz, 2020). It is therefore not surprising that corporate PACs as well as individual employees systematically target politicians who sit on powerful committees, such as the House Ways and Means and the Senate Finance and Appropriations committee (Fournaies and Hall, 2018; Groseclose and Stewart, 1998), as well as committees regulating the interest group's industry (Esterling, 2007; Powell and Grimmer, 2016; Barber, Canes-Wrone, and Thrower, 2017). Thus, we hypothesize that interest groups that have donated to a particular politician are more likely to lobby bills assigned to that politician's committees than similar interest groups that have not made any such campaign contributions.

We expect a stronger link between donations and lobbying when contributions come directly from strategic organizations like corporate Political Action Committees (PACs), compared to donations from individuals who might be members or employees of the respective organization. As documented by Hertel-Fernandez (2018), employees might align their political behavior with their company to secure their workplace, to signal to superiors their will to move up within the firm, and some employers might even actively pressure employees to engage in company-aligned political activities. In addition, employee donations often follow the donations of their company PAC (Stuckatz, 2021), and chief executives' contributions often replace PAC donations in cases where candidates refuse to accept PAC donations (Richter and Werner, 2017).

To sum up, we expect donations to be systematically followed by subsequent lobbying of the same politicians. This link should be more pronounced the more strategic a donor is, so that the sequential relationship between donations and lobbying should be stronger for corporate PACs

than for donations of employees of the same corporations.

Data

Special interest groups and politicians can interact in numerous ways; lobbying a politician and making donations to a politician’s election campaign are the two most financially significant ones. While most empirical studies have examined these two relationships separately, the joint analysis of lobbying efforts and campaign contributions between a given interest group and politician is necessary for a holistic understanding of how money shapes politics. In this regard, one of primary contributions of this study is to compile the most comprehensive dataset to date on these interlinked political activities, drawing from over 75 million U.S. federal lobbying reports and campaign contribution records since 1999. Our dataset quantifies the relationship between over 84,000 special interest groups and all members of Congress between 2000 and 2018, recording for each interest group-politician pair the amount of campaign funds donated by the interest group to the politician’s election campaign, and any lobbying efforts exerted by the interest group involving the politician. In this section, we describe our data construction process.

The primary challenge encountered by researchers when building such a dataset is to link lobbying activities performed by special interest groups to individual politicians. Unlike the Federal Election Campaign Act of 1971 (FECA), which regulates political campaign spending and makes the relationship between interest groups and politicians relatively transparent, the Lobbying Disclosure Act of 1995 (LDA) does not require special interest groups to report *whom* they have contacted as a part of their lobbying efforts.⁵ To address these deficiencies, we identify all lobbied

⁵See LaPira and Thomas (2020) for a detailed discussion of the potential limitations of LDA data. For example, they note that the number of reports multiplies starting in 2008, when reporting switched from semi-annual to quarterly, making aggregation and comparisons challenging (LaPira and Thomas, 2020, pp.263-264). We circumvent

legislative bills after parsing through over 1.2 million lobbying reports.

We use this information for two reasons. First, the LDA (2 U.S.C. §1604(b)) mandates all federally registered lobbyists to disclose a list of legislative bills they are lobbying. This allows us to leverage this valuable information to identify the lobbied bills' legislative sponsors, co-sponsors, and any members of Congress serving on the committees that the bills were assigned to.⁶ Second, the majority of lobbying activities are indeed directed towards Congress. Lobbyists must disclose the “Houses of Congress and Federal agencies” contacted for each issue lobbied; We find that 96.58% of lobbying reports involve the House of Representatives, Senate, or both, rather than federal government agencies.⁷ To be sure, there are multiple unmeasured channels through which donation activities might be related to lobbying activities other than through legislative bills. Indeed, we find that out of 1.27 million lobbying reports, 0.25 million reports, or about 20%, mention specific Congressional bills, between 1999 and 2020. These 0.25 million reports cover about 97% of reported lobbying spending, and thus, most of the paid federal lobbying activity. In this regard, our focus on Congressional bill provides an conservative, lower-bound estimate of the systemic link between the two interest group activities, while enabling us to employ a rigorous identification strategy at the level of the interest group-politician pair. We match all LDA clients to Compustat `gvkey`, enabling us to analyse all publicly traded companies engaging in federal lobbying. When a client maintains multiple lobbying firms or combines contract and in-house lobbying, we aggregate these at the client-year (or, where applicable, client-quarter) level.

this problem by focusing the main analysis on the time period from 2008 to 2018. Moreover, the absence of unique bill IDs in the lobbying reports makes the identification of bills very difficult (LaPira and Thomas, 2020, p.266). We solve this problem and identify unique bills while parsing all lobbying reports by cross-referencing bill numbers and bill titles. Thus, we also improve on parsed bills in the OpenSecrets database.

⁶See You (2017) for another use of the information to investigate lobbying the implementation of bills.

⁷An exemplary original lobbying report filed by Facebook is shown in Figure B.1 in the Appendix.

Next, we complement the lobbying dimension of the interest group-politician relationship with the campaign contribution dimension. Our starting point is the over 75 million campaign donation filings, available from the Federal Election Commission (FEC). Here, we encounter several challenges. Firstly, the names of corporate PACs often change over time, as do the FEC IDs for those PACs. Secondly, while employees can and often do donate on behalf of the company they work for, there are no unique identifiers for individual donors. Moreover, while individual donors need to note their employer as well as occupation, neither of these two fields is standardized. As a consequence, the same individuals often use different employer and occupation names, so that between 1980 and 2018, the FEC data contain about 53 million itemized individual contributions, four million unique employer names, and approximately 827,000 unique occupation names.

To address these challenges, we start by matching PAC and employer names to Compustat `gvkey`, and occupations to Standard Occupation Classification (SOC) codes. In addition to standardizing the names of each individual political actor through standard Natural Language Processing (NLP) techniques used by previous studies (e.g., Bonica, 2017; Stuckatz, 2020), we employ unsupervised constrained graph clustering (Schaeffer, 2007) to perform the ‘named entity disambiguation’ task. Specifically, we incorporate contextual information, such as the address, previous donation history, and donation targets, to determine the similarities in terms of the identity of each interest group. The process is then repeated for each employer name, occupation name, as well as for over 17,000 corporate PACs. To match occupation names to SOC codes, we use the ‘direct match files’ from the U.S. Census Bureau and the Bureau for Labor Statistics, which contain a combined 89,000 occupation names, including widely used acronyms like ‘CEO’ for ‘Chief Executive’ or ‘SVP’ for ‘Senior Vice President’. The matches for occupations and employer names are then checked and cross-validated extensively against a hand-coded ground-truth,

and the matches for corporate PACs are checked and revised manually. We link FEC donations from corporate PACs and employees with the LDA lobbying data of the same publicly traded companies using the Compustat `gvkey`.

Our measurement strategy not only differentiates between corporate PAC and employee donations of a publicly traded company, but also distinguishes between employee donations coming from executives, government relations staff, and regular employees. We identify executives using the SOC code for executives (11-1011) as well as search terms for presidents and vice presidents. We find government relations officials by using the SOC code for public relations specialists (27-3030) and search terms for lobbying and government affairs. Following Stuckatz (2021), we define regular employees as those who do not fall into either of the previous two categories. For example, we show an original Federal Election Commission (FEC) filing of Facebook CEO Mark Zuckerberg in Figure A.1 in the Appendix. It shows how we identify Mr. Zuckerberg’s employer, occupation, donation amounts, and entity donated to.

As a final step, we need to link politicians in the donations data to politicians in the lobbying data. We link FEC candidate IDs to the legislator Govtrack IDs used in the lobbying data. Unlike other ‘named entity disambiguation’ tasks described above, we observe a relatively consistent use of candidate names along with other auxiliary information. Therefore, we use probabilistic record linkage implemented in the `fastLink` package developed by Enamorado, Fifield, and Imai (2019), where we match candidates to all legislators between the 105th and the 115th Congress, based on first name, last name, middle name, and the state in which they ran. This enables us to link about 85 percent of House and Senate politician-Congress combinations to their respective FEC candidate IDs. We add the remaining FEC IDs manually, and also correct mismatches in the linkage file over time, adding candidate IDs to 1,263 House and Senate members from roughly

2000 to 2018.

To the best of our knowledge, our dataset is the first that quantifies the relationship between various special interest groups and politicians, covering both companies' lobbying expenditures and campaign donations made by their corporate PACs and employees. It also includes standardized identifiers suitable for large-scale empirical research (Table C.1 in the Appendix provides further details of the resulting dataset). Figure 1 shows the highly granular measurements that we are able to take using the strategy described above. The graph shows all pairwise connections between the 150 most politically active firms (measured based on the overall lobbying or donations connections) and all U.S. Senators during the 113th Congress. It demonstrates that a large number of interest groups and politicians are linked through both campaign donations and lobbying activities (orange lines), which motivates our identification strategy in the empirical section. In addition, it displays the overall share of donation, lobbying, or combined donation and lobbying connections for both firms and politicians in the left and the right bar chart, respectively. We find that firms tend to strategically target only a few politicians with both campaign donations and lobbying (see the cluster of orange lines for politicians at the top right). In Appendix F, we display all pairwise relationships involving all 2,902 firms and the U.S. Senators in the 113th Congress, which confirm that the co-occurrence between lobbying and campaign donations are driven by only a few politically active firms.

Although our data cover a broader set of interest groups such as service firms, trade associations, labor unions, and membership organizations as we demonstrate in Appendix G, in this paper, we focus on all publicly traded firms in the U.S. manufacturing sector in order to obtain rich company data through Compustat, which allows us to improve our inference by systemically

U.S. Senators & Top 150 Lobbying Firms, 113th Congress

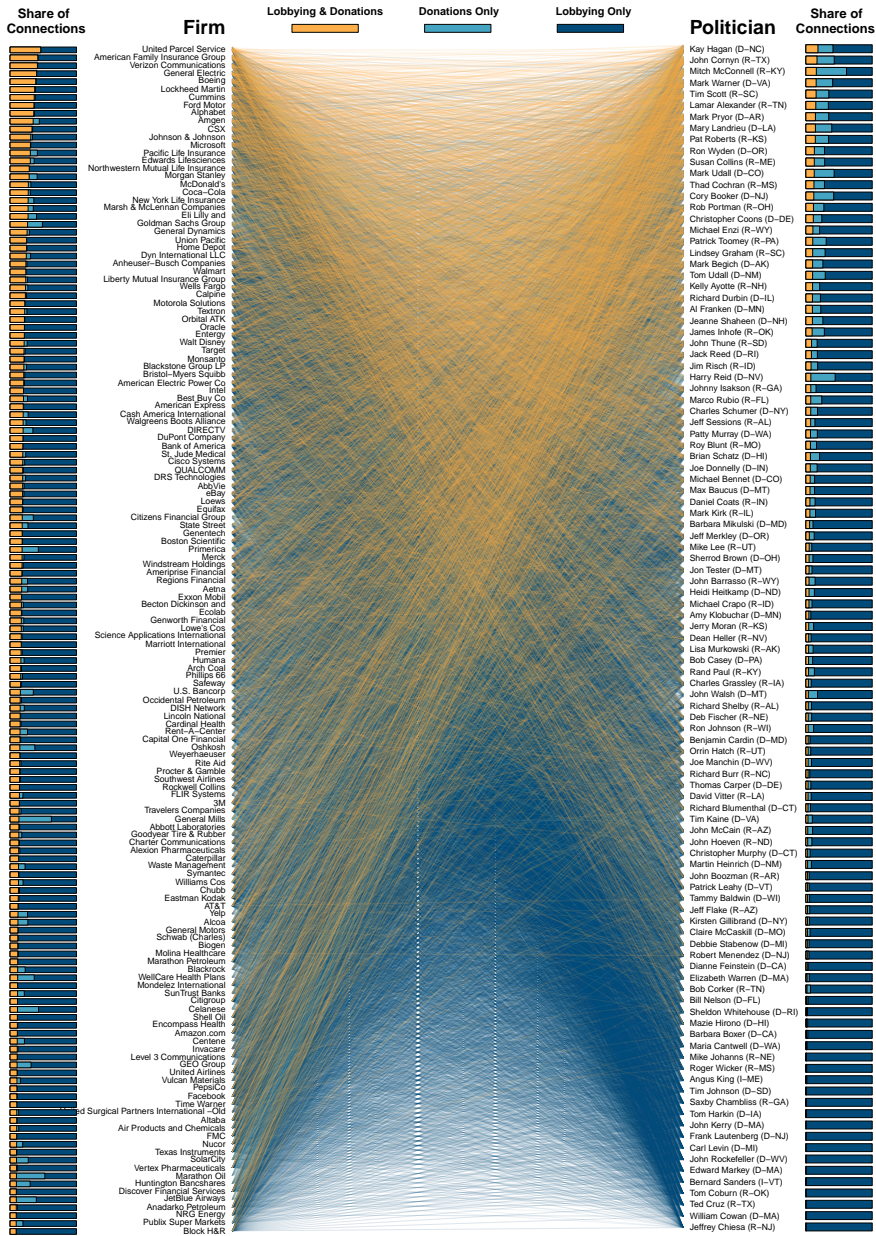


Figure 1: Firm-Politician Links based on Campaign Donations and Lobbying Activities: This figure illustrates our granular measurement of connections between the top 150 politically active firms and all senators in the 113th Congress. An orange line represents a firm-politician pair where the two actors are related via campaign donations *and* lobbying activities. Dark navy lines indicate pairs with links only through lobbying activities, while light blue lines indicate links only through donations. The bar charts on either side show the proportion of each firm’s and politician’s connections that are based on lobbying *and* donations, only donations, and only lobbying.

matching companies based on their size in terms of sales and workforce.⁸ We link these firms to all members of the House of Representatives and the Senate who served in the Congress between 2008 and 2018. Finally, we focus on lobbying and campaign donations starting in 2008 because the data quality for bill-related lobbying improved significantly when electronic filing became mandatory with the amendment of the LDA by the Honest Leadership and Open Government Act of 2007. Our dataset therefore covers all 979 members of Congress serving between 2008 and 2018, and all 2,703 publicly traded manufacturing companies that engaged in lobbying activities or campaign donations at least once during that time period. We thus obtain an unbalanced panel of 2,646,237 unique company – politician dyads, and a total of 16,428,834 observations for our empirical analysis.

Lastly, we establish three important *stylized facts* about lobbying and donations. Thus, we also compare the descriptive relationships between donations and lobbying in our data to previous work (Ansolabehere, Snyder, and Tripathi, 2002). First, donations and lobbying are highly concentrated in a few firms. We find that only 5% of publicly traded firms engage in both donations and lobbying, but these firms are responsible for 89% of lobbying and donation spending. Second, we confirm the high concentration of lobbying and donations at the firm-politician level, something previous work was unable to do due to data limitations. For example, in 2013, there are 9,791

⁸We focus on the manufacturing sector for a number of reasons: first, company financial data is missing less frequently for manufacturing, which improves the difference-in-differences analysis in combination with matching for panel data. Second, the manufacturing sector is an important contributor to U.S. economic activity, with a value added of \$2.3 trillion, about 11% of U.S. GDP, and employing 12.8 million workers. Third, the difference-in-differences analysis is very computationally intensive, making it very challenging to perform it using all industries, even on high-performance computing clusters. We provide additional linear regression results using service sector firms (NAICS 2-digit codes 42-81) in the Appendix Table H.2. The results are almost identical to the manufacturing firm results in Table 1.

public companies and 597 members of Congress, a total of 5,845,227 possible company-politician relationships. However, only around 4% of these dyads are linked through any political activity (donations, lobbying, or both). Finally, PAC donations and lobbying expenditure are significantly and positively associated for corporations engaging in both activities. Substantively, for a 10% increase in PAC donations, a company that also lobbies spends 8.8% more on lobbying, on average.⁹

Empirical Findings

Setup and Ordinary Least Squares Results: In the Data section, we found that many firms engage in lobbying activities that are related to the legislative activities of politicians in the same year that they start donating to the politician. In this section, we conduct an in-depth empirical analysis of the hypotheses regarding the strategic link between donations and lobbying that we developed in the theoretical section.

To systematically assess this sequential connection, we examine the impact of *first-time* donations on subsequent lobbying activities *within three years*. This is because there may be various reasons, other than the access-buying mechanisms we aim to study, that connect these two activities. Specifically, firms and politicians may maintain enduring relationships, manifesting frequent overlaps between donations and lobbying. Firms might contribute to maintain their existing access to politicians, while politicians could engage in legislative activities irrespective of donations.¹⁰

⁹See appendix D for tables, figures, and full discussion. A majority of firms-politician connections with some political activity involves either only lobbying or donations. We discuss the reasons for only donations (prevalence of employee donations) and only lobbying (alternative sources of access, such as associations or revolving door lobbyists) in depth in the appendix.

¹⁰First, the three year limit ensures that if previous donations exist, they must happen before the current 2-year election cycle in the House. Second, it ensures consistency of the linear regression analysis with the differences-in-differences analysis with matching for panel data below. We also conduct the analysis using the first-time a firm has *ever* donated to a politician in Appendix Table H.3. The results are almost identical to the first-time donations

We first represent the donation indicator variable X_{ijt} that is equal to 1 if firm $i \in \mathcal{I} = \{1, 2, \dots, N\}$ makes a campaign donation to politician $j \in \mathcal{J} = \{1, 2, \dots, J\}$ at time $t \in \mathcal{T} = \{1, 2, \dots, T\}$, and 0 otherwise. We then exploit the variation in this variable across time for each firm-politician pair (i, j) . Specifically, we check whether firm i makes a *first-time* donation to legislator j for a pre-specified number of years L to define

$$X_{ijt}^*(L) = \begin{cases} 1 & \text{if } X_{ijt} = 1, \{X_{ij,t-\ell}\}_{\ell=1}^L = 0 \\ 0 & \text{otherwise.} \end{cases} \quad (1)$$

This allows us to take a conservative approach when examining the temporal dynamics, given that many firms engage in political activities involving the same politician repeatedly across time, which makes it difficult to establish direct sequential links between the two activities. That is, we focus on *first-time* donations within 3 years in order to account for the opposite sequential direction whereby campaign contributions are made as “rewards” to politicians *after* they engage in favorable legislative activities. In this regard, we account for the simultaneous bias arising from the concurrent campaign donations and lobbying activities that are prevalent in our data by exploiting the *changes* in donation history for each individual firm-politician pair.¹¹

Next, we measure the outcome variable by simultaneously considering firms’ lobbying activities and legislative activities of politicians. Motivated by our discussion in the Theory section, we check whether firm i lobbies a legislative bill b ¹² and whether politician j engages in any one of

within three years.

¹¹See Appendix K for a test of donations following lobbying.

¹²Although special interest groups are not required to report their positions on lobbied bills, we found that about 17% of these bills do come with specific positions taken by them. We discovered that a significant portion, 82.11%, are in favor of the lobbied bills. This indicates that the majority of lobbying on congressional bills is aimed at supporting their passage. We thank the anonymous reviewer for helping us clarify the interpretation of our

the following legislative activities $a \in \{\text{Committee, Sponsor, Co-sponsor}\}$ that are related to the bill. That is, we encode whether politician j serves in one of the **Committees** that bill b is assigned to, and whether politician j is the **Sponsor** or a **Co-sponsor** of bill b , respectively. Thus, $Y_{ijt}^a = 1$ if firm i lobbies any bill in year t that is related to politician j through his or her action a , and 0 otherwise.¹³

We begin our analysis with the following linear probability model with fixed effects for two reasons. First, under some conditions, the linear fixed effects model corresponds to the within-group comparison between the treated (i.e., the pairs with donations) where groups are defined by fixed effects (i.e., politicians). This is the identification strategy we will directly incorporate in the difference-in-differences analysis below. Second, our data entail a large number of fixed effects, and therefore non-linear fixed effects models may lead to the incidental parameter problem with significant computational challenges (Heckman, 1987). Thus, our estimation is given by:

$$Y_{ijt} = \alpha_i + \gamma_j + \xi_t + \beta X_{ijt}^* + \delta^\top \mathbf{Z}_{jt} + \epsilon_{it} \quad (2)$$

where X_{ijt}^* is the indicator for firm i 's donation to politician j in year t as described above, Y_{ijt} is the binary indicator of the links between i and j via lobbying in year t , and \mathbf{Z}_{jt} represents a vector of time-varying politician-year level confounders that could simultaneously determine donation and lobbying activity, including party, majority status, committee chairmanship, and membership of a ‘powerful committee’, determined as one of the top four committees according to Groseclose-Stewart scores.¹⁴ We account for unobserved firm-, time-, and politician-invariant

measure of lobbying.

¹³For notational convenience we omit a when we describe the outcome variable below.

¹⁴These are the following for the time period of investigation: Appropriations, Armed Services, Finance, and Rules and Administration. The data on politician-level covariates come from Volden and Wiseman (2018), and the

	<i>Dependent variable:</i>							
	Lobbying Legislative Activity _t							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Donation_t</i>	0.041*** (0.007)	0.048*** (0.007)	0.047*** (0.007)	0.023*** (0.006)				
<i>Donation Amount_t</i>					0.006*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.003*** (0.001)
Politician Controls	✓	✓	✓	✓	✓	✓	✓	✓
Firm FEs	✓	✓	✓		✓	✓	✓	
Year FEs		✓	✓	✓		✓	✓	✓
Politician FEs			✓				✓	
Firm-Politician FEs				✓				✓
Observations	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912
Adjusted R ²	0.568	0.570	0.572	0.638	0.568	0.570	0.572	0.638

Note: *p<0.1; **p<0.05; ***p<0.01. The standard errors are clustered by firm.

Table 1: Firm and Employee Donations and Lobbying of Specific Politicians, First-Time Donation in 3 Years: The level of analysis is the firm-politician-year, and the data include all publicly traded manufacturing firms (NAICS 2-digit codes 31-33) and members of Congress between 2008 and 2018. The dependent variable is a dummy which equals 1 if firm i lobbied the legislative activity of a politician j in year t . $Donation_t$ equals 1 if firm i donated to a politician j for the first time in 3 years t , and 0 otherwise, whereas $DonationAmount_t$ is the logged amount of the 3-year first-time donation. Full results with all control variables are in appendix Table H.1

confounders with α_i , γ_j , and ξ_t , respectively.¹⁵

Table 1 depicts the results using data on publicly traded manufacturing firms and members

Groseclose-Stewart scores are documented in Groseclose and Stewart (1998).

¹⁵Note that lobbyists' connections with politicians might confound the relationship between the two activities. Therefore, we examined Section 18 of LDA reports, where lobbyists report their 'Covered Official Position', including their experience as a staffer for a member of Congress. Out of 55,784 unique lobbyists appearing in any lobbying report from 1999 to 2023, we identified 4,375 (about 7.8%) with at least one political connection to a politician. We found that less than 1% of lobbying by these "connected" lobbyists actually involves bills sponsored by their connected politicians. Although we observed that lobbyists tend to donate more, in dollar amount, to politicians they are connected with than to non-connected politicians, it appears unlikely that these connections significantly confound lobbying activities related specifically to congressional bills.

of Congress between 2008 and 2018.¹⁶ We set $L = t - 1$ to examine the firm-politician pair with a first-time donation within 3 years. The columns use different combinations of firm, year, politician, or politician-year fixed effects. For example, the last column uses only the variation within politician-firm connections over time (i.e., it includes firm-politician fixed effects and year fixed effects). Across the analyses, we consistently find that the two activities are closely related. We find that when a firm donates to a legislator for the first time within a three year period, the probability that a sponsored bill, co-sponsored bill, or a bill considered in the committee on which the politician sits, is lobbied by the firm *in the same year* increases by 2.3 to 4.8 percentage points, on average. This effect is both statistically and substantively significant, as the probability that bill sponsorship, co-sponsorship, or the politician’s committee is lobbied by any firm is about 0.07.¹⁷ Furthermore, to check the robustness of our findings, we investigate the effect of donation amounts on lobbying activities in Models 5 to 8.¹⁸ Here, we use the logged amount of the first-time donation instead of a binary indicator. We find that the likelihood to lobby legislative activities does increase with larger donation amounts. For instance, a 10% increase in the donation amount is associated with a 0.03 percentage point increase in the probability to lobby a member of Congress. These results demonstrate that in many cases, the timing of donations and lobbying is well coordinated and targeted, highlighting the significance of analyzing these two political activities together.

This empirical setup also addresses at least two important factors confounding the relationship

¹⁶Following the literature, we identify all public firms in the manufacturing industry based on their North American Industry Classification (NAICS) 2-digit codes: 31-33.

¹⁷Note that the likelihood to lobby a legislative activity differs sharply by type of activity. The probability that a sponsor of a bill is lobbied is close to zero, with 0.0026, the probability to lobby a co-sponsor of a bill is 0.037, and the probability that a committee member dealing with a bill is lobbied is 0.059.

¹⁸Donation amounts, especially when close to the legal contribution limits, can have spillover effects into lobbying, as argued by Fremeth, Richter, and Schaufele (2018).

between donations and lobbying. First, policy or ideological alignment between firms and politicians could predict both politician-specific lobbying and donations, driven by electoral motivations (Poole and Romer, 1985) or incentives to provide information in the form of a legislative subsidy (Hall and Deardorff, 2006). We account for firm-politician alignment by including firm-politician fixed effects in columns 4 and 8 in Table 1. Second, as firms become more profitable, they could have both more money to spend on donations and lobbying and become more important for providing policy-relevant information to politicians. To rule out this possibility, we control for firm sales and number of employees in supplementary analyses.

Difference-in-Differences Results: While the ordinary least squares results provide further evidence that campaign contributions and lobbying activities are closely related, the linear probability models with fixed effects rely heavily on parametric assumptions. Furthermore, they offer few diagnostic tools and make it difficult to understand how the counterfactual outcomes for each firm-politician pair are estimated.

To address these issues, we employ the difference-in-differences identification strategy. We begin by considering the donation history of each firm-politician pair over the period of the study. We then exploit the variation in the donation patterns of the firms with respect to each politician in order to examine how changes in donations to a particular politician are followed by changes in lobbying activities targeted at bills that are related to the legislative activities of the politician in question. This is motivated by the heterogeneity across firms in their interaction with politicians over time. For example, some firms may have distinct organizational structures that determine the propensity of their political activities. Others may have distinct growth trends which might be correlated with their economic and political activities. Furthermore, some firms may always donate to certain politicians while they do not make any donations to others, making it particularly

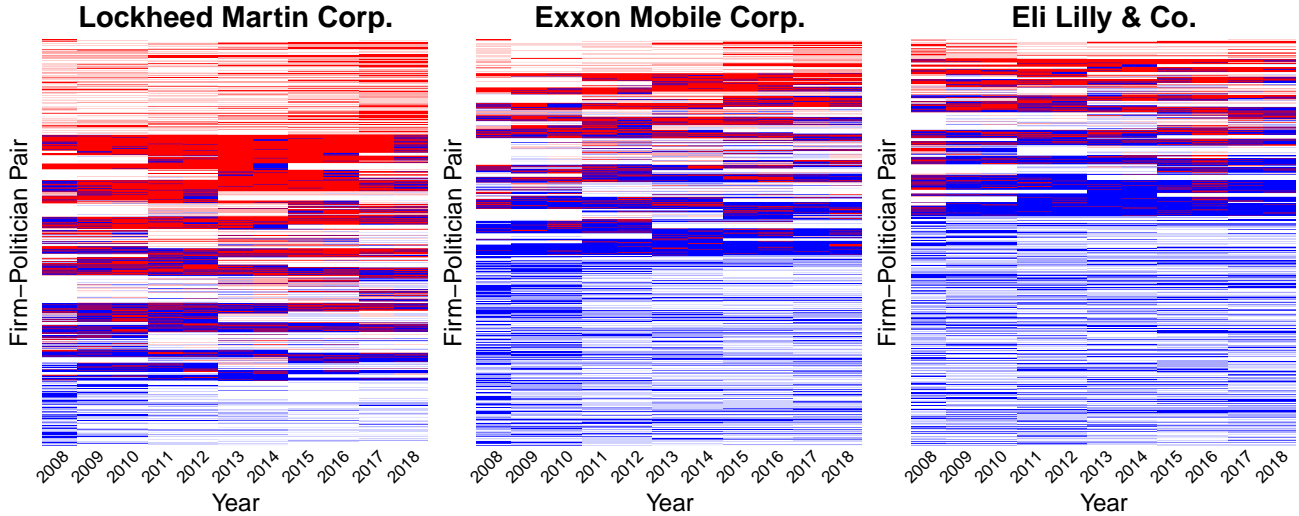


Figure 2: Treatment Variation Plots for Three Selected Manufacturing Firms. This figure shows the treatment variation across time for three publicly traded manufacturing companies: Lockheed Martin (left), Exxon Mobil (middle), and Eli Lilly (right). Each column corresponds to a given year, and every line to a specific politician, where red tiles indicate a donation from that firm to a particular politician, blue tiles mean no donation, and white tiles indicate that the politician is not in office in this year.

challenging for researchers to establish a sequential link between campaign donation activity and subsequent lobbying behavior.

Figure 2 visualizes the donation history for three manufacturing firms in different industries (Lockheed Martin, Exxon Mobil, and Eli Lilly) and legislators in our data, where every row indicates the interaction with a specific politician out of the 979 legislators served in the Congress between 2008 and 2018, and every column indicates a year. A blue rectangle shows no donation while a red rectangle indicates that the firm made a donation to the specific legislator in that year. Four distinctive patterns emerge: First, the extent to which these firms make donations differs sharply by firm, with Lockheed Martin donating a lot more than Exxon Mobil and Eli Lilly. Second, the firms' donation intensity differs by year and politician. For example, Lockheed Martin donated to more politicians in 2012 and 2013, but Eli Lilly contributed to more politicians in the years in 2008 and 2016, compared to other years. Third, firms are highly selective in whom

they donate to in the first place. Lockheed Martin donated to 822 legislators, but Exxon Mobil and Eli Lilly donated to 459 and 553, respectively, between 2008 and 2018. Finally, it is apparent that some legislators receive donations throughout the entire period, while others receive more punctuated individual donations now and then.

Our estimation exploits these variations. Specifically, we first identify all firm-politician pairs (i, j) whereby firm i made a donation to politician j for the first time in $L = 3$ years to allow a sufficient gap in donations across electoral cycles.¹⁹ We then compare these units to a set of other firm-politician pairs (i', j) that consist of a different firm that did not make any donation to the *same* politician j . Formally, the set of matched pairs for each (i, j) with first-time donation in year t within the three-year window is defined as

$$\mathcal{M}_{ijt} = \{(i', j) : i' \neq i, X_{i'jt'} = 0 \text{ for all } t' \in \{t, t-1, t-2, t-3\}\}. \quad (3)$$

Figure 3 displays the number of matched units found for each firm-politician pair with a donation link in our data for Senate (left panel) and House (right panel). We have sufficiently large number of matched units as expected by the donation patterns in Figure 2. That is, even the three firms presented in the figure did not make donations to many politicians throughout the periods (i.e., a blue row), which makes those observations potentially entering into the matched set of other firm-politician pairs with donations.

Having identified a large number of firms with an identical donation history except for the

¹⁹We chose a 3-year window due to several reasons. First, electoral cycles in the U.S. House are 2 years. We make sure to cover entire electoral cycles so that changes in donations are not due to electoral timing. Second, selecting a longer lag window with different values of L , e.g. 4 years or 5 years, does not change our findings. Finally, much longer lags remove a lot of data from the estimation, since the data for the DiD analysis runs from 2008 to 2018.

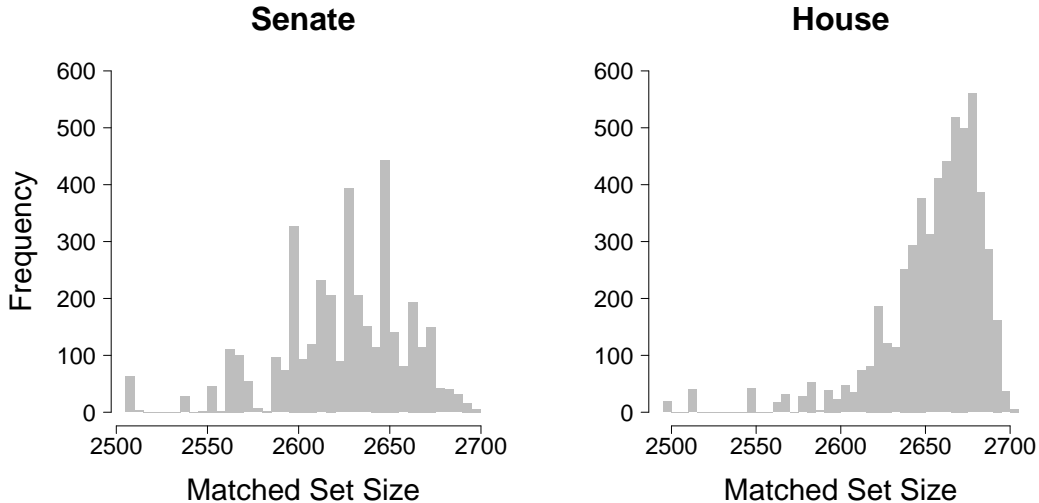


Figure 3: Frequency of Matched Sets for Senate and House Models in Figure 4. This figure shows the frequency of the sets matched to each treated firm-politician pair in the models in Figure 4, for the Senate (left panel) and House model (right panel).

year when firm i made a donation to politician j , we further refine the matched set based on the similarity in the pre-treatment observable characteristics, such as firm sales, employment size, and lobbying activities up to $t - 1$. We identify 10 closest comparable firm-politician pairs using the Mahalanobis distance measure²⁰ to compute the counterfactual outcomes. Appendix I shows that the improvement in the covariate balance is substantial after the refinement. Moreover, the difference in the lagged dependent variable is also constant over time, which suggests that the parallel trend assumption is appropriate for the identification.

Using these matched control firms, the DiD estimates are computed. Specifically, the difference in legislative activities of the connected politician j between year $t - 1$ and year $t + F$ (e.g., whether the politician introduces any bill that firm i lobbies) are compared to the mean difference in the politicians' activities related to the matched control firms that did not make campaign donations to the politician j . Under the parallel trends assumption, this gives an estimate of the effect of a

²⁰Formally, $\frac{1}{L} \sum_{\ell=1}^L \sqrt{(\mathbf{V}_{i,t-\ell} - \mathbf{V}_{i',t-\ell})^\top \boldsymbol{\Sigma}_{i,t-\ell}^{-1} (\mathbf{V}_{i,t-\ell} - \mathbf{V}_{i',t-\ell})}$ where $\mathbf{V}_{it'}$ is the pre-treatment covariates that firms are matched on (such as sales and employment) and $\boldsymbol{\Sigma}_{it'}$ is the sample covariance matrix of $\mathbf{V}_{it'}$.

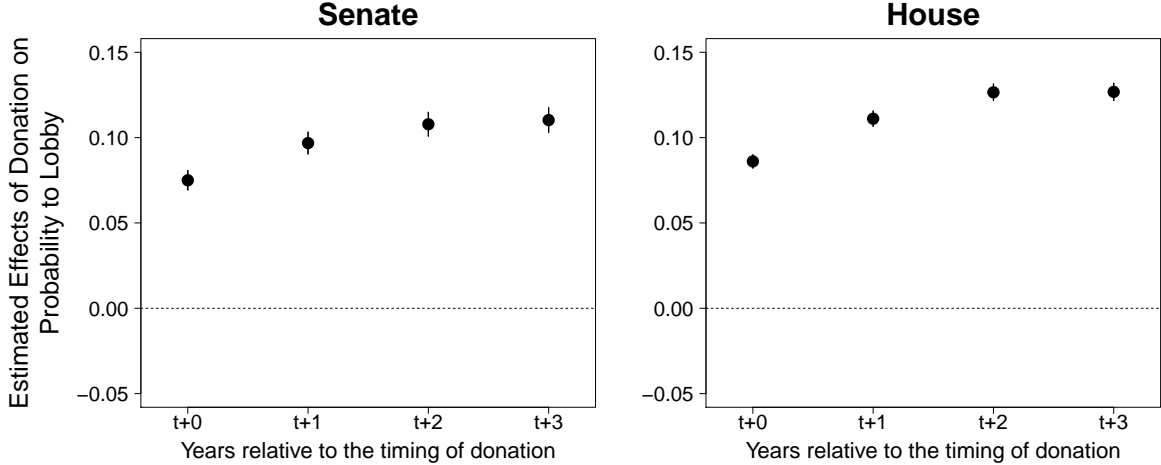


Figure 4: Effect of Donations at Time t on Subsequent Lobbying: This figure shows the effect of any donations of a firm i to politician j at time t on contemporaneous and subsequent lobbying activities at $t + k$, $k \in \{0, 1, 2, 3\}$, involving the same politician. The vertical bars correspond to the 95% confidence intervals computed based on a block-bootstrap procedure. Campaign donations increase the probability of lobbying a politician-sponsored bill, politician-co-sponsored bill, or a bills considered on the politician’s committee by around 8 percentage point in the same year, which gradually increase to 11 percentage points over the three years from the year of the donation.

firm’s donation on politicians’ legislative activity. This estimate is then averaged across all treated firms and politicians to obtain the average treatment effect estimate. Formally, the quantity of interest is given by,

$$\hat{\beta}^{\text{DiD}} = \frac{1}{K} \sum_{(i,j) \in \mathcal{I} \times \mathcal{J}} \sum_{t=L+1}^{T-F} \left\{ (Y_{ij,t+F} - Y_{ij,t-1}) - \frac{\sum_{(i',j) \in \mathcal{M}_{ijt}} (Y_{i'j,t+F} - Y_{i'j,t-1})}{|\mathcal{M}_{ijt}|} \right\}, \quad (4)$$

where K is the number of (i, j) pairs with the first-time donation relationship as defined in equation (1). To account for potential serial correlations within each matched set and to draw proper statistical inference, we compute the 95% confidence intervals based on a block-bootstrap procedure.

Figure 4 presents the estimated effects of campaign donations by a firm to a politician on the probability that (1) the firm engages in lobbying of a specific bill *and* (2) the politician engages

in any of the three activities $a \in \{\text{Committee, Sponsor, Co-sponsor}\}$ that are related to the lobbied bill. The left panel shows that a donation to a senator by a firm increases the probability that firm lobbies a bill related to the same senator by around 8 percentage points in the same year, while the estimate increases to 11 percentage points three years after the donation, on average, compared to politicians who do not receive a donation from the firm. Note that the estimates are comparable in size, albeit a bit larger, to the linear fixed effects results in Table 1.²¹ The estimated coefficients are substantively and statistically significant and exhibit a clear dynamic pattern. The right panel shows the estimates involving members of the House of Representatives. We find that the relationship is even stronger. Similar to the estimates from the Senate, we also find that the estimated link between donations on lobbying emerges immediately and increases over time. That is, targeted donations are followed by a prompt start in lobbying activity related to the same politician, but also seem to lead to long-term changes in corporate political behavior. Our findings confirm that campaign contributions tend to be followed immediately by lobbying activities which stay for three years following the donation. Note that we also evaluate the plausibility of the “quid-pro-quo” hypothesis by estimating the effect of the connection between interest groups and politicians (through their lobbying and legislative activities) on subsequent donations made by the former to the latter. We do *not* find any effects of lobbying on subsequent donations (see Figure K.1 in the appendix).²²

Finally, we separately estimate the links between campaign donations and lobbying activities

²¹While we focus on manufacturing firms, there are still a lot of different industries within manufacturing, which might differ according to their relationships with particular politicians. We therefore conduct our main analysis matching on both politician and NAICS 3-digit industry. The results in Table J.2 in the appendix show that estimates are only slightly smaller, between 5.6% and 7% percent, and show the same dynamic pattern.

²²Moreover, these estimates might be conservative. Since not all reports include legislative bills, we might overlook lobbying activity that follows donations, if the lobbying report does not mention a specific bill.

across three different legislative activities $a \in \{\text{Committee, Sponsor, Co-sponsor}\}$. We also distinguish whether donations from a firm to a politicians were made either by the corporate PAC, the CEO, or an ordinary employee of the firm. Figure 5 presents the relationships that are heterogeneous across these dimensions. We find that the estimated coefficients tend to be larger when the donation is made by a corporate PAC (black circles). However, we also find that the donations made by CEOs (blue triangles) as well as employees (red squares) exhibit close ties to their firms' subsequent lobbying activities. Furthermore, we find that the link is particularly strong when we consider committee membership. This suggests that firms strategically use donations, followed by lobbying, to target politicians who have legislative power directly related to their interests (i.e., serving in a committee with jurisdiction over the firm's industry). Finally, the rightmost panel shows that the relationships exist even when we consider the narrowest link possible between firms and politicians. That is, we find that a donation made by a firm to a politician increases the probability that the very same firm lobbies a bill sponsored by that particular politician. Consistent with what we found in Figure 4, these coefficient sizes increase over time (between two and three years). Our findings are thus also consistent with the view of donations as long-term investments for unforeseen future lobbying activities.

Note that our findings do not suggest that the donation types are independent from each other. In fact, donations from PACs and employees are likely correlated. Employers might encourage employees to turn out or support politicians in line with company preferences, leading to an overlap between executive, PAC, and rank and file employee donations (Hertel-Fernandez, 2018). Accordingly, employee donations have been shown to go to candidates supported by their company PAC (Stuckatz, 2021) or the chief executive (Richter and Werner, 2017). This suggests that corporate donations to politicians are larger than one would assume based on the contribution

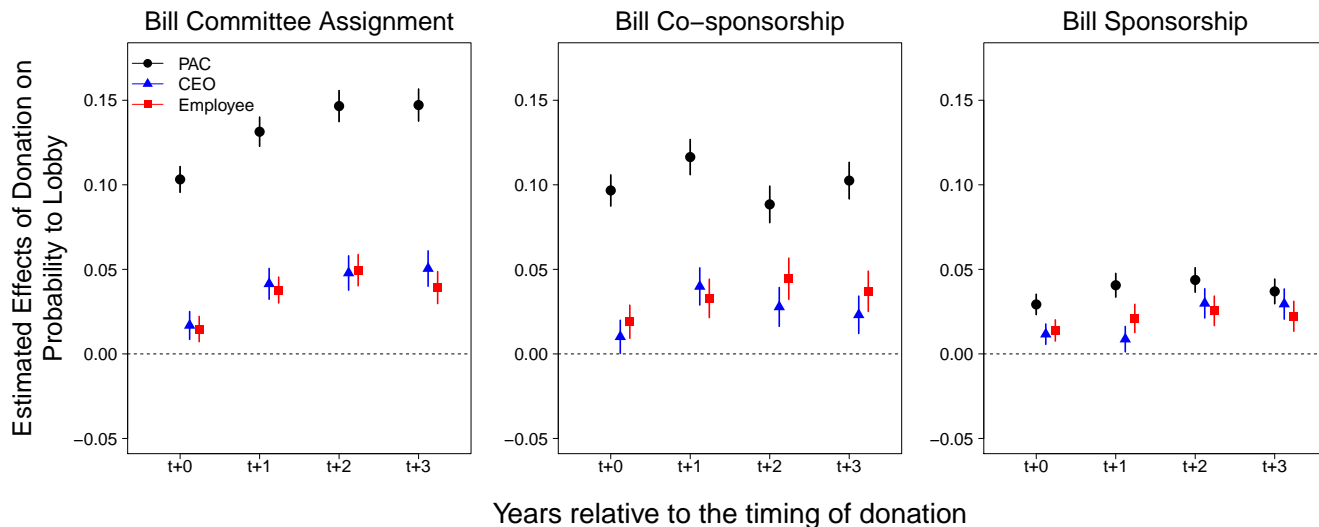


Figure 5: Effect of Donations at Time t on Lobbying at Time $t+k$, $k \in \{0, 1, 2, 3\}$. This figure shows the effect of donations on lobbying on three distinct legislative activities of politicians: Committee membership (left), Bill Co-sponsorship (center), and Bill Sponsorship (right).

limits for each single donor type (Ansolabehere, de Figueiredo, and Snyder, 2003). Also, our estimates should not be interpreted as causal. Rather, our primary contribution is to provide robust empirical evidence for the access-buying hypothesis. That is, special interest groups deliberately donate to legislators they anticipate will engage in legislative actions that align with their upcoming lobbying goals at the firm-politician pair level. Determining the causal effect of donations on lobbying, and vice versa, remains a challenging task we recommend for future studies.

Concluding Remarks

Our work has implications for the role of campaign donations in U.S. politics, for representation more broadly, and for the study of ideology through campaign donations. First, our findings shape how we should think about the returns to individual and corporate donations. Previous studies have rightly noted that donations are too small to buy politicians (Ansolabehere, de Figueiredo, and Snyder, 2003), and that there seem to be no quid-pro-quo returns to corporate PAC donations,

even if donations “buy access” (Fowler, Garro, and Spenkuch, 2020). They thus stand in contrast to corporate lobbying activities, where researchers do find strong returns (Kang, 2015; Huneus and Kim, 2019). We find evidence that donations and lobbying are systematically linked at the level of the interest group and the politician, and that donations are sequentially followed by subsequent lobbying efforts related to the same politician. Our finding of a concurrent and long-term link between donations and lobbying emphasizes the strategic complementarities interest groups may see in them, and thus the need to study both activities jointly to fully understand the effect of money in U.S. politics.

This article also has implications for the study of (unequal) representation in U.S. politics by elites and large corporations (Bartels, 2009; Gilens and Page, 2014). In addition to the established finding that corporations donate and lobby more than other groups, we find that, *even within the corporate sector*, the distribution of campaign contributions and lobbying expenses is skewed to a small number of firms who donate *and* lobby, and who might enjoy privileged access to U.S. lawmakers. This could mean that, in all likelihood, money in politics not only skews representation away from ordinary citizens to corporate America and the affluent, but it also distorts representation of economic interests from small and medium sized businesses. Finally, our paper speaks to the old question of whether donations are rational investments in expectation of future political returns or mere consumption (Gordon, Hafer, and Landa, 2007). If a good deal of PAC donations and at least some individual employee donations are directly related to corporate lobbying activity, it seems unlikely that these donations represent the ideological position of the firm or its employees. Scholars should have this in mind when using not just corporate (Bonica, 2014) but also individual donations to estimate ideology scores. All types of political donations might in fact not be expressions of ideology but highly strategic behavior.

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Appendix A Example Federal Election Commission Filing of Individual Donation

SCHEDULE A (FEC Form 3) ITEMIZED RECEIPTS		FOR LINE NUMBER: (check only one)	PAGE 105 OF 201
		<input checked="" type="checkbox"/> 11a	<input type="checkbox"/> 11b
		<input type="checkbox"/> 12	<input type="checkbox"/> 13a
		<input type="checkbox"/> 11c	<input type="checkbox"/> 11d
		<input type="checkbox"/> 13b	<input type="checkbox"/> 14
		<input type="checkbox"/> 15	
Any information copied from such Reports and Statements may not be sold or used by any person for the purpose of soliciting contributions or for commercial purposes, other than using the name and address of any political committee to solicit contributions from such committee.			
NAME OF COMMITTEE (to Full) Friends of Schumer			
Full Name (Last, First, Middle Initial) Mark Zuckerberg		Date of Receipt 09 / 25 / 2013	
A. Mailing Address PO Box 958		Transaction ID : C9065036	
City State Zip Code Palo Alto CA 94302		Amount of Each Receipt this Period 2600.00	
FEC ID number of contributing federal political committee. C			
Name of Employer Occupation Facebook CEO			
Receipt For: 2016 <input checked="" type="checkbox"/> Primary <input type="checkbox"/> General <input type="checkbox"/> Other (specify)		Election Cycle-to-Date 5200.00	
Full Name (Last, First, Middle Initial) Mark Zuckerberg		Date of Receipt 09 / 25 / 2013	
B. Mailing Address PO Box 958		Transaction ID : C9065048	
City State Zip Code Palo Alto CA 94302		Amount of Each Receipt this Period 2600.00	
FEC ID number of contributing federal political committee. C			
Name of Employer Occupation Facebook CEO			
Receipt For: 2016 <input type="checkbox"/> Primary <input checked="" type="checkbox"/> General <input type="checkbox"/> Other (specify)		Election Cycle-to-Date 5200.00	

Figure A.1: Example Federal Election Commission Filing of Individual Donor. This figure shows an example FEC filing of Mark Zuckerberg, CEO of Facebook. The filing indicates that he donated \$US 2,600 to the re-election campaign committee of Democratic Senator Charles Schumer during the 2013/2014 electoral cycle twice, once for the general election and once for the primaries. The filing notes Mark Zuckerberg’s employer and his occupation/position in the company, the date the donations were received by Charles Schumer’s committee, and each individual donation amount.

Appendix B Example Lobbying Report

Clerk of the House of Representatives Legislative Resource Center 135 Cannon Building Washington, DC 20515 http://lobbyingdisclosure.house.gov	Secretary of the Senate Office of Public Records 232 Hart Building Washington, DC 20510 http://www.senate.gov/lobby
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LOBBYING REPORT

Lobbying Disclosure Act of 1995 (Section 5) - All Filers Are Required to Complete This Page

1. Registrant Name <input checked="" type="checkbox"/> Organization/Lobbying Firm <input type="checkbox"/> Self Employed Individual Facebook, Inc.	
2. Address Address1 1299 Pennsylvania Ave., NW Address2 Suite 800 City Washington State DC Zip Code 20004 Country USA	
3. Principal place of business (if different than line 2) City Menlo Park State CA Zip Code 95025 Country USA	
4a. Contact Name	b. Telephone Number
c. E-mail	
5. Senate ID# 400458207-12	
7. Client Name <input checked="" type="checkbox"/> Self <input type="checkbox"/> Check if client is a state or local government or instrumentality	
Facebook, Inc.	
6. House ID# 408140000	

TYPE OF REPORT 8. Year 2013 Q1 (1/1 - 3/31) Q2 (4/1 - 6/30) Q3 (7/1 - 9/30) Q4 (10/1 - 12/31)

9. Check if this filing amends a previously filed version of this report

10. Check if this is a Termination Report Termination Date _____ 11. No Lobbying Issue Activity

INCOME OR EXPENSES - YOU MUST complete either Line 12 or Line 13	
12. Lobbying INCOME relating to lobbying activities for this reporting period was: Less than \$5,000 <input type="checkbox"/> \$5,000 or more <input type="checkbox"/> \$ _____ Provide a good faith estimate, rounded to the nearest \$10,000, of all lobbying related income for the client (including all payments to the registrant by any other entity for lobbying activities on behalf of the client).	13. Organizations EXPENSE relating to lobbying activities for this reporting period were: Less than \$5,000 <input type="checkbox"/> \$5,000 or more <input checked="" type="checkbox"/> \$ 1,480,000.00 14. REPORTING Check box to indicate expense accounting method. See instructions for description of options. <input checked="" type="checkbox"/> Method A. Reporting amounts using LDA definitions only <input type="checkbox"/> Method B. Reporting amounts under section 6033(b)(8) of the Internal Revenue Code <input type="checkbox"/> Method C. Reporting amounts under section 162(e) of the Internal Revenue Code

Signature Digitally Signed By: Joel Kaplan, Vice-President, U.S. Public Policy Date 01/21/2014

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. Using a separate page for each code, provide information as requested. Add additional page(s) as needed.

15. General issue area code CPT

16. Specific lobbying issues

Discussions regarding general intellectual property issues, including patent litigation reform; Patent Quality Improvement Act of 2013 (S. 866); Patent Abuse Reduction Act of 2013 (S. 1013); Patent Litigation Integrity Act of 2013 (S.1612); Patent Transparency and Improvements Act of 2013 (S. 1720) Patent Litigation and Innovation Act of 2013 (H.R. 2639) and Innovation Act (H.R. 3309).

17. House(s) of Congress and Federal agencies Check if None

U.S. HOUSE OF REPRESENTATIVES, U.S. SENATE

18. Name of each individual who acted as a lobbyist in this issue area

First Name	Last Name	Suffix	Covered Official Position (if applicable)	New
Joel	Kaplan		see prior reports	<input type="checkbox"/>
Greg	Maurer		see prior reports	<input type="checkbox"/>
Chris	Herndon		see prior reports	<input type="checkbox"/>
Myriah	Jordan		see prior reports	<input type="checkbox"/>
Catlin	O'Neill		see prior reports	<input type="checkbox"/>

Figure B.1: Example Lobbying Report by Facebook Inc.. This figure shows an example lobbying report filed by Facebook Inc. in 2013. The report indicates that the firm lobbied six congressional bills related to the CPT (“Copyright/Patent/Trademark”): S.866, S1013, S.1612, S1720, H.R.2639, and H.R.3309 in the 113th Congress. Note that Senator Charles Schumer sponsored S.866: Patent Quality Improvement Act of 2013. The report further notes the year and quarter for which it was filed, the lobbying expense for that period, and the chambers contacted.

Appendix C Example Rows of Lobbying-Donations Data

Table C.1 presents a snapshot of what the linked lobbying-donation dataset looks like. Each row covers a unique politician – interest group relationship, or dyad, in a given year, and contains information on both the lobbying and donation link between the two actors. For instance, we can see that in 2010, John McCain, U.S. Senator from Arizona, received a donation of USD 4,000 from Exxon Mobile’s corporate PAC. At the same time, Mr McCain both co-sponsored a bill and served on a committee that dealt with a bill lobbied by Exxon Mobile. We also quantify these lobbying efforts at the interest group-politician level (see the column labeled as Lobby \$). Specifically, we aggregate the total amount of lobbying expenditures of an interest group in a given year, and divide this amount by the number of unique legislative bills that are reported to be lobbied during that period. We then allocate the amount of per-bill lobbying across all politicians connected to each bill, including the sponsor, co-sponsors, and committee member. According to this procedure, we estimate that about USD 207,969 of Exxon Mobile’s lobbying expenditure is related to lobbying bills in which John McCain was involved in 2010. The following two years, Mr McCain also sponsors, as well as cosponsors and serves on a committee dealing with bills lobbied by Exxon Mobile. To be sure, this is a highly noisy measure of the lobbying efforts targeting Mr McCain, and we therefore use a simpler binary measure of lobbying connection in most of our empirical analysis.

No.	Year	Gvkey	Company	Govtrack ID	Name	Chamber	State	Sponsor	Co-sponsor	Committee	Bills	Lobby \$	PAC \$	CEO \$...
1	2008	001034	Alpharma Inc.	400001	Abercrombie	House	HI	0	1	1	110 (h,,1424); ...	2,336	0	0	
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
11478	2008	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	110 (s,,280); ...	145,942	0	0	
11479	2009	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	0	1	111 (s,,32); ...	236,469	1,000	0	
11480	2010	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	111 (s,,408); ...	125,196	4,000	0	
11481	2011	004503	Exxon Mobile	300071	McCain	Senate	AZ	1	1	1	112 (s,,365); ...	243,218	0	0	
11482	2012	004503	Exxon Mobile	300071	McCain	Senate	AZ	1	1	1	112 (s,j,43); ...	219,171	0	0	
11483	2013	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	113 (s,,21); ...	25,430	0	0	
11484	2014	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	113 (s,r,370); ...	160,353	0	0	
11485	2015	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	114 (s,,1); ...	118,787	5,000	0	
11486	2016	004503	Exxon Mobile	300071	McCain	Senate	AZ	1	1	1	114 (s,j,22); ...	152,785	5,000	0	
11487	2017	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	115 (s,,34); ...	160,680	0	0	
11488	2018	004503	Exxon Mobile	300071	McCain	Senate	AZ	0	1	1	115 (s,,1691); ...	38,784	0	0	
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
53,048,784	2018	013721	Zoetis Inc.	412640	Zeldin	House	NY	0	0	1	115 (h,,1625)	370	0	0	

Table C.1: Example Rows of Merged Dataset Linking Lobbying Expenses and Campaign Contributions: Each row refers to a politician-company-year dyad, identified through the company’s `gvkey` and the politician’s `govtrack` ID variable, and includes additional company (e.g., annual sales and workforce size, not shown here) and politician information (e.g., state, party). For each dyad and year, we have information about whether the company lobbied a bill sponsored (`Sponsor`) or co-sponsored (`Co-sponsor`) by the politician, or assigned to a committee on which the politician serves (`Committee`), as well as the specific bill numbers (`Bills`) and the amount spent on lobbying activities (`Lobby $`). This lobbying information is complemented by data on campaign contributions from the company to the politician, disaggregated by corporate PAC (`PAC $`), management (`CEO $`), and rank-and-file employees (not shown).

Appendix D Comparisons with Previous Studies

While most empirical studies on money in politics investigate campaign donations and lobbying separately, a seminal study by Ansolabehere, Snyder, and Tripathi (2002) is a notable exception. The authors study lobbying reports as well as PAC donation data between 1997 and 1998 for the House, covering more than 6,000 interest groups. They find a strong connection between lobbying activities and campaign contributions, noting that while few groups engage in both activities, those groups account for the majority of all money in politics. They further document that the relationship between donations and lobbying expenditure is strongest for corporate PACs, and weakest for labor unions.

We revisit Ansolabehere, Snyder, and Tripathi (2002)’s original study, while expanding the scope of the analysis. The authors relied on only two years of lobbying and donation data, focused only on representatives from the House, and covered 2,615 corporations. We are able to analyze data from 18 years of corporate political activity instead of one electoral cycle, and expand the number of companies covered almost ten-fold (i.e., 24,444) to the universe of companies listed in Compustat between 2000 and 2018. Moreover, our data encompass members from both houses of Congress, and go beyond PAC donations by including donations made from the executive and rank-and-file employees of companies. We are further able to directly link both donations and lobbying efforts from a given interest group to a given politician, a more nuanced and disaggregate analysis than what was previously possible.

Political Activity	Firm Level				Firm-Politician Level			
	Public Companies		Donations and Lobbying (in USD MM)		Dyads		Donations and Lobbying (in USD MM)	
	Frequency	Proportion	Money	Share	Frequency	Proportion	Money	Share
None	6,627	0.68	0	0.00	5,589,331	0.96	0	0.00
Lobbying Only	272	0.03	271.15	0.09	219,764	0.04	2,296.71	0.80
Donations Only	2,374	0.24	32.97	0.01	23,270	0.00	41.92	0.01
Lobbying and Donations	518	0.05	2,554.80	0.89	12,862	0.00	520.29	0.18
Total	9,791	1.00	2,858.92	1.00	5,845,227	1.00	2,858.92	1.00

Table D.1: Lobbying and Donation Activities: This table describes the distribution of lobbying and campaign donation activities at the firm (left panel) and the firm-politician (right panel) level for 2013. At the firm level, it shows the frequency at which public companies are engaged in donating to members of Congress, lobbying bills, or both, and the amount of money spent on those activities. The right panel describes the same relationship at the firm-politician level.

Table D.1 replicates the most important finding (see Table 1 in the original study), namely the tight relationship between lobbying activities and campaign contributions, for all publicly traded companies for the example year of 2013, both at the firm and the firm-politician level. Of 9,791 public U.S. companies in 2013, about 32% sustained some kind of relationship with

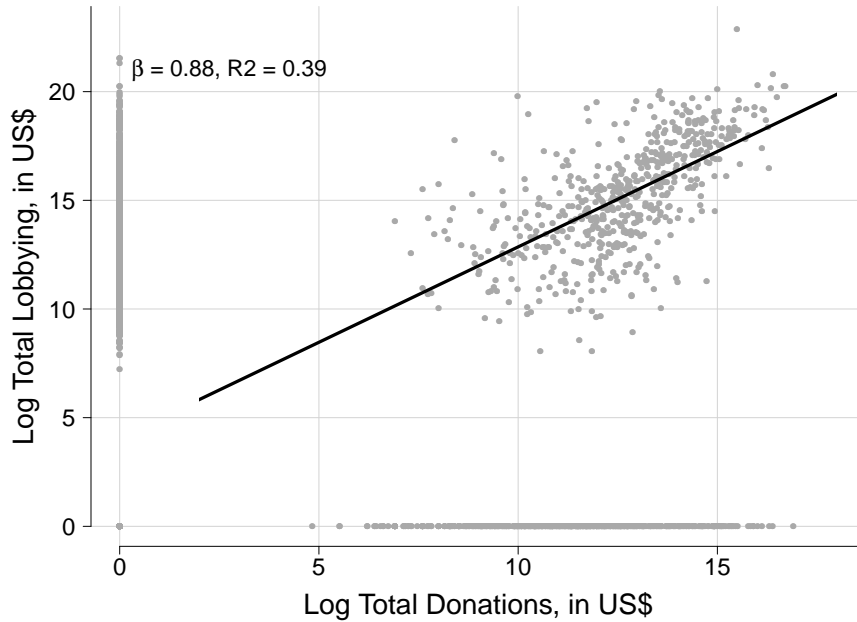


Figure D.1: Positive Relationship between Corporate PAC Donations and Lobbying Expenses, between 2008 and 2018. This figure shows the relationship between campaign donation spending by corporate PACs and the lobbying expenditures of the same companies, between 2008 and 2018, in logged US\$ amounts. The plot also includes a fitted line from a linear model regressing non-zero logged lobbying expenditures on non-zero logged campaign donations, as well as the β coefficient and the adjusted R^2 .

a member of Congress. Only 5% of public U.S. companies made campaign contributions to a politician *and* lobbied bills. However, the data show that these 518 companies were responsible for the vast majority of money in politics. Of the more than \$2.8 billion spent on lobbying and campaign donations in 2013, \$2.6 billion or 89% came from this small group of firms, a finding that is consistent with Ansolabehere, Snyder, and Tripathi (2002). A descriptive regression between logged corporate PAC donations and logged lobbying expenses of all publicly traded U.S. companies between 2008 and 2018, depicted in Figure D.1 further confirms this trend (see Figure 1 in the original study). PAC donations and lobbying expenditure are significantly and positively associated for corporations engaging in both activities. Substantively, for a 10% increase in PAC donations, a company that also lobbies tends to spend 8.8% more on lobbying, on average.

The positive relationship between donations and lobbying spending also holds for other types of company-related donations, such as executive donations, regular employee donations, and donations by government relations officers (see Figure E.1 in the Appendix). The positive relationship between aggregate donations and lobbying expenditure further holds for types of actors other than corporations. We replicate the second major finding of Ansolabehere, Snyder, and Tripathi (2002), namely the heterogeneous relationship between lobbying expenditure and campaign contributions across different types of special interest groups, in Appendix G. Our findings corroborate the importance of studying the complementarities between corporate donations and lobbying.

In addition to the aggregate firm-level relationship, we examine more granular pairwise relationships between corporations and individual members of Congress - something Ansolabehere, Snyder, and Tripathi (2002, p.142) wanted to but were unable to do due to a lack of data at the time. Our data work now enables us to examine whether donations and lobbying activities are also related for a given politician. As the righthand side of Table D.1 shows, we do find a very similar picture at the firm-politician level as we do at the more aggregate firm-level. With 9,791 public companies and 597 members of Congress in 2013, there are a total of 5,845,227 possible company-politician relationships. However, only around 4% of these dyads are linked through any political activity (donations, lobbying, or both.)

It is important to note that a majority of pairwise connections between firms and politicians with some political activity involve either only lobbying or only donations. On the one hand, regarding *dyads that encompass donations but no lobbying*, we observe that many donation links between firms and politicians are created through donations by the firm's employees. Indeed, of the 23,270 dyads with donations only in Table D.1, 19,735 represent connections created through employee donations. In that case, the employing firm may not have a lobbying presence in Washington D.C., or it may be unaware of its employees' donations. On the other hand, while we argue that donations and lobbying activities are strategically linked, the former facilitating the latter, *not all interest groups that lobby also make campaign contributions*. First, groups might simply dispose of other means of access to policy-makers. Instead of using donations to buy access, interest groups can rely on the existing connections and expertise of K-Street lobbyists (Bertrand, Bombardini, and Trebbi, 2014) as well as revolving-door lobbyists (Blanes i Vidal, Draca, and Fons-Rosen, 2012) to gain access to policy-makers. Second, running a PAC may not be economically feasible for small groups or corporations, as they may not be able to solicit sufficient donations from their members or employees to justify the costs associated with managing a PAC (Li, 2018). If the cost of individual political activity is too high, and where collective action problems are small and within-group interests homogeneous, groups and corporations may instead rely on the donations and lobbying activities of membership or industry associations (Bombardini and Trebbi, 2012). Finally, there may be particular sectors of the economy with long-standing connections to the government, such as defense or aerospace, where access via donations is less necessary.

In comparison, the number of company-politician relationships where the company both donates to the politician and lobbies bills sponsored or co-sponsored by said politician, or assigned to a committee on which said politician serves, is extremely small, i.e., less than 0.1% of all possible dyads. However, these 12,862 firm-politician dyads contain more than \$520 million in lobbying and donation expenses, 18% of all spending in 2013. This, again, underlines the crucial importance of studying those pairwise relationships where both campaign donations and lobbying expenditure flow from the same company to the same politician, which we now turn to.

Appendix E Relationship between Campaign Contributions and Lobbying Expenditure for Different Corporate Donation Types

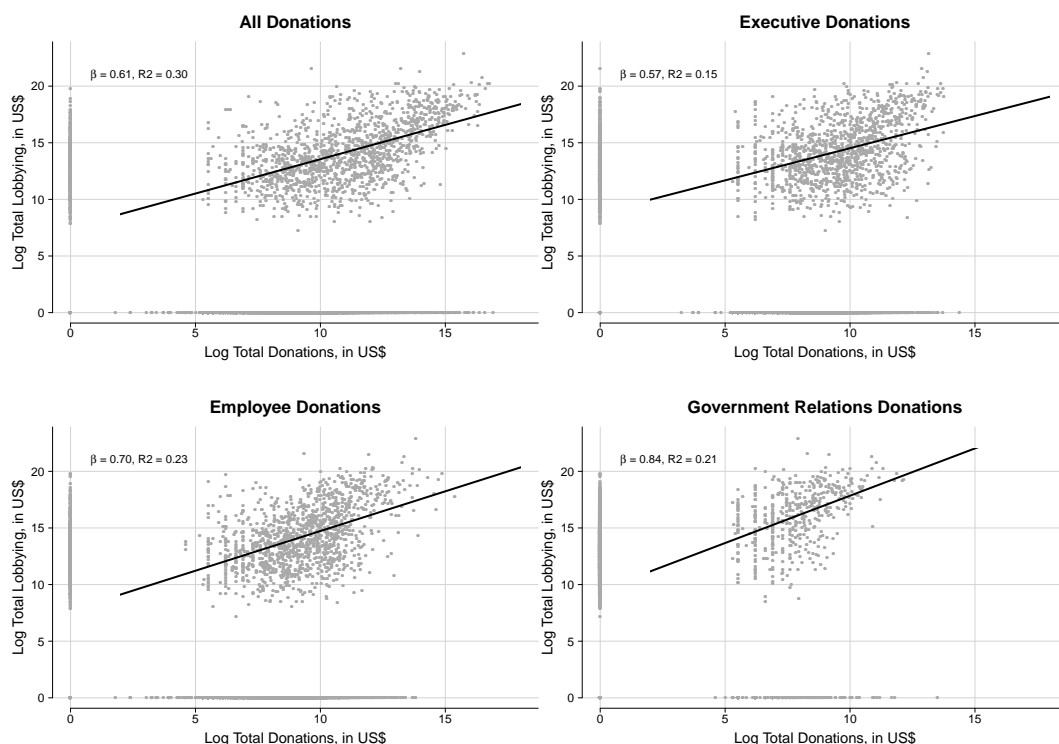


Figure E.1: Relationship between Different Corporate Donation Types and Lobbying Expenses, 2008-2018. This figure shows the relationship between campaign donation spending by corporate campaign donations and the lobbying expenditures of the same companies, between 2008 and 2018, in cubed USD amounts, for different types of donations, from top left to bottom right: all corporate donations including all employee donations and PAC donations, executive donations, regular employee donations, government relations donations. Each plot includes a fitted line from a linear model regressing non-zero logged lobbying expenditures on non-zero logged campaign donations. In addition, each plot includes the β coefficient from the respective bivariate linear regression model and the adjusted R^2 .

Appendix F Firm-Politician Links based on Campaign Donations and Lobbying Activities, all Firms

U.S. Senators & 2728 Lobbying Firms, 113th Congress

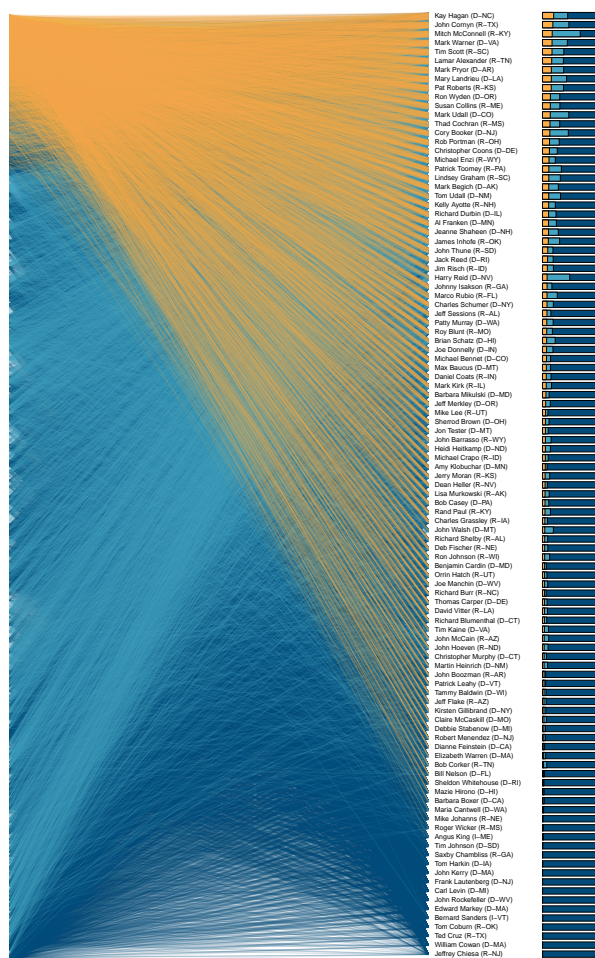


Figure F.1: Firm-Politician Links based on Campaign Donations and Lobbying Activities: This figure displays the links between all 2,902 politically active firms and all senators in the 113th Congress. Orange line represents a firm-politician pair where the two actors are related via campaign donations and lobbying activities. Dark navy lines indicate pairs with links only through lobbying activities, and light blue lines indicate links only through donations. This figure shows that the occurrence between and lobbying and campaign donations are driven only by a few firms (see the cluster of orange lines at the top left).

Appendix G Relationship between Campaign Contributions and Lobbying Expenditure for Different Special Interest Groups

Ansolabehere, Snyder, and Tripathi (2002) find that the relationship between lobbying and donating to politicians varies across different types of interest groups, with the relationship being strongest for corporate PACs and weakest for labor unions. Given that our data allow us to identify more than just publicly traded companies, we can replicate those results. We identify trade associations as those entities with a NAICS code of 813910 (business associations) or 813920 (professional organizations). We locate ideological groups and membership organizations through NAICS codes 813410 (civic and social organizations), 813319 (other Social advocacy organizations) and 813940 (political organizations). Finally, we find labor unions through NAICS code 813930 (labor unions and similar labor organizations).

In the originally article, Ansolabehere, Snyder, and Tripathi (2002) use data from the 1997/1998 electoral cycle. Unfortunately, these data are not available in electronic form at the Senate Office for Public Records and the respective archives of the Clerk of the House of Representatives. We also checked with Open Secrets, and while they used to have some data from the years 1997/1998/1999 in a project called Influence Inc 2000, this content is now archived, and the raw data aren't available anymore. Moreover, the bulk data from Open Secrets start only in 1998, leaving out the 1997 data. In sum, the 1997/1998 federal lobbying data are only available in paper form, and the effort required to acquire these data solely for the purpose of replicating Ansolabehere, Snyder, and Tripathi (2002) seems disproportionate. We therefore decide to concentrate on the time period of 1999/2000 instead.

As in their article, we plot the relationship between PAC expenditures and Lobbying expenditures. We take the cube root of the lobbying expenses and PAC amounts as in the original article, to deal with the skewness of the data. The fitted line is from a bivariate regression of non-zero lobbying expenditures on non-zero PAC contributions. The results look similar to the figures in Ansolabehere, Snyder, and Tripathi (2002). In particular, the relationship between lobbying and PAC expenditures is strongest for corporations, followed by trade associations. The relationship was weaker for ideological groups and labor unions in Ansolabehere, Snyder, and Tripathi (2002),

and here it is similarly weaker for membership organizations and nonexistent for labor unions.

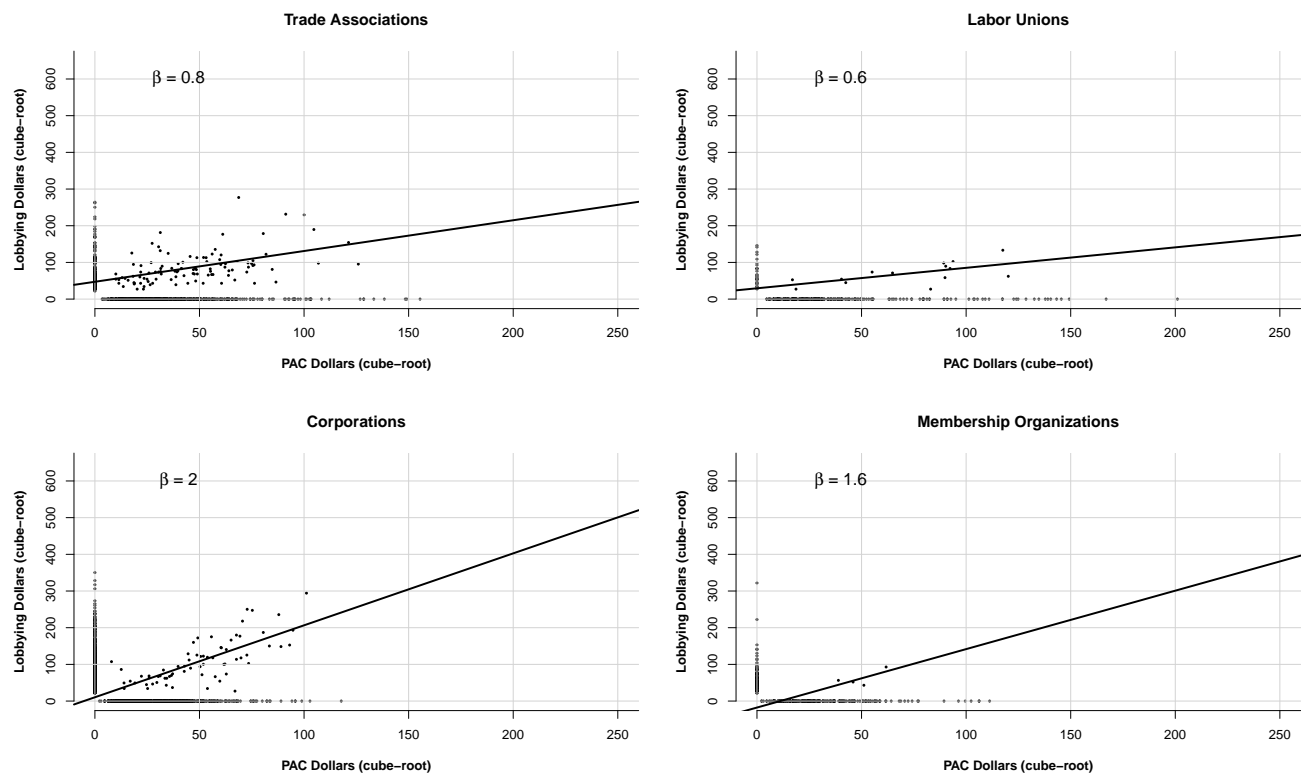


Figure G.1: Relationship between Corporate PAC Donations and Lobbying Expenses for Different Interest Groups. This figure shows the relationship between campaign donation spending by corporate PACs and the lobbying expenditures of the same companies, for 1999 and 2000, in cubed USD amounts, for different types of interest groups.

Appendix H Fixed Effects Regression Analysis with Firm-level Covariates

	<i>Dependent variable:</i>							
	Lobbying Legislative Activity _t							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Donation_t</i>	0.041*** (0.007)	0.048*** (0.007)	0.047*** (0.007)	0.023*** (0.006)				
<i>Donation Amount_t</i>					0.006*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.003*** (0.001)
<i>Majority_t</i>	0.007*** (0.0004)	0.005*** (0.0004)	0.004*** (0.0004)	0.004*** (0.0004)	0.007*** (0.0004)	0.005*** (0.0004)	0.004*** (0.0004)	0.004*** (0.0004)
<i>Democrat_t</i>	0.004*** (0.0005)	0.002*** (0.0003)	0.063*** (0.003)	0.063*** (0.003)	0.004*** (0.0005)	0.002*** (0.0003)	0.063*** (0.003)	0.063*** (0.003)
<i>Committee Chair_t</i>	-0.003*** (0.0003)	-0.002*** (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)	-0.003*** (0.0003)	-0.002*** (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)
<i>Powerful Committee_t</i>	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)	0.011*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)	0.011*** (0.001)
Firm FEs	✓	✓	✓		✓	✓	✓	
Year FEs		✓	✓	✓		✓	✓	✓
Politician FEs			✓				✓	
Firm-Politician FEs				✓				✓
Observations	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912
Adjusted R ²	0.568	0.570	0.572	0.638	0.568	0.570	0.572	0.638

Note: *p<0.1; **p<0.05; ***p<0.01

Table H.1: Firm and Employee Donations and Lobbying of Specific Politicians, First-Time Donation in 3 Years, Manufacturing Firms, Full Results: The level of analysis is the firm-politician-year, and the data include all publicly traded manufacturing firms (NAICS 2-digit codes 31-33) and members of Congress between 2008 and 2018. The dependent variable is a dummy which equals 1 if firm i lobbied the legislative activity of a politician j in year t . $Donation_t$ equals 1 if firm i donated to a politician j for the first time in 3 years t , and 0 otherwise, whereas $DonationAmount_t$ is the logged amount of the 3-year first-time donation. The coefficients come from ordinary least squares regressions, using combinations of firm, politician, year, and firm-politician fixed effects. All models control for politician partisanship, majority status, committee chairmanship, and being member of the top 4 powerful committees. The standard errors are clustered by firm.

	<i>Dependent variable:</i>							
	Lobbying Legislative Activity _t							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Donation_t</i>	0.037*** (0.005)	0.042*** (0.005)	0.041*** (0.005)	0.023*** (0.004)				
<i>Donation Amount_t</i>					0.005*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	0.003*** (0.001)
<i>Majority_t</i>	0.005*** (0.0003)	0.004*** (0.0003)	0.004*** (0.0003)	0.004*** (0.0003)	0.005*** (0.0003)	0.004*** (0.0003)	0.004*** (0.0003)	0.004*** (0.0003)
<i>Democrat_t</i>	0.004*** (0.0003)	0.002*** (0.0002)	0.044*** (0.002)	0.044*** (0.002)	0.004*** (0.0003)	0.002*** (0.0002)	0.044*** (0.002)	0.044*** (0.002)
<i>Committee Chair_t</i>	-0.002*** (0.0002)	-0.001*** (0.0002)	0.001*** (0.0002)	0.001*** (0.0002)	-0.002*** (0.0002)	-0.001*** (0.0002)	0.001*** (0.0002)	0.001*** (0.0002)
<i>Powerful Committee_t</i>	0.002*** (0.0004)	0.001*** (0.0004)	0.004*** (0.0003)	0.004*** (0.0003)	0.002*** (0.0004)	0.001*** (0.0004)	0.004*** (0.0003)	0.004*** (0.0003)
Firm FEs	✓	✓	✓		✓	✓	✓	
Year FEs		✓	✓	✓		✓	✓	✓
Politician FEs			✓				✓	
Firm-Politician FEs				✓				✓
Observations	26,731,044	26,731,044	26,731,044	26,731,044	26,731,044	26,731,044	26,731,044	26,731,044
Adjusted R ²	0.560	0.561	0.563	0.627	0.560	0.561	0.563	0.627

Note: *p<0.1; **p<0.05; ***p<0.01

Table H.2: Firm and Employee Donations and Lobbying of Specific Politicians, First-Time Donation in 3 Years, Services Firms, Full Results: The level of analysis is the firm-politician-year, and the data include all publicly traded services firms (NAICS 2-digit codes 42-81) and members of Congress between 2008 and 2018. The dependent variable is a dummy which equals 1 if firm i lobbied the legislative activity of a politician j in year t . $Donation_t$ equals 1 if firm i donated to a politician j for the first time in 3 years t , and 0 otherwise, whereas $DonationAmount_t$ is the logged amount of the 3-year first-time donation. The coefficients come from ordinary least squares regressions, using combinations of firm, politician, year, and firm-politician fixed effects. All models control for politician partisanship, majority status, committee chairmanship, and being member of the top 4 powerful committees. The standard errors are clustered by firm.

<i>Dependent variable:</i>								
Lobbying Legislative Activity _t)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Donation_t</i>	0.042*** (0.006)	0.042*** (0.006)	0.043*** (0.006)	0.024*** (0.005)				
<i>Donation Amount_t</i>					0.006*** (0.001)	0.006*** (0.001)	0.006*** (0.001)	0.003*** (0.001)
<i>Majority_t</i>	0.007*** (0.0004)	0.005*** (0.0004)	0.004*** (0.0004)	0.004*** (0.0004)	0.007*** (0.0004)	0.005*** (0.0004)	0.004*** (0.0004)	0.004*** (0.0004)
<i>Democrat_t</i>	0.004*** (0.0005)	0.002*** (0.0003)	0.063*** (0.003)	0.063*** (0.003)	0.004*** (0.0005)	0.002*** (0.0003)	0.063*** (0.003)	0.063*** (0.003)
<i>Committee Chair_t</i>	-0.003*** (0.0003)	-0.002*** (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)	-0.003*** (0.0003)	-0.002*** (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)
<i>Powerful Committee_t</i>	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)	0.011*** (0.001)	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)	0.011*** (0.001)
Firm FEs	✓	✓	✓		✓	✓	✓	
Year FEs		✓	✓	✓		✓	✓	✓
Politician FEs			✓				✓	
Firm-Politician FEs				✓				✓
Observations	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912	16,434,912
Adjusted R ²	0.568	0.570	0.572	0.638	0.568	0.570	0.572	0.638

Note: *p<0.1; **p<0.05; ***p<0.01

Table H.3: Firm and Employee Donations and Lobbying of Specific Politicians, First-Time-Ever Donation, Full Results: The level of analysis is the firm-politician-year, and the data include all publicly traded manufacturing firms (NAICS 2-digit codes 31-33) and members of Congress between 2008 and 2018. The dependent variable is a dummy which equals 1 if firm i lobbied the legislative activity of a politician j in year t . $Donation_t$ equals 1 if firm i donated to a politician j for the first time in year t , and 0 otherwise, whereas $DonationAmount_t$ is the logged amount of the first-time donation. The coefficients come from ordinary least squares regressions, using combinations of firm, politician, year, and firm-politician fixed effects. All models control for politician partisanship, majority status, committee chairmanship, and being member of the top 4 powerful committees. The standard errors are clustered by firm.

	<i>Dependent variable:</i>							
	Lobbying Legislative Activity _t							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Donation_t</i>	0.042*** (0.006)	0.042*** (0.006)	0.043*** (0.006)	0.024*** (0.005)	0.040*** (0.005)	0.040*** (0.005)	0.041*** (0.005)	0.019*** (0.004)
<i>Majority_t</i>	0.007*** (0.0004)	0.005*** (0.0004)	0.004*** (0.0004)	0.004*** (0.0004)	0.012*** (0.001)	0.010*** (0.001)	0.008*** (0.001)	0.009*** (0.001)
<i>Democrat_t</i>	0.004*** (0.0005)	0.002*** (0.0003)	0.063*** (0.003)	0.063*** (0.003)	0.005*** (0.001)	0.002*** (0.001)	0.116*** (0.006)	0.122*** (0.007)
<i>Committee Chair_t</i>	-0.003*** (0.0003)	-0.002*** (0.0003)	0.0002 (0.0003)	0.0002 (0.0003)	-0.004*** (0.001)	-0.003*** (0.001)	0.001** (0.001)	0.001 (0.001)
<i>Powerful Committee_t</i>	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)	0.011*** (0.001)	0.018*** (0.002)	0.018*** (0.002)	0.021*** (0.001)	0.021*** (0.001)
<i>Logged Sales_t</i>					0.001 (0.002)	0.007*** (0.003)	0.007*** (0.003)	0.006** (0.002)
<i>Logged Employees_t</i>					0.043*** (0.012)	0.060*** (0.013)	0.060*** (0.013)	0.053*** (0.014)
Firm FEs	✓	✓	✓		✓	✓	✓	
Year FEs		✓	✓	✓		✓	✓	✓
Politician FEs			✓				✓	
Firm-Politician FEs				✓				✓
Observations	16,434,912	16,434,912	16,434,912	16,434,912	7,442,778	7,442,778	7,442,778	7,442,778
Adjusted R ²	0.568	0.570	0.572	0.638	0.581	0.584	0.588	0.646

Note: *p<0.1; **p<0.05; ***p<0.01

Table H.4: Firm and Employee Donations and Lobbying of Specific Politicians, First-Time-Ever Donation, controlling for Firm Size: The level of analysis is the firm-politician-year, and the data include all publicly traded manufacturing firms (NAICS 2-digit codes 31-33) and members of Congress between 2008 and 2018. The dependent variable is a dummy which equals 1 if firm i lobbied the legislative activity of a politician j in year t . $Donation_t$ equals 1 if firm i donated to a politician j for the first time in year t , and 0 otherwise. The coefficients come from ordinary least squares regressions, using combinations of firm, politician, year, and firm-politician fixed effects. The columns 5 to 8 include time-varying politician covariates (party, majority status, committee chairmanship, membership of powerful committee), and firm covariates (logged sales, logged number of employees). The standard errors are clustered by firm.

<i>Dependent variable:</i>								
Lobbying Legislative Activity _t								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Donation_t</i>	0.044*** (0.006)	0.043*** (0.006)	0.045*** (0.006)	0.034*** (0.006)	0.042*** (0.006)	0.041*** (0.006)	0.043*** (0.005)	0.028*** (0.005)
<i>Donation_{t-1}</i>	0.041*** (0.005)	0.041*** (0.006)	0.042*** (0.005)	0.036*** (0.006)	0.042*** (0.005)	0.042*** (0.005)	0.043*** (0.005)	0.033*** (0.005)
<i>Donation_{t-2}</i>	0.028*** (0.004)	0.029*** (0.004)	0.030*** (0.004)	0.025*** (0.005)	0.031*** (0.004)	0.032*** (0.004)	0.033*** (0.004)	0.026*** (0.004)
<i>Donation_{t-3}</i>	0.016*** (0.003)	0.016*** (0.003)	0.017*** (0.003)	0.015*** (0.004)	0.017*** (0.004)	0.018*** (0.004)	0.020*** (0.003)	0.015*** (0.004)
<i>Majority_t</i>	0.007*** (0.0004)	0.005*** (0.0004)	0.004*** (0.0004)	0.004*** (0.0004)	0.012*** (0.001)	0.010*** (0.001)	0.008*** (0.001)	0.009*** (0.001)
<i>Democrat_t</i>	0.004*** (0.0005)	0.002*** (0.0003)	0.063*** (0.003)	0.063*** (0.003)	0.005*** (0.001)	0.002*** (0.001)	0.115*** (0.006)	0.122*** (0.007)
<i>Committee Chair_t</i>	-0.003*** (0.0003)	-0.002*** (0.0003)	0.0001 (0.0003)	0.0001 (0.0003)	-0.004*** (0.001)	-0.003*** (0.001)	0.001* (0.001)	0.001 (0.001)
<i>Powerful Committee_t</i>	0.010*** (0.001)	0.010*** (0.001)	0.011*** (0.001)	0.011*** (0.001)	0.018*** (0.002)	0.017*** (0.001)	0.021*** (0.001)	0.021*** (0.001)
<i>Logged Sales_t</i>					0.001 (0.002)	0.007*** (0.003)	0.007*** (0.003)	0.006** (0.002)
<i>Logged Employees_t</i>					0.043*** (0.012)	0.060*** (0.013)	0.060*** (0.013)	0.053*** (0.014)
Firm FEs	✓	✓	✓		✓	✓	✓	
Year FEs		✓	✓	✓		✓	✓	✓
Politician FEs			✓				✓	
Firm-Politician FEs				✓				✓
Observations	16,434,909	16,434,909	16,434,909	16,434,909	7,442,775	7,442,775	7,442,775	7,442,775
Adjusted R ²	0.568	0.570	0.572	0.638	0.581	0.584	0.589	0.646

Note: *p<0.1; **p<0.05; ***p<0.01

Table H.5: Firm and Employee Donations and Lobbying of Specific Politicians, First-Time-Ever Donation, with Lagged Donations: The level of analysis is the firm-politician-year, and the data include all publicly traded manufacturing firms (NAICS 2-digit codes 31-33) and members of Congress between 2008 and 2017. The dependent variable is a dummy which equals 1 if firm i lobbied the legislative activity of a politician j in year t . $Donation_{t-k}$ equals 1 if firm i donated to a politician j for the first time in year t and up to year $t - k$, and 0 otherwise. The coefficients come from ordinary least squares regressions, using combinations of firm, politician, year, and firm-politician fixed effects. The columns 5 to 8 include time-varying politician covariates (party, majority status, committee chairmanship, membership of powerful committee), and firm covariates (logged sales, logged number of employees). The standard errors are clustered by firm.

Appendix I Covariate Balance Plots for House and Senate

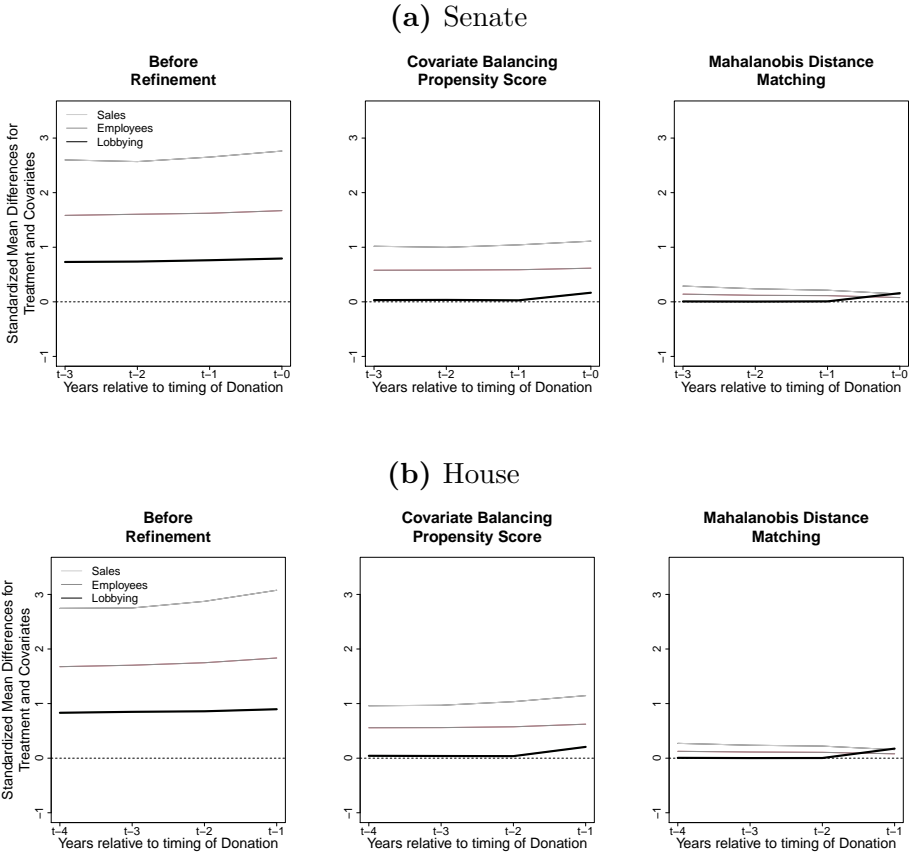


Figure I.1: Covariate Balance Plots for Senate and House Analysis in Figure 4. This plot shows the covariate balance for logged sales and employees and lobbying of a particular politician, in the years prior to and up to the treatment year, for the Senate and the House. It shows the balance of firm-level and firm-politician-level variables before refinement (left), after refinement using CBPS weighting (center) and after refinement using Mahalanobis distance matching (right). Mahalanobis matching improves covariate balance between treated and control groups prior to treatment the most.

Appendix J Coefficient Tables for PanelMatch Results

<i>Dependent variable:</i>				
Chamber	Estimated Effect of Donation on Probability to Lobby in:			
	$t+0$	$t+1$	$t+2$	$t+3$
<i>Senate</i>	0.075 (0.0029)	0.097 (0.0033)	0.108 (0.0036)	0.11 (0.0037)
<i>House</i>	0.086 (0.002)	0.111 (0.0023)	0.127 (0.0025)	0.127 (0.0026)

Note: Std. errors in parentheses

Table J.1: Coefficient Estimates from Figure 4: This table reports the estimated coefficients and associated standard errors, computed based on a block-bootstrap procedure, which are used to produce Figure 4. The number of observations is 13,376,688 firm-politician-year dyads in the House, and 3,058,224 dyads in the Senate. To compute the Senate and the House results, we identified all dyads where a particular company donated to a particular politician for the first time in at least three years. For the Senate, there are 3,778 such instances. In the House, the number is 5,497.

<i>Dependent Variable:</i>				
Estimated Effect of Donation on Probability to Lobby in:				
Chamber	$t+0$	$t+1$	$t+2$	$t+3$
<i>Senate</i>	0.056	0.07	0.071	0.07
	(0.0055)	(0.0063)	(0.0069)	(0.0071)

Note: Std. errors in parentheses

Table J.2: PanelMatch Coefficient Estimates for Senate, Matching on Politician and NAICS 3-Digit Industry: This table reports the estimated coefficients and associated standard errors, computed based on a block-bootstrap procedure, which are used to produce Senate results as in Figure 4, matching on both politician and NAICS 3-digit industry. The number of observations is 3,058,224 dyads in the Senate. To compute the Senate results, we identified all dyads where a particular company donated to a particular politician for the first time in at least three years. For the Senate, there are 3,778 such instances

<i>Dependent variable:</i>				
Donor type	Estimated Effect of Donation on Probability to Lobby in:			
	<i>t+0</i>	<i>t+1</i>	<i>t+2</i>	<i>t+3</i>
	Committee Members			
<i>PAC</i>	0.103 (0.0039)	0.131 (0.0044)	0.147 (0.0047)	0.147 (0.0048)
<i>CEO</i>	0.017 (0.0042)	0.041 (0.0047)	0.048 (0.0048)	0.05 (0.0053)
<i>Employee</i>	0.015 (0.0038)	0.038 (0.0039)	0.05 (0.0047)	0.039 (0.0048)
	Bill Co-sponsorship			
<i>PAC</i>	0.097 (0.0047)	0.116 (0.0053)	0.088 (0.0055)	0.102 (0.0055)
<i>CEO</i>	0.01 (0.005)	0.04 (0.0056)	0.28 (0.0059)	0.023 (0.0056)
<i>Employee</i>	0.019 (0.005)	0.033 (0.0058)	0.044 (0.0062)	0.037 (0.0061)
	Bill Sponsorship			
<i>PAC</i>	0.029 (0.003)	0.041 (0.0036)	0.044 (0.0037)	0.037 (0.0037)
<i>CEO</i>	0.012 (0.0031)	0.009 (0.0038)	0.03 (0.0044)	0.029 (0.0046)
<i>Employee</i>	0.014 (0.0032)	0.021 (0.0043)	0.025 (0.0045)	0.022 (0.0045)

Note: Standard errors in parentheses

Table J.3: Coefficient Estimates from Figure 5: This table reports the estimated coefficients and associated standard errors, computed based on a block-bootstrap procedure, which are used to produce Figure 5. The number of observations is 3,058,224 firm-politician-year dyads. To compute these results, we identified all dyads in which a given interest group donated to a given politician for the first time in three years. For PAC donations, that number is 2,662. For CEO donations, it's 792. For Employee donations, it's 934.

Appendix K Effect of Lobbying on Donations

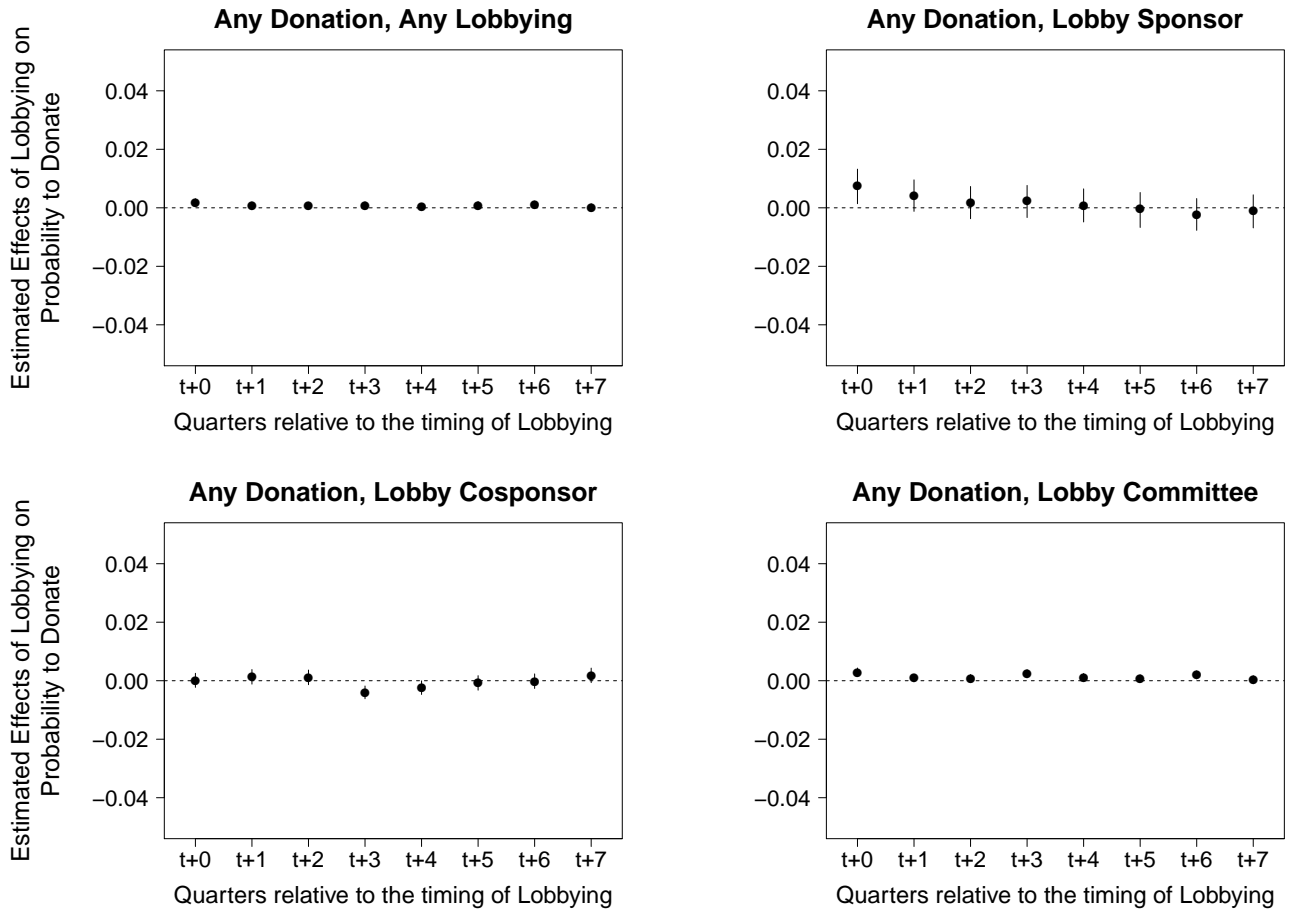


Figure K.1: Effect of Lobbying on Donations, Senate . This figure shows the effect lobbying different legislative activities of a firm i to politician j in quarter t on contemporaneous and subsequent donations $t + k$, $k \in \{0, 1, 2, \dots, 7\}$, involving the same politician. The vertical bars correspond to the 95% confidence intervals computed based on a block-bootstrap procedure. There is no effect of lobbying on donations across different lobbying types, except for a small effect on lobbying the sponsor of a bill. Note that LDA reports do not detail *when* in a quarter lobbying happens, so that it is impossible to know whether donations or lobbying come first in the same quarter.

Type of Lobbying	<i>Dependent variable:</i>							
	<i>t+0</i>	<i>t+1</i>	<i>t+2</i>	<i>t+3</i>	<i>t+4</i>	<i>t+5</i>	<i>t+6</i>	<i>t+7</i>
<i>Any Lobbying</i>	0.0018 (0.0006)	0.0007 (0.0007)	0.0006 (0.0006)	0.0008 (0.0006)	0.0003 (0.0006)	0.0008 (0.0007)	0.0010 (0.0006)	0.0001 (0.0006)
<i>Lobby Sponsor</i>	0.0074 (0.0028)	0.0041 (0.0028)	0.0018 (0.0028)	0.0023 (0.0028)	0.0008 (0.0028)	-0.0004 (0.0030)	-0.0024 (0.0029)	-0.0012 (0.0029)
<i>Lobby Cosponsor</i>	0.0001 (0.0013)	0.0014 (0.0013)	0.0012 (0.0012)	-0.0040 (0.0012)	-0.0025 (0.0012)	-0.0007 (0.0012)	-0.0003 (0.0013)	0.0018 (0.0013)
<i>Lobby Committee</i>	0.0029 (0.0008)	0.0009 (0.0007)	0.0007 (0.0007)	0.0024 (0.0007)	0.0011 (0.0007)	0.0007 (0.0007)	0.0020 (0.0007)	0.0004 (0.0007)

Note: Std. errors in parentheses

Table K.1: Coefficient Estimates from Figure K.1: This table reports the estimated coefficients and associated standard errors, computed based on a block-bootstrap procedure, which are used to produce Figure K.1. To compute the results for each type of lobbying activity, we identified all dyads where a particular company donated to a particular Senator for the first time in at least eight quarters. The number of observations is 12,232,896 firm-politician-quarter dyads. For *Any Lobbying*, *Lobby Sponsor*, *Lobby Cosponsor*, and *Lobby Committee*, there are 16,860, 4,426, 13,062, and 16,411 such instances, respectively.

Appendix L Donations and Lobbying and Lobbying Effectiveness

Investigating the effect of either donations or lobbying on policy outcomes is already very difficult, due to the endogeneity of both processes and the possibility of simultaneous determination of both corporate political strategies. Previous work has concentrated on either donations or lobbying and specific causal identification strategies, and found that while lobbying seems to positive firm-level returns (Kang, 2015; Huneus and Kim, 2019), donations tend not to (Fowler, Garro, and Spenkuch, 2020). Thus, determining the causal effect of the strategic interaction of donations *and* lobbying is very challenging.

In this section, we provide tentative evidence on the success of combining lobbying and donations for one specific policy outcome: *approval of miscellaneous tariff bills* (MTBs). MTBs are bills that *temporarily reduce or suspend the import tariffs* on particular products. A duty suspen-

sion leads to great cost savings for importers, who otherwise would have had to pay the higher tariff importing these products into the US. These costs are non-trivial. Between 1999 and 2006, duty suspensions covered about 600 unique tariff lines, worth approximately \$1.6 billion in terms of tariff revenue (Ludema, Mayda, and Mishra, 2018, p.303).

In particular, We investigate whether publicly traded firms that lobby on Senate MTBs *and* donated are more likely to have specific MTB introduced than firms that only lobby. In each Congress, House representatives and senators propose specific suspensions bills on behalf of proponent firms. The proposed tariff bills are referred to the House Ways and Means Committee and the Senate Finance Committee, and the US International Trade Commission (USITC) prepares a report on bill. The USITC then investigates whether a U.S. company produces the product in question, and contacts possible producers by phone. It then recommends whether to suspend the duty or not. House and Senate then pass the final bill by unanimous consent.

We can interpret MTB approval as lobbying success for individual companies due to the specific characteristics of the MTB approval process. First, the products in question are *very specific*, at the 8-digit U.S. harmonized tariff schedule (HTS), so that, in most cases, there will only be a hand full of importers across the U.S. that potentially benefit from the duty reduction. Second, bills are proposed by particular firms and subsequently sponsored by particular legislators. Each bill is *proposed by one specific firm*, making it easy to identify the firm engaging in lobbying in favour of and benefiting from a particular bill. Third, contrary to all other bills in Congress, *bill passage is very high*. About 84% of bills are un-opposed, and those pass with 90% success rate (Ludema, Mayda, and Mishra, 2018).²³ Fourth, while in most cases, firms can lobby for or against a particular bill, the direction of the lobbying effort on MTBs, and thus, policy preferences of the proponent, are clear (in favour of passage). Finally, both date of approval and duration of suspension are transparently named in each MTB. In sum, MTBs are very specific, proposed by only one firm (and one politician), almost always become law, and direction of preferences is clear. Thus, if we find that a firm lobbied on a particular MTB and donated to a related politician has a higher chance of MTB approval, it is likely this is due to the corporate political activity.

²³Un-opposed bills have a 90% chance of success, and only 16% of bills note an opposing company. Opposed bills still pass with 10% to 30%, still much more than regular Congressional bills (Ludema, Mayda, and Mishra, 2018).

For example, Best Buy Purchasing LLC, located in Richfield, Minnesota, proposed a tariff suspension in 2009 for certain radio-broadcast receivers (S.2086). The bill was sponsored by Senator Amy Klobuchar of Minnesota, and introduced in Congress on October 29, 2009. An excerpt from the bill is shown in Figure L.1 below.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC 20436

**MEMORANDUM ON PROPOSED TARIFF LEGISLATION
of the 111th Congress¹**

[Date approved: March 5, 2010]²

Bill No. and sponsor: S. 2086 Bill number Ms Amy Klobuchar of Minnesota Legislator proposing bill

Proponent name,³ location: Best Buy Purchasing LLC, Richfield, MN. Firm asking for duty suspension

Other bills on product (111th Congress only): None.

Nature of bill: Temporary duty suspension through December 31, 2011.

Retroactive effect: None. Detailed product description and harmonized tariff schedule (HTS) code

Suggested article description(s) for enactment (including appropriate HTS subheading(s)):

Radiobroadcast band receivers not capable of operating without an external source of power, combined in the same housing with detachable 2-way speakers, the foregoing receivers each having a total power output of 250 W (125 W per channel into 6 ohms at 1 kHz, 10 percent total harmonic distortion) and containing a 5-disc compact disc changer; a docking station for an MP3 player and dual audiocassette decks, with one deck capable of sound reproducing only and the other deck capable of sound recording and reproducing (provided for in subheading 8527.91.50).

Figure L.1: Example Miscellaneous Tariff Bill. This figure shows part of a miscellaneous tariff bill (MTB) from the 111th Congress. It depicts the sponsoring senator (Amy Klobuchar, MN), the firm asking for the duty suspension (Best Buy Purchasing LLC, Richfield, MN), and the detailed description of the product, including the harmonized tariff schedule (HTS) code.

The tariff at the time was 2.5%, and the USITC estimated annual imports of \$1.5 million, and an according tariff revenue of \$37,500 per year.²⁴ The bill was read twice, referred to Senate Finance Committee, consequently recommended for passage by the USITC, and passed unanimously in Congress on March 5, 2010. Best Buy also lobbied on the specific topic of MTBs in 2009-Q3 and in 2010-Q2. Moreover, Best Buy’s Political Action Committee had donated \$2,500, in addition to \$1,000 from employees and executives in 2009-Q3.

In our data, we can follow these connections systematically. In Table L.2, we focus on all 477

²⁴The average tariff pre-exemption is 7%, and the average estimated tariff loss from exemption is \$378,800 (Ludema, Mayda, and Mishra, 2018).

Senate MBTs in the 111th Congress (January 2009 to December 2010).²⁵ Out of those 477, we identify 211 bills proposed by 46 publicly traded firms. For 40 of these firms we observe MTB lobbying or donations, covering 207 out of 477 MTBs approved in the 111th Congress.²⁶ We then identify in total 107 publicly traded firms that lobbied on MTBs between 2009 and 2010. We identify these 107 firms by searching for the respective MTB bills, the “TAR” issue field which denotes MTB-related lobbying, and regular expressions for different “miscellaneous tariff bills” search terms and acronyms in the specific issue field in the U.S. federal lobbying data. We then compute the probabilities for a specific firm having an MTB approved, depending on whether the firm *only* lobbied on MTBs generally, or lobbied *and* donated to senators in the state in which they are located or a member of the Senate Finance Committee.²⁷

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We find that out of 107 publicly traded firms lobbying on MTBs, including the 40 publicly traded firms that appear as proponents of MTBs and lobby. 66 firms only lobby but never donate to a senator in their state, and 41 firms lobby and donate to a senator in the state they are located in or a senator on the Senate Finance Committee. For the firms that only lobby, 23 out of 66 (0.35) see the successful introduction of a tariff suspension bill. In comparison, 17 out of 41 firms that lobby and donate see a successful MTB introduction (0.41), an increase of 7 percentage points (or 19%) compared to firms that only lobby. This is a moderate but significant increase in the probability of approval of bills that are directly related to the firms’ private interests. While we cannot conclusively prove that donations and lobbying ‘cause’ the introduction of these bills by

²⁵We focus on only one Congress because collecting all of the data would take a considerable amount of time and resources.

²⁶Note that there are 6 publicly traded firms which appear as proponents in MTBs, but for which we find no lobbying of MTBs: Jarden Consumer Solutions, Teleflex, Jo-Ann Stores, Spirit Aerosystems, Chevron Phillips Chemical Company, and General Electric Corp. Five firms lobby, but never on MTBs between 2009 and 2011: Jarden Consumer Solutions, General Electric Corp., Teleflex, Spirit Aerosystems, Jo-Ann Stores, Chevron Phillips Chemical Company never appears as lobbying client.

²⁷We use donations to senators from the firm state and on the Finance Committee, because we can observe these donations for lobbying firms that appear as proponents of MTBs and for those that do not. We use the firm’s state as provided in the MTB filings, and for the firms for which there are no filings, we use the U.S. headquarter state. Since donations often happen during election time before the the start of a new Congressional session, we use the time period from 2008 until end of 2011 for the below analysis.

	Frequency	Proportion
A. Bills		
Total number of MTBs, with:	477	
- publicly traded proponent firm	211	0.442
- publicly traded proponent firm that lobbies	207	0.434
- publicly traded proponent firm lobbies on MTBs, 2008-2010	192	0.403
B. Proponents		
Total number of Proponent Firms, that are:	145	
- publicly traded	46	0.317
- publicly traded and lobby	40	0.276
- publicly traded and lobby on MTBs, 2008-2010	40	0.276
C. Lobbying & Donations		
Publicly traded firms that lobbied on MTBs	107	
Publicly traded firms that only lobbied on MTBs	66	
- out of which: firms that get MTBs introduced	23	0.348
Publicly traded firms that lobbied on MTBs and donated	41	
- out of which: firms that get MTBs introduced	17	0.415
MTB Introduction Probability, Difference (in %)		0.067 (+19%)

Table L.1: Donation & Lobbying and Approval of Miscellaneous Tariff Bill: this table shows the relationship between lobbying, donations, and approval of MTBs, for the 111th Congress (Jan 2009 – Dec 2010). The first two panels A and B show descriptive statistics on MTBs and proponent firms, and the lower panel C shows the relationship between lobbying, donations, and the probability of MTB approval. It shows probability of a publicly traded firm that also lobbies on MTBs/duty suspensions having an MTB approved between 2009 and 2011, depending on whether the firm only lobbied on MTBs, or whether the firm lobbied *and* donated.

legislators in individual cases, this analysis demonstrates that combining lobbying and donations as a corporate political strategy is systematically related to higher lobbying success, in the case of miscellaneous tariff bills.

	Frequency	Proportion
A. Bills		
Total number of MTBs, with:	477	
- publicly traded proponent firm	211	0.442
- publicly traded proponent firm that lobbies	207	0.434
- publicly traded proponent firm lobbies on MTBs, 2008-2010	192	0.403
B. Proponents		
Total number of Proponent Firms, that are:	145	
- publicly traded	46	0.317
- publicly traded and lobby	40	0.276
- publicly traded and lobby on MTBs, 2008-2010	40	0.276
C. Lobbying & Donations		
Publicly traded firms that lobbied on MTBs	107	
Publicly traded firms that only lobbied on MTBs	66	
- out of which: firms that get MTBs introduced	23	0.348
Publicly traded firms that lobbied on MTBs and donated	41	
- out of which: firms that get MTBs introduced	17	0.415
MTB Introduction Probability, Difference (in %)		0.067 (+19%)

Table L.2: Donation & Lobbying and Approval of Miscellaneous Tariff Bill: this table shows the relationship between lobbying, donations, and approval of MTBs, for the 111th Congress (Jan 2009 – Dec 2010). The first two panels A and B show descriptive statistics on MTBs and proponent firms, and the lower panel C shows the relationship between lobbying, donations, and the probability of MTB approval. It shows probability of a publicly traded firm that also lobbies on MTBs/duty suspensions having an MTB approved between 2009 and 2011, depending on whether the firm only lobbied on MTBs, or whether the firm lobbied *and* donated.