Lobbyists as Gatekeepers: Theory and Evidence

Abstract

Lobbyists are omnipresent in the policymaking process, but the value that they bring to both clients and politicians remains poorly understood. We develop a model in which a lobbyist's value derives from his ability to selectively screen which clients he brings to a politician, thereby earning the politician's trust and preferential treatment for his clients. Lobbyists face a dilemma, as their ability to screen also increases their value to special interests, and the prices they can charge. A lobbyist's profit motive undermines his ability to solve this dilemma, but an interest in policy outcomes—due either to a political ideology or a personal connection—enhances it, which paradoxically increases his profits. Using a unique dataset from reports mandated by the Foreign Agents Registration Act, we find that lobbyists become more selective when they are more ideologically aligned with politicians, consistent with our prediction.

> "If a firm had a client with demands which went against your philosophy, do you feel you could still work hard for that client?"
>
> "I couldn't do it for all the money in the world."
>
> "Then as far as I'm concerned, you're hired!"

—*Capitol Punishment*, by Jack Abramoff (2011)

Since at least the mid-18th century, professional lobbyists have been a constant and much vilified feature of the American political landscape. Walt Whitman colorfully described them as "crawling, serpentine men" (Allard 2008). Echoing this common view, former President Obama decried "the lobbyists... and special interests who've turned our government into a game that only they can afford to play."[1]

The contemporary academic literature is divided between this popular *quid pro quo* view of lobbying (Grossman and Helpman 1994) and a more sanguine *informational* view, which posits that lobbying is a process through which better informed but biased interest groups communicate policy-relevant information to less-informed politicians (Potters and van Winden 1992, Austen-Smith 1995, Cotton 2012, Schnakenberg 2017).[2] Closely related to this informational view is an influential theory that lobbying is predominantly a "legislative subsidy" intended to reduce a legislator's staff costs of promoting a particular policy (Hall and Deadorff 2006, Ellis and Groll 2020).

However, with few exceptions (Salisbury et al. 1989), in most prominent theories of lobbying the *lobbyists themselves* receive little attention – they are usually treated as passive participants in the process, when they are considered at all.[3] This is peculiar given that interest groups spend significantly more money paying lobbyists than on campaign donations (de Figueiredo and Richter 2014), which belies the common belief that lobbyists simply facilitate *quid pro quo* exchanges between politicians and interest groups of policy favors for campaign contributions. In contrast, a recent empirical literature on the lobbying industry

[1] Remarks by the President in Osawatomie, Kansas, December 2011 (`http://www.whitehouse.gov/the-press-office/2011/12/06/remarks-president-economy-osawatomie-kansas`), accessed May 2020.

[2] Some works combine these perspectives, e.g. Schnakenberg and Turner (2019).

[3] Some informational theories model lobbyists as anonymous repositories for "burnt money" that increases the credibility of an interest group's "signal" (Lohmann 1995, Gordon and Hafer 2005).

has uncovered two striking empirical regularities. First, there is considerable variation in the fees of individual lobbyists that is correlated with their personal and professional connections (Blanes i Vidal, Draca and Fons-Rosen 2012, Bertrand, Bombardini and Trebbi 2014, McCrain 2018). Second, like most participants in the policy process lobbyists appear to be highly ideological – at least as reflected by their campaign giving patterns (Koger and Victor 2009) and personal employment histories (Kingdon 1989).

In this paper we propose a new theory of lobbyists that helps explain their role in the process, is consistent with these empirical regularities, and generates new testable predictions. Our starting point is that what politicians predominantly lack is not expertise, but time – the time to investigate, and confidently determine, whether fulfilling a special interest group's policy request is in their political or ideological interests (Levine 2008). Because politicians are busy and understaffed (Baumgartner and Jones 2015, Curry 2015), lobbyists can potentially "subsidize" them by selling their *own* time and expertise to make this determination. In other words, a lobbyist can *vet* a special interest group's policy request, and then sell his *certification* of its merits to the special interest group. However, even disgraced-former-lobbyist Jack Abramoff understood that a lobbyist is of little use to a politician, or his clients, unless his claims can be *believed*. Thus, he cannot be precisely the sort of "hired gun" that popular accounts of lobbying describe. Instead, his ability to gain and sell access must be predicated on his ability to, at least sometimes, resist the temptation to represent a client whose request would not be in the politician's interest to fulfill.

We capture these ideas in a model as follows. A special interest group (SIG hereafter) seeks a policy favor from a politician, but the politician initially doesn't know the favor's exact *merits* – i.e., the extent to which granting it is in her own political or ideological interests. The SIG can undertake costly lobbying to try and "signal" these merits to the politician – or, it can hire a lobbyist to do so on its behalf. In exchange the lobbyist demands a fee, which may depend on the merits. The politician then makes a decision about the favor, either by relying on what she has learned from lobbying (or its absence), or by investigating

the merits on her own.[4]

In the model, a credible signal of merit can benefit the SIG in two ways – by influencing how often the politician investigates its request, and by inducing her to sometimes grant it even absent an investigation. A professional lobbyist can thus bring value by acting as a conduit through which the SIG can more accurately signal the merits of its request. However, this means that the lobbyist's ability to make money depends on his *ability to be selective*. Absent this ability he cannot gain the politician's trust, absent trust he cannot obtain preferential treatment for his client, and absent preferential treatment he has nothing to sell. Conversely, the extent of his selectivity determines whether he can develop access, how frequently he employs his access, and the profits he enjoys from doing so.

What, then, determines a lobbyist's ability to be selective and gain a politician's trust? Lobbyists themselves assert that "a lobbyist is only as good as his reputation"[5] — but this simply begs the question by asserting that politicians trust lobbyists whom they deem to be trustworthy. But what traits help some lobbyists, and not others, develop reputations and gain a particular politician's trust? Inspired by the recent empirical literature, we argue that lobbyists may have intrinsic *policy motivations* that facilitate their ability to be selective and therefore profitably sell representation. Such motivations may plausibly arise both as a result of lobbyists' personal relationships with politicians, and because lobbyists (like most participants in the policy process) have ideological motives. In turn, a central prediction of our theory is that a lobbyist's *ideological alignment* with a politician facilitates his ability to be selective by reducing his temptation to trade on his credibility. The empirical implications are that such alignments should be *positively associated* with the both presence of relationships and the fees commanded from exploiting them, but *negatively associated* with the frequency with which these relationships are actually exploited on behalf of clients.

To evaluate whether patterns in real-world lobbying data are consistent with our theory,

[4]In this feature our model is related to a large literature in which a principal can employ a costly *audit* to verify an agent's actions or information; political science applications include legislative oversight (Banks 1989) and the judicial hierarchy (Kastellec 2017).

[5]Interview by Jared Fleischer with Darryl D. Nirenberg (Allard (2008), pp. 47).

we construct a unique dataset from reports mandated by the Foreign Agents Registration Act (FARA), which governs lobbying by foreign interests. Although access has been a central issue in the lobbying literature (Wright 1990, Hojnacki and Kimball 1998, Schnakenberg 2017, Judd 2021), the dearth of direct information about *which* politicians lobbyists contact has been a key empirical challenge (de Figueiredo and Richter 2014). A unique advantage of FARA reports is that they contain detailed contact data, in contrast to reports mandated by Lobbying Disclosure Act (the counterpart statute for domestic lobbying); each contact record specifies the name of lobbyists and the contacted individual, the method by which the individual was contacted, and the issues discussed. Our dataset thus captures both which lobbyists access which politicians, and the extent to which they actually utilize that access. We augment this data with information on the lobbyists' career histories, party affiliations, and campaign contributions to develop three measures of a lobbyist-politician pair's ideological alignment – their difference in party affiliations, CF scores based on campaign contributions (Bonica 2016), and DW NOMINATE scores (for politicians- or staffers-turned-lobbyists).

We find that by all three measures, the more aligned is a lobbyist-politician pair, the more likely is the pair to have at least one contact (or *be active*) during the period of study (the 110th and 111th Congresses). Moreover, there is a premium in lobbying fees for contacting an ideologically-aligned politician, relative to an ideologically-distant one. Both findings are consistent with our theory's predictions that ideological alignment facilitates access and generates profit, but do not speak directly to the mechanism through which it does so. Crucially, however, we also find that *among* active lobbyist-politician pairs, the more ideologically aligned is a pair, the *fewer* clients the lobbyist brings to a politician. Thus, ideological alignment indeed appears to facilitate access and generate profit by inducing lobbyists to be more selective. Finally and interestingly, we also find lobbyists who have prior government experience (for example, as a member of Congress or a staffer) are substantially more selective than those who do not.

Overall, our paper contributes to both the theoretical and empirical literatures on lobby-

ing. Theoretically, we develop a model in which lobbyists act as independent intermediaries between politicians and SIGs, and use it to generate new predictions about how lobbyists' traits influence access, contacts, and fees. Unlike existing models of intermediaries in lobbying relationships, our model highlights the role of ideology or politician-specific relationships for commercial lobbyists, and emphasizes the role these traits play in solving a dilemma faced by lobbyists: being a trusted source of information increases the value of a lobbyist's commercial services, which creates a temptation to over-exploit relationships with politicians.

Among the first to directly consider the role of commercial lobbyists as distinct actors are Groll and Ellis (2014; 2017). As in our model, Groll and Ellis (2014; 2017) model lobbyists as paid certifiers, but are more concerned with the welfare associated with and organization of the lobbying industry as a whole. Consequently, they model lobbyists as undifferentiated in their traits. Because lobbyists are undifferentiated, their models cannot make predictions about the role of ideology, nor do they distinguish between the extensive margin of a lobbying relation – whether the relationship is active – and the intensive margin – the intensity of contact within an active relationship. In a more recent paper, Ellis and Groll (2019) consider a different extensive margin: the choice of a SIG to employ a lobbyist or lobby directly, but again lobbyists are undifferentiated. While not a model of commercial lobbyists, Awad (2020) does consider the role of ideological proximity in a certification relationship by studying the role legislators as intermediaries. However, because his intermediaries are unpaid, the model cannot yield predictions and results concerning fees, and legislators are not subject to the tension generated with "fee for service" intermediation.

Empirically, we provide the first systematic evidence on the allocation of politicians' access by creating a large database of lobbying contacts, and find that this evidence is consistent with our theory. Our findings run counter to the popular notion that lobbyists simply "sell" access to politicians that they already have by virtue of prior personal and professional relationships (i.e. "connections"), and instead supports the supposition that lobbyists' ability to be selective plays a key role in the service that they provide to both

clients and politicians. In so doing, we also provide a plausible theoretical explanation for the fee premium of connected lobbyists uncovered in the previous literature – that observable personal connections such as prior employment relationships either proxy for ideological alignment, or relatedly, directly induce selectivity by giving lobbyists a personal stake in a connected politician's welfare.

A Theory of Lobbying as Certification

There are three players in the model: a politician P ("she"), a special interest group (SIG) S ("it"), and a lobbyist L ("he").[6]

The SIG seeks a policy favor from the politician, whose final action A may be either to grant the favor ($A = G$) or to deny it ($A = NG$). In the game, the SIG will have the opportunity to either solicit the politician for the favor directly, or transmit its request through the lobbyist on a fee-for-service basis.

Should the favor be granted, the SIG earns a fixed and commonly known benefit π. However, the exact payoff consequences of granting the policy favor for the politician and the lobbyist depend on a state of the world $\omega \in R$ that is initially unknown to the politician. She (or her staff), however, has the capacity to *investigate* at some cost and learn the state's true value, a property to which we later return.

Intuitively, the state ω captures the extent to which granting the favor to the SIG also benefits the politician; we therefore refer to ω as the favor's *merits*. For example, the favor may be a reduction in a tariff for an input, and a higher ω could mean that manufacturers in the politician's district are more sensitive to the price of the input. Alternatively, the favor may be the relaxation of travel restrictions and warnings to a particular country (see Gawande, Maloney and Montes-Rojas (2009)), and the value of ω could reflect the attachment of constituents to the destination. In domestic lobbying, the favor may be an in-

[6]Our focus is on individual lobbyists, not lobbying firms. However, we conjecture that our predictions would be similar if lobbying firms were taken into account, given that such firms are often comprised of a few individual lobbyists with significant discretion in designing their lobbying strategies.

tervention with a regulator to prevent an environmental rule affecting the SIG's production, with ω capturing the number of district jobs that will be lost if the rule is implemented.

Preferences of the Politician The politician seeks to make the correct policy decision while minimizing her investigation costs. Her utility takes the form $\delta_P U_P(A;\omega) + c_P$, where c_P reflects her costs of investigating the merits, and δ_P reflects the strength of her desire to make a "correct" policy decision relative to minimizing her investigation costs. Her policy utility $U_P(A;\omega)$ over actions and states takes the form,

$$U_P(A;\omega) = \begin{cases} \frac{\omega - P}{2} & \text{if grant,} \\ \frac{P - \omega}{2} & \text{if not grant.} \end{cases}$$

The stronger are the merits (i.e., the higher is ω), the better off is the politician granting the favor, and (in an abuse of notation) P denotes her *threshold* for preferring to do so. We term a request whose merits are above the politician's threshold ($\omega \geq P$) as *worthy*, and one whose merits are below the politician's threshold ($\omega < P$) as *unworthy.* The politician's net benefit for making the correct policy decision (granting the favor to the SIG if and only if its request is worthy) is therefore $\delta_P \cdot |P - \omega|$, so the further are the merits from her threshold, the more she benefits from choosing correctly. Lower values of the threshold P imply that the politician is more permissive of the SIG – in the sense that the merits do not need to be as strong for her to be willing to grant the favor – while higher values of P imply that she is more demanding. These policy preferences could reflect the politician's personal ideology, relationship with other actors, the parameters of the favor, and/or publicly available information about the SIG and its request.

Preferences of the Lobbyist As in standard models of intermediaries, the lobbyist values profit (see for example Lizzeri (1999), Bolton, Freixas and Shapiro (2012)). This consists of the payment he receives to lobby net of the cost of lobbying, and is denoted by t.

Distinct from previous models, however, the lobbyist may also be *policy-motivated*, in the sense that he also intrinsically cares about the policy outcome. This portion of his utility is denoted $U_L(A;\omega)$, and takes the same form as $U_P(\cdot)$ except that the lobbyist may have his

own distinct threshold $L \neq P$ for preferring that the favor be granted. The lobbyist's overall utility from both profit and policy is $\delta_L \cdot U_L(A;\omega) + t$, where $\delta_L \geq 0$ reflects the relative strength of his policy motivations. A lobbyist with $\delta_L = 0$ is purely profit-motivated. The inclusion of policy motivations is the central innovation of our theory, and allows us to trace out the relationship between such motivations, a lobbyist's representation decisions, his credibility, and his monetary profits. While the model itself is agnostic as to the specific source of these motivations, the existing empirical literature suggests two in particular.

The first is a preexisting personal relationship with, or *connection* to, a politician; perhaps due to prior employment or a shared personal background. We hypothesize that such relationships could lead a lobbyist to care (at least in part) that policy outcomes serve the politician's interests, a notion straightforwardly captured in our theory by assuming that a "connection" gives the lobbyist a personal threshold L that matches the politician's threshold P. The parameter δ_L can then be interpreted as reflecting the strength of the lobbyist's connection to the politician. To the extent that the strength of real-world connections can be estimated, the model can then be used to generate testable predictions about how such connections influence a lobbyist's behavior and profits from contacting a particular politician.

The second is a *political ideology*, which leads the lobbyist to intrinsically care about whether the SIG acquires the favor conditional on the merits. Such an ideology would induce the lobbyist to have a potentially-distinct threshold $L \neq P$ and preference strength δ_L in SIG-specific "merit space" that is generated by a potentially-complex mapping from "left-right ideology space." In principle, directly testing predictions of the model with respect to L and δ_L would require knowing something about this mapping. However, for our empirical analysis we instead derive testable predictions about the effect of lobbyist ideology by examining the effect of *differences* $|L - P|$ in lobbyist-politician thresholds, under the natural maintained assumption that closer ideal points in "ideology space" will map to closer thresholds in "merit space." In Appendix C we derive an explicit microfoundation with this property.

Sequence of Play Nature first chooses whether the lobbyist is "open for business"—that is, available to work with the SIG—with an exogenous probability $\lambda \in (0,1)$. The assumption that the lobbyist may be unavailable captures the idea that the opportunity cost of the lobbyist's time is unknown to the SIG at any given moment, and may exceed its maximum willingness to pay.[7] Nature next draws the favor's merits ω from a uniform distribution over $[0,\overline{\omega}]$ where $\bar{\omega} \geq 1$ and reveals them to both the SIG and the lobbyist, but not the politician. The assumption that both the SIG and the lobbyist know the merits is made to abstract away from all potential aspects of a lobbyist's services other than certification (such as informing the SIG of these merits).[8] We further assume that the expected merits, $\frac{\bar{\omega}}{2}$, are below the politician's threshold P for granting the favor, implying that the politician prefers to deny the favor based on her priors alone. The game then proceeds in two stages.

Representation Stage At the representation stage the lobbyist posts a fee $F \geq 0$ to lobby on behalf of the SIG. The posted fee is a take-it-or-leave-it offer; if the SIG accepts then the lobbyist is obligated to represent it by paying an exogenous cost k to contact the politician, and if the SIG declines then the lobbyist is obligated not to. If the SIG declines representation, or if the lobbyist was unavailable, the SIG may lobby directly (also at cost k) or do nothing. We assume that the SIG and the lobbyist have the same cost of lobbying, again to abstract away from potential aspects of a lobbyist's services other than certification.[9]

Decision Stage At the decision stage, the politician decides both whether to conduct her own investigation into the SIG's request and learn its true merits, and whether to grant

[7] A previous model variant considered a lobbyist whose cost of time c_L was drawn from a smooth distribution. This yielded qualitatively similar results about the extensive and intensive margin of representation, but with the added complication that the lobbyist's availability was endogenous to equilibrium profits.

[8] A previous model variant considered an SIG who is initially uninformed about the merits pays the lobbyist for both "information" and "certification." This yielded qualitatively similar results about the extensive and intensive margin of representation, but effectively imposed an arguably-artificial restriction that the SIG's direct lobbying could not also signal information to the politician (and by implication, that the lobbyist's selectivity could not endogenously affect the SIG's propensity to lobby directly).

[9] Assuming that the lobbyist has a cost advantage (so that the SIG pays both for "certification" and "access") does not qualitatively change our results about the extensive and intensive margin. However, it substantially complicates the derivation of the lobbyist's equilibrium representation decisions because it eliminates the "as-if pivotal" aspect of his calculus (see page 16 for details).

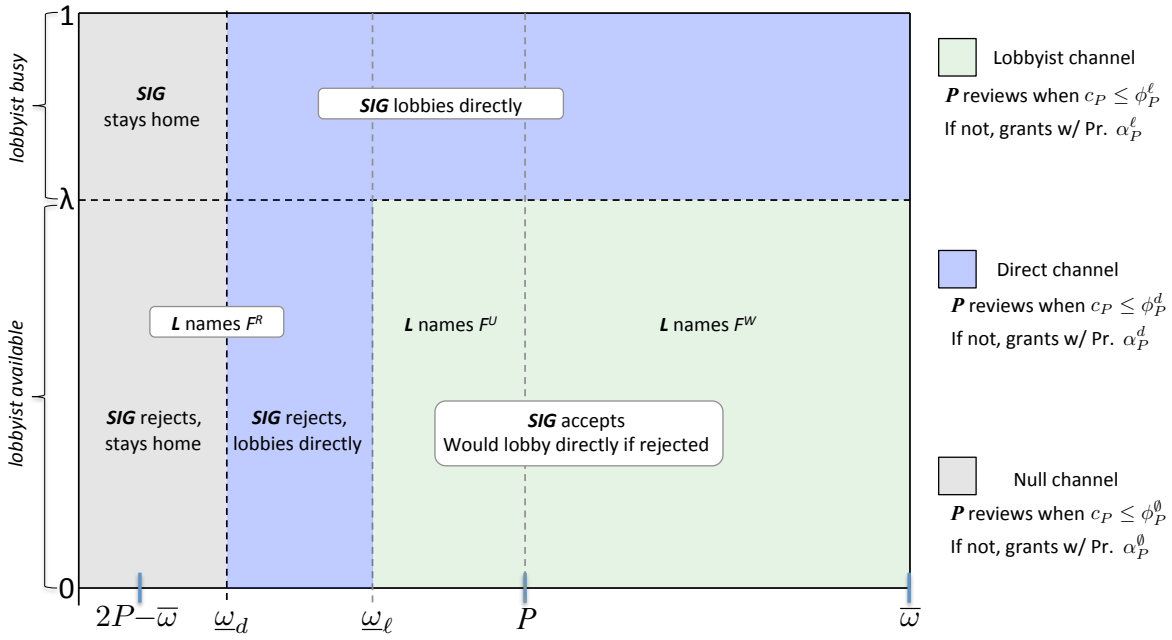


Figure 1: Form of Equilibrium Strategies. The x-axis depicts the state ω; the y-axis depicts whether the lobbyist is available (with probability λ) or busy (with probability $1-\lambda$). The size of a rectangle where a sequence of events occurs reflects the probability of that event.

the policy favor. At the time the politician makes both decisions, she observes whether she was lobbied and by whom, but not the details of the representation contract offered and potentially accepted. The politician's cost of conducting an investigation c_P is drawn by Nature from a uniform distribution over $[0, \bar{c}_P]$ and revealed to the politician, but not the other players. Whether or not the politician conducts an investigation, she then makes a final decision $A \in \{G, NG\}$ over whether to grant the policy favor, and the game ends.

Form of Equilibrium Strategies

Since the full strategy space is complex, we begin with a detailed description of the specific *form* of the strategy profiles that we consider, discussing each player in turn. Figure 1 accompanies this description. After doing so, we briefly explain our justification for restricting attention to strategy profiles of this form.

Politician When called to play, the politician bases her decisions on her realized investigation cost c_P (intuitively, how busy she is at the moment), and on whether she observed lobbyist representation, direct lobbying, or no lobbying at all. We refer to these as the three

possible *channels of contact*, and denote them as $c \in \{\ell, d, \emptyset\}$ respectively. (We sometimes call no lobbying the *null channel*.) For each potential channel of contact and realized cost of investigation c_P, the politician makes two decisions – first, whether to investigate to learn the favor's true merits, and second, whether to grant the favor or not (based on the true merits if she investigated, and on her inference from the channel of contact if she did not).

In equilibrium, the probability that the politician grants the favor after contact on each channel c *if* she does not investigate does not depend on c_P; we thus denote it $\alpha_P^c \in [0, 1]$, and term it the politician's *posture* toward channel c. If $\alpha_P^c = 1$ (she will always grant the favor absent an investigation) we call her posture *fully favorable* toward channel c. If $\alpha_P^c \in (0, 1)$ (she will sometimes grant the favor absent an investigation) we call it *somewhat favorable*. If $\alpha_P^c = 0$ (she will always deny the favor absent an investigation), we call it *adversarial*. Intuitively, the politician's posture toward a channel reflects how likely she believes that the SIG's request is worthy after she is contacted on that channel.

Next, the politician's decision to investigate following contact on each channel c is described by a *cutpoint* ϕ_P^c; the politician investigates, learns the true merits, and decides accordingly if and only if her realized investigation costs c_P are below this cutpoint. From the perspective of the other players (who don't know how busy the politician is at any given moment), the *probability* that the politician will conduct her own investigation after being contacted on channel c is $\frac{\phi_P^c}{\bar{c}_P}$. The equilibrium value of these cutpoints reflects the politician's uncertainty about whether her default posture after that channel of contact is correct; the more uncertain she is after observing contact on that channel, the greater is the benefit to learning the true merits, and the higher is the associated investigation cutpoint.

SIG When called to play the SIG either finds the lobbyist available, or too busy to take its case. If the lobbyist is available and names a price F, the SIG must decide whether to accept it; if it declines, it must also decide whether to instead lobby directly. Alternatively, if the SIG initially found the lobbyist unavailable, then it only decides whether to lobby directly.

The politician's investigation cutpoint and posture (ϕ_P^c, α_P^c) on each channel, combined

with whether the SIG's request is in fact worthy ($\omega \geq P$) or unworthy ($\omega < P$), jointly determine the probability that pursuing each channel will yield the favor, and hence each channel's value. The SIG's willingness to pay the lobbyist for representation is thus equal to the *difference* between the value of the lobbyist channel, and the *maximum* value of the direct and null channels (conditional on the true merits). Because the lobbyist makes a take-it-or-leave-it offer, equilibrium requires that the SIG accept any offer weakly below this value, which we denote F^W (F^U) when the favor is worthy (unworthy). Lastly, should the SIG find itself without representation – either because it rejected the lobbyist's offer, or because the lobbyist was unavailable – it will lobby directly if and only if the merits exceed a direct lobbying threshold $\underline{\omega}_d \geq 0$.

Lobbyist When called to play, the lobbyist names a price F to represent the SIG as a function of the merits ω. Because the lobbyist makes a take-it-or-leave-it offer, whenever he names a price that the SIG is willing to accept, that price must exactly equal the SIG's true willingness to pay (F^W, F^U). We further consider equilibria in which the set of merits that result in lobbyist representation are described by a representation threshold $\underline{\omega}_\ell$; that is, when the merits exceed this value the lobbyist demands the SIG's willingness to pay (which is accepted), and otherwise he demands a strictly higher price (which is rejected).

The representation threshold $\underline{\omega}_\ell$ reflects the lobbyist's *selectivity* in representing the SIG; higher $\underline{\omega}_\ell$ implies that the lobbyist is more selective. The lobbyist's selectivity, in turn, determines his credibility with the politician. Specifically, it determines how strongly his representation signals that the request is worthy, which in turn improves both the politician's posture α_P^ℓ following lobbyist representation (how likely she is to grant the favor absent an investigation) and decreases the probability $\frac{\phi_P^l}{\bar{c}_P}$ that the politician will subject the lobbyist's client to an investigation. These quantities then determine how likely the lobbyist is to secure the favor for the SIG, and thus the value of his representation, $\left(F^W, F^U\right)$.

The following Remark summarizes the preceding.

Remark 1. *We consider strategy profiles of the following form.*

1. *The politician sees if she was contacted by the lobbyist ($c = \ell$), lobbied directly ($c = d$), or not lobbied ($c = \emptyset$). After observing the channel of contact c, she investigates the SIG if $c_P \leq \phi_P^c$, and otherwise grants the favor with probability α_P^c.*

2. *The SIG accepts any offer of representation with price up to F^U if it is unworthy ($\omega < P$) and F^W if it is worthy ($\omega \geq P$). If it declines representation it lobbies directly if and only if $\omega \geq \underline{\omega}_d$.*

3. *The lobbyist charges the SIG's (type-contingent) willingness to pay if and only if $\omega \geq \underline{\omega}_\ell$, and some strictly higher price otherwise.*

Assumptions While most features of the strategy profiles that we consider are without loss of generality, three key ones are not; we therefore briefly discuss these features and their justification (see Appendix E.1 for details).

The first is that whether or not the SIG lobbies directly absent representation does not depend on exactly *how* it found itself without representation – that is, whether the lobbyist was unavailable, or charged the SIG too much. We assume this to eliminate equilibria in which the lobbyist's representation (or the lack thereof) is artificially sustained by manipulating the SIG's off-path direct lobbying strategy. The second is that the SIG's direct lobbying strategy is described by a threshold $\underline{\omega}_d$. The justification for this assumption is as follows: we have modeled the SIG as having "state-independent" preferences for simplicity, but were it to place *any* weight on the merits ω its strategy would take this form. The third is that the lobbyist's strategy is also described by a threshold $\underline{\omega}_\ell$. We assume this to eliminate empirically implausible equilibria in which a policy-motivated lobbyist who is known to oppose the SIG actively *harms* its chance of acquiring the favor, and incentivizes it to accept this harmful representation by offering a discount on the cost of lobbying.

Profit-Motivated Lobbyists

We first present equilibrium when the lobbyist is purely profit-motivated.

Proposition 1. *When the lobbyist is purely profit-motivated ($\delta_L = 0$),*

- *Both the lobbyist's representation threshold $\underline{\omega}_\ell$ and the SIG's direct lobbying threshold $\underline{\omega}_d$ are equal to $2P - \bar{\omega}$, which satisfies $E[\omega|\omega \geq 2P - \bar{\omega}] = P$*
- *After either form of lobbying, the politician uses posture $\alpha_P^\ell = \alpha_P^d = \left(\frac{k}{\pi}\right) \Big/ \left(1 - \frac{\phi_P^d}{\delta_P}\right)$ and investigation cutpoint $\phi_P^d = \phi_P^\ell = \frac{\bar{\omega} - P}{4}$*
- *Whenever the lobbyist represents the SIG, he charges the cost of lobbying k*
- *Absent lobbying, the politician neither investigates nor grants the favor*

In equilibrium, the lobbyist and the SIG use identical thresholds (that are strictly below the politician's ideal threshold P) to decide whether to contact the politician. The absence of lobbying is thus a perfect signal that the request is unworthy; after this the politician neither investigates nor grants. When lobbied, the politician's investigation cutpoint and posture are identical regardless of *how* she is lobbied, so there is no benefit to the lobbyist's representation. Thus, whenever the lobbyist represents the SIG he charges only the exogenous cost of lobbying k. Two key properties of the model drive this equilibrium.

The first is that a version of the game *without* the lobbyist is a straightforward costly signaling game. Thus, direct lobbying can communicate information about the favor's merits even without the lobbyist's help, as long as it is not *too* effective at securing the favor. Specifically, equilibrium requires that the SIG be indifferent between lobbying directly and staying home when its request is unworthy ($\omega < P$) so that it is willing to partially separate. This is accomplished by having the SIG lobby directly when $\omega \geq 2P - \bar{\omega}$ should it find itself without representation, which in turn makes the politician exactly indifferent over granting the favor when the SIG lobbies directly, and able to adjust her posture α_P^d as necessary.

The second is that the lobbyist cannot lobby more selectively on behalf of the SIG than the SIG lobbies on its own behalf. If he did, then the SIG would be strictly more likely to acquire an unworthy request via the lobbyist than via direct lobbying, so the lobbyist

would earn strictly positive profits representing it. But if this were so, then the lobbyist—being purely profit motivated—would be unable to resist the temptation to *always* represent the SIG when its request is unworthy, and lose all of his credibility and influence with the politician. Equilibrium thus requires that the lobbyist make no profit lobbying for an unworthy request, further implying that he cannot lobby more selectively than the SIG does on its own, is no more likely to secure the favor for the SIG than the SIG is on its own, and therefore cannot charge above cost for his services. A further implication is that once the lobbyist has policy motivations, an SIG decision to lobby "directly" can be equivalently interpreted as a decision to lobby through some other purely profit-motivated lobbyist.

Policy-Motivated Lobbyists

Having established that a lobbyist who cares only about profit cannot actually profitably represent the SIG, we next present equilibrium with a policy-motivated lobbyist ($\delta_L > 0$).

Proposition 2. *Suppose the lobbyist is policy-motivated ($\delta_L > 0$). If his threshold L is too far from the politician's ($L \notin \left[2P - \overline{\omega}, \bar{\omega} + \frac{\pi}{\delta_L}\right]$), then he never represents the SIG. Otherwise,*

- *The lobbyist represents the SIG if and only if the merits exceed* $\underline{\omega}_\ell = \max\left\{L - \frac{\pi}{\delta_L}, 2P - \bar{\omega}\right\}$
- *The SIG accepts any offer of representation up to*
$$F^\omega = \alpha_P^\ell \left(1 - \left(\frac{\mathbf{1}_{\omega \geq P} \cdot \phi_P^d + (1 - \mathbf{1}_{\omega \geq P}) \cdot \phi_P^\ell}{\bar{c}_P}\right)\right)\pi,$$
and absent representation lobbies directly if and only if the merits exceed
$$\underline{\omega}_d = P - \sqrt{(1-\lambda)(\bar{\omega} - P)^2 + \lambda (P - \underline{\omega}_\ell)^2}$$
- *The politician never investigates or grants absent lobbying. After lobbyist representation she uses posture* $\alpha_P^\ell = \min\left\{\frac{k}{\delta_L \max\left\{(2P-\bar{\omega}) - \left(L - \frac{\pi}{\delta_L}\right), 0\right\}} \Big/ \left(1 - \frac{\phi_P^\ell}{\bar{c}_P}\right), 1\right\}$ *and investigation cutpoint* $\frac{\phi_P^\ell}{\delta_P} = \frac{(\max\{P - \underline{\omega}_\ell, 0\})^2}{2(\overline{\omega} - \underline{\omega}_\ell)}$*, and after direct lobbying uses posture* $\alpha_P^d = \left(\frac{k}{\pi}\right) \Big/ \left(1 - \frac{\phi_P^d}{\bar{c}_P}\right)$ *and investigation cutpoint* $\frac{\phi_P^d}{\delta_P} = \frac{\lambda(\max\{\underline{\omega}_\ell - P\}, 0)^2 + (1-\lambda)(\bar{\omega} - P)^2}{2(\lambda(\underline{\omega}_\ell - \underline{\omega}_d) + (1-\lambda)(\bar{\omega} - \underline{\omega}_d))}$

Representation Decisions

Which lobbyists contact which politicians, and how often? To answer these questions we examine the "extensive margin" and the "intensive margin" of representation. "Extensive margin" refers to whether a lobbyist operates as an intermediary between the SIG and the politician by at least *sometimes* representing the SIG. When this is the case we say that the lobbyist is active. The extensive margin provides insight into which pairs of lobbyists and politicians are most likely to form relationships. "Intensive margin" refers to the likelihood that the lobbyist actually represents the SIG to the politician conditional on an active relationship. The intensive margin provides insight into how often the lobbyist will communicate with a particular politician when they have an active relationship.

The "Extensive Margin" Proposition 2 yields a simple prediction about the extensive margin – the lobbyist will be active if and only if his personal threshold L is sufficiently close to the politician's threshold P, i.e. $L \in \left[2P - \overline{\omega}, \bar{\omega} + \frac{\pi}{\delta_L}\right]$.[10] If he is too demanding of the SIG relative to the politician ($L > \bar{\omega} + \frac{\pi}{\delta_L} > P$) then he will be unwilling to help the SIG on policy grounds even if he can extract the favor's full value and the SIG's request is worthy. Alternatively, if he is too permissive of the SIG relative to the politician ($L < 2P - \bar{\omega}$) then his representation will be insufficiently credible to have influence.

With respect to testable empirical implications, the model thus predicts that lobbyists who only care about policy due to their personal connections with politicians will always be able to maintain active relationships, since they will make representation decisions to a politician as if their threshold L is equal to the politician's threshold P. For lobbyists whose policy motivations derive (at least in part) from a political ideology, the model predicts that they will be able to maintain an active relationship with a particular politician if and only if their political ideologies are sufficiently aligned, so that their resulting thresholds vis-a-vis an SIG's request are also sufficiently close.

[10]Note that the simplicity of this expression depends on the assumption that the lobbyist and SIG have identical lobbying costs. When the lobbyist has a sufficient cost advantage, his temptation to profit from it may cause the lobbying relationship to break down even if his personal threshold matches the politician's.

The "Intensive Margin" The intensive margin is determined by the representation threshold $\underline{\omega}_\ell$ that the lobbyist uses when he is active. Specifically, the higher is $\underline{\omega}_\ell$ the more selective is the lobbyist, so the lower is the probability that he will represent the SIG. The lobbyist's calculus when deciding whether to represent the SIG is potentially complex – it depends on the true merits ω, the influence of his representation with the politician, the politician's treatment of the SIG when it lobbies directly, and what the SIG would do absent representation. Despite this potential complexity, in equilibrium an active lobbyist's representation threshold is just equal to $\underline{\omega}_\ell = \max\left\{L - \frac{\pi}{\delta_L}, 2P - \bar{\omega}\right\}$.

The reason is as follows. In equilibrium, the lobbyist's impact on the probability that the SIG receives the favor has a proportional effect on both the *price* he can charge and the *net policy benefits* he experiences.[11] Thus, to the lobbyist it is *as if* his representation is pivotal for whether or not the SIG secures the favor. He thus calculates the monetary profit from representation as π (the full value of the favor to the SIG) and the net policy benefit as $\delta_L(\omega - L)$ (his utility change when the politician goes from denying to granting the favor). He will therefore offer an acceptable price to the SIG if and only if $\pi + \delta_L(\omega - L) \geq 0$, and is indifferent over doing so when $\omega = L - \frac{\pi}{\delta_L}$. Equilibrium with an active lobbyist further requires that the lobbyist satisfy a minimum threshold of selectivity ($\underline{\omega}_\ell \geq 2P - \omega$), since otherwise the politician will adopt an adversarial posture toward him, and he will never be able to secure an unworthy request. Thus, when the lobbyist is active ($L \geq 2P - \bar{\omega}$) but has a personal threshold $L < (2P - \bar{\omega}) + \frac{\pi}{\delta_L}$, the politician must have an only somewhat favorable posture toward him ($\alpha_P^\ell < 1$) to incentivize him to sometimes turn away the SIG – specifically, when the merits satisfy $\omega \in \left[L - \frac{\pi}{\delta_L}, 2P - \bar{\omega}\right]$.

Figures 2(a) and 2(b) depict the lobbyist's representation threshold $\underline{\omega}_\ell$. The left panel depicts a lobbyist whose threshold L matches the politician's P, with the x-axis varying the strength of his policy-motivations δ_L. The right panel depicts a policy-motivated lobbyist ($\delta_L > 0$) and varies his personal threshold L. Comparative statics are as follows.

[11] This simplification requires that the lobbyist and SIG have identical lobbying costs. Absent this, the basic equilibrium construction would remain the same, but equilibrium quantities would be more complex.

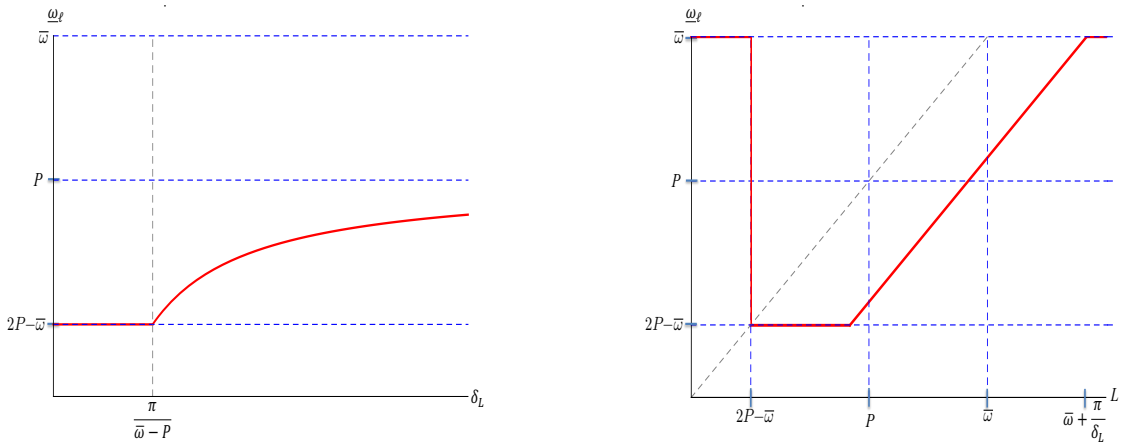


Figure 2: Lobbyist's Selectivity. The left and right panels depict the lobbyist's representation threshold $\underline{\omega}_\ell$ as a function of δ_L (with $L = P$) and L (with $\delta_L > 0$), respectively.

First, stronger policy motivations (higher δ_L) always induce the lobbyist to be more selective, regardless of his exact threshold L. Because the lobbyist profits from representation, the *marginal* request (one whose merits are exactly at $\underline{\omega}_\ell$) must be one that the lobbyist finds distasteful on policy grounds ($\underline{\omega}_\ell < L$), but that the SIG pays him just enough to compensate for. Thus, were the lobbyist's policy motivations to become stronger, he would reject this somewhat distasteful request. Second, the lobbyist becomes more selective as his policy motivations lead him to be intrinsically more demanding of the SIG (higher L).

With respect to testable empirical implications, the model thus predicts that lobbyists who only care about politicians' policy decisions due to their personal connections will utilize their stronger connections *less* ceteris paribus – a lobbyist more invested in a connected politician's welfare will be less willing to bring her an unworthy request. Lobbyists who are motivated by a political ideology relative to profit will also be more selective, and interestingly, this holds regardless of what their particular political ideology is. Finally, the effect of greater ideological alignment with the politician is ambiguous. Among lobbyists who are ideologically more permissive of the SIG than the politician greater ideological alignment with the politician will be associated with greater selectivity. However, among lobbyists who are ideologically more demanding of the SIG the reverse will be true.

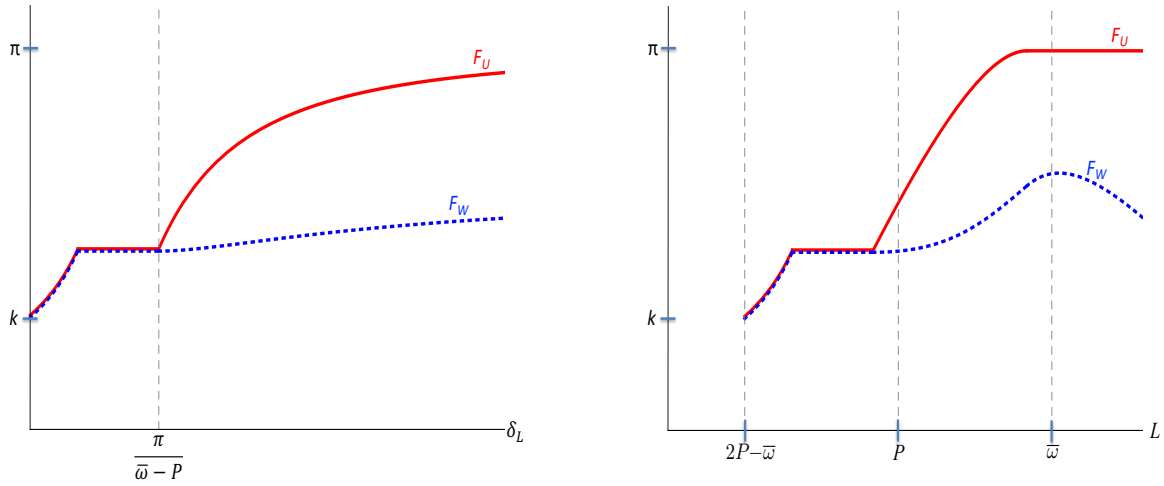


Figure 3: Prices. The left and right panels depict the lobbyist's prices for an unworthy request (in solid red) and a worthy request (in dotted blue) as a function of δ_L (with $L = P$) and L (with $\delta_L > 0$), respectively.

Prices

As previously shown, the lobbyist's personal characteristics (L, δ_L) determine both whether he is active, and his representation threshold $\underline{\omega}_\ell$ when he is active. In equilibrium, this representation threshold also affects the SIG's direct lobbying threshold $\underline{\omega}_d$, because it influences what the politician will infer about the request's merits when the SIG *lacks* representation.[12] These thresholds, in turn, jointly determine what the politician infers after the SIG pursues each channel of contact $c \in \{\ell, d, \emptyset\}$, her posture and investigation cutpoint for each channel (α_P^c, ϕ_P^c), and thus the prices $\left(F^W, F^U\right)$ that the lobbyist can charge. We conclude our analysis by examining the equilibrium relationship between the lobbyist's personal characteristics (L, δ_L) and these prices.

Figures 3(a) and 3(b) depict the price charged to represent the SIG when its request is unworthy (worthy) with a solid red (dashed blue) line. The left panel again considers a lobbyist with $L = P$ and varies δ_L, while the right panel varies the lobbyist's threshold L.

Price for an Unworthy Request The price that the SIG pays when its request is unworthy is $F^U = \alpha_P^\ell \left(1 - \frac{\phi_P^\ell}{\bar{c}_P}\right) \pi$. This is just the probability $\alpha_P^\ell \left(1 - \frac{\phi_P^\ell}{\bar{c}_P}\right)$ that the SIG can secure

[12]The more available the lobbyist is (higher λ) the stronger is this effect; for details see Appendix E.2.

an unworthy request via the lobbyist — since it will only do so when the politician fails to investigate and still grants the favor — times the favor's value. Although the SIG would lobby directly under these circumstances absent representation, its willingness to pay omits the value of direct lobbying because equilibrium requires that this value be 0 (otherwise an unrepresented SIG could not credibly communicate information via direct lobbying). It is thus *as if* the SIG has no alternative to the lobbyist when its request is unworthy. The SIG's willingness to pay is thus strictly increasing in both δ_L and L up to the point at which the lobbyist is *never* willing to accept an unworthy request ($\underline{\omega}_\ell = L - \frac{\pi}{\delta_L} > P$), where it becomes constant and equal to the favor's full value π. The reason is that increasing *either* δ_L or L makes the lobbyist wish to be more selective, which induces the politician to treat the lobbyist more favorably, and therefore increases the value his representation to the SIG.[13]

Price for a Worthy Request The price that the SIG pays when its request is worthy is $F^W = \alpha_P^\ell \left(1 - \frac{\phi_P^d}{\bar{c}_P}\right) \pi$. This is subtly different from the price that it pays when its request is unworthy, because it is decreasing in the probability $\frac{\phi_P^d}{\bar{c}_P}$ that the politician investigates after *direct* lobbying, rather than the probability $\frac{\phi_P^\ell}{\bar{c}_P}$ that she investigates after lobbyist contact.[14] The reason is that the SIG's willingness to pay the lobbyist depends on its prospects for acquiring the favor *without* the lobbyist's help, which in turn depends on the probability the politician will investigate after direct lobbying (and discover the request to be worthy). Comparative statics are subdivided into two cases.

[13]This can happen in two ways. First, if the lobbyist is active ($L > 2P - \bar{\omega}$) but $L - \frac{\pi}{\delta_L} < 2P - \bar{\omega}$, then he represents the SIG as often as possible consistent with maintaining a favorable posture ($\underline{\omega}_\ell = 2P - \bar{\omega}$). In this case, increasing $L - \frac{\pi}{\delta_L}$ does not change the lobbyist's representation threshold $\underline{\omega}_\ell$ or the politician's investigation cutpoint ϕ_P^ℓ, but it does allow the politician to hold a more-favorable posture α_P^ℓ towards the lobbyist without destroying his ability to be selective. Second, if the lobbyist is already turning away the SIG when $\omega = 2P - \bar{\omega}$ (i.e., $L - \frac{\pi}{\delta_L} = \underline{\omega}_\ell > 2P - \bar{\omega}$), then the politician holds a fully favorable posture toward the lobbyist $\left(\alpha_P^\ell = 1\right)$. Further increases in the lobbyist's representation threshold $\underline{\omega}_\ell = L - \frac{\pi}{\delta_L}$ then enhance how much representation signals that the request is worthy, reducing the politician's investigation cutpoint ϕ_P^ℓ, and increasing the probability that the lobbyist can successfully secure an unworthy request.

[14]Note that there is a region in which the price charged to the SIG is identical regardless of whether its request is worthy or unworthy, and therefore also obeys the previously described comparative statics. This occurs when the lobbyist is active ($L > 2P - \bar{\omega}$) but $L - \frac{\pi}{\delta_L} < 2P - \bar{\omega}$, so that the lobbyist is no more selective lobbying on behalf of the SIG than the SIG is when lobbying on its own behalf ($\underline{\omega}_\ell = \underline{\omega}_d$). In this region, the politician is equally likely to investigate the SIG when it hires the lobbyist vs. when it lobbies directly, which in turn implying that the lobbyist's "value added" is unaffected by the merits.

First, suppose that the lobbyist's threshold is more permissive of the SIG than the politician ($L \leq P$). Then comparative statics are identical to those of an unworthy request – the price is increasing in both δ_L or L. However, the reasons for these identical effects are different. When the lobbyist becomes more selective, the *absence* of professional representation becomes a stronger signal that the request is actually unworthy. As result, the politician becomes less willing to investigate the SIG after it lobbies *directly*, so the attention that the lobbyist's representation can garner becomes more valuable.

Next suppose that the lobbyist's threshold is more demanding of the SIG than the politician ($L > P$). In this case, increasing either δ_L or L first increases and then decreases the price that the lobbyist can charge. Initially, as the lobbyist becomes more selective the previously-described effects apply. However, he eventually becomes *too* selective (from the perspective of the politician), and starts to turn away even worthy requests. This then weakens the extent to which the absence of representation signals that the request is unworthy, which in turn makes the politician more willing to investigate after direct lobbying, and decreases the lobbyist's value to the SIG.

Empirical Implications With respect to testable empirical implications about prices, the model straightforwardly predicts that lobbyists who only care about policy due to personal connections ($L = P$) will be able to charge more for utilizing those connections the stronger they are. However, this will be true precisely because they are actually *utilizing* those connections less. Our model thus provides a simple but plausible theoretical rationale for the fee premium of connected lobbyists uncovered in the previous literature. For lobbyists whose policy motivations derive partially or wholly from a political ideology, predictions are again ambiguous – both because lobbyists may be intrinsically more or less demanding of the SIG than the politician, and because excess selectivity can decrease the price to represent worthy request. However, among lobbyists who are more permissive than the politician ($L < P$), the prediction is straightforward – greater ideological alignment with the politician will increase the price charged when lobbying for both an unworthy and worthy request.

Data

To empirically investigate the theory's predictions, we use the data from reports submitted under the Foreign Agents Registration Act (FARA). The FARA mandates that lobbyists who represent foreign interests be registered and submit semiannual disclosure reports. Most of the foreign clients in the FARA reports are foreign governments (i.e., foreign embassies and consulates in the US) because lobbying activities on behalf of foreign businesses are usually reported via the Lobbying Disclosure Act of 1995. Frequent lobbying issues included trade issues, especially regarding a variety of tariff and trade pacts; security or military-related issues, such as US military deployments; and foreign aid.

The data from FARA reports is ideal for studying lobbying contacts and access because it is the only existing data source regarding lobbying in the US that includes comprehensive information on which lobbyists contacted which politicians, on behalf of which clients.[15] The essential elements of our theory also seem applicable to foreign lobbying activities for two reasons. First, politicians' actions vis-a-vis foreign interests can have substantial consequences – they run the risk of seriously damaging their reputations and harming their electoral prospects.[16] Importantly, politicians' *uncertainty* about these consequences is also plausibly substantial; there are limited channels from which politicians may obtain information on foreign issues, and the US news media's coverage on international affairs has diminished over time.[17] Second, foreign nationals (including foreign governments) have been prohibited from making campaign contributions to politicians since 1966.[18] This eliminates the possibility that campaign contributions made directly by a client could be separately

[15]Canadian lobbying data also provides information on client-lobbyist-politician interactions. However, we do not employ it because there are no comprehensive ideology measures for lobbyists in the Canadian context, to our knowledge, while such a measure is important for our analysis.

[16]There is ample anecdotal evidence that politicians are attacked by their opponents regarding their potential ties with repressive foreign regimes. For example, Ed Gillespie in the 2014 Virginia Senate race, who founded a prominent lobbying firm, was questioned about the firm's record of representing certain foreign clients (Madsen 2014).

[17]`https://archives.cjr.org/reconstruction/the_reconstruction_of_american.php` (accessed Feb 10, 2021)

[18]`https://fas.org/sgp/crs/misc/LSB10358.pdf` (accessed Feb 10, 2021)

influencing politicians' behavior vis-a-vis that client.

One feature of foreign lobbying that appears to run counter to our model setup is that *direct* lobbying by foreign interests is highly constrained; for example, the 2008 House ethics manual by the Committee on Standards of Official Conduct imposes strict regulations on interactions between congressional personnel and foreign embassy staff.[19] Correspondingly, contacts to Congress by in-house lobbyists of foreign governments are rare.[20] Our model is nevertheless applicable to foreign lobbying because the option of "direct lobbying" in the model may be equivalently interpreted as the use of a purely profit-motivated lobbyist who screens no better than the SIG would on its own (and simply provides the legal apparatus). With this caveat, we focus on the contacts made by lobbyists at lobbying firms.

The Justice Department has made the FARA reports available as online image files. Our data is drawn from reports that list contacts with Congress during the 110th and 111th Congresses (2007–2010). Crucially for our analysis, FARA reports provide detailed contact information; each contact record specifies (i) the name of the contacted individual, (ii) the method by which the individual was contacted (phone call, email, in-person meeting, etc.), and (iii) the issues discussed with the contact (see Figure A2 in Appendix A for an example of a lobbying report). This contrasts with the requirements of the LDA, which requires only that lobbyists disclose the names of the government bodies that they contact.

Extracting large scale contact data from FARA reports across lobbying firms and over time is challenging because each firm uses its own style to describe specific contacts in the reports. At the time of our study, ProPublica and the Sunlight Foundation had transcribed reports from August 2007 through December 2010.[21] We complemented their dataset by adding all reports submitted between January 2007 through July 2007, as well as some missing reports. We manually extracted all contact records from the image files, and for each

[19]The manual can be found at `https://ethics.house.gov/sites/ethics.house.gov/files/documents/2008_House_Ethics_Manual.pdf` (accessed Feb 10, 2021).

[20]Only 5.7 percent of total lobbying contacts to Congress between 2007 and 2010 are conducted by in-house lobbyists of foreign governments.

[21]The lobbying reports can be found at `http://www.fara.gov`; the FARA data project by ProPublica and the Sunlight Foundation is currently discontinued.

contact, identified the contacted individuals and the lobbying issues based on the written description by the contact. Following these criteria, we find 440 reports of lobbying activities submitted by 108 lobbying firms on behalf of 88 foreign governments. In total we retrieved 13,146 contacts made to members of Congress and their staffers from the 440 reports.

While FARA reports provide the most systematic data on contacts to date, we note that there is a concern about non-compliance such as missing reports or false statements on reports (Benner 2019), and some loopholes in the FARA have drawn criticism.[22] However, non-compliance is punished more stringently by FARA than by LDA: while a violation of the LDA is considered a civil offense, violations of the FARA are criminal, and penalties for noncompliance are up to five years of imprisonment and a $5,000-$10,000 fine (Atieh 2010).[23]

Lobbyists in Our Data

Restricting our attention to contacts to members of Congress and their staff via phone call or in-person meeting, we identify 13,246 total contacts in our data. Among them, 7,046 had information on the lobbyist who made the contact, and 223 unique lobbyists appeared in the records of these contacts.[24] We used Lobbyists.info from Columbia Books and our own internet search to collect information on each lobbyist's political ideology and career history, focusing on their government experience as a member of Congress, congressional staffer, or bureaucrat in the executive branch.

Testing our theory requires constructing a measure of preference alignment between potential lobbyist-politician pairs found in our data; to do so we rely on measures of general left-right ideology. Milner and Tingley (2011) show that congressional roll-call votes on foreign economic policy issues such as foreign aid are strongly shaped by ideological factors. In addition, roll-call voting on trade policies is highly correlated with roll-call voting on other policies. Feigenbaum and Hall (2015) find that this correlation is 0.89. To capture a lob-

[22] A similar concern is raised for lobbying under the LDA (LaPira and Thomas 2017).

[23] Details for the recent cases of the FARA enforcement can be found here: `https://www.justice.gov/nsd-fara/recent-cases` (accessed January 3, 2022).

[24] Table A2 in Appendix A shows firms that provided lobbyist-level contact information are similar to those that did not in terms of size, revenue, and foreign lobbying experience.

byist's ideological preferences, we use three distinct measures of general ideology: (1) party affiliation; (2) CF scores based on campaign contributions made during the 2006 and 2008 election cycles from the DIME database (Bonica 2016); and (3) DW-NOMINATE score for politicians-turned-lobbyists and staffers-turned-lobbyists.[25] Note that by employing DIME scores to measure ideology, we do *not* intend to claim that lobbyists use campaign donations to credibly "signal" their ideological preferences to politicians. Rather, given that lobbyists' ideological commitments can be credibly inferred from a variety of sources – including their employment histories and political activities predating entry into the lobbying market – our premise is simply that campaign donations *correlate* with these ideological preferences. Indeed, we find that although our three measures are based on different observed activities of a lobbyist—party registration, campaign contributions, and congressional career— they are highly correlated.[26] This is consistent with the literature showing that lobbyists follow partisan lines when donating and contribute to politicians they consider "friends" (Drutman 2010, Koger and Victor 2009, Leech 2013), and also that congressional staffers tend to work for members of their party who share similar policy views (Kingdon 1989).

Table 1 shows that among the 180 lobbyists whose party affiliation was identified, 50.6% are Democrats. Most lobbyists (68%) have government experience. On average, each lobbyist made 31.59 contacts to 12.99 members' offices, among which 9.41 contacts were made directly to 5.81 members. The average number of clients on behalf of whom a lobbyist makes a congressional contact is 1.18 per year; this reduces to 0.53 if we focus on direct contacts to members. The lobbyists in our data are associated with 214 FARA reports, each of which reports a single firm's entire lobbying activities over six months on behalf of a single client. The average lobbying fee per six months is $217,600, and a single report lists on average 33 contacts to Congress, 1.6 contacts to media, and 5.3 contacts to the executive branch.

[25]For staffers-turned-lobbyists we use the average DW-NOMINATE score of the lobbyists' ex-employers in Congress; for politicians-turned-lobbyists we use the DW-NOMINATE score in their last term in Congress.

[26]Figure A1(a) presents histograms of the CF scores for lobbyists identified as Democrats and Republicans, respectively; figure A1(b) provides similar histograms for DW-NOMINATE scores. The figures demonstrate that all three measures of the lobbyists' ideology are consistent.

Table 1: Lobbyists and Lobbying Fee: Summary Statistics

	Obs.	Mean	SD.	Min.	Max.
Ideology					
Democrat	180	0.506	0.501	0	1
CF score (DIME)	148	-0.057	0.755	-1.079	1.106
DW-NOMINATE score	117	0.026	0.407	-0.594	0.842
Career history					
Member of Congress	223	0.112	0.316	0	1
Congressional staffer	223	0.435	0.497	0	1
White House	223	0.238	0.427	0	1
Lobbying Contacts to Congress					
Number of contacts	223	31.59	93.23	1	899
Number of direct contacts to members	223	9.41	35.33	0	328
Number of members with a contact	223	12.99	25.07	1	202
Number of members with a direct contact	223	5.81	19.46	0	167
Number of clients with a contact (per year)	223	1.18	0.45	1	4
Number of clients with a direct contact (per year)	223	0.53	0.54	0	2
Semi-annual lobbying activities per client					
Fee (in thousand USD)	214	217.6	255.1	5.6	1,965
Number of contacts to Congress	214	33.01	53.79	1	361
Number of contacts to media	214	1.60	4.97	0	45
Number of contacts to executive branch	214	5.29	11.45	0	99
Year of Firm's FARA registration	214	2002.5	7.4	1979	2010
Also registered with LDA	214	0.86	0.34	0	1
Number of FARA registered lobbyists	203	11.13	10.18	1	35

Empirical Predictions and Findings

Extracting testable predictions from the model presents a variety of additional challenges that we briefly address here; for a detailed discussion and formal results see Appendix B.

First, our theory models the relationship between a particular lobbyist and politician vis-a-vis a *single* client. In order to extrapolate to a market with a large set of potential clients, we assume that each lobbyist-politician pair randomly draws a large number of potential clients, and that the actions of a lobbyist-politician pair do not affect other pairs.

Second, we cannot directly measure the thresholds that each lobbyist and politician use for *each particular* potential client in the data. However, since our theory generates predictions with respect to the *difference* $|P - L|$ in these thresholds, we assume that these differences can be noisily measured "on average" using differences in party affiliation, CF scores, and DW-NOMINATE scores. The latter two scores are highly correlated (Bonica

2013); DW-NOMINATE scores are derived from politicians' roll call votes, with foreign policy votes accounting for 20%, on average. Ideology measures based only on foreign policy votes show little difference from DW-NOMINATE score; the correlation between the DW-NOMINATE score of the 103rd House of Representatives and the corresponding measure based on only foreign policy votes is 0.94 (Jeong 2018).

Finally, a lobbyist's threshold vis-a-vis a particular SIG may diverge from a politician's threshold both because she is more permissive toward the SIG ($L \leq P$) or more demanding ($L > P$). Note that these distinct possibilities cannot be separately identified with our data because the inequalities are relative to a particular favor's merit, ω, which we do not observe. Under the former configuration, our model predicts that the more aligned is a lobbyist with a politician, the more selective the lobbyist becomes, hence bringing a smaller number of clients to the politician. However, the latter configuration does not generate such a novel prediction. With that, we assume that only the former configuration prevails in our data, as a way to see if this novel prediction is consistent with the data.

Using these assumptions we are able to derive two empirical predictions:

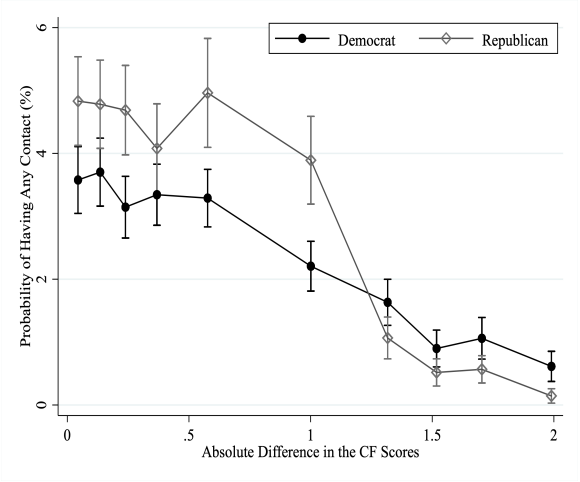
(E1) The probability that a lobbyist-politician pair is active (i.e., has at least one contact during the period of study) is decreasing in their ideological difference.

(E2) Conditional on an active relationship, the expected number of clients that a lobbyist brings to a politician is weakly increasing in their ideological difference.

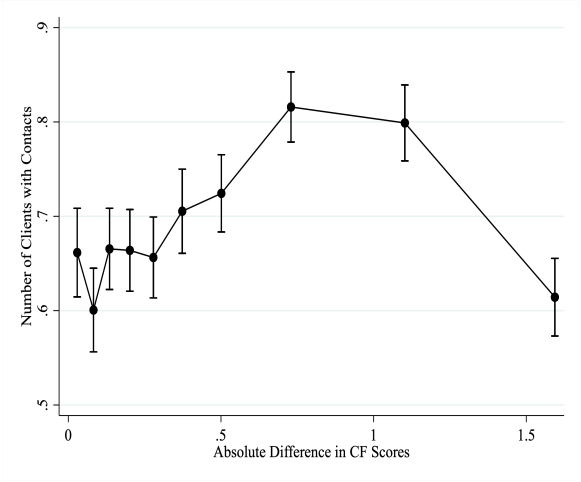
Extensive Margins: Ideology and Access

Figure 4(a) shows the proportion of lobbyist-member pairs with at least one contact for each decile of CF score difference, separated by party of the contacted member. Using this as a measure of the probability that a lobbyist-member pair have any contact, we find that the probability of contact decreases as the difference in the CF scores increases, consistent with our prediction (E1). This relationship holds regardless of a contacted member's party.

Figure 4: Lobbying Contacts and Ideological Differences



(a) Probability of Any Contact



(b) Number of Clients with Contacts

Column (1) of Table 2 shows that this negative correlation persists controlling for politician fixed effects, lobbyists' government experience, and attributes of the lobbyist's firm; a one-standard deviation increase in CF score difference (0.75) decreases the probability of having any contact by $0.022 \times 0.75 = 0.0165$. This effect is substantively large at more than half the contact rate among all possible pairs in the data (2,785/124,274 = 2.33%). Columns (3) and (5) show that results are robust to using party affiliation and DW-NOMINATE scores as alternative measures of ideological distance, and columns (2), (4), and (6) show that results are consistent when we measure access using direct contact to a member rather than to the member's office.

Intensive Margins: Ideology and Screening of Clients

To study the intensive margins, we focus on lobbyist-politician pairs with at least one contact during the study period. Figure 4(b) shows the average yearly number of clients on behalf of whom a lobbyist contacted a politician at each decile of CF score differences. The figure shows that *conditional* on an active relationship, a lobbyist brings *more* clients to a politician the greater is the ideological distance between them—that is, he becomes less selective. This is consistent with our prediction (E2).

However, this relationship only holds until the difference in ideologies becomes very large

Table 2: To Which Lobbyists do Politicians Give Access?

Dependent variable	Any (1)	Direct (2)	Any (3)	Direct (4)	Any (5)	Direct (6)
Ideological differences:						
CF score	-0.0218***	-0.0102***				
	(0.0010)	(0.0006)				
Party			-0.0229***	-0.0098***		
			(0.0012)	(0.0007)		
DW-NOMINATE					-0.0336***	-0.0157***
					(0.0020)	(0.0011)
Politician FE	✓	✓	✓	✓	✓	✓
Lobbyist's experience	✓	✓	✓	✓	✓	✓
Firm attributes	✓	✓	✓	✓	✓	✓
Mean dependent var.	0.0255	0.0123	0.0217	0.0086	0.0199	0.0089
Number of observations	78,762	78,762	96,020	96,020	63,508	63,508
Adjusted R^2	0.031	0.022	0.023	0.016	0.029	0.024

Notes: The unit of observation is politician × lobbyist; standard errors clustered at the politician level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Lobbying firm attributes: number of lobbyist, (number of lobbyist)^2, the year of the FARA registration; lobbyists' experience variables: the indicators for having served as a member of Congress, a Congressional staffer, or a staffer in the executive branch. The dependent variables are indicators for any (direct) lobbying contacts: Any (Direct).

Table 3: Which Lobbyists do Politicians Meet More Frequently?

Dependent variable	Log(N. Clients+1)		Frac. Clients		Log(N. Contacts+1)	
	(1)	(2)	(3)	(4)	(5)	(6)
Log(CF score difference)	0.017***	0.009**	0.022***	0.014**	0.031***	0.017
	(0.004)	(0.004)	(0.006)	(0.006)	(0.011)	(0.011)
Member of Congress		-0.105***		-0.082***		-0.165***
		(0.011)		(0.016)		(0.025)
Congressional staff		-0.042***		-0.053***		-0.155***
		(0.013)		(0.018)		(0.028)
Executive staff		-0.136***		-0.157***		-0.249***
		(0.012)		(0.018)		(0.030)
Politician FE	✓	✓	✓	✓	✓	✓
Firm attributes	✓	✓	✓	✓	✓	✓
Mean dependent var.	0.507	0.507	0.364	0.364	0.747	0.747
Number of observations	2,032	2,032	2,032	2,032	2,032	2,032
Adjusted R^2	0.110	0.253	0.222	0.286	0.143	0.215

Notes: The unit of observation is politician × lobbyist; standard errors clustered at the politician level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variables are: the logarithm of the average annual number of the clients on behalf of which the lobbyist contacted the politician, plus one; the average annual fraction of the clients with a contact among all active clients of the lobbyist's firm; the logarithm of the average annual number of lobbying contacts, plus one. The same firm attributes as Table 2 are used.

(greater than the 90th percentile in differences), at which point it abruptly reverses. To interpret this pattern, two features of the data are worth noting. First, only 12.7% of contacts occur between lobbyists and politicians whose ideological difference is greater than 1. Second, although less than 5% of contacts below the 80th percentile of CF score differences are cross-party, this proportion abruptly rises to 90% between the 80th and 90th percentile, and to 97% above the 90th percentile. Thus, it may be that the considerations facilitating rare and distant cross-party contacts are quite different than those captured by our theory.[27]

Columns (1) and (2) of Table 3 show regression results that confirm a positive correlation between a lobbyist-politician pair's ideological distance and the number of clients that the lobbyist brings to the politician (controlling for politician fixed effects and attributes of the lobbyist's firm). The results are robust to controlling for the size of the client base of the lobbyist's firm over the study period (Columns (3) and (4)). In Columns (5) and (6) we use the number of contacts as the dependent variable rather than the number of clients, and still find a positive correlation with ideological distance.

Interestingly, we also find that prior government experience makes lobbyists substantially more selective (see Columns (2), (4), and (6)). Government experience may contribute to or correlate with attributes that generate selectivity in our theory (personal connections), or correlate with attributes that generate selectivity through mechanisms outside our theory (such as reputation). In either case, this finding runs counter to the popular notion that lobbyists simply exploit existing connections to gain access and maximize revenues.

Lobbying Fees

To conclude our empirical analysis, Table 4 shows results from regressing the logarithm of semi-annual fees in each FARA report on characteristics of the lobbyists and members associated with each contact in the report (controlling for lobbying firm attributes). We categorize a lobbying contact as *ideologically aligned* if the difference between the lobbyist

[27]In addition, the validity of the assumption that $L \leq P$ in the data may break down among these very distant contacts, rendering them incomparable to closer contacts.

and the contacted member's CF scores is less than the median among all lobbyist-politician pairs with an active relationships (0.37).

Table 4: What Determines Lobbying Fees?

Dependent variable	Log of lobbying fee in USD			
	(1)	(2)	(3)	(4)
Number of contacts to Members of Congress				
Any	0.0035***	0.0042**	0.0036***	0.0045**
	(0.0009)	(0.0017)	(0.0009)	(0.0020)
Ideologically aligned	0.0054**	0.0037	0.0045*	0.0016
	(0.0022)	(0.0039)	(0.0024)	(0.0046)
On behalf of autocracy			0.0020	0.0014
			(0.0031)	(0.0037)
Ideologically aligned × Autocracy			0.0219***	0.0253***
			(0.0077)	(0.0087)
Any media contacts	0.0243**	0.0101	0.0233**	0.0111
	(0.0101)	(0.0091)	(0.0099)	(0.0104)
Any executive contacts	0.0058	0.0115	0.0055	0.0112
	(0.0083)	(0.0105)	(0.0078)	(0.0104)
Autocracy as a client			0.1008	-0.0599
			(0.2410)	(0.2745)
Registered in LDA		-0.2957		-0.2692
		(0.3301)		(0.4027)
Year of FARA registration		-0.0209		-0.0223
		(0.0142)		(0.0138)
Number of lobbyists		0.0870***		0.0852***
		(0.0274)		(0.0275)
Number of lobbyists squared		-0.0025***		-0.0025***
		(0.0008)		(0.0008)
Number of observations	214	203	214	203
Adjusted R^2	0.113	0.179	0.140	0.197

Notes: The unit of observation is a six-month contract between a lobbying firm and its foreign client; standard errors clustered at the lobbying firm level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Columns (1) and (2) show that one additional contact to Congress in a report is associated with a 0.4% increase in lobbying fees, but that there is an additional 0.5% premium associated with an ideologically aligned contact. This result is consistent with our theory, which posits that the greater selectivity of ideologically-aligned lobbyists magnifies their credibility, thereby increasing the value of their services.

Bertrand, Bombardini and Trebbi (2014) speculate that "connected lobbyists are likely

to bring to the table a complementary resource, perhaps reputation, credibility, or political savvy, in the transmission of information." By exploiting detailed contact data, our findings provide a micro-foundation for why connections matter in lobbying: the ability to selectively use their connections may increase trust from their connected politicians, and the premium associated with contacts to connected politicians in lobbying fees may reflect their ability to be selective.

In Columns (3) and (4) of Table 4 we extend our analysis to include characteristics of the lobbying *client* – specifically, whether the client's country is an autocracy as measured by a weakly negative 2005 Polity IV score (Marshall, Jaggers and Gurr 2010). Interestingly, we find that the fee premium for ideologically-aligned contacts is more pronounced for autocratic clients. One possible explanation consistent with our theory is that greater *ex-ante* skepticism of the client by the contacted politician enhances the value of screening by an ideologically-aligned lobbyist. We also observe a fee premium on contacts targeting US media outlets, which could be related to the fact that US media coverage of international news influences the public's knowledge, opinions, and actions on foreign issues (Baum and Potter 2008).

Alternative Explanations

The empirical findings presented here are consistent with our theory that lobbyists provide a screening service whose credibility to a politician, and thus value to a client, depends jointly on the characteristics of the client, lobbyist, and politician. We focus in particular on ideological alignment between lobbyists and politicians. We now briefly examine alternative explanations for our empirical findings.

First, ideological alignment may proxy for other determinants of lobbying not considered in the model. For example, a lobbyist who is more aligned with a politician according to our measures may also be more likely to specialize in the politician's favored policy issues. If specialists also tend to have a narrower set of clients than generalists, then we would also expect to find that ideologically-aligned lobbyists are more selective. However, we do not find evidence that lobbyists narrow their lobbying issues when contacting ideologically-aligned

politicians (Table A3 in Appendix A).

Second, ideological alignment as measured by similarity in CF scores may mechanically result from lobbyists' strategic efforts to buy access to politicians via campaign contributions. If this alternative hypothesis were true, it would be natural to expect our "extensive margin" finding that lobbyists and politicians with more similar CF scores are more likely to have a relationship. However, it is not obvious how to rationalize our "intensive margin" finding that lobbyists and politicians with more similar CF scores have less contact *conditional on* an active relationship.

Third, our findings about the fee premium associated with ideological alignment may actually be driven by the effect of personal connections as shown in the literature (Blanes i Vidal, Draca and Fons-Rosen 2012, Bertrand, Bombardini and Trebbi 2014), with our measures of ideological alignment somehow acting as a noisy proxy for those connections. For example, lobbyists who are ex-staffers of their connected politicians may give more to ex-bosses, mechanically reducing their CF score difference. However, our results do not appear to be driven by the relationship between ex-staffers and former bosses studied in Blanes i Vidal, Draca and Fons-Rosen (2012). While a substantial proportion of the lobbyists in our data do have ex-bosses in Congress during the study period ($64/223 = 29\%$), surprisingly, there is rarely contact between them; out of the 2,896 lobbyist-politician pairs with any contact only 14 pairs have such a relationship. Our results about ideological alignment therefore cannot be driven by these relationships, and indeed are robust to controlling for them. In addition, our findings go beyond the previous literature by showing both that connections are associated with greater selectivity, and that the fee premium for well-connected lobbyists derives (at least in part) from a premium they specifically command when contacting their connections. These findings lend further credence to the broader idea that an important part of the value that lobbyists bring to clients derives from their credibility with politicians.

Fourth, what "looks like" an intrinsic ideology in the data (in terms of both its *correlates* like party affiliation, campaign donation patterns, and employment histories, and also

its *consequences* on the extensive and intensive margin of representation) may actually be endogenous "professional reputation for ideology" that results from a more-complex, possibly dynamic, interaction between lobbyists and politicians. While we cannot rule out this possibility, we note that any such theory would have to take into consideration that many lobbyists begin developing their "reputation for ideology" long before they actually enter the lobbying market; indeed, the infamous Jack Abramoff developed his reputation as a committed Conservative through his extensive involvement with the College Republicans (Abramoff (2011)). We therefore see this possibility as complementing, rather than negating, the value of our exploration of "certification for hire" in a static context.

Conclusion

In this paper we present a theory and empirical evidence of lobbyists as gatekeepers, in which a lobbyist is paid to screen out interest groups whose requests are not in a politician's interest to fulfill. Our analysis highlights a dilemma faced by lobbyists who aim to credibly "certify" special interest groups seeking policy favors. As a solution to the dilemma, we suggest lobbyists' policy preferences, potentially derived from connections to politicians or their own ideologies, as a means of generating credible commitment. Using a unique dataset on contacts between politicians and lobbyists from lobbying reports mandated by the Foreign Agents Registration Act, we provide empirical evidence for the model's theoretical predictions. By incorporating personal characteristics of lobbyists into the analysis of pricing and profits as well as their decisions to represent clients before politicians, our paper contributes to making a tighter connection between theoretical and empirical work on lobbying.

With a decline in the number of staff and civil servants supporting legislative research (Baumgartner and Jones 2015) and an increase in legislators' workloads and fundraising pressures (Curry 2015, Lee 2016), the opportunities for outside interests to influence legislation have increased. Our model can speak to when, and to whose benefit, these opportunities will be exploited. It can also be used to assess how both the influence of policy-motivated lobbyists and the lobbying fees they charge may vary across politicians with different legislative

resources and agenda-setting power.

While we have focused on bilateral lobbying relationships, another important area of inquiry is the organization of lobbying firms and the lobbying industry. Large firms often consist of multiple lobbyists with access to different politicians, sometimes across the aisle. These firms may create "markets" inside the firm, in which a politician is "matched" to a lobbyist with the appropriate ideological and personal characteristics to serve as a credible intermediary. Furthermore, lobbyists and lobbying firms may compete to attract more clients and to get more access to politicians. We believe these are fruitful areas for further research.

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