

The Lobbyist's Dilemma: Gatekeeping and the Profit Motive

Alexander V. Hirsch
Department of Humanities and Social Sciences
California Institute of Technology
avhirsch@hss.caltech.edu

B. Pablo Montagnes
Department of Political Science
Emory University
pmontagnes@uchicago.edu

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Abstract

We consider a model of lobbying in which an interest group can directly solicit a policy favor from a politician, or transmit her request through an external lobbyist on a fee-for-service basis. The lobbyist's value derives from her ability to investigate and screen clients according to the political merits of their request. However, her ability to extract that value in the form of profits is also dependent on the equilibrium credibility of her messages to the politician. Inspired by recent empirical results, we use the model to examine the effect of connections between the lobbyist and the politician, their ideological alignment, and the informational environment on the profitability of lobbyists, the price of lobbying services, and the welfare politicians.

1 Introduction

“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 (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), and more recently President Obama decried the “lobbyists... and special interests who’ve turned our government into a game that only they can afford to play.”¹ As paid advocates, lobbyists are popularly viewed as selling access in Washington, and therefore “run the risk of selling out our democracy to the highest bidder.”² This view of lobbying, however, fails to answer a fundamental question: why are politicians willing to provide the access to lobbyists that they are then able to so profitably sell?

One possibility is that the “access” lobbyists sell is simply the exchange they facilitate as middlemen in the marketplace for political favors; for example, they facilitate the trade of policy concessions for a special interest group (SIG) in exchange for a hefty campaign donation from that group. This view, however, fails to explain the presence of a robust market for the middlemen – why do politicians and interest groups not simply cut out the lobbyists and deal directly?³ Indeed, formal models capturing this *quid pro quo* behavior, e.g. (Grossman and Helpman 1996), do not model the lobbyists at all. More importantly, this view fails to account for the fact that vastly greater sums of money – approximately ten-to-one – are spent on paying the middlemen, and funding their activities, than on the “purchases” of

¹“Outlook: Stuck in the Revolving Door,” Robert G. Kaiser, *Washington Post* February 2, 2009.

²Remarks by the President on the Economy in Osawatomie, Kansas, December 06 2011. <http://www.whitehouse.gov/the-press-office/2011/12/06/remarks-president-economy-osawatomie-kansas>

³Kang and You (2015) do consider a richer model of lobbyists as matchmakers. See the literature review for a more detailed discussion.

policy favors (via campaign donations) that they supposedly facilitate (de Figueiredo and Richter 2014).

A second class of theories model lobbying as the transmission of policy relevant information from better-informed interest groups to less informed politicians. Such models, however, typically ignore the *lobbyist* entirely – modeling only the interaction between an SIG and a politician – or treat her as a disinterested and anonymous repository for “burnt money” that increases the credibility of an interest group’s “signal.”⁴ However, lobbyists are anything but anonymous; recent empirical work shows substantial variation in the wages of lobbyists that is partially explained by their personal and professional connections (Bertrand, Bombardini, and Trebbi 2011; Vidal, Draca, and Fons-Rosen 2012). In addition, they are anything but disinterested; the campaign giving patterns of lobbyists are highly ideological.⁵ Moreover, the ranks of professional lobbyists swell with co-partisans of the majority party (Eggers 2010), suggesting that these ideologies influence the ability to effectively lobby.

A third account proposed by Hall and Deardorf (2006) theorizes that lobbying is primarily a “legislative subsidy.” That is, lobbyists exert effort to craft legislation that promotes their client’s interests, and these efforts reduce a legislator’s marginal cost of promoting the client’s desired policies. However, two questionable notions underlie this account. The first is that lobbyists bring substantial issue-specific expertise to the table that facilitates their ability to “subsidize” legislators, a notion that Bertrand, Bombardini, and Trebbi (2011) (among others) have recently questioned. The second is that legislators can *trust* the contents of a “legislative subsidy” and use it to reduce their costs; but what stops a trusted lobbyist from inserting an obscure provision into her draft legislation that will help a client at the politician’s expense?

A final and more nebulous account inspired by recent empirical work is that lobbyists effectively sell preexisting *personal* connections to politicians that they have formed through their prior life experiences; for example, having worked as a staffer to a legislator, or been a

⁴See Grossman and Helpman (2001) for an extensive review of the literature.

⁵Analysis available upon request; for inclusion in future draft

roommate at a prestigious prep school. However, this view begs the question by assuming that connections are inherently valuable, and leaves us with the initial puzzle: why does a personal connection to a lobbyist induce a strategic politician to give an “ear” that can subsequently be sold, and what explains variation in the value of such connections?

A Theory of Lobbying as Certification In this paper, we develop a model to understand how lobbyists gain the ability to sell “access,” and what influences their ability to profitably do so. Our starting point is that what politicians predominantly lack is not expertise, but *time* – the time to investigate, and confidently determine, whether fulfilling an SIG’s policy request is in their political or ideological interests (Levine 2008). Because politicians are busy and understaffed, lobbyists can potentially “subsidize” them by selling their *own* time and expertise to make this determination. In other words, a lobbyist can *vet* an SIG’s policy request on the politician’s behalf, and then sell her *certification* of its merits to the SIG. However, even disgraced-former-lobbyist Jack Abramoff understood that such a lobbyist is of little use to a politician, or her clients, unless her claims can be *believed*. Thus, she cannot be precisely the sort of “hired gun” that popular accounts of lobbying describe. Instead, her ability to gain and sell access must be predicated on her ability to – at least sometimes – resist the ever-present temptation to represent a client whose request it would not be in the politician’s interest to fulfill. This results in what we call “the lobbyist’s dilemma”: the more the lobbyist is trusted by a politician, the more she can charge for her representation, and the greater is the temptation to undermine that trust.

The model has a simple structure. An SIG seeks a policy favor from a politician; we assume for simplicity that the favor’s value to the SIG is publicly known. A continuous unknown state of the world ω determines the favor’s “political merits” to the politician – that is, the extent to which it is in their political or ideological interests to grant it. The politician has a known threshold P for granting the favor, and when the merits exceed this threshold we say that the request is *worthy*. However, these political merits are initially unknown to the SIG, who does not have the expertise to determine them. This assumption

captures the notion that part of what lobbyists sell is their expertise about the interests of politicians. The game then proceeds in three stages.

In the first stage, the SIG can choose to do nothing, lobby the politician directly, or pay an endogenously determined fee for the lobbyist to conduct an investigation into its case. If it does nothing or lobbies directly, then the game immediately proceeds to the third and final stage; otherwise, the game proceeds to a second stage. In the second stage, the results of the lobbyist's investigation are revealed to both the lobbyist and the SIG. The SIG then decides whether or not to pay a second endogenously-determined fee for the lobbyist to send a message to the politician "certifying" the merits, whether to instead lobby directly knowing the merits, or to do nothing. In all cases the game then proceeds to the third stage. In the third and final stage, the politician decides whether to conduct his own costly investigation into the merits, and whether to grant the favor or not. He observes whether the SIG contacted him directly, was represented by the lobbyist, or did nothing; but not whether the lobbyist conducted an investigation on the SIG's behalf.

We consider equilibria in which the lobbyist can charge a positive price for representation because she acts as a "screen" who recommends her client to the politician *only if* its case is sufficiently worthy; that is, above a particular threshold. A key contribution of our analysis is to highlight the fundamental connection between the lobbyist's threshold for representation, the trust that the politician places in her, and the prices that she can charge for representation. In the model, a lobbyist who uses a higher threshold is more trusted by the politician; a lobbyist who is known to *only* represent worthy clients will be completely trusted. This trust manifests in the politician investigating the lobbyist's client less frequently, and sometimes (or always) granting it the favor even absent an investigation. Thus, the greater is this trust, the more valuable is the lobbyist's representation to the SIG, and the higher is the price that she can charge for it. But this dynamic creates the lobbyist's dilemma: the greater is the politician's trust, the greater are the profits to be had in violating that trust.

Results We first consider a lobbyist who can commit *ex-ante* to the price that she will charge the SIG for representation, before the merits of its case are revealed. Such a lobbyist will use her commitment power to solve the lobbyist’s dilemma, by structuring her prices to respect the trade-off between the likelihood that she represents the SIG, and the price that she can charge. We show that profit-maximization involves neither always selling to an unworthy SIG at a low price, nor only selling to a worthy SIG at the highest possible price. Rather, it involves selling representation as long as the SIG is not *too* unworthy, but otherwise restraining herself to preserve the politician’s trust.

We next consider the more realistic case of a lobbyist who lacks such restraint because she offers her representation contract *after* the SIG’s political merits have been revealed. Because such a lobbyist cannot restrain herself from offering representation whenever it is interim-profitable to do so, equilibrium requires that there be *no* profits from representing an unworthy SIG. Otherwise she would always do so, the politician would ignore her recommendations, and she would be unable to charge for her services. This can only be accomplished by having the lobbyist represent an unworthy SIG so often, and having the politician trust her recommendation so little, that the price she can charge an unworthy SIG only covers her direct cost of access. A purely profit-motivated lobbyist thus cannot solve the lobbyist’s dilemma. As a consequence, she earns only minimal profits as an advocate-for-hire.

A class of solutions that we then explore is the introduction of policy preferences on the part of the lobbyist. A lobbyist with policy preferences weighs the impact of his recommendation on the politician’s policy decision against the potential profits that can be made through representation. Returning to our empirical motivation, we explore two possible types of policy preferences on the part of the lobbyist. First, in order to explore the role of preexisting relationships or prior employment in the marketplace, we consider “connection” preferences. A lobbyist with connection preferences partially weighs the politician’s policy preference when making a recommendation. This captures the idea that social bonds are valuable, and that a lobbyist might feel a responsibility when making recommendations to

a social connection. Second, to explore the role of lobbyists' evident political affiliations and ideologies, we consider "ideological" preferences. A lobbyist with ideological preferences partially weighs her own particular preferences over the politician's policy decision when making a recommendation.

A lobbyist who is connected to the politician weighs the decision to represent differently than a profit-motivated one. Specifically, because her representation improves the chance that the politician grants the favor, a worthy client becomes relatively more appealing, while an unworthy one becomes less appealing. Crucially, this reduces her temptation to represent an unworthy SIG, and in equilibrium allows the politician to treat her client more favorably. As a consequence, a connected lobbyist represents an unworthy SIG less often, charges higher prices, and actually makes greater expected *monetary* profits than a profit-motivated lobbyist. The extant empirical literature attributes the profitability of connected lobbyists to their ability to "sell" personal relationships to the highest bidder. In contrast, in our model a "connection" is precisely what *protects* the lobbyist from the temptation to sell her services to the highest bidder, which preserves her credibility and ability to make money.

While stronger connection preferences result in greater trust and higher prices, they do not always monotonically increase the lobbyist's profits. Consistent with the previous discussion, the most profitable connected lobbyist is only *moderately* invested in the politician's welfare – enough to avoid selling away her credibility entirely, but not so much to forego profitable opportunities that have minimal costs to her credibility. There is thus a potential conflict between the sort of lobbyist who the politician would prefer – one that always investigates the SIG's case, but only represents it if it is worthy – and the sort of lobbyist who makes the most money. We return to this conflict in the discussion section when we consider what type of lobbyist is likeliest to be present in the marketplace.

An ideology also leads the lobbyist to weigh the decision to represent differently, but in a way that is more complex. She may be more ideologically aligned with the SIG than the politician, and thus intrinsically prefer to represent it even when the politician would deem

its case unworthy – we call such a lobbyist *permissive*. Alternatively, she may be ideologically opposed to the SIG and intrinsically prefer to reject it even when the politician would deem its case worthy – we call such a lobbyist *demanding*.

The recommendations of a lobbyist who is too ideologically permissive will have even less credibility in equilibrium than one who is purely profit motivated – understanding her desire to help an unworthy client, the politician must trust her very little in equilibrium to eliminate her incentive to do so. The model thus implies that *all* actors are ill-served by lobbyists who are “advocates”; the SIG receives the favor with lower probability, the politician receives poorer information, and the lobbyist both loses money, and has little political influence. In contrast, a lobbyist who is more ideologically demanding can reap greater profits than a profit-motivated one for the same reason as a connected lobbyist; her ideology protects her from the temptation to represent unworthy clients. However, there is again a potential conflict between the monetary interests of the lobbyist, and the policy interests of the politician. While the politician may be best served by a lobbyist who couldn’t represent an unworthy client “for all the money in the world,” profit-making naturally requires that *enough* money make her willing to do so.

The paper proceeds as follows. We discuss the related literature in following subsection. In Section 2 we describe the model. In Section 3 we present the model, examine the calculus of the politician and the SIG, and analyze equilibrium without the lobbyist. Section 4 introduces the lobbyist, and carefully describes the form of the equilibria we consider. Section 5 establishes a baseline for the maximum potential profits achievable by the lobbyist, by analyzing the case in which she can commit ex-ante to a pricing schedule. Section 6 contains the main results of the paper. We first examine equilibrium with a profit-motivated lobbyist who lacks commitment power, and uncover the lobbyist’s dilemma. We next explore connections and ideologies as potential solutions to this dilemma. Section 7 discusses our results as well as empirical implications, and Section 8 concludes with an eye to other applications and future work.

1.1 Related Literature

An emerging empirical literature on the structure of the lobbying industry (Bertrand, Bombardini, and Trebbi 2011; Vidal, Draca, and Fons-Rosen 2012; Eggers 2010) has brought to light a variety of empirical regularities that are either ignored or inconsistent with existing formal models. The first empirical regularity is that “connections” between politicians and lobbyists are associated with greater revenue. This is true if connections are characterized by past employment relationships (Vidal, Draca, and Fons-Rosen 2012; Eggers 2010) or campaign contributions (Bertrand, Bombardini, and Trebbi 2011). Second, the issues areas in which lobbyists operate vary with committee assignments of the politicians with whom they share a connection (Bertrand, Bombardini, and Trebbi 2011). Third, the revenue associated with these connections varies with relative political power of those connected (Vidal, Draca, and Fons-Rosen 2012). All of this suggests that there is something inherent in the identity of the lobbyist that allows them to generate profit.

A small and emerging literature, to which we contribute, directly considers the role and incentives of lobbyists. First, Groll and Ellis (2013) present a model in which lobbyists and politicians exchange access for the promise of contributions, and verification of the social desirability of projects. Lobbyists possess additional verification technology unavailable to politicians, but verification requires costly and unverifiable effort. This creates a moral hazard problem, whereby the lobbyist may shirk and present unverified cases as verified. This problem is solved via repeated interaction. While their approach shares some similarities with our model, their focus is on the moral hazard problem with regards to verification effort, the extraction of contributions by the politician, and the overall structure of the lobbying industry. Additionally, the preference or identity (apart from the reputations that they develop) of lobbyists play no role, so it is difficult to link results from the model to the empirical facts considered above.

Second, Kang and You (2015) adapt the many-to-many matching model of Gomes and Pavan (2011) and model lobbying firms as “matchmakers” linking clients to politicians with

shared interests. The lobbying firm designs a profit-maximizing mechanism that allows SIGs and politicians to endogenously sort through via their acceptance of the lobbyist’s contract. Because the contracts are designed according to incentive compatibility and individual rationality constraints, politician and SIGs do in fact have a reason to trust lobbyists in their model. Kang and You are then able to verify many of the prediction of the model using detailed data available under the Foreign Agents Registration Act. We view this work as complementary, as it considers the role of lobbying firms as matching devices, while we focus directly on the credibility of certification between the lobbyist and the politician, and the contracting between the lobbyist and the SIG.

2 The model

There are three players: a politician P , a special interest group (SIG) S , and a lobbyist L . The SIG seeks a policy favor from the politician, whose final action A may be to either to grant the favor ($A = G$) or to not ($A = NG$). Should the favor be granted, the SIG earns a fixed and known benefit π_S .

The exact consequences of granting the policy favor depend on a state of the world $\omega \in R$ that is initially unknown to all players. The politician’s utility $U_P(A; \omega)$ over actions and states takes the form,

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

At the start of the game, nature randomly draws ω from a uniform distribution over $[0, \bar{\omega}]$ with CDF $J(\omega) = \frac{\omega}{\bar{\omega}}$ and where $\bar{\omega} \geq 1$. We furthermore assume that the ex-ante *expected value* of the state $\frac{\bar{\omega}}{2}$ is below the politician’s threshold P for granting the favor. The game then proceeds in three stages.

Initial Decision The initial stage commences with the lobbyist drawing an opportunity cost of her time c_L that is uniformly distributed on $[0, \bar{c}_L]$ with CDF $G_L(c_L) = \frac{c_L}{\bar{c}_L}$, where $\bar{c}_L \geq 1$; this cost is realized if and only if she contracts with the SIG to investigate and

potentially represent it. This cost is unobservable and unverifiable to the SIG and the politician.

After observing her cost, the lobbyist posts a fee $F_I \geq 0$ to conduct an investigation on the SIG's behalf to learn the value of ω . The posted contract represents a take-it-or-leave-it commitment only to learn ω and truthfully communicate it to the SIG, not to provide any representation. The lobbyist is also committed to *not* investigate on the SIG's behalf should it reject the contract.

The SIG may then decline or accept the investigation contract. If it declines, then the SIG learns nothing and decides whether to lobby the politician directly at cost k_S , or to do nothing. In either case, the game proceeds immediately to the final stage.

Representation Stage Should the SIG accept the investigation contract, the lobbyist is then obligated to conduct an investigation into the state, and pays the previously-revealed cost $c_L > 0$. An investigation reveals the state to both herself and the SIG (but not the politician).

Upon revelation, the lobbyist then posts a second fee $F_R \geq 0$ to represent the SIG by sending a message to the politician on the SIG's behalf. The posted fee again represents a take it or leave it contract – if the SIG accepts it then the lobbyist is obligated to represent it, and if it declines it then she is obligated not to. The lobbyist pays an exogenous access cost k_L to contact the politician, and we assume both that $k_L \leq k_S$ and that $k_S < \pi_S$.

Should the SIG decline representation, it then also has a second opportunity to directly lobby the politician, again at cost k_S .

Decision Stage In the third and final stage, the politician decides both whether to conduct his own investigation into the SIG's case and learn the true value of the state, and whether to grant the policy favor or not. At the time the politician makes both decisions, he observes whether or not he was lobbied and by whom, but not whether the SIG accepted the investigation contract or the details of the representation contract if it was offered.

The politician's cost of conducting his own investigation c_P is uniformly distributed over

$[0, \bar{c}_P]$ with CDF $G_P(c_P)$. This cost is known to P when he decides whether to investigate, but is unknown to the other players. Whether or not the politician conducts an investigation, he then makes a final decision $A \in \{G, NG\}$ over whether or not to grant the policy favor, and the game ends.

Preferences & Abilities of the lobbyist We consider several versions of the model that vary both the preferences of the lobbyist, and her ability to *commit ex-ante* to fee schedules $F_L(c_L)$ and $F_R(\omega)$ (intuitively, to how much she works, and to whom she will represent).

In all variants, the lobbyist's preferences are subsumed by the form:

$$\delta U_L(A; \omega) + t, \text{ where } \delta \geq 0$$

$U_L(A; \omega)$ denotes the lobbyist's utility over *policy outcomes*, and takes the same form as $U_P(\cdot)$ except that she may have a different threshold $L \neq P$ for preferring the favor to be granted. In other words, the lobbyist may have a vested interest in the politician's decisions. However, because she is a hired gun, her preferences also include the quantity t , which denotes the net sum of all payments and costs for services rendered. Finally, $\delta \geq 0$ captures her weight on policy.

We specifically consider the following four variants.

($\delta = 0$, commit) A lobbyist who is motivated purely by monetary profit, and can publicly commit ex-ante to her fee schedules. This variant establishes a baseline for the maximum possible profits attainable by the lobbyist.

($\delta = 0$) A lobbyist who is motivated purely by monetary profit, but who more realistically cannot commit to when she will investigate, and who she will represent.

($\delta > 0$, $L = P$) A lobbyist who intrinsically cares about the policy preferences of the politician, but lacks commitment power. We label such preferences *connection preferences*.

($\delta > 0$, $L \neq P$) A lobbyist who cares about policy, but has her own distinct ideology $L \neq P$, and also lacks commitment power. We label such preferences *ideological preferences*.

Comparing these variants illuminates the lobbyist’s basic dilemma, and how both connection preferences and ideological preferences can enhance or harm her profitability.

3 Preliminary Analysis

Across the four variants of the model, the best responses of the SIG and the politician remain the same. We therefore begin by characterizing these.

3.1 The politician’s calculus

The politician’s objective is to grant the favor to a *worthy* SIG whose case is above her threshold ($\omega \geq P$), and decline the favor to an *unworthy* SIG whose case is below ($\omega < P$); all while minimizing his review costs. He cannot observe the details of the prior contact between the SIG and the lobbyist (or prices paid), and so bases his decisions only on whether he observed lobbying mediated by the lobbyist, 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 furthermore denote the CDF describing the politician’s interim beliefs about the SIG’s case ω as $H_c(\omega)$. For each observed channel and realized cost of review c_P , the politician makes two decisions – whether or not to review to learn ω (and decide accordingly), and if he does not review, whether or not to grant the favor.

We first characterize the probability $\alpha_P^c \in [0, 1]$ that the politician grants the favor absent a review for each channel c ; we term this quantity his *posture*. If $\alpha_P^c = 1$ (he will grant the favor absent a review) we call his posture *fully favorable*, if $\alpha_P^c \in (0, 1)$ (he will sometimes grant the favor absent a review) we call it *somewhat favorable*, and if $\alpha_P^c = 0$ (he will deny the favor absent a review), we call it *adversarial*. Because the politician’s preferences are linear, his posture depends only on whether the interim expectation $E_c[\omega]$ is above or below his threshold P . Specifically, if $E_c[\omega] > P$ then she always grants ($\alpha_P^c = 1$), if $E_c[\omega] < P$ he always declines ($\alpha_P^c = 0$), and if $E_c[\omega] = P$ any α_P^c is optimal.

We next characterize the politician’s decision of whether to review. The politician’s *value of review* ϕ_P^c given each channel c derives from the possibility that a review might

alter his default decision; it thus depends both on his interim beliefs H_c , and the posture α_P^c they induce. In a best response, he will review only when his realized cost c_P is below ϕ_P^c . With a favorable posture ($\alpha_P^c = 1$), a review is only *pivotal* for changing the outcome when it reveals *negative evidence* that the SIG is unworthy, which he believes will occur with probability $H_c(P)$. In this event, the expected net benefit of changing his decision from granting to declining the favor is $P - E_c[\omega|\omega < P]$. The overall value of review is thus $\phi_P^{c-} = H_c(P) \cdot (P - E_c[\omega|\omega < P])$. Similarly, when the politician's posture is adversarial ($\alpha_P^c = 0$), a review is only pivotal for changing the outcome when it reveals *positive evidence* that the SIG is worthy. The value of review is thus $\phi_P^{c+} = (1 - H_c(P)) \cdot (E_c[\omega|\omega > P] - P)$.

We last characterize the politician's interim expected utility, which we write using the review threshold $\phi_P^c = \min\{\phi_P^{c-}, \phi_P^{c+}\}$ associated with his optimal posture α_P^c . This is
$$\left(\int_0^P \left(\frac{P - \omega}{2} \right) \partial H_c(\omega) + \int_P^{\bar{\omega}} \left(\frac{\omega - P}{2} \right) \partial H_c(\omega) \right) - \left(\int_0^{\phi_P^c} c_L \partial G(c_L) + \int_{\phi_P^c}^{\bar{c}_P} \phi_P^c \partial G(c_L) \right)$$
 That is, it is the *difference* between what the politician would achieve with full information given the interim distribution of ω , and what he loses as a result of his uncertainty, and the need to sometimes undertake costly investigations.

Collecting the above observations yields the politician's best-response behavior.

Observation 1 *Given a channel of contact $c \in \{l, d, \emptyset\}$, the politician reviews i.f.f. $c_P \leq \phi_P^c$ and absent a review grants with probability α_P^c , where*

- $\alpha_P^c = 1$ and $\phi_P^c = \phi_P^{c-} = H_c(P) \cdot (P - E_c[\omega|\omega < P])$ if $E_c[\omega] > P$
- $\alpha_P^c = 0$ and $\phi_P^c = \phi_P^{c+} = (1 - H_c(P)) \cdot (E_c[\omega|\omega > P] - P)$ if $E_c[\omega] < P$
- $\alpha_P^c \in [0, 1]$ and $\phi_P^c = \phi_P^{c-} = \phi_P^{c+}$ if $E_c[\omega] = P$

His interim expected utility is

$$\left(\int_0^P \left(\frac{P - \omega}{2} \right) \partial H_c(\omega) + \int_P^{\bar{\omega}} \left(\frac{\omega - P}{2} \right) \partial H_c(\omega) \right) - \phi_P^c \left(1 - \frac{\phi_P^c}{2\bar{c}_P} \right)$$

3.2 The SIG's calculus

At the investigation stage the SIG can pursue the direct (d) or null (\emptyset) channels of contact, but is uninformed about the political merits of its case ω . Alternatively, it can seek an investigation. Once an investigation has been conducted, it may again pursue these channels as well as the lobbyist-mediated channel, but with knowledge of ω .

Let $J(\omega|\mathcal{I})$ denote the CDF describing the SIG's beliefs about ω given information \mathcal{I} . The probability that the SIG expects to receive the favor from pursuing channel $c \in \{\ell, d, \emptyset\}$ knowing \mathcal{I} is then

$$\Delta_S^c(\mathcal{I}) = \left(1 - \frac{\phi_P^c}{\bar{c}_P}\right) \alpha_P^c + \frac{\phi_P^c}{\bar{c}_P} (1 - J(P|\mathcal{I})).$$

The favor is granted with probability equal to the politician's posture α_P^c when he fails to investigate, and with the probability $1 - J(P|\mathcal{I})$ that the case is worthy when he does. By implication, the SIG's expected policy utility from pursuing channel c is

$$\Pi_S^c(\mathcal{I}) = \Delta_S^c(\mathcal{I}) \cdot \pi_S.$$

We now use these expressions to characterize the SIG's optimal strategy and willingness to pay for the lobbyist's services at each stage.

After an investigation, the SIG has learned the true value of its case ω (i.e. $\mathcal{I} = \omega$ and $J(\omega|\mathcal{I})$ represents a point mass at ω). Thus, if it fails to reach a deal for representation with the lobbyist, it will be willing to lobby directly if and only if $\Pi_S^d(\omega) - k_S \geq \Pi_S^\emptyset(\omega)$. Conversely, it will be willing to pay up to

$$\hat{F}_R(\omega) = \Pi_S^\ell(\omega) - \max\{\Pi_S^d(\omega) - k_S, \Pi_S^\emptyset(\omega)\} \quad (1)$$

for the lobbyist's representation. The first term is the expected policy utility resulting from representation. The second term is the SIG's "outside option" given its knowledge of ω , which is the maximum of its value from direct contact (which requires paying the direct access cost k_S), and its value from no contact.

At the start of the game, the SIG is uninformed about ω ; so if it fails to reach a deal for investigation it will be willing to lobby directly if and only if $\Pi_S^d(\emptyset) - k_S \geq \Pi_S^\emptyset(\emptyset)$.

Conversely, its expected utility from seeking an investigation depends on (i) the probability ρ_L^ω it expects a deal for representation to be reached for each realization of ω , (ii) the *expected* price $\bar{F}_R(\omega)$ at which it expects successful deals for representation to be reached,⁶ and (iii) its anticipated choices over the channel of contact. Its maximum willingness to pay for an investigation is therefore equal to,

$$\hat{F}_I = \int_0^{\bar{\omega}} (\rho_L^\omega (\Pi_S^\ell(\omega) - \bar{F}_R(\omega)) + (1 - \rho_L^\omega) \cdot \max \{ \Pi_S^d(\omega) - k_S, \Pi_S^\emptyset(\omega) \}) j(\omega) d\omega - \max \{ \Pi_S^d(\emptyset) - k_S, \Pi_S^\emptyset(\emptyset) \}, \quad (2)$$

where $\mathcal{I} = \emptyset$ denotes no information and $J(\omega|\emptyset) = J(\omega)$. The first term is the SIG's expected utility if an investigation occurs; for each realization of ω , it expects to be represented with probability ρ_L^ω at expected price $\bar{F}_R(\omega)$, and otherwise select the channel maximizing its interim expected utility. The second term is the SIG "outside option" given its initial lack of information about ω , which again is the maximum of its value from direct contact, and its value from no contact.

The following observation introduces additional notation and collects the preceding observations to characterize best-response behavior by the SIG.

Observation 2 *Let ρ_D^\emptyset denote the probability that an SIG who has rejected the investigation contract lobbies directly, and ρ_D^ω denote the probability an SIG who has been revealed to be type ω but who rejects the representation contract lobbies directly. Recall that ρ_L^ω denotes the probability that an SIG revealed to be type ω reaches a deal for representation. Then necessary and sufficient conditions for the SIG's strategy to be a best-response are as follows, where \hat{F}_I and $\hat{F}_R(\omega)$ are as characterized in Equations 1 and 2:*

- *The SIG always accepts (rejects) an investigation offer i.f.f. $F_I < (>) \hat{F}_I$, and always accepts (rejects) a representation offer i.f.f. $F_R < (>) \hat{F}_R(\omega)$.*

⁶This expectation is with respect to the strategies of the SIG and the lobbyist conditional on a realization of ω , which generically may involve mixing.

- An SIG who has rejected one or both contracts lobbies directly with probability

$$\rho_D^\omega = \begin{cases} 1 & \text{if } \Pi_S^d(\omega) - k_S > \Pi_S^\emptyset(\omega) \\ 0 & \text{if } \Pi_S^d(\omega) - k_S < \Pi_S^\emptyset(\omega) \\ \text{anything} & \text{if } \Pi_S^d(\omega) - k_S = \Pi_S^\emptyset(\omega) \end{cases}$$

3.3 Equilibrium without the lobbyist

To help clarify the implications of the preceding best response behavior, we now briefly characterize equilibrium without the lobbyist.

Absent the lobbyist, there are only two potential channels $\{d, \emptyset\}$ of contact – direct lobbying, or no lobbying. However, because the SIG is uninformed about ω , the politician’s beliefs $H_d(\omega)$ and $H_\emptyset(\omega)$ given each channel must be identical and equal to the prior $J(\omega)$, his posture and review probabilities must be the same ($\alpha_P^d = \alpha_P^\emptyset$ and $\phi_P^d = \phi_P^\emptyset$), and the SIG’s expected policy utilities must also be the same ($\Pi_S^d(\emptyset) = \Pi_S^\emptyset(\emptyset)$). Thus, the SIG will never choose to waste the cost $k_S > 0$ of direct lobbying.

This does not mean, however, that the SIG will never receive the favor. Rather, the politician will sometimes investigate on his own despite the absence of lobbying, with a probability based on his prior beliefs $J(\omega)$ over the SIG’s type. Because in expectation the SIG has an unworthy case ($E_\emptyset[\omega] = E[\omega] = \frac{\bar{\omega}}{2} < P$ by assumption), the politician’s posture toward the SIG will be *adversarial* ($\alpha_P^\emptyset = 0$), and his value of review ϕ_P^\emptyset will be based on the chance that investigating turns up *positive* evidence in the SIG’s favor. This yields the following equilibrium.

Observation 3 *Absent the lobbyist, the SIG never lobbies.*

- The politician investigates anyway whenever $c_P \leq \phi_P^\emptyset = (1 - J(P)) \cdot (E[\omega | \omega \geq P] - P)$, and receives expected utility $\left(\frac{P - E[\omega]}{2}\right) + \int_0^{\phi_P^\emptyset} (\phi_P^\emptyset - c) g_P(c) dc = \left(\frac{P - E[\omega]}{2}\right) + \frac{(\phi_P^\emptyset)^2}{2\bar{c}_P}$.
- The SIG receives the favor with probability $\Delta_S^c(\emptyset) = \frac{\phi_P^\emptyset}{\bar{c}_P} (1 - J(P))$, and receives expected utility $\pi_S \cdot \Delta_S^c(\emptyset)$.

Intuitively, absent the lobbyist there is no role for direct lobbying by the SIG – being uninformed, its actions will communicate nothing to the politician. Consequently, the politician will adopt an adversarial posture, but occasionally search for evidence in the SIG’s favor when his review costs are sufficiently low.

4 Lobbying as “Certification for Hire”

We now introduce the lobbyist. We first describe the form of the strategy profiles we consider, highlighting features that shed light on the nature of the lobbyist’s problem. Specifically, we restrict attention to strategy profiles that take the following natural form,⁷ and also henceforth assume that $k_S \leq \frac{\pi_S}{c_P} (1 - J(P))^2 (E[\omega | \omega \geq P] - P) = \frac{\pi_S}{c_P} \cdot \frac{(\bar{\omega} - P)^3}{2\bar{\omega}^2}$

Remark 1 *We consider profiles in which the lobbyist investigates when her costs c_L are below a threshold ϕ_L , and represents clients with cases above a cutpoint $\underline{\omega} \in [2P - \bar{\omega}, P]$.*

1. (**Special Interest Group**) *At both stages, the SIG always accepts any weakly profitable or **acceptable** contract ($F_I \leq \hat{F}_I$ and $F_R(\omega) \leq \hat{F}_R(\omega)$).*
 - *If the SIG rejects the investigation contract, it always lobbies directly ($\rho_D^0 = 1$).*
 - *If the SIG rejects the representation contract, it lobbies directly if and only if the investigation revealed that its case is worthy ($\rho_D^\omega = \mathbf{1}_{\omega \geq P}$).*

2. (**Lobbyist**) *At the investigation stage, the lobbyist charges the SIG’s willingness to pay $F_I(c_L) = \hat{F}_I$ when $c_L \leq \phi_L$, and an unacceptable fee $F_I(c_L) = \hat{F}_I + \varepsilon$ otherwise.*

At the representation stage, the lobbyist

- *charges the SIG’s willingness to pay $F_R(\omega) = \hat{F}_R(\omega \geq P) = \hat{F}_R^W$ to all **worthy** clients ($\omega \geq P$).*

⁷In the Appendix we consider the larger class of all strategy profiles in which the lobbyist takes all worthy types ($\rho_L(\omega) = \mathbf{1}_{\omega \geq P}$), the SIG lobbies directly if it is not represented and is worthy or uninformed, while otherwise it stays home ($\rho_D^\omega = \mathbf{1}_{\omega \geq P | \omega = \emptyset}$). Arguments that take us from this larger class to the profiles described below are variant-specific; see Appendix for details.

- also charges the SIG's willingness to pay $F_R(\omega) = \hat{F}_R(\omega < P) = \hat{F}_R^U$ to **unworthy** clients ($\omega < P$) whose cases are above the cutpoint $\underline{\omega}$
- charges an unacceptable fee $F_R(\omega) = \hat{F}_R^U + \varepsilon$ to all other unworthy clients

3. (**Politician**) Absent lobbying the politician never grants ($\alpha_P^0 = 0$), nor reviews ($\phi_P^0 = 0$). Otherwise, he

- takes a **favorable** posture when SIG is represented by the lobbyist ($\alpha_P^\ell > 0$), and reviews for **negative evidence** when $c_P \leq \phi_P^\ell = \phi_P^\ell(\underline{\omega})$, where

$$\phi_P^\ell(\underline{\omega}) = \Pr(\omega < P | \omega \geq \underline{\omega}) \cdot (P - E[\omega | \omega < P, \omega \geq \underline{\omega}]) = \frac{(P - \underline{\omega})^2}{2(\bar{\omega} - \underline{\omega})}$$

If $\underline{\omega} > 2P - \bar{\omega}$ then it must also be that $\alpha_P^\ell = 1$.

- takes an **adversarial** posture when the SIG lobbies directly ($\alpha_P^d = 0$), and reviews for **positive evidence** when $c_P \leq \phi_P^{d+}$, where

$$\phi_P^{d+} = \Pr(\omega > P) \cdot (E[\omega | \omega \geq P] - P) = \frac{(\bar{\omega} - P)^2}{2\bar{\omega}}$$

Finally, the difference between politician's expected utility with full-information $\int_0^P \left(\frac{P-\omega}{2}\right) j(\omega) d\omega + \int_P^{\bar{\omega}} \left(\frac{\omega-P}{2}\right) j(\omega) d\omega$, and his equilibrium expected utility, is

$$\left(\frac{\phi_L}{\bar{c}_L}\right) \left(\frac{\bar{\omega} - \underline{\omega}}{\bar{\omega}}\right) \phi_P^\ell \left(1 - \frac{\phi_P^\ell}{2\bar{c}_P}\right) + \left(1 - \frac{\phi_L}{\bar{c}_L}\right) \phi_P^{d+} \left(1 - \frac{\phi_P^{d+}}{2\bar{c}_P}\right)$$

The form of the equilibria is depicted in Figures 1 and 2; the former describes actions at the investigation stage, while the latter describes actions at the representation stage. The equilibria can be described intuitively as follows. In the model, the lobbyist sells two types of services. The first is providing *information* about the SIG's case, which she does if the opportunity cost of her time is sufficiently low ($c_L \leq \phi_L$). This service informs the SIG about whether its case is *worthy* ($\omega \geq P$) or *unworthy* with respect to the politician's preferences ($\omega < P$), which affects the expected returns to lobbying.

The second type of service is *representation*; upon revelation of the state ω , the lobbyist sometimes offers to message the politician on the SIG's behalf. The potential value

Figure 1: Actions in Equilibrium, Investigation Stage

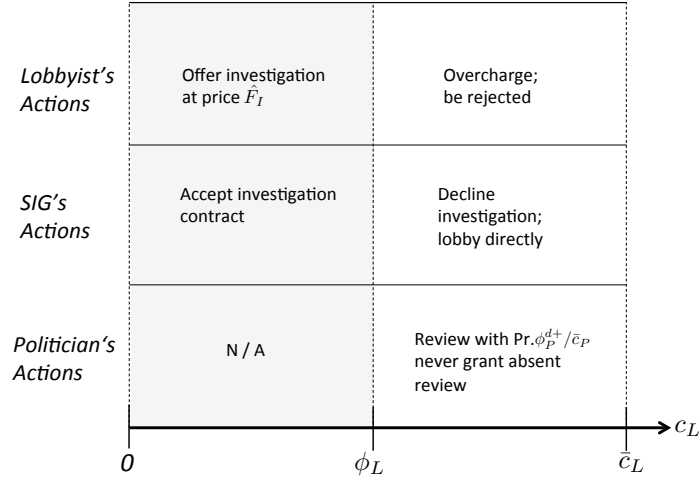
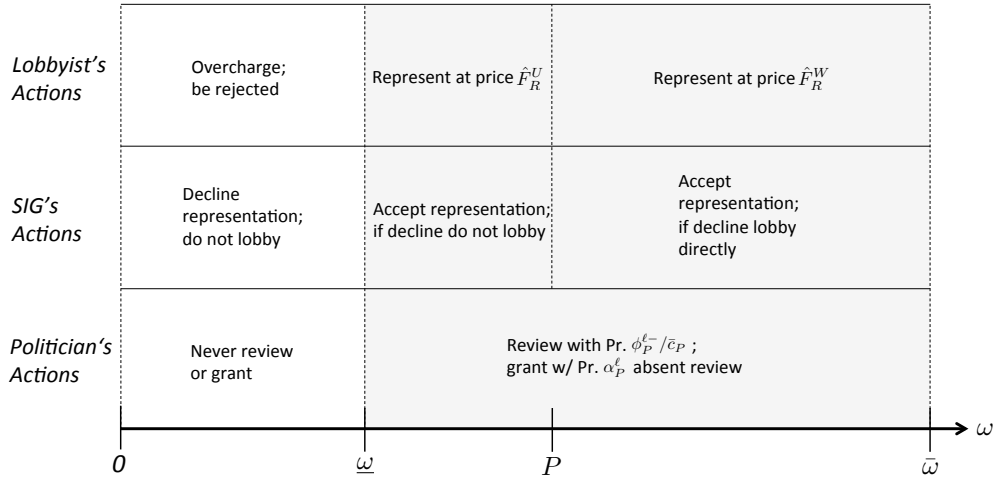


Figure 2: Actions in Equilibrium, Representation Stage



of the lobbyist's representation is to generate preferential treatment by the politician by "certifying" the political merits of the SIG's request. (Note that the lobbyist's threshold for providing investigations ϕ_L in part depends on the future profit she expects from providing representation.)

The lobbyist is able to sell representation because the politician is also busy (i.e., the opportunity cost of his time c_P is probabilistic). Sometimes he will have the opportunity to review the SIG's case himself, and decide according to his preferences. Other times however, he will be too busy to investigate himself, and must make a decision absent all the facts.

In the equilibria we consider, the politician will nevertheless grant the favor to a lobbyist-represented SIG absent his own investigation with probability equal to his posture α_P^ℓ .

The primary nature of the preferential treatment sold by the lobbyist is thus to shift the politician’s posture from *adversarial* – that is, from *never* granting the favor when he is too busy to review – to *favorable* – that is, to *sometimes* granting the favor. The more favorable is the politician’s posture to the lobbyist’s clients, the greater is the value of her representation, and the more she is able to charge in equilibrium for it to all types of clients. The value of changing the politician’s posture – and thus the price $\hat{F}_R(\omega)$ she can charge for representation – also depends on whether the client’s case has been revealed to be worthy ($\omega \geq P$) or unworthy ($\omega < P$) by the lobbyist’s investigation, because the two types of clients have different outside options. Consequently, the lobbyist charges two separate prices $\hat{F}_R(\omega \geq P) = \hat{F}_R^W$ and $\hat{F}_R(\omega < P) = \hat{F}_R^U$ to the worthy and unworthy clients she represents.

Finally and most importantly, the lobbyist is able to sell representation because she *screens* clients on the politician’s behalf, and *certifies* those that remain. This is what induces the politician (in equilibrium) to change his posture from unfavorable – toward SIGs who lobby directly – to favorable – toward SIGs who are represented by the lobbyist. Consequently, in equilibria where the lobbyist sometimes represents unworthy clients, she can never represent them so often so as to make the politician’s favorable posture towards her clients collapse ($E_\ell[\omega] < P \rightarrow \alpha_P^\ell = 0$).

4.1 The Determination of Prices

To set the stage for deriving equilibria, we now more precisely characterize the prices $(\hat{F}_R^W, \hat{F}_R^U, \hat{F}_I)$ that the lobbyist charges the SIG in strategy profiles in Remark 1. These prices are simple functions of the lobbyist’s representation cutpoint $\underline{\omega}$.

The SIG’s willingness to pay for representation

When offered representation, the SIG is fully informed about the political merits of its case ω . Their willingness to pay is thus the difference between the “inside” value of representation, $\Pi_S^\ell(\omega)$ given those merits, and the net value of their outside option – this

is the maximum of $\Pi_S^d(\omega) - k_S$ and $\Pi_S^\theta(\omega)$, depending on whether it would choose to lobby directly or to stay home. Because both the inside and outside option of the SIG varies with their type, we consider pricing for worthy and unworthy SIGs in turn.

A worthy SIG In the strategy profiles considered in Remark 1, the outside option of worthy types is direct contact. Because the politician's posture towards an SIG who lobbies directly is adversarial, a worthy SIG knows that lobbying directly will only produce the favor if the politician investigates, so the probability $\Delta_S^d(\omega \geq P)$ they expect to receive the favor is $\frac{\phi_P^{d+}}{\bar{c}_P} = \frac{(\bar{\omega}-P)^2}{2\bar{\omega}\bar{c}_P}$. They must also pay the direct access cost k_S . The overall value of their outside option is hence $\Pi_S^d(\omega \geq P) - k_S = \left(\frac{(\bar{\omega}-P)^2}{2\bar{\omega}\bar{c}_P}\right) \pi_S - k_S$.

The "inside option" of the lobbyist's representation also results in the favor being granted when the politician investigates, which occurs with probability $\frac{\phi_P^{\ell-}(\omega)}{\bar{c}_P}$. However, because the lobbyist's representation generates a favorable posture by the politician, the favor may also be granted with probability α_P^ℓ when the politician does not investigate. This results in an overall probability of $\frac{\phi_P^{\ell-}(\omega)}{\bar{c}_P} + (1 - \frac{\phi_P^{\ell-}(\omega)}{\bar{c}_P})\alpha_P^\ell$ that the favor is granted with the lobbyist's representation. This probability will be equal to 1 when the politician's posture is completely favorable ($\alpha_P^\ell = 1$), and is a function of $\frac{\phi_P^{\ell-}(\omega)}{\bar{c}_P}$ when the politician is indifferent between granting or declining the favor to the lobbyist's clients ($\omega = 2P - \bar{\omega} \rightarrow \phi_P^{\ell-}(\omega) = \frac{\bar{\omega}-P}{4}$).

Combining the above, a worthy SIG's willingness to pay for representation \hat{F}_R^W is $\Pi_S^\ell(\omega \geq P) - (\Pi_S^d(\omega \geq P) - k_S) = k_S + \pi_S \cdot (\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P))$

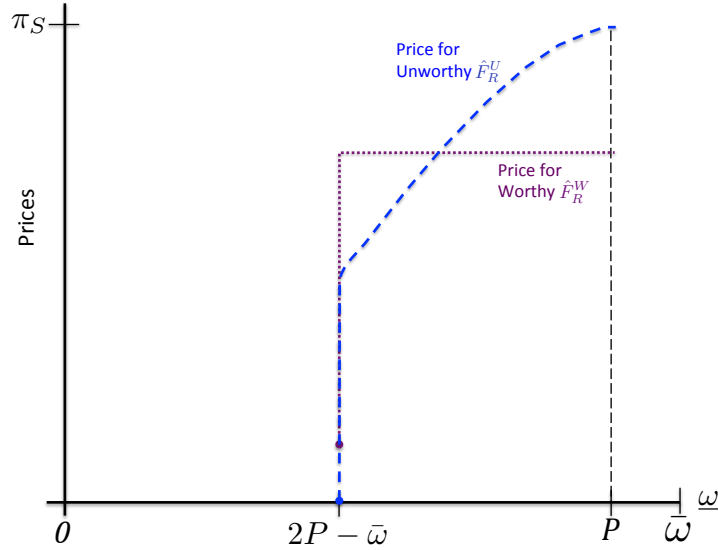
$$= k_S + \pi_S \cdot \begin{cases} 1 - \left(\frac{(\bar{\omega}-P)^2}{2\bar{\omega}\bar{c}_P}\right) & \text{if } \underline{\omega} > 2P - \bar{\omega} \\ \left(1 - \frac{\bar{\omega}-P}{4\bar{c}_P}\right) \alpha_P^\ell + \frac{1}{\bar{c}_P} \left(\frac{\bar{\omega}-P}{4} - \frac{(\bar{\omega}-P)^2}{2\bar{\omega}}\right) & \text{if } \underline{\omega} = 2P - \bar{\omega} \end{cases} \quad (3)$$

This price is depicted in Figure 3, and is constant in the lobbyist's representation cutpoint $\underline{\omega}$ when $\omega > 2P - \underline{\omega} \rightarrow \alpha_P^\ell = 1$. When $\underline{\omega} = 2P - \bar{\omega} \rightarrow \phi_P^{\ell-}(\omega) = \frac{\bar{\omega}-P}{4}$ it is increasing in the politician's posture α_P^ℓ toward the lobbyist's clients, which is determined in equilibrium.

Intuitively, a worthy SIG pays for two services when it purchases representation. First, it pays for an increase in the probability that the favor is granted. If the lobbyist screens sufficiently that the politician's posture is fully favorable ($\underline{\omega} > 2P - \bar{\omega} \rightarrow \alpha_P^\ell = 1$), then

representation actually ensures that the favor will be granted – either the politician will not investigate and grant anyway, or he will investigate and grant after finding the case to be worthy. Second, a worthy SIG pays to exploit the lobbyist’s lower cost of access ($k_L \leq k_S$).

Figure 3: Representation prices as function of representation cutpoint $\underline{\omega}$



An unworthy SIG In the strategy profiles considered in Remark 1, the outside option of an unworthy SIG is to stay home and forego the cost of direct lobbying. The reason is that neither direct lobbying nor staying home will ever result in the favor being granted; because the politician’s posture toward both channels is adversarial, he will either refuse the favor outright, or refuse after conducting an investigation and finding the case to be unworthy. An unworthy SIG’s willingness to pay for the lobbyist’s representation is thus the full value of the lobbyist’s channel, i.e. $\hat{F}_R(\omega < P) = \Pi_S^\ell(\omega < P) = \Delta_S^\ell(\omega < P)\pi_S$.

With representation, an unworthy SIG sometimes has the opportunity to receive the favor when the politician does not review, because his posture toward the lobbyist’s clients $\alpha_P^\ell > 0$ is somewhat or fully favorable. However, the politician’s probability of review $\phi_P^{\ell-}(\underline{\omega}) = \frac{(P-\underline{\omega})^2}{2(\bar{\omega}-\underline{\omega})}$, and hence the value of the lobbyist’s representation, depends directly on the lobbyist’s representation cutpoint $\underline{\omega}$. Intuitively, as the lobbyist refers more unworthy clients, her recommendations become less credible. Knowing this, the politician reviews

more, which makes it less likely that an unworthy SIG can “slip through the cracks” by being represented, and thereby reduces the value of representation.

Combining the above, an unworthy SIG’s willingness to pay for representation \hat{F}_R^U is $\Pi_S^\ell(\omega < P) - \Pi_S^\emptyset(\omega < P) = \pi_S \cdot \Delta_S^\ell(\omega < P) = \pi_S \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right) =$

$$\pi_S \cdot \begin{cases} 1 - \frac{(P-\underline{\omega})^2}{2(\bar{\omega}-\underline{\omega})\bar{c}_P} & \text{if } \underline{\omega} > 2P - \bar{\omega} \\ \alpha_P^\ell \left(1 - \frac{\bar{\omega}-P}{4\bar{c}_P}\right) & \text{if } \underline{\omega} = 2P - \bar{\omega} \end{cases} \quad (4)$$

The price is depicted in Figure 3, and is increasing the lobbyist’s threshold for representation $\underline{\omega}$. In other words, the more the lobbyist screens out unworthy clients, the more profitable it becomes to represent them. When $\underline{\omega} = 2P - \bar{\omega} \rightarrow \phi_P^{\ell-}(\underline{\omega}) = \frac{\bar{\omega}-P}{4}$ the price is increasing in α_P^ℓ , which is determined in equilibrium.

The SIG’s willingness to pay for information

At the start of the game, the SIG is uninformed about the political merits of its case ω , but can pay for an investigation. As characterized in equation 2, their willingness to pay \hat{F}_I is the difference between the “inside option” of learning ω and potentially contracting with the lobbyist for representation, and the “outside option” of choosing a course of action uninformed about ω .⁸

In the strategy profiles considered in Remark 1, the outside option of an uninformed SIG is to lobby directly; but if it does so, it will only receive the favor if *both* if the politician investigates (which occurs with probability $\frac{\phi_P^{d+}}{\bar{c}_P} = \frac{(\bar{\omega}-P)^2}{2\bar{\omega}\bar{c}_P}$) and if it is actually worthy (which occurs with probability $\frac{\bar{\omega}-P}{\bar{\omega}}$). It must also pay the direct access cost k_S . The overall value of its outside option is hence $\Pi_S^d(\emptyset) - k_S = \left(\frac{\bar{\omega}-P}{\bar{\omega}}\right) \left(\frac{(\bar{\omega}-P)^2}{2\bar{\omega}\bar{c}_P}\right) \pi_S - k_S = \left(\frac{(\bar{\omega}-P)^3}{2\bar{c}_P\bar{\omega}^2}\right) \pi_S - k_S$, which is positive given our assumptions.

The “inside option” of an investigation by the lobbyist instead offers expected utility:

$$\left(\frac{\underline{\omega}}{\bar{\omega}}\right) (\Pi_S^\emptyset(\omega < P)) + \left(\frac{P-\underline{\omega}}{\bar{\omega}}\right) \left(\Pi_S^\ell(\omega < P) - \hat{F}_R^U\right) + \left(\frac{\bar{\omega}-P}{\bar{\omega}}\right) \cdot (\Pi_S^\ell(\omega \geq P) - \hat{F}_R^W).$$

With probability $\frac{\underline{\omega}}{\bar{\omega}}$ the SIG will be revealed to be *so* unworthy that it is turned away, with probability $\frac{P-\underline{\omega}}{\bar{\omega}}$ it will be revealed to be unworthy but be offered (and accept) representation

⁸Note that we require the SIG to pay for an investigation before it can be represented by the lobbyist.

at its willingness to pay \hat{F}_R^U , and with probability $\frac{\bar{\omega}-P}{\bar{\omega}}$ it will be revealed to be worthy and again offered and accept representation at its willingness to pay \hat{F}_R^W .

Subtracting off the lobbyist's outside option from the above, and observing that $\Pi_S^d(\emptyset) = (\frac{\bar{\omega}-P}{\bar{\omega}}) \cdot \Pi_S^d(\omega \geq P)$, yields that the SIG's willingness to pay for an investigation simplifies to

$$\hat{F}_I = k_S \cdot \frac{P}{\bar{\omega}} \quad (5)$$

Intuitively, because the lobbyist extracts the full “rents” from representation, the value of an investigation to the SIG is just the value of learning when it has an unworthy case ($\omega < P$, which occurs with probability $\frac{P}{\bar{\omega}}$), so it can avoid the cost k_S of direct (fruitless) lobbying.

5 Maximizing the lobbyist's profits

We begin examining equilibria by considering a lobbyist who is both *purely profit motivated* ($\delta = 0$), and who can *publicly commit ex-ante* to her fee schedules; intuitively, to how much she investigates, and to whom she represents.⁹ This establishes a baseline for the maximum possible profits the lobbyist could earn for her services in our model.

Form of Equilibria We first briefly argue why it is without loss of generality to restrict profiles of the form in Remark 1; see Appendix for details. First, a profit-maximizing lobbyist with commitment must necessarily charge the SIG's maximum willingness to pay for an investigation \hat{F}_I (from equation 1) whenever she conducts one. She need not always charge the SIG's maximum willingness to pay $\hat{F}_R(\omega)$ for representation – she could, for example, charge less at the representation stage and more at the investigation stage – but doing so would yield the same profit in expectation.

The rationale for further restricting attention to profiles in which the lobbyist represents all worthy SIGs, as well some unworthy SIG's with $\omega \in [\underline{\omega}, P]$, is three-fold. First, it is never profitable for the lobbyist to commit to turn away worthy clients; doing so worsens the pool of SIGs she represents relative to the pool who lobby directly, which decreases the

⁹Formally, we consider a lobbyist who can commit to her fee $F_L(c_L)$ as a function of her (unverifiable) costs, and her representation fee $F_R(\omega)$ as a function of the SIG's case ω . In each subgame after the announcement of price schedules we also select the equilibrium that yields maximum profit for the lobbyist.

price she can charge to her remaining clients. Second, when choosing which unworthy clients to represent, it is always optimal for the lobbyist to select those who are *least unworthy* – that is, whose cases ω are in an interval closest to P . By doing so, the lobbyist minimizes the increase in the probability her clients will be reviewed $\frac{\phi_P^{\ell-}}{\bar{c}_P}$ (and therefore maximizes the price she can charge) holding fixed the measure of clients she represents. Third, it is never profitable to represent so many unworthy clients that the politician’s posture toward them becomes adversarial ($\underline{\omega} < 2P - \bar{\omega}$), since she will then actually lose money on unworthy clients, and make strictly less on worthy ones.

Equilibrium derivation To derive the profit-maximizing equilibrium with commitment, let $\psi_L(\underline{\omega}, \alpha_P^\ell)$ denote the lobbyist’s *expected profit per client* from providing an investigation in strategy profiles of the form in Remark 1. (Also observe that setting $\alpha_P^\ell = 1$ maximizes the lobbyist’s profits, and is an equilibrium posture for the politician whenever $\underline{\omega} \geq 2P - \bar{\omega}$).

We then have that:

$$\begin{aligned} \psi_L(\underline{\omega}, 1) &= \hat{F}_I + \left(\frac{P - \underline{\omega}}{\bar{\omega}}\right) \left(-k_L + \hat{F}_R^U\right) + \left(\frac{\bar{\omega} - P}{\bar{\omega}}\right) \left(-k_L + \hat{F}_R^W\right) \\ &= \frac{P}{\bar{\omega}} k_S + \left(\frac{P - \underline{\omega}}{\bar{\omega}}\right) \cdot \left(-k_L + \pi_S \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right)\right) + \left(\frac{\bar{\omega} - P}{\bar{\omega}}\right) \cdot \left(-k_L + k_S + \pi_S \left(1 - \frac{\phi_P^{d+}}{\bar{c}_P}\right)\right) \end{aligned}$$

where $\phi_P^{\ell-}(\underline{\omega}) = \frac{(P - \underline{\omega})^2}{2(\bar{\omega} - \underline{\omega})}$ and $\phi_P^{d+} = \frac{(\bar{\omega} - P)^2}{2\bar{\omega}}$. The price \hat{F}_I charged at the investigation stage is constant. However, the expected profits from representation depend on the lobbyist’s representation cutpoint $\underline{\omega}$.

Formally, a profit-maximizing lobbyist maximizes $\psi_L(\underline{\omega}, 1)$ by implementing the unique cutpoint $\underline{\omega}^* \in [2P - \bar{\omega}, \bar{\omega}]$ that trades off the profit of accepting each additional unworthy client against the cost of reducing her credibility (i.e. increasing $\phi_P^{\ell-}(\underline{\omega})$). She will furthermore offer an acceptable investigation price at the initial stage only when $c_L \leq \phi_L^* = \psi_L(\underline{\omega}^*, 1)$; i.e., whenever investigation costs are below her expected profits.¹⁰ Intuitively, a

¹⁰A subtle point worth noting here is that the probability the SIG is uninformed $1 - \frac{\phi_L}{\bar{c}_L}$ has no effect on representation profits only because all worthy SIGs are represented. If the lobbyist were turning away some worthy clients at the representation stage, then those who lobby directly would be a mixture of uninformed SIGs and informed worthy SIGs. It would then not be optimal for the lobbyist to myopically investigate whenever $c_L \leq \psi_L(\omega^*)$ – rather, the lobbyist would also consider how the probability the SIG is uninformed,

lobbyist with commitment calibrates her fees schedule so as to make money representing *some* unworthy clients, but exclude the most unworthy to preserve her credibility, and thereby her profit on the remaining clients. This yields the following equilibrium characterization.

Proposition 1 *When the lobbyist can commit and maximizes her profits, the politician's posture towards her clients is $\alpha_P^{\ell^*} = 1$. She always refers some unworthy SIGs using a cutpoint $\underline{\omega}^* \in [2P - \bar{\omega}, P)$ determined as follows.¹¹*

- If $\pi_S - \frac{k_L}{1 - \frac{\bar{\omega} - P}{(8/5)\bar{c}_P}} < 0$, then $\underline{\omega}^*$ is the unique cutpoint $\in (2P - \bar{\omega}, P)$ solving

$$\phi_P^{\ell^-}(\underline{\omega}^*) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right) \cdot \left(3 - \frac{P - \underline{\omega}^*}{\bar{\omega} - \underline{\omega}^*}\right)^{-1}$$

- Otherwise $\underline{\omega}^* = 2P - \bar{\omega}$.

The lobbyist's equilibrium profits per client are $\psi_L(\underline{\omega}^*, 1)$, and her ex-ante expected profits net of investigation costs are $\frac{(\psi(\underline{\omega}^*, 1))^2}{2\bar{c}_L}$.

Equilibria when the lobbyist can commit in advance to her fee schedules also satisfy the following intuitive comparative statics.

Proposition 2 *A profit-maximizing lobbyist who can commit:*

- refers more unworthy clients, and generates more profit per client, when the value of the favor π_S and/or the the “busyness” of the politician \bar{c}_P increase
- refers fewer unworthy clients, and generates less profit per client, when her cost of direct access k_L increases
- does not change her referral behavior when direct access costs k_S are higher (which increases profit per client) or when her costs are \bar{c}_L are higher (which decreases profit per client).

$\left(1 - \frac{\phi_L}{\bar{c}_L}\right)$, influences her future profits.

¹¹Again note that we have restricted attention to strategies of the form in Remark 1. However, in the Appendix we prove optimality of these equilibria within a larger class.

Summarizing, the main insights of our analysis with a lobbyist that can commit are threefold. First, she capitalizes on her credibility by taking some unworthy clients, and balances the associated profit against the costs to her credibility. Second, she refers more unworthy clients, and generates more profit per client, when the SIG values the favor more, and when the politician becomes busier and in greater need of her vetting. Finally, she refers fewer unworthy clients when her costs of access are higher. While this increases her credibility, it also reduces her profits from representation, and thus also decreases the likelihood that she will conduct an initial investigation on the SIG's behalf.

6 A lobbyist without commitment

We now analyze the main model, in which the lobbyist is unable to commit ex-ante to her fee schedules. We previously showed how a lobbyist with commitment can calibrate her fees so as to preserve her credibility with the politician, and therefore her ability to charge those fees. However, a real-world lobbyist more realistically lacks this commitment power, and instead decides who to represent ex-interim. She therefore cannot directly consider how these choices influence her reputation with the politician and equilibrium profits. Instead, she considers only her immediate interim profits and influence on policy outcomes.

Formally, without commitment the lobbyist posts her investigation fee $F_I \geq 0$ only after her investigation costs c_L have been realized, and posts her representation fee $F_R \geq 0$ after the political merits ω of the SIG's case have been revealed.

Form of Equilibria While we consider several variants of the model with different preferences for the lobbyist, we first briefly remark on why we restrict attention to strategy profiles of the form in Remark 1.

First, absent commitment equilibrium requires that whenever the surplus from a contract is strictly positive at either stage, the lobbyist charges the SIG's maximum willingness to pay \hat{F}_I and $\hat{F}_R(\omega)$, and the SIG always accepts. Otherwise the lobbyist would have an incentive to deviate by slightly raising her price (to make more money while ensuring a deal)

or slightly lower her price (to ensure a deal is made). Furthermore, when the surplus is strictly negative, the lobbyist must charge a price that the SIG will reject. The restrictions in the pricing and acceptance strategies in Remark 1 are therefore without loss of generality.

Second, Remark 1 further restricts attention to strategies in which the lobbyist represents all worthy SIGs ($\omega \geq P$). This is not without loss of generality, but rather a simplifying assumption whose validity must be checked in each derived equilibrium. Once made, however, the other properties of the strategy profiles in Remark 1 immediately follow. First, the optimal outside option of an unworthy SIG is to stay home (which yields the favor with probability $\Delta_S^0(\omega < P) = 0$), and the optimal outside options of uninformed and worthy SIGs is to lobby directly. Second, both an unworthy and worthy SIG are more likely to receive the favor with the lobbyist’s representation than without it. Third, a best response by the lobbyist always involves representing SIGs with cases above a cutpoint $\underline{\omega}$, and pricing out those with cases below. Finally, a best response also involves offering an acceptable investigation price whenever investigation costs are below some threshold ϕ_L .

6.1 The lobbyist’s dilemma

We begin with a lobbyist who is purely profit-motivated ($\delta = 0$), and who will therefore take any client who is strictly profitable ex-interim. We show how the politician’s understanding of this incentive undermines the lobbyist’s credibility, and therefore her ability to charge for her services. We term this phenomenon “the lobbyist’s dilemma.”

Formally, when the lobbyist lacks commitment, her decision over whether to represent an unworthy SIG ($\omega < P$) depends only on the *interim* “rents” from representation. If she doesn’t care about policy, then these rents are simply the fees net of access costs, i.e.

$$-k_L + \hat{F}_R^U = -k_L + \pi_S \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P} \right). \quad (6)$$

In equilibrium, the fee \hat{F}_R^U in turn depends on the politician’s beliefs about $\underline{\omega}$.

The key equilibrium property for a profit-motivated lobbyist without commitment is that she must use the exact cutpoint $\underline{\omega}^*$ that drives the interim profit from representing an unworthy SIG all the way down to 0. If the politician believed the lobbyist to be screening more

($\underline{\omega} > \underline{\omega}^*$), then representing unworthy SIGs would be strictly profitable, the lobbyist would strictly prefer to represent all of them, and this would not be an equilibrium. Conversely, if the politician believed the lobbyist to be screening less ($\underline{\omega} < \underline{\omega}^*$), then representing unworthy SIGs would be strictly unprofitable, the lobbyist would strictly prefer to reject all of them, and again this would not be an equilibrium.

Depending on the parameters of the model, profits from representing an unworthy SIG can be driven down to 0 in two ways. If the parameters are such that the profit temptation to represent an unworthy SIG is not too high, then there is a cutpoint $\underline{\omega}^* \in (2P - \bar{\omega}, P)$ that yields a sufficiently high probability of review $\frac{\phi_P^{\ell^-}(\underline{\omega}^*)}{\bar{c}_P}$ to eliminate profits even when the politician's posture is fully favorable ($\alpha_P^{\ell^*} = 1$). Alternatively, if the profit temptation to represent unworthy SIGs is high, then equilibrium requires that the lobbyist represent the maximal set of unworthy SIGs consistent with a favorable posture ($\underline{\omega}^* = 2P - \bar{\omega}$), and that the politician's posture $\alpha_P^{\ell^*}$ be reduced sufficiently to eliminate interim profits. Intuitively, an equilibrium with a fully favorable posture obtains when the politician has low costs of review (\bar{c}_P low), the policy favor is not too valuable (π_S low), there are fewer worthy clients ($\bar{\omega} - P$ is low), and/or the lobbyist has higher access costs k_L .

We now fully characterize the unique equilibrium within the class of strategy profiles considered in Remark 1.¹²

Proposition 3 *When the lobbyist is purely profit motivated but can't commit, she always refers some unworthy SIGs using a cutpoint $\underline{\omega}^{\delta=0} \in [2P - \bar{\omega}, P)$ determined as follows.*

- If $\pi_S - \frac{k_L}{1 - \frac{\bar{\omega} - P}{4\bar{c}_P}} < 0$, then $\alpha_P^{\ell^*} = 1$ and $\underline{\omega}^{\delta=0}$ is the unique cutpoint $\in (2P - \bar{\omega}, P)$ solving

$$\phi_P^{\ell^-}(\underline{\omega}^{\delta=0}) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S} \right).$$

¹²Note that there are actually many equilibria when the lobbyist is *purely* profit-motivated because she is exactly indifferent to accepting *all* unworthy SIGs. We effectively consider the unique equilibrium that is the limit of equilibria as $\delta \rightarrow 0$.

- Otherwise $\underline{\omega}^{\delta=0} = 2P - \bar{\omega}$ and

$$\alpha_P^{\ell*} = \frac{k_L}{(\pi_S - \delta(\bar{\omega} - P)) \left(1 - \frac{\bar{\omega} - P}{4\bar{c}_P}\right)} < 1$$

The lobbyist's equilibrium profits per client are

$$\psi(\underline{\omega}^{\delta=0}, \alpha_P^{\ell*}) = k_S + \left(1 - \frac{P}{\bar{\omega}}\right) \frac{\pi_S}{\bar{c}_P} \left(\min\left\{\frac{\bar{\omega} - P}{4}, \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)\right\} - \frac{(\bar{\omega} - P)^2}{2\bar{\omega}}\right),$$

and her ex-ante expected profits net of investigation costs are $\frac{(\psi(\underline{\omega}^{\delta=0}, \alpha_P^{\ell*}))^2}{2\bar{c}_L}$.

Comparing to the game with commitment, it is immediate that the lobbyist's profits are strictly lower. With commitment, the lobbyist makes strictly positive profits off of representing unworthy SIGs by balancing the profit motive against the costs to her credibility. Without commitment, she cannot resist the temptation to represent unworthy clients, and therefore must make no profit off them in equilibrium. The lobbyist may also make less money representing *worthy* clients if the temptation to represent unworthy ones is so great that the politician must also reduce his posture ($\alpha_P^{\ell*} < 1$).¹³ Because she makes less providing representation, a lobbyist without commitment also investigates less in the first stage, thus reducing welfare-enhancing information provision. Figure 4a illustrate the difference between the representation behavior of a profit-motivated lobbyist who can commit and one who can't as a function of the politician's "busyness" \bar{c}_P ; Figure 4b illustrates the effect on the politician's equilibrium posture toward the lobbyist's clients; and Figure 4c illustrates the foregone profits.

Comparative statics with respect to profit are similar to those in the game with commitment, with one exception. With commitment a busier politician (greater \bar{c}_P) always results in greater lobbyist profits; the politician is less inclined to investigate on his own, so the lobbyist can charge more for representation. Without commitment, however, a busier politician can negatively impact the lobbyist's profits (specifically, when $\pi_S - \frac{k_L}{1 - \frac{\bar{\omega} - P}{4\bar{c}_P}} \geq 0$). This reflects the nature of a profit-motivated lobbyist's credibility problem. When the politician becomes too busy, representation becomes so lucrative that the temptation to represent an

¹³Note that at the investigation stage, the SIG's willingness to pay remains the same.

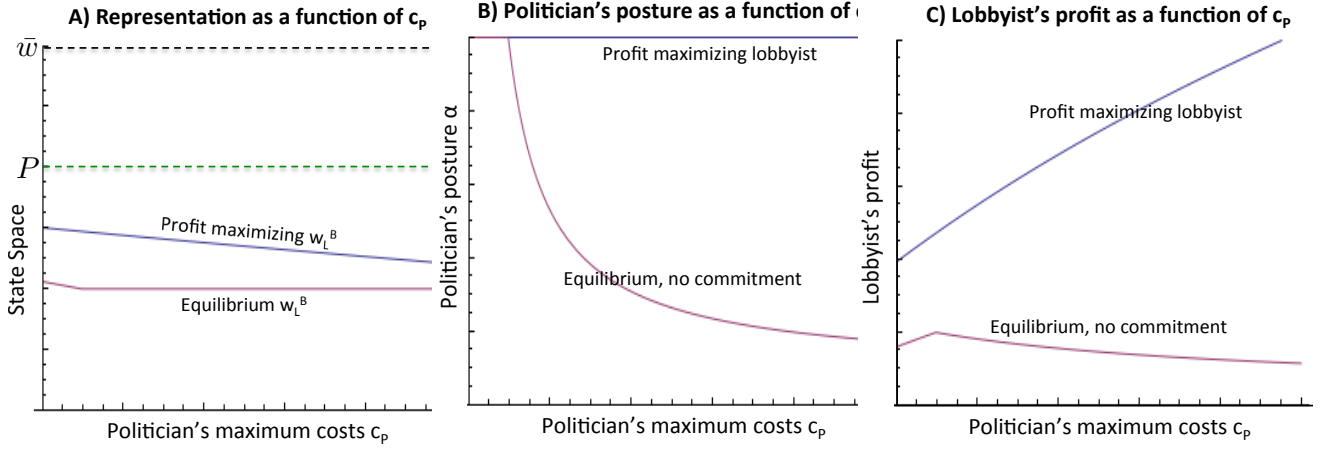


Figure 4: The effect of the politician's "busyness" \bar{c}_P on: **A)** the set of clients represented by the lobbyist; **B)** the politician's posture; and **C)** The lobbyist's profit. Parameter values are set at c_P ranging from .1 to .2, $\bar{w} = 1.2$, $P = .8$, $\pi_S = 1$, $k_S = k_L = .088$, and $\bar{c}_L = .09$.

unworthy SIG is not sufficiently dissipated by increasing the size of the market. In order to incentivize the lobbyist to screen clients as \bar{c}_P increases further, the politician must also adopt an increasingly less favorable posture (lower $\alpha_P^{\ell*}$) which reduces the price the lobbyist can charge her worthy clients, and her profits overall. Figure 4c illustrates the effect.

The preceding results are summarized in the proposition below.

Proposition 4 *As compared to the game with commitment, a purely profit-motivated lobbyist enjoys strictly lower profit per client, either by referring more unworthy clients, being treated with a less favorable posture α_P^{ℓ} , or both. In addition,*

- *profit is first increasing but then decreasing in the politician's "busyness" \bar{c}_P*
- *other comparative statics of profit in π_S , k_L , k_S , and c_L are identical*

6.2 "Connections" as a solution

The lobbyist's dilemma is an inability to restrain herself from representing an unworthy SIGs when doing so is profitable. In this section we explore a particular empirically relevant feature of lobbyists that can help them restrain themselves; a sense of obligation to the politician they are lobbying. Specifically, we consider a lobbyist who places weight δ on the politician's policy preferences (i.e. $\delta > 0$ and $L = P$). We label such a lobbyist as having

“connection preferences” because such preferences may naturally arise through the sorts of personal and professional relationships that are commonly described as “connections” in the empirical lobbying literature.

A lobbyist with connection preferences will always prefer to represent all worthy clients. Doing so yields both monetary profits and policy gains because it increases the chance that a worthy SIG will receive the favor. However, for a “connected” lobbyist, representing an unworthy SIG involves a trade-off between the monetary profits $-k_L + \hat{F}_R^U$ that can be gained, and the intrinsic policy cost $\delta(P - \omega)$ she suffers from helping it receive the favor (which occurs with probability $\Delta_S^\ell(\omega < P)$). Taking into account these competing effects, the lobbyist’s rents from representing an unworthy SIG ($\omega < P$) are:

$$-k_L + \hat{F}_R^U - \delta \cdot \Delta_S^\ell(\omega < P) \cdot (P - \omega) = -k_L + (\pi_S - \delta(P - \omega)) \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right) \quad (7)$$

As before, these rents depend on the politician’s beliefs about $\underline{\omega}$, which determine the probability $\Delta_S^\ell(\omega < P) = \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right)$ that representation produces the favor. Unlike before, however, the rents also depend on the SIG’s case ω – the more unworthy is the case (lower ω), the greater is the intrinsic cost of representation to a connected lobbyist.

Equilibrium requires that the representation decisions of the lobbyist and the politician’s beliefs about them be mutually consistent. As a consequence, the key equilibrium property for a connected lobbyist is that the interim “rents” – including policy losses – from representing the *worst* unworthy client $\underline{\omega}$ be exactly equal to 0, i.e.,

$$-k_L + (\pi_S - \delta(P - \underline{\omega})) \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right) = 0 \iff \pi_S - \frac{k_L}{\alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right)} = \delta(P - \underline{\omega}) \quad (8)$$

As before, the lobbyist does not represent unworthy SIGs so often that the politician’s favorable posture collapses ($\underline{\omega} < 2P - \bar{\omega} \rightarrow \alpha_P^\ell = 0$); if she did, then representation would have no impact on the probability an unworthy SIG receives the favor, and she would be better off saving her access costs k_L . She also cannot turn away all unworthy clients ($\underline{\omega} = P$), since then the incremental cost of representing a marginally unworthy client would be 0, while the incremental profits would be strictly positive (i.e. the l.h.s. $\pi_S - k_L$ of eqn. 8 is $>$ the r.h.s.

0). Rather, in equilibrium the lobbyist must use the unique cutpoint $\underline{\omega}^* \in [2P - \bar{\omega}, P)$ where the impact of representation $\alpha_P^\ell \left(1 - \frac{\phi_P^\ell(\underline{\omega}^*)}{\bar{c}_P}\right)$ is sufficiently diminished, *and* the policy cost from representing the worst unworthy client $\delta(P - \underline{\omega}^*)$ is sufficiently large, that the rents from representing the worst client $\underline{\omega}^*$ are dissipated to 0.

As with a profit-motivated lobbyist, the equilibrium $\underline{\omega}^*$ may be interior to $(2P - \bar{\omega}, P)$ and involve a fully favorable posture $\alpha_P^{\ell*} = 1$, or be on the boundary ($\underline{\omega}^* = 2P - \bar{\omega}$) and involve a somewhat favorable posture ($\alpha_P^{\ell*} < 1$). The crucial difference, however, is that the lobbyist's interim *monetary profits* from representing an unworthy SIG will not be dissipated down to 0. The reason is that the lobbyist's "connection preferences" protect her from the temptation to represent unworthy clients below $\underline{\omega}^*$, despite the interim profits she could make doing so. Moreover, while a favorable equilibrium posture ($\alpha_P^{\ell*} < 1$) remains more likely when the lobbyist's interim profit potential is lower, it is *also* more likely when her connection δ is stronger larger.

We now fully characterize the unique equilibrium within the class of strategy profiles considered in Remark 1.

Proposition 5 *When the lobbyist has connection preferences with weight δ , she always refers some unworthy SIGs using a cutpoint $\underline{\omega}_{L=P}^\delta \in [2P - \bar{\omega}, P)$ determined as follows.*

- If $\pi_S - \frac{k_L}{1 - \frac{\bar{\omega} - P}{4\bar{c}_P}} < \delta(\bar{\omega} - P)$, then $\alpha_P^{\ell*} = 1$ and $\underline{\omega}_{L=P}^\delta$ is the unique cutpoint $\in (2P - \bar{\omega}, P)$ solving

$$\phi_P^\ell(\underline{\omega}_{L=P}^\delta) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S - \delta(P - \underline{\omega}_{L=P}^\delta)}\right)$$

- Otherwise $\underline{\omega}_{L=P}^\delta = 2P - \bar{\omega}$ and

$$\alpha_P^{\ell*} = \frac{k_L}{(\pi_S - \delta(\bar{\omega} - P)) \left(1 - \frac{\bar{\omega} - P}{4\bar{c}_P}\right)} < 1$$

The lobbyist's equilibrium profits per client are $\psi_L(\underline{\omega}_{L=P}^\delta, \alpha_P^{\ell*})$.

Relative to a profit-motivated lobbyist, a connected lobbyist – again in the sense of *preferences* – enjoys strictly higher profits per client. This finding is consistent with the empirical

lobbying literature, but has a very different interpretation. That literature attributes the profitability of connected lobbyists to their ability to “sell” personal relationships to the highest bidder. In our model, in contrast, a “connection” is precisely what protects the lobbyist from the temptation to sell her services to the highest bidder, which preserves her credibility and ability to charge for her services. Formally, a lobbyist with connection preferences earns a strictly positive profit on a positive set of unworthy clients, while without connection preferences she would earn exactly zero profit on any she represents. Moreover, because a connected lobbyist induces a weakly more favorable posture (and strictly greater whenever the posture without a connection is somewhat favorable) she also earns weakly greater profit on worthy clients as well.

The set of clients and prices have intuitive comparative statics in the strength of the lobbyist’s connection δ . As δ increases, the lobbyist suffers more from representing unworthy SIGs, and so represents fewer of them. This in turn increases the politician’s trust in her recommendations, and allows her to charge a strictly higher price to unworthy SIGs, and sometimes to worthy SIGs as well. Connection preferences are only profitable up to a point, however, because of the tension between the size of the unworthy market and the price; the connection strength δ^* that maximizes profits per client optimally balances price and market size. Put differently, profit maximization is not equivalent to declining all unworthy SIGs and charging the highest possible prices, because a lobbyist that is unwilling to trade at least somewhat on the trust that he engenders leaves money on the table. These results are summarized in Proposition 6.

Proposition 6 *A lobbyist who is “connected” ($\delta > 0, L = P$) to the politician in the sense of **preferences** enjoys strictly higher profits per client than one who is not; either by referring fewer unworthy clients and being reviewed less frequently, being treated with a more favorable posture $\alpha_P^{\ell^*}$, or both. In addition,*

- *the prices charged by the lobbyist are increasing in δ*

- profits per client $\psi_L(\underline{\omega}_{L=P}, \alpha_P^{\ell*})$ are first increasing and then decreasing in the strength of the lobbyist’s connection δ to the politician, and maximized at some δ^* .

6.3 “Ideology” as a solution

In the previous section we explored personal connections as one factor that can restrain the lobbyist from representing an unworthy SIG. In this section we explore another; a personal *ideology* that gives the lobbyist her own intrinsic threshold L for preferring the favor to be granted. For example, suppose that the SIG is a “clean energy” company that seeks a government subsidy. Then the lobbyist’s personal ideology about markets determines how efficient the subsidy must be ($\omega \geq L$) before she personally supports it. Moreover, the strength her ideological preferences δ determines how much she weighs the utility from helping the SIG relative to the monetary profits. We say that the lobbyist is more *demanding* the higher is L , is more *permissive* the lower is L , and is more *intense* the higher is δ .¹⁴

Unlike a connected lobbyist, an ideological lobbyist will not necessarily prefer to represent all worthy clients because she may be more demanding than the politician ($L > P$). In this draft, however, we restrict attention to strategy profiles in which all worthy SIGs are represented (see Remark 1), which creates an upper bound on *how much* more demanding the lobbyist may be.

Also unlike a connected lobbyist, representing an unworthy SIG may not necessarily involve a trade-off between monetary profits $-k_L + \hat{F}_R^U$ and ideological costs $\delta(L - \omega)$; if the lobbyist is much more permissive than the politician ($L < P$), then she may actually prefer to represent an unworthy SIG both on monetary and policy grounds. Taking into account these effects, the lobbyist’s rents from representing an unworthy SIG ($\omega < P$) are:

$$-k_L + (\pi_S - \delta(L - \omega)) \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P} \right) \quad (9)$$

Equilibrium again requires that the representation decisions of the lobbyist and the politician’s beliefs about them be mutually consistent. However, unlike a connected lobbyist, an

¹⁴Mathematically, an ideological lobbyist is a straightforward generalization of a connected lobbyist, where we may have $L \neq P$. Thus, a connected lobbyist may alternatively be thought of as an ideological lobbyist who perfectly shares the politician’s ideology ($L = P$).

ideological lobbyist may be sufficiently demanding and intense to *perfectly screen* the SIG in equilibrium by only offering representation if it is worthy ($\underline{\omega} = P$). This will be the case if

$$-k_L + (\pi_S - \delta(L - P)) \leq 0 \iff L \geq P + \left(\frac{1}{\delta}\right) (\pi_S - k_L); \quad (10)$$

that is, if the lobbyist finds an SIG at $\omega = P$ sufficiently ideologically distasteful to overcome the monetary profit from representing it when she is fully trusted by the politician. Such an equilibrium is impossible for a connected lobbyist ($L = P$) because the marginal policy cost of representing a minimally unworthy client approaches 0.

When Equation 10 fails, then the lobbyist must represent some unworthy SIGs in equilibrium, and again use the cutpoint $\underline{\omega} \in [2P - \bar{\omega}, P)$ that drives down the “rents” from representing the worst unworthy client $\underline{\omega}$ down to 0. Equilibrium thus requires that

$$-k_L + (\pi_S - \delta(L - \underline{\omega})) \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell^-}(\underline{\omega})}{\bar{c}_P}\right) = 0 \iff \pi_S - \delta(L - \underline{\omega}) = \frac{k_L}{\alpha_P^\ell \left(1 - \frac{\phi_P^{\ell^-}(\underline{\omega})}{\bar{c}_P}\right)} \quad (11)$$

As in the previous sections, the equilibrium $\underline{\omega}^*$ may be interior ($\underline{\omega}^* \in (2P - \bar{\omega}, P)$) and involve a fully favorable posture $\alpha_P^{\ell^*} = 1$, or be on the boundary ($\underline{\omega}^* = 2P - \bar{\omega}$) and involve a somewhat favorable posture ($\alpha_P^{\ell^*} < 1$). And like a connected lobbyist, the equilibrium *monetary profits* from representing an unworthy SIG will in general *not* be equal to 0 when the lobbyist has ideological preferences. However, because an ideological lobbyist may be more permissive than the politician ($L < P$), in equilibrium she may actually need to suffer *monetary losses* from representing an unworthy SIG in order to reduce her incentive to do so. And as we will see, it is actually a very permissive lobbyist who, in equilibrium, must be the *least* effective at extracting the favor for her client.

We now fully characterize the unique equilibrium within the class of strategy profiles considered in Remark 1. Worth noting is that an equilibrium of our desired form will exist even when the lobbyist becomes arbitrarily permissive ($L \rightarrow 0$). Intuitively, the reason is that even a very permissive lobbyist will prefer not to waste the unconditional cost k_L of representing the SIG if it will have no impact on the probability it receives the favor.

Proposition 7 *When the lobbyist has ideological preferences with weight δ , an equilibrium*

of the form in Remark 1 exists if and only if the lobbyist is not too demanding and intense $\left(\delta(L - P) \leq \pi_S + \frac{k_S - k_L}{1 - \frac{\phi_{d+}^+}{\bar{c}_P}} \right)$, and takes the following form.

- If $\pi_S - k_L \leq \delta(L - P)$, then $\underline{\omega}_L^\delta = P$ and $\alpha_P^{\ell*} = 1$.
- If $\pi_S - k_L > \delta(L - P)$ but $\pi_S - \frac{k_L}{1 - \frac{\bar{\omega} - P}{4\bar{c}_P}} < \delta(L - (2P - \bar{\omega}))$, then $\alpha_P^{\ell*} = 1$ and $\underline{\omega}_{L=P}^\delta$ is the unique cutpoint $\in (2P - \bar{\omega}, P)$ solving

$$\phi_P^{\ell-}(\underline{\omega}_L^\delta) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S - \delta(L - \underline{\omega}_L^\delta)} \right)$$

- Otherwise $\underline{\omega}_{L=P}^\delta = 2P - \bar{\omega}$ and

$$\alpha_P^{\ell*} = \frac{k_L}{(\pi_S - \delta(L - (2P - \bar{\omega}))) \cdot \left(1 - \frac{\bar{\omega} - P}{4\bar{c}_P} \right)} < 1$$

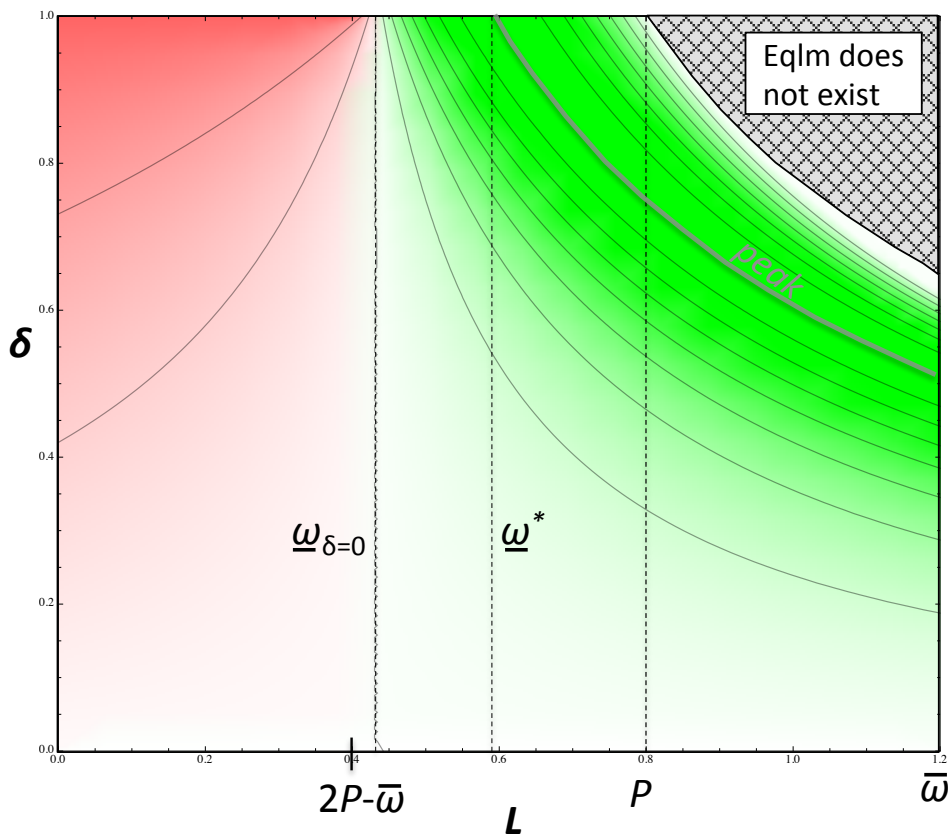
The lobbyist's equilibrium profits per client are $\psi_L(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$.

The lobbyist's profits We previously showed that a *connected* lobbyist is able to charge higher prices, and enjoys strictly higher profits per client, by virtue of her intrinsic distaste for helping unworthy clients. The effect of an *ideology*, however, is not so straightforward. Like a connection, an ideology may help the lobbyist make money if she is sufficiently demanding (high L) that her ideological distaste for the SIG improves the credibility of her recommendations. However, an ideology may also interfere with profit-making if it makes the lobbyist too unwilling to exploit her credibility and leave money on the table. Even worse, an ideology may actively harm the lobbyist's profits if she is so permissive (low L) that her preference alignment with the SIG sufficiently damages her credibility. A lobbyist who is essentially *allied* with the SIG will have so little credibility that in equilibrium her influence, and her profits, must be minimal.

Figure 5 is a contour plot of the *difference* in profits per client between an ideological lobbyist and a profit-motivated lobbyist; the lobbyist's ideology L is on the x -axis, and her intensity δ is on the y -axis. In the green region profits per client exceed those of a profit-motivated lobbyist; in the red region profits per client are below those of a profit-motivated lobbyist; and in the hatched region an equilibrium of the form in Remark 1 does not exist.

Formally, the profits per client of an ideological lobbyist depend on the relative configuration of her ideology L , the equilibrium cutpoint that a profit-motivated lobbyist *without commitment* $\underline{\omega}_{\delta=0}$ would employ, and the equilibrium cutpoint that a profit-motivated lobbyist *with commitment* $\underline{\omega}^*$ would employ. Recall that $\underline{\omega}_{\delta=0}$ drives the profit from representing an unworthy client down to 0, while $\underline{\omega}^* \geq \underline{\omega}_{\delta=0}$ balances the lobbyist's profits from representing unworthy clients against the costs to her credibility. To state results, we employ the following terminology; we say that the lobbyist is *permissive* if $L < \underline{\omega}_{\delta=0}$, that she is *somewhat demanding* if $L \in (\underline{\omega}_{\delta=0}, \underline{\omega}^*]$, and that she is *very demanding* if $L > \underline{\omega}^*$.

Figure 5: Per-client profits as function of L and δ



We first compare the profits of an ideological lobbyist to a profit-motivated lobbyist.

Proposition 8 *If the lobbyist is permissive ($L < \underline{\omega}_{\delta=0}$) then she*

- *suffers strictly lower profits per client than a profit-motivated lobbyist; either by refer-*

ring more unworthy clients and being reviewed more frequently, being treated with a less favorable posture, or both

- loses money on every unworthy client

If the lobbyist is demanding ($L > \underline{\omega}_{\delta=0}$), then she

- enjoys weakly higher profits per client than a profit-motivated lobbyist; either by referring fewer unworthy clients and being reviewed less frequently, being treated with a more favorable posture, or both¹⁵
- makes money on every unworthy client

Whether an ideological lobbyist makes higher or lower profits than a profit-motivated lobbyist thus depends on the relationship between her ideology L and the cutpoint that a profit-motivated lobbyist $\underline{\omega}_{\delta=0}$ would employ. The intuition for this result can be easily seen by considering a profit-motivated lobbyist who uses an interior cutpoint ($\underline{\omega}_{\delta=0} \in (2P - \bar{\omega}, P)$). If the politician believed a *permissive* lobbyist ($L < \underline{\omega}_{\delta=0}$) to be using this same cutpoint, then the lobbyist would break even on profits but strictly prefer to represent an unworthy client at $\omega = \underline{\omega}_{\delta=0}$ on policy grounds. Equilibrium thus requires that she refer more unworthy clients ($\underline{\omega}_L^\delta < \underline{\omega}_{\delta=0}$), and *lose money* representing unworthy clients. Similarly, if the politician believed a *demanding* lobbyist ($L > \underline{\omega}_{\delta=0}$) to be using cutpoint $\underline{\omega}_{\delta=0}$, then the lobbyist would break even on profits but strictly prefer to decline an unworthy client at $\omega = \underline{\omega}_{\delta=0}$ on policy grounds. Equilibrium thus requires that she refer fewer unworthy clients ($\underline{\omega}_L^\delta > \underline{\omega}_{\delta=0}$), and make money representing unworthy clients.

We next consider comparative statics in profits per client as a function of the lobbyist's ideology L , holding her intensity δ fixed.

Proposition 9 *The lobbyist's profit per client is first increasing and then decreasing in her ideology L . The ideology $L^*(\delta)$ that maximizes profit per client is always strictly greater than*

¹⁵And strictly higher unless $\underline{\omega}_L^\delta = P$ and $\underline{\omega}_{\delta=0} > 2P - \bar{\omega}$.

$\underline{\omega}^*$, and is strictly decreasing in δ . It is more demanding than the politician if the lobbyist is not too intense ($\delta < \delta^* \rightarrow L^*(\delta) > P$) and less demanding otherwise ($\delta > \delta^* \rightarrow L^*(\delta) < P$).

The model thus yields the natural comparative static that a more demanding ideology first helps, and then harms, profits. Up to a point ($L^*(\delta)$), a more demanding ideology raises profits by increasing the credibility of the lobbyist's recommendations. However, beyond that point the lobbyist's ideology becomes too demanding and causes her to trade insufficiently on her credibility. The ideology $L^*(\delta)$ that maximizes the lobbyist's profits per client must naturally be always more demanding than the cutpoint $\underline{\omega}^*$ that a profit-maximizing lobbyist with commitment would employ, to protect her from the profit motive. However, whether it is also more demanding than the *politician* depends on the lobbyist's intensity – if she is not too intense ($\delta < \delta^*$) and predominantly motivated by profits, then maximizing profits requires her to be even more ideologically demanding than the politician, whereas if she is more intense ($\delta > \delta^*$) then she need only be more demanding than $\underline{\omega}^*$.

We last consider comparative statics in profits per client as a function of the lobbyist's intensity δ , holding ideology L fixed.

Proposition 10 *If the lobbyist is (i) permissive ($L < \underline{\omega}_{\delta=0}$), then prices and profits per client are decreasing δ , (ii) somewhat demanding ($L \in (\underline{\omega}_{\delta=0}, \underline{\omega}^*]$), then prices and profits per client are increasing in δ , or (iii) very demanding ($L > \underline{\omega}^*$), then prices are increasing in δ , and profits per client are first increasing and then decreasing in δ .*

Greater ideological intensity can thus help or harm the lobbyist's profits. If she is the sort of lobbyist whose ideological permissiveness requires that she lose money in equilibrium, then greater ideological intensity δ will only make her lose even more money. If she is ideologically demanding enough to protect her from the profit motive, then greater intensity will improve her credibility and her profits. However, if she is even more ideologically demanding than profit-maximization would call for, then greater intensity only helps her to a point – but

note that *any* level of intensity result in profits that are at least as high (and usually strictly higher) than those of a purely profit-motivated lobbyist.

6.4 The politician's welfare

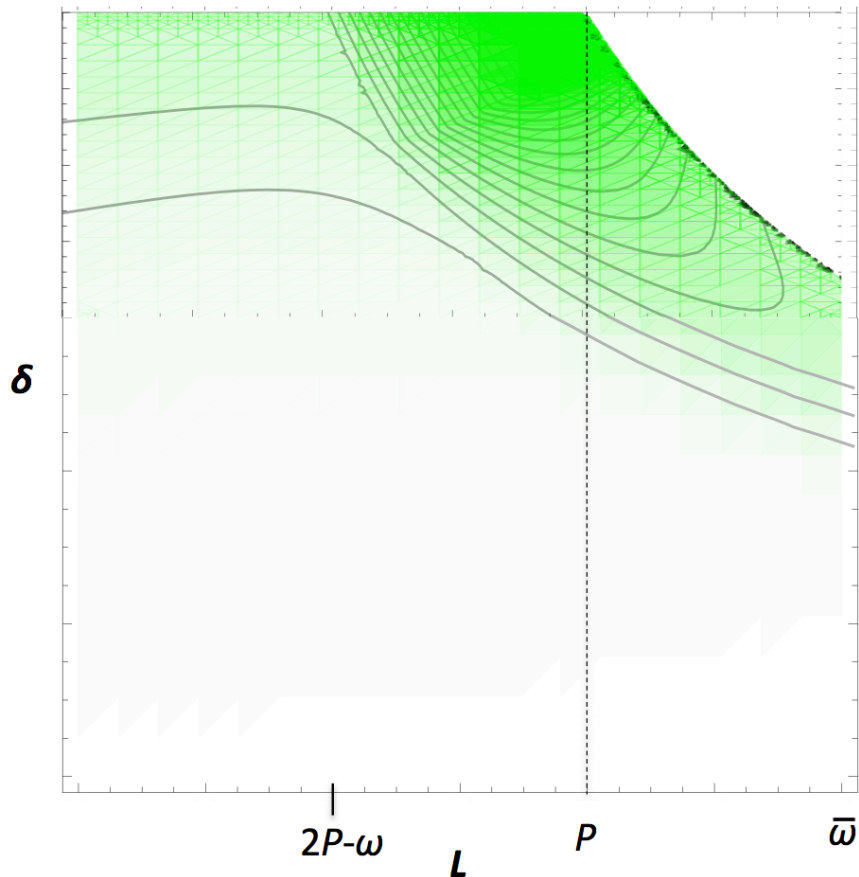
While the previous sections considered the effect of policy preferences on the prices and profits of the lobbyist, we now briefly consider the effects on the politician. In particular, we examine what sort of lobbyist maximizes the politician's welfare. In the present draft we omit a direct analytic treatment of this question, and instead consider a numerical example that highlights some of the salient considerations. Figure 6 is a contour plot of the politician's ex-ante expected utility for a particular profile of parameters of the model; the lobbyist's ideology L is on the x -axis, and her intensity δ is on the y -axis. (In the white region an equilibrium of the form in Remark 1 does not exist.)

The ideal lobbyist for the politician would do two things. First, she would always investigate the SIG's case ($\phi_L = \bar{c}_L$), and therefore always know its merits. Second, she would represent the SIG if and only if its claim was worthy ($\underline{\omega} = P$). Such a lobbyist would always learn, and tell the politician, exactly what he needs to know to decide optimally without investigating on his own. In equilibrium, however, the frequency with which the lobbyist investigates ($\frac{\phi_L}{\bar{c}_L}$), and the quality of her recommendations ($\underline{\omega}$), are constrained by her preferences – that is, by the strength of her connection δ for a connected lobbyist, and by her ideology L and intensity δ for an ideological lobbyist.

Interpreting the numerical example for a connected lobbyist ($L = P$) is relatively straightforward; along the dashed line at P , the utility of the politician is strictly increasing in δ . Thus, a more strongly connected lobbyist is always better for the politician. This is a natural implication of the fact that the policy preferences of a connected lobbyist and politician are perfectly aligned; a stronger connection induces the lobbyist to both use a more discriminating threshold, and to investigate more often to achieve desirable policy outcomes. There is thus a conflict between the politician's interests and the lobbyist's profits; a sufficiently strong connection helps the politician, but hurts profits.

For an ideological lobbyist, the answer is more complex. We note three properties of the numerical example.

Figure 6: Politician’s ex-ante expected utility as function of L and δ



First and unsurprisingly, the politician’s utility is maximized by *simultaneously* increasing the lobbyist’s intensity (higher δ) and her preference alignment with the politician ($L \rightarrow P$). This is reflected by the increasing “ridge” in the contour plot. Second, for any *given* level of intensity δ , the politician’s expected utility is strongly non-monotonic in L , even though a more demanding L makes more reliable recommendations. Specifically, the politician’s utility first decreases, then increases, and then decreases again. This reflects the complex interplay between the quality of the lobbyist’s equilibrium recommendations $\underline{\omega}$, and her equilibrium her willingness to investigate ϕ_L . In words, it is sometimes worth having a less honest lobbyist who nevertheless works harder to become informed.

Finally, the ideology L that maximizes the politician’s utility may be both more and less demanding than the politician P . If the lobbyist is not too intense, then the politician would prefer that the lobbyist be more ideologically demanding to protect against the profit motive. However, if the lobbyist is sufficiently intense, then the politician would actually prefer that the lobbyist be more *permissive*; a more demanding lobbyist will be less intrinsically motivated to help a worthy SIG receive the favor, and therefore investigate less. The question of whether a politician prefers the lobbyist to be a “moderate” or an “extremist” is thus not straightforward.

7 Discussion and Empirical Implications

Our analysis has focused on the nature of the lobbyist’s certification role, her value to clients and politicians, and her ability to make a profit. In doing so, we have highlighted a dilemma that the lobbyist faces: the profit opportunities created by a trusting relationship creates a monetary temptation to undermine that trust.

Motivated by recent empirical evidence that the *identity* of lobbyists is an important determinant of their ability to generate revenue, we have explored policy preferences as a possible solution to this dilemma. A lobbyist with preferences that make an unworthy client less appealing on policy grounds faces less temptation to refer such a client, and can therefore sustain more trust and charge a higher price for her representation. While we have suggested policy preferences as a solution to the lobbyist’s dilemma, others like Groll and Ellis (2013) have argued that reputations built through repeated interaction might help politicians and lobbyists bridge the credibility gap. How do the empirical implications of our model differ from theirs?

In our model, lobbyists effectively require reputations for representing worthy clients to make money – consequently, their credibility, and hence their prices, are *inversely* related to size of the client base they represent. In Groll and Ellis (2013), in contrast, lobbyists make money through reputations for working hard even when their work is unverifiable; lobbyists who develop strong reputations therefore both charge higher prices, and serve a

larger client base. Our model also makes differing predictions about wage dynamics. In any model where profit-enhancing reputations may only be built over time, revenues and profits will be predicted to begin low, and grow sharply over time as a reputation develops. In our model, in contrast, personal connections or preexisting ideological “bonafides” can *substitute* for a reputation for referring good clients built through repeated interaction. The model therefore suggests that lobbyists with these characteristics should be able to generate profit immediately after entering the marketplace, and these profits should remain relatively stable over time as long as the set of politicians remains stable. Finally, lobbyists whose profits derive solely from a reputation for working hard should be relatively immune to changes in the set of politicians they lobby. In contrast, lobbyists whose credibility primarily derives from their personal connection or ideological alignment with politicians should see profits rise and fall as those to whom they share a connection or ideological alignment gain or lose position (Eggers 2010; Vidal, Draca, and Fons-Rosen 2012).

While our model considers the static interaction between a “monopoly” lobbyist and a single SIG and politician, it also provides some insight into what might happen in the larger marketplace for lobbyists. In particular, an interesting theme that emerges from our analysis is that there often exists a conflict between the types of lobbyists preferred by politicians, and the types of lobbyists who would generate the greatest profits. Given this conflict, what type of lobbyists do we imagine might emerge and persist in the market over time?

If there is a robust supply of potential lobbyists, then success will largely be determined by the politicians’ choices of whom to listen to. Thus, we would expect to see the market dominated by lobbyists who serve the interests of politicians. As our numeric results suggests, this would include lobbyists with strong social connections or less permissive ideologies. Conversely, if the supply of lobbyists is determined by the profitability of lobbying, then we would expect to see lobbyists best suited to profit-making emerge. This suggests a marketplace made up of lobbyists with policy preferences, but not necessarily as strongly connected, or ideological extreme, as one determined solely by the choices of politicians.

In reality, success in the lobbying market likely depends both on appealing to politicians, and on earning sufficient profits. The politician’s preferred lobbyist might not find lobbying profitable enough to survive, and the most profitable “monopoly” lobbyist might be out-competed in a market by more discriminating lobbyists. However, in all scenarios, the robust prediction that emerges is consistent with our empirical motivation: policy preferences of some sort are one path to success in the market for influence.

8 Conclusion

In this paper, we have presented a model of lobbying as certification, in which a lobbyist is paid to investigate the claims of SIGs, and screens out those who are most unworthy. Our analysis highlights a dilemma faced by lobbyists that seek to credibly certify the information uncovered by their investigations. As a solution to the dilemma, we have suggested that non-pecuniary preferences as a means of generating credible commitment.

While we have explored the certification process in the context of lobbying, interesting applications exist in other domains where investigation and advocacy services are provided by a single agent. For example, expert witnesses in trials and congressional hearings face a similar dilemma. Hired by a lawyer to uncover evidence preferential to their clients, expert witnesses face a temptation to report favorable information uncovered in their investigations and to suppress unfavorable evidence. Judges, recognizing this incentive, are unlikely to find expert testimony credible unless witnesses are held accountable in different arena, such as academia or their professional community. In fact, recommendations of all sorts are subject to similar pressures. Payola scandals in the radio industry in the 1950s, 1980s and early 2000s uncovered pervasive corruption in the radio DJ “recommendation” market. Radio DJ and station managers were paid by record labels to play (i.e. recommend) certain songs to their listeners. Recognizing that this conflict of interest would undermine the consumer ability to uncover “worthy” music, the federal government has banned the practice and repeatedly initiated large scale prosecutions.

While we have focused on the bilateral lobbying relationship, another important question

is the organization of lobbying firms, and the industrial organization of the lobbying industry. Some lobbying firms are organized as bipartisan firms with different members of the firm having strong connections to different parties. A firm with a diverse set of connection and ideology that additionally serves as a matchmaker (Kang and You 2015) might lend lobbyists further credibility. By creating opportunities to refer a potential client to a colleague and indirectly capture some of the profit, firms can reduce the interim temptation for a particular lobbyist to undermine his relationship with a politician. We believe this is a fruitful area for further research.

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Appendix for “The Lobbyist’s Dilemma”

A Main Proofs

Proof of Proposition 1. In Appendix B.1 we prove the following about the game where the lobbyist can commit ex-ante to her pricing strategies. Among the set of all strategy profiles in which the lobbyist represents all worthy clients, a strategy profile of the form in Remark 1, and in which $\alpha_P^\ell = 1$, maximizes her ex-ante expected profits. Because the lobbyist’s ex-ante expected profit in such profiles is $\frac{(\psi(\underline{\omega}, 1))^2}{2\bar{c}_L}$, a profit maximizing strategy profile within this set is one whose threshold $\underline{\omega}^*$ maximizes the lobbyist’s profits per client, i.e. $\underline{\omega}^* \in \arg \max_{\underline{\omega}} \{\psi(\underline{\omega}, 1) : \underline{\omega} \in [2P - \bar{\omega}, P]\}$, where $\psi(\underline{\omega}, 1) =$

$$\frac{P}{\bar{\omega}}k_S + \left(\frac{P - \underline{\omega}}{\bar{\omega}}\right) \cdot \left(-k_L + \pi_S \left(1 - \frac{\phi_P^\ell(\underline{\omega})}{\bar{c}_P}\right)\right) + \left(\frac{\bar{\omega} - P}{\bar{\omega}}\right) \cdot \left(-k_L + k_S + \pi_S \left(1 - \frac{\phi_P^{d+}}{\bar{c}_P}\right)\right)$$

We now characterize this threshold.

Taking the 1st and 2nd derivatives of $\psi(\underline{\omega}, 1)$ w.r.t. $\underline{\omega}$, rearranging, and simplifying yields:

$$\begin{aligned} \frac{\partial \psi(\underline{\omega}, 1)}{\partial \underline{\omega}} &= \left(\frac{1}{\bar{\omega}}\right) \left(k_L + \pi_S \left(-1 + \frac{\phi_P^\ell(\underline{\omega})}{\bar{c}_P} \left(3 - \frac{P - \underline{\omega}}{\bar{\omega} - \underline{\omega}}\right)\right)\right) \quad \text{and} \\ \frac{\partial \psi^2(\underline{\omega}, 1)}{\partial \underline{\omega}^2} &= \left(\frac{\pi_S}{\bar{c}_P \bar{\omega}}\right) \cdot \frac{\partial}{\partial \bar{\omega}} \left(\phi_P^\ell(\underline{\omega}) \left(3 - \frac{P - \underline{\omega}}{\bar{\omega} - \underline{\omega}}\right)\right) \end{aligned}$$

We first argue that $\psi(\cdot)$ is strictly concave in $\underline{\omega}$ for $\underline{\omega} \in [0, P]$. This furthermore implies that $\psi(\underline{\omega}, 1)$ has unique maximum $\underline{\omega}^*$ in the bounded interval $[2P - \bar{\omega}, P]$. To do so it suffices to show that $\phi_P^\ell(\underline{\omega}) \left(3 - \frac{P - \underline{\omega}}{\bar{\omega} - \underline{\omega}}\right) = \left(3 - \frac{P - \underline{\omega}}{\bar{\omega} - \underline{\omega}}\right) \cdot \left(\frac{P - \underline{\omega}}{\bar{\omega} - \underline{\omega}}\right) \cdot \left(\frac{P - \underline{\omega}}{2}\right)$ is strictly decreasing in $\underline{\omega}$. To see this, observe that the last of the three terms is clearly decreasing in $\underline{\omega}$ so it suffices to show that the product of the first two terms is decreasing in $\underline{\omega}$. This has the form $(3 - f(\underline{\omega})) \cdot f(\underline{\omega})$ where $f'(\underline{\omega}) < 0$. It is then easy to show taking the derivative that this is decreasing if and only if $f(\underline{\omega}) \leq \frac{3}{2}$, but this is straightforward since it is always true that $f(\underline{\omega}) \leq 1$.

Next we observe that $\left.\frac{\partial \psi(\underline{\omega}, 1)}{\partial \underline{\omega}}\right|_{\underline{\omega}=P} < 0$. Hence, $\underline{\omega}^* < P$. Thus, if $\left.\frac{\partial \psi(\underline{\omega}, 1)}{\partial \underline{\omega}}\right|_{\underline{\omega}^*} > 0$ then $\underline{\omega}^*$ is the unique solution to the first order condition $\left.\frac{\partial \psi(\underline{\omega}, 1)}{\partial \underline{\omega}}\right|_{\underline{\omega}^*} = 0$, and otherwise $\underline{\omega}^* = 2P - \bar{\omega}$. Last, it is straightforward to show using the first derivative above that $\left.\frac{\partial \psi(\underline{\omega}, 1)}{\partial \underline{\omega}}\right|_{\underline{\omega}^*} > 0$ i.f.f. the condition in the main text is met, and that $\left.\frac{\partial \psi(\underline{\omega}, 1)}{\partial \underline{\omega}}\right|_{\underline{\omega}^*} = 0$ reduces to the implicit characterization of $\underline{\omega}^*$ in the main text when this is the case.

Proof of Proposition 2. We first show comparative statics in the profit-maximizing cutpoint $\underline{\omega}^*$. From the proof of Proposition 1, an interior $\underline{\omega}^*$ is characterized by the equality:

$$\phi_P^\ell(\underline{\omega}) \left(3 - \frac{P - \underline{\omega}}{\bar{\omega} - \underline{\omega}}\right) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)$$

In that proof we also show that the l.h.s. is strictly decreasing in $\underline{\omega}$. The desired comparative statics then immediately follow: (i) if \bar{c}_P or π_S increase then the r.h.s. increases so $\underline{\omega}$ must decrease for the equality to hold (i.e. refer more unworthy clients), (ii) if k_L increases then the r.h.s. decreases and $\underline{\omega}$ must increase for the equality to hold; (iii) k_S and \bar{c}_L do not appear in the characterization.

We next show the comparative statics in profit. Ex-ante expected profits are equal to $\frac{(\psi(\underline{\omega}^*, 1))^2}{2\bar{c}_L}$. Since \bar{c}_L does not affect $\psi(\underline{\omega}^*, 1)$ it is immediate that profits are decreasing in \bar{c}_L . Conversely, since all other parameters only affect profits through $\psi(\underline{\omega}^*, 1)$ (and profits are an increasing function of this), it suffices to consider comparative statics in $\psi(\underline{\omega}^*, 1)$. Next, since $\underline{\omega}^*$ is the maximizer of $\psi(\underline{\omega}, 1)$, by the envelop theorem we may simply consider the derivative of $\psi(\underline{\omega}, 1)$ holding $\underline{\omega}$ fixed (when the solution is on the boundary, i.e. $\underline{\omega}^* = 2P - \bar{\omega}$, then naturally this also suffices). Finally, it is easily verified that $\frac{\partial(\psi(\underline{\omega}, 1))}{\partial\bar{c}_P} = \frac{\pi_S}{\bar{c}_P^2} \left(\left(\frac{P-\underline{\omega}}{\bar{\omega}} \right) \phi_P^{\ell-}(\underline{\omega}) + \left(\frac{\bar{\omega}-P}{\bar{\omega}} \right) \phi_P^{d+} \right) > 0$, $\frac{\partial(\psi(\underline{\omega}, 1))}{\partial\pi_S} = \left(\frac{P-\underline{\omega}}{\bar{\omega}} \right) \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P} \right) + \left(\frac{\bar{\omega}-P}{\bar{\omega}} \right) \left(1 - \frac{\phi_P^{d+}}{\bar{c}_P} \right) > 0$, $\frac{\partial(\psi(\underline{\omega}, 1))}{\partial k_L} = - \left(\frac{\bar{\omega}-\underline{\omega}}{\bar{\omega}} \right) < 0$, and $\frac{\partial(\psi(\underline{\omega}, 1))}{\partial k_S} = \frac{\bar{\omega}-P}{\bar{\omega}} > 0$.

Proof of Propositions 3, 5, and 7

In Appendix B.2, we prove the following about the game without commitment: among the set of strategy profiles in which the lobbyist represents all worthy clients, any equilibrium profile of the model takes the form in Remark 1. We now derive the equilibrium existence condition and characterization in Proposition 7, and furthermore characterize the lobbyist's equilibrium investigation cutpoint ϕ_L^* . Note that a pure profit lobbyist and a connected lobbyist are special cases, so Propositions 3 and 5 are simply corollaries.

The proof proceeds in three steps. In Step 1, we derive candidate values of the equilibrium cutpoint $\underline{\omega}_L^\delta \in [2P - \bar{\omega}, P]$ and posture $\alpha_P^{\ell*} \in [0, 1]$, and show that they are unique. In Step 2, we prove that these candidate values are indeed an equilibrium if and only if $\delta(L - P) \leq \pi_S + \frac{k_S - k_L}{1 - \frac{1}{\bar{c}_P}}$. In Step 3 we derive the lobbyist's equilibrium investigation threshold ϕ_L^* .

Step 1: Derive candidate equilibrium

To derive candidate values of the equilibrium threshold ω_L^δ and posture $\alpha_P^{\ell*}$, let $\Pi_{RU}^L(\hat{\omega}|\phi_P^{\ell-}, \alpha_P^\ell)$ denote the lobbyist's interim net benefit or "rents" from representing an unworthy SIG with case $\hat{\omega} < P$ and charging its maximum willingness to pay $\hat{F}_R^U = \pi_S \cdot \Delta_S^\ell(\omega < P) = \pi_S \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}}{\bar{c}_P} \right)$. So

$$\Pi_{RU}^L(\hat{\omega}|\phi_P^{\ell-}, \alpha_P^\ell) = -k_L + \pi_S \cdot \Delta_S^\ell(\omega < P) + \delta(\hat{\omega} - L) \cdot \Delta_S^\ell(\omega < P). \quad (12)$$

The lobbyist places weight 1 on her fee $\pi_S \cdot \Delta_S^\ell(\omega < P)$ net of lobbying costs k_L , and weight δ on the effect of her representation on policy outcomes. Representation is *pivotal* in changing the politician's decision from declining to granting the favor with probability $\Delta_S^\ell(\omega < P)$, and when this occurs her net utility change is $\left(\frac{\hat{\omega}-L}{2} \right) - \left(\frac{L-\hat{\omega}}{2} \right) = \hat{\omega} - L$.

Equilibrium now requires that when the politician's strategy $(\phi_P^{\ell-}, \alpha_P^\ell)$ is optimal given the lobbyist's cutpoint $\underline{\omega}$ for representing unworthy SIGs, that the lobbyist indeed wants to use that cutpoint. Optimality of the politician's strategy imposes the constraints that $\phi_P^{\ell-} = \phi_P^{\ell-}(\underline{\omega}) = \frac{(P-\underline{\omega})^2}{2(\bar{\omega}-\underline{\omega})}$ and $\alpha_P^\ell = 1$ when $\underline{\omega} > 2P - \bar{\omega}$. Now let $\hat{\Pi}_{RU}^L(\hat{\omega}|\underline{\omega}, \alpha_P^\ell) = \Pi_{RU}^L(\hat{\omega}|\phi_P^{\ell-}(\underline{\omega}), \alpha_P^\ell)$ denote the lobbyist's interim net benefit from representing an unworthy SIG with case $\hat{\omega} < P$ when the politician *believes* her to be using cutpoint $\underline{\omega}$ and has a posture α_P^ℓ that respects the constraints.

If $\hat{\Pi}_{RU}^L(P|P, 1) \leq 0$ - i.e., if the lobbyist prefers to decline all unworthy clients when the politician believes her to be doing so - then $(\underline{\omega}_L^\delta = P, \alpha_P^{\ell*} = 1)$ is a candidate equilibrium cutpoint and posture. Next, if $\hat{\Pi}_{RU}^L(\underline{\omega}_L^\delta|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) = 0$ at some $\underline{\omega}_L^\delta \in [2P - \bar{\omega}, \bar{\omega})$ (with a

feasible $\alpha_P^{\ell*}$), then $(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$ is a candidate equilibrium cutpoint and posture – the lobbyist is indifferent between representing and declining an unworthy SIG with case $\hat{\omega} = \underline{\omega}_L^\delta$ when the politician believes her to be using cutpoint $\underline{\omega}_L^\delta$, so she will accept unworthy SIGs with higher cases and decline those with lower ones. Finally, it is easily verified that $\hat{\Pi}_{RU}^L(\underline{\omega}|\underline{\omega}, \alpha_P^\ell)$ satisfies *single crossing* in $\underline{\omega}$ (since both $\Delta_S^\ell(\omega < P)$ and $\delta(\underline{\omega} - L)$ are increasing in $\underline{\omega}$), which furthermore implies that the candidate equilibrium cutpoint and posture $(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$ are unique. We thus have the following characterization of the candidate values $(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$; simple inspection verifies that this is equivalent to the characterization stated in the proposition.

- If $\hat{\Pi}_{RU}^L(P|P, 1) \leq 0$, then $\underline{\omega}_L^\delta = P$
- If $\hat{\Pi}_{RU}^L(P|P, 1) > 0$ but $\hat{\Pi}_{RU}^L(2P - \bar{\omega}|2P - \bar{\omega}, 1) < 0$, then $\alpha_P^{\ell*} = 1$ and $\underline{\omega}_L^\delta$ is the unique cutpoint $\in (2P - \bar{\omega}, P)$ solving $\hat{\Pi}_{RU}^L(\underline{\omega}_L^\delta|\underline{\omega}_L^\delta, 1) = 0$.
- Otherwise $\underline{\omega}_L^\delta = 2P - \bar{\omega}$ and $\alpha_P^{\ell*}$ uniquely solves $\hat{\Pi}_{RU}^L(2P - \bar{\omega}|2P - \bar{\omega}, \alpha_P^{\ell*}) = 0$.

Step 2: Equilibrium existence condition

We next prove that the lobbyist will prefer to represent all worthy clients at the derived candidate values $(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$ if and only if $\delta(L - P) \leq \pi_S + \frac{k_S - k_L}{1 - \frac{L}{\bar{c}_P}}$, and thus that it is indeed an equilibrium i.f.f. this condition holds. Let $\Pi_{RW}^L(\hat{\omega}|\phi_P^{\ell-}, \alpha_P^\ell)$ denote the lobbyist's interim net benefit from representing a worthy SIG with case $\hat{\omega} \geq P$ and charging its maximum willingness to pay $\hat{F}_R^W = k_S + \pi_S \cdot (\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P))$. So

$$\begin{aligned} \Pi_{RW}^L(\hat{\omega}|\phi_P^{\ell-}, \alpha_P^\ell) &= (k_S - k_L) + \pi_S \cdot (\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)) \\ &\quad + \delta(\hat{\omega} - L) \cdot (\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)) \end{aligned} \quad (13)$$

Equation 13 differs from equation 12 in two ways. First, because a worthy SIG has some chance $\Delta_S^d(\omega \geq P)$ of receiving the favor even if turned away, the lobbyist's representation is only pivotal for changing the politician's decision with probability $\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)$. Second, because a worthy SIG will lobby directly if turned away, her willingness to pay for representation (and thus the lobbyist's fee) includes her access cost k_S .

Now optimality of the politician's strategy again requires that $\phi_P^{\ell-} = \phi_P^{\ell-}(\underline{\omega}) = \frac{(P - \underline{\omega})^2}{2(\bar{\omega} - \underline{\omega})}$ and $\alpha_P^\ell = 1$ when $\underline{\omega} > 2P - \bar{\omega}$. So let $\hat{\Pi}_{RW}^L(\hat{\omega}|\underline{\omega}, \alpha_P^\ell)$ denote the lobbyist's interim net benefit from representing a worthy SIG with case $\hat{\omega} \geq P$ when the politician believes she is using cutpoint $\underline{\omega}$, and has a cutpoint α_P^ℓ that respects the constraints.

We first argue that $\hat{\Pi}_{RW}^L(\hat{\omega}|\underline{\omega}, \alpha_P^\ell)$ is increasing in $\hat{\omega}$, which implies that a necessary and sufficient condition for the lobbyist to prefer representing all worthy SIGs given values $(\underline{\omega}, \alpha_P^\ell)$ is that $\Pi_{RW}^L(P|\underline{\omega}, \alpha_P^\ell) \geq 0$ (i.e., if she prefers to represent a worthy SIG exactly at $\hat{\omega} = P$). It is easily verified that a necessary and sufficient condition for this property is that $\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P) > 0$ – i.e., that a worthy SIG is more likely to obtain the favor through the lobbyist than by lobbying directly. If $\underline{\omega} > 2P - \bar{\omega} \rightarrow \alpha_P^\ell = 1$ (the politician's posture is fully favorable) then $\Delta_S^\ell(\omega \geq P) = 1$ and the condition immediately holds. If alternatively $\underline{\omega} = 2P - \bar{\omega}$, then

$$\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P) = \alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P} \right) + \left(\frac{\phi_P^{\ell-}(\underline{\omega}) - \phi_P^{d+}}{\bar{c}_P} \right).$$

Since $\underline{\omega} = 2P - \bar{\omega} \rightarrow \phi_P^{\ell-}(\underline{\omega}) = \frac{\bar{\omega}-P}{4} > \frac{(\bar{\omega}-P)^2}{2\bar{\omega}} = \phi_P^{d+}$, the condition again holds.

We last argue that $\Pi_{RW}^L(P|P, 1) \geq 0$ (which is exactly the originally stated condition), is necessary and sufficient for $\Pi_{RW}^L(P|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) \geq 0$, and hence for the candidate values $(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$ to constitute an equilibrium.

To argue sufficiency ($\Pi_{RW}^L(P|P, 1) \geq 0 \rightarrow \Pi_{RW}^L(P|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) \geq 0$), it is easily verified that for a pair $(\underline{\omega}, \alpha_P^\ell)$ satisfying the constraints, $\Pi_{RW}^L(P|\underline{\omega}, \alpha_P^\ell) \geq 0$ i.f.f.

$$\frac{k_S - k_L}{\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)} + \pi_S + \delta(P - L) \geq 0 \quad (14)$$

The l.h.s. of this condition is actually *decreasing* in the probability $\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)$ that the lobbyist acquires the favor for an unworthy SIG (the reason is that the lobbyist already makes money on extracting the SIGs direct cost of access k_S). Since $\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)$ is (weakly) maximized at $(\underline{\omega} = P, \alpha_P^\ell = 1)$, the desired claim follows immediately.

We now argue necessity by showing that $\Pi_{RW}^L(P|P, 1) < 0 \rightarrow \Pi_{RW}^L(P|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) < 0$, i.e., at the unique candidate values the lobbyist strictly prefers to reject some worthy clients. To do so observe that $\Pi_{RW}^L(P|P, 1) < 0 \rightarrow \pi_S + \delta(P - L) < 0$ (since $-k_L + k_S \geq 0$), which $\rightarrow \Pi_{UW}^L(P|P, 1) < 0$. Hence, the unique candidate values candidate values are $(\underline{\omega}_L^\delta = P, \alpha_P^{\ell*} = 1)$, and so $\Pi_{RW}^L(P|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) = \Pi_{RW}^L(P|P, 1) < 0$.

Step 3: Investigation threshold derivation

To derive the lobbyist's equilibrium investigation threshold ϕ_L^* , we begin with calculating the lobbyist's ex-ante net benefit from investigating. To do so, first note a simplifying feature of the strategy profiles in Remark 1. For each possible value of ω , the *ex-ante* effect of providing an investigation on the probability the favor is granted is exactly equal to the *ex-interim* effect of offering representation. If the SIG is actually unworthy ($\omega < P$), then it will lobby directly if turned away at the investigation stage but never receive the favor (since the politician's posture is adversarial), and it will stay home if turned away at the representation stage. If the SIG is actually worthy ($\omega > P$), then being informed will have no effect on its behavior if turned away – it will lobby in either case.

Consequently, the lobbyist's *ex-ante* net benefit from conducting an investigation on behalf of an uninformed SIG can be written using the previous notation as:

$$\left(k_S \frac{P}{\bar{\omega}} - c_L\right) + \int_{\underline{\omega}}^P \hat{\Pi}_{RU}^L(\hat{\omega}|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) j(\hat{\omega}) d\hat{\omega} + \int_P^{\bar{\omega}} \hat{\Pi}_{RW}^L(\hat{\omega}|\underline{\omega}_L^\delta, \alpha_P^{\ell*}) j(\hat{\omega}) d\hat{\omega} \quad (15)$$

In words, it is the up-front investigation fees and costs $\hat{F}_I - c_L = k_S \frac{P}{\bar{\omega}} - c_L$, plus the *expected* interim net benefit of offering representation when $\hat{\omega} \geq \underline{\omega}_L^\delta$. Substituting and rearranging yields the following characterization of the lobbyist's equilibrium investigation threshold:

$$\begin{aligned} \phi_L^* &= k_S \frac{P}{\bar{\omega}} + \left(\frac{P - \underline{\omega}_L^\delta}{\bar{\omega}}\right) \hat{\Pi}_{RU}^L\left(\frac{\underline{\omega}_L^\delta + P}{2} \middle| \underline{\omega}_L^\delta, \alpha_P^{\ell*}\right) + \left(\frac{\bar{\omega} - P}{\bar{\omega}}\right) \hat{\Pi}_{RW}^L\left(\frac{P + \bar{\omega}}{2} \middle| \underline{\omega}_L^\delta, \alpha_P^{\ell*}\right) \\ &= \psi(\underline{\omega}_L^\delta, \alpha_P^{\ell*}) + \delta \left(\begin{aligned} &\left(\frac{P - \underline{\omega}_L^\delta}{\bar{\omega}}\right) \left(L - \frac{\underline{\omega}_L^\delta + P}{2}\right) \Delta_S^\ell(\omega < P) \\ &+ \left(\frac{\bar{\omega} - P}{\bar{\omega}}\right) \left(\frac{P + \bar{\omega}}{2} - L\right) (\Delta_S^\ell(\omega \geq P) - \Delta_S^d(\omega \geq P)) \end{aligned} \right) \end{aligned}$$

Thus, when deciding whether to offer an acceptable investigation contract, a lobbyist with ideological motivations ($\delta > 0$) therefore takes into account not only profits, but also the impact her provision of information and future representation will have on policy outcomes. However, when $\delta = 0$ she only takes into account monetary profits, and so $\phi_L^* = \psi(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$.

Proof of Proposition 4.

Profit dominance of the game with commitment is straightforward. In both games, profit is an increasing function of

$$\psi(\underline{\omega}, \alpha_P^\ell) = \hat{F}_I + \left(\frac{P - \underline{\omega}}{\bar{\omega}} \right) \left(-k_L + \hat{F}_R^U(\underline{\omega}, \alpha_P^\ell) \right) + \left(\frac{\bar{\omega} - P}{\bar{\omega}} \right) \left(-k_L + \hat{F}_R^W(\underline{\omega}, \alpha_P^\ell) \right)$$

With commitment the equilibrium $(\omega^*, \alpha_P^{*\ell})$ maximizes this expression in $(\underline{\omega}, \alpha_P^\ell)$ subject to the constraints that $\underline{\omega} \in [2P - \bar{\omega}, P]$ and $\alpha_P^\ell = 1$ if $\underline{\omega} > 2P - \bar{\omega}$, and the solution is unique (with $\alpha_P^{*\ell} = 1$). Without commitment the equilibrium is some distinct value of $(\underline{\omega}^{\delta=0}, \hat{\alpha}_P^\ell)$ satisfying these constraints, and therefore yields strictly lower profit.

Comparing the equilibrium characterizations in Propositions 1 and 3, we see that if $\bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right) \geq \frac{5}{8}(\bar{\omega} - P)$, then $\underline{\omega}^* = \underline{\omega}^{\delta=0} = 2P - \bar{\omega}$ but $\hat{\alpha}_P^\ell < 1$ without commitment; so the lobbyist refers the same set of clients, but is treated with a less favorable posture without commitment. If $\bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right) \in \left(\frac{\bar{\omega} - P}{4}, \frac{5}{8}(\bar{\omega} - P)\right)$ then $\underline{\omega}^* \in (2P - \bar{\omega}, P)$ but $\underline{\omega}^{\delta=0} = 2P - \bar{\omega}$ and $\hat{\alpha}_P^\ell < 1$; so without commitment the lobbyist both serves more clients and is treated with a less favorable posture. Finally, if $\bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right) \leq \frac{\bar{\omega} - P}{4}$ then $(\underline{\omega}^*, \underline{\omega}^{\delta=0})$ are both $\in [2P - \bar{\omega}, P]$ with $\alpha_P^{*\ell} = \hat{\alpha}_P^\ell = 1$. But $\underline{\omega}^*$ is characterized by $\left(3 - \frac{P - \underline{\omega}^*}{\bar{\omega} - \underline{\omega}^*}\right) \phi_P^{\ell-}(\underline{\omega}^*) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)$ while $\underline{\omega}^{\delta=0}$ is characterized by $\phi_P^{\ell-}(\underline{\omega}) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)$. Since $\left(3 - \frac{P - \underline{\omega}^*}{\bar{\omega} - \underline{\omega}^*}\right) > 1$ and $\phi_P^{\ell-}(\underline{\omega})$ is decreasing this immediately implies that $\underline{\omega}^* > \underline{\omega}^{\delta=0}$, so the lobbyist is treated with the same posture but refers more unworthy clients without commitment.

We next show comparative statics of $\hat{\alpha}_P^\ell$ and $\underline{\omega}$. If the solution is interior then $\hat{\alpha}_P^\ell = 1$ and $\underline{\omega}^{\delta=0}$ is uniquely characterized by $\phi_P^{\ell-}(\underline{\omega}^{\delta=0}) = \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)$. Since the l.h.s. is decreasing in $\underline{\omega}$, identical arguments as in the proof of Proposition 2 yield the same comparative statics in $(\bar{c}_P, \pi_S, k_L, k_S, \bar{c}_L)$. If the solution is on the boundary, i.e. $\underline{\omega}^{\delta=0} = 2P - \bar{\omega}$, then $\hat{\alpha}_P^\ell$ is characterized by $\pi_S \cdot \hat{\alpha}_P^\ell \left(1 - \frac{\bar{\omega} - P}{4\bar{c}_P}\right) = k_L$. It thus follows immediately that $\hat{\alpha}_P^\ell$ is decreasing in \bar{c}_P and π_S , increasing in k_L , and unaffected by k_S and \bar{c}_L .

We last show comparative statics in profit. Like in the game with commitment, ex-ante expected profits are $\frac{(\psi(\underline{\omega}^{\delta=0}, \hat{\alpha}_P^\ell))^2}{2\bar{c}_L}$. For identical reasons profits are decreasing in \bar{c}_L and it suffices to consider comparative statics of $\psi(\underline{\omega}^{\delta=0}, \hat{\alpha}_P^\ell)$ for the remaining parameters. From Proposition 3, if $\frac{\bar{\omega} - P}{4} > \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)$ (so $\underline{\omega}^{\delta=0} \in (2P - \bar{\omega}, P)$ and $\hat{\alpha}_P^\ell = 1$) then

$$\psi(\underline{\omega}^{\delta=0}, \hat{\alpha}_P^\ell) = k_S + \left(1 - \frac{P}{\bar{\omega}}\right) \left(-k_L + \pi_S \left(1 - \frac{(\bar{\omega} - P)^2}{2\bar{\omega}\bar{c}_P}\right)\right).$$

This is self-evidently increasing in \bar{c}_P , π_S , decreasing in k_L , and increasing in k_S . Alternatively, if $\frac{\bar{\omega} - P}{4} < \bar{c}_P \left(1 - \frac{k_L}{\pi_S}\right)$ (so $\underline{\omega}^{\delta=0} = 2P - \bar{\omega}$ and $\hat{\alpha}_P^\ell < 1$), then we have that

$$\psi(\underline{\omega}^{\delta=0}, \hat{\alpha}_P^\ell) = k_S + \left(1 - \frac{P}{\bar{\omega}}\right) \frac{\pi_S}{\bar{c}_P} \left(\frac{\bar{\omega} - P}{4} - \frac{(\bar{\omega} - P)^2}{2\bar{\omega}}\right),$$

which is clearly decreasing in \bar{c}_P , increasing in π_S , constant in k_L , and increasing in k_S .

Proof of Propositions 6, 8, 9, and 10

The proofs proceed in five steps. First, we simplify the subsequent proof steps by reparameterizing the equilibrium characterization. Next, we prove Propositions 8, 9, and 10 in turn. Finally, we argue that Proposition 6 is simply a corollary of these propositions.

Step 1: Reparameterization

Recall that the space of feasible parameters over which we search for equilibria is $(\underline{\omega}, \alpha_P^\ell)$ s.t. $\underline{\omega} \in [2P - \bar{\omega}, P]$ and $\alpha_P^\ell \in [0, 1]$, where $\alpha_P^\ell = 1$ when $\underline{\omega} > 2P - \bar{\omega}$. Because there is a one-to-one mapping between this set and the probability Δ ($\omega < P$) = $\alpha_P^\ell \left(1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P}\right)$ that an unworthy SIG receives the favor, to simplify the proofs we will rewrite the feasible space, profits per client, and the equilibrium characterization in terms of this probability. We henceforth denote it as simply $\Delta \in [0, 1]$.

To rewrite the feasible space, let $(\underline{\omega}(\Delta), \alpha_P^\ell(\Delta))$ denote the unique cutpoint and posture in the feasible space that yields Δ . We then have that

$$\underline{\omega}(\Delta) = \begin{cases} 2P - \bar{\omega} & \text{if } \Delta \leq 1 - \frac{\bar{\omega} - P}{4\bar{c}_P} \\ \text{unique solution to } \Delta = 1 - \frac{\phi_P^{\ell-}(\underline{\omega})}{\bar{c}_P} & \text{otherwise} \end{cases},$$

and also that $\alpha_P^\ell(\Delta) = \min \left\{ \Delta \left(1 - \frac{\bar{\omega} - P}{4\bar{c}_P}\right)^{-1}, 1 \right\}$. Note that $\underline{\omega}(\Delta)$ is constant when $\Delta \leq 1 - \frac{\bar{\omega} - P}{4\bar{c}_P}$ and is strictly increasing in Δ otherwise, with $\underline{\omega}(1) = P$. Similarly, $\alpha_P^\ell(\Delta)$ is strictly increasing in Δ when $\Delta \leq 1 - \frac{\bar{\omega} - P}{4\bar{c}_P}$, and is constantly equal to 1 otherwise. These observations furthermore imply that for two values of the probability $\Delta' > \Delta$ we have $(\underline{\omega}(\Delta'), \alpha_P^\ell(\Delta')) \geq (\underline{\omega}(\Delta), \alpha_P^\ell(\Delta))$ with at least one strict (that is, a higher probability that an unworthy SIG receives the favor implies that the lobbyist represents fewer unworthy clients, is treated with a more favorable posture, or both).

Next, equilibrium profits per client as a function of Δ may be rewritten as:

$$\begin{aligned} \psi(\Delta) &= \frac{P}{\bar{\omega}} k_S + \left(\frac{P - \underline{\omega}(\Delta)}{\bar{\omega}} \right) (-k_L + \pi_S \Delta) \\ &\quad + \left(\frac{\bar{\omega} - P}{\bar{\omega}} \right) \cdot \left(-k_L + k_S + \pi_S \cdot \begin{cases} 1 - \frac{\phi_P^{d+}}{\bar{c}_P} & \text{if } \Delta \geq 1 - \frac{\bar{\omega} - P}{4\bar{c}_P} \\ \Delta + \left(\frac{\bar{\omega} - P}{4 - \phi_P^{d+}} \right) \frac{1}{\bar{c}_P} & \text{otherwise} \end{cases} \right) \end{aligned}$$

Now observe the following. First, $\psi(\Delta)$ is strictly increasing when $\Delta < 1 - \frac{\bar{\omega} - P}{4\bar{c}_P}$, since $\frac{P - \underline{\omega}(\Delta)}{\bar{\omega}}$ is constant, and both $-k_L + \pi_S \Delta$ and $\pi_S \left(\Delta + \left(\frac{\bar{\omega} - P}{4 - \phi_P^{d+}} \right) \frac{1}{\bar{c}_P} \right)$ are strictly increasing in Δ . Second, in the proof of Proposition 1 it is shown (in terms of $\underline{\omega}$) that $\psi(\Delta)$ is strictly concave when $\Delta \geq 1 - \frac{\bar{\omega} - P}{4\bar{c}_P}$, and that the maximum is not at $\Delta = 1$. These two properties jointly imply that $\psi(\Delta)$ is strictly quasi-concave in Δ over $[0, 1]$, and that the peak Δ^* is $\in \left[1 - \frac{\bar{\omega} - P}{4\bar{c}_P}, 1 \right)$. By definition, Δ^* is exactly equal to the equilibrium probability $1 - \frac{\phi_P^{\ell-}(\underline{\omega}^*)}{\bar{c}_P}$ that a profit-maximizing lobbyist with commitment acquires the favor for an unworthy client.

Finally, to rewrite the equilibrium characterization without commitment, observe that the “rents” from representing the marginal unworthy client $\underline{\omega}(\Delta)$ who yields a probability Δ of acquiring the favor are

$$\Delta \left(\frac{-k_L}{\Delta} + (\pi_S - \delta(L - \underline{\omega}(\Delta))) \right).$$

Call the term inside the parentheses the “normalized rents” – it is both strictly increasing

in Δ (since $\underline{\omega}(\Delta)$ is weakly increasing in Δ), and strictly negative at $\Delta = 0$. Hence, the equilibrium value of Δ_L^δ (which is indirectly characterized in the statement of Proposition 7 through $(\underline{\omega}_L^\delta, \alpha_P^{\ell*})$) may be directly characterized as:

$$\Delta_L^\delta = \begin{cases} \text{unique solution to} \\ -\frac{k_L}{\Delta_L^\delta} + (\pi_S - \delta(L - \underline{\omega}(\Delta_L^\delta))) = 0 & \text{if } -k_L + (\pi_S - \delta(L - P)) > 0 \\ 1 & \text{otherwise} \end{cases} .$$

In words, if the normalized rents are strictly positive when $\Delta = 1$ then Δ_L^δ is the unique interior value where they are 0; otherwise Δ_L^δ is 1. Also by definition, $\omega_L^\delta = \underline{\omega}(\Delta_L^\delta)$ and $\alpha_P^{\ell*} = \alpha_P^\ell(\Delta_L^\delta)$.

Step 2: Proof of Proposition 8

Let $\Delta^{\delta=0}$ denote the equilibrium probability that an unworthy client receives the favor through a profit-motivated lobbyist. At this probability, profits on each unworthy client $-\frac{k_L}{\Delta^{\delta=0}} + \pi_S$, as well as expected profits on all unworthy clients $\left(\frac{P - \underline{\omega}(\Delta^{\delta=0})}{\bar{\omega}}\right) (-k_L + \pi_S \Delta^{\delta=0})$, are equal to 0. Furthermore, $\Delta^{\delta=0} < \Delta^*$ (from the proof of Proposition 2).

Now suppose that an ideological lobbyist (L, δ) acquired the favor for an unworthy SIG with the same probability $\Delta^{\delta=0}$ as a profit-motivated lobbyist. Then her normalized rents would be:

$$-\frac{k_L}{\Delta^{\delta=0}} + (\pi_S - \delta(L - \underline{\omega}(\Delta^{\delta=0}))) = -\delta(L - \omega_L^\delta) \quad (16)$$

We consider three cases in turn.

First, if $L = \omega_L^\delta$ then this implies $\Delta_L^\delta = \Delta^{\delta=0}$. Second, if $L < \omega_L^\delta$ then eqn. 16 is strictly positive. This implies that $\Delta_L^\delta < \Delta^{\delta=0}$, which furthermore implies that $\psi(\Delta_L^\delta) < \psi(\Delta^{\delta=0})$ since $\psi(\cdot)$ is strictly single peaked and $\Delta^{\delta=0} < \Delta^*$. Moreover, the ideological lobbyist loses money on every unworthy client since $-k_L + \pi_S \Delta_L^\delta$ is < 0 .

Finally, if $L > \omega_L^\delta$ then eqn. 16 is strictly positive, which implies that $\Delta_L^\delta > \Delta^{\delta=0}$. To see that $\psi(\Delta_L^\delta) \geq \psi(\Delta^{\delta=0})$, first observe that profit on each unworthy client $-k_L + \pi_S \Delta_L^\delta$ is > 0 (so the ideological lobbyist makes strict profit on every unworthy client). Hence expected profits from unworthy clients $\left(\frac{P - \underline{\omega}(\Delta_L^\delta)}{\bar{\omega}}\right) (-k_L + \pi_S \Delta_L^\delta)$ are also strictly greater than 0, unless $\Delta_L^\delta = 1$ (no unworthy clients are represented) in which case they are equal to 0. Next observe that total expected profits on worthy clients are also weakly higher, since both types of lobbyists serve all worthy clients, and the profit on each worthy client is weakly increasing in Δ . Finally, it is easy to verify that expected profits on all worthy clients are strictly greater if $\Delta^{\delta=0} < 1 - \frac{\bar{\omega} - P}{4\bar{c}_P}$. Combining the previous observations, an ideological lobbyist with $L > \omega_L^\delta$ earns weakly higher profits per client, and strictly higher unless both $\Delta_L^\delta = 1$ and $\Delta^{\delta=0} < 1 - \frac{\bar{\omega} - P}{4\bar{c}_P}$.

Step 3: Proof of Proposition 9.

First, for any fixed value $\delta > 0$ it is easily shown that $L < P + \frac{\pi_S - k_L}{\delta} \rightarrow \Delta_L^\delta < 1$, $L \in \left[P + \frac{\pi_S - k_L}{\delta}, P + \frac{\pi_S + (k_S - k_L)/(1 - \phi_P^{d+}/\bar{c}_P)}{\delta} \right] \rightarrow \Delta_L^\delta = 1$, and $L > \frac{\pi_S + (k_S - k_L)/(1 - \phi_P^{d+}/\bar{c}_P)}{\delta} \rightarrow$

an equilibrium of the form in Remark 1 does not exist.

We now show Δ_L^δ is strictly increasing in L when interior. The equilibrium condition is:

$$-\frac{k_L}{\Delta_L^\delta} + (\pi_S - \delta (L - \underline{\omega}(\Delta_L^\delta))) = 0.$$

The l.h.s. is strictly decreasing in L (holding Δ_L^δ fixed) so for $L' > L$ we have $-\frac{k_L}{\Delta_L^\delta} + (\pi_S - \delta (L' - \underline{\omega}(\Delta_L^\delta))) < 0$, implying $\Delta_{L'}^\delta > \Delta_L^\delta$.

Next it is easily derived from the equilibrium condition that $-\frac{k_L}{\Delta^*} + (\pi_S - \delta (L - \underline{\omega}^*)) = 0 \iff L = \underline{\omega}^* + \frac{\pi_S - k_L/\Delta^*}{\delta}$ implies $\Delta_L^\delta = \Delta^*$. Hence $L^*(\delta) = \underline{\omega}^* + \frac{\pi_S - k_L/\Delta^*}{\delta}$ is the ideology that strictly maximizes profits per client, and it is self-evidently strictly greater than $\underline{\omega}^*$. Moreover, because $\psi(\Delta)$ is strictly quasi-concave in Δ , $\psi(\Delta_L^\delta)$ is strictly quasi-concave over $L < P + \frac{\pi_S - k_L}{\delta}$ with peak at $L^*(\delta)$, constant and equal to $\psi(1)$ when $L \in \left[P + \frac{\pi_S - k_L}{\delta}, P + \frac{\pi_S + (k_S - k_L)/(1 - \phi_P^{d+}/\bar{c}_P)}{\delta} \right]$, and undefined otherwise.

Finally since $L^*(\delta)$ is strictly decreasing in δ , it is easily verified that $L^*(\delta) < (=) (>) P \iff \delta < (=) (>) \delta^* = \frac{\pi_S - k_L/\Delta^*}{P - \underline{\omega}^*}$.

Step 4: Proof of Proposition 10.

We divide the proof into the three subcases.

Case 1: a permissive lobbyist ($L < \underline{\omega}_{\delta=0}$). We first argue that Δ_L^δ is strictly decreasing in δ , and then that this implies $\psi(\Delta_L^\delta)$ is strictly decreasing in δ .

Recall that $\Delta_L^\delta < \Delta^{\delta=0} < \Delta^*$, and that equilibrium requires:

$$\frac{-k_L}{\Delta_L^\delta} + \pi_S + \delta (\underline{\omega}(\Delta_L^\delta) - L) = 0 \quad (17)$$

Since $\Delta_L^\delta < \Delta^{\delta=0} \rightarrow \frac{-k_L}{\Delta_L^\delta} + \pi_S < 0$, it must be that $\underline{\omega}(\Delta_L^\delta) > L$ (otherwise the l.h.s. would be strictly negative, a contradiction). Now consider some $\delta' > \delta$. Then $\frac{-k_L}{\Delta_L^{\delta'}} + \pi_S + \delta' (\underline{\omega}(\Delta_L^{\delta'}) - L) > 0$, implying that $\Delta_L^{\delta'} < \Delta_L^\delta$, so Δ_L^δ is strictly decreasing in δ .

To see that $\psi(\Delta_L^\delta)$ is strictly decreasing in δ , just observe that since $\Delta_L^\delta < \Delta^*$ it must be that $\psi(\Delta_L^{\delta'}) < \psi(\Delta_L^\delta)$.

Case 2: a somewhat demanding lobbyist ($L \in (\underline{\omega}_{\delta=0}, \underline{\omega}^*]$). We first argue that Δ_L^δ is strictly increasing in δ , and then that this implies $\psi(\Delta_L^\delta)$ is strictly increasing in δ .

First, equilibrium requires that

$$\frac{-k_L}{\Delta_L^\delta} + \pi_S - \delta (L - \underline{\omega}(\Delta_L^\delta)) = 0 \quad (18)$$

Since $\Delta_L^\delta > \Delta^{\delta=0} \rightarrow \frac{-k_L}{\Delta_L^\delta} + \pi_S > 0$, it must be that $L > \underline{\omega}(\Delta_L^\delta)$ (otherwise the l.h.s. would be strictly positive, a contradiction). Furthermore, it must be that $\Delta^* > \Delta_L^\delta$, since an ideological lobbyist's normalized rents at Δ^* would be $\frac{-k_L}{\Delta^*} + \pi_S - \delta (L - \underline{\omega}^*) > 0$.

To see that $\psi(\Delta_L^\delta)$ is strictly increasing in δ , just observe that since $\Delta_L^\delta < \Delta_L^{\delta'} < \Delta^*$ it must be that $\psi(\Delta_L^{\delta'}) > \psi(\Delta_L^\delta)$.

Case 3: a very demanding lobbyist ($L > \underline{\omega}^* > \underline{\omega}_{\delta=0}$). First observe that for any such L , identical arguments as in Case 2 imply that Δ_L^δ is strictly increasing in δ whenever

it is interior. Next, the equilibrium probability is interior when $-k_L + \pi_S - \delta(L - P) > 0$. Thus, Δ_L^δ is strictly increasing in δ whenever $L \leq P$. Moreover, if $L > P$ then it is strictly increasing in δ if $\delta < \frac{\pi_S - k_L}{L - P}$, constant and equal to 1 when $\delta \in \left[\frac{\pi_S - k_L}{L - P}, \frac{\pi_S + (k_S - k_L) / (1 - \phi_P^{d+} / \bar{c}_P)}{L - P} \right]$, and undefined otherwise because no equilibrium of the form in Remark 1 exists.

We next argue that there is a unique finite value $\delta^*(L)$ such that $\Delta_L^\delta = \Delta^* < 1$. By the definition of equilibrium it is just the unique well-defined value that solves $\frac{-k_L}{\Delta^*} + \pi_S - \delta^*(L - \omega^*) = 0 \iff \delta^*(L) = \frac{\pi_S - k_L / \Delta^*}{L - \omega^*}$.

The preceding arguments then imply the desired properties. If $L \leq P$ then Δ_L^δ is strictly increasing in δ and crosses Δ^* at $\delta^*(L)$; thus $\psi(\Delta_L^\delta)$ is strictly increasing for $\delta < \delta^*(L)$ and strictly decreasing for $\delta > \delta^*(L)$. If $L > P$ then these properties hold over the range $\delta \in [0, \frac{\pi_S - k_L}{L - P}]$, but $\psi(\Delta_L^\delta) = \psi(1)$ is constant and eventually undefined for $\delta > \frac{\pi_S - k_L}{L - P}$.

Step 5: Proof of Proposition 6

A connected lobbyist ($L = P$) is equivalent to an ideological lobbyist who is very demanding ($L = P > \omega^* > \underline{\omega}_{\delta=0}$). Hence the initial claims follow from Proposition 8 (observing that profits are in fact strictly greater since $L \leq P \rightarrow \Delta_L^\delta < 1$), the comparative statics claims about prices and profits per client follow from Proposition 10, and profits per client are maximized at the $\delta^* = \frac{\pi_S - k_L / \Delta^*}{P - \omega^*}$ characterized in the proofs of both Propositions 9 and 10 (since δ^* is equivalently the unique value s.t. $L^*(\delta^*) = P$ and equal to $\delta^*(P)$).

B Equilibrium Form

In this Appendix we formally justify attention to strategy profiles of the form in Remark 1 by showing that they can be exclusively considered without loss of generality within the following more general class of strategy profiles.

Remark 2 Consider strategy profiles in which

- the lobbyist represents all worthy SIGs ($\rho_L^\omega = 1 \forall \omega \geq P$).
- if the SIG rejects an investigation contract, it always lobbies directly ($\rho_D^0 = 1$).
- if the SIG rejects a representation contract, it lobbies directly if and only if the investigation revealed that its case is worthy ($\rho_D^\omega = \mathbf{1}_{\omega \geq P}$).

In all such profiles, the politician's strategy satisfies the following (by Observation 1):

- his review threshold ϕ_P^ℓ on the lobbyist's channel is

$$\phi_P^\ell = \begin{cases} \frac{1}{E[\rho_L^\omega]} \int_P^{\bar{\omega}} (\omega - P) \rho_L^\omega \cdot j(\omega) d\omega & \text{if } E_\ell[\omega] \leq P \\ \frac{1}{E[\rho_L^\omega]} \int_0^P (P - \omega) \rho_L^\omega \cdot j(\omega) d\omega & \text{if } E_\ell[\omega] \geq P \end{cases}$$

where $E[\rho_L^\omega]$ is the probability the lobbyist represents the SIG conditional on an investigation, and the expected type she represents is $E_\ell[\omega] = \frac{E[\omega \rho_L^\omega]}{E[\rho_L^\omega]}$.

- his posture α_P^ℓ toward the lobbyist's clients is $= 0$ if $E_\ell[\omega] < P$, $= 1$ if $E_\ell[\omega] > P$, and anything otherwise.
- on the remaining channels, $\alpha_P^0 = \phi_P^0 = \alpha_P^d = 0$, and $\phi_P^d = \phi_P^{d+} = \frac{(\bar{\omega} - P)^2}{2\bar{\omega}}$.

In the following two subsections, we prove separately that considering the profiles in Remark 1 from this larger set is without loss of generality in both the game with commitment, and the game without commitment and $\delta > 0$.

Note that this larger set continues to exclude strategy profiles in which the lobbyist turns away some worthy clients; it is thus not the most general class of profiles possible for the model. The intuitive rationale for why ruling out such profiles should be without loss of generality is that the lobbyist has nothing to gain from them; turning away worthy SIGs so worsens the pool of SIGs she represents relative to the pool who lobby directly, which decreases the price she can charge to her remaining clients.

Technically however, ruling out profiles in which the lobbyist sometimes turns away worthy clients is much more technically complicated. In the profiles in Remark 2, both the SIG's strategy ρ_D^ω and the politician's strategy (α_P^c, ϕ_P^c) on the remaining channels $c \in \{d, 0\}$ are "pinned down." Thus the SIG's "outside options" should it decline representation ($\Pi_S^d(\omega) - k_S$ and $\Pi_S^0(\omega)$), and the remaining free portion of the lobbyist's strategy ρ_L^ω for $\omega < P$ (intuitively, which unworthy SIGs she will represent) only directly impacts the SIG's "inside option" $\Pi_S^\ell(\omega)$. Absent this simplification, the model is substantially more complex because the politician's beliefs $H_c(\omega)$ on the direct and null channels become a complex function of who is represented ρ_L^ω , the SIG's strategy should it reject representation ρ_D^ω , and the (endogenously determined) probability λ it receives an investigation.

B.1 A profit-maximizing lobbyist with commitment

We now prove that it is without loss of generality to consider the profiles satisfying Remark 1 from within the larger set satisfying Remark 2 in the game with commitment. Formally, the game form is: (1) the lobbyist publicly announces a (potentially probabilistic) function $F_R(\omega)$ from ω to representation prices, and (2) the game proceeds as in the baseline model.

(Part 1)

Consider a strategy profile \mathbf{p} , which involves an announcement $(F_I(c_L), F_R(\omega))$ by the lobbyist, and associated equilibrium of the subsequent subgame. Let $\lambda(c_L)$ denote the probability the lobbyist reaches a deal to investigate when her costs are c_L , and $\psi_L(c_L)$ denote the full stream of expected payoffs from offering an investigation given costs c_L . Then the lobbyist's ex-ante expected payoff is:

$$\int_0^{\bar{c}_L} \lambda(c_L) \cdot (\psi_L(c_L) - c_L) g(c_L) dc_L.$$

Next note that profit-maximization requires that whenever a deal is reached, the price paid is exactly the SIG's maximum willingness to pay \hat{F}_I . To see this observe that the SIG's best responses imply that it would reject anything more, and if it were ever less then there exists an alternative profile \mathbf{p}' in which the lobbyist charges a strictly higher price and gains higher profit, and the subsequent equilibrium is unchanged. We may thus restrict attention to such profiles. In them $\psi_L(c_L)$ is equal to $\hat{F}_I + \int_0^{\bar{\omega}} (\rho_L(\omega) \cdot (\bar{F}_R(\omega) - k_L)) j(\omega) d\omega$, which in turn is equal to:

$$\begin{aligned} \psi_L(c_L) = & \underbrace{\int_0^{\bar{\omega}} \rho_L(\omega) \cdot ((\Pi_S^\ell(\omega) - k_L) - \max\{\Pi_S^d(\omega) - k_S, \Pi_S^\emptyset(\omega)\}) j(\omega) d\omega}_{\text{representational surplus}} \\ & + \underbrace{\int_0^{\bar{\omega}} \max\{\Pi_S^d(\omega) - k_S, \Pi_S^\emptyset(\omega)\} j(\omega) d\omega - \max\{\Pi_S^d(\emptyset) - k_S, \Pi_S^\emptyset(\emptyset)\}}_{\text{informational surplus}} \end{aligned}$$

Furthermore applying the form restrictions in Remark 2 yields that $\psi_L(c_L)$ is equal to:

$$\begin{aligned} & \underbrace{\frac{P}{\bar{\omega}} k_S}_{\text{informational surplus}} + \underbrace{\int_0^P \rho_L(\omega) \cdot \left(\pi_S \left(1 - \frac{\phi_P^\ell}{\bar{c}_L} \right) \alpha_P^\ell - k_L \right) j(\omega) d\omega}_{\text{representational surplus, unworthy SIG}} \\ & + \underbrace{\int_P^{\bar{\omega}} \left(\left(\pi_S \left(\left(1 - \frac{\phi_P^\ell}{\bar{c}_L} \right) \alpha_P^\ell + \frac{\phi_P^\ell}{\bar{c}_L} \right) - k_L \right) - \left(\left(1 - \frac{\phi_P^{d+}}{\bar{c}_L} \right) - k_S \right) \right) j(\omega) d\omega}_{\text{representational surplus, worthy SIG}} \end{aligned}$$

We now make the following three observations.

First, $\psi_L(c_L)$ is entirely independent of both c_L and the initial probability $E[\lambda(c_L)]$ that a deal for an investigation is reached. We henceforth denote it ψ_L . This implies that given any price schedule, it would weakly increase the lobbyist's profits and not perturb the equilibrium to revise her investigation price schedule to one that involves investigating i.f.f. $c_L \leq \psi_L$ (i.e. $\lambda(c_L) = \mathbf{1}_{c_L \leq \psi_L}$). We therefore also restrict attention to such profiles, which yield expected utility $\frac{\psi_L^2}{2\bar{c}_L}$. This reduces the problem of maximizing the lobbyist's ex-ante

expected profits to maximizing ψ_L .

Second, given an arbitrarily strategy profile \mathbf{p} that yields ψ_L and involves investigating whenever $c_L \leq \psi_L$, consider the potentially alternative strategy profile \mathbf{p}' in which the SIG always accepts any acceptable contract, the politician charges \hat{F}_I whenever $c_L \leq \psi_L$ and $\hat{F}_I + \varepsilon$ otherwise, charges $\hat{F}_R(\omega)$ with probability $\rho_L(\omega)$ and $\hat{F}_R + \varepsilon$ otherwise, and all other quantities remain the same. Such a profile also involves the lobbyist choosing an investigation price schedule $F_L(c_L)$ that maximizes her ex-ante utility, does not change ψ_L , has the SIG best-responding at each contracting stage, and does not perturb the equilibrium of subsequent subgame. Hence w.l.o.g. we may also restrict attention to such profiles.

Third, within profiles of the preceding form we can rule out any in which $\alpha_P^\ell \in (0, 1)$. For this to be the case it must be that $E_\ell[\omega] = P$. But then there exists an alternative profile in which $\alpha_P^\ell = 1$, all other quantities are the same, prices are adjusted appropriately, and the lobbyist achieves strictly higher profit.

(Part 2)

The arguments above imply that from among the strategy profiles satisfying Remark 2 in which all worthy SIGs are represented, it is without loss of generality to consider ones with price schedules taking the form described in Remark 1 and in which $\alpha_P^\ell = \mathbf{1}_{E_\ell[\omega] \geq P}$. In addition, the restrictions in Remark 2 already immediately imply the restrictions on ρ_D^ω and (ϕ_P^c, α_P^c) in Remark 1.

Thus, we may reformulate the lobbyist's problem as choosing ρ_L^ω (which unworthy clients the lobbyist represents) to maximize ψ_L , with the remaining quantities and price schedules implied. Furthermore note that the investigation surplus is constant, so the problem reduces to choosing ρ_L^ω to maximize the representation surplus. To satisfy Remark 1 it only remains to show that within this set it suffices to consider referral strategies ρ_L^ω in which the lobbyist represents clients above a cutpoint $\underline{\omega}$, where $\underline{\omega} \geq 2P - \omega$.

First, it is simple to rule out ρ_L^ω with $E_\ell[\omega] < P \rightarrow \alpha_P^\ell = 0$. Such profiles involve the lobbyist representing a strictly positive measure of unworthy SIGs, and losing money on them since the politician's posture is adversarial. The alternative profile in which the lobbyist only represents worthy clients foregoes these losses and yields the highest possible profits on worthy clients, and must therefore be strictly more profitable.

Second, consider any ρ_L^ω with $E_\ell[\omega] \geq P$ (so $\alpha_P^\ell = 1$), and compare to the alternative cutpoint profile $\hat{\rho}_L^\omega$ (with cutpoint $\hat{\omega}$) that yields the same probability of representation, i.e., $\int_{\hat{\omega}}^P d\omega = \int_0^P \rho_L^\omega d\omega$ (here we are exploiting $j(\omega)$ constant). Now observe that

$$\begin{aligned} \int_{\hat{\omega}}^P d\omega &= \int_{\hat{\omega}}^P \rho_L^\omega d\omega + \int_{\hat{\omega}}^P (1 - \rho_L^\omega) d\omega = \int_0^{\hat{\omega}} \rho_L^\omega d\omega + \int_{\hat{\omega}}^P \rho_L^\omega d\omega = \int_0^P \rho_L^\omega d\omega \\ &\rightarrow \int_{\hat{\omega}}^P (1 - \rho_L^\omega) d\omega = \int_0^{\hat{\omega}} \rho_L^\omega d\omega. \end{aligned} \quad (19)$$

We now argue that $\hat{\phi}_P^{\ell-} \leq \phi_P^{\ell-}$, which implies that $\hat{E}_\ell[\omega] \geq P$ (since $\hat{\phi}_P^{\ell+} = \phi_P^{\ell+}$ with all worthy types represented) and $\hat{\alpha}_P^\ell = 1$. These furthermore imply that $\hat{\rho}_L^\omega$ yields profit at least as high among unworthy types, equal among worthy types, and therefore is at least as profitable overall.

Recall from Remark 2 that for any ρ_L^ω , we have $\phi_P^{\ell-} = \frac{1}{\int_0^{\hat{\omega}} j(\omega) \rho_L^\omega d\omega} \int_0^P (P - \omega) \rho_L^\omega j(\omega) d\omega$. Since $\int_{\hat{\omega}}^P d\omega = \int_0^P \rho_L^\omega d\omega$ by construction it then suffices to show that $\int_{\hat{\omega}}^P (P - \omega) d\omega <$

$\int_0^P (P - \omega) \rho_L^\omega d\omega$. Now using the same technique to derive eqn. 19, this inequality may be rewritten as

$$\int_{\hat{\omega}}^P (P - \omega) (1 - \rho_L^\omega) d\omega < \int_0^{\hat{\omega}} (P - \omega) \rho_L^\omega d\omega.$$

But now observe that

$$\int_{\hat{\omega}}^P (P - \omega) (1 - \rho_L^\omega) d\omega < \int_{\hat{\omega}}^P (P - \hat{\omega}) (1 - \rho_L^\omega) d\omega = \int_0^{\hat{\omega}} (P - \hat{\omega}) \rho_L^\omega \cdot d\omega < \int_0^{\hat{\omega}} (P - \omega) \rho_L^\omega \cdot d\omega$$

where the equality follows from eqn. 19 and $P - \hat{\omega}$ constant. The property is hence shown.

B.2 A lobbyist without commitment

We now prove that it is without loss of generality to consider the profiles satisfying Remark 1 from within the larger set satisfying Remark 2 in the game without commitment.

First observe that absent commitment, equilibrium requires that whenever the surplus from a contract is strictly positive at either stage, the lobbyist charges the SIG maximum willingness to pay \hat{F}_I and $\hat{F}_R(\omega)$, and the SIG always accepts. Otherwise the lobbyist would have an incentive to deviate by slightly raising her price (to make more money while ensuring a deal) or slightly lower her price (to ensure a deal is made). Furthermore, when the surplus is strictly negative, the lobbyist must charge a price that the SIG will reject. Thus, the additional restrictions in the pricing and acceptance strategies in Remark 1 are without loss of generality. Furthermore, the lobbyist must investigate whenever $c_L \leq \phi_L$, where ϕ_L represents the total surplus from an investigation (excluding the lobbyist's up front investigation costs).

We next argue that among these profiles, the set of unworthy clients represented must be described by a *cutpoint* $\underline{\omega} \in [2P - \bar{\omega}, P]$ in equilibrium. Let $\Pi_{RU}^L(\hat{\omega}|\phi_P^\ell, \alpha_P^\ell)$ denote the lobbyist's interim net benefit or "rents" from representing an unworthy SIG with case $\hat{\omega} < P$ and charging its maximum willingness to pay $\hat{F}_R^U = \pi_S \cdot \Delta_S^\ell(\omega < P) = \pi_S \cdot \alpha_P^\ell \left(1 - \frac{\phi_P^\ell}{\bar{c}_P}\right)$. So

$$\Pi_{RU}^L(\hat{\omega}|\phi_P^\ell, \alpha_P^\ell) = -k_L + \pi_S \cdot \Delta_S^\ell(\omega < P) + \delta(\hat{\omega} - L) \cdot \Delta_S^\ell(\omega < P).$$

While in equilibrium $(\phi_P^\ell, \alpha_P^\ell)$ must be optimal for the politician given the lobbyist's behavior, a lobbyist who lacks commitment power perceives these, and hence her probability $\Delta_S^\ell(\omega < P)$ of succeeding on behalf of an unworthy client, as fixed. It is thus immediate that $\Pi_{RU}^L(\hat{\omega}|\phi_P^\ell, \alpha_P^\ell)$ is strictly increasing in $\hat{\omega}$, which implies that the lobbyist's best responses over which unworthy SIG's to represent are indeed described by a cutpoint $\underline{\omega} \leq P$.

Finally, to see that this cutpoint $\underline{\omega}$ must be $\geq 2P - \bar{\omega}$, observe that equilibrium requires the politician's strategy $(\phi_P^{\ell-}, \alpha_P^{\ell-})$ and the lobbyist's cutpoint $\underline{\omega}$ to be mutually consistent. So if $\underline{\omega} < 2P - \bar{\omega}$ then we would require $\alpha_P^{\ell-} = 0$. But then $\hat{\Pi}_{RU}^L(\hat{\omega}|\phi_P^{\ell-}, 0) = -k_L < 0 \forall \hat{\omega}$, implying the lobbyist would deviate to representing no unworthy SIGs. Intuitively, if the politician believed the lobbyist to be referring so many unworthy clients that his posture becomes adversarial, the lobbyist's representation would have no effect on the probability an unworthy SIG receives the favor, and she would be better off saving her access costs k_L .