


RESEARCH NOTE

# (When) are lobbying expenditures a good proxy for lobbying activity?

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## Abstract

Lobbying expenditures are widely used as a proxy variable for measuring lobbying activity. However, the validity of this approach has rarely been examined and existing justifications do not account for heterogeneity in expenditure formats across types of lobbyists. I address the question using unique lobbying disclosure data from Wisconsin, where lobbying organizations report both expenditures on lobbying-related activities and lobbyists' hours worked. Strong overall correlations between changes in expenditures and hours worked within organization–lobbyist dyads indicate that lobbying expenditures can serve as a reasonable proxy. However, caution is warranted due to substantial heterogeneity, with contract lobbyist relationships exhibiting weaker correlations than in-house relationships. I conclude by providing suggestions to improve empirical analyses that rely on lobbying expenditures.

**Keyword:** Measurement

## 1. Introduction

Across disciplines, social scientists who examine the role of money in politics frequently use *lobbying expenditures* to measure the *intensity of lobbying activity*. For example, scholars have used lobbying expenditures to examine the effect of lobbying on firms' effective tax rates (Richter *et al.*, 2009), the likelihood of climate change policy implementation (Meng and Rode, 2019), how many work visas are allocated to specific economic sectors (Facchini *et al.*, 2011), the extent to which philanthropic giving of firms is politically motivated (Bertrand *et al.*, 2020), and the effect of political risk on political engagement by firms (Hassan *et al.*, 2019).<sup>1</sup> However, it is unclear to what extent lobbying expenditures are a good proxy for the intensity of lobbying activity, and consequently, whether inferences drawn from analyses using such proxies are valid.

Studies that use lobbying expenditures by clients—a term for organizations or individuals that hire lobbyists—as a proxy variable generally do so without providing an explicit justification or discussing potential sources of measurement error.<sup>2</sup> The existing justifications for the approach that focus on the intensive margin link variation in expenditures to variation in the amount or

<sup>1</sup>De Figueiredo and Richter (2014) and Bombardini and Trebbi (2020) provide extensive overviews of related research.

<sup>2</sup>Occasionally discussed sources of bias are reporting thresholds, exemptions, and loopholes (e.g., Leech *et al.*, 2005; Thomas and LaPira, 2017; Libgober and Carpenter, 2024) and variation in disclosure requirements (De Figueiredo and Richter, 2014).

hours of lobbyist work (Richter *et al.*, 2009; Drutman, 2015, 11). However, such arguments fail to consider heterogeneity in formats that are used to compensate lobbyists. While lobbying expenditures that are directly based on hourly rates should capture variation in lobbying intensity well, the approach may be less successful when compensation takes the form of flat (or “fixed”) fees that cover longer time periods. Such flat fees are likely to be more common in agreements with contract lobbyists, or the lobbying or law firms they work for, than in-house lobbyists.

To examine if lobbying expenditures can serve as a valid proxy for the intensity of lobbying activity, and whether this differs across types of lobbyist and levels of temporal aggregation, I use data from unique lobbying disclosure requirements in the US state of Wisconsin that are well suited to address these difficult questions. In particular, clients in Wisconsin report both the hours their lobbyists spent working and their expenditures on lobbyists in half-yearly disclosures that distinguish between contract and in-house lobbyists. Using these disclosures, I assemble a new dataset of 43,817 client–lobbyist dyad observations from 2005 to 2018 which includes lobbying expenditures, hours worked, lobbyist type (contract versus in-house), and client organization type.

I then leverage information on the number of hours worked to examine whether changes in expenditures capture changes in the intensity of lobbying activity. To account for differential rates of compensation and quality as well as quantity of work, I analyze correlations of within-biennium changes in expenditures and hours worked at the level of the client–lobbyist dyad. Since contract lobbyists are likely to differ from in-house lobbyists in the extent to which clients pay them via flat fees, I distinguish between both types of lobbyists, and also conduct analyses at different levels of temporal aggregation.

I find that, within client–lobbyist dyads, deviations in expenditures from biennium means are strongly correlated to such deviations in the amount of hours worked. However, there is substantial heterogeneity by type of lobbyist, with stronger correlations for in-house compared to contract lobbyists. Further, I find smaller differences between in-house and contract lobbyists in analyses at higher levels of temporal aggregation.

The results suggest that variation in lobbying expenditures can serve as a reasonable proxy for variation in lobbying activity. However, heterogeneity across types of lobbyists and lower correlations for contract lobbyists (especially when they are lobbying for business entities) warrant caution when using data where contract lobbying predominates, such as lobbying by business entities and federal lobbying in the US (e.g., Drutman, 2015, 134; Strickland and Crosson, 2023).<sup>3</sup> Caution is especially warranted when analyzing such data at low levels of temporal aggregation (e.g., quarterly). In these cases, the risk for systematic measurement error and faulty inferences is higher than for analyses using data dominated by in-house lobbying. The methodological relevance of the results is further increased by supplemental analyses supporting an external validity of the results at the federal level (Supplemental Appendix A1). These findings will help clarify mixed results on the role of money in politics and serve to detect false positives and false negatives.

When substantively appropriate, I recommend that researchers conduct subset analyses distinguishing clients by their relative reliance on contract lobbyists, to ensure that results are not exclusively driven by such lobbyists. When using expenditures as independent variables, I advise researchers to examine differences between the coefficients for contract and in-house lobbying expenditures. Further, whenever analyses include high proportions of contract lobbyists, researchers should consider higher levels of temporal aggregation of the data to reduce measurement error.

<sup>3</sup>In Supplemental Appendix 5.8, I provide evidence on the prevalence of contract lobbying across states and the federal level. Moreover, I show that federal contract lobbying is more prevalent among business interests than labor unions or ideological groups. For example, the business-related sector with the lowest proportion of client–contract lobbyist relationships is “Agribusiness,” with 77 percent.

## 2. Potential pitfalls when using lobbying expenditures as a proxy

Existing justifications for using lobbying expenditures to proxy for lobbying activity highlight the potential to capture variation in the number of hours of lobbyist work, especially as compared to registrations of lobbyists (Richter *et al.*, 2009; Drutman, 2015, 11).<sup>4</sup> Such arguments appear apt when reported lobbying expenditures are closely tied to hourly rates of compensation. However, many lobbyists and lobbying firms are paid via flat fees or retainers based on contracts which specify lobbyists' activities or their availability to work for a client for a particular period of time.<sup>5</sup> Since compensation via flat fees relies on an expectation of lobbying activity, error will be introduced when the expectation differs from actual activity. Moreover, when contracts cover longer time periods, for example, to smooth compensation and ensure a stream of income during times of lower activity, analyses that use more temporally fine-grained units than the contract periods will further introduce measurement error (LaPira and Thomas, 2020). Additionally, since the value of lobbyists' services is often based on connections (Blanes i Vidal *et al.*, 2012; Bertrand *et al.*, 2014), reputation, or prestige (Furnas *et al.*, 2019; Hirsch *et al.*, 2023), expenditures often compensate for relatively constant characteristics rather than variable effort.

Several reasons suggest that flat fees are more common among clients' expenditures on contract lobbyists compared to in-house lobbyists.<sup>6</sup> First, as contract lobbyists rely more strongly on connections, prestige, and expertise than in-house lobbyists (e.g., Rosenthal, 2001; Bertrand *et al.*, 2014), a larger part of what contract lobbyists are "selling" can be captured with a flat fee.<sup>7</sup> Second, since obtaining timely access to public officials requires seemingly unproductive activity that is difficult to justify as "billable hours," contract lobbyists and/or their firms may prefer payment via flat fees that also incorporate the anticipated workload (Rosenthal, 2001, 179; Ho, 2011).<sup>8</sup> Third, flat fees have been argued to create better incentives for contract lobbyists to solve problems quickly (Guyer, 2018, 107). Fourth, as contract lobbyists are not subject to clients' organizational hierarchies, conflicting interests of clients and contract lobbyists can prevent adjustments to lobbying efforts through follow-up agreements (Williamson, 1979, 251). Hence, clients may be better off securing lobbyists' availability in advance.

Direct evidence on the prevalence of flat fees in the lobbying industry is rare, but agreements between lobbying firms and foreign entities in Foreign Agent Registration Act disclosures are suggestive. For example, among disclosures filed in 2017–2018 by 20 top federal lobbying firms, 87 percent of agreements included flat fees. In Supplemental Appendix A1, I provide additional details on this example and indirect evidence from federal and Wisconsin lobbying disclosures that flat fees are more prevalent for contract than in-house lobbying expenditures. Given this greater prevalence, lobbying expenditures are expected to be a better proxy for in-house compared to contract lobbyists.

<sup>4</sup>Other justifications for proxy measures of lobbying include correlations between multiple proxies (e.g., Leech *et al.*, 2005).

<sup>5</sup>Fixed-fee contracts specify flat fees for services agreed upon in advance. Retainers involve down payments to secure availability for services and can function as flat fees, for example, if down payments are not refundable. Even when legal, contingency fees for lobbying outcomes appear not to be common (Vronsky, 2005).

<sup>6</sup>Whereas in-house lobbyists are generally the employees of one client, contract lobbyists frequently work for multiple clients under contracts that specify both compensation and scope of lobbying activities.

<sup>7</sup>Results in Supplemental Appendix A6 show that, on average and across all clients, contract lobbyists communicate more with public officials than do in-house lobbyists. Moreover, clients with contract lobbyists are more likely to lobby on topics which require good connections to public officials.

<sup>8</sup>Even when a client pays a lobbying firm via flat fees, the firm's lobbyists need not be compensated in proportion to hours worked. In general, lobbying disclosures tend to cover only immediate expenditures, and not, for example, payments from lobbying firms to their lobbyists.

### 3. Data

For the analysis, I rely on “Statements of Lobbying Activity and Expenditures” (SLAEs), which are half-yearly disclosures (January–June; July–December) required of lobbying clients in Wisconsin.<sup>9</sup> A unique feature of these disclosures is that clients need to report not only lobbying expenditures but also the number of hours their lobbyists spent working for them.<sup>10</sup> To my knowledge, this combination of requirements does not exist in other US states, at the federal level, or in other countries.<sup>11</sup> As explained in the next section, this enables an examination of the extent to which changes in expenditures reflect changes in the intensity of lobbying.<sup>12</sup>

I collected the available SLAEs and classifications of client types (e.g., business entities, associations, etc.) for all registered clients between 2005 and 2018 from the Wisconsin Ethics Commission’s lobbying disclosure website, [lobbying.wi.gov](https://lobbying.wi.gov). Next, I assembled information from these disclosures in a new dataset indicating for each half-year and client–lobbyist relationship the number of hours worked, client expenditures on the lobbyist, lobbyist type (contract versus in-house), the lobbyist’s employer, and client type.<sup>13</sup> The resulting dataset includes 43,817 observations, of which 28,541 are classified as “contract” and 15,276 as “in-house.” Some 1,956 observations based on clients’ employees lobbying as non-licensed lobbyists (non-lobbyist”) are excluded from the main analyses because expenditures and hours are not itemized by individual non-lobbyists.<sup>14</sup>

### 4. Empirical approach

Using lobbying expenditures and hours worked to examine the extent to which lobbying expenditures are a good proxy for lobbying activity requires several assumptions and clarifications. I do not assume that lobbying activity is necessarily better operationalized by the raw number of hours worked than by lobbying expenditures, because a good operationalization of lobbying activity should capture both the quantity and quality of effort. Factors such as connections, reputation, and expertise affect the quality of lobbyists effort and can be assumed to be priced into compensation rates of lobbyists, even if imperfectly. Hence, instead of looking at raw hours worked and expenditures, a better approach is to examine changes in hours worked and expenditures within client–lobbyist dyads, where a relatively constant compensation rate—that is geared to capture the quality of effort—can be assumed, especially over shorter periods.

Therefore, I examine the correlation between changes in lobbying expenditures and hours worked within client–lobbyist dyads and within a given biennium.<sup>15</sup> Here, biennium refers to a two-year period starting at the beginning of an odd calendar year and ending at the end of an even year. To focus on the intensive margin, I exclude observations with zero expenditures.<sup>16</sup>

<sup>9</sup>See Chapter 13, Subchapter III, Wisconsin Statutes and the Wisconsin Ethics Commission’s Lobbying User’s Guide ([https://ethics.wi.gov/Resources/Lobbying\\_Users\\_Guide\\_07192022.pdf](https://ethics.wi.gov/Resources/Lobbying_Users_Guide_07192022.pdf)).

<sup>10</sup>Fines and jail time for misreporting (Section 13.69, Wisconsin Statutes), reputational incentives to report information truthfully (e.g., Bertrand *et al.*, 2014; Groll and Ellis, 2017), and monitoring by clients should make deliberate misreporting rare. Supplemental Appendix A7, provides evidence that incorrect disclosures of hours are unlikely to drive the results.

<sup>11</sup>Grasse and Heidbreder (2011) and Lewis (2013) use these data to examine how lobbying affects legislative outcomes.

<sup>12</sup>In Supplemental Appendix A2, I provide additional information about the disclosures.

<sup>13</sup>All hours worked and in-house lobbyists’ salaries (specifically, portions of salaries attributable to lobbying-related activities) are disclosed at the lobbyist level. Expenditures on contract lobbyists can be disclosed at the level of the lobbyist or the lobbying firm. When it is the latter, I attribute clients’ expenditures to lobbyists in proportion to hours worked. To the extent this assumption is incorrect, the results should overstate the extent to which lobbying expenditures are a good proxy for lobbying activity by contract lobbyists. Please see Supplemental Appendix A3 for details on coding decisions.

<sup>14</sup>Supplemental Appendix A5.1 provides descriptive statistics on overall expenditures and hours worked.

<sup>15</sup>Expenditures are inflation-adjusted to January 2020 US Dollars.

<sup>16</sup>About 90 percent of these observations have zero hours worked associated with them. I also exclude client–lobbyist dyads with only one half-year of non-zero expenditures within a biennium. Depending on the analysis, these choices reduce the number of observations by between 17 and 32 percent (see Supplemental Appendix A4).

Since some observations have non-zero expenditures but zero hours worked, I transform the hours worked variable to give zero weight to the extensive margin of whether there were any hours worked or not (Chen and Roth, 2024).<sup>17</sup> Then, for each client–lobbyist dyad, I estimate the Pearson correlation coefficient for the correlation between the log difference from the biennium mean in expenditures ( $\ln(\text{amount}_{t \in b}) - \ln(\text{mean}(\text{amount}_b))$ ) and hours worked by a lobbyist ( $\ln(\text{hours}_{t \in b}) - \ln(\text{mean}(\text{hours}_b))$ ), where  $t$  is a half-year and  $b$  is a biennium.

As clients' are more likely to use flat fees when compensating contract lobbyists than when compensating in-house lobbyists, I further distinguish between “contract” and “in-house” lobbyists.<sup>18</sup> Further, since flat fees may be structured to smooth compensation across longer time periods, I examine correlations at a higher level of temporal aggregation. In particular, I estimate the same correlations as before, but with expenditures and hours aggregated to the yearly level and with deviations (in log differences) from the overall, instead of biennial, client–lobbyist means.<sup>19</sup>

## 5. Results

Panels 1 through 3 in Figure 1 show deviations of client–lobbyist dyad expenditures and hours worked from client–lobbyist–biennium means—with half-yearly deviations measured in log differences—and the correlations between these deviations. Focusing first on the relationship for all lobbyist (panel 1), there is a strong correlation, with an  $r$  of 0.722 (0.004). However, there are important differences between contract (panel 2) and in-house lobbyists (panel 3). In particular, with a coefficient of 0.637 (0.006) the correlation for contract lobbyists is weaker than for in-house lobbyists, with a coefficient of 0.866 (0.005). Supplemental Appendix A5.4 shows that differences between contract and in-house lobbyists persist across organization types, the presence of the other lobbyist type, and whether or not lobbyists work for multiple clients.

Next, I examine deviations of yearly expenditures and hours worked from overall client–lobbyist means (panels 4–6). As expected, coefficients are larger when using the temporally aggregated variables, with a correlation of 0.777 (0.005) for all lobbyists. Interestingly, the difference is especially pronounced for contract lobbyists, with an  $r$  of 0.719 (0.007) for the aggregated data, compared to 0.638 (0.006) for the non-aggregated data. For in-house lobbyists, the difference is smaller, with a correlation of 0.881 (0.006) for the aggregated data, compared to 0.866 (0.005) for the non-aggregated data. These results indicate that, on average, contract lobbyist expenditures are less sensitive than in-house lobbyist expenditures to variation in the intensity of lobbying, especially in the short run. In Supplemental Appendices A5.2, A5.6, and A5.7, I show that differences between contract and in-house lobbyists are accentuated when weighting based on proportions of lobbying expenditures attributable to a dyad or when aggregating hours and expenditures at the level of lobbyist employer or client.

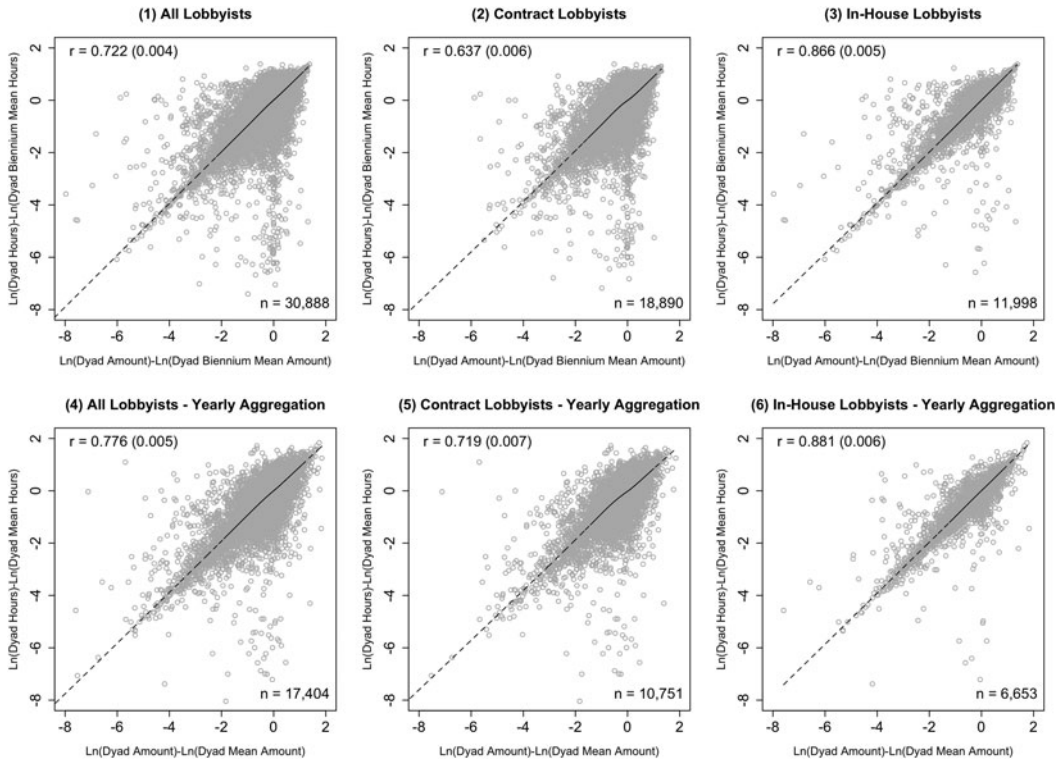
## 6. Discussion

Using unique lobbying disclosure data from Wisconsin, I find that within client–lobbyist dyads, changes in expenditures are strongly correlated with changes in the number of hours worked. Moreover, I find substantial heterogeneity, with subset analyses showing stronger correlations

<sup>17</sup>Specifically, zero-valued observations are assigned the minimum positive value in the respective sample before dividing the values of all observations by that minimum value. Such observations, which are consistent with flat fees or inconsistencies in the data, account for less than 1 percent of observations and total in-sample expenditures.

<sup>18</sup>Contract lobbyists tend to have multiple clients and in-house lobbyists tend to work for a single client. However, 3 percent of “in-house” observations in the analysis sample are from lobbyists working for multiple clients and 4.3 percent of “contract” observations are from lobbyists working for a single client at a given time.

<sup>19</sup>This requires the stronger assumption that compensation rates are constant within client–lobbyist dyads across bienniums. For this analysis, I exclude client–lobbyist pairs which have only one total observation with non-zero expenditures during the sample period.



**Figure 1.** Within client–lobbyist dyad deviations from means in lobbying expenditures and hours worked. *Note:* Panels 1–3 show half-yearly deviations in client–lobbyist dyad expenditures and hours worked from client–lobbyist–biennium (two-year) means, with deviations measured in log differences. Panels 4–6 show yearly deviations in client–lobbyist dyad expenditures and hours worked from overall (sample) client–lobbyist dyad means. Black lines show LOWESS curves. Panels show correlation coefficients (standard errors in parentheses) and sample sizes.

for in-house lobbyists than for contract lobbyists. Further, correlations are stronger in data aggregated to the yearly level, especially for contract lobbyists.

These results show that using lobbying expenditures as a proxy for lobbying activity is a reasonable approach that can lead to valid inferences. However, they also highlight sources of systematic measurement error and bias, whether lobbying expenditures are used to construct independent or dependent variables (e.g., Gallop and Weschle, 2019). Specifically, to the extent that clients pay contract lobbyists or their firms via flat fees, expenditures for contract lobbyists are likely to have more measurement error than in-house lobbying expenditures when proxying for lobbying activity.<sup>20</sup> This is especially the case when contracts cover longer time periods and data are analyzed at low levels of temporal aggregation. Since businesses and associations predominantly engage contract lobbyists, measurement error is going to be a greater concern in analyses of business interests than in those of other interests, such as labor unions, for which in-house lobbying is more common.<sup>21</sup> As supplemental analyses support the external validity of the results at the US federal level, the findings should prove useful in helping to clarify mixed results, and avoid false positives and negatives.

<sup>20</sup>For example, 27 percent of in-sample lobbying firm–client–year relationships have constant expenditures across half years but non-constant hours, which only occurs for 1 percent of clients’ in-house lobbyists (see Supplemental Appendix A5.9 for details and additional contextualization of the results).

<sup>21</sup>In Supplemental Appendix A5.3, I show that correlations are particularly low for organization types with high proportions of contract lobbyists.

Specifically, the findings suggest several avenues to improve future research that uses lobbying expenditures as a proxy for lobbying activity. First, information on whether expenditures are for in-house or contract lobbyists—which is frequently available, including in federal lobbying data—enable different types of robustness checks. In particular, when dependent variables are based on lobbying expenditures, I recommend that researchers perform subset analyses that distinguish clients by their relative reliance on contract lobbyists to ensure that results are not exclusively driven by contract lobbyists. When researchers use lobbying expenditures as independent variables, I suggest they examine differences between the coefficients for contract and in-house lobbying expenditures. Further, combining analyses using expenditures with other measures of lobbying activity, for example, based on bills lobbied or committee appearances (e.g., Drutman, 2015; Lee and You, 2023) can clarify the extent to which there is variation in lobbying activity, especially if expenditures are constant over time or clients report zero expenditures in some filing periods. Finally, since temporally fine-grained expenditure data need not be best for reducing measurement error, researchers should consider higher levels of temporal aggregation in analyses where contract lobbying predominates, such as federal-level lobbying in the US.

**Supplementary material.** The supplementary material for this article can be found at <https://doi.org/10.1017/psrm.2024.59>. To obtain replication material for this article, <https://doi.org/10.7910/DVN/VOZCAL>

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## References

- Bertrand M, Bombardini M and Trebbi F (2014) Is it whom you know or what you know? An empirical assessment of the lobbying process. *American Economic Review* **104**, 3885–3920.
- Bertrand M, Bombardini M, Fisman R and Trebbi F (2020) Tax-exempt lobbying: corporate philanthropy as a tool for political influence. *American Economic Review* **110**, 2065–2102.
- Blanes i Vidal J, Draca M and Fons-Rosen C (2012) Revolving door lobbyists. *American Economic Review* **102**, 3731–3748.
- Bombardini M and Trebbi F (2020) Empirical models of lobbying. *Annual Review of Economics* **12**, 391–413.
- Chen J and Roth J (2024) Logs with zeros? Some problems and solutions. *Quarterly Journal of Economics* **139**, 891–936.
- De Figueiredo JM and Richter BK (2014) Advancing the empirical research on lobbying. *Annual Review of Political Science* **17**, 163–185.
- Drutman L (2015) *The Business of America is Lobbying: How Corporations Became Politicized and Politics Became More Corporate*. New York, NY: Oxford University Press.
- Facchini G, Mayda AM and Mishra P (2011) Do interest groups affect US immigration policy?. *Journal of International Economics* **85**, 114–128.
- Furnas AC, Heaney MT and LaPira TM (2019) The partisan ties of lobbying firms. *Research & Politics* **6**, 2053168019877039.
- Gallop M and Weschle S (2019) Assessing the impact of non-random measurement error on inference: a sensitivity analysis approach. *Political Science Research and Methods* **7**, 367–384.
- Grasse N and Heidbreder B (2011) The influence of lobbying activity in state legislatures: evidence from Wisconsin. *Legislative Studies Quarterly* **36**, 567–589.

- Groll T and Ellis CJ** (2017) Repeated lobbying by commercial lobbyists and special interests. *Economic Inquiry* **55**, 1868–1897.
- Guyer RL** (2018) *Insiders Talk: Winning with Lobbyists—“The Client’s Bible”*, Professional Edn. Gainesville, FL: Lobby School.
- Hassan TA, Hollander S, Van Lent L and Tahoun A** (2019) Firm-level political risk: measurement and effects. *Quarterly Journal of Economics* **134**, 2135–2202.
- Hirsch AV, Kang K, Montagnes BP and You HY** (2023) Lobbyists as gatekeepers: theory and evidence. *Journal of Politics* **85**, 731–748.
- Ho C** (2011) Holland & Knight’s lobbying group to shed traditional hourly billing. *The Washington Post*. [https://www.washingtonpost.com/business/capitalbusiness/holland-and-knights-lobbying-group-to-shed-traditional-hourly-billing/2011/12/14/giQAYH6luO\\_story.html](https://www.washingtonpost.com/business/capitalbusiness/holland-and-knights-lobbying-group-to-shed-traditional-hourly-billing/2011/12/14/giQAYH6luO_story.html) (23 November, 2023).
- LaPira TM and Thomas HF** (2020) The lobbying disclosure act at 25: challenges and opportunities for analysis. *Interest Groups & Advocacy* **9**, 257–271.
- Lee K and You HY** (2023) Bureaucratic revolving doors and interest group participation in policy making. *Journal of Politics* **85**, 701–717.
- Leech BL, Baumgartner FR, Pira TML and Semanko NA** (2005) Drawing lobbyists to Washington: government activity and the demand for advocacy. *Political Research Quarterly* **58**, 19–30.
- Lewis DC** (2013) Advocacy and influence: lobbying and legislative outcomes in Wisconsin. *Interest Groups & Advocacy* **2**, 206–226.
- Libgober B and Carpenter D** (2024) Lawyers as lobbyists: regulatory advocacy in American finance. *Perspectives on Politics*. Advance online publication. doi:10.1017/S1537592723002943.
- Meng KC and Rode A** (2019) The social cost of lobbying over climate policy. *Nature Climate Change* **9**, 472–476.
- Richter BK, Samphantharak K and Timmons JF** (2009) Lobbying and taxes. *American Journal of Political Science* **53**, 893–909.
- Rosenthal A** (2001) *The Third House: Lobbyists and Lobbying in the States*, 2nd Edn. Washington, DC: CQ Press.
- Strickland JM and Crosson JM** (2023) K street on main: legislative turnover and multi-client lobbying. *Political Science Research and Methods* **11**, 746–762.
- Thomas HF and LaPira TM** (2017) How many lobbyists are in Washington? Shadow lobbying and the gray market for policy advocacy. *Interest Groups & Advocacy* **6**, 199–214.
- Vronsky PM** (2005) Lobbying, contingent fees, and information transmission: an economic analysis. doi: 10.2139/ssrn.756066.
- Williamson OE** (1979) Transaction-cost economics: the governance of contractual relations. *Journal of Law and Economics* **22**, 233–261.