(When) Are Lobbying Expenditures a Good Proxy for Lobbying Activity? Supplemental Appendix

A1 Relationship Between Expenditure Formats and Types of Lobbyists

A1.1 Indirect Evidence From Wisconsin Lobbying Disclosures

Here, I examine both the persistence of lobbying expenditures and the presence of "round" numbers in payments to lobbyists and lobbying firms to determine the extent to which expenditures on in-house and contract lobbyists may differ in the likelihood of being flat fees. For this analysis, I examine expenditures on contract lobbyists at the lobbying-firm level and aggregated expenditures on in-house lobbyists at the client level. Within a given year and client-lobbyist-type pairing, I code an indicator for "flat fees" if either of the following conditions hold: 1) the expenditure is the same non-zero amount across both half-year periods; 2) one half-year has a non-zero expenditure which is perfectly divisible by \$1,000 and one half-year has a zero dollar expenditure.¹

The results show a clear difference between contract lobbyists and in-house lobbyists. For client-lobbying firm dyads, 25.8% of yearly observations have a "flat fee" indicator.² On the other hand, for clients and their in-house lobbyists, only 1.3% of yearly observations have such an indicator.³

As also discussed in Supplemental Appendix A5.9, the lower overall percentages of constant expenditures made to contract lobbyists in Wisconsin compared to the federal level (see Appendix A1.2) are likely due to at least two factors. First, due to Wisconsin's 15-weekly sessions at the beginning of every year, workload is likely to be more concentrated within a

¹Unlike for the main analysis, here, I use expenditures that are not adjusted to inflation.

²Here, the denominator is yearly observations where there is at least one non-zero expenditure.

³The proportion for in-house lobby ists increases to 2.1% when excluding travel and living expenses.

year than in Congress, and this could be reflected in expenditures. Second, thresholds and a lack of required precision for reporting payments to lobbying firms at the federal level means that some changes in expenditures on federal contract lobbyists are likely not captured by disclosures. It should be noted that changing expenditures within a year do not rule out fixed or flat fees. For one thing, fixed payments can be agreed upon for half-year or even monthly periods. For another, payment structures may contain fixed and flexible components, for example, to account for travel expenses.

A1.2 Indirect Evidence From Federal Lobbying Disclosures

I examine the persistence of lobbying expenditures at the federal level to determine the extent to which clients' expenditures on in-house and contract lobbyists may differ in their propensity to be a part of flat fee compensation agreements. To do so, I collected data on lobbying expenditures contained in LDA reports from 1998 through 2020 provided by the non-profit organization Open Secrets (https://www.opensecrets.org/bulk-data). Here, the data contain an indicator for whether reports were made for in-house or contract lobbyists.

For a given client-lobbying firm (contract lobbying) relationship and a given client reporting in-house compensation, I proceed by examining whether the expenditure amounts paid by a client are the same across filings within a given year.⁴ For reports of clients for their in-house lobbying, I find that the level of expenditure did not change within a year for 24% of client-year observations. On the other hand, for reports based on contract lobbying, I find that the level of expenditure was unchanged within a year for 50% of client-lobbying firm-year observations.⁵ Of course, the fact that expenditure amounts were the same across reports within a given year or biennium does not clearly demonstrate that expenditures were based on flat fees or retainers, as this can also result from hourly fees for the same amount of hours.⁶ Nevertheless, these large differences in the persistence of expenditures are consistent with differences in the format of expenditures across in-house and contract lobbyists and therefore differences in the extent to which lobbying expenditures capture lobbying activity.

⁴I exclude reports with zero expenditures and reports after 2020.

 $^{^5 \}rm Within$ a biennium, the respective percentages are 16% for in-house lobby ists and 37% for contract lobby ists.

⁶Moreover, reporting requirements (including thresholds) are not the same for clients reporting in-house lobbying and lobbying firms (e.g., LaPira and Thomas 2020; Leech et al. 2005), which makes the comparison less than perfect.

A1.3 Direct Evidence From Federal Foreign Agents Registration Act (FARA) Disclosures

Through its disclosure requirements, the Foreign Agents Registration Act provides scholars with extremely detailed information related to the lobbying activities of foreign entities in the U.S. (see, e.g., You 2020). Among the information that is required to be disclosed is the agreement between a foreign principal (client) and a registrant (e.g., a lobbying firm): "Copies of each written agreement and the terms and conditions of each oral agreement, including all modifications of such agreements, or, where no contract exists, a full statement of all the circumstances, by reason of which the registrant is an agent of a foreign principal; a comprehensive statement of the nature and method of performance of each such contract" (22 U.S.C. §612(a) 4), which is information disclosed in FARA Exhibit B (Title 28 C.F.R. Part 5, § 5.201 (a) (2)).

I collected Exhibits A&B filed from 2017 through 2018, searching the website https:// efile.fara.gov/ords/fara/f?p=1235:10 for agreements made by twenty federal lobbying firms that were included among the highest grossing lobbying firms in 2017 or 2018.⁷ Of these, 12 firms registered 80 such filings with foreign clients, of which 75 contained information on agreements with clients, including the format of compensation. I analyzed these filings, distinguishing between whether or not agreements specified flat fees, whether expenses were included in such flat fees, whether agreements specified a retainer, and whether agreements specified hourly rates of compensation.⁸ Table A1 provides a summary of the expenditure

⁷Total income is combined based on https://www.opensecrets.org/federal-lobbying/ top-lobbying-firms?cycle=2017 and https://www.opensecrets.org/ federal-lobbying/top-lobbying-firms?cycle=2018.

⁸Retainers and hourly rates are not mutually exclusive. In one case, both a retainer and hourly rates are mentioned. Also, note that the type of compensation I measure is between the client and the lobbying firm, not between the lobbying firm and a lobbyist. The latter may be based on hourly rates even if the former is e.g., a flat fee.

formats specified for lobbying firms in the agreements, aggregating the numbers by lobbying firm. A total of 65 out of 75 agreements specified flat fees, in many cases (42) allowing for varying degrees of additional expenses to be claimed. While these results need not carry over to the agreements these and other federal lobbying firms make with domestic clients, they provide additional evidence that contract lobbyists are very frequently paid by their clients via flat fees.

	No. of	Flat Fees		Hourly	Total Income
Lobbying Firm	Agreements	(Exc. Exp.)	Retainers	Rates	'17-'18 (LDA)
Akin Gump et al	12	6(2)	5	2	76,785,000
Brownstein Hyatt et al	4	4(2)	0	0	59,965,000
BGR Group	11	11(8)	0	0	$50,\!894,\!000$
Squire Patton Boggs	5	3(3)	2	1	$48,\!517,\!000$
Holland & Knight	1	1 (0)	0	0	46,090,000
Cornerstone Government Affairs	4	4(4)	0	0	41,010,000
K&L Gates	4	3(3)	1	0	36,020,000
Capitol Counsel	5	4(0)	1	0	$35,\!880,\!000$
Covington & Burling	0	0	0	0	$35,\!018,\!000$
Van Scoyoc Assoc	0	0	0	0	$33,\!410,\!000$
Williams & Jensen	0	0	0	0	$32,\!850,\!000$
Capitol Tax Partners	0	0	0	0	29,140,000
Mehlman Castagnetti et al	0	0	0	0	28,745,000
Peck Madigan Jones	0	0	0	0	$28,\!050,\!000$
Cassidy & Assoc	1	1(1)	0	0	28,040,000
Fierce Government Relations	0	0	0	0	$26,\!380,\!000$
American Continental Group	1	1(1)	0	0	26,100,000
Podesta Group	13	13(7)	0	0	$18,\!410,\!000$
Ballard Partners	14	14(11)	0	0	$18,\!140,\!000$
Ernst & Young	0	0	0	0	$15,\!160,\!000$
Total	75	65(42)	9	3	714,604,000

Table A1: Lobbying Expenditure Formats in FARA Filings (Exhibits A&B) For High Earning Federal Lobbying Firms, 2017-2018

Note: The table shows the number of Exhibit A&B Filings, filed from 2017 through 2018, that mention financial agreements between lobbying firms and foreign clients by twenty of the highest earning federal lobbying firms (based on LDA filings, i.e., not including foreign lobbying). For each firm, the table shows the number of agreements that include information on expenditure formats, the number of agreements that mention flat fees (in brackets if some expenses are excluded), the number of agreements mentioning retainers, and the number mentioning hourly rates. The last column shows the total income for each lobbying firm in 2017-2018, based on domestic federal lobbying.

A2 Additional Details on Lobbying Disclosures from Wisconsin

Statements of Lobbying Activity and Expenditures include the names of licensed lobbyists who were registered to lobby on behalf of their clients, how many hours they spent working for them, how many of those hours were spent communicating with public officials, and the clients' expenditures on each in-house lobbyist, individual contract lobbyists or lobbying firm.⁹ The statements also include information on the allocation of the lobbying effort across broad categories ("Legislative Proposals", "Budget Bill Subjects", Administrative Rulemaking Proceedings", "Topics Not Yet Assigned A Bill Or Rule Number", "Minor Efforts", and "All Other Matters".), as well a particular topics. Supplemental Appendix A8 provides an example disclosure.

Thresholds for disclosure are quite low, with organizations or individuals spending more than \$500 per calendar year on lobbying being required to register as a client (or "principal"). Similarly, individuals who lobby public officials must obtain a license if they are compensated for their work beyond covering expenses and lobbying takes place on at least five days during a reporting period.¹⁰ Further, clients separately report lobbying expenditures that do not go towards compensating lobbyists, such as paid advertising, permitting a more direct focus on "inside" lobbying, as opposed to "outside lobbying", aimed at mobilizing the public to influence public policy (e.g., Kollman 1998).¹¹

⁹Hours worked are reported for each individual lobbyists, but expenditure amounts are sometimes reported by lobbying firm. When multiple lobbyists at a lobbying firm worked for the same client, I attribute expenditures based on hours worked (see Supplemental Appendix A3).

¹⁰Clients also report aggregated compensation and hours spent on lobbying-related activities by "non-lobbyists"; non-licensed employees who spent time lobbying on behalf of the client.

¹¹Both travel and living expenses for clients' lobbying employees (licensed or not) are also reported.

A3 Details on Coding Decisions

Relying on a combination of auxiliary information from other disclosures filed in Wisconsin, as well as information from the organizations' current and prior websites, I re-coded names of lobbying clients, lobbying firms, and lobbyist names, whenever the entity or person was the same but had filed under a different name. This includes minor differences in spelling of organization names, renaming of the same organization, and name changes due to marriage. All original names remain as additional variables in the dataset. When certain expenditures are disclosed at the employer level, i.e., an expenditure on a lobbying firm, or travel and living expenses for in-house employees, expenditures were allocated to lobbyists (and lobbyists categories) according to their proportion of the total number of hours worked. As fringe benefits and overhead are calculated by default (unless calculated manually) based on the amount of compensation paid to a client's in-house lobbyists and non-lobbyist employees. I attributed them proportionally to the compensation received. Amounts do not include client expenditures that are not clearly attributable to lobbyists (i.e., "Payments to Officials" and "All Other Lobbying Expenses"). When filings are inconsistent with lobbyist time reports, indicating duplicated entries of in-house lobbyists under the "contract" category, duplicate observations were excluded from the analysis. Duplicated observations that were completely identical were also removed from the analysis.¹² Observations where the lobbyist name, client name, expenditure, and hours worked were identical but other variables were not are included in the analysis. Indicator variables marking these observations permit further examination and robustness checks.

¹²These and additional observations with inconsistencies that were excluded from the analysis are included in an extended dataset with indicators to permit further examination.

A4 Number and Percentage of Excluded Observations

As described in the Empirical Approach Section, I exclude observations with zero expenditures to focus the analyses on the intensive margin. Further, I exclude lobbyist-client pairs with only one observation with non-zero expenditures during a biennium (for the half-yearly analyses) or the overall sample period (for the yearly analyses). For the half-yearly analysis that includes both contract and in-house lobbyists, this reduces the number of observations by 10,238 of 43,051 observations (24%).¹³ It should be noted that 9,207 or 90% of these observations also have zero hours worked associated with them, indicating that these lobbyists were registered but did not end up engaging in reportable lobbying activities for a client. An additional 1,925 (4% of 43,051 obs.) observations are dropped when further excluding dyads with only one half-year of non-zero expenditures in a biennium. For the half-yearly contract lobbyist analysis the numbers of observations dropped are 7,521 (27% of 27,775 obs.) and 1,364 (5% of 27,775 obs.), respectively. For the half-yearly in-house analysis, the number of observations dropped are 2,717 (18% of 15,276 obs.) and 561 (4% of 15,276 obs.), respectively.

For the yearly analysis, that includes contract and in-house lobbyists, the number of observations dropped by first excluding zero-expenditure observations is 3,709 (16% of 22,611 obs.). An additional, 1,498 (7% of 22,611 obs.) observations are dropped when excluding dyads with only one half-year of non-zero expenditures across the sample period. For the yearly contract lobbyist analysis the numbers of observations dropped are 2,718 (19% of 14,594 obs.) and 1,125 (8% of 14,594 obs.), respectively. For the yearly in-house analysis, the numbers of observations dropped are 991 (12% of 8,017 obs.) and 373 (5% of 8,017 obs.).

¹³The number of lobbyist-client dyad observations differs from the 43,817 given in the Data Section as some contract lobbyists work for a client as part of different lobbying firms in a given biennium. Performing the analysis by examining variation within clientlobbying firm-lobbyist relationships does not change results meaningfully (see Appendix Section A5.5).

A5 Additional Results

A5.1 Descriptive Statistics

In addition to 43,817 observations of lobbyist-client relationships (28,541 with contract lobbyists and 15,276 with in-house lobbyists) the dataset also includes 1,956 observations for non-licensed lobbying expenditures and hours spent lobbying, for a total of 45,773 observations. Across the 28 half-year time periods, the number of observations is relatively stable, with a mean of 1,635 observations, and a standard deviation of 99. There is also substantial over-time variation in hours worked (Mean: 107,844 hours, SD: 28,697) and expenditures (Mean: \$14,683,717 in Jan. 2020 Dollars, SD: \$2,314,366) across time periods.¹⁴ This is driven both by within-biennium changes and, at least in the case of hours worked, a slight recent downward trend compared to the periods before 2012.¹⁵ Figure A1 shows changes in hours worked and lobbying expenditures over time.

¹⁴These amounts do not include client expenditures that are not clearly attributable to lobbyists (i.e., "Payments to Officials" and "All Other Lobbying Expenses").

¹⁵Here, biennium refers to a two-year period starting in the beginning of an odd calendar year and ending at the end of an even year.



Figure A1: Reported Hours Worked and Lobbying Expenditures, Aggregated by Half-Year

Note: Expenditures and hours include contract lobbyists, in-house lobbyists, and nonlicensed lobbyists between 2005 and 2018. Lobbying expenditures are shown in January, 2020 US Dollars.

A5.2 Unweighted vs. Weighted Correlations

Here, I compare results from from unweighted and weighted correlations. For the analysis using half-yearly, non-aggregated, data, weights are based on the percentage of lobbying expenditure in the biennium attributable to the client-lobbyist dyad. For the analysis using yearly, aggregated, data, weights are based on the percentage of overall lobbying expenditures due to the client-lobbyist dyad. In both cases, the coefficients from the overall correlations are lower than for the unweighted correlations. Moreover, the difference between contract and in-house lobbyists becomes larger.

When weighting observations by the percentage of lobbying expenditures due to a clientlobbyist dyad in a given biennium, the overall correlation in the half-yearly, non-aggregated, data is 0.587 (0.005). This is especially driven by contract lobbyists, where the correlation is 0.458 (0.006), compared to in-house lobbyists, at 0.842 (0.005).¹⁶ When weighting the aggregated data by the overall percentage of expenditures due to a client-lobbyist dyad, the coefficients are 0.723 (0.005) for all lobbyists, 0.651 (0.007) for contract lobbyists, and 0.875 (0.006) for in-house lobbyists.¹⁷

¹⁶The unweighted correlations are 0.722 (0.004), 0.637 (0.006), and 0.866 (0.005), respectively.

 $^{^{17}}$ The unweighted correlations are 0.777 (0.005), 0.719 (0.007), and 0.881 (0.006), respectively.

A5.3 Correlations for Different Types of Lobbying Clients

In Table A2, I compare the correlations between within client-lobbyist dyad deviations in lobbying expenditures and hours worked from the respective dyad-biennium means for different types of lobbying clients (business entities; trade and professional associations; governmental entities; charitable, Religious, Civic, or other organizations; and labor unions).¹⁸ As for the results in Panels 1-3 of Figure 1, deviations are measured in log differences, and I exclude observations with zero expenditures and client-lobbyist dyads with only one half year of nonzero expenditures in a given biennium. Moreover, observations are unweighted. The table shows that organizations that have high proportions of contract lobbyists, such as business entities and associations, have lower correlations than organizations with comparatively low proportions of contract lobbyists, such as government entities, labor unions, or charitable, religious, civic, and other organizations.

¹⁸These classifications are provided by disclosures from the Wisconsin Ethics Commission, available on the disclosure website under "Search Lobbying Principals" (e.g., "https://lobbying.wi.gov/Who/Principals/2017REG/SearchNames").

		Percent of obs.
Type of Organization	Correlation	are contract lobbyists
Business Entities	0.641	77.2%
	(0.008)	(out of $9,361$ obs.)
Trade & Professional Associations	0.712	63.8~%
	(0.006)	(out of 12,330 obs.)
Governmental Entities	0.886	54.1%
	(0.010)	(out of $1,952$ obs.)
Charitable/Religious/Civic/Oth	0.801	39.7%
	(0.008)	(out of $6,013$ obs.)
Labor Unions	0.816	27.9%
	(0.017)	(out of $1,220$ obs.)

Table A2: Correlations Between Within-Dyad Changes in Lobbying Expenditures andHours by Type of Organization

Note: Column 1 shows the Pearson correlation coefficients for deviations of within-client-lobbyist dyad expenditures and hours worked from within client-lobbyist biennium means, where deviations are measured in log differences. Rows 1 and 2 show estimates and standard errors for the measure, estimated as for Panel 1 in Figure 1. Column 3 shows the percentage of observations that include contract lobbyists.

A5.4 Correlations for Contract and In-House Lobbyists Across Types of Lobbying Clients

Table A3: Correlations Between Within-Dyad Changes in Lobbying Expenditures and Hours for Contract and In-House Lobbyists by Type of Organization

	Contract	In-House
Type of Organization	Lobbyists	Lobbyists
Business Entities	0.590	0.851
	(0.009)	(0.011)
Trade & Professional Associations	0.654	0.829
	(0.009)	(0.008)
Governmental Entities	0.850	0.952
	(0.016)	(0.010)
Charitable/Religious/Civic/Oth	0.646	0.894
	(0.016)	(0.007)
Labor Unions	0.692	0.859
	(0.039)	(0.017)
Organizations With Only	0.641	0.881
Contract / In-House Lobbyists	(0.008)	(0.008)
Organizations With Both Contract & In-House	0.661	0.851
Lobbyists, But Only in Other Sessions	(0.015)	(0.011)
Organizations With Contract	0.624	0.862
& In-House Lobbyists in Current Session	(0.010)	(0.007)
Lobbyists With 1 Client	0.694	0.865
	(0.025)	(0.005)
Lobbyists With up to 4 Clients	0.625	
(Median $\#$ of Clients for Contract Lobbyists)	(0.015)	
Lobbyists More Than 4 Clients	0.640	
(Median $\#$ of Clients for Contract Lobbyists)	(0.006)	

Note: Columns 2 and 3 show correlation coefficients for deviations of within-client-lobbyist dyad expenditures and hours worked from client-lobbyist biennium means, with deviations are measured in log differences. Column 2 shows correlations for contract lobbyists. Column 3 shows correlations for in-house lobbyists. Each row and column shows results for different subsets of client-lobbyist dyads. As for the results in Panels 1-3 of Figure 1, deviations are measured in log differences, and I exclude observations with zero expenditures and client-lobbyist dyads with only one half year of non-zero expenditures in a given biennium. Dyads are not weighted based on percentage of expenditures.

A5.5 Robustness Check: Accounting for Additional Lobbying Firm Effects

As a small number of lobbyists work for the same client via a different lobbying firm, including within a biennium, I also present results from analyses within client-lobbying firm-lobbyist relationships. The results are presented in Figure A2. Compared to the main results in Figure 1, the correlations are either identical or marginally higher.

Figure A2: Within Client-Lobbying Firm-Lobbyist Deviations From Means in Lobbying Expenditures and Hours Worked



Note: Panels 1-3 show scatter plots of half-yearly deviations in client-lobbying firm-lobbyist relationship expenditures and hours worked from client-lobbying firm-lobbyist biennium (two-year) means, with deviations measured in log differences. Panels 4-6 show scatter plots based on aggregated data: yearly deviations in client-lobbying firm-lobbyist relationship expenditures and hours worked from overall client-lobbying firm-lobbyist relationship means. Black lines show LOWESS curves which help highlight differences in the scatter plots across panels. Panels 1 and 4 show all lobbyists, Panels 2 and 5 show contract lobbyists, and Panels 3 and 6 show in-house lobbyists.

A5.6 Robustness Check: Aggregation to Level of Lobbyist Employer

There are 1,956 observations for non-licensed lobbyists that refer to clients' employees who are not licensed lobbyists ("non-lobbyists"), but still lobbied for the client (WIS. STAT. § 13.68(1)(cm)). The combined expenditures for these observations make up approximately 5% of overall expenditures, prior to being excluded for the main analysis. In this robustness check, lobbying expenditures and hours are aggregated by lobbying employer: by lobbying firm for contract lobbyists and by client for in-house lobbyists and "non-lobbyist".¹⁹ As shown in Figure A3, the correlations are somewhat lower but substantively similar for clients' employees compared to those for in-house lobbyists at the lobbyist level. The correlations for lobbying firms are markedly lower than those for individual contract lobbyists.

¹⁹As before, I focus on correlations between deviations from means, with deviations measured in log differences. However, in this case, the deviations are from client-lobbying employerbiennium means and overall client-lobbying employer means (in the sample).

Figure A3: Within Client-Lobbying Employer-Lobbyist Deviations From Means in Lobbying Expenditures and Hours Worked



Note: Panels 1-3 show scatter plots of half-yearly deviations in client-lobbying employer employees dyad expenditures and hours worked from client-lobbying employer employees biennium (two-year) means, with deviations measured in log differences. Panels 4-6 show scatter plots based on aggregated data: yearly deviations in client-lobbying employer employees dyad expenditures and hours worked from overall client-lobbying employer employees dyad means. Black lines show LOWESS curves which help highlight differences in the scatter plots across panels. Panels 1 and 4 show all lobbying employers (clients and lobbying firms), Panels 2 and 5 show lobbying firms, and Panels 3 and 6 show clients' employees.

A5.7 Robustness Check: Aggregation to the Client Level

In this robustness check, lobbying expenditures and hours are aggregated to the level of the client. For the subset analyses, I aggregate all expenditures and hours worked that are associated with contract lobbyists, as well as expenditures and hours worked that are associated with in-house lobbyists and "non-lobbyists".²⁰ As shown in Figure A4, the difference between correlations for contract and in-house lobbyists are more pronounced than in the main results.

²⁰As before, I focus on correlations between deviations from means, with deviations measured in log differences. However, in this case, from client-biennium means and overall client means (in the sample).





Note: Panels 1-3 show scatter plots of half-yearly deviations in client expenditures and hours worked from client biennium (two-year) means, with deviations measured in log differences. Panels 4-6 show scatter plots based on aggregated data: yearly deviations in client expenditures and hours worked from overall client means. Black lines show LOWESS curves which help highlight differences in the scatter plots across panels. Panels 1 and 4 show all expenditures on lobbyists and hours worked, Panels 2 and 5 show expenditures on and hours worked by contract lobbyists, and Panels 3 and 6 show expenditures on and hours worked by in-house lobbyists.

A5.8 Prevalence of Contract Lobbyists in Federal and State Lobbying

Using lobbying disclosures from 2017, collected by Followthemoney.org, I estimate the proportion of lobbyists in each state that are contract lobbyists. I then calculate the number of client-lobbyist relationships that include a contract lobbyist and the number of unique lobbyists that contract lobbyists. All lobbyists with more than one client are coded as contract lobbyists. Similarly, using federal lobbying disclosure data from OpenSecrets.org – which have indicators for contract lobbying disclosures – I calculate the number of client-lobbyist relationships that include a contract lobbyist and the number of unique lobbyists that contract lobbyists. The results are shown in Figure A5.

Panel 1 shows the proportion of client-lobbyist relationships that include a contract lobbyist across states for 2017. Across the 50 states, the median is 74%, which is similar to Wisconsin (69%). At the federal level, the percentage in 2017 is higher, at 83%.

In Panel 2, the histogram shows the number of estimated unique lobbyists in each state in 2017 that are contract lobbyists. Across the 50 states, the median is 23%, which is similar to Wisconsin (17%). At the federal level, the percentage is higher, at 42%. As these results show, Wisconsin is a typical state regarding the prevalence of contract lobbyists and federal lobbying tends to have more contract lobbying than state-level lobbying. Moreover, in Table A4, I show the proportion of federal client-lobbyist relationship that include a contract lobbyist by sector and across all disclosures from 1998 through 2020. The table shows that contract lobbyists are especially prevalent among business interests and less prevalent among ideological/single issue clients as well as labor unions.



Figure A5: Prevalence of Contract Lobbyists in Federal and State Lobbying

Note: The histogram in Panel 1 shows estimates of the proportion of client-lobbyist relationships across states in 2017 that include a contract lobbyist. The histogram in Panel 2 shows the proportion of estimated unique lobbyists across states in 2017 that are contract lobbyists. The dashed lines show the estimated proportions for Wisconsin. The solid lines show the proportions in 2017 at the federal level.

	Proportion With
Sector	Contract Lobbyist
Unknown	0.96
Lawyers & Lobbyists	0.91
Other	0.89
Defense	0.87
Communications/Electronics	0.85
Transportation	0.85
Energy & Natural Resources	0.84
Misc Business	0.84
Health	0.83
Finance/Insur/RealEst	0.82
Construction	0.79
Agribusiness	0.77
Ideological/Single-Issue	0.61
Labor	0.46

 Table A4:
 Proportion of Client-Contract Lobbyist Relationships by Sector

Note: The table shows the proportion of client-lobbyist relationships from federal lobbying disclosure data that include a contract lobbyist, by sector, and across 1998 through 2020.

A5.9 Contextualizing Results on the Differences Between Types of Lobbyists

To characterize the results on the differences between contract and in-house lobbyists further in the context of actual lobbying activities, I present four sets of results. First, I characterize how often, in a given year for a given client-lobbyist relationship (contract vs. in-house), the presumption of constant hours when there are constant expenditures would be incorrect. Second, I examine the percentage of client-lobbyist-year observations (separately for in-house and contract lobbyists) that have constant expenditures but non-constant hours. Additionally, I examine the percentage of client-lobbying firm relationships that have constant expenditures but non-constant hours. Third, I further contextualize the results by showing via a prediction exercise how even with a relatively high level of information, variation in lobbying expenditures can be misleading about the number of hours worked. Fourth, I show how, holding constant the amount of expenditures received by lobbyists (from a client or from any client), the relative variability of hours worked tends to be much higher across contract lobbyists compared to in-house lobbyists.

First, I characterize how often, in a given year for a given client-lobbyist relationship, and for lobbying firms, the presumption of constant hours worked when there are constant and non-zero expenditures across the two half years would be incorrect. For in-house lobbyists, this is 88% of the time, but for contract lobbyists, it is 97% of the time.²¹ Moreover, only 1% of client-in-house lobbyist-years with non-zero expenditures have constant expenditures across the two half years but non-constant hours. For contract lobbyists, it is 14%. The numbers for contract lobbyists are even higher when not attributing expenditures to individual lobbyists based on the proportion of hours worked (as in the main analysis) but instead analyzing values at the level of the lobbying firm. In this case, 27% of client-lobbying firm-²¹Here, I use original amounts that are not adjusted to inflation. years with non-zero expenditures have constant expenditures but non-constant hours.²²

The lower overall percentages of constant expenditures made to contract lobbyists in Wisconsin compared to the federal level (see Appendix A1.2) are likely due to at least two factors. First, due to Wisconsin's 15-weekly sessions at the beginning of every year, workload is likely to be more concentrated within a year than in Congress, and this could be reflected in expenditures. Second, thresholds and a lack of required precision for reporting payments to lobbying firms at the federal level means that some changes in expenditures on federal contract lobbyists are likely not captured by disclosures. It should be noted that changing expenditures within a year do not rule out fixed or flat fees. For one thing, fixed payments can be agreed upon for half-year or even monthly periods. For another, payment structures may contain fixed and flexible components, for example, to account for travel expenses.

A third way to contextualize the results is to make use of the assumption of constant compensation or expenditure rate within a biennium for a given client-lobbyist dyad which is employed for some of the main results. Instead of showing how much lobbyists deviate from this assumption, I translate the deviations into prediction errors for hours worked. In particular, I first predict the amount of hours worked for all the four half years in a biennium using the average client-lobbyist-biennium expenditure rate (expenditures divided by hours) and the expenditures in each half year.²³ Next, I calculate the difference between the prediction and the actual number of hours worked. Then, I calculate, for each client-lobbyist-biennium, the root mean square error (RMSE) for hours worked and present summary statistics for contract and in-house lobbyists separately.

For contract lobbyists, the median RMSE is 5.7 hours, compared to 2.1 hours for in-house lobbyist. To put these results into context, the median client-lobbyist-biennium for average

²²This number differs somewhat from the proportion of observations with "flat fee" indicators in Supplemental Appendix A1.1. This is in part due to the fact that here, only yearly observations with two non-zero expenditure half-years were included.

²³Here, I use inflation-adjusted expenditures, as in the main analyses.

hours worked in a half-year is 27.0 for contract lobbyists and 50.6 for in-house lobbyists.²⁴ The results illustrate that, even with information about the average rate of compensation or expenditures, going by the variation in expenditures can lead observers to be off by between 17.5% to 27.0% regarding the number of hours worked for a typical client-contract lobbyist dyad. For the typical client-in-house lobbyist-dyad in the data, this error is approximately in the range of only 4% and 4.3%.

Since information about average rates of compensation or expenditures are typically not available, researchers may implicitly assume a similar rate of compensation across clients, perhaps distinguishing between contract and in-house lobbyists. When such assumptions are made to predict or imply a particular intensity of effort or hours worked via expenditures, such predictions are likely to be far off the mark. For example, when taking the median half-yearly rate of expenditure for contract and in-house lobbyists respectively, the median RMSE for hours worked for their clients are 20.4 hours for contract lobbyists and 21.4 hours for in-house lobbyists.

Lastly, I provide evidence on the number and relative variability of hours worked by contract and in-house lobbyists, holding constant the expenditures made to them from a client or from any client. In particular, I first aggregate hours and expenditures to the level of client-lobbyist-biennium and lobbyist-biennium. Then, I calculate the percentiles of expenditures payed to lobbyists. Next, for each 5% bracket (0-5%, 5-10%, etc.) I calculate the first quartile, median, and third quartile, mean, as well as the standard deviation of the number of hours worked across contract and in-house lobbyists. Dividing the standard deviation by the mean provides the coefficient of variation for each group, which indicates relative variability.

The results are shown in Figure A6. Panels 1 (client-lobbyist dyads) and 3 (lobbyist level) ²⁴Overall, for contract and in-house lobbyists combined, the numbers are a RMSE of 4.1 and a median of 31.9 hours. show that holding constant expenditures, contract lobbyists tend to work fewer hours than in-house lobbyists. Panels 2 (client-lobbyist dyads) and 4 (lobbyist level) show that, holding constant expenditures, the relative variability of hours worked (as measured by the coefficient of variation) tends to be much higher for contract lobbyists than for in-house lobbyists. Figure A6: Number and Relative Variability of Hours Worked Across Lobbyists, By Type of Lobbyist



Note: Panels 1 (client-lobbyist dyads) and 3 (lobbyist level) show the first quartile, median, and third quartile for the number of hours worked in a biennium for contract and in-house lobbyists across expenditure percentile brackets. Panels 2 (client-lobbyist dyads) and 4 (lobbyist level) show the coefficients of variability for hours worked in a biennium for contract and in-house lobbyists and across expenditure percentile brackets.

A6 Evidence on Differences in Lobbying Activities Between Contract and In-House Lobbyists

The extant literature suggests that contract lobbyists are more likely to provide connections to public officials and professional expertise, whereas in-house lobbyists are more likely to spend their time on activities such as monitoring legislation and to lobby on a part-time basis (see e.g., Bertrand et al. 2014; Hrebenar and Morgan 2009; Rosenthal 2001). In the following, I provide information about differences in the types of activities that contract and in-house lobbyists are engaged in, by focusing on two aspects. First, the proportion and amount of time spent communicating with public officials. Second, the extent to which contract lobbyists may be engaged in lobbying activities that require high-quality connections.

First, I rely on the information about the number of hours lobbyists spent communicating with public officials, out of the total number of hours worked (see Supplemental Appendix A2) to examine whether contract or in-house lobbyists spend more time communicating with public officials. I distinguish between analyses at the client-lobbyist level and the lobbyist level. In particular, on the one hand, I analyze the proportion and total hours spent communicating by lobbyists of a given type for a particular client in a given biennium. Due to the fact that contract lobbyists generally work for more than one client and in-house lobbyists generally work for one client in a given biennium, I also analyze the total proportion and hours spent communicating by a lobbyists of a given type in a given biennium.²⁵

Figure A7 shows the results at the client-lobbyist level. The results show that for any given client, the typical contract lobbyists is less likely to be communicating with public officials than the typical in-house lobbyists. This is true both as a proportion of total hours worked and in the total number of hours spent communicating.

²⁵To make the sample more similar to the main analysis sample, I exclude observations with zero expenditures.

Figure A7: Proportion of Time Worked and Total Hours Worked by Communicating with Public Officials, Client-Lobbyist Level



Note: Panel 1 shows a boxplot of the distribution of what proportion of the total time worked by a lobbyist for a given client in a given biennium was spent communicating with public officials. Panel 2 shows the total number of hours by a lobbyist working for a given client in a given biennium that was spent communicating with public officials (values are winsorized at the 5%-level, for both limits). Both panels compare contract and in-house lobbyists.

However, when examining results at the lobbyist level in Figure A8, things look somewhat different. In particular, the difference between contract and in-house lobbyists in the proportion of time worked spent communicating with public officials becomes less pronounced. Moreover, Panel 2 shows that when looking at the total number of hours a lobbyist spent communicating for any client, the typical contract lobbyists does so much more than the typical in-house lobbyist. These results therefore appear more or less consistent with existing views on differences between contract and in-house lobbyists.²⁶

²⁶It is also worth noting, that the median of the total number of hours worked in a given biennium for in-house lobbyists is only 158 (compared to 559 for contract lobbyists), which is consistent with in-house lobbyists being more likely to work as lobbyists part-time. A potential caveat is that total hours worked by contract lobbyists could be overcounted if there is overlap in the lobbying activities done for multiple clients. Data on which topics were lobbied by a client in a given half-year should prove useful in examining this possibility in future analyses.





Note: Panel 1 shows a boxplot of the distribution of what proportion of the total time worked by a lobbyist for a any client in a given biennium was spent communicating with public officials. Panel 2 shows the total number of hours by a lobbyist working for any client in a given biennium that was spent communicating with public officials (values are winsorized at the 5%-level, at both limits). Both panels compare contract and in-house lobbyists.

At the same time, in communication, quantity need not equal quality. To home in on the extent to which contract lobbyists are better connected than in-house lobbyists, I focus on whether clients with contract lobbyists are more likely to focus their lobbying on legislation or rules before they have been proposed ("Topics Not Yet Assigned A Bill Or Rule"). The half-yearly "Statements of Lobbying Activity and Expenditures" (SLAEs) in Wisconsin provide information about which bills, budget bill topics, rulemaking proceedings, topics not yet assigned a bill or rule, and other minor topics clients' lobbyists lobbied on and how lobbying effort was distributed. Lobbying on topics at an early stage is likely to require better connections to public officials as more accessible venues for lobbying, such as committee hearings, are not yet available. If lobbyists want to work with legislators and bureaucrats on crafting legislation or rules, this also requires good connections. Since the SLAEs do not state who, among a client's lobbyists, lobbied on a particular topic, I examine if the proportion of a client's lobbying effort devoted to early-stage lobbying is predicted to be higher for clients in a given half-year if they have a contract lobbyist working for them, using an OLS regression. To account for spikes within and across two-year sessions based on legislative activity, I include session and half-year fixed effects (indicating one of the four half years within a session).²⁷ I also include the number of lobbyists, the total number of hours worked, and whether the client also has an in-house lobbyist working for them (in addition to a contract lobbyist) as predictors. I exclude clients with no lobbying expenditures in a given biennium.

The coefficients in Table A5 show that having at least one contract lobbyist working for a client in a given half-year is predicted to increase the percentage of lobbying effort devoted to early legislation and rules by approximately 5.2%. Given that the median percentage of effort devoted to such topics is 11%, the association is substantively very important. These results are consistent with an account in which the high-quality connections of contract lobbyists to public officials make it more likely that clients can seek to influence the policy-making process at an early stage. Of course, these analyses only scratch the surface of examining differences between contract and in-house lobbyists and future research will find in the Wisconsin filings a fruitful source of data for additional analyses.

 $^{^{27}\}mathrm{I}$ do not include client fixed effects as the focus here is not primarily on within-client changes.

	Dependent variable:		
	Percentage of Time Clients' Lobbyists		
	Worked on Early Legislation / Rules		
At Least One Contract Lobbyist	5.232***		
	(0.656)		
Both Types of Lobbyist	-0.203		
	(0.784)		
Total Hours	-0.006***		
	(0.001)		
Number of Lobbyists	0.844***		
	(0.180)		
Session FEs	\checkmark		
Half-Year FEs	\checkmark		
Observations	19,508		
Note:	*p<0.1; **p<0.05; ***p<0.01		

Table A5: Relationship Between Clients Hiring Contract Lobbyist and Lobbying on EarlyLegislation and Rules

A7 Evidence on the Correct Disclosure of Hours Worked

To assess the extent to which hours worked are accurately reported, both overall and across types of lobbyists, I compare data on appearances of licensed lobbyists for registered clients at committee hearings in Wisconsin's state legislature from 2005 through 2016 with timesheet reports of those lobbyists. Licensed lobbyists are required to submit timesheet reports on which they report, for each day in a given reporting period, the amount of hours they spent working for their client on lobbying-related activities.²⁸ I collected the timesheet reports from the "Eye on Lobbying Website" (lobbying.wi.gov) and the data on committee hearings from the website of the Wisconsin State Legislature (https://legis.wisconsin.gov/). Merging the data on hearings and timesheet reports, I obtain 6,045 observations of lobbyists. Then, out of the hearings that lobbyists attend for a client on a given day, I calculate the proportion where they also report non-zero lobbying-related hours for that client and that day.²⁹

I find that in a total of 91.6% of the committee hearing appearances in the sample, the lobbyist reported non-zero hours for the client that the lobbyist appeared at the hearing for. This high overall proportion provides evidence for the relative propensity of lobbyists to accurately report their hours worked. I also find relatively minor differences between contract lobbyists and in-house lobbyists, for whom the proportions are 90.2% and 92.0%, respectively.

To put these proportions into context, I compared them against a baseline of randomly

²⁸See https://ethics.wi.gov/Pages/Lobbying/ReportActivity.aspx for additional details on reporting requirements.

²⁹I use both hours communicated and other hours worked, because lobbyists may not always get to speak at a hearing, or because lobbyists may speak only a short time, and may therefore not classify the time spent working as having communicating a significant amount of time (compared to time spent going to the meeting, taking notes, etc.)

reporting non-zero hours for a client. To create this baseline, I randomized the days within the six-month period of a lobbyist report, so that the hours worked linked to a committee hearing could come from any of the days within that period. For each of 200 sets of randomizations, I then merge the timesheet reports to the committee hearings and calculate the same proportions as above.

Figure A9 shows the densities of the distributions of the simulated proportions of hearings attended with same-day non-zero lobbying-related hours. The distributions are centered at around 39.9% overall, with contract lobbyists having a lower baseline propensity and in-house lobbyists having a higher baseline propensity (centered at around at 34.7% and 41.1%, respectively). The large difference between the simulated proportions (which assume randomness in reporting) and the sample proportions provide additional evidence for the accuracy of disclosures. Moreover, the lower simulated proportions of contract lobbyists, compared to in-house lobbyists, suggest that the already small difference between the sample proportions of contract and in-house lobbyists should not be overstated. Overall, the results provide evidence that the differences between contract and in-house lobbyists shown in the main analyses of the paper are not driven by differences in the accuracy of disclosure by contract and in-house lobbyists.



Figure A9: Evidence on the Propensity to Disclose Hours Worked

Note: The figure presents the distributions, from 200 simulations, of simulated proportions (solid lines) of the times that a lobbyist's attendance at a legislative committee hearing coincided with reporting non-zero hours during on particular day. Hours reported on a particular day were randomized within the respective half-year period. Dashed lines show the in-sample values.

A8 Example Disclosure

Figure A10: Screenshot: Statement of Lobbying Activity and Expenditures, Microsoft (January-June 2017)

Lobbying And Time Expenditures

2017-2018 Legislative Session January-June 2017 Microsoft Corporation

Description Of Totals And Expenditures	Hours Communicating	Hours Other	Dolla	irs
Contract Lobbyists	23.50	66.50	\$24,0	00.00
Wisconsin Capitol Solutions			\$24,000.0	00
Thomas Fonfara	23.50	66.50	\$0.0	00
Comments:				
In-House Lobbyists	0.00	0.00		\$0.00
Comments:				
Non-Lobbyist Employees	0.00	0.00		\$0.00
Comments:				
Fringe Benefits ¹				\$0.00
Overhead ²				\$0.00
Payments to Officials ³				\$0.00
Travel and Living Expenses				
a) Lobbyist Employees				\$0.00
b) Non-Lobbyist Employees				\$0.00
All Other Lobbying Expenses				\$0.00
Total Lobbying Time And Expenditures: 23.50 Hours Hou		66.50 Hours	\$24,0	00.00
Allocation of Lobbying	Effort		Percent	
Legislative Proposals			20%	
Assembly Bill 123			10 %	
Senate Bill 49			10 %	
Budget Bill Subjects				
Public Instruction: Administrative and Other Funding				
Administrative Rulemaking Proceedings			0%	
Topics Not Yet Assigned A Bill Or Rule Number			0%	
Minor Efforts				
All Other Matters				
Total Reported Lobbying Effort:				

Report Certified On: Wednesday, July 26, 2017

Note: Statements of Lobbying Activity and Expenditures for Microsoft in 2017-2018 are available at https://lobbying.wi.gov/Who/PrincipalInformation/2017REG/ Information/7525?tab=Profile (accessed April 29, 2024).

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