

Subverting Administrative Oversight: Campaign Contributions and Nursing Home Inspections

Frederick J. Boehmke[†]

University of Iowa
Department of Political Science
341 Schaeffer Hall
Iowa City, IA 52242

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[†]Contact: frederick-boehmke@uiowa.edu. Boehmke is Associate Professor of Political Science at the University of Iowa. Much of the work on this paper was conducted during his stint as a Robert Wood Johnson Scholar in Health Policy Research at the University of Michigan; the support of the Robert Wood Johnson Foundation is gratefully acknowledged. Comments received from Rick Hall, Marie Hojnacki, and Chuck Shipan, as well as seminar participants at the Robert Wood Johnson Scholars in Health Policy Research Annual Conference, the University of Michigan, and the University of Iowa are gratefully acknowledged. Assistance from Edwin Bender at the National Institute on Money in State Politics with the campaign contributions data is appreciated; I also thank Jen Hefner at Michigan for her work matching the contributions data.

ABSTRACT

I study the consequences of interest group campaign contributions for administrative oversight. Contributions have been linked to a number of political outcomes of concern to organized interests, but almost exclusively in the legislative branch or electoral arena. I therefore join an emerging literature that demonstrates that campaign contributions and lobbying may also influence actions taken by the administrative branch. Unlike previous studies, however, I study influence in state bureaucracies and at the level of individual groups. Specifically, I test whether campaign contributions to state elected officials influence the outcomes of annual state inspections of skilled nursing facilities in sixteen states. I also consider the differing effects of contributions to the legislative and executive branches. Regression analysis of inspection results with controls for facility characteristics provides evidence that contributing facilities receive better overall inspection results, but there is strong evidence that they are cited for fewer severe problems. Further, contributions to legislators reduce overall problems while those to the governor reduce severe ones.

1 Introduction

The expansion of the interest group universe in Washington, D.C. and in state capitols over the last decades has led to persistent concerns about the potential influence that organized interests might have over government policymaking. Groups mobilize, lobby, and make campaign contributions for a variety of reasons, but most scholars agree that a crucial motivation for their actions is influence on government decisions. Tens of thousands of groups spend billions of dollars to lobby various levels of government; it would not be surprising, then, if these groups succeeded in getting something, at least on average, in return for their efforts.

Historically, political science research in this area has focused on the potential for actions by organized interests to undermine the link between representatives and their constituents by determining whether and under what conditions lobbying or campaign contributions influence legislators' actions. While the findings of this literature can best be described as heterogeneous, it appears to be reasonable to conclude that, at least under some circumstances, lobbying and campaign contributions do influence legislators. In particular, campaign contributions may occasionally increase the chance that legislators vote in accordance with the wishes of contributing groups, increase the chance that the legislator grants the group access for face to face lobbying opportunities, or increase the amount of time the legislator spends working towards ends the group prefers.¹

Yet the legislature is not the only branch of government that organized interests might wish to influence. Once legislation is passed, it is often filled in and, ultimately, enforced by agents in the administrative branch. Groups therefore have strong incentives to attempt to influence administrative decision-making as well. Consistent with these incentives, groups report that lobbying the bureaucracy is very important (1991) and lobbying reports indicate that the majority of them do lobby it (Boehmke, Gailmard and Patty 2006). Relative to its legislative cousin, though, the study of interest group influence on administrative actions

¹See Baumgartner and Leech (1998, Ch. 7) for a review of the literature on campaign contributions and legislators' actions.

remains in its infancy.

There are a number of different mechanisms by which scholars in this emerging field have argued that groups can influence administrative actions. In the context of notice-and-comment rulemaking, for example, Yackee and Yackee (2006) and Golden (1998) provide evidence that comments submitted by interested parties can shape the content of final rules. Gordon and Hafer (2005) constructs a formal model in which campaign contributions signal strength that administrators take note of when performing oversight. Finally, Hall and Deardorff (2006) rely on the legislative connection, arguing that groups lobby legislators to take actions targeting bureaucrats; empirical evidence (Hall and Miler 2006) confirms that these efforts by legislators do take place.

In this paper I contribute to our emerging understanding of interest group influence on the administrative branch by studying the effect of campaign contributions on oversight of skilled nursing facilities. These data include results from three recent inspections for all six thousand nursing homes from sixteen states supplemented with data on campaign contributions from each nursing home. While regulation occurs mainly at the Federal level, inspections remain under the purview of state officials. With a common regulatory standard, I am not only able to extend findings on bureaucratic influence by individual interests at the Federal level (e.g., Gordon and Hafer 2005) to the state level for the first time, but also to leverage differences across states to better understand the mechanism behind such influence.² In particular, I build on previous studies by considering the differential effects of contributions to legislators and those to members of the executive branch. Finally, I argue that the effect of contributions to legislators depends on their ability to successfully subvert the oversight process for individual constituents, which varies across the states with legislative capacity.

²See de Figueredo and Edwards (2006) for an aggregate-level study demonstrating such a relationship.

2 Pathways to Influence in the Bureaucracy

Before discussing possible mechanisms of influence in the administrative branch, I briefly review theories of interest group influence in the legislature for context.³ The basic argument holds that legislators essentially trade their votes for contributions and other support that they can spend pursuing reelection. In addition to the fact that empirical tests of this proposition are quite mixed, a variety of reasons suggest that the process is not that simple. At the very least, legislators face a variety of competing pressures when deciding to cast any single vote. Interest group contributions are just one of those factors and their effect is likely to vary with characteristics of the issue, constituents' preferences, etc.

A second argument is that contributions do not just represent influence in the form of monetary resources, but that they signal information about constituents' preferences or policy consequences of a proposed policy change to relatively uninformed legislators (see, e.g., Austen-Smith and Wright 1994). A variant on this argument is that interest groups make contributions in order to obtain access to legislators or staff and that they use that access to persuade or pressure legislators to take actions that may benefit the group (Wright 1990).

A third perspective holds that interest group contributions serve as subsidies that encourage or reward legislative effort and time spent working on a group's behalf (Hall and Wayman 1993; Hall and Deardorff 2006). Legislators are faced with a variety of options for how to allocate their scarce time and groups, realizing this, may wish to offer incentives to increase the reward of spending time on their issues rather than other matters. Groups, of course, realize that the most effective way to accomplish this goal is to encourage legislators that have preferences consistent with their own. The empirical evidence is consistent with this argument, with contributions from groups to like-minded legislators provoking legislators to engage in costly actions that may benefit the group.

While these approaches were developed in the context of influence in the legislative arena,

³See Baumgartner and Leech (1998, esp. Ch. 7) for a review of the theoretical and empirical arguments relating campaign contributions and lobbying to legislative votes and behavior.

few studies have adapted them to bureaucratic decisions. Given that the locus of contributions and lobbying is the former, this is not surprising. Yet research demonstrating the pervasiveness and importance of bureaucratic lobbying to interests suggests that it warrants more attention: almost two-thirds of groups filing lobbying disclosure reports in Washington, D.C. and in Minnesota indicate that they contacted members of the administrative branch (Boehmke, Gailmard and Patty 2006). So while almost every group that lobbies targets the legislature, these data make it clear that a solid majority also directly seek influence in the administrative branch. Surveys of groups also indicate that they perceive administrative lobbying as more important than legislative lobbying: three-quarters of the groups surveyed in 2002 by Furlong and Kerwin (2005) indicated that participating in rulemaking is more important than lobbying Congress (see also Walker 1991).

Studying the consequences of campaign contributions to elected officials on actions taking in the bureaucracy requires the former to have some influence over administrative agents.⁴ Scholars have suggested a number of ways through which organized interests can use campaign contributions to influence administrative actions. Perhaps most directly following this line of reasoning is Hall and Deardorff's (2006) theory that extends Hall and Wayman's (1993) lobbying as legislative subsidy approach to the bureaucracy. In short, they argue that organized interests make campaign contributions and lobby friendly legislators in order to encourage or subsidize time spent working on issues of concern to the group. Legislators use the time bought through the the group's efforts on costly actions that signal their willingness to intervene in bureaucratic decisions of concern for the group, perhaps by making statements on the floor of Congress, writing letters to administrative officials, or participating in Congressional hearings to demonstrate their support for the group's position.⁵ Bureaucrats,

⁴There is a large literature devoted to understanding the ability of Congress to control bureaucratic decisions; see, for example, McCubbins, Noll, and Weingast (1987) or Moe (1989). Extensions of these theories include attempts to incorporate interest groups directly into the process as monitors of bureaucratic actions (e.g., Boehmke, Gailmard and Patty 2006; McCubbins and Schwartz 1984).

⁵See Hall and Miler (2006) for empirical evidence that lobbying by groups does, in fact, lead to these actions.

presumably, might modify their actions to mollify members of Congress.

Gordon and Hafer (2005) present an alternative argument by developing a model of bureaucratic responsiveness to campaign contributions. In this account, groups make contributions with the intent of signaling their willingness to contest bureaucratic action. Bureaucrats observe these contributions and, in response, go easier (but not too easy) in their oversight of those groups. Evidence is provided for the case of the nuclear power industry, with plants making greater contributions experiencing shorter inspections.

While developed in the context of the federal government, these arguments about organized interests' ability to influence administrative oversight should apply at the state level as well. Further, studying this process at the state level affords the opportunity to gain insight into the mechanism through which subversion may occur. Here I focus on two different mechanisms: contributions to members of the executive branch as distinct from contributions to legislators and the relationship between legislative professionalism and the effectiveness of contributions to its members.

First, while the theories cited above focus on contributions to legislators, administrative officials work in the executive branch and groups might attempt to gain leverage by making contributions to governors instead of or in addition to legislators. Whereas legislative influence may operate somewhat indirectly through the purse and oversight hearings, governors' position in the chain of command affords them the opportunity to have more direct control over bureaucrats as they implement their regular oversight duties. Organized interests seeking influence may therefore also want to contribute to executives in order to encourage them to pressure administrative agents to ease up on them. To this point, there is little research on the ability of executives to exert influence over administrative decisions; studies of agency actions often assume that its ideal point is identical to that of the executive (see, e.g., Shipan (2004) at the Federal level or Huber and Shipan (2002) at the state level). Contributions to executives may therefore lead to different oversight standards for contributing organizations. An infamous example of this kind of control emerged when Kentucky governor Paul Patton

admitting that he had an extramarital affair with the owner of a nursing facility. During the affair, Patton’s staffers allegedly would tip her off about upcoming inspections; after it ended, he supposedly used his position to “sic regulators on her facility” (Kinney 2002).

Secondly, in addition to these multiple pathways to influence, the effectiveness of contributions to legislators might depend on the ability of legislators to influence bureaucratic actions. For example, Huber and Shipan (2002) argue that since more professionalized legislatures have more resources, they are more able to write detailed legislation that constrains agency rulemaking. Variation across states in institutional characteristics like legislative professionalism (see, e.g., Squire 1992) mean that legislators in different contexts may have differing abilities to influence oversight activities.

The relationship may be different in the context of organized interests seeking favors from individual members, however. Rather than using legislative resources to collectively direct bureaucratic actions to desired goals (e.g., McCubbins, Noll, and Weingast 1987), the subversion argument involves a single legislator intervening on behalf of a single constituent with regards to a single instance of bureaucratic oversight. For this intervention to succeed, it must either be consistent with the will of the legislature in general, or it must occur under the radar in opposition to this will. Therefore, the ability of an individual legislator to intervene may be greater in less professional legislatures, since there is less overall control exerted by the legislature as a whole and less monitoring of other legislators and specific bureaucratic actions. Individual interventions are intended to encourage the bureaucracy to deviate from the will of all legislators for the benefit of a single legislator. The potential for this is greater when the legislature is less able to monitor administrative actions, which corresponds to lower professionalism.

Pulling together these different arguments, this paper tests whether campaign contributions from skilled nursing facilities lead to better outcomes on their annual inspections. Further, it tests whether contributions to governors matter as well as contributions to legislators. Finally, I test whether legislative professionalism conditions the effect of contributions

to legislators. Before moving to the analysis, I first discuss the nursing home industry and the oversight process in more detail.

3 Oversight of Nursing Facilities

With over 1.3 million residents and \$100 billion spent per year, nursing home care constitutes a critical part of the U.S. health care economy. Further, with over \$60 billion of that coming from government sources through Medicare and Medicaid, there are strong incentives for government regulation. Combined with a lengthy history of poor performance and mistreatment of residents, then, it is not surprising that the nursing home industry is subject to extensive government oversight.

The rules governing standards in nursing facilities that wish to accept payments from Medicare or Medicaid are set by the Federal government. The general guidelines were put in place by the Omnibus Budget Reconciliation Act of 1987 (Public Law 100-203) and responsibility for setting the precise standards was given to the Centers for Medicare and Medicaid Services (CMS, formerly the Health Care Financing Administration). In 1995, CMS implemented an on-sight survey system to ensure compliance and penalize poorly performing facilities.⁶

All skilled nursing facilities receiving Medicare or Medicaid payments are subject to regular surveys. These surveys must be conducted every nine to fifteen months, with the interval not to exceed eighteen months. A team of surveyors, which may include nurses, social workers, or dietitians (Harrington, Mullin and Carillo 2004) spends a few days in each facility examining resident care and characteristics and determining whether specific federal requirements are met. If a requirement is not met, this results in a citation, or deficiency; there are currently about 181 separate items on the surveyors' checklist. Deficiencies are rated based on their scope and severity; in combination these produce a twelve-item scale

⁶See Harrington, Mullin and Carillo (2004) for an extended discussion of these regulations.

(A-L) corresponding to the severity of each deficiency. Deficiencies rated G or above, which involve actual harm to residents, are commonly referred to as severe deficiencies. These deficiencies cover a wide range of concerns, including nutrition, access to medical records, standards of care, and safety and security of residents. Facilities with deficiencies at the D-level or above are considered out of compliance and face a host of potential penalties, including denials of payment for new admissions, civil and monetary penalties (CMPs), or termination (Harrington, Mullin and Carillo 2004). In addition to regular surveys, surveyors are responsible for investigating resident complaints, which can also result in citations and penalties.

While the Federal government sets the standards for these nursing facilities, implementation of the survey process falls upon state survey agencies, which contract with CMS to conduct inspections, among other duties. Importantly for the empirical analysis, then, it is the actions and decisions of state survey agencies that nursing facilities might wish to influence: certification, inspection, and recommendation for punishments are all largely determined at the state level.

The delegation of oversight and enforcement to the state level has, not surprisingly, produced what appear to be fairly divergent outcomes across the states. While states all operate under the same minimal standards and requirements, there is likely to be a fair amount of variation in the desire and ability of state legislators to interpret and enforce CMS's regulations. Studies of state survey agencies confirm this possibility. While the federal government pays for most of the cost of licensing and inspections, the amount that states kick in – often to receive matching funds – varies widely. For example, Walshe and Harrington (2002) note that while California reports a Federal-state funds ratio of 1.25, Montana's is closer to 7. There is also great variation in the number of surveyors relative to the number of beds or facilities in the state (Walshe and Harrington 2002). In response to the authors' survey, members in 39% of state survey agencies reported that "their use of [available Federal] funding was being impeded at a state level by legislatures and/or administrations that had

imposed hiring caps or moratoriums or were not supportive of increased regulation” (Walshe and Harrington 2002, p. 481). Further, studies have found some evidence that overall level of enforcement depends on political variables like gubernatorial partisanship and the proportion of a state’s population over eighty-five years old (Harrington, Mullin and Carillo 2004).

In the end, these differences in resources and potential differences in the strictness of the application of CMS’s regulations have produced great variation across states in common measures of the stringency of state oversight. Besides nursing home citations, which I will discuss shortly, commonly examined measures include the proportion of regular surveys completed within the required eighteen month window since the previous survey, the proportion that are considered predictable (i.e., conducted twelve months after the previous one or conducted in the fifteenth month), and the proportion of resident complaints that are investigated (GAO 2000, GAO 2005). Again, there is wide variation across states in their success at meeting CMS’s requirements.

The most common measures of the quality of state enforcement mechanisms are based on the deficiencies issued during a regular survey. These include the average number of deficiencies per survey, the average number of severe (level G and above) deficiencies, the proportion of surveyed facilities that receive no deficiencies, and the average number of state and federal CMPs issued (see, e.g., GAO 2005; Harrington and Carillo 1999; Harrington, Mullin and Carillo 2004; Walshe and Harrington 2002). Following these studies, I focus on the number of deficiencies and severe deficiencies per inspection.

Differences in enforcement across states have almost certainly contributed to variation in common measures of the quality of care offered in nursing homes, including mortality rates, the presence of facility-acquired pressure sores (which are generally avoidable with standard care procedures), the use of catheters, feeding tubes, and physical restraints (Grabowski and Castle 2005; Spector, Selden and Cohen 1998).⁷ Proper state oversight can have important

⁷See Hillmer, Wodchis, Gill, Anderson, Rochon (2005) for an overview and a meta-analysis of the literature studying quality of care indicators in nursing home research.

consequences for quality of care, as evidenced by the fact that government investigations into a sample of sixty-two deaths in California nursing homes in 1993 found thirty-four cases in which residents received unacceptable care that “endangered residents health and safety” (GAO 1998, p. 4).

4 Surveyors Often Feel Pressure from Above

Nursing homes care about these deficiencies for a number of reasons, giving them incentives to try to manipulate their survey results. First, of course, there is the direct motivation arising from the fact that excessive or severe deficiencies can result in punishments, including denial of payment for new residents and civil and monetary penalties. Second, nursing homes are required to post the results of their most recent survey for residents, potential residents, and their families to see. Third, the information is widely distributed, particularly on the Internet, through public and private sources. CMS has a website called Nursing Home Compare on which anyone can find information about licensed facilities, including survey results. Most states have similar resources. In addition, many private companies sell evaluations and report cards for nursing homes; these are generally based on the information contained in the surveys themselves.

It is not surprising, then, that facilities may attempt to find government officials sympathetic to their desire to keep the number of reported deficiencies as low as possible. While no systematic evidence of this kind of influence yet exists, government investigations of the nursing home industry have turned up a wealth of anecdotal evidence. Federal interviews with state surveyors reveal that at least some of them feel pressure from their superiors and elected officials to overlook or downgrade deficiencies and go easy on favored facilities.⁸ For

⁸For a summary of these findings and some quotes along these lines, see the letter written by Senator Charles Grassley to the administrator of CMS in 2004 after a series of independent interviews and investigations into the survey process by the U.S. Senate Committees on Finance and Aging. The letter, along with other related documents, can be downloaded from <http://www.senate.gov/finance/press/Gpress/2004/prg071404.pdf>.

example, surveyors report that “among those allegedly pressuring [them] are state lawmakers acting on behalf of facility administrators” (Grassley letter, p. 3); others report that “high level state bureaucrats, ‘tie their hands’ routinely” (ibid., p. 4).

This pressure appears to pay off for some facilities. In one case, a surveyor, who had to be accompanied by a police escort, witnessed nursing home staff members using drugs and ignoring patients. Despite these clear problems, the surveyor was told not to return and “the nursing home owner’s friend, who served in a state legislature, called requesting that the facility continue with ‘business as usual’ and not be bothered by further review” (ibid., p. 4). While this is clearly an extreme example, many surveyors seem to feel that writing up facilities for some severe deficiencies may be a waste of time: “it was considered ineffective to ‘rock the boat’ because high level deficiencies would be omitted from the final report anyway” (ibid., p. 4). More systematic evidence is drawn from a government report (OEI 2003, p. 19):

state agencies report that an average of 6 percent of scope and severity determinations are downgraded from draft surveyors reports before they become final. This ranges from one state that reports 38 percent of deficiencies are downgraded to two states that say no deficiencies are downgraded. In addition, our analysis shows that the states with lower deficiency rates removed more deficiencies, on average, from draft survey reports than states with higher rates.

In short, many surveyors clearly perceive political pressure, originating from both legislators and their superiors, encouraging them to go easy in general and on specific facilities. Further, there appears to be specific pressure put on surveyors to overlook or downgrade more severe deficiencies, suggesting that these deficiencies should receive specific attention in the empirical analysis to come. In the next section I conduct statistical analysis to test whether this backing off occurs more generally and in response to political contributions.

5 Contributions and Inspection Outcomes

In this section I discuss the data and statistical models that I use to test whether contributions from nursing homes influence the outcomes of their regular and complaint surveys. The data include information on nursing home inspection results as well as facility characteristics. I also amassed data on state-level campaign contributions for the same time period; these contributions are associated with the different surveys in a number of ways based on their timing and recipient. Finally, I present estimates for statistical models of the number of deficiencies and severe deficiencies received during regular surveys.

5.1 Data on Survey Outcomes and Campaign Contributions

The federal government makes available information on the results of state surveys of skilled nursing facilities through its Online Survey, Certification, and Reporting (OSCAR) database.⁹ The database includes current data on nursing home residents and staffing (i.e., from the most recent survey) along with inspection results from the three most recent regular surveys, which took place between late 2002 and the end of 2005.

These data were supplemented with campaign contributions data obtained in February, 2007 from the National Institute for Money in State Politics (www.followthemoney.org). Specifically, I obtained a list of all contributions for all fifty states for the Institute's Nursing Home category (a subset of its Hospitals and Nursing Homes category). Each entry constitutes a single contribution with information that includes the name of the contributor and recipient, the date and amount of the contribution, the elected office for which the recipient was a candidate, and the occupation and employer of the contributor. These data include a total of 20,623 contributions from individual nursing homes, chains of facilities (i.e., a group of homes under common ownership or a common brand name), and associations of nursing

⁹The url for the OSCAR database is <http://www.medicare.gov/NHCompare/Static/Related/DownloadDB.asp>. I use data downloaded on February 17, 2006.

homes.

In order to study the relationship between survey outcomes and contributions, I focus on contributions from individual nursing homes to state officials. Because chains and associations contain many members – in some cases over one hundred — it would be difficult to specify how and isolate whether their contributions influence survey results for individual facilities. The link between contributions from individual homes and their inspections is relatively more direct. Unfortunately, many of the contributions do not list the specific nursing home that the contributor owns or administers, just that the individual is employed by a nursing home or that their occupation is related to the industry. For these cases I attempted to match contributors to facilities in a number of ways, including matching the listed address to the list of facility addresses, information gleaned from other contributions made by the same individual, and, ultimately, information gathered from Internet searches.

To reduce the scope of the task, contributions data were matched for sixteen states selected for geographic and political diversity and also with regards to the stringency of oversight. Particular attention was paid to the average number of deficiencies, elapsed time between surveys, survey predictability, and the professionalism of the state’s legislature. These state characteristics, along with a variety of characteristics of nursing homes, state survey outcomes and campaign contributions are presented in Table 1. A total of 8182 contributions were made in the four years studied; I matched eighty-seven percent of these contributions to facilities (1276), chains (1720), or associations (4116). Only contributions originating from and received by individuals in the same state are subsequently considered.

[Insert Table 1 Here.]

These sixteen states represent a fairly wide range of survey outcomes. The national average for deficiencies in the survey results data set is 6.06, ranging from 3.07 to 9.66; states in my sample range from 3.07 (WI) to 8.28 (AR). The average for the proportion of surveys with no deficiencies ranges from two to twenty-eight percent, with an average of ten percent; the included states range from two percent (WV) to twenty-three percent

(WI). The number of facilities ranges from fourteen to 1296, with an average of 319.¹⁰ The number of complaints also varies widely, from one for every three homes in Minnesota to 4.4 in Washington, with a national average of 1.7 nationally. In terms of contributions, the average total contributions (in 2002 dollars) from all sources in the data is \$339,335 for the four-year period covered; this figure is \$436,832 in the sixteen states studied. Of the latter total, about \$50 thousand comes from contributions attributed to individual facilities, which is eleven percent of the total in those states.

There are a number of ways to match contributions made over time to surveys that, as noted before, should occur on random dates within a few month window. Rather than consider total contributions made over the time period studied, I associate each contribution with either the previous, subsequent or closest regular or complaint survey. The analysis focuses on regular surveys, but contributions may be motivated by either type.¹¹

First, in order to determine temporal effects, I divide contributions into those made before and after the unannounced, regular survey. The first approach considers all contributions made since the last survey and all contributions made after the current survey. Alternatively, I only consider contributions made within a 180 window before or after each survey. This window divides the annual survey into about half; the results did not vary much with shorter windows, so I stick with the broader 180 day window in order to include the greatest number of contributions. Note that in the first division, contributions are counted twice whereas in the second one they are only considered once. These divisions reflect the fact that contributions made before and after a survey might have different motivations. Groups may make contributions after poor survey outcomes with the hope that elected officials will intervene to limit the damage, perhaps by signaling their intention to contest the results

¹⁰Because facilities can enter and exit the data, the number of surveys is not always precisely three times the number of facilities.

¹¹Because the survey results data set only includes the last three regular surveys, I omit contributions that occur more than 240 days before the first survey in the data set. This cutoff is chosen since surveys are supposed to occur at most every 16 months, so those more than 240 days away almost certainly would be closer to a regular survey not included in my data set.

to bureaucrats as in Gordon and Hafer (2005). Contributions made before the survey may produce a general level of protection by placing elected officials on their side, which could lead bureaucrats to go easy from the start of the survey.¹²

Second, I separate contributions by the recipient’s branch of government. To do this, I identified the recipient of each contribution and determined whether it goes to a member of the assembly or senate (791 cases out of 1276) or to a governor or lieutenant governor (301 cases). I then associated contributions with the closest survey and aggregated to generate totals for each type of elected official before and after each survey. These data show broad variation in the strategies that groups adopt, with twenty-one percent of the groups donating just to governors and forty-six percent donating just to legislators. Put differently, a little over half the groups that donate to the governor do not contribute to the legislature and two-thirds of the groups that donate to the legislature do not contribute to the governor.

5.2 Empirical Model

To test whether campaign contributions given by nursing homes have an effect on state oversight, I construct a series of statistical models to explain the number of deficiencies cited in each survey with contributions as the key independent variable. There is therefore one observation for each regular survey of a given facility, producing about three observations per facility over the period analyzed. Since the dependent variable is a count of the number of deficiencies reported in a survey, I estimate a negative binomial model.

In order to develop a thorough baseline model for survey deficiencies, I include a number of control variables measuring characteristics of the nursing home related to the quality of care. These variables are commonly employed in the nursing home literature to explain variation in deficiencies across facilities (see, e.g., Grabowski and Castle 2005; Harrington, Zimmerman, Karon, Robinson, and Beutel 2000; Walshe and Harrington 2002). These variables include

¹²The process is perhaps not likely to be quite so transparent, of course. Groups are likely giving for other reasons as well, which would muddy the waters a bit.

the number of beds; occupancy rates (the proportion of beds that are occupied); the number of registered nurse hours worked per day per resident; and certified nurse assistant hours similarly measured. I control for ownership characteristics of each facility with indicator variables for whether it is for-profit, nonprofit, or government-owned (the omitted category) and whether it is located within a hospital or part of a nursing home chain. I also control for patient mix by including indicator variables for whether the home accepts Medicare or Medicaid patients or both, with Medicare as the omitted category. These variables provide a wide array of information that should help determine the quality of care offered by each facility as well as the types and number of patients it admits, both of which should influence deficiencies and help isolate the effect of campaign contributions. Because of the way that CMS reports these data, characteristics of nursing homes are available only from the latest survey and must be treated as constant over time in the analysis.

[Insert Table 2 Here.]

Summary statistics for the variables used in the analyses are reported in Table 2. Because the outcomes of the survey process are likely to depend on the priorities of the states overseeing them, I include a set of fixed effects for each state; similarly, I include year fixed effects. In addition, I cluster the standard errors by facility. The following equation summarizes the empirical model, in which i indexes facilities, j indexes states, t indexes time, y_{ijt} is a count of either total or severe deficiencies, C_{it} is a matrix of contributions variables, Z_i is a matrix of facility characteristics, S_j is a matrix of state fixed effects, and T_t is a matrix of time indicators:

$$E[Y_{ijt}|X_{ijt}] = \exp(\beta_0 + C_{it}\beta_1 + Z_i\beta_2 + S_j\beta_3 + T_t\beta_4). \quad (1)$$

5.3 Contributions Overall and By Timing

The results for the negative binomial models of survey deficiencies are reported in Table 3. I consider the effect of contributions both on total and on severe deficiencies. As noted

previously, severe deficiencies can have important consequences for nursing homes, including triggering withholding of reimbursement and the imposition of civil and monetary penalties, and surveyors have reported specific pressure to avoid them. Results are reported for three different measures of contributions: the first considers all contributions associated with the closest survey; the second uses contributions made since the previous or before the subsequent survey; the third uses contributions made within 180 days before or after a survey.¹³ In order to enhance presentation, contributions are measured in tens of thousands of dollars in the regression analyses and coefficients are not presented for the year and state fixed effects (which are each jointly significant).

[Insert Table 3 Here.]

Overall, these results produce evidence that contributions decrease the total number of deficiencies cited per survey and strong evidence that contributions decrease severe deficiencies. Further, there is also evidence that the timing of contributions matters. First, consider the results for total deficiencies. Contributions associated with the closest survey have a coefficient of -0.18 that nearly obtains weak significance ($p = .12$). When contributions are considered by timing relative to the survey, the coefficient for contributions given since the previous and before the current survey is significant at the .10 level ($p = .055$) whereas contributions given after a survey have no effect. Now consider the results for severe deficiencies. While total contributions associated with the closest survey do not produce a significant coefficient, both measures of contributions made before the survey are negative and highly significant. Further, contributions made in the 180 days after a survey also significantly decrease severe deficiencies.

To put these effects in substantive terms, I performed a series of first difference calculations for the contributions variables. In each case I held each variable at its mean (for

¹³The model that associates contributions to the prior or subsequent survey includes contributions made between two surveys in two different ways since they are made after the first survey and before the second survey. The results are virtually identical to those obtained when these variables are included separately, so I combine them into one model for parsimony.

continuous) or median (for dichotomous) value, set the contributions variables to zero, and then calculate the expected number of deficiencies. I then separately increase each contributions variables from zero to its mean value given that it is nonzero (i.e., the average amount of contributions if any are given) and calculate the expected number of deficiencies with contributions. Contributions given since the last survey are estimated to reduce total deficiencies by 0.35, or five percent, and severe deficiencies by 0.16, or thirty-seven percent. While the effect for total deficiencies is relatively modest, there is clearly a large substantive effect on severe deficiencies.

The results for the other variables are almost identical across the different models for the two different dependent variables. Staff levels as measured by registered nurse hours per resident or certified nurse assistant hours per resident have a negative and significant effect. Occupancy rates, another potential measure of quality, also have a strong negative effect on deficiencies. Perhaps not surprisingly, larger nursing homes have more deficiencies, as they may have more opportunities to receive them. In terms of ownership, hospital-based and for-profit facilities have more deficiencies, though the coefficients for severe deficiencies are not significant; non-profit homes have fewer deficiencies with coefficients that are not quite significant at the .10 level.

5.4 Contributions by Office of Recipient

In this section I consider the effect of contributions by the office of the recipient. In particular, I include measures of contributions to legislators and governors to determine which branch is able to exert control over the decisions of state survey administrators and the final evaluation of each skilled nursing facility. To the extent that the legislature is able to control the bureaucracy, then contributions to legislators should result in fewer deficiencies per survey. Additionally, if the governor's office is willing and able to pressure bureaucrats, then contributions to its members should result in fewer deficiencies. For parsimony, I only present results in which contributions are associated to the most temporally proximate survey; other

than considering contributions by recipient, the rest of the analysis is as before.

Finally, I study whether institutional context matters by interacting contributions to legislators with state legislation professionalism (King 2000) in order to test whether the ability of legislators to influence the bureaucracy moderates the effects of contributions. As noted previously, the states included in the study were chosen in part based on their values of this variable, so the sixteen included states are spread across the entire range of this variable.¹⁴ A variable for legislative professionalism is not included in its own right since its values are constant for each state and its effect is therefore subsumed by the state fixed effects.

[Insert Table 4 Here.]

The results are presented in Table 4. A number of interesting patterns emerge. First, consider the results in the first column for all deficiencies. Contributions to legislators have a negative and strongly significant effect ($p = .004$) while those to the governor's office have no discernible effect. The second set of columns for severe deficiencies produces almost opposite conclusions. Contributions to legislators have a positive but insignificant effect while those to the governor have a negative and significant effect ($p = .01$). First difference calculations indicate that contributions to the legislature reduce total deficiencies by 0.24 (3%) while those to the governor reduce severe deficiencies by 0.24 (55%).

These findings persist after I include the interaction between legislative contributions and professionalism, with the constitutive term for legislative contributions significant in both models and that for executive branch contributions significant for severe deficiencies. Note that the coefficient for legislative contributions in the severe deficiencies equation was not

¹⁴I utilize the King measure for 1993 since it was the most recent available measure when this project began and it specifically formed the basis for choosing the states included in the analysis. I have also used the more recent measure by Squire (2007) which contains measures for 1996 and 2003. The results are similar with both of these alternate measures, though not quite as strong. In particular, the difference appears to result from a difference in the relative coding for Wisconsin: when it is included in models with the Squire measures, the interaction term loses a little significance for total deficiencies, but when Wisconsin is excluded, the results are similar to those presented below. Importantly, however, in all cases the marginal effect of contributions is negative and significant for a majority, or occasionally a plurality, of the observations in the analysis (i.e., for states with relatively low professionalism).

significant without the interaction term. More importantly, both interaction terms produce significant coefficients. The positive coefficient on the interaction term indicates that the effect of contributions to legislators becomes smaller in more professional states, supporting the idea that legislators are able to wield more individual influence in a less professional setting. Of course, the important question is how these two effects combine, and these results are depicted in Figure 1.

[Insert Figure 1 Here.]

The graphs show the marginal effect of contributions for different values of legislative professionalism. In addition, they include 90% confidence intervals to assess for which values of the latter the effect of contributions significantly differs from zero. Finally, they also include a kernel density estimate of legislative professionalism, which shows how much of the data fall into the different regions (i.e., positive or negative effect, significant or not significant). These two graphs show that campaign contributions to legislators correspond to significantly fewer total and severe citations and that their effect is greatest in less professionalized legislatures. Note that in both cases the effect becomes insignificant as professionalism increases; in fact, it becomes positive for severe deficiencies. Importantly, though, the effect is negative and significant for 90% of the data for total deficiencies and 43% of the data for severe deficiencies, though it does become positive and significant for severe deficiencies once legislative professionalism exceeds 0.43, which includes one-quarter of the observations.

6 Discussion

What do the above results imply about the effect of campaign contributions on oversight of nursing facilities? Overall, there is an indication that nursing homes that give campaign contributions receive significantly fewer deficiencies. In particular, the relationship is most robust for severe deficiencies, which are potentially more costly for nursing facilities since they can lead to various penalties including fines and denial of new admissions. Thus nursing

home contributions appear to have their greatest effect precisely where facilities may need it the most.

In addition to these broad findings, which are consistent with previous research at the federal or aggregate state level (e.g., de Figereudo and Edwards 2006; Gorden and Hafer 2005), the ability to consider the effects of contributions by timing, office, and state characteristics adds some nuance to the results and also raises some questions for future research. In terms of timing, the effects were more consistently significant for contributions given before a survey. Because surveys are administered somewhat randomly, this suggests that facilities take an insurance approach to contributions by building up relationships to call on when they need them. Perhaps survey outcomes are more easily influenced if survey administrators receive signals before they enter a home.

When contributions are considered by office, the results suggest a couple of interesting variations. First, contributions to both legislators and the governor's office influence survey outcomes. Interestingly, though, they appear to do so in different ways. Contributions to legislators reduce the total number of deficiencies, albeit modestly, while contributions to governors only reduce severe deficiencies, but much more substantially. This could arise if the two branches have different abilities to influence the survey process. For example, legislators may be able to signal to survey administrators to go easy on particular homes in advance of surveys, but their influence may dwindle once the survey report has been drafted. Governors, on the other hand, may be able to intervene after the survey but before the final report is prepared or during the appeals process. Legislators therefore appear to have lower level influence in that contributions to them reduce the number of less important citations while governors' influence is over severe citations. Legislators' influence is further reduced in more professionalized states, perhaps due to greater oversight on the part of their colleagues.

Interestingly, given these different types of influences that legislators and governors appear to have, nursing facilities seem to pick their friends and stick with them. Recall that sixty-seven percent of facilities give to either the governor or the legislature, but not to both

over the entire four-year period studied. The results are even more striking at the survey level, with only fourteen percent of surveys with contributions to either branch featuring contributions to both.

In order to investigate the mechanism of influence even further, I gathered detailed data about the 2003-2004 Wisconsin legislature.¹⁵ I then matched contributions to recipients to compare them based on various characteristics such as partisanship and committee assignments; the results are presented in Table 5. Three notable patterns occur. First, nursing homes are more likely to give to Republican members than to Democrats: while the former constitute about two-thirds of each chamber, they constitute over eighty percent of contribution recipients. Second, recipients are not more likely to be members of relevant oversight committees since the proportion of recipients on each committee almost identically matches the proportion of members on that committee (though members of the Aging committees do receive significantly greater amounts than non-members). Third, contributions are most likely to go to a facility's own representative: about two out of five contributions are given locally, which is much greater than random assignment would suggest.¹⁶

[Insert Table 5 Here.]

These results are consistent with an interpretation that contributions to the legislature are a form of insurance rather than atonement. They suggest a service-in-the-district story rather than a legislative oversight story: facilities give to their own representatives in order to intervene on their behalf rather than to more powerfully positioned members who might have more institutional sway over the bureaucracy. Facilities appear to contact their own representatives and ask them to put pressure on the state survey agency to go easy on them during the survey process. Legislators, in turn, respond in order to support one of their constituents. This explanation may work particularly well in the nursing home industry,

¹⁵Data on legislators were obtained from madison.com and supplemented with data from the Wisconsin Blue Book.

¹⁶Facilities were matched to districts by entering their addresses into the Wisconsin legislator lookup web page's query field. Some failed to turn up using this search; these were determined using the district maps and searching for the facility's address using the Wisconsin Interactive Map Server.

which is characterized by a great number of relatively small facilities that are geographically dispersed.

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Table 1: Measures of State Nursing Home Surveys in the Sixteen States Used in the Analysis and Summary Statistics for all Fifty States

	Deficiencies	Severe Def.	Surveys w/ no Def.	Surveys w/ no Sev. Def.	Days Between Surveys	Predictable Surveys	Total Surveys	Complaint Surveys	Facilities	Total Contributions	Attributed Cont.
AR	8.28	0.45	3%	81%	350	9%	692	457	236	\$548,037	\$74,185
CT	7.19	0.79	5%	54%	390	12%	733	508	246	\$81,418	\$18,091
GA	6.90	0.41	6%	82%	378	11%	1043	705	362	\$1,073,272	\$160,781
IN	4.85	0.36	17%	77%	369	18%	1513	1179	511	\$447,916	\$14,483
LA	8.15	0.32	8%	87%	356	14%	872	571	305	\$478,201	\$130,476
MA	4.54	0.41	22%	79%	372	27%	1364	531	456	\$146,938	\$22,354
MI	7.35	0.34	5%	78%	352	23%	1279	1120	430	\$230,033	\$3,496
MN	7.83	0.27	5%	85%	366	8%	1202	145	401	\$43,090	\$3,168
MS	4.03	0.35	12%	83%	410	31%	600	139	205	\$578,598	\$27,265
NC	4.94	0.37	12%	79%	343	14%	1255	823	423	\$396,086	\$1,226
OH	4.70	0.18	15%	85%	383	4%	2867	1449	970	\$1,337,641	\$199,901
OK	8.05	0.37	6%	78%	378	14%	995	554	349	\$243,760	\$42,454
OR	4.58	0.39	22%	83%	377	37%	409	162	138	\$986,677	\$10,717
WA	6.44	0.46	7%	76%	359	16%	736	1082	247	\$260,893	\$32,262
WI	3.07	0.18	23%	87%	363	24%	1184	568	400	\$69,169	\$32,075
WV	8.07	0.14	2%	88%	385	23%	390	322	132	\$67,579	\$17,891
<i>All States:</i>											
Average	6.06	0.28	10%	84%	368	20%	943	551	319	\$339,335	\$49,426
Minimum	3.07	0.00	2%	54%	330	4%	42	3	14	\$476	
Maximum	9.66	0.79	28%	100%	482	45%	3853	2498	1296	\$1,699,063	

Notes: Statewide skilled nursing facility data from OSCAR, the Federal government's reporting system. Campaign contributions data from Institute for Money in State Politics, coded by author. Total Contributions includes contributions from facilities, owners of chains, and associations of facilities. Attributed contributions are those we were able to assign to specific facilities.

Table 2: Summary Statistics for Variables Used in Analysis (Regular Surveys)

	Mean	SD	Min.	Max.
Deficiencies	5.93	5.30	0	59
Severe Deficiencies	0.34	0.92	0	25
Contributions - Closest	30.44	575.60	0	45881
Contributions - Since Prior Survey	24.83	497.02	0	48576
Contributions - Until Next Survey	33.03	700.99	0	48576
Contributions - Closest 180 Days Before	10.72	204.36	0	13396
Contributions - Closest 180 Days After	11.35	400.03	0	45881
Contributions - Governor	8.85	183.39	0	9974
Contributions - Governor Before	5.10	140.60	0	9974
Contributions - Governor After	3.76	111.78	0	7334
Contributions - Legislature	13.83	309.42	0	29526
Contributions - Legislature Before	6.87	165.27	0	16668
Contributions - Legislature After	6.96	248.82	0	29526
RN Hours per Resident	0.63	0.57	0	6.84
Certified Nurse Assistant Hours per Resident	2.32	0.55	0	5.24
Proportion of Beds Occupied	0.86	0.14	0.05	1
Medicaid Only	0.05	0.23	0	1
Medicare and Medicaid	0.91	0.28	0	1
Hospital-Based	0.07	0.25	0	1
Part of a Chain	0.56	0.50	0	1
Number of Residents (1,000s)	0.09	0.05	0	0.55
For Profit	0.68	0.46	0	1
Nonprofit	0.05	0.22	0	1
Legislative Professionalism	0.29	0.12	0.03	0.50

Notes: N=16,132.

Table 3: Negative Binomial Model of Nursing Home Deficiencies, Regular Surveys (2002-2005)

	<u>All Deficiencies</u>			<u>Severe Deficiencies</u>		
	All	Pre/Post	180	All	Pre/Post	180
Contributions	-0.18 (0.11)			-0.55 (0.94)		
Contributions Before		-0.34* (0.18)	-0.01 (0.27)		-3.10*** (1.17)	-3.07** (1.42)
Contributions After		0.02 (0.08)	-0.09 (0.08)		-0.06 (0.24)	-4.00** (1.84)
RN Hours per Resident	-0.26*** (0.03)	-0.26*** (0.03)	-0.26*** (0.03)	-0.58*** (0.08)	-0.58*** (0.08)	-0.58*** (0.08)
Nurse Assistant Hours	-0.07*** (0.02)	-0.07*** (0.02)	-0.07*** (0.02)	-0.11** (0.05)	-0.10** (0.05)	-0.10** (0.05)
Beds Occupied (%)	-1.15*** (0.07)	-1.15*** (0.07)	-1.15*** (0.07)	-2.18*** (0.20)	-2.17*** (0.20)	-2.17*** (0.20)
Medicaid Only	0.17** (0.07)	0.17** (0.07)	0.17** (0.07)	0.19 (0.21)	0.19 (0.21)	0.19 (0.21)
Medicare and Medicaid	0.18*** (0.06)	0.18*** (0.06)	0.18*** (0.06)	0.26 (0.19)	0.26 (0.19)	0.26 (0.19)
Hospital-Based	0.13*** (0.04)	0.13*** (0.04)	0.13*** (0.04)	0.16 (0.11)	0.16 (0.11)	0.16 (0.11)
Part of a Chain	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.05)	0.01 (0.05)	0.01 (0.05)
Number of Residents	3.33*** (0.21)	3.34*** (0.21)	3.33*** (0.21)	4.69*** (0.51)	4.70*** (0.51)	4.71*** (0.51)
For Profit	0.14*** (0.02)	0.14*** (0.02)	0.14*** (0.02)	0.07 (0.06)	0.08 (0.06)	0.08 (0.06)
Nonprofit	-0.07 (0.04)	-0.07 (0.04)	-0.07 (0.04)	-0.14 (0.11)	-0.14 (0.11)	-0.14 (0.11)
Constant	2.65*** (0.11)	2.64*** (0.11)	2.65*** (0.11)	0.91*** (0.33)	0.90*** (0.33)	0.90*** (0.33)
Dispersion (α)	0.50 (0.01)	0.50 (0.01)	0.50 (0.01)	2.97 (0.12)	2.96 (0.12)	2.96 (0.12)

Notes: N=16,132. State and year fixed effects included in all models. * indicates $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

Table 4: Negative Binomial Models of Total or Severe Nursing Home Deficiencies with Effect of Contributions by Office of Recipient, Regular Surveys (2002-2005)

	All Def.		Severe Def.	
Cont. to Legislators	-0.49** (0.17)	-2.64** (1.07)	0.25 (0.22)	-7.36* (4.14)
Cont. to Governor	0.05 (0.36)	0.34 (0.40)	-5.36** (2.11)	-4.48** (2.03)
Cont. to Leg. \times Leg. Prof.		5.37** (2.58)		17.98* (9.59)
RN Hours per Resident	-0.26** (0.03)	-0.26** (0.03)	-0.58** (0.08)	-0.58** (0.08)
Nurse Assistant Hours	-0.07** (0.02)	-0.07** (0.02)	-0.11** (0.05)	-0.11** (0.05)
Beds Occupied (%)	-1.15** (0.07)	-1.15** (0.07)	-2.18** (0.20)	-2.17** (0.20)
Medicaid Only	0.17** (0.07)	0.17** (0.07)	0.19 (0.21)	0.19 (0.21)
Medicare and Medicaid	0.18** (0.06)	0.18** (0.06)	0.26 (0.19)	0.26 (0.19)
Hospital-Based	0.13** (0.04)	0.13** (0.04)	0.16 (0.11)	0.16 (0.11)
Part of a Chain	0.01 (0.02)	0.01 (0.02)	0.01 (0.05)	0.01 (0.05)
Number of Residents	3.33** (0.21)	3.33** (0.21)	4.69** (0.51)	4.69** (0.51)
For Profit	0.14** (0.02)	0.14** (0.02)	0.08 (0.06)	0.08 (0.06)
Nonprofit	-0.07 (0.04)	-0.07 (0.04)	-0.14 (0.11)	-0.14 (0.11)
Constant	2.65** (0.11)	2.65** (0.11)	0.91** (0.33)	0.91** (0.33)
Dispersion (α)	0.50 (0.01)	0.50 (0.01)	2.96 (0.12)	2.96 (0.12)

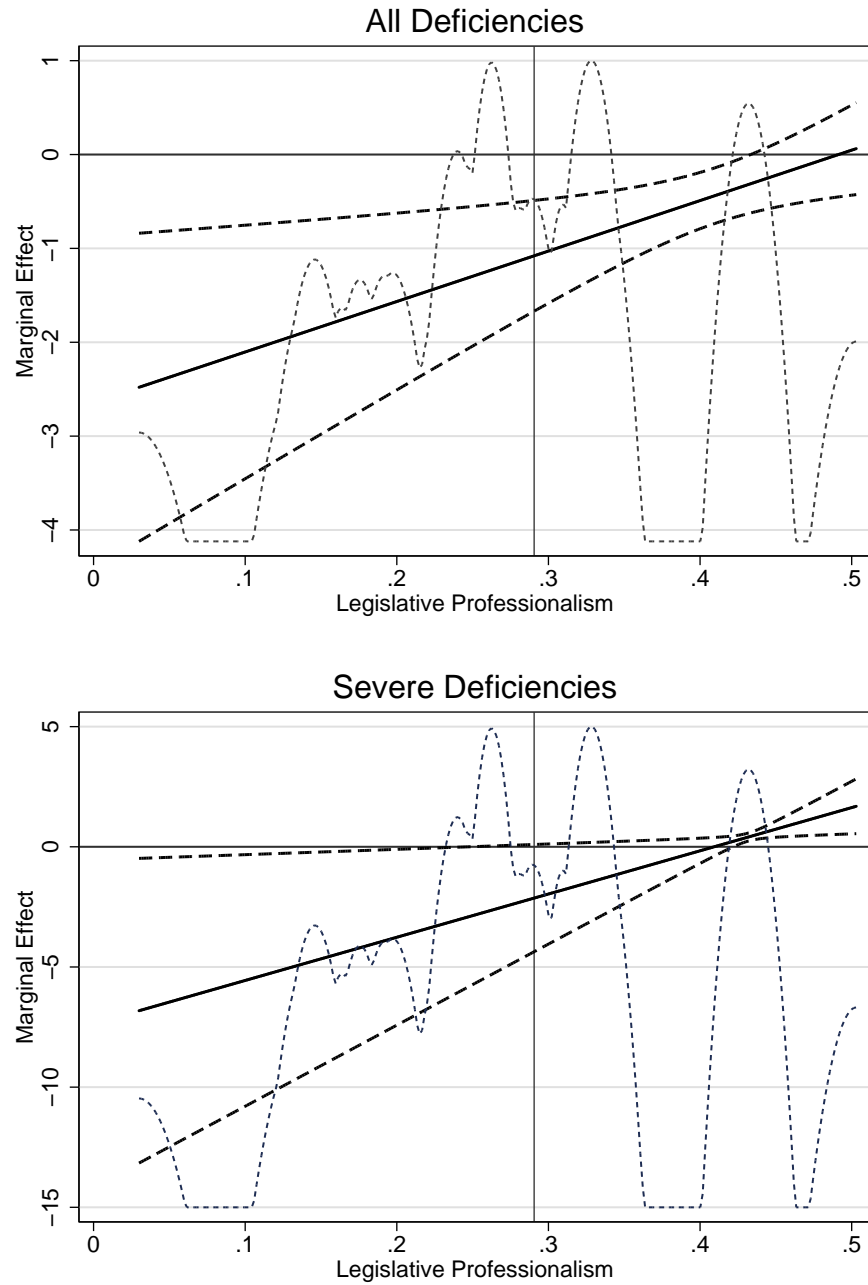
Notes: N=16,132. State and year fixed effects included in all models (which subsumes legislative professionalism). * indicates $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

Table 5: Characteristics of Recipients in the Wisconsin Legislature, 2003-2004 Session

	Committee				
	Rep. Party	Aging	Public Health	Health	Same District
	Percent Receiving Contributions				
Assembly	81%*	14%	13%	9%	38%*
Senate	89%*	19%			42%*
	Average Amount of Contributions Received				
Assembly	\$151	\$217*	\$156	\$133	\$128
Senate	\$130	\$212*			\$122

Notes: * indicates $p \leq .10$ for two-tailed t-test. In tests for those receiving contributions, the null hypothesis is that contributions are given randomly; for the amount of contributions the null hypothesis is that the average for legislators in the listed category is the same as for those not in that category in the same chamber. Average contributions received are for legislators receiving at least one contribution. Legislator data from madison.com, supplemented with data from the Wisconsin Blue Book.

Figure 1: Marginal Effect of Campaign Contributions by State Legislative Professionalism Score, by Deficiency Type



Notes: Effects represent the derivative of $X\beta$ with respect to legislative professionalism. Long, thick, dashed lines correspond to 90% confidence intervals. Vertical line indicates mean of legislative professionalism; short, thin, dashed lines represent kernel density plot of legislative professionalism (density values not shown).