How Politicians' Occupational Backgrounds Structure Politics: Evidence from State Legislators

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Abstract

Do legislators' occupational backgrounds influence their politics? And if so, are legislators biased toward the interests of their industry? I investigate these questions using data on the occupational backgrounds of almost twenty-thousand U.S state legislators over two decades. I first use legislators' financial disclosures to show that occupations are a strong indicator of related financial interests, even though many legislators are retired or full-time politicians. Next, using a difference in differences design to control for district preferences and state house by party time trends, I show that legislators disproportionately serve on committees related to their occupation. Using the same design, I show that legislators receive more campaign contributions from corporations and PACs related to their occupation, which suggests that legislators support their occupations' interests. Combined, these results support the distributive politics model of committee membership—but where legislators' personal interests related to their occupation is the driver of their behavior, rather than their constituents' interests. To explore how distortionary this phenomenon is for later outcomes, I test if electing more insurers as state legislators causes more state-level insurance industry profits, and find no significant relationship. More research is needed to identify how much these patterns affect legislative and industry outcomes.

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1 Introduction

Despite stereotypes of "career politicians," the vast majority of elected legislators have pursued careers outside of politics. In most state legislatures, members continue to hold jobs outside of politics, which may meet only a few times a year (Maddox 2004).

What are the effects of legislators' non-political careers on their politics? On one hand, non-political experience gives legislators substantive expertise in their chosen industry. Holding a job outside of politics can make legislators more informed about their industries' issues and less dependent on lobbyists and other potentially biased sources of information. Supporters of non-professionalized legislatures also claim that non-political jobs bring politicians closer to the people (Petracca 1991).

On the other hand, legislators' work experience may bias them to support the interests of their occupations' industry. This bias could run through several channels. First, some legislators may be motivated by financial self-interest–they could directly benefit from legislation that benefits their industry if they are still working, have remaining financial interests, or go through the revolving door after their legislative service. Second, legislators experience may cause them to adopt the interests and preferences of their industry, even without a direct financial motivation (Kwak 2013). Working in a given area tends to enculturate people into adopting the norms, values, and interests of their industry. Third, legislators may have selected careers where they had a preexisting ideological sympathy.[1]

It is also possible that legislators' non-political careers are unrelated to their actions in office. Many politicians' motivations (at least their publicly stated motivations) to run for office are not related to their work, and work experience in a given industry does not necessarily make someone

[1]Tali Mendelberg and co-authors document the power of affluent college campuses to socialize students into supporting conservative economic policies, occupation based socialization could work similarly (Mendelberg, McCabe and Thal 2017). In this paper, I assess the causal effect of electing a legislator with a certain occupational background, rather than the causal effect of working a specific job on legislators behavior. However, the causal effect of a person's occupation on their preferences is worthy of further study.

a public policy expert in that area. Politicians who feature their work history in their appeals to voters often due so to signal general competence, rather than promising to work on policy in that specific area.

In this article, I provide a comprehensive account or how legislators' occupations affect politics using data from almost twenty-thousand U.S state legislators across all 99 state legislative chambers. I begin by linking data on state legislators' occupations to their financial disclosures to show that legislators' occupations are often strong indicators of a direct financial interest in their industry. For these legislators, any involvement on legislation related to their occupation may present a direct conflict of interest.

Next, I show state legislators are far more likely to serve on a committee related to their industry than other legislators from the same district. Prior literature on this question yields inconsistent results and does not account for important determinants of committee membership, such as district preferences, seniority, and if a legislators' party is a majority in the legislature (Hamm 1986; Hamm, Hedlund and Post 2011; Battista 2013). I use a research design that more confidently identifies the causal effect of a politician's occupation then past research (I also use a much larger, comprehensive dataset). Specifically, I make within district comparisons between legislators with different occupations while adjusting for the probability of committee membership among co-partisans in the same year and state house. I find that all legislators with an occupation that can be linked to a related committee have a significantly higher probability of serving on that committee. Accounting for district preferences does little to change these estimates, which provides further validation that this pattern is caused by legislators' occupations, rather than district specific factors.

Next, I use campaign finance data to show that legislators' preferences are more aligned with their occupation's industry than other legislators from the same district. Specifically, I show legislators produce a large increase in same industry corporate donors relative to the normal donation patterns

for a district.[2] Legislators with an occupational background relevant to the industry in question are likely to have more information and stronger views about related public policy issues than other legislators. Therefore, it is likely the increase in donations is motivated by industry donors helping their preexisting allies rather than persuasion or other motivations. In future drafts, I hope to add data to more directly test whether legislators have preferences aligned toward the interests of their occupation.

These results show that legislative organization faces a trade-off. Legislatures elevate members with substantive expertise in a given area from their occupational history to have more power crafting legislation in that area via committee membership. However, members with more expertise via occupational experience have preferences biased in favor of their industry, rather than being representative of the legislature as a whole. This provides evidence against two prominent theories of legislative organization: that committees are simply tools of the legislature (Krehbiel 2010) or the majority party (Kiewiet and Mccubbins 1991; Cox and McCubbins 1993).

Instead, my results are consistent with accounts of legislative organization facilitating log-rolling, à la the distributive politics model (Mayhew 1974; Shepsle 1987; Weingast and Marshall 1988). Members serve on committees they have an interest in, where they pursue policies with concentrated benefits and diffuse costs. However, my results show that legislators often serve on committees and log-roll according to their personal interests derived from their occupation (maybe even personal financial interests), rather than their constituents' unique interests (Adler and Lapinski 1997). This complicates the traditional understanding of the distributive politics model and raises questions about electoral accountability. Many legislators use the position where they have the most influence over legislation (committee membership) to pursue their personal interests related to the industry of their occupation, rather than the interests of their constituents.

[2]These specifications also control for year by state house by party fixed effects. I also show that the donation premium is simply a product of serving on relevant committees.

A hypothetical example can help clarify how my results differ from the traditional distributive politics understanding of the relationship between legislators and committees. Imagine a legislator who worked in farming before going into politics. From their experience, he/she is very knowledgeable about the agricultural industry in their state, but also very sympathetic to farmers' interests. To help struggling farmers, this legislator serves on the agricultural committee to have maximum influence over agricultural policy. On that committee, he/she may advocate for policies like property tax breaks for farmland, where farmers receive a large benefit and costs are diffused over the rest of the tax base.

If this legislator was representing a district full of farmers, this dynamic would be a relatively well understood part of politics (e.g. Adler and Lapinski 1997). According to distributive theory, legislators are meant to pursue their constituents' interests, and they often logroll with policies that have concentrated benefits for their district and diffuse costs.

However, my results show that legislators' committee work often has little to do with constituents' interests. The farmer legislator in my data may have very few farmers in their district–their pursuit of policies in favor of farmers is purely a personal interest stemming from their occupational history.

The mere fact that politicians pursue their personal interests is not novel. Any observer of American legislatures knows that members have personal interests in certain areas that do not particularly concern their constituents. However, my results quantify this dynamic and show that personal interests play a much larger role than previously thought. One of the most important parts of a politicians' role in the legislature and shaping legislation (committee membership) is determined in large part by their personal interests.[3] Moreover, this has potentially distortionary effects on legislation, since legislators personal interests on issues related to their occupation are biased in favor of industry.

[3]Occupation is just one imperfect proxy for measuring legislators' personal interests. My results likely represent a lower bound on the overall influence of legislators personal interests on their politics.

My final set of results tests the distortionary effects of legislators pursuing their personal interests with a case study of the insurance industry. One prior study in this area codes bills as friendly or unfriendly to the insurance industry and finds that insurer-legislators disproportionately vote for and sponsor insurance friendly bills compared to other legislators (Hansen, Carnes and Gray 2019). I go a step further by testing if electing more insurer-legislators materially benefits the insurance industry using several state-level measures (like premium requirements) that should be correlated with state-level insurance profits. I also use panel data with a difference in differences design which better accounts for time trends and states preexisting level of insurance friendliness, isolating the causal effect of electing more insurers from these other factors. I find that electing more legislators with an insurance background does not have a statistically detectable benefit for the insurance industry. This analysis is just a start to understanding how legislators' occupations effect legislative and industry outcomes, but suggests there may be countervailing forces that limit occupations' influence on the legislature as a whole.

The rest of the paper is organized as follows. First, I more thoroughly review the literature on how legislators' occupations affect their politics. I also review prominent theories of legislative organization and committees, and how my analysis differs from prior literature. (I skip this section to limit the length of this writing sample.) Next, I review the five datasets I link together for the analysis. After that, I detail my methodological approach, and how it better accounts for potential confounding than previous research. Finally, I detail my results and conclude.

2 Data

My analysis links together four separate datasets containing information on individual state legislators. None of the datasets can be linked by a numeric indicator, so I use fuzzy matching on legislators names after blocking on state, chamber, party, and in some cases, year or term. The

following sections provide details on each individual dataset.

2.1 Occupation Data

I use data on state legislatures occupational backgrounds collected by Makse (2019). The occupations are not coded into one preexisting schema (e.g. the Census Bureau's occupational codings) but fit well with several committee types and industry codings for the donation data. For instance, some groupings are broad, like health care professionals, while others are quite specific, like insurers, but both fit well with related committees (health and insurance, respectively) as well as industry donation groups. Importantly, the data includes the occupations for people who are full-time legislators or retired by identifying legislators' professions when they were first elected to the legislature. Even if full-time or retired legislators are not working when they are holding office, they could still have a bias in favor of their former industry. In other datasets, a large fraction of legislators are coded as professional politicans or retired (e.g. Carnes and Hansen 2016).

2.2 Financial Interest Data

I use data on state legislators financial interests collected by the Center for Public Integrity (Alieva et al. 2017). It is only available in 2015, while the occupation data goes until 2012, so I only link legislators who were in the beginning of 4 year terms or were reelected. Each states' financial disclosure requirements for state legislators vary, and a few states do not require any disclosures at all. Some legislators may earn a significant amount of money from sources that do not need to be disclosed. Specific disclosures were assigned industries based on codes developed by the National Institute on Money in State Politics, my donations data source.

2.3 Committee and Donations Data

Data on state legislators committee assignments was originally collected by Alexander Fouirnaies Fouirnaies (2018). He also collected data on campaign contributions from industry groups and individual firms from the National Institute on Money in State Politics.[4] Industry codings are provided by institute staff.[5]

2.4 State Legislators Data

I use data on sitting state legislators collected by Carl Klarner and co-authors (Klarner et al. 2013). I use this data to control for the number of years served in the legislature, which I cannot calculate for legislators who were first elected before the occupation data starts.

2.5 Insurance Profit Data

I use state-level insurance data originally used by Fouirnaies and Fowler (2020). They collected the data from the Insurance Fact Book, published annually by the Insurance Information Institute. After consulting with insurance industry professionals, they use several measures plausibly effected by state-level regulation and are correlated with a more business friendly environment and more profits for insurance companies. These include the premium tax rate, minimum auto insurance requirements, average assessments, average premiums, the total number of companies operating in a state, and if the state has an insurance commissioner with an insurance industry background. More details about these measures are available in (Fouirnaies and Fowler 2020).

[4] followthemoney.org

[5] Excluded are donations from individuals, ideological groups, donations to leadership PACs (which are indicative of fundraising for the party, rather than the individual legislator), and labor unions. In future drafts, I will collect the campaign finance data directly from followthemoney.org and include labor union donations for unions that can be directly linked to a given occupation, like teacher's unions for people with an education background or nurse's unions for legislators with a health care background.

3 Methodology

To assess the influence of a legislators' occupation on committee assignments and corporate donations, I use a difference in difference research design. One major potential source of confounding are district-level preferences. For instance, a district may have a lot of health care workers and hospitals, which make its voters more friendly to the interests of the health care industry, have more donations from the health care industry, and have legislators who sit on a health committee because it is most relevant to their constituents' interests. This hypothetical district may also be more likely to elect legislators with a healthcare-related career, but would have higher health related donations and committee assignments regardless of the legislators' occupational background. I account for this dynamic by including district fixed effects. If district preferences are constant over time, this will separate the effect of a legislator's occupational background from a district that pays more attention to the industry. To account for boundary changes post-redistricting, I re-define the district fixed effects every redistricting period.[6]

Another concern are changes over time that affect multiple districts. For instance, when a new party controls a legislative chamber, the party going from the majority to the minority often loses several assigned seats on committees. They may also get fewer donations as they have less access to power in the minority. To control for this dynamic, I use state legislative chamber by party by year fixed effects. This absorbs all variation common to one party in either the state senate or house for a given year.

To further ensure any effects are driven by a legislators' occupation rather than other factors, I control for the number of years in office. Seniority is often correlated with more power in the legislature, which can lead to more desirable committee assignments and more donations.

I use a similar difference in difference design to assess the causal effect of electing more insurers to

[6]To the extent that district preferences change over time, this helps reduce that bias.

office on measures correlated with insurance industry profits. Since outcomes are on the state-level, I measure the fraction of state legislators with an insurance industry background in each state-house-year, then take the average across a given state's two houses every year. I use state fixed effects to account for a state's fixed propensity to be more insurance industry-friendly, which may also be correlated with electing more insurers. I also use year fixed effects to account for national level trends.

When analyzing legislators' conflicts of interest, I only have a single year of conflict of interest data. I use the data to check if legislators with a given occupation have a higher probability of receiving outside income from that industry than other legislators. In some specifications, I restrict the comparison to other legislators in the same state using state fixed effects. With only one year of data, I cannot conclusively show that legislators' financial interests are caused by their occupation rather than district-level factors. However, regardless of the underlying cause, the data can show if occupations are reliable indicators of related financial conflict of interests.

4 Results

4.1 Financial Interests

I begin by analyzing the connection between legislators' financial interests and their occupation. For each occupational category, I test the probability a legislator receives income from that category compared to legislators without that occupation.[7] Results are shown in figure 1. For almost every occupational category, legislators have a significantly higher probability of receiving outside income from the related industry than legislators that do not share that occupation. For most occupations, the disparities are over 40 percentage points. In appendix figure A.1, I repeat the same regression

[7] An indicator for having a financial interest in a given area is regressed on an indicator for having an occupation in the same area. For instance, I test the probability that legislators who were farmers during or before their legislative service report receiving income from the agricultural industry.

exercise but include state fixed effects to compare legislators financial interests within the same state. Results are almost unchanged.

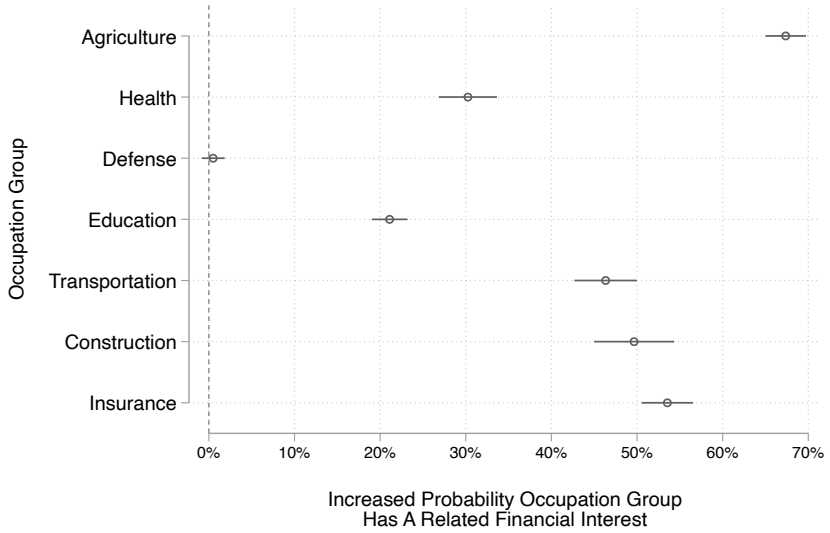

Figure 1: Each estimate comes from a regression of an indicator for industry financial interests on an indicator for having a related occupation.

Legislators' financial disclosure requirements vary by state. Some legislators receive outside income related to their occupation and do not need to report it (Idaho, Michigan, and Vermont did not require legislators to report anything). The coding of outside income from individual firms to a specific industry can also be ambiguous.

To the extent these data problems are correlated with specific occupations, it makes comparing occupations misleading. However, the general story of figure 1 is that occupation is a strong predictor of related outside financial interests. Most of the data issues would serve to shrink these estimates.[8] Overall, the results show that for many legislators, any involvement in issues related to their occupation may represent a direct financial conflict of interest.

[8]If a legislator makes money via investments or business income or some other form that does not need to be reported, or reports making money via a firm that could not be linked to a specific industry, it would decrease the occupation-financial interest connection.

4.2 Committee Assignments

Next, I test if legislators disproportionately work on issues related to their occupation. Specifically, I test whether legislators with a given occupation have a higher probability of being assigned a committee related to that occupation than other legislators. For instance, I test if legislators with an agricultural-related occupation like farming are more likely to serve on their legislatures' agricultural committee than other legislators.[9]

Results are shown in figure 2. Across all the occupation-committee pairings, legislators with an occupation related to a committee have a significantly higher probability of sitting on that committee. Since I have panel data on occupations and committee assignments, the results in figure 2 compare the committee assignments of legislators who served the same district with different occupations. Therefore, the results cannot be explained by district-level increased salience or unique preferences around specific issue areas related to a given committee. I also control for year by statehouse by party effects, so the results cannot be attributed to legislators' increased power being a majority at a certain time in a certain statehouse.

Even with district fixed effects, one possible interpretation of figure 2 is that legislators who have an increased probability of serving on a committee related to their occupation are just better at serving their constituents' interests than other legislators. District fixed effects control for the average propensity of legislators from a given district to serve on a given committee. If the legislators who are better than average at serving their constituents' interests also come from certain occupational backgrounds, the results in figure 2 could be explained by district preferences. To explore this possibility, I test how much omitting district fixed effects the estimates in appendix figure A.2 (e.g. Fouirnaies, Hall and Payson 2020). The results are very similar to figure 2, which suggests that legislator's occupations are mostly independent of district preferences. If legislators with specific

[9]The probability of being on the agriculture committee is regressed on an indicator for having an agricultural-related occupation. For each committee, I restrict the sample to statehouses that have the relevant committee.

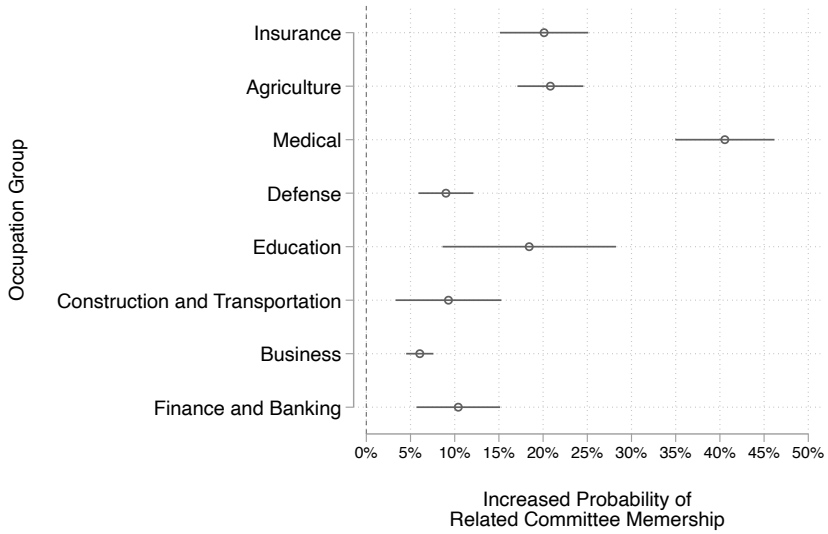

Figure 2: Difference in difference estimates of the probability a legislator with a given occupation serves on a committee related to that occupation. All regressions include district fixed effects and state-chamber by party by year fixed effects. For each occupation, the sample is restricted to state legislatures that have the related committee. Standard errors are clustered at the district level.

occupations were just better at representing their constituents' interests, omitting district fixed effects in figure A.2 should indicate a much stronger connection between legislators occupation and their committee assignments than figure 2.

Why else would legislators serve on committees related to their occupation? One obvious explanation is that it serves legislators personal interests–they prefer to work on issues related to their occupation. This division of labor could also serve the legislature at large. Members who serve on a committee with prior relevant occupational experience may be better, more informed committee members. However, there is also a possibility that members working on areas in which they have occupational experience could be biased.

In the last section, I showed that many legislators have a direct financial interest related to their occupation. This alone raises significant questions about the policy consequences of sorting legislators onto committees based on their non-political occupation. Many legislators are shaping

policy in committees where they have a direct related financial interest. But legislators do not need a direct financial conflict to be biased toward their occupations' interest. Working in a given industry can acculturate people to the interests that industry, and people can sort into jobs they have pre-existing ideological sympathy for.

4.3 Campaign Contributions

To investigate if legislators are supportive of their occupations' interests, I turn to campaign finance data. The contributions of corporate PACs and firms can give us hints about legislators' issue-specific preferences. Specifically, if legislators receive more donations from PACs and individual firms related to their industry relative to other legislators, they are likely to support their industry's public policy goals. Since I focus on the donations from corporate groups, my results cannot be explained by a peer network effect of individuals with the same occupation supporting a candidate they personally know (Bonica 2020).

Figure 3 shows how electing a legislator with a particular occupational background increases the donations that legislator gets from firms and PACs related to that occupation. For instance, legislators who worked as insurers prior (or during) their legislative service saw a 20% increase in donations from insurance corporations and PACs. For all occupations besides defense, there is a large increase in donations from related corporate groups. This increase is statistically significant for insurance agricultural, medical, and business-related occupations. The increase is not significant for the education and construction/transportation fields, but the relationship may be attenuated since union contributions are not included in the data for this draft. For the defense industry, the connections between occupations and defense are tenuous and the base level of donations from defense-related firms is low. Overall, figure 3 shows a strong connection between legislators occupations and the number of donations they receive from a related industry.

In appendix figure A.3, I show how legislators' occupations affect the fraction donations from a related industry over donations from all corporate groups. This implicitly controls for the overall amount of donations legislators receive and better identifies the differential increase in related industry donations.[10] The results are broadly consistent with figure 3.

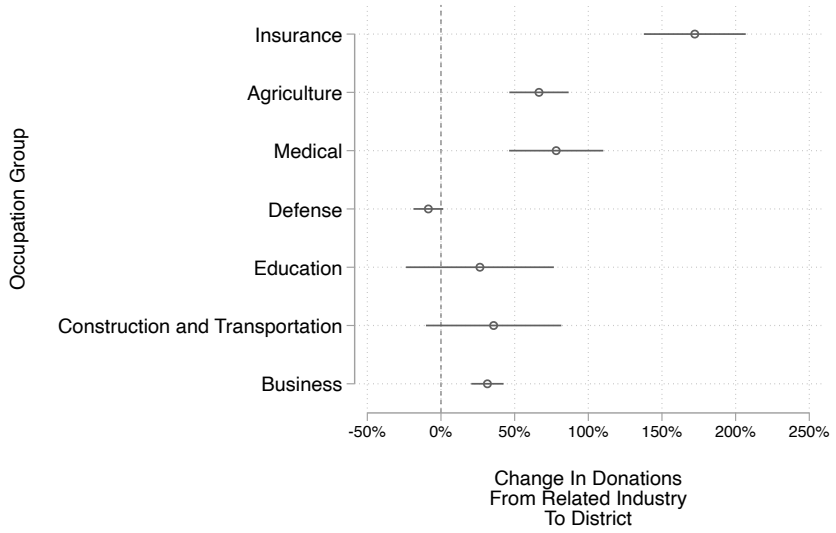

Figure 3: Difference in difference estimates of the effect of legislators' occupation on related cooperation and PAC campaign contributions. The dependent variable is the log of donations to the given legislator. The independent variable is an indicator if the legislators' occupation matches the industry. All regressions include district fixed effects and state-chamber by party by year fixed effects. Standard errors are clustered at the district level.

Like the previous section, all regression specifications control for district fixed effects and year by statehouse by party fixed effects. Therefore, the results cannot be explained by district-level factors or donations seeking to curry favor with the majority party. However, prior research has found that corporations and PACs increase donations to legislators that sit on the committee that regulates them (Fouirnaies 2018). In section 4.2, I showed that legislators sorted onto committees related to their occupation. Therefore, it is possible that the donation effect in figures 3 and A.3

[10]However, the overall amount of donations legislators receive from corporate groups could itself be a consequence of their occupation and therefore an inappropriate "post-treatment" control (Samii 2016).

could be caused by this committee effect. If the donation effect is caused by merely serving on a related committee, it would suggest donors are seeking access to legislators with more power over regulations in their area, rather than supporting their allies.

To test if the donation effect is caused by legislators serving on related committees, I use regression specifications include terms for related committee membership, related occupation, and the interaction of related committee membership and related occupation. After controlling for committee membership, any occupation effect represents the increase in donations for legislators with a given occupation who are not serving on the committee related to their occupation. This would show that the increased donation effect is not simply a "serving on a related committee" effect. For legislators who do serve on a committee related to their occupation, I test whether they get a bigger donation premium than those that do not share an occupation but serve on the same committee. If the related occupation plus the interaction effect is equal to the committee effect, it would mean that increased donations for these legislators are purely an effect of committee membership.

Results are shown in table 1.[11] All the outcomes with significant donation premiums in figure 3 retain them after controlling for committee membership. The "P Value Occupation Committee Difference" column tests if the sum of related occupation and occupation * committee terms is significantly different from the related committee term. For health, transportation, and business, legislators with a related occupation who also serve on a relevant committee get a larger premium than those who do not have a relevant occupation but do serve on the committee. Overall, table 1 shows that legislators receive a large donation premium from corporate groups related to their occupation, and the premium is not the result of increased committee membership.

Why do corporations sharply increase donations to legislators who have held a job similar to their business? The most likely explanation is that corporations are funneling donations to allies that

[11] I remove defense related occupations due to space constraints.

Table 1. Effects of Insurers in the Legisature on Insurance Related Outcomes

	(1) Insurance	(2) Agriculture	(3) Health	(4) Education	(5) Transportation	(6) Business
Related	1.67***	0.62***	0.61***	0.56	0.32	0.31***
Occupation	(0.20)	(0.12)	(0.20)	(0.34)	(0.25)	(0.06)
Related	1.32***	0.56***	0.62***	0.11*	0.54***	0.12*
Committee	(0.07)	(0.06)	(0.04)	(0.04)	(0.05)	(0.05)
Occupation	-0.77***	-0.17	-0.18	-0.63	0.16	0.02
X Committee	(0.25)	(0.13)	(0.21)	(0.42)	(0.30)	(0.08)
P Value Occupation Committee Difference	0.00	0.00	0.02	0.83	0.11	0.00
R^2	0.77	0.76	0.82	0.75	0.78	0.83
N	37,231	37,231	37,231	37,231	37,231	37,231

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. All specifications include state by chamber by party by year fixed effects and district by decade fixed effects. Standard errors are clustered on the district level. N's vary because chambers are excluded if the relevent committee does not exist.

support their legislative goals.[12] While prior research has shown that corporate groups funnel money to legislators with agenda-setting and regulatory power via committee membership (presumably for persuasion), table 1 shows that donations to legislators with a related occupation go beyond this effect. Moreover, any persuasive power of donations is more plausible for legislators with weak preexisting views and a low amount of information on the issues in question. Legislators who used to or currently work in the industry of interest are much more likely to have strong preexisting views and expertise. Therefore, they are likely to be less susceptible to persuasion via corporate donations. Donations to allies can help their reelection campaigns, increase their power within the legislature, and signal other legislators the financial rewards for being an ally.

Overall, the corporate donations pattern shown in this section is consistent with legislators having interests aligned with their occupation's industry. In future drafts, I hope to add more direct evidence about legislators' industry-specific preferences, perhaps using data from votesmart.org or looking at the promulgation of industry-backed model bills across states. There is also an emerging

[12] Prior research has found that individuals donate to candidates that sit on a committee related to their occupation when they also have high ideological agreement (**?**).

literature using more sophisticated approaches with campaign finance data to infer candidates issue specific positions that I could draw on (Bonica and Li 2019). I also want to add event studies for committee membership to address potential anticipation effects and add controls for other important positions in the legislature for the results in table 1.

4.4 Insurance Industry Outcomes

My results in the last two sections showed that legislators are given special influence over legislation concerning their occupation (via committee membership) and are more supportive of their occupations' interests than other legislators from the same district. Put together, these results suggest that the occupational makeup of legislators is likely to affect industry outcomes. I explore this possibility with a case study of the insurance industry. Specifically, I study whether electing more state legislators with an insurance background benefits the insurance industry.

Rather than studying roll calls and categorizing bills as beneficial or not for the insurance industry, I study several correlates of insurance industry profits. (Insurance industry profit data is not available at the state by year level, so I study several measures that should be strongly correlated with profits that are available. More detail is available in section 2.5 and Fouirnaies and Fowler Fouirnaies and Fowler (2020).)This avoids the difficulty of classifying a bill's friendliness to the insurance industry[13] and does not equally weight bills that have trivial effects with those that are more consequential. My approach also comes with weaknesses: aggregating to the state-level causes a loss of statistical power, and there is an unknown time lag between the passing of legislation and realization of profits (or losses).

When studying how insurer legislators affect industry outcomes, there are several important data operationalization decisions to make. Since I study outcomes at the state-year level, I need to

[13]In Hansen, Carnes and Gray (2019), research assistant coding bills as supportive or unsupportive of the insurance industry disagreed 30% of the time.

summarize the independent variable at the same level. One way to do this is to take the fraction of insurer legislators in each state chamber and then take the average fraction of each state's chamber each year. Another possibility is to make a dichotomous variable for any insurer legislators' presence in each state-chamber year, then take the average of this measure by state and year. Another issue is the potential time lag between passing legislation and realizing profits. Most legislation includes a time lag to implementation, so insurer-legislators' influence on outcomes may not be immediately felt when they are first elected. Rather than cherry-picking specifications and arguing why they should be preferred, I try many of these operationalizations and discuss the results holistically.

To ensure any effect is driven by occupational composition and not broader partisan trends, I test if electing more insurers causes a change in the legislature's partisan composition. I run the same two-way fixed effects model with state and year fixed effects, and substitute insurance industry outcomes with the average fraction of the state legislators that are Democrats. I do not find any significant relationship.

Results for insurance industry outcomes are shown in appendix tables A.1-A.4. There is no strong evidence that more insurer-legislators materially benefit the insurance industry. For some specifications, there is a significant increase in the premium average and the assessment average. However, the other four outcome variables do not show significant movement. Overall, The results show that electing more insurance-legislators does not cause a large increase in insurance industry profits. The benefits of electing more insurers to the state legislature are unlikely to provide the insurance industry with more than a marginal benefit.

5 Conclusion

Legislators non-political occupations have a strong influence on their politics. Using data on almost twenty-thousand state legislators' occupational backgrounds, I showed that legislators sorted

onto committees that related to their occupation. The occupation committee sorting was unrelated to district preferences and demonstrates that politicians personal interests (proxied here by their non-political occupations) have a large influence on their behavior.

The occupation-committee sorting I document has potentially large consequences for policy. Legislators' occupations may afford them expertise in related issues which they can bring to bear in their committee. However, legislators' occupation-related expertise may not be neural–several factors may push legislators to support their occupation's interests.

I document one factor that makes occupations a non-neural source of expertise–financial interests. Though many legislators are retired or work as full-time politicians, I use financial disclosure data to show a legislator's occupation is a good proxy of holding related financial interests.

Next, I used campaign finance data to demonstrate that legislators support their industry's interests. Using another difference in difference design, I showed that legislators received a large increase in donations from corporations and PACs with the same industry as their occupation relative to normal district-donation patterns. Additional analysis showed that the occupation donation premium was not simply a product of sitting on related committees. Since legislators are likely to have strong views and be more informed on issues related to their occupation than other legislators, the donation premium I document is unlikely to be motivated by donors seeking to persuade a legislator to see its view on issues. Rather, I argue it is caused by corporations supporting their allies in the legislator.

Finally, I examined the influence of legislator's occupations on industry outcomes with a case study of the insurance industry. Specifically, I tested if electing more insurers to the state legislature causes an increase in measures strongly correlated with state-level insurance industry profits. My analysis found no significant relationship for most measures. This raises questions about how distortionary state legislator's occupations are for policy. For instance, other legislators might be

aware of the biasing effects o occupation and work to limit its influence in the legislative process.

My research has several important weaknesses that point at the need for further research. Most importantly, I lack a direct measure of legislators' preferences on issues related to their occupation. While I argue that corporate donation patterns can be used as a proxy for preferences, this is obviously an imperfect solution. In future drafts, I hope to add more direct evidence about legislators' industry-specific preferences, perhaps using data from votesmart.org or looking at the promulgation of industry-backed model bills across states.

Another important topic for further research is intra-industry competition. For instance, medical scope of practice regulations are an important state-level regulatory issue. Nurses and nurse practitioners want to be allowed to do more medical procedures, while doctors generally want to curtail nurses' roles to maximize their own business. When I group all medical-related occupations together, I elide these potentially important distinctions. On the other hand, it may also be fruitful to put aside more specific occupational labels, and examine the consequences of electing legislators from a "business background" generally (Kirkland 2019).

A natural extension to my research would examine how legislators' occupations affect the law-making processes. My analysis of electing insurers as state legislators represents an important step in analyzing the effects of occupations in politics. But in some ways, it raises more questions than it answers. It could be that my analysis is too under-powered to detect a substantively significant improvement to the insurance industry. However, it is also possible that while insurance legislators support the insurance industry–their effects are thwarted by other legislators. How exactly legislators try to support the interests of their occupation–especially in committees–is an important topic for further research.

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A Appendix

A.1 Appendix Figures

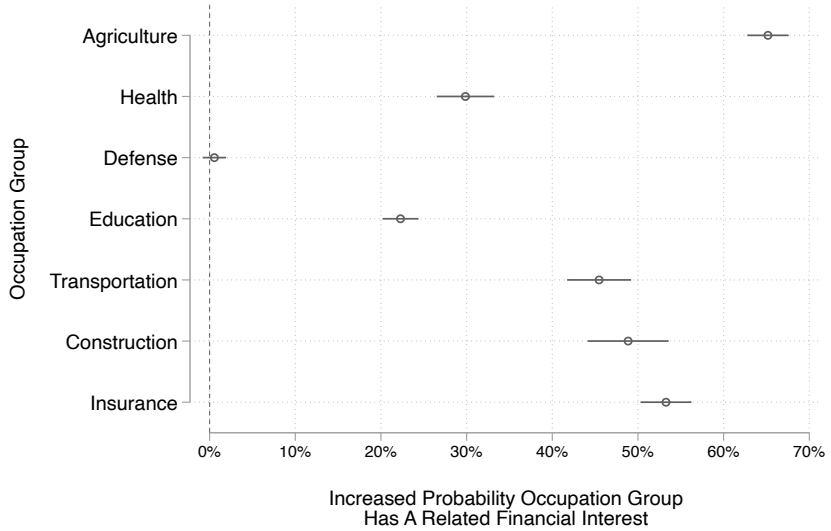

Figure A.1: Each estimate comes from a regression of an indicator for industry financial interests on an indicator for having a related occupation and state fixed effects. Standard errors are clustered at the district level.

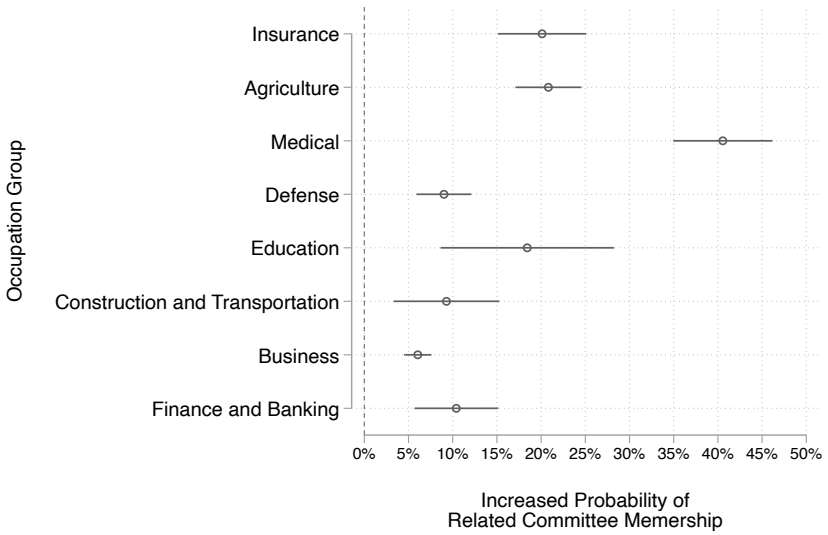

Figure A.2: Estimates of the probability a legislator with a given occupation serves on a committee related to that occupation. All regressions include state-chamber by party by year fixed effects, but omit district fixed effects, unlike figure 2. For each occupation, sample is restricted to state legislatures that have the related committee. Standard errors are clustered at the district level.

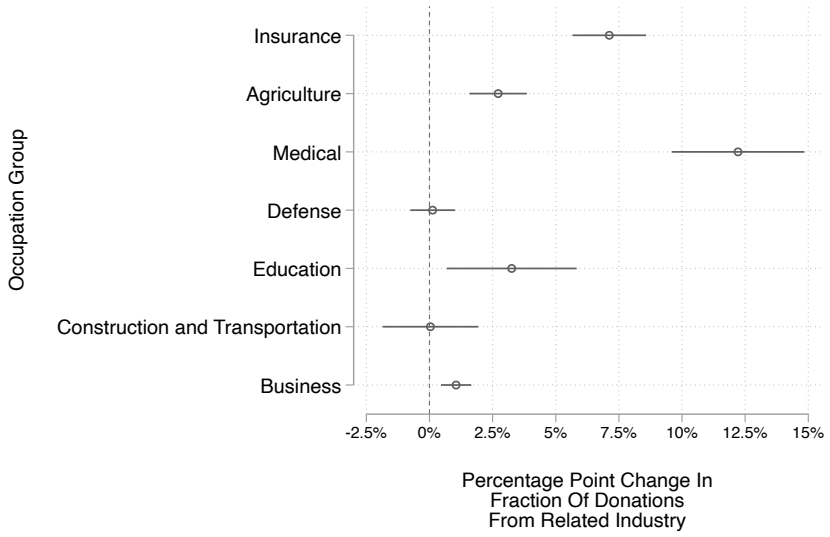

Figure A.3: Difference in difference estimates of the effect of legislators' occupation on related cooperation and PAC campaign contributions. The dependent variable is the amount of donations from the given industry divided by the total amount of corporate donations to the candidate. The independent variable is an indicator if the legislators' occupation matches the industry. All regressions include district fixed effects and state-chamber by party by year fixed effects. Standard errors are clustered at the district level.

A.2 Appendix Tables

Table A.1. Effects of Insurers in the Legisature on Insurance Related Outcomes

	(1) Tax Rate	(2) Insurance Commissioner	(3) Number of Companies	(4) Auto minimum	(5) Assessment Average	(6) Premium Average
Mean Fraction Insurers	0.06	-0.10	-8.95	-163.74	49.84	2216.04*
	(0.04)	(2.78)	(7.79)	(136.74)	(54.25)	(996.96)
State Fixed Effects	X	X	X	X	X	X
Year Fixed Effects	X	X	X	X	X	X
R^2	0.73	0.43	0.94	0.84	0.23	0.86
N	932	872	664	913	820	932

Notes: $*p < 0.05, **p < 0.01$. New Hampshire is excluded due to lack of data for the lower chamber.

Table A.2. Effects of Insurers in the Legisature on Insurance Related Outcomes, Lagged 4 Years

	(1) Tax Rate	(2) Insurance Commissioner	(3) Number of Companies	(4) Auto minimum	(5) Assessment Average	(6) Premium Average
Mean Fraction Insurers	0.03	2.32	-4.17	-123.49	8.17	2770.60**
	(0.05)	(2.19)	(4.49)	(102.05)	(39.83)	(1031.95)
State Fixed Effects	X	X	X	X	X	X
Year Fixed Effects	X	X	X	X	X	X
R^2	0.78	0.42	0.95	0.87	0.37	0.88
N	932	865	520	913	912	932

Notes: $*p < 0.05, **p < 0.01$. New Hampshire is excluded due to lack of data for the lower chamber.

Table A.3. Effects of Insurers in the Legisature on Insurance Related Outcomes

	(1) Tax Rate	(2) Insurance Commissioner	(3) Number of Companies	(4) Auto minimum	(5) Assessment Average	(6) Premium Average
Total Number of	-0.00	0.04	-0.18	-3.56	1.33	31.65
Chambers with Insurers	(0.00)	(0.05)	(0.16)	(3.40)	(1.46)	(22.15)
State Fixed Effects	X	X	X	X	X	X
Year Fixed Effects	X	X	X	X	X	X
R^2	0.73	0.43	0.94	0.84	0.23	0.85
N	932	872	664	913	820	932

Notes: $*p < 0.05, **p < 0.01$. New Hampshire is excluded due to lack of data for the lower chamber.

Table A.4. Effects of Insurers in the Legisature on Insurance Related Outcomes, Lagged 4 Years

	(1) Tax Rate	(2) Insurance Commissioner	(3) Number of Companies	(4) Auto minimum	(5) Assessment Average	(6) Premium Average
Total Number of	-0.00	0.06	-0.09	-3.83	1.15*	44.79*
Chambers with Insurers	(0.00)	(0.05)	(0.10)	(3.87)	(0.44)	(20.98)
State Fixed Effects	X	X	X	X	X	X
Year Fixed Effects	X	X	X	X	X	X
R^2	0.78	0.42	0.95	0.87	0.37	0.88
N	932	865	520	913	912	932

Notes: $*p < 0.05, **p < 0.01$. New Hampshire is excluded due to lack of data for the lower chamber.