Political Geography and Firm Strategies: How Electoral Competition Influences Local Job Creation*

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Abstract

Among the many promises made by politicians to their constituents, job creation is universal. Most jobs are created in the private sector and the jobs that firms provide are crucial to a politician's ability to successfully deliver on their campaign promises. Do firms strategically use job creation to exert influence? We take this question to the universe of firms in the United States between 1997 and 2018, linking each subsidiary to a congressional district. We find that firms open subsidiaries in more competitive districts, suggesting that firms employ politicians' constituents as a political strategy to build ties with vulnerable legislators. Unlike other tools of political influence available to a firm, such as campaign contributions and lobbying, job creation is constrained by geography and time. We show that these patterns exist only for firms in geographically flexible industries and that local job creation increases a politician's electoral survival.

10,239 Words
5,241 Appendix

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Great news for Mississippi! @Google will establish its first operations center in the state of Mississippi, creating 350 new jobs and investing in American workers.

- Congressman Steven Palazzo's tweet, Dec, 21, 2019

Two contrasting patterns of competition have emerged over the last 30 years in the United States. In the political realm, elections have grown more competitive while in the economic realm, markets have grown less competitive. In this paper, we propose a novel framework for understanding the relationship between business and politics that can start to make sense of these seemingly unrelated patterns. We argue that business activities – specifically the decision to open a subsidiary – is in part a political strategy. Subsidiaries provide the jobs that are essential for the survival of a politician, and in return benefit from access to the policy-making process. But the return on this investment in a subsidiary is greatest in electorally competitive districts.

We start from the observation that, while politicians make many promises to earn voters' hearts and minds during campaigns, the promise of job creation is ubiquitous. Furthermore, unlike other partisan issues, such as taxes and the scope of the social safety net, job creation is a "valence" issue: all members of the public agree on the simple axiom that more is better.

The primacy of jobs is reflected in the ways incumbents are evaluated by the public, discussed in the press, and attacked by challengers. Voters routinely cite job creation as a top priority and the importance of campaign promises to create jobs especially increases during economic downturns. Voters' emphasis on jobs, and politicians' claims of creating jobs, are unsurprising given the vast existing literature demonstrating that economic conditions matter in voters' evaluations of candidates.[1]

And these efforts are not purely rhetorical either. Since Nordhaus (1975), scholarly attention has focused on the "political business cycle" in which reelection considerations influence the fiscal and monetary policies used by governments use to improve employment

[1]See Lewis-Beck and Stegmaier (2000) for the summary of the literature.

conditions (e.g., Alesina and Roubini 1992). But although the US government has been directly involved in creating jobs, most jobs are created in the private sector, and this share that has steadily risen since the 1970s (Mayer, 2014). The value of private sector jobs is reflected in the fierce competition over where firms locate their corporate headquarters and subsidiaries, with state and municipal governments hoping to capitalize on the electoral fortunes that accrue from boosts to local economies (Jensen, Malesky and Walsh, 2015; Bartik, 2020; Jensen and Malesky, 2018; Jensen, Findley and Nielson, Forthcoming; Yang, 2019). As an illustrative example, Senator Cory Gardner of Colorado doggedly pitched the merits of Coloradan cities to Amazon's executives as potential locations for Amazon's second headquarters (Svaldi 2017).

The importance of job creation to an incumbent's reelection chances is well-documented. Less well understood is whether and how firms might capitalize on their politically valuable resource – jobs. Indeed, when we review the existing research on the interplay between firms, politicians, and voters, this link is glaringly absent. There is a vast amount of research on how voters evaluate politicians based on economic conditions, on how firms attempt to acquire access to politicians for economic returns, and on how politicians court economically valuable firms. Yet there is very little written about the political dimensions of the strategic decisions firms make regarding where to invest, and even less that examines the empirical evidence for such strategies. Do firms determine where to open a subsidiary with an eye for not just the economic rational of certain locations, but also for the political benefits that might be accrued?

In this paper, we investigate whether firms exploit the salience of job creation in electoral politics to extract more rents from politicians by strategically opening a subsidiary. Recent work finds that firm mobility across jurisdictions has electoral consequences (e.g., Yang 2019) and that voters reward incumbent governors who offer high-profile incentives (Jensen and Malesky 2018). Considering the electoral consequences and potential incentives that government offer to businesses, firms may be well aware that their market

decisions have important non-market consequences for politics. We posit that employing a politician's constituents provides a firm with additional access to, and potential influence over, the politician. That is, local jobs create geographical connections between firms and politicians. We therefore construe the choice of opening a business as a political strategy, similar to the firm's decision to donate to a political campaign (Fouirnaies and Hall 2018), invest in lobbying (Rickter, Samphantharak and Timmons 2009), and allocate resources for charities in politicians' districts (Bertrand et al. 2020).

However, there is an important difference regarding the time horizons of these strategies. While donating to a campaign or hiring a lobbying firm are relatively costless strategies beyond the nominal sums involved, opening a subsidiary is a longer-term investment. As such, we would not expect a firm to use this strategy in response to short-term changes in the political characteristics of a given politician, such as her position on an important congressional committee or her authorship of a particular bill.

Instead, we argue that opening a subsidiary as a political strategy is closely related to how much a politician values the creation of new local jobs. This perspective implies that the efficacy of this strategy hinges crucially on the electoral vulnerability of a politician. While all politicians are attentive to opportunities to claim credit for positive economic outcomes, these opportunities are less pivotal to electorally-secure incumbents. Conversely, politicians in more competitive areas are likely to be more sensitive to the local economic conditions of their constituents. These insecure politicians place greater value on the new jobs created by a firm's subsidiary, which translates into a greater return on the investment by the parent company. Raiha (2017) developed a formal model that encapsulates this logic: Economic influence activities (EIA) such as opening local plants and expanding workforces are more likely to emerge in politically competitive districts precisely because EIA's political returns are higher in contested jurisdictions and a politician is more likely to grant favors to the firm.

We test this intuition on a rich plant-level dataset covering the universe of firms and

their subsidiaries in the United States between 1997 and 2018. We construct a dyadic firm-congressional district-year level dataset and include firm, district, and year fixed effects to control for time-invariant factors that could affect the identification. Our main analysis predicts the probability that a firm opens a new subsidiary in a given district as a function of the district's economic, regulatory, and – crucially – electoral conditions, isolating the variation to within a parent company-congressional district dyad.

We augment the causal interpretation of these correlations in two ways. First we identify all instances in which a member of Congress vacated their seat for reasons other than an election (i.e., death, scandals, political appointments). Second, we identify all instances in which an incumbent was challenged in a primary in the preceding election. We interpret both types of events as signals of electoral competitiveness.While neither of these contexts is wholly unanticipated, they represent conditionally exogenous shocks to the electoral competitiveness of a district, a claim we bolster via the use of covariate balancing propensity score weights (Imai and Ratkovic 2014).

Our findings contrast with existing work in interesting ways, reflecting our argument that subsidiaries – at least for firms in certain industries – are neither purely economic investments, nor are they equivalent to other political strategies. Our main finding that firms are more likely to open subsidiaries in electorally competitive districts contrasts with a growing literature that documents the negative relationship between political uncertainty and firms' investments (Baker, Bloom and Davis, 2016; Hassan et al., 2019), highlighting that decisions about where to open a subsidiaries differ from other types of profit-seeking investments.

We recognize that the ability of a firm to use subsidiaries as politically strategic tools is unevenly distributed across industries. We expand the scope of our analysis to include the top 500 firms in all major sectors. We show that the results we document are not obtained equally in every sector. The retail, wholesale, and manufacturing sectors are most responsive to electoral conditions, while firms operating in the mining and agriculture

industries exhibit no such responsiveness.

We argue that this variation is due to two sector-specific features. First, certain industries are more geographically constrained by geography than others. Bonardi and Urbiztondo (2013) develop a model demonstrating that the flexibility of firms' economic assets affects the degree to which firms strategically employ their resources for political purposes. This logic helps make sense of the heterogeneous effects we find across industries. For example, the retail industry needs only to follow its customers, making their subsidiaries easy to place on one side or another of a political border. Conversely, agriculture and mining are constrained by the underlying topography and resources of the land, precluding the ability of parent companies in these industries to locate subsidiaries strategically. Second, we show that the political logic of job creation is strongest among the smallest subsidiaries and in sectors that tend to employ fewer employees per subsidiary. We argue that smaller subsidiaries are easier to locate on one side or another of a political boundary, and are faster to invest in compared to larger plants. In sum, our results describe both the opportunities and constraints that firms face when using job creation as a strategy to influence politicians.

Our theoretical intuition generates two additional expectations about how the strategic use of job creation operates in equilibrium. First, firms engage in strategic job creation in certain districts with the expectation of obtaining policy favors in return. Unlike mayors and governors, members of Congress are more constrained in providing direct favors to firms in the form of subsidies or tax breaks. However, national policymakers have other options that can help the firms such contacting federal agencies regarding taxes and regulations on behalf of the companies that opened subsidiaries in their districts (Ritchie and You 2019). Also, members of Congress can provide policy favors by serving on committees that are relevant to the firms. Committee membership has been cited as an important determinant of firms' political strategy (e.g., Grimmer and Powell 2016; Kim and Kunisky Forthcoming). Using survival analysis, we find that politicians are more

likely to serve on valuable congressional committees if firms in related industries open subsidiaries in their districts.

Second, it must be the case that these investments actually affect the electoral fortunes of the incumbents themselves. If this type of private sector job creation is not electorally valuable, politicians have little interest in providing the policy rewards to attract firms. Again using survival analysis of a politician's duration in office, we also show that jobs created by subsidiaries help incumbents get reelected.

Our paper makes three important contributions. First, we demonstrate that firms are strategic in their decisions to open subsidiaries. This result suggests that the strategic tools firms can employ to influence politics are extensive, contributing to the literature on the behavior of firms as political actors. By focusing on industry heterogeneity in this strategy, we highlight its geographic constraints compared to other tools such as campaign contributions and lobbying (Rickter, Samphantharak and Timmons, 2009; Artés, Richter and Timmons, 2019).

Second, we provide a novel conceptual framework in which voters, politicians, and firms interact strategically. There is extensive research describing how voters and politicians interact that focuses on retrospective voting and policy provision (Lewis-Beck and Stegmaier, 2000; Healy and Lenz, 2013). There is also a growing literature interrogating how firms use various tools they have to influence politicians (Eggers and Hainmueller, 2014; Bertrand et al., 2020). These analyses typically treat each other as exogenous, with studies on a firm's campaign contributions and lobbying ignoring the relationship between the politician and her constituents, and studies on representatives and responsiveness sidelining firms as strategic actors. By focusing on the subsidiaries opened by firms, and therefore the jobs that are created to employ constituents as an outcome, our analysis explicitly brings electoral competition into the relationship between politicians and firms (Bonardi, Hillman and Keim, 2005; Bandeira-de Mello, 2016; Raiha, 2017).

Our framework carries provocative implications for the broader secular patterns of

competition in the political and economic domains. As politics becomes more competitive (Lee 2016), and the market becomes less so (Autor et al. 2020), the political influence of business grows. Taken to the extreme, insecure incumbents whose electoral fortunes hang by a thread will compete for the jobs provided by an increasingly monopolistic number of firms. Our paper highlights the implications of how diverging patterns of electoral and economic competition can change the amount of influence that large firms can wield in the political system.

On the one hand, these dynamics are arguably welfare-enhancing if all one cares about is employment. But on the other, they facilitate an increasingly illiberal market economy. We leave these implications to future research, and focus in the remaining pages on describing the relationship between electoral competitiveness and firm investment.

Voters, Politicians, and Jobs

The political consequences of economic conditions have received copious attention from scholars. Political science has established the primacy of "the economy" in determining reelection prospects across a variety of offices (e.g., Tufte 1978; Erikson 1989; MacKuen, Erikson and Stimson 1992; Lewis-Beck and Stegmaier 2000). The heightened attention to the relationship between economic and electoral outcomes seems natural given that voters often use actual or perceived economic conditions as core metrics upon which they evaluate competing candidates (Kramer 1971; Hetherington 1992; Healy and Lenz 2013). Among the various economic conditions that concern voters, jobs are consistently among the top campaign issues, with voters citing the employment rate as one of their top priorities. For example, according to Gallup's 2014 survey, 89% of Democrats and 83% of Republicans rated the availability of good jobs as extremely or very important.[2] Given this pattern in public opinion, we posit that, regardless of party or ideology, creating jobs is a central

[2] https://news.gallup.com/poll/178133/economy-government-top-election-issues-parties.aspx (accessed September 14, 2020)

issue for an incumbent politician. On its face, such a claim seems obvious.

But do politicians recognize this importance? And if so, does the risk of losing an election prompt them to be more cognizant of the importance of jobs? Anecdotal evidence is abundant. In 2019, Congressman Steven Palazzo (R-MS04) tweeted that a new Google Operations Center will open in northwestern Mississippi in the following year and that the investment would bring more than 350 jobs to the area.[3] Similarly, after thousands of workers were laid off after the General Motors plant shut down in Ohio's 13th congressional district, job creation was a key issue for the incumbent Democrat Tim Ryan who faced the Republican challenger Christina Hagan (Huntsman, 2020). Congressman Ryan co-founded the House Manufacturing Caucus to promote policies that help firms and workers in manufacturing sectors.

To investigate these anecdotal pieces of evidence, we examine what members of Congress say in press-releases and speeches on the floor of Congress. Existing research shows that press-releases and congressional speeches are good measures of politicians' rhetoric on their expressed priorities and attention to issues (Grimmer 2010, 2013; Gentzkow, Shapiro and Taddy 2019). Press-release data comes from LexisNexis® Congressional, covering the period from 1992 to 2018. Congressional speech data come from Gentzkow, Shapiro and Taddy (2019) and cover the period 1981-2016. These latter data are pre-processed and labeled by the researchers. We also apply the same set of labels from Gentzkow, Shapiro and Taddy (2019) to the press-release data.

Figure 1 illustrates the distribution of domestic topics (excluding foreign and defense topics, as well as procedural topics related to federalism and the government) discussed in the press-release on the left, and congressional floor speeches on the right. As illustrated, the two most discussed domestic topics in the press releases are those pertaining to "labor" and "business." The "labor" category in Gentzkow, Shapiro and Taddy (2019) includes the following phrases: job creation, create job, job creator, pay roll, minimum

[3] https://twitter.com/CongPalazzo/status/1208080575464198147 (accessed September 14, 2020)

wage, unemployment insurance, pension also, and unemployment benefits. The "business" category also refers extensively to labor, particularly as it connects with different industries (i.e., industri labor, agricult labor, capit labor, commerc labor). Furthermore, while there are some notable differences in the weight placed on topics in press releases versus those most emphasized in floor speeches, again we note the preeminent position held by labor-related categories in the speech data. On the floor of Congress, members of the House only discuss health care more frequently than business and labor, and this pattern is driven primarily by the terms in which President Obama was pursuing and then implementing the Affordable Care Act.

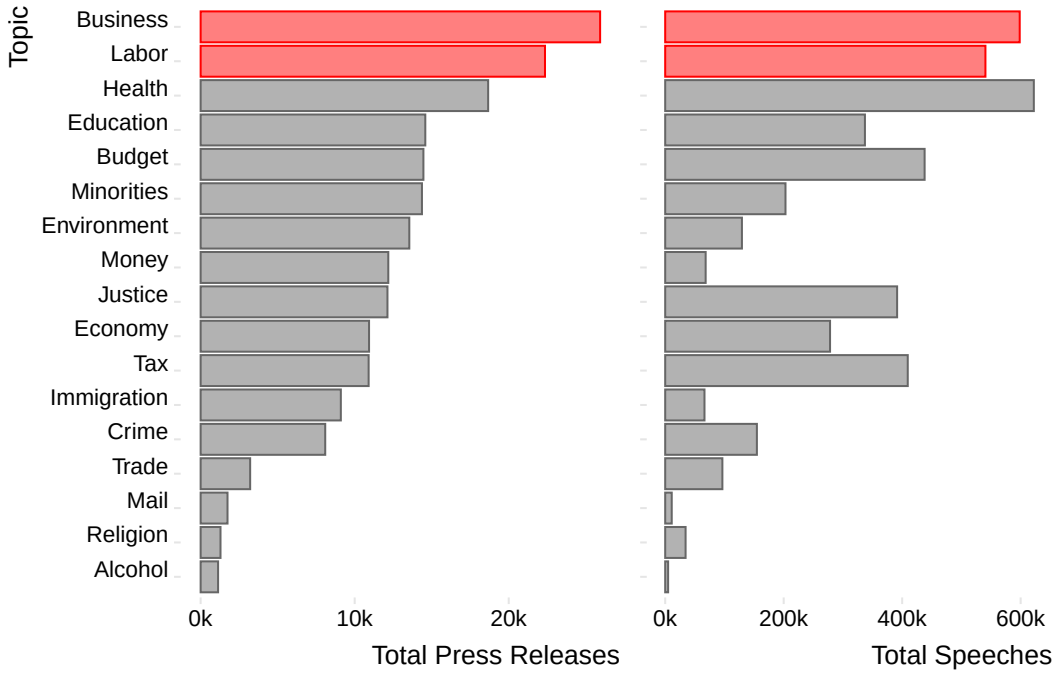

Figure 1: Distribution of topics by all press releases (left) and speeches (right). Topics relating to jobs colored in red, domestic issues colored in dark gray, non-domestic issues colored in light gray. Press release data cover period from 1992 to 2018. Speech data cover period from 1981 to 2016.

That the topics of labor and business command such prominence among all press-releases and speeches given by members of the House of Representatives should hardly be surprising. After all, the predictive power of the economy (measured in terms of the stock market, the unemployment rate, or GDP) on incumbent vote share is one of the

most ironclad empirical laws in political science (Erikson, 1989; Nadeau and Lewis-Beck, 2001). But given that voters and politicians care so deeply about jobs, shouldn't firms capitalize on their ownership of this uniquely politically important resource? We turn our attention to this question in the following section.

The Political Logic of Job Creation

Given the importance of job creation to an incumbent's reelection, do firms exploit this source of influence? Existing research has considered firms as strategic actors primarily as users of campaign contributions and lobbying (e.g., Kim 2017; Rickter, Samphantharak and Timmons 2009; Fouirnaies and Hall 2018). More recent work has expanded the range of possible tools, such as appointing former politicians to a firm's board of directors (Palmer and Schneer, 2016). Other unconventional strategies include strategic charitable giving wherein firms target charities located in the congressional districts represented by legislators serving on important committees (Bertrand et al., 2020). Evidence from Italy suggests that firms move resources to benefit a politician as a type of "indirect" lobbying (DellaVigna et al., 2016).

Yet very little scholarly attention has been given to the strategic use of the firm's asset most valuable to a politician – the jobs it creates – and how it could be used to build networks of political influence (Bertrand et al. 2018). We argue that the value of these jobs to a politician's reelection chances makes them a potential tool of influence. The overarching intuition is straightforward, and visualized as a flow diagram in Figure 2. Voters care about jobs, politicians care about votes, and firms care about political influence. As such, firms provide the jobs valued by voters to improve an incumbent's chances of reelection, and the politician rewards the firm with policy favors or subsidies.

Given that opening a new subsidiary is costly, firms only undertake this form of investment where they are confident that the incumbent politician will 1) benefit from the

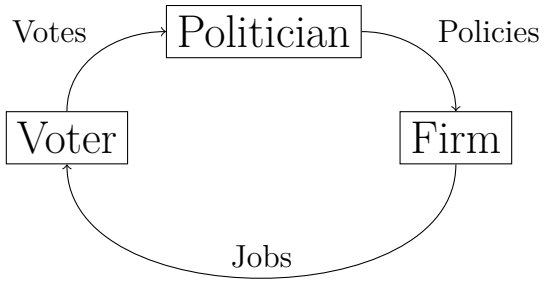

Figure 2: Theoretical equilibrium in which voters value jobs which are provided by firms; firms value policies which are provided by politicians; and politicians value votes which are provided by voters.

investment and therefore 2) exert more effort to reward the firm. We argue that it is therefore most likely that firms will target politicians in electorally competitive districts. Those in safe seats may not need – and therefore not reward – the marginal jobs provided by these investments. Raiha (2017) develops a formal theory of a strategic firm's "Economic Influence Activities" (EIA) that encapsulates our intuition. Economic influence activities, such as opening a factory in a district represented by a particular incumbent, can benefit a politician by changing the voters' information about the incumbent's quality. Importantly, the marginal benefit of EIA – both to the politician in terms of improving their reelection chances and, correspondingly, to the firm's influence over politician – is higher in electorally competitive districts.

However, this type of strategy is not equally available to all firms. In all cases, we expect that the investment in a subsidiary is costly, and that part of the cost is offset by the economic revenues generated by the subsidiary. Thus, firms in industries that are constrained by geography, such as those in mining or agricultural sectors, are less able to use this type of political strategy. A mining company cannot easily dig a new mine on barren land, for example.

Similarly, it is relatively simple for a firm like Bank of America to open a five-person branch in the span of a few months, or for a Gap clothing store to open an outlet in a few weeks. All they must do is to identify a space for lease, hire interior designers to re-fit the

space, and staff it with local voters. Although the political return on opening an assembly line that adds 500 additional jobs is undoubtedly high, larger subsidiaries take longer to open and represent a risky investment for the firm so there may be less room for political considerations to play a role.

This intuition generates three empirical implications that we take to the data. First, the incumbent's reelection prospects must be in question. If the incumbent's reelection chances are assured, the firm's offer of new jobs will not be worth the cost of the policy favor. Thus, we expect that firms are more likely to invest in electorally competitive districts. Formally, **H1:** *Firms are more likely to open a new subsidiary in an electorally competitive district.*

Second, we expect that certain industries will be better able to engage in this type of political influence investment than others. Those industries that are tightly constrained by geography–requiring either a certain arability of land or a certain distribution of natural resources–will be less free to select the location of their subsidiaries based on political calculations. Formally, **H2:** *Firms in industries where production is more constrained by geography will be less likely to open a new subsidiary in an electorally competitive district.*

Third, the new jobs must be costless enough to justify the investment for the firm. If the investment requires the construction of a new building and the hiring of several hundred local workers, it is likely too costly to be used for only the purpose of political influence. Therefore, we expect that the political logic of job creation is more visible in the investment decisions of smaller subsidiaries. Formally, **H3:** *Firms will be more likely to use small subsidiaries when opening a new subsidiary in an electorally competitive district.*

In the following section, we take these predictions to the data, beginning with a description of our empirical context of the United States.

Data and Methods

To test our theoretical expectations, we use a rich dataset containing the universe of firms in the United States, including both parent headquarters and subsidiary establishments.These data cover the period from 1997 to 2018, yielding 22 years of variation in which parent companies could choose to open one or more subsidiaries in a particular location. Our main results focus on the top 500 firms defined by the total number of subsidiaries in 1997.[4] In our extensions, we examine the heterogeneity of these findings across different industries. Figure 3 visualizes the structure of our data for an example of a parent firm in 1997: the Ford Motor Company. The figure underscores the non-uniform distribution of Ford's subsidiaries across the political geography of the United States, with some districts containing multiple subsidiaries within their borders, and others containing only a few or none.

We are interested in the degree to which the political environment in districts predicts a firm's decision to open a new subsidiary. To empirically test our claim that subsidiaries are strategic tools of parent firms, we organize our data dyadically by mapping each parent company to every congressional district in a given year. We then calculate our main outcome measure of interest – an indicator for whether any new subsidiaries were opened by a given parent company in a given congressional district in a given year. In addition, we calculate several alternative measures of the outcome, including the number of subsidiaries (raw and logged), the number of employees in these subsidiaries (raw and logged), the change in the number of subsidiaries, and the total new workers employed (logged). We argue that the indicator variable for whether a firm invests in *any* new subsidiaries best captures the concept of investing in a subsidiary as a political strategy. However, we confirm that our conclusions are robust to replacing this indicator with continuous measures of the level of investment.

[4]We define the scope of our analysis at the start of our data collection to avoid selecting on the dependent variable. We confirm that our results are robust to alternative measures of size, including total employees and total revenue, although we emphasize that all three measures are highly correlated.

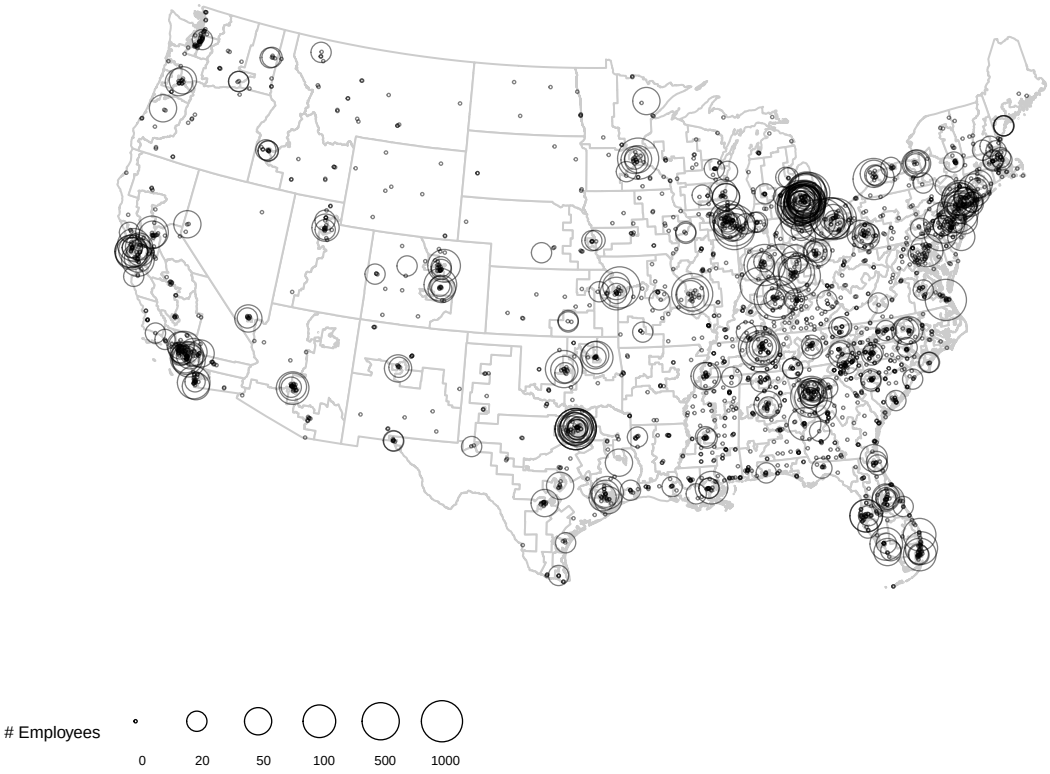

Figure 3: Distribution of subsidiaries (sized by total employees) for Ford Motor Company in 1997.

Our main specification predicts the appearance of any new subsidiaries of parent firm f in a district i in year t as a function of characteristics of the representative, characteristics of the local economy, and characteristics of the prevailing policy environment. Formally, we predict the change in the number of subsidiaries as follows:

$$y_{ift} = \gamma_i + \alpha_f + \delta_t + \beta \mathbf{Political}'_{it} + \Gamma \mathbf{Policies}'_{st} + \Lambda \mathbf{District}'_{it} + \rho \text{poly}(t_{if}, 3) + \varepsilon_{ift} \quad (1)$$

y_{ift} is creation of new subsidiaries belonging to firm f in congressional district i at time t, and α_f, δ_t, and γ_i are fixed effects for the firm, year, and district respectively. We predict the appearance of a new subsidiary as a function of the political characteristics

($\mathbf{Political}'_{it}$) of the member of Congress representing district i; a vector of measures $\mathbf{Policies}_{st}$ of the state regulatory policies, including indices for taxation, spending, and right-to-work laws; and a set of district-level measures $\mathbf{District}'_{it}$ including the age and race of residents, the unemployment rate, the labor force participation rate, the share of the labor force employed in manufacturing, and the average weekly wages. We include this rich set of controls to account for economic considerations that might confound our estimates of the relationship between investment and politics. We select these measures based on a rich literature on the economic and social determinants of firm investment decisions, which emphasizes state-level corporate taxes and subsidies, and the skills and demographic factors of potential business sites such the age distribution and wealth of potential consumers, and the skill levels of potential workers (Bartik 1985; Eisinger 1990; Giroud and Rauh 2019).

The dyadic structure of our data means we have several million observations even when restricting attention to the top 500 firms. Because an inappropriate calculation of the standard errors would dramatically inflate the statistical significance of our results, we implemented dyad-cluster robust standard errors via the multiway decomposition method described in Aronow, Samii and Assenova (2015).[5]

Our main results use fixed effects for the district (γ_i), parent firm (α_f), and year (δ_t). In addition, we confirm our findings are robust to district-firm fixed effects, as well as firm-year fixed effects. In all of the most rigorous specifications, we further include a cubic polynomial for district-firm time trends ($\text{poly}(t_{if}, 3)$). In our Supporting Information, we implement the marginal structural model solution proposed by Blackwell and Glynn (2018), using a non-parametric random forest to calculate the propensity scores as a function of up to three lags for each of the political, economic, and demographic covariates we include to control for confounding.

[5]Estimation is computationally intensive, requiring several days of calculation on a powerful computing cluster. We created a publicly available `R` package that improves on the speed of the replication materials of Aronow, Samii and Assenova (2015). Results with two-way cluster robust standard errors are substantially more significant, and included in our Supporting Information for reference.

We also control for the incumbent's legislative effectiveness score (Volden and Wiseman, 2014), their seniority, dummies for whether they are a democrat, female, serve as a chair of a committee, and indicators for whether they serve on relevant congressional committees for firms. Members' committee assignments have been cited as one of the key drivers of firms' behaviors regarding campaign contributions and lobbying, the two most commonly studied political strategies that firms exercise (Grimmer and Powell 2016; Fouirnaies and Hall 2018; Kim and Kunisky Forthcoming). Therefore, we examine whether a member's *current* committee assignment also predicts a firm's strategy to open a subsidiary.

To define the relevant committee measures, we use firm-level lobbying data obtained from Kim (2018) and calculate the share of each industry's lobbying expenditures that go to members of Congress serving on different committees. For each broad industry, we define the most important committees as the top three most heavily lobbied over the period of analysis. Armed with these data, we then calculate the dyad-specific importance of each MC's committee assignments as either the count of important committees on which they serve (with a maximum of three), or the combined seniority across the committees on which they serve. Thus, a manufacturing parent company with two subsidiaries in California's 39th district in 2009 would be assigned a count of two and a combined seniority of five, reflecting the fact that Linda Sanchez (D) served on the Judiciary committee for four years and on the Ways and Means committee for one year.

Figure 4 presents the share of total lobbying expenditures spent on each committee by industry. As illustrated, the Ways and Means committee is among the most important to almost all industries in our data, followed by Energy & Commerce, and the Judiciary committees. The manufacturing sector is the most heavily involved in lobbying, followed by utilities and finance and insurance (FI), while arts & entertainment (AE) and agriculture are among the least involved.

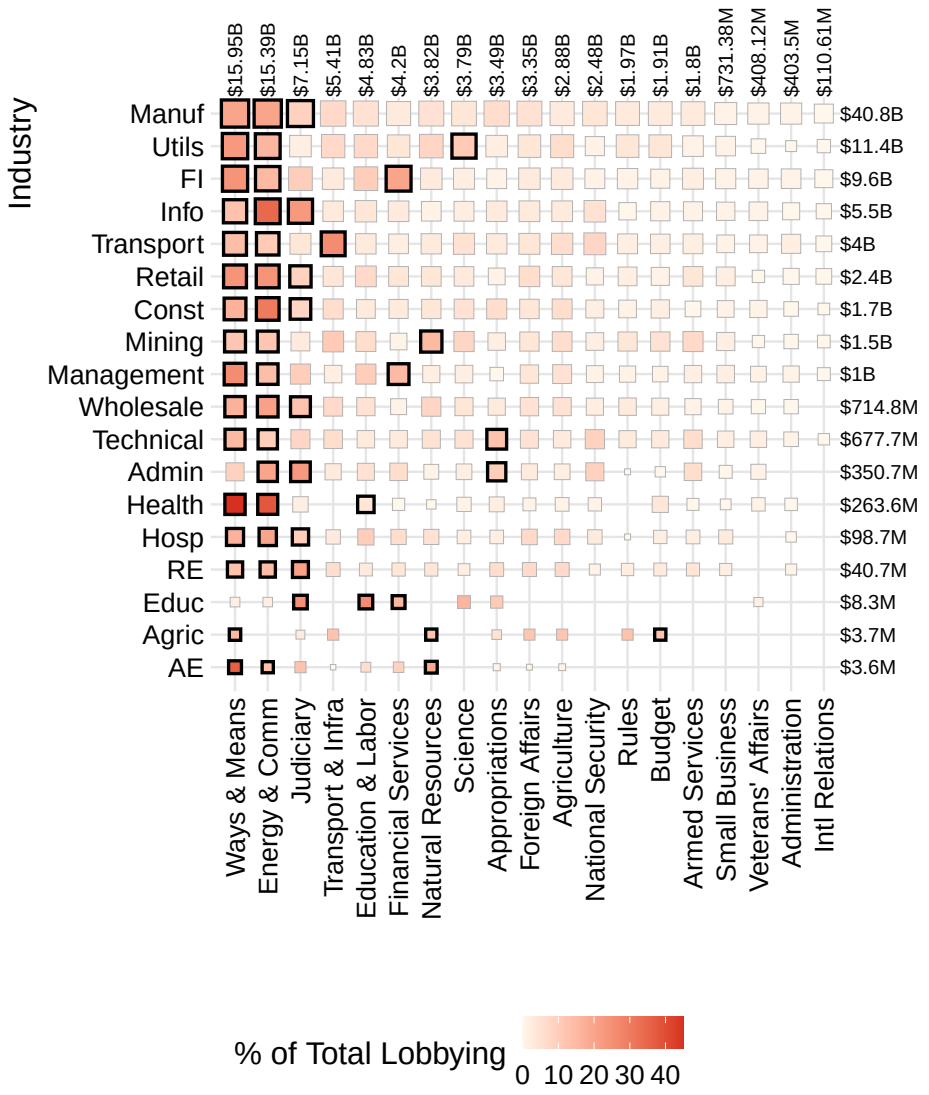

Figure 4: Share of total lobbying contributions to congressional committees (x-axis) by industry (y-axis). Tiles are shaded by the share of an industry's total contributions going to a given committee, and sized by the logged total amount. The top-3 recipient committees by industry are indicated with black borders, while the full amounts spent by industry are indicated on the right-hand y-axis, and the full amounts received by committee are indicated on the top x-axis.

Electoral Competition and Firm Behaviors

We start by estimating the specification given in equation 1, the results of which are summarized in Table 1. We focus on the binary outcome which captures whether the firm has opened any subsidiaries in a given district. As we move left to right across column, we

increase the number of controls and the rigor of the fixed effects. In every condition, we find consistent evidence that less competitive districts are less likely to be the destination for a new subsidiary.

Table 1: Subsidiary Investment ∼ Location Characteristics

	Bivariate	Politics	District	Regulation	Cubic Trends	FE 2	FE 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incum. Vote %	-0.007^{***}	-0.007^{***}	-0.006^{***}	-0.006^{***}	-0.006^{***}	-0.006^{***}	-0.013^{***}
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
N	2.17M	2.17M	2.03M	2.03M	2.03M	2.03M	2.03M
R^2	0.095	0.095	0.097	0.097	0.097	0.484	0.078
Incumbent Controls		✓	✓	✓	✓	✓	✓
District Controls			✓	✓	✓	✓	✓
State Controls				✓	✓	✓	✓
Firm FE	✓	✓	✓	✓	✓		
District FE	✓	✓	✓	✓	✓		
Year FE	✓	✓	✓	✓	✓		
Firm-District Trends					✓	✓	✓
District-Firm FE						✓	
Firm-year FE							✓

Notes: Firm investment in subsidiaries predicted as a function of location characteristics, including politician-level covariates, state-level regulatory covariates, and district-level covariates. All standard errors calculated via dyad-cluster robust multiway decomposition, as described in Aronow, Samii and Assenova (2015) † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Our findings suggest that, contrary to existing economic work on firm behaviors (Kelly, Pástor and Veronesi, 2016; Hassan et al., 2019), larger incumbent vote margins are negatively correlated with the decision to open a subsidiary. The magnitude of this coefficient corresponds to a parent company being at least half a percentage point less likely to open a subsidiary for each standard deviation increase in the incumbent vote share (∼13 points). Across our data, a given parent opens a subsidiary in a given district in a given year approximately 16% of the time, meaning that the most conservative coefficient represents a 4% decrease in the empirical probability a subsidiary is opened. The largest estimate in column 7 corresponds to an almost 10% decrease in the probability a new subsidiary is opened for each 13 additional percentage points in the incumbent's margin.

Alternatively, we can evaluate the magnitude of the correlation with reference to the controls. The standardized regression coefficients allow us to compare magnitudes across predictors, underscoring that the relationship between incumbent vote share and opening

a new subsidiary is commensurate to most other predictors with the exception of population and the proportion of the district's population that is white.[6] And in contrast to recent work that finds a negative relationship between economic investments and political uncertainty, our findings suggest that political uncertainty attracts a specific type of investment.[7]

These findings are robust to a variety of additional tests presented in the Supporting Information, including alternative measures of a firm's investment decisions (the total number of new subsidiaries, the total number of new jobs created by these investments, the level of each of these, as well as their logged measures); placebo tests for the parallel trends assumption in which we confirm that the results only obtain in the current and once-lagged congressional terms; an exhaustive set of controls capturing the cumulative seniority of each incumbent on every house committee; adding covariate balancing propensity scores (CBPS, Imai and Ratkovic 2014) to reweight non-competitive districts to better resemble competitive districts; and alternative estimation strategies that replace the dyad cluster-robust standard errors with those clustered at the district, and multilevel models in which firms are nested within districts and years. Across all alternative measures, tests, and specifications we find consistent and highly statistically significant evidence indicating that less competitive congressional districts are less attractive destinations for subsidiaries.[8]

Unanticipated Shocks to Electoral Competition

Although we show that there is a robust relationship between electoral competition and the probability of opening a subsidiary, the preceding results are purely correlational. There are several alternative mechanisms that could explain these patterns, including re-

[6]The full regression results are presented in the Supporting Information.

[7]Much of the recent work on political uncertainty relies on natural language processing (NLP) techniques to extract information from text. For example, Hassan et al. (2019) use text analysis of quarterly earnings conference call transcripts in which management discusses challenges to economic success.

[8]In addition, we explore sources of potential multicollinearity among the controls, finding that only the district's racial composition exceeds the variance inflation threshold of 5. Our findings are robust to dropping these controls.

verse causality and omitted variable bias. Reverse causality would require new subsidiaries to lead to lower winning vote margins, a conclusion that is at odds with common sense, as well as the data (see Figure 8 below). Regarding omitted variable bias, we argue that our thorough analysis of alternative fixed effects specifications restricts our identifying variation to only the annual changes in the investment decisions by a parent company and the political qualities of these districts. Nevertheless, there may be time-varying confounders that challenge the causal interpretation of our previous results.

As such, we test two additional specifications that exploit different sources of variation in the electoral competitiveness of the district. First, we identify every instance in which a representative left office in the middle of a term due to a scandal, illness, death, retirement, or another political appointment. We argue that these mid-term turnovers are plausibly exogenous sources of variation in the electoral competitiveness of a district. Importantly, if these events are unanticipated by firms, we would not expect to see any systematic relationship between the decision to open subsidiaries and these vacancies unless our theorized mechanism holds.

We recognize that these measures may not be robust sources of exogenous variation in the electoral environment of a given district. We augment our estimation strategy via weighting methods that non-parametrically weight the "treated" and "control" districts to more closely resemble one another, strengthening our claim of conditional independence between a firm's potential decision to open a subsidiary and the electoral environment of a given district. Specifically, we employ covariate balancing propensity score (CBPS) weights (Imai and Ratkovic, 2014). This method yields good balance on observable covariates, as illustrated in Table 1 in the Supporting Information.

Table 2 presents the results when we use the midterm turnover as a signal of electoral vulnerability. Column (1) presents the raw correlation between the midterm turnover and the probability of having any new subsidiary. Columns (2) and (3) show the results when we use fixed effects and matching. As a final test, we use the midterm turnover

dummy as an instrumental variable for incumbent vote share (Column 4 of Table 2). As illustrated, we find further evidence of a significant positive relationship between electoral vulnerability and the change in the number of subsidiaries that are opened in a district.

Table 2: Δ Subsidiaries $\sim$ Turnover

	Raw Data	FE	CBPS	IV
	(1)	(2)	(3)	(4)
Midterm Turnover	0.083^{***}	0.113^{***}	0.398^{***}	
	(0.024)	(0.029)	(0.105)	
IV Vote Share				-1.784^{*}
				(0.813)
District FE	N	Y	Y	Y
Year FE	N	Y	Y	Y
CBPS	N	N	Y	Y
1st F-Stat				8.16
Observations	3,278	3,278	3,227	3,227
R^2	0.042	0.289	0.507	-0.445

Notes: Change in subsidiaries predicted by whether the district experienced midterm turnover, due to either scandal, death, retirement, or political promotion. Standard errors clustered at the congressional district-term. † < 0.10; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Second, we identify every instance in which an incumbent was primaried by a challenger from her own party. The decision to run against a co-partisan incumbent is obviously endogenous to the incumbent's reelectability. However, primary challenges are often seen as a revelation of electoral vulnerability to the general public, if for no other reason than they reveal the incumbent's position within her party (Bond, Covington and Fleisher, 1985; Hogan, 2004). Favored incumbents can rely on their party to dissuade potential challengers from entering a race, although the inner-workings of party politics are typically unknown to the general public. Thus, we interpret the appearance of a challenger to be an unanticipated revelation of the lack of party support for an incumbent, and a shock to the firm's perception of the terrain of electoral insecurity. As above, we coarsen these data to a dichotomous treatment in which incumbents who were primaried are assigned a value of 1, and the rest are assigned a value of zero.

Again, the binary nature of this treatment simplifies the use of the matching and weighting strategies described above and we also obtain good balance between treated and control covariates (refer to the SI for these balance tests). We summarize the results of our analysis in Figure 5 which plots the estimated relationship between being primaried and the number of subsidiaries in a given district in a given year (y-axis). To test the robustness of our conclusions, we search across the most temporally proximate three elections, ranging from three terms in the future (corresponding to a lag of negative 3) to three terms in the past (corresponding to a lag of positive 3).

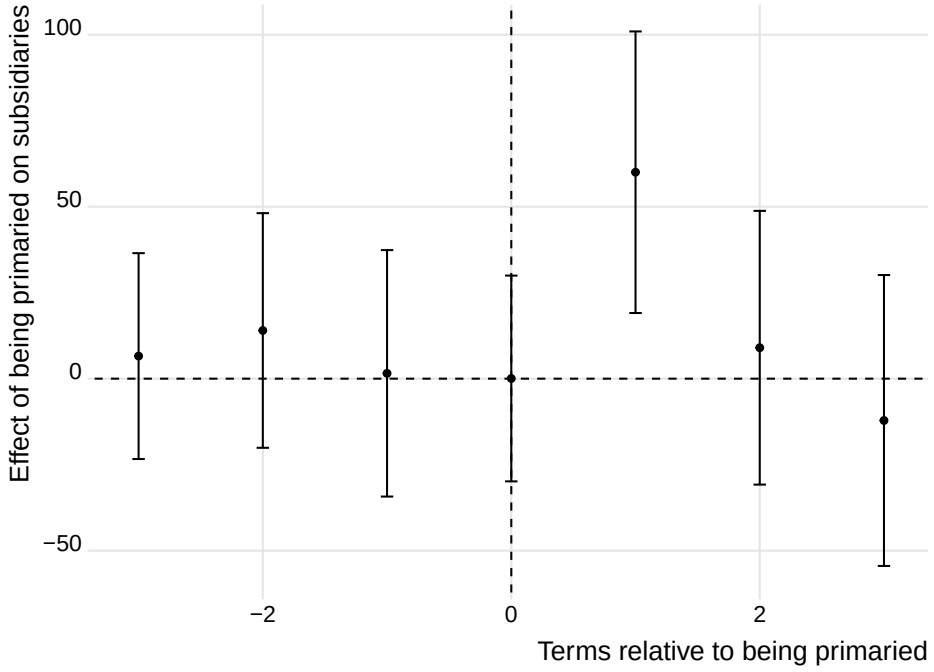

Figure 5: Coefficient estimates on whether an incumbent was primaried, estimated for different lags. Negative lags reflect future primaries and are consistently null. Positive lags reflect primaries in the immediately preceding election (lag = 0) and so on.

As illustrated, there is no evidence that a candidate being primaried in a future election predicts the number of subsidiaries invested in the current term. This reassures us of two things. First, there is no evidence of reverse causality. Second, these patterns are consistent with our assumption that being primaried constitutes a revelation about the incumbent's electoral vulnerability that the general public (or at least firms) did not

anticipate. The statistically significant evidence of increased investment in subsidiaries in the term immediately following the appearance of a primary challenger, which we argue is consistent with our theory.

Writ large, we find empirical patterns that are consistent with our story of firms targeting electorally vulnerable districts when investing in a new subsidiary. These patterns persist after absorbing unobserved characteristics among the firm, the district, and the year of analysis via fixed effects. We also show that plausibly unanticipated shocks to electoral competitiveness in the form of unexpected incumbent departures due to death, scandal, or political appointment predict greater probability of subsidiary investment, as does the appearance of a primary challenger. Each empirical result taken in isolation is insufficient to demonstrate a causal relationship between electoral insecurity and a firm's strategic decision. But taken together, we argue that the results consistently support our interpretation – firms invest subsidiaries in areas where they are more valuable to an incumbent politician, providing a greater return on the firm's investment in this political strategy.

Industry Heterogeneity

Our main results are estimated using the top 500 firms in the United States, measured by the number of subsidiaries. These data are consistent with our claim that opening a subsidiary is a political strategy that builds a link between a firm and a politician. However, do these results hold for other types of firms? We posit that only certain firms are 1) able and 2) interested in using their subsidiaries as strategic political tools.

First, it is difficult to imagine that the political strategy dimension is particularly important for certain types of parent companies, such as smaller operations or those whose subsidiaries are more constrained by non-political geography. For sectors such as mining and agriculture, the location of a subsidiary is highly geographically constrained, theoretically precluding the use of subsidiaries in this fashion. Second, the number of jobs

a firm can provide within a subsidiary influences the utility of this strategy. It is hard to imagine that a politician – even an electorally insecure one – cares about a subsidiary that creates only one or two new jobs. Conversely, smaller subsidiaries consisting of only a few employees in easily leased spaces are nimbler and it is easier to use them to build ties with electorally insecure incumbents.

Figure 6 plots the estimates linking political uncertainty with the probability of opening a new subsidiary for the top 500 firms by sector (y-axis). As expected, we find no evidence of the strategic use of subsidiaries for those industries most constrained by geography (agriculture, mining, and construction). As we move down the y-axis, we see increasing evidence of electoral competitiveness attracting subsidiary investments for parent firms in certain sectors. The most striking patterns exist for the manufacturing, FIRE, services, retail, and wholesale sectors, for which the decision to invest is significantly negatively correlated with incumbent vote share. These coefficient magnitudes are commensurate to those given in Table 1, representing roughly half a percentage point decline in the likelihood the firm invests in a subsidiary for each standard deviation increase in the incumbent's vote share.

As an alternative test, we return to the combined data and calculate the degree of geographic concentration for each parent company at the start of our data in 1997 using a Herfindahl-Hirschman index (HHI). Formally, for parent company f, we calculate the share of all subsidiaries that are located in district i in 1997, $s_{i,f}$. The HHI is $HHI_f = \sum_i s_{i,f}^2$, ranging between 0 (meaning very geographically diffuse) and 1 (meaning entirely geographically concentrated). We re-estimate Equation 1 interacting the incumbent vote share with the parent company's HHI, the marginal effects for which confirm that the least geographically constrained parent companies are most sensitive to the electoral competitiveness when deciding where to open a new subsidiary (see Figure 7).[9]

Finally, we also confirm that the political logic of creating jobs is most visible among

[9]We only can include year and district fixed effects in this specification as the parent company fixed effects are perfectly collinear with the HHI.)

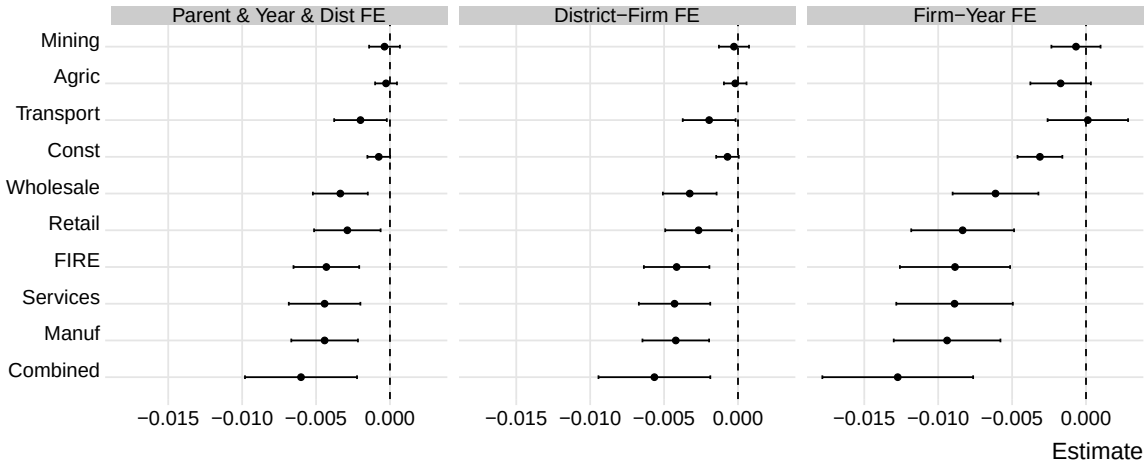

Figure 6: Correlations between the decision to open a new subsidiary and the two-way incumbent vote share from the prior election for the largest 500 parent firms by industry (y-axis), for different choices of fixed effects. All coefficients are estimated with the full set of political, local, and regulatory controls, along with cubic polynomial time trends for the firm-district.

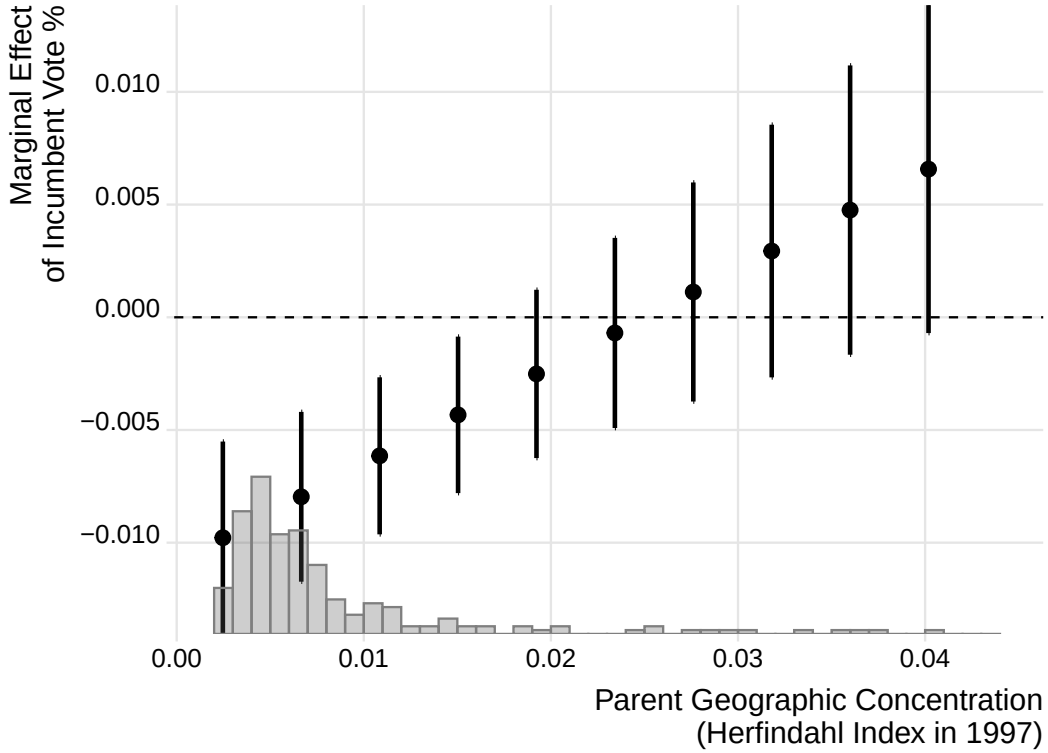

Figure 7: Marginal effects (y-axis) of the incumbent vote share in district i on the probability a parent company opens a new subsidiary in year t, across parent company geographic concentration measures (x-axis), calculated as their Herfindahl-Hirschman index in 1997.

subsidiaries that require relatively costless investment. Figure 8 in the Supporting Information shows that our results are strongest for the smallest subsidiaries, and weakest for the largest. Furthermore, the relationship between size and strategy is linear. This supports our empirical expectation that firms are more likely to employ opening subsidiaries as a political strategy when it is relatively quick and easy. Overall, these results confirm the conjecture that using subsidies as political tools is a strategy available only to certain firms.

Political Consequences of Local Job Creation

Our preceding analyses illustrate a striking empirical regularity in which a firm is more likely to open a subsidiary in a more electorally competitive district. We show that unexpected variation in this competition (from the perspective of the firm) – stemming from either the departure of an incumbent due to retirement, death, scandal, or promotion; or due to a primary challenger – is also predictive of new subsidiaries appearing. That these patterns occur after controlling for politician, district, and firm characteristics, as well as any time-invariant features of these through fixed effects, suggests that we are recovering the independent relationship between a firm's decision to open a new subsidiary and the electoral competitiveness of their location of choice.

These patterns are consistent with our theoretical intuition that firms use subsidiaries as a political investment, indicated in the bottom part of Figure 2. However, there are two other links in this circular flow. First, it must be the case that voters who perceive this job creation reward the incumbent at the ballot box. Second, the politician must repay the firm in some way. In the following section, we test whether these additional links in the theoretical chain exist in the data.

First, our intuition hinges on the assumption that the incumbent is more likely to be reelected if we observe firms investing in their district. If the politician is not reelected,

they cannot reward the firm, meaning that the rational firm would not invested in the first place. To examine whether this prediction is upheld in the data, we conduct a descriptive survival analysis in which we calculate the probability that an incumbent retains office as a function of the total subsidiaries that are created in a given year. As illustrated in Figure 8, the evidence supports this corollary of the model – politicians whose districts receive greater investment by firms retain office longer than those who are not targets of firms' investment decisions.

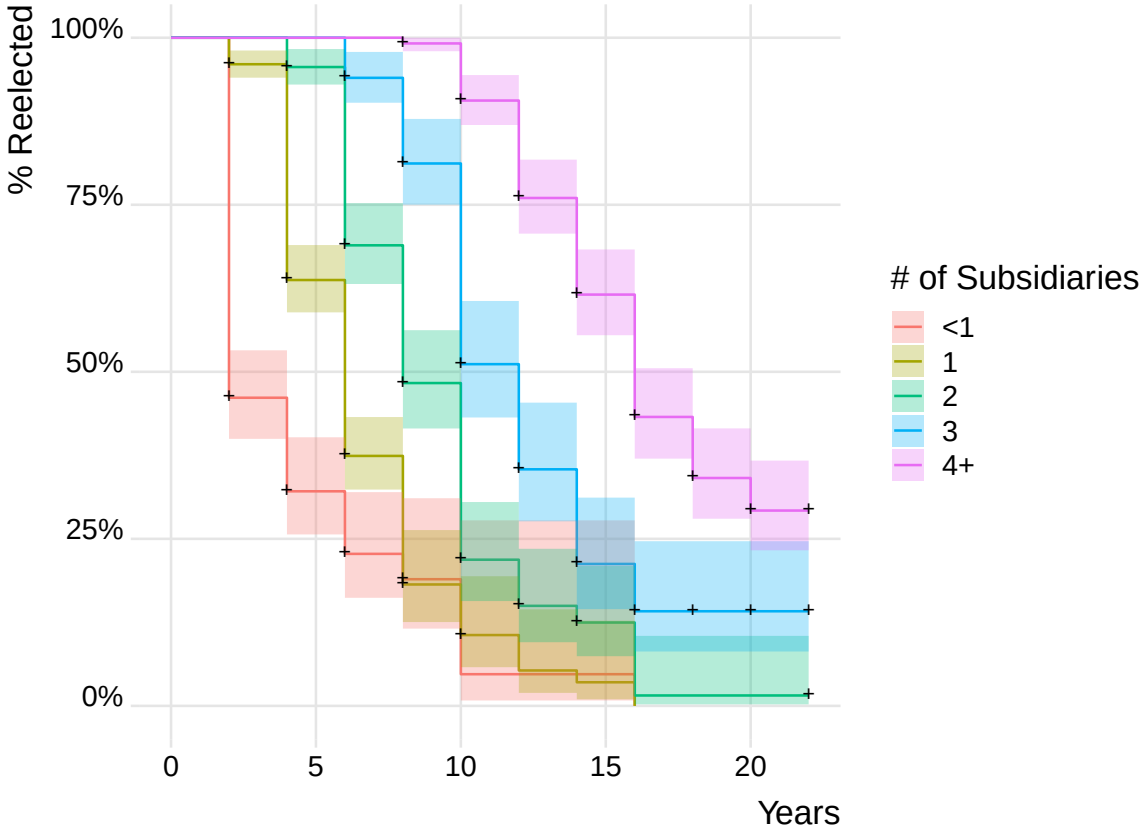

Figure 8: Survival rate of politicians separated into the average number of new subsidiaries invested in their districts in a given term. Politicians who enjoy more subsidiary openings in their district are more likely to be reelected.

Second, a firm engages in this type of political strategy because it hopes to obtain some type of policy favor in return. The specific form of the favor varies. Existing studies show that state and local governments offer direct subsidies and tax breaks to

firms that open factories and facilities in their jurisdictions (Jensen and Malesky 2018). As federal-level policymakers, members of Congress are more constrained than state and local-level politicians when it comes to providing a direct subsidy or tax break. But there are plenty of other methods for providing political favors to firms that are available to federal politicians. For example, members of Congress frequently contact federal agencies such as the Internal Revenue Service or the Environmental Protection Agency to represent the interests of businesses their districts (Ritchie and You 2019). Alternatively, members of Congress can incorporate business preference into legislation, either at the stage of drafting a bill or, once a draft has been written, shepherding it through congressional committees. Finally, while not as nimble at directing funds as state and local politicians, federal politicians can allocate federal subsidies and grants to reward firms in their district.

Among multiple options, we focus on the committee membership and posit that members of Congress can provide policy favors to firms by serving on committees that are relevant to the firms. This is in contrast to extant literature that characterizes how firms *respond* to changes in the committee assignment of politicians. Instead, we flip the causal order and argue that politicians may change the committee assignment *in response to* firms' investment in their districts. We examine whether firms that invest in subsidiaries are more likely to benefit by measuring the appointment of each member of Congress to committees that are particularly valuable to firms, relying on lobbying data to identify which committees are most valuable as described above in Figure 4. We posit that appointment to a valuable committee is evidence of a political benefit enjoyed by a firm that invests in a given member's district.

We again rely on survival analysis for these results, measuring the difference in how long a politician serves on a congressional committee that is valuable to the firm who invests in a new subsidiary at time t_0. We bin the number of subsidiaries by quartile and compare the survival among politicians with the fewest firms in their district to those with the most. We focus our attention on the Ways and Means committee, which is consistently

among the top three targets of industry-level lobbying. Doing so ensures we are comparing apples-to-apples when testing whether certain industries benefit from their political investment strategies. As illustrated in Figure 9, we find striking evidence of politicians surviving longer on the Ways and Means committee when their district is home to the top quartile of subsidiaries in manufacturing and retail industries. Conversely, we find only mild evidence of a benefit when focusing on subsidiaries in the agriculture and mining industries. We present the full results in section D of our Supporting Information, confirming that both the substantive and statistical significance of these differences is much stronger for those industries where we also find the strongest evidence of a politically-motivated investment in subsidiaries.

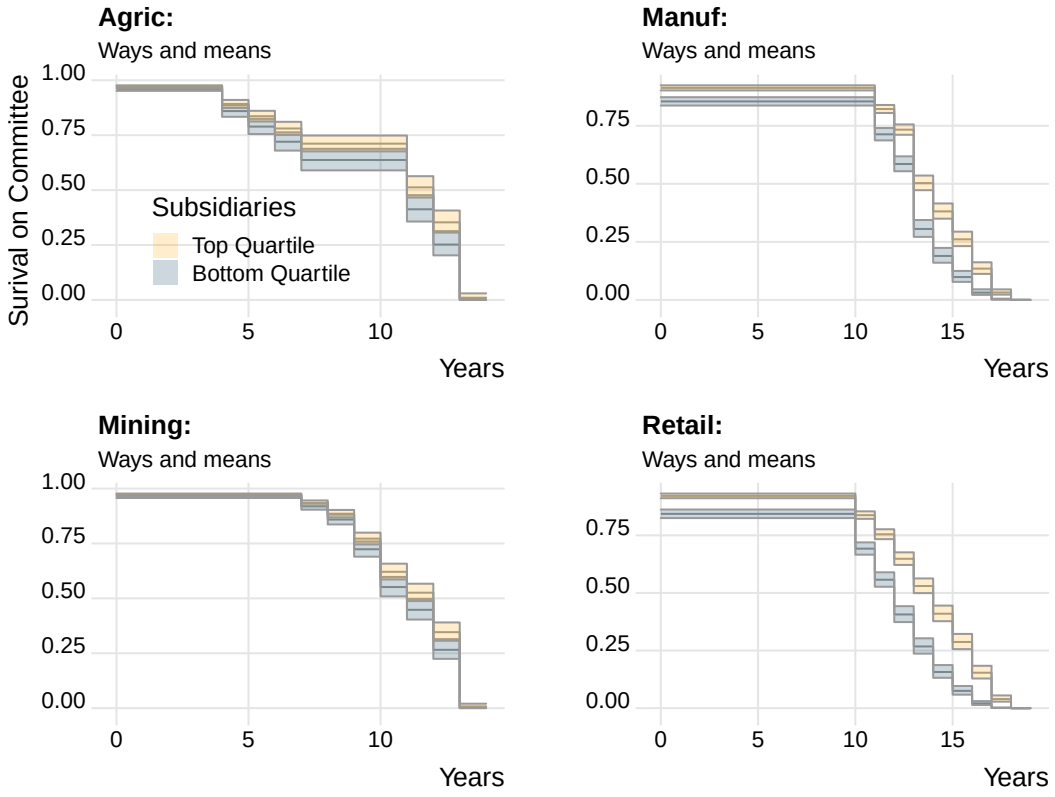

Figure 9: Duration of a politician on a valuable committee as a function of the number of subsidiaries opened by parent companies by industry. Light gray indicates the survival rate of politicians on valuable committees without any subsidiaries in their district. Black lines indicate survival rates for those politicians whose districts have one or more subsidiaries.

Conclusion

Job creation is preeminent among the dimensions on which voters evaluate their elected representatives. The importance of job creation to an incumbent's reelection chances provides a unique opportunity for firms to exert political influence by creating these jobs. Based on this intuition, we argue that investing in a new subsidiary is more than a purely economic decision. Subsidiaries create new jobs that are politically valuable to elected officials, which allows parent companies to use subsidiaries to build ties to politicians.

Using a rich dataset of parent and subsidiary locations across the United States between 1997 and 2018, we show that the choice of where to open a new subsidiary is related in unconventional ways with the political qualities of the incumbent representing a given district. First, we show that congressional districts represented by *less* electorally secure politicians are attractive destinations for subsidiaries. Second, we show that these incumbents survive in office longer following these investments, suggesting that the incentive pathway is active. Third, we show that these politicians serve longer on the Ways & Means committee when manufacturing or retail firms are the ones who invest, but not for similar investments by agriculture and mining firms.

We argue that these patterns reflect the marginal return on the investment in the subsidiary. To claim credit for creating new jobs is appealing to all types of politicians. However, it is less vital for incumbent politicians whose positions are secure. As such, strategic parent companies will allocate subsidiaries to districts with more competitive elections. We document important heterogeneity in these patterns across industries. We show that these political motivations are strongest in industries which are less geographically constrained, such as manufacturing, and are primarily found among smaller, more nimble, subsidiaries that only employ a few dozen workers. However, there is no evidence of similar dynamics at play among industries whose subsidiaries are more tightly constrained by geographic considerations, such as agriculture or mining.

Our research contributes a novel perspective on subsidiaries as a tool for firms' political

strategies. Unlike much of the existing research that focuses on a firm's purely economic investment decisions, we show that political instability is positively correlated with opening of new subsidiaries. This suggests that political instability could offer a higher return (but higher variance) for firms because electorally vulnerable politicians might be more willing to pursue policies preferred by the firms that offer jobs at the local level.

More broadly, our paper contributes to our understanding of the relationship between politics and business, with specific attention to how political competition influences economic competition. Recent scholarly work document broad trends that our findings speak to. On the one hand, American politics has grown increasingly competitive. First, there is growing evidence of a diminishing incumbency advantage (Jacobson 2015) in American politics. Second, electoral competition to control in Congress has been intensified since 1980, implying that parties and candidates focus more on electoral campaigns and strategies that can bring votes to them (Lee 2016). But while political competition has increased, market competition has dwindled during the same period. The birth of new firms has become less common and market power is more concentrated in handful of productive "superstar" firms (Autor et al. 2020).

Our paper provides a framework for understanding both of these trends in the political economy of American politics. We show that electoral competition is a key driver of firms' decisions to open a new business in a district. This implies that firms with more market power may have more advantages in exercising their political influence when electoral competition becomes more fierce. Consequently, this dynamic can result in more market concentration which will allow for a few firms to accrue more political power.

Examining the benefits and incentives that firms receive from government when they open subsidiaries in a new location and how voters evaluate the creation of local jobs through private firms are fruitful directions for future research to fully understand the economic returns of using opening a subsidiary as a political strategy.

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Supporting Information
Political Geography and Firm Strategies: How Electoral Competition Influences Local Job Creation

Abstract

Among the many promises made by politicians to their constituents, job creation is universal. Most jobs are created in the private sector and the jobs that firms provide are crucial to a politician's ability to successfully deliver on their campaign promises. Do firms strategically use job creation to exert influence? We take this question to the universe of firms in the United States between 1997 and 2018, linking each subsidiary to a congressional district. We find that firms open subsidiaries in more competitive districts, suggesting that firms employ politicians' constituents as a political strategy to build ties with vulnerable legislators. Unlike other tools of political influence available to a firm such as campaign contributions and lobbying, job creation is constrained by geography and time. We show that these patterns obtain only for firms in geographically flexible industries and that local job creation increases a politician's electoral survival.

10,239 Words
3,344 Appendix

Contents

A Data Creation and Summary Statistics

Our full data contains the universe of private sector firms and their subsidiaries in the United States between 1997 and 2018. Each year contains roughly 12 million observations for which we have detailed meta data of the firm's name, address, industry of operation, and a unique identifying code. In addition, we observe the total number of employees and value of sales at each location. Finally, each firm has a column for the parent firm identifying code.

We use congressional district shapefiles publicly available from (**?**) to assign each plant to a district. We then create a dyadic dataset with rows indexing parent companies by districts, and calculate the total number of subsidiaries, total employees, and total sales in each district associated with each parent company. We calculate changes in these values by year, and further dichotomize the change in subsidiaries to be 1 if there is one or more new subsidiary opened in a given year, and 0 otherwise. We then add district-level covariates including detailed information on their representative, and economic and demographic information taken from the Census.

In each year, there are approximately 24,000 parent companies with at least one subsidiary, yielding roughly 11 million parent-district observations. The number of subsidiaries associated with these parents varies dramatically, with the majority having fewer than 10, as illustrated in Figure 1. Look at the variation in job creation over time in Figure 2, in general the last 22 years have been a time of economic expansion.

What do these macro trends mean for our core measure of interest: whether a firm opens a subsidiary in a congressional district? In any given year, 50% of companies do not open any new subsidiaries, 15% open 1 new subsidiary, and 24% open more than 1 new subsidiary. Of those that open new subsidiaries, 72% are located in a district where the parent company does not yet have any subsidiaries.

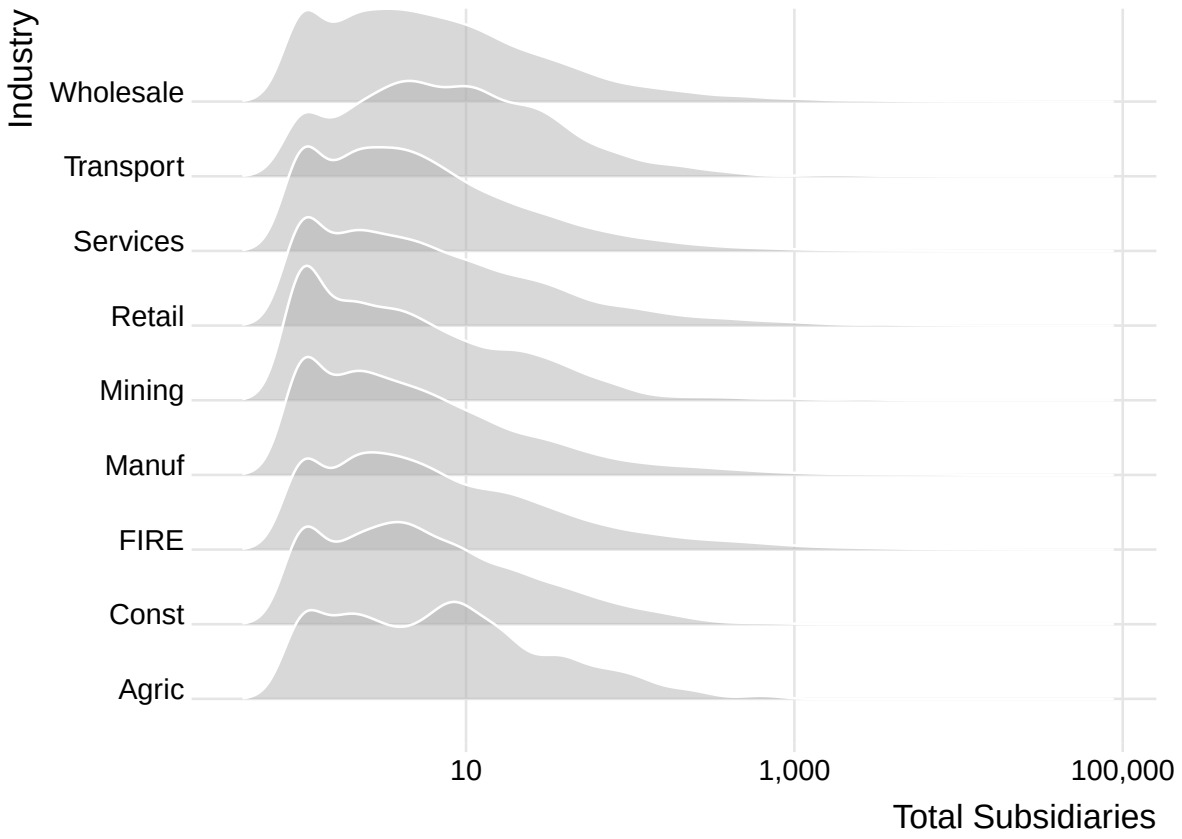

Figure 1: Distribution of subsidiaries by industry for universe of parent companies with at least one subsidiary.

B Variance Inflation

Our main specification controls for a number of different controls that are theorized to also influence a firm's decision about where to locate a subsidiary (Bartik 1985; Eisinger 1990; Giroud and Rauh 2019). These controls, while motivated by a rich body of literature on non-political factors, nevertheless risk producing brittle coefficient estimates due to multicollinearity. In the following analysis, we investigate the multicollinearity concerns via variance inflation factors (VIFs), and confirm our results are robust to omitting covariates that exceed a standard threshold of between 5 and 10 (see Craney and Surles 2002 for a summary).

Figure 3 plots the VIFs for our main predictors according to different specifications. As illustrated, the majority of our controls do not reach the thresholds typically understood

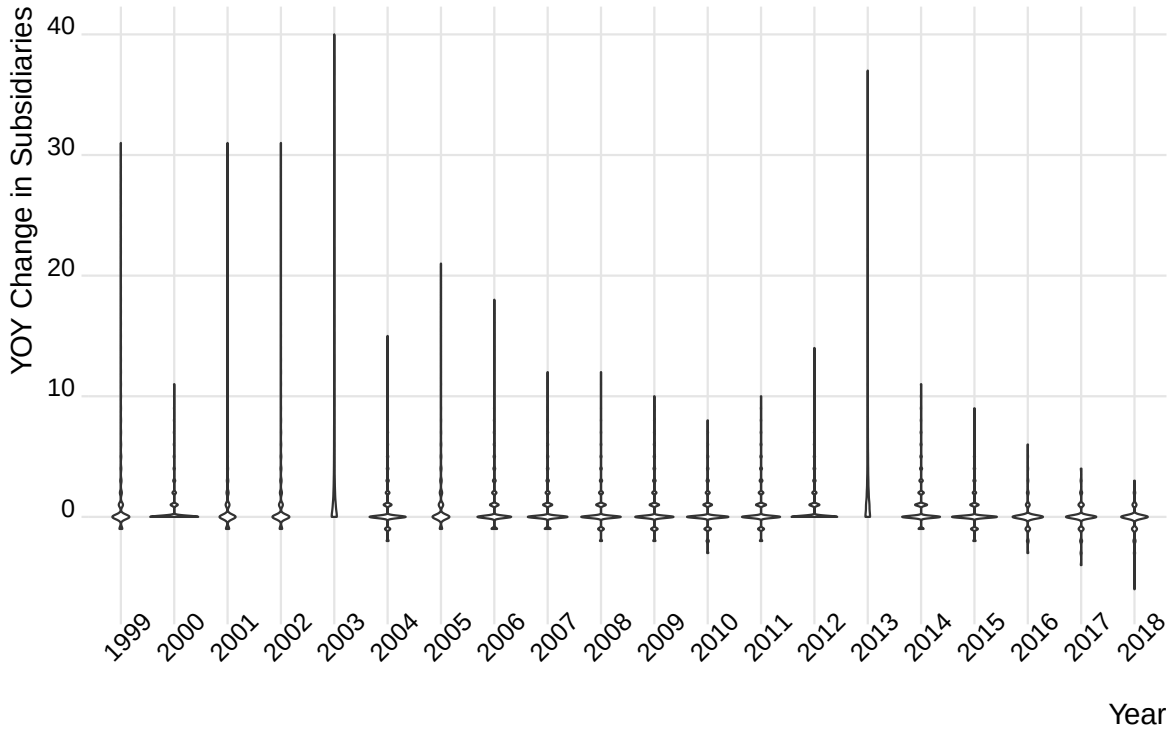

Figure 2: Annual year-on-year change in subsidiaries, dropping bottom and top 5%.

to be concerning for statistical inference. The exceptions are the demographic controls for race, particularly the measure of the proportion of the district that is white.

Dropping these covariates does little to our results, as evidence both by the robustness of our findings across different specifications in the main results, as well as by a separate set of regression in which we omit only these predictors from the most rigorous specification (see Figure 4).

C Balance Table

D Fixed Effects Robustness

Our main results use dyadic data with fixed effects for firms, districts, and years. In addition, we confirm our findings are robust to the inclusion of a cubic firm-district time

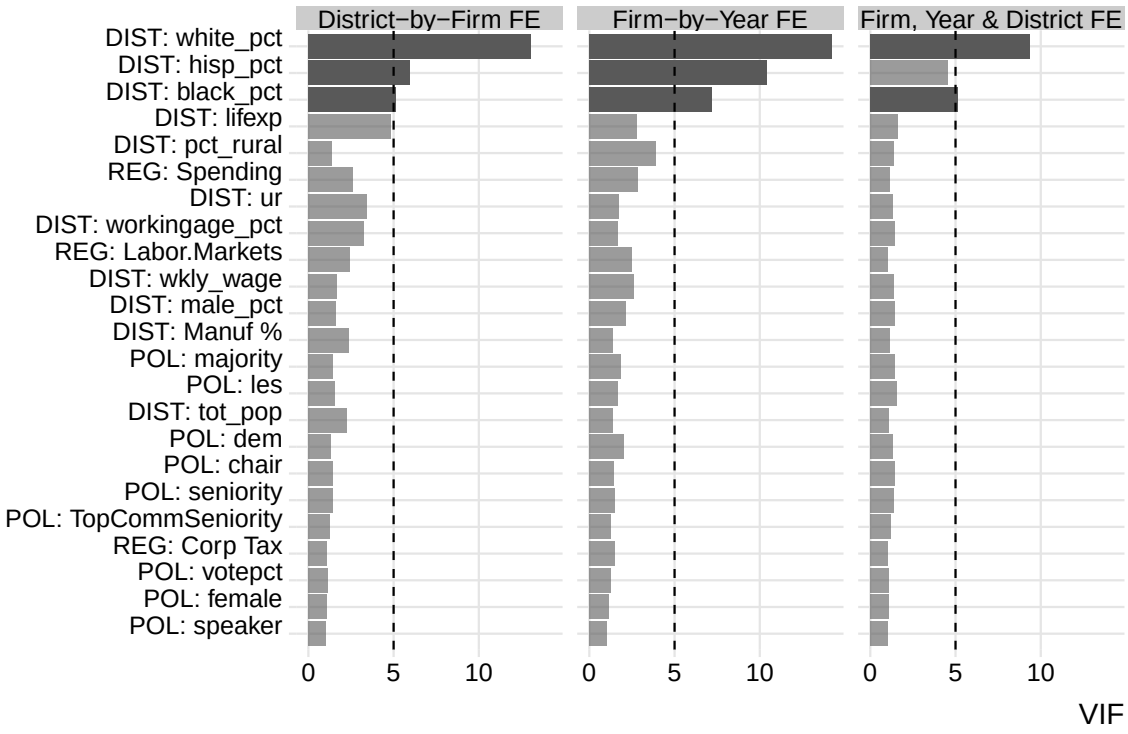

Figure 3: Variance inflation factors for all controls given different fixed effects.

Table 1: Balance table

Variable	Unm Diff	Unm Test	Matched Diff	Matched Test
Subsidiaries (lag)	0.340	Not Balanced, >0.05	0	Balanced, <0.05
MC Chair	0	Balanced, <0.05	0	Balanced, <0.05
MC WandM	-1.240	Not Balanced, >0.05	0	Balanced, <0.05
MC Democrat	0.030	Balanced, <0.05	0	Balanced, <0.05
District Unemp	0.490	Not Balanced, >0.05	0	Balanced, <0.05
District LFPR	-0.360	Not Balanced, >0.05	0	Balanced, <0.05
Dist % Rural	0.100	Not Balanced, >0.05	0	Balanced, <0.05

Notes: Balance statistics comparing the unmatched data to the matched along covariates.

trend as well as district-firm fixed effects and firm-year fixed effects.[1] We organize our data dyadically in order to (1) make the unit of empirical analysis equivalent to our unit of theoretical interest, and (2) to control for firm-specific committee assignments of the representatives in different districts.

However, it is also possible to collapse our data to the district-year or district-cycle

[1]We are unable to test the robustness to district-year fixed effects as these are collinear with the predictor of interest – electoral competitiveness.

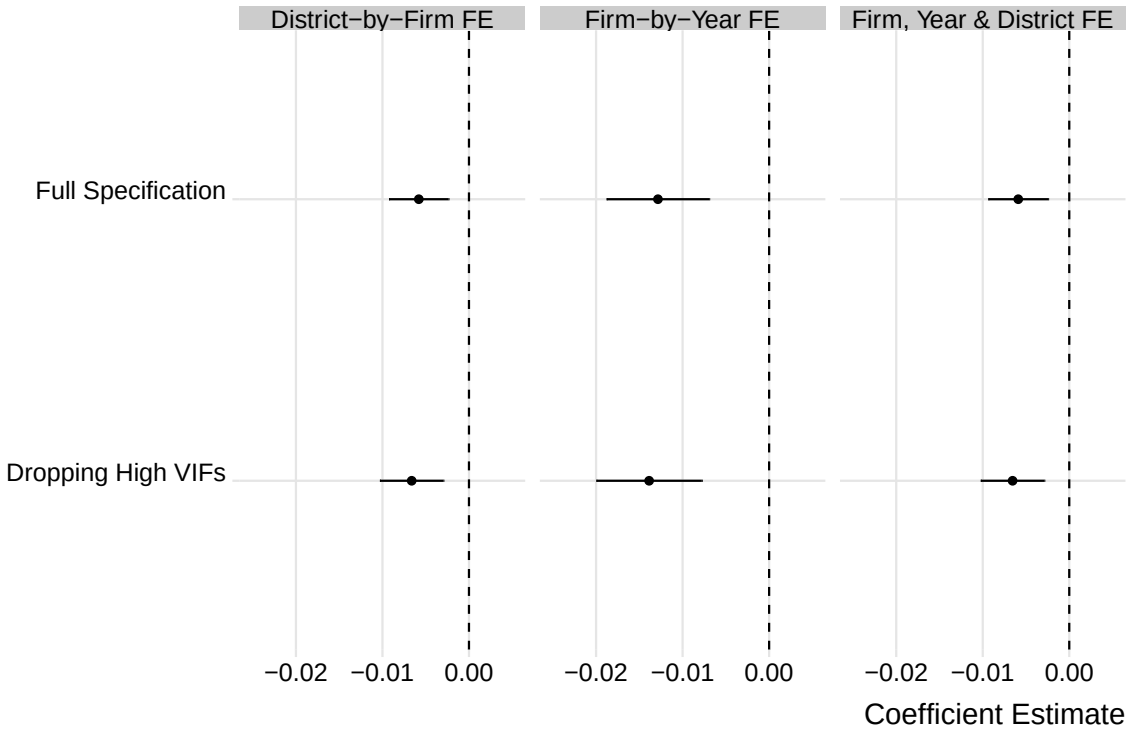

Figure 4: Main findings dropping predictors with VIFs higher than 5.

unit of analysis. This structure assumes that the attractiveness of different districts for subsidiaries is constant across firms, but allows us to capture the aggregate impact of electoral competitiveness on new subsidiaries. Furthermore, this set-up allows us to implement inverse probability of treatment weights (IPTW) via the marginal structural models solution proposed by Blackwell and Glynn (2018). Doing so allows us to overcome the twin issues of post-treatment bias and omitted variable bias endemic to time series cross sectional data wherein treatments turn on and off (i.e., where districts become more or less competitive).

We estimate the probability of treatment in two ways. The first dichotomizes the incumbent vote share to define districts as electorally competitive if the margin is less than 10%. We then predict the probability of being in a competitive district as a function of all the contextual predictors with up to three lags (i.e., six years). Formally, we estimate

the sample weights $\hat{SW}_{it}$ for district i in cycle t as:

$$\hat{SW}_{it} = \prod_{t=1}^{t} \frac{\hat{\Pr}[D_{it}|D_{i,t-j};\hat{\gamma}]}{\hat{\Pr}[D_{it}|X_{i,t-j}, Y_{i,t-j}, D_{i,t-j};\hat{\alpha}]} \tag{1}$$

where D_{it} is the indicator for district competitiveness, j indexes up to three lags for the congressional cycle (6 years), $Y_{i,t-j}$ is the outcome, and $X_{i,t-j}$ are the full set of controls described in the paper, with the exception of the firm-specific committee seniority measures. As discussed in Blackwell and Glynn (2018), the numerator captures the marginal probability of the history of electoral competitiveness, and is included to stabilize the weights. We estimate both the numerator and denominator with a non-parametric random forest to insulate our results from specification errors. Random forests can capture complex non-linearities in the predictors and deep interactions to maximize the prediction accuracy for being in a competitive district.

Our second method retains the vote share as a continuous measure and instead calculates IPTW via covariate balancing propensity scores (CBPS, Imai and Ratkovic 2014). This approach predicts incumbent vote share as a function of the same political, economic, demographic, and local policies as the random forest approach. However, unlike random forests, we specify this as a linear regression. The resulting weights yield good balancing properties, as illustrated by the dramatically weaker correlations between these confounders and incumbent vote share, depicted in Figure 5.

With these weights thus calculated, we then model the change in total subsidiaries in a district as a function of the incumbent vote share, all covariates, and district and cycle fixed effects, weighting our observations by the IPTW. Formally,

$$y_{it} = \gamma_i + \delta_t + \beta \mathbf{Political}'_{it} + \Gamma \mathbf{Policies}'_{st} + \Lambda \mathbf{Economy}'_{it} + \varepsilon_{it} \tag{2}$$

We confirm our results are robust to alternative measures of subsidiary investments (see Figure 6, including the change in workers and subsidiaries, as well as their levels (logged).

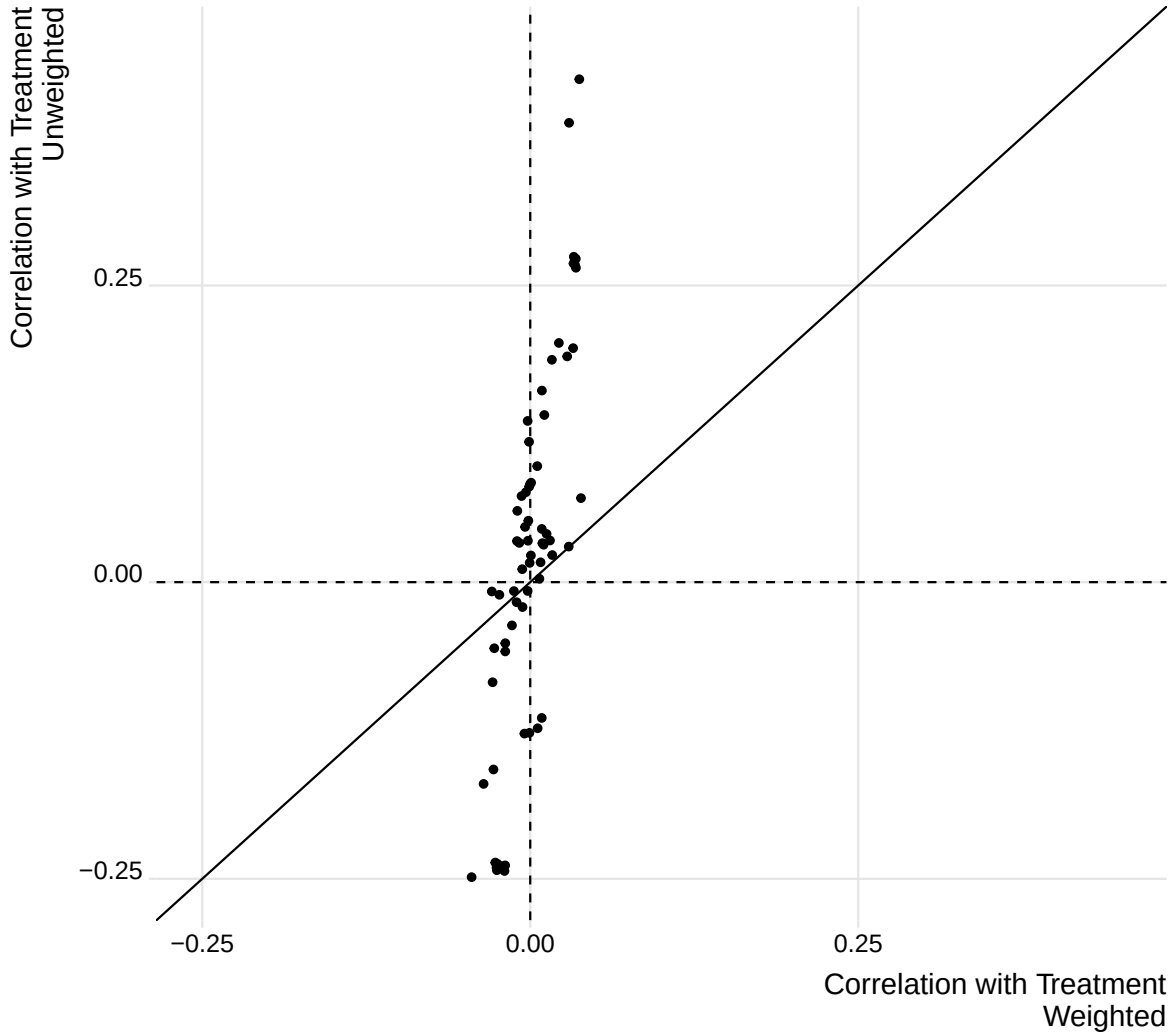

Figure 5: Pearson correlation between each covariate and the incumbent vote share in the unweighted (y-axis) and weighted (x-axis) data.

E Parallel Trends Tests

The main results predict the opening of a new subsidiary by a parent company as a function of the district's incumbent vote share from the preceding election. In the following section, we collapse the data to the district-year and predict either the level or the change in subsidiaries or employees as a function of the incumbent vote share, but we shift which cycle's vote share we use to predict. As illustrated in Figure 7, the negative coefficients linking investing in a subsidiary with the incumbent's margin of victory are strongest

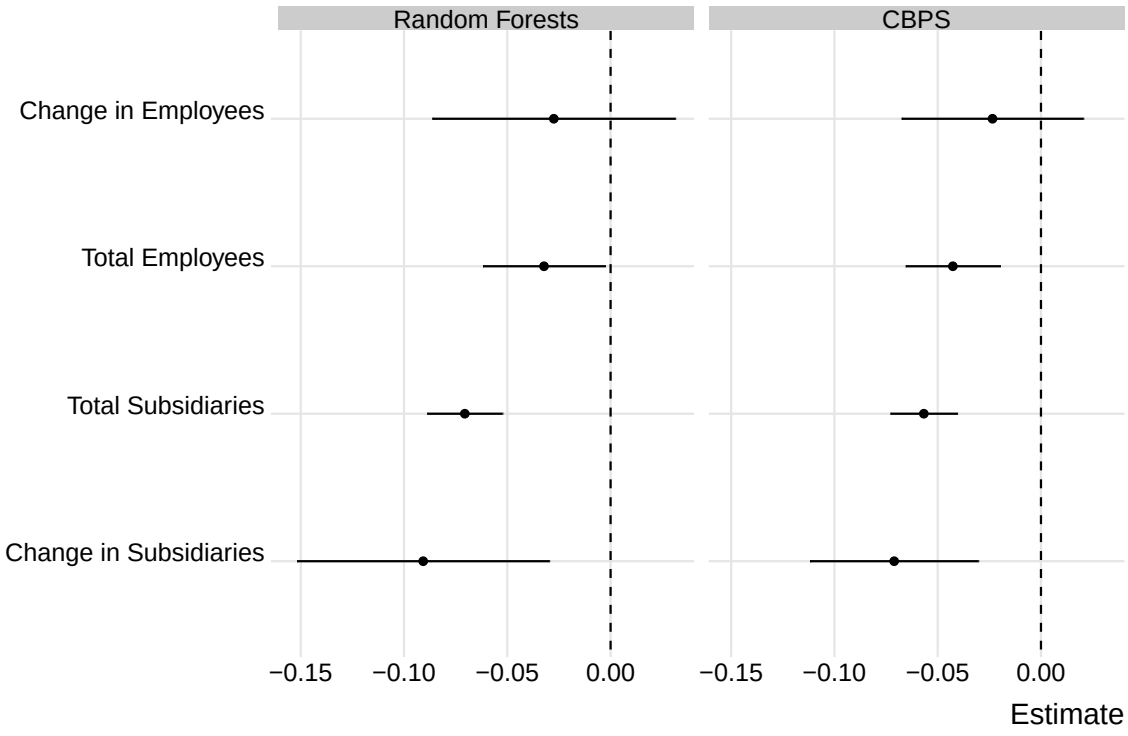

Figure 6: Standardized coefficients (x-axes) linking incumbent vote share with different measures of investments in subsidiaries (y-axis). Left panel summarizes results estimated using inverse probability of treatment weights estimated using random forests on a binarized measure of competitiveness. Right panel summarizes results estimated using inverse probability of treatment weights estimated via CBPS (Imai and Ratkovic, 2014).

when the incumbent vote share is most proximate to the investment decisions.

F Heterogeneities across Size

F.1 Parent Firm Size

Our main analyses focused on the top 500 firms defined by their total subsidiaries in 1997. In the following results, we redefine this group by their total employees in 1997, and their total sales in 1997. We reproduce our main results on each dataset in Figure 8.

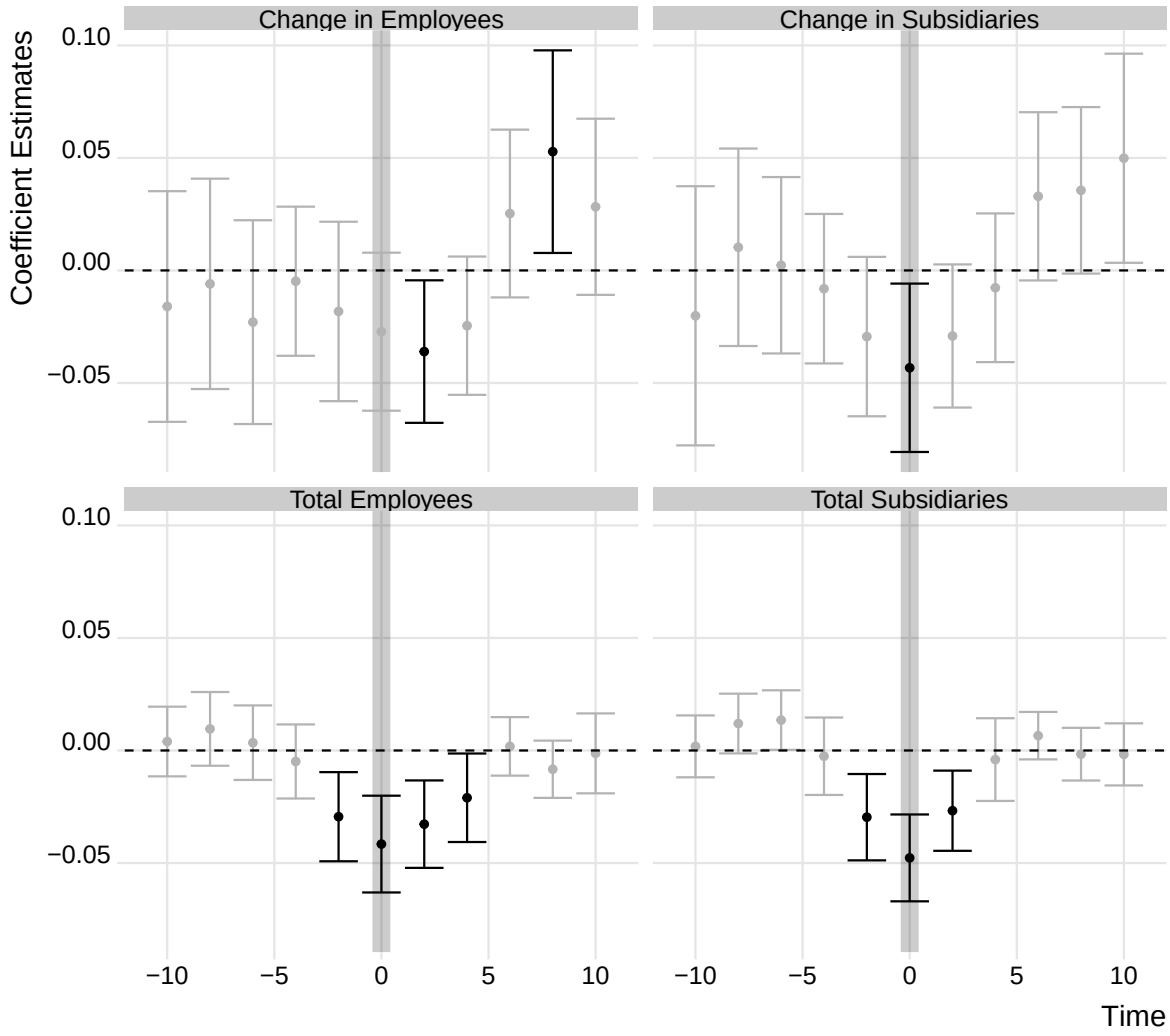

Figure 7: Coefficient estimates linking incumbent vote shares with different measures of a firm's investment in subsidiaries (indicated in facet titles) across different choices of leads and lags (x-axes). Significant estimates at the 95% confidence level indicated in black.

F.2 Subsidiary Size

Our main results estimate the investment in a new subsidiary as a function of electoral competitiveness, ignoring the fact that different subsidiaries can be of dramatically different size. In the following section, we re-estimate our main results focusing on different types of subsidiaries, binned into those with fewer than 20 employees, those with between 20 and 50 employees, those with between 50 and 100 employees, those with between 100 and 500 employees, and those with more than 500 employees. We view the size of a

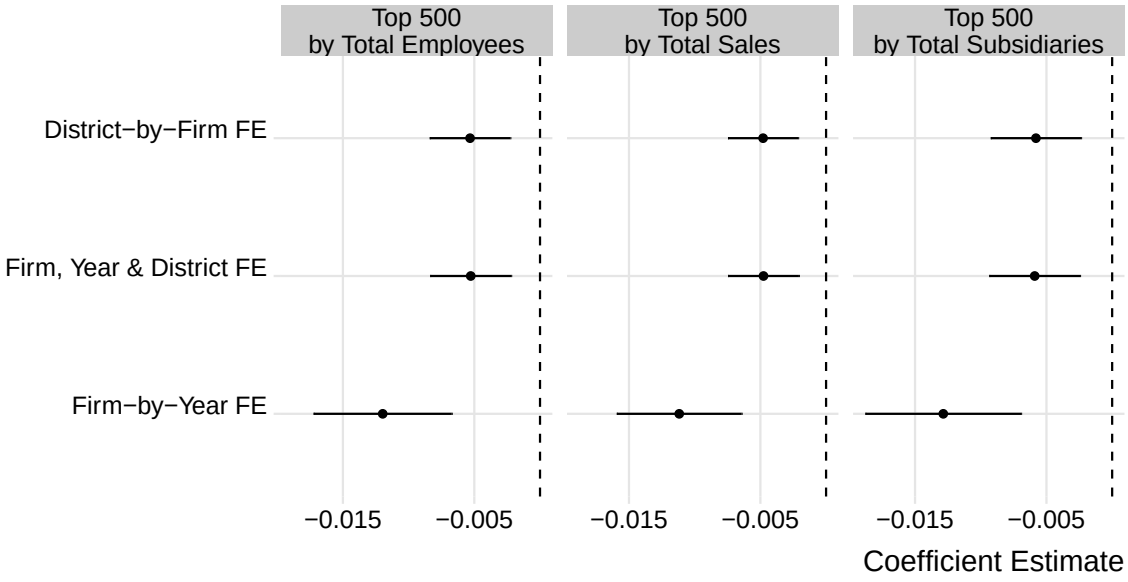

Figure 8: Coefficient estimates linking incumbent vote shares with the linear probability the firm opens a subsidiary (x-axes), across different fixed effects specifications (y-axes) and definitions of how we assembled the top 500 parent companies. Significant estimates at the 95% confidence level indicated in black.

subsidiary as an important condition for whether the parent company will choose to pursue investing in a subsidiary as a political strategy. Those that are larger require more preparation, incur more costs, and should generally be less responsive to changes in, and differences across, the electoral competitiveness of congressional districts.

Figure 9 plots the coefficient estimates for different sizes of subsidiaries, subject to our most rigorous specifications. As illustrated, the strongest evidence of a relationship between investment and electoral competitiveness obtains for the smallest subsidiaries (i.e., those with fewer than 20 total employees). As we re-estimate our results for larger subsidiaries, the relationship between incumbent vote share and investment attenuates, before disappearing completely for the largest subsidiaries (500 or more employees). These results are consistent with our theory in which treating subsidiaries as tools for political influence is possible only where the costs of doing so are relatively modest.

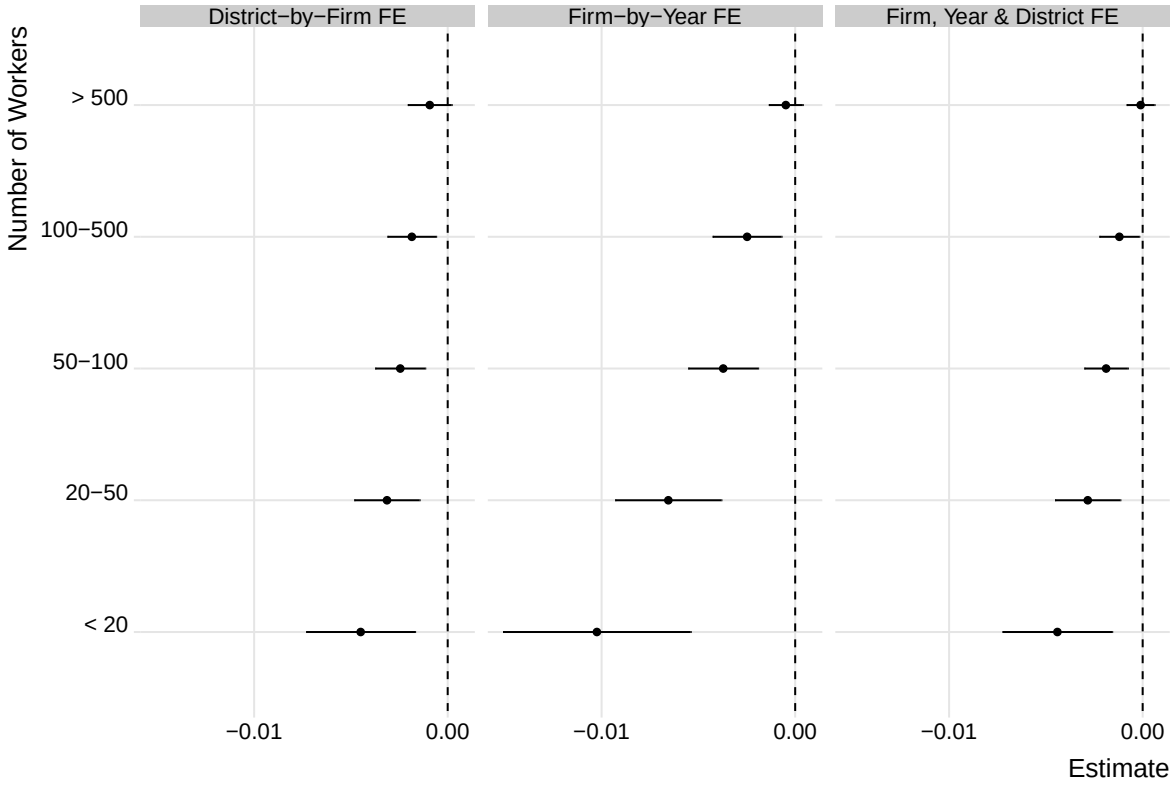

Figure 9: Estimates of relationship between electoral competitiveness (incumbent vote share) and opening a new subsidiary by the number of employees in the subsidiary (y-axis).

G Full Regression Results

A selection of results for different industries is presented below, including manufacturing, mining, agriculture, and retail. We also include the full regression results from Table 1 in the manuscript.

In addition to predicting whether a given firm opened any subsidiaries in a given district in a given year, we also predict a number of alternative measures of the outcome, including the change in subsidiaries, the change employees, and raw measures of both. Our findings are robust to these alternative specifications, as illustrated in Figure 10.

Table 2: All Industries

	Bivariate	Politics	District	Regulation	Cubic Trends	FE 2	FE 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incum. Vote %	-0.007^{***}	-0.007^{***}	-0.006^{***}	-0.006^{***}	-0.006^{***}	-0.006^{***}	-0.013^{***}
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Incum. Democrat		-0.008^{*}	-0.009^{**}	-0.009^{**}	-0.009^{**}	-0.008^{*}	-0.015^{***}
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Incum. Seniority		-0.002	$-0.004^{\dagger}$	$-0.004^{\dagger}$	$-0.004^{\dagger}$	-0.004	-0.003
		(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Incum. Majority		0.001	0.001	0.001	0.001	0.001	0.003
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Speaker		0.001	0.0003	0.0003	0.0003	0.0003	-0.0003
		(0.0005)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. LES		0.003^{*}	0.002	0.002	0.002	0.002	0.001
		(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.003)
Incum. Female		0.002	-0.0004	-0.0003	-0.0002	-0.0001	0.003
		(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Incum. Chair		0.001	0.002	0.002	0.002	0.002	0.004
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Incum. Committee Snr		0.002	0.002	0.002	0.002	0.0004	0.003
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District Unemployment			-0.002	-0.003	-0.003	-0.003	-0.014^{*}
			(0.003)	(0.004)	(0.004)	(0.003)	(0.006)
District Manuf. Share			$-0.010^{\dagger}$	$-0.010^{\dagger}$	$-0.010^{\dagger}$	-0.011^{*}	0.002
			(0.005)	(0.006)	(0.005)	(0.005)	(0.004)
District Life Expectancy			0.017^{*}	0.017^{*}	0.017^{*}	0.019^{*}	-0.004
			(0.008)	(0.008)	(0.008)	(0.008)	(0.007)
District Manuf. Wage			-0.011^{*}	-0.011^{*}	-0.012^{*}	-0.012^{*}	-0.004
			(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
District Population (log)			0.019^{***}	0.020^{***}	0.020^{***}	0.019^{***}	0.023^{***}
			(0.003)	(0.003)	(0.003)	(0.003)	(0.005)
District % Rural			$-0.016^{\dagger}$	$-0.016^{\dagger}$	$-0.016^{\dagger}$	$-0.016^{\dagger}$	-0.010
			(0.009)	(0.009)	(0.009)	(0.009)	(0.007)
District % Male			-0.010	-0.010	$-0.011^{\dagger}$	-0.009	0.0003
			(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
District % White			0.049^{*}	0.049^{*}	0.051^{*}	0.054^{*}	0.041^{***}
			(0.023)	(0.023)	(0.023)	(0.022)	(0.011)
District % Black			-0.003	-0.003	-0.002	0.0004	$0.017^{\dagger}$
			(0.016)	(0.016)	(0.016)	(0.016)	(0.009)
District % Hispanic			0.013	0.014	0.015	0.015	0.021^{*}
			(0.017)	(0.017)	(0.017)	(0.017)	(0.010)
District % Working Age			0.017^{*}	0.017^{*}	0.017^{*}	0.016^{**}	0.010
			(0.007)	(0.007)	(0.007)	(0.005)	(0.007)
State Labor Market Regs.				-0.001	-0.002	-0.001	0.003
				(0.003)	(0.003)	(0.003)	(0.006)
State Public Spending				-0.002	-0.002	-0.002	0.003
				(0.004)	(0.004)	(0.003)	(0.006)
State Corporate Taxes				0.0001	-0.0001	-0.0002	-0.001
				(0.002)	(0.002)	(0.002)	(0.003)
N	2.17M	2.17M	2.03M	2.03M	2.03M	2.03M	2.03M
R^2	0.095	0.095	0.097	0.097	0.097	0.484	0.078
Firm FE	✓	✓	✓	✓	✓		
District FE	✓	✓	✓	✓	✓		
Year FE	✓	✓	✓	✓	✓		
Firm-District Trends					✓	✓	✓
District-Firm FE						✓	
Firm-year FE							✓

Notes: Firm investment in subsidiaries predicted as a function of location characteristics, including politician-level covariates, state-level regulatory covariates, and district-level economic covariates. All standard errors calculated via dyad-cluster robust multiway decomposition, as described in Aronow, Samii and Assenova (2015) * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

H Standard Errors

Each unit in a dyad-structured dataset is not independent. Traditional methods for calculating cluster-robust standard errors (i.e., multi-way clustering **?**) are insufficient

Table 3: Manufacturing

	Bivariate	Politics	District	Regulation	Cubic Trends	FE 2	FE 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incum. Vote %	-0.004^{***}	-0.004^{***}	-0.004^{***}	-0.004^{***}	-0.004^{***}	-0.004^{***}	-0.009^{***}
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Democrat		-0.002	$-0.003^{\dagger}$	$-0.003^{\dagger}$	-0.004^{*}	-0.003	-0.007^{**}
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Incum. Seniority		0.004^{**}	0.002	0.002	$0.002^{\dagger}$	0.003^{*}	-0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Majority		-0.001	-0.0001	-0.00002	-0.0001	0.0001	0.0001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Speaker		0.002^{*}	0.002^{*}	0.002^{*}	0.002^{*}	0.002^{*}	0.002^{*}
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. LES		0.001	0.0001	0.0001	0.0001	0.0001	-0.0003
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Female		0.004^{*}	0.001	0.001	0.001	0.001	0.002
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Incum. Chair		0.0003	0.001	0.001	0.001	0.001	0.002
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Committee Snr		-0.0003	-0.001	-0.001	-0.001	-0.001	0.00003
		(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
District Unemployment			-0.001	-0.002	-0.002	-0.005^{**}	-0.013^{***}
			(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District Manuf. Share			0.003	0.003	0.003	0.002	0.013^{***}
			(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
District Life Expectancy			0.016^{**}	0.017^{**}	0.017^{**}	0.017^{**}	-0.004
			(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
District Manuf. Wage			-0.0002	-0.001	-0.001	-0.002	-0.009^{**}
			(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
District Population (log)			0.014^{***}	0.014^{***}	0.014^{***}	0.014^{***}	0.020^{***}
			(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District % Rural			-0.015^{**}	-0.015^{**}	-0.015^{**}	-0.016^{***}	-0.011^{*}
			(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
District % Male			-0.003	-0.003	-0.003	-0.0003	0.005
			(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
District % White			0.037^{*}	0.037^{*}	0.038^{*}	0.038^{*}	0.017^{*}
			(0.016)	(0.016)	(0.016)	(0.016)	(0.007)
District % Black			0.015	0.015	0.015	0.017	0.007
			(0.011)	(0.011)	(0.011)	(0.011)	(0.005)
District % Hispanic			0.019	$0.019^{\dagger}$	$0.019^{\dagger}$	0.019	0.001
			(0.012)	(0.011)	(0.011)	(0.012)	(0.006)
District % Working Age			0.019^{***}	0.018^{***}	0.018^{***}	0.013^{***}	0.013^{**}
			(0.004)	(0.004)	(0.004)	(0.003)	(0.004)
State Labor Market Regs.				0.002	0.002	0.002	$0.006^{\dagger}$
				(0.002)	(0.002)	(0.002)	(0.004)
State Public Spending				-0.004	-0.004	$-0.005^{\dagger}$	0.007^{*}
				(0.003)	(0.003)	(0.003)	(0.003)
State Corporate Taxes				-0.0001	-0.0001	-0.0004	-0.002
				(0.002)	(0.002)	(0.002)	(0.002)
N	2.18M	2.18M	2.04M	2.04M	2.04M	2.04M	2.04M
R^2	0.092	0.093	0.093	0.093	0.096	0.411	0.094
Firm FE	✓	✓	✓	✓	✓		
District FE	✓	✓	✓	✓	✓		
Year FE	✓	✓	✓	✓	✓		
Firm-District Trends					✓	✓	✓
District-Firm FE						✓	
Firm-year FE							✓

Notes: Firm investment in subsidiaries predicted as a function of location characteristics, including politician-level covariates, state-level regulatory covariates, and district-level economic covariates. All standard errors calculated via dyad-cluster robust multiway decomposition, as described in Aronow, Samii and Assenova (2015) * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

to account for these non-independencies because the notional groups are not disjoint. Instead, each row in the dataset is comprised of two identifiers – an "ego" and an "alter" – each of which identifies their own group.

In our analysis, we rely on dyad-cluster robust standard errors calculated via multi-

Table 4: Retail

	Bivariate	Politics	District	Regulation	Cubic Trends	FE 2	FE 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incum. Vote %	-0.003^{**}	-0.003^{**}	-0.003^{*}	-0.003^{*}	-0.003^{*}	-0.003^{*}	-0.008^{***}
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Democrat		-0.005^{*}	-0.005^{*}	-0.005^{*}	-0.005^{**}	-0.005^{*}	-0.011^{***}
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Incum. Seniority		0.003^{*}	0.002	0.002	0.002	$0.002^{\dagger}$	0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Majority		-0.001	-0.001	-0.001	-0.001	-0.001	0.00003
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Speaker		0.001	0.0003	0.0003	0.0003	0.0003	$0.001^{\dagger}$
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.0005)
Incum. LES		0.0003	-0.0001	-0.0001	-0.0001	-0.0001	$-0.002^{\dagger}$
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Female		0.001	0.0004	0.0004	0.0004	0.001	0.001
		(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Incum. Chair		0.0001	0.0001	0.0001	0.0001	0.00003	0.002
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Committee Snr		-0.0001	-0.0003	-0.0003	-0.0003	-0.0002	-0.0002
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
District Unemployment			-0.003	-0.003	-0.003	$-0.003^{\dagger}$	-0.016^{***}
			(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District Manuf. Share			-0.007^{*}	-0.007^{*}	-0.007^{*}	-0.007^{*}	0.003
			(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
District Life Expectancy			0.010^{*}	0.010^{*}	0.010^{*}	0.011^{*}	-0.003
			(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
District Manuf. Wage			-0.005	-0.005	-0.005	-0.005	-0.009^{*}
			(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
District Population (log)			0.013^{***}	0.013^{***}	0.013^{***}	0.013^{***}	0.016^{***}
			(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District % Rural			$-0.009^{\dagger}$	$-0.008^{\dagger}$	$-0.008^{\dagger}$	$-0.008^{\dagger}$	-0.0001
			(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
District % Male			0.0004	0.0004	0.0004	0.001	0.001
			(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
District % White			0.036^{**}	0.036^{**}	0.036^{**}	0.037^{**}	0.024^{***}
			(0.013)	(0.013)	(0.013)	(0.013)	(0.007)
District % Black			0.019^{*}	0.019^{*}	0.019^{*}	0.021^{*}	0.015^{**}
			(0.009)	(0.009)	(0.009)	(0.009)	(0.005)
District % Hispanic			0.012	0.012	0.012	0.012	$0.009^{\dagger}$
			(0.010)	(0.010)	(0.010)	(0.009)	(0.005)
District % Working Age			0.005	0.005	0.005	$0.004^{\dagger}$	0.004
			(0.004)	(0.004)	(0.004)	(0.002)	(0.003)
State Labor Market Regs.				0.0002	0.0003	0.0003	0.003
				(0.002)	(0.002)	(0.002)	(0.004)
State Public Spending				-0.001	-0.001	-0.001	0.009^{*}
				(0.003)	(0.003)	(0.002)	(0.004)
State Corporate Taxes				-0.0002	-0.0002	-0.0003	0.002
				(0.002)	(0.002)	(0.002)	(0.002)
N	1.33M	1.33M	1.25M	1.25M	1.25M	1.25M	1.25M
R^2	0.165	0.165	0.166	0.166	0.168	0.534	0.165
Firm FE	✓	✓	✓	✓	✓		
District FE	✓	✓	✓	✓	✓		
Year FE	✓	✓	✓	✓	✓		
Firm-District Trends					✓	✓	✓
District-Firm FE						✓	
Firm-year FE							✓

Notes: Firm investment in subsidiaries predicted as a function of location characteristics, including politician-level covariates, state-level regulatory covariates, and district-level economic covariates. All standard errors calculated via dyad-cluster robust multiway decomposition, as described in Aronow, Samii and Assenova (2015) * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

way decomposition, as described in Aronow, Samii and Assenova (2015). Alternative approaches include a mixed effects model, which we also implement below. We prefer the multi-way decomposition method for two reasons. First, it is comparatively computationally inexpensive, requiring only several days to calculate instead of several weeks.

Table 5: Agriculture

	Bivariate	Politics	District	Regulation	Cubic Trends	FE 2	FE 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incum. Vote %	−0.0002	−0.0003	−0.0002	−0.0002	−0.0003	−0.0002	−0.002†
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.001)
Incum. Democrat		−0.001	−0.001	−0.001	−0.001	−0.001	−0.0004
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Seniority		−0.0002	0.0001	0.0001	0.0001	−0.0001	−0.001*
		(0.0005)	(0.0005)	(0.0005)	(0.0004)	(0.0004)	(0.0004)
Incum. Majority		0.001†	0.001*	0.001*	0.001*	0.001*	0.001**
		(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)
Incum. Speaker		0.00004	0.00000	−0.00004	−0.00002	−0.0001	0.00005
		(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0002)
Incum. LES		0.0003	0.0001	0.0001	0.0001	0.0001	−0.0001
		(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)
Incum. Female		−0.0004	−0.0001	−0.0001	0.00001	0.00003	−0.0003
		(0.0005)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.001)
Incum. Chair		0.0001	0.0001	0.0001	0.0001	0.0001	0.001
		(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0002)	(0.0004)
Incum. Committee Snr		−0.001	−0.001	−0.001	−0.001	0.0002	−0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
District Unemployment			0.0005	0.0001	0.0002	−0.001	0.00004
			(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
District Manuf. Share			−0.003*	−0.003*	−0.003*	−0.003*	0.001
			(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
District Life Expectancy			0.002	0.002	0.002	0.001	−0.001
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
District Manuf. Wage			0.003†	0.003†	0.003†	0.003†	0.003
			(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District Population (log)			0.002**	0.002**	0.002**	0.002**	0.002
			(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
District % Rural			0.002	0.003	0.003	0.002	0.001
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
District % Male			0.001	0.001	0.001	0.001	0.002
			(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
District % White			0.012†	0.012†	0.012†	0.013†	0.0003
			(0.007)	(0.007)	(0.007)	(0.007)	(0.004)
District % Black			0.007†	0.007	0.007	0.008†	0.0004
			(0.005)	(0.005)	(0.005)	(0.005)	(0.003)
District % Hispanic			0.009	0.009	0.009	0.009	−0.002
			(0.006)	(0.006)	(0.006)	(0.006)	(0.003)
District % Working Age			0.002	0.002	0.002	0.002†	−0.001
			(0.002)	(0.002)	(0.002)	(0.001)	(0.002)
State Labor Market Regs.				−0.0003	−0.001	0.001	0.002
				(0.001)	(0.001)	(0.001)	(0.003)
State Public Spending				−0.001	−0.001	−0.001	0.002
				(0.001)	(0.001)	(0.001)	(0.003)
State Corporate Taxes				0.001	0.001	0.001	0.002
				(0.001)	(0.001)	(0.001)	(0.001)
N	641.26K	641.26K	601.41K	601.41K	601.41K	601.41K	601.41K
R^2	0.096	0.096	0.096	0.096	0.17	0.607	0.099
Firm FE	✓	✓	✓	✓	✓		
District FE	✓	✓	✓	✓	✓		
Year FE	✓	✓	✓	✓	✓		
Firm-District Trends					✓	✓	✓
District-Firm FE						✓	
Firm-year FE							✓

Notes: Firm investment in subsidiaries predicted as a function of location characteristics, including politician-level covariates, state-level regulatory covariates, and district-level economic covariates. All standard errors calculated via dyad-cluster robust multiway decomposition, as described in Aronow, Samii and Assenova (2015) * p < 0.10; ** p < 0.05; *** p < 0.01.

Second, it yields more conservative standard errors that alternatives.

The existing method is described in Aronow, Samii and Assenova (2015), but is not implemented in popular statistical packages. As such, we wrote an `R` package to facilitate its use by other researchers.

Table 6: Mining

	Bivariate	Politics	District	Regulation	Cubic Trends	FE 2	FE 3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incum. Vote %	−0.0002	−0.0003	−0.0004	−0.0004	−0.0004	−0.0003	−0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Democrat		−0.001	−0.0002	−0.0002	−0.0002	−0.0003	−0.0003
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Seniority		0.0004	0.0003	0.0003	0.0003	0.0004	−0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Majority		−0.0003	−0.00002	−0.0001	−0.0001	−0.00004	−0.0004
		(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.001)
Incum. Speaker		−0.00004	−0.00005	−0.0001	−0.0001	−0.0001	−0.0003
		(0.0003)	(0.0003)	(0.0002)	(0.0002)	(0.0003)	(0.0003)
Incum. LES		−0.00000	0.00001	0.00002	0.00004	0.0001	0.0004
		(0.0005)	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.001)
Incum. Female		−0.0004	−0.0002	−0.0003	−0.0003	−0.0003	−0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Incum. Chair		0.001	0.001	0.001	0.001	0.001	0.001
		(0.001)	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.001)
Incum. Committee Snr		0.001	0.001	0.001	0.001	0.00002	0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
District Unemployment			−0.001	0.00002	−0.00005	0.002	−0.009***
			(0.002)	(0.001)	(0.001)	(0.001)	(0.003)
District Manuf. Share			−0.001	−0.001	−0.001	−0.001	−0.003
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
District Life Expectancy			0.001	0.001	0.001	0.0003	−0.012***
			(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
District Manuf. Wage			0.005†	0.005†	0.005†	0.006*	0.003
			(0.003)	(0.003)	(0.003)	(0.003)	(0.002)
District Population (log)			0.004***	0.004***	0.004***	0.004***	0.001
			(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
District % Rural			0.001	0.001	0.001	0.0002	0.004†
			(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
District % Male			0.0002	0.0003	0.0003	−0.001	0.005**
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
District % White			0.009	0.009	0.009	0.008	0.0002
			(0.007)	(0.007)	(0.007)	(0.007)	(0.004)
District % Black			0.003	0.003	0.003	0.001	−0.001
			(0.005)	(0.005)	(0.005)	(0.005)	(0.003)
District % Hispanic			0.011*	0.010*	0.010*	0.009†	0.009**
			(0.005)	(0.005)	(0.005)	(0.005)	(0.004)
District % Working Age			0.003	0.003	0.003†	0.004**	0.0003
			(0.002)	(0.002)	(0.002)	(0.001)	(0.002)
State Labor Market Regs.				0.002	0.002†	0.002†	0.004†
				(0.001)	(0.001)	(0.001)	(0.002)
State Public Spending				0.004**	0.004**	0.003*	0.001
				(0.001)	(0.001)	(0.001)	(0.002)
State Corporate Taxes				−0.0005	−0.0004	−0.001	−0.004***
				(0.001)	(0.001)	(0.001)	(0.001)
N	1.37M	1.37M	1.28M	1.28M	1.28M	1.28M	1.28M
R^2	0.167	0.167	0.169	0.169	0.171	0.538	0.179
Firm FE	✓	✓	✓	✓	✓		
District FE	✓	✓	✓	✓	✓		
Year FE	✓	✓	✓	✓	✓		
Firm-District Trends					✓	✓	✓
District-Firm FE						✓	
Firm-year FE							✓

Notes: Firm investment in subsidiaries predicted as a function of location characteristics, including politician-level covariates, state-level regulatory covariates, and district-level economic covariates. All standard errors calculated via dyad-cluster robust multiway decomposition, as described in Aronow, Samii and Assenova (2015) * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Figure 11 plots the coefficients from our analysis of industry heterogeneity. Colors indicate the method of estimating the standard errors. As illustrated, failing to account for the dyadic structure of the data vastly overestimates our confidence in our results.

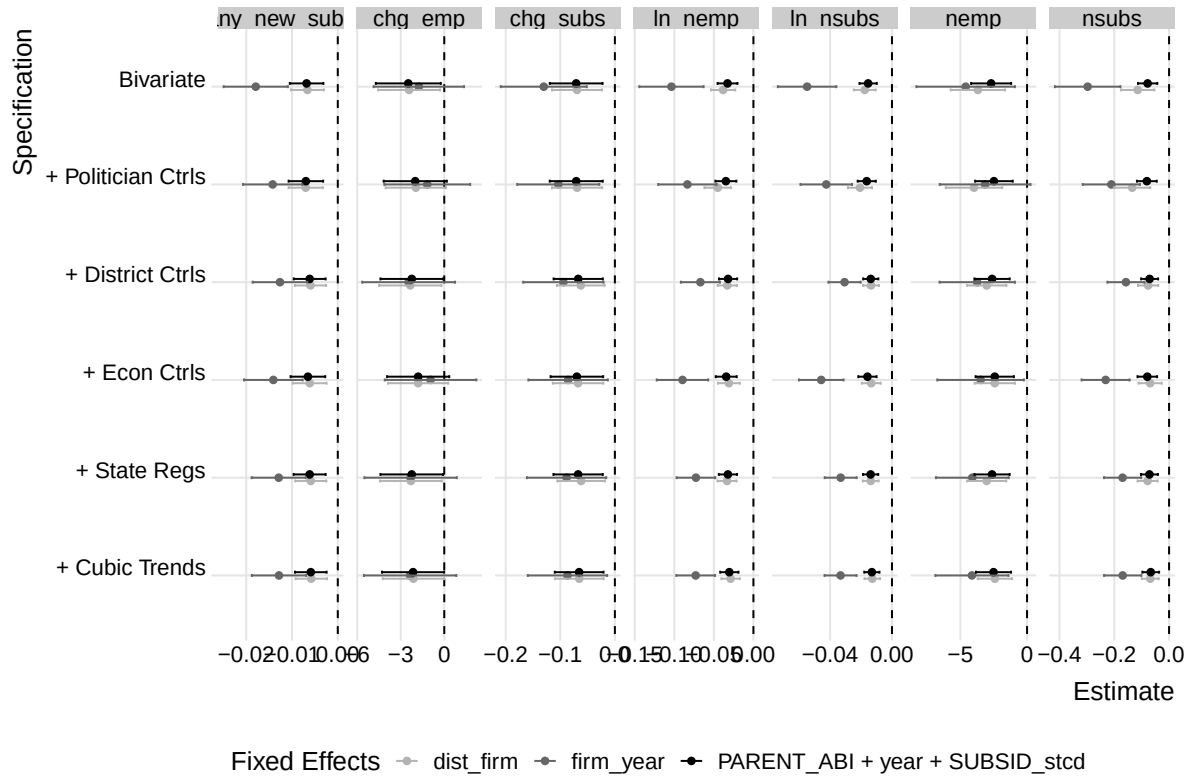

Figure 10: Robustness of findings to different outcomes (columns) across specifications (y-axis) and fixed effects (colors).

I Committee Survival by Industry

Our main results documented a significant boost in a representative's survival on the Ways & Means committee following the investment in subsidiaries by firms in the Manufacturing and Retail sectors, but no such evidence of the same boost when these firms were in the agriculture or mining sectors. Below, we summarize the results of these analyses in table form. Our full specification relies on a Cox proportional hazards model, controlling for MC characteristics, the district unemployment rate, and the incumbent vote share.

As illustrated, the most consistent relationships between the investment in subsidiaries and the decline in a politician's hazard rate on the Ways & Means committee is found in manufacturing and retail. The weakest relationships are found in agriculture, construction, and mining.

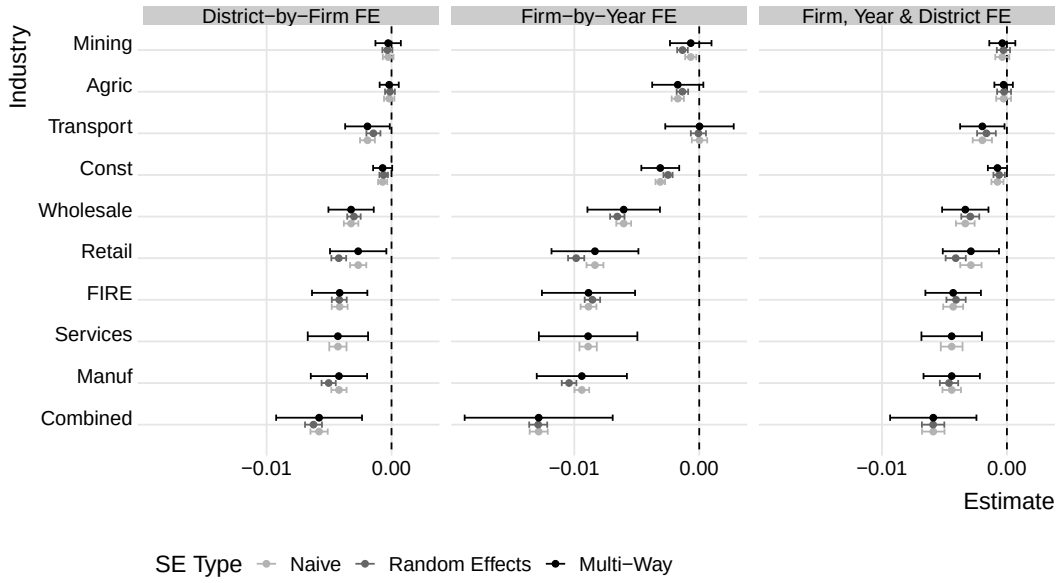

Figure 11: Comparison of standard errors calculated via clustering on the district and the firm (blue), via mixed effects for the district and the firm (green), and calculated via multi-way decomposition as outlined in Aronow, Samii and Assenova (2015).

Table 7: Cox Proportional Hazard Models

	Agric	Const	FIRE	Manuf	Mining	Retail	Trans	Whole
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2nd Quart	0.068	−0.060	0.029	−0.113*	−0.059	−0.228***	0.183***	0.010
	(0.048)	(0.046)	(0.046)	(0.048)	(0.047)	(0.047)	(0.047)	(0.046)
3rd Quart	0.045	−0.093**	−0.072	−0.208***	−0.092*	−0.316***	0.224***	0.094**
	(0.047)	(0.047)	(0.047)	(0.048)	(0.047)	(0.048)	(0.047)	(0.046)
Top Quart	−0.281***	−0.233***	−0.362***	−0.546***	−0.223***	−0.731***	0.277***	−0.107**
	(0.048)	(0.048)	(0.048)	(0.048)	(0.047)	(0.048)	(0.047)	(0.047)
Democrat MC	−0.154**	−0.066*	0.020	0.038	−0.117**	−0.014	−0.023	−0.040
	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)	(0.034)
Female MC	0.203***	0.078**	−0.052	0.001	0.145***	−0.048	0.020	0.063*
	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)	(0.047)
Unemp Rate	0.621***	0.434***	0.367***	−0.543***	0.608***	−0.561***	0.337***	0.364***
	(0.016)	(0.018)	(0.018)	(0.020)	(0.016)	(0.020)	(0.016)	(0.018)
Vote %	−0.144***	−0.129***	−0.076***	0.002	−0.109***	−0.005	−0.054***	−0.116***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.016)	(0.017)
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Observations	4,069	4,069	4,069	4,069	4,069	4,069	4,069	4,069
R^2	0.287	0.136	0.124	0.207	0.259	0.230	0.108	0.103

Notes: Cox proportional hazard models of hazard rate on the Ways & Means committee predicted by the number of subsidiaries, broken out by quartile. All coefficients reflect the change in the hazard rate for each quartile of investment relative to the bottom quartile. Standard errors are clustered at the district level. * p < 0.10; ** p < 0.05; *** p < 0.01.

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