

# The Incorporation Choices of Privately Held Corporations

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Exploiting a large new database, this article explores the incorporation choices of closely held U.S. corporations. The majority of corporations in our sample incorporate in the state in which their primary place of business (PPB) is located. However, among the corporations with 1000 or more employees, only about half incorporate in their PPB state, and of those that do not, more than half are incorporated in Delaware. We find statistically significant and robust evidence that corporations from states with judiciaries that are held in low esteem are more likely to incorporate outside of their PPB state. Furthermore, corporations are more likely to migrate away from states where the risk of veil piercing is perceived to be high, that have adopted so-called exculpation statutes, or that offer a particularly generous level of minority shareholder protection. (*JEL* K22, G38, H70, R30)

## 1. Introduction

The internal affairs of U.S. corporations are governed by the law of the state of incorporation. Accordingly, corporations can choose the corporate law applicable to their internal affairs by incorporating in the state of their choice. Public corporations, at least, have made ample use of that freedom: more than half of them are incorporated in Delaware.<sup>1</sup>

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This article has benefited from comments and suggestions made by David Abrams, Ian Ayres, Bernie Black, Albert Choi, Nicola Fuchs-Schündeln, Henry Hansmann, Todd Henderson, Henry Hu, Saul Levmore, Roberta Romano, Holger Spamann, Lior Strahilevitz, David Weisbach, two anonymous referees, as well as the participants of workshops and panels at the annual meeting of the American Law and Economics Association, the session on corporate law and investor protection at the Summer Institute of the National Bureau of Economic Research, the University of Chicago Law School, and the University of Texas School of Law. We have received no funding relating to this paper and were not involved in any of the cases cited in this paper.

1. See DEL. DIV. OF CORPORATIONS, *Why Choose Delaware As Your Corporate Home?*, at <http://www.state.de.us/corp/> (last visited 20 October, 2008).

Over the years, Delaware's success in attracting corporate charters has prompted a huge amount of literature. Recent examples include Bebchuk and Hamdani (2002), Bebchuk et al. (2002), Subramanian (2002), and Roe (2003, 2005). In particular, scholars debate whether or not the freedom to choose the applicable corporate law benefits shareholders—a question that is said to be “[o]ne of the most important questions in U.S. corporate law” (Subramanian 2002: 1797). The most prominent views on this issue are typically referred to as the race-to-the-bottom view and the race-to-the-top view. Under the former, managers tend to steer their corporations toward jurisdictions that favor managers at the expense of shareholders. States, eager to increase their revenues from franchise taxes, compete for corporate charters by offering rules that are good for managers rather than for shareholders (Cary 1974). According to the race-to-the-top view, by contrast, capital market pressure ensures that corporations will migrate toward jurisdictions with law that is attractive to shareholders. According to this view, it follows that states compete in a race for quality (Winter 1977).

The more recent literature tends to take more moderate positions, but the basic question remains in dispute: critics continue to maintain that state competition produces a body of law that inefficiently benefits managers at the expense of shareholders (Bebchuk and Ferrell 1999; Bebchuk et al. 2002; Bebchuk 2006). At the same time, the supporters of state competition uphold the view that, at least on balance, state competition appears to benefit shareholders (Romano 1985, 1992, 1993, 1998, 2002; Sitkoff 2002).

Against the background of this ongoing disagreement, it is no surprise that various empirical studies seek to shed light on the incorporation choices of publicly traded firms (including initial public offering [IPO] firms) (Daines 2002; Bebchuk and Cohen 2003; Ferris et al. 2006; Kahan 2006). By contrast, very little is known about the incorporation choices of closely held U.S. corporations.<sup>2</sup> Some scholars have claimed that most closely held corporations incorporate locally (Bebchuk 1992; Skeel 1994; Stevenson 2001; Kahan and Kamar 2002; Eisenberg 2005) or, more cautiously, that incorporating locally is usually preferable for closely held corporations (Ayres 1992; Kades 2000). However, even setting aside the fact that it has never, to the best of our knowledge, been empirically verified, the statement that “most” closely held corporations incorporate locally is only of limited use. After all, closely held

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2. We should note that there is some literature on this in the context of the European Union. There, corporations are also free to choose their state of incorporation, thanks to the Centros and Überseering judgments of the European Court of Justice (Dammann 2004). For firms incorporated in the UK, Becht et al. (2008) find “that post-Centros increases in legal migration rates [to the U.K.] are explained by country-specific incorporation costs and minimum capital requirements.” However, there are important differences between Europe and the United States that prevent a useful comparison of corporate migration patterns in Europe to those in the United States (Becht et al. 2008). One should also note that the huge discrepancies across jurisdictions that Becht et al. note with respect to formation costs for closely held firms in the European Community do not exist in the United States, where minimum capital requirements have largely been abandoned and where the costs of incorporating a closely held firm tend to be minimal across jurisdictions.

corporations come in different shapes and sizes. The vast majority are fairly small. For example, according to estimates by the Internal Revenue Service, of the roughly 5.4 million active corporations (including S-corporations) that filed corporate income tax returns in 2003, around 4.5 million (or 83%) had total assets between \$0 and \$500,000.<sup>3</sup> Yet, these numbers should not distract from the fact that there is no lack of large closely held corporations either. The Instant Company Analysis and Reports for the U.S. (ICARUS) database that we use in this study, and which we will introduce in more detail below, reveals about 2200 privately held corporations with revenues of \$500,000,000 or more, hardly a small figure if one takes into account that the same distinction can be claimed only by roughly 1750 publicly traded corporations.

Many of the questions that are being discussed with respect to the impact of the charter market on publicly traded firms can also be asked with respect to closely held corporations, albeit accounting for the different characteristics of closely held firms. For example, closely held corporations have, by definition, concentrated ownership, so that the agency problems between managers and owners tend to be far less pronounced than in public corporations. Hence, there is little risk that closely held firms will migrate toward jurisdictions that benefit managers at the expense of shareholders. However, closely held corporations often have a controlling shareholder. Consequently, there is the possibility that closely held firms migrate toward jurisdictions that favor controlling shareholders at the expense of minority shareholders.

Given the economic significance of closely held corporations, it is somewhat puzzling that their incorporation choices have not been explored empirically. The present article seeks to fill this gap. Confirming conjectures that exist in the literature (see above), we find that the majority of corporations in our full sample are incorporated in the state where the firm's primary place of business (PPB) is located. Indeed, the baseline empirical analysis below shows that in our sample, which covers corporations with 20 or more employees, about 93% are incorporated locally (=in their PPB state). Of the remaining 7% that are incorporated elsewhere, slightly more than half (53%) incorporate in Delaware.

The picture changes, however, once we focus on larger privately held corporations ( $\geq 1000$  employees). Only about half of them (57% of those with 1000–4999 employees and 41% of those with 5000 or more employees) are incorporated in their PPB state, and of those that are incorporated elsewhere, about 80% are incorporated in Delaware. In other words, just as Delaware dominates the market for publicly traded firms, it also appears to be the state that is most successful at attracting closely held corporations from other states.

This leads to the question of whether the success of a state in attracting closely held corporations is determined at least in part by its legal system,

3. See Internal Revenue Service, SOI Tax Stats—Corporation Data by Size, 2003 Corporation Returns—Returns of Active Corporations, Table 2—Balance Sheet, Income Statement, and Selected Other Items, by Size of Total Assets (on file with authors).

namely, the content of its corporate law and the quality of its courts. This is by no means obvious. Consider, for example, the role played by substantive corporate law. Ayres, who has written what appears to be the most detailed assessment of how the so-called “charter market” affects closely held U.S. corporations, has argued that there really is no need for closely held corporations to incorporate in another state because state law typically is sufficiently flexible to allow corporations to create whichever structure they prefer (Ayres 1992).

Our findings, however, are consistent with the hypothesis that both the quality of courts and the content of substantive corporate law matter to corporations. In our econometric analysis, we find that corporations from states with judiciaries that are held in low esteem are more likely to incorporate outside of their home state. Furthermore, we find statistically significant and robust evidence that corporations are more likely to migrate away from states where the risk of veil piercing is high or that offer a particularly generous level of minority shareholder protection. In addition, we find statistically significant, though not entirely robust evidence, that corporations migrate away from states that have adopted so-called exculpation statutes allowing corporations to limit the personal liability of directors.

This article proceeds as follows. Section 2 describes the data we are using. Section 3 empirically addresses the question of where closely held corporations incorporate. Sections 4, 5, and 6 discuss potential reasons for the incorporation choices of closely held corporations, namely, the intention to go public later on, the perceived quality of state courts, and various features of substantive corporate law. Section 7 presents and analyzes the empirical results of our econometric analysis. Section 8 summarizes.

## 2. Data

We use a large company data set that has not yet been exploited for empirical work of the present type. The company-level data are from Bureau van Dijk’s ICARUS database.<sup>4</sup> This database covers US and Canadian firms of all sizes. Importantly, ICARUS distinguishes between a firm’s “location” and its “state of incorporation.” For our analyses, we extract firms from the full database according to the following criteria: We start from the ICARUS version that includes update number 56, from July 2008. We extract all private US companies and exclude mere branch locations. For the sake of clarity—namely to avoid any confusion with the corporation’s place of incorporation—we will refer to a corporation’s main location as the firm’s PPB.

4. Available at <http://www.bvdep.com/en/icarus.html>. As explained before, most of the empirical analysis of incorporation choices has focused on public firms using Compustat data. The ICARUS database on the other hand is relatively new, has not been used to study incorporation choices at all, and has been exploited only infrequently for other academic work. However, it should be noted that other older databases of Bureau van Dijk, especially the AMADEUS database, which covers European businesses, are well known and have been used frequently in academic research.

In general, the database contains one entry per company. However, the information provided does not refer to the same year for all firms (i.e., information for some businesses in this database, e.g., on the size of the business, may be for 2005). For this study, we utilize only entries of businesses for which the last available data refer to either 2006 or 2007 and that had at least 20 employees in at least 1 year in 2006 or 2007.<sup>5</sup>

We keep only corporations. ICARUS does not provide direct information regarding the entity type. Therefore, we make use of legal rules governing entity names to identify the entity type for the purpose of our study. For example, an entity whose name ends with the word “corporation” or an abbreviation thereof will be treated as a corporation. A more detailed description of the relevant coding rules is given in Appendix B.

Moreover, we keep only firms whose PPB is located in 1 of the 50 states or in the District of Columbia and disregard firms whose PPB is located abroad or in the U.S. territories.

Furthermore, we drop corporations whose primary business is in service industries with Standard Industrial Classification (SIC) codes 80 (health services), 82 (educational services), 83 (social services), 84 (museums, art galleries, and botanical and zoological gardens), or 86 (membership organizations). The reason is that, in practice, these services will often be provided by nonprofit corporations. Given that nonprofit corporations are often subject to special legal rules, their incorporation choices do not allow any inference regarding incorporation choices by for-profit firms. In addition, we also drop corporations with SIC codes 90–99, that is, those in the sectors belonging to the public administration. In any case, we have confirmed that our results remain essentially unchanged regardless of whether or not we drop these industries.

After cleaning the data and dropping observations for which key variables of interest are missing, we arrive at a data set with 266,531 company observations.<sup>6</sup>

To our company-level data set, we add state-level data from a variety of sources. For the gross domestic product (GDP) per state data, we rely on data from the Bureau of Economic Analysis (BEA).<sup>7</sup> These data refer to the year 2006 and were last updated in June 2007. As a proxy for industrial structure of the state, we use data on the number of manufacturing establishments, which we obtain from the U.S. Census Bureau.<sup>8</sup> As a proxy for the perceived quality of judiciaries, we use the scores that the state judiciaries were awarded in the U.S. Chamber of Commerce State Liability Systems Rankings Study 2007. As

5. In a few cases, firms are listed twice in the database, with separate entries for 2006 and 2007. In these cases, we drop the earlier observation and keep only the observation referring to 2007.

6. The mean revenue of corporations in the final data set of corporations with 20 or more employees is \$22.56 million (with a standard deviation of \$419 million); the median is \$3 million. The mean number of employees is 158 (standard deviation: 1874), whereas the median is 36 employees.

7. BEA, Regional Economic Accounts, Gross Domestic Product by State, available at <http://www.bea.gov/bea/regional/gsp/action.cfm> (last visited 13 November 2007).

8. Available at: <http://www.census.gov/prod/2004pubs/02cbp/cbp02-1.pdf>.

Table 1. Incorporation Choices by Company Size

	Number of observations (1)	Incorporated in PPB state (%) (2)	Incorporated in Delaware (%) (3)	Incorporated in Delaware if not in PPB state (%) (4)
All companies ( $\leq 20$ employees)	266,531	93.28	3.82	53.09
20–99 employees	218,911	95.66	2.07	42.21
100–999 employees	42,946	85.40	9.16	60.92
1000–4999 employees	3687	57.61	33.14	76.71
$\leq 5000$ employees	987	41.34	49.75	83.07

Source: Own calculations based on ICARUS database.

regards the content of the various state laws (i.e., veil piercing, fiduciary duties and oppression statutes, and exculpation statutes), the coding of the relevant variables will be explained below. The full state-level data that is used in our econometric work is given in Appendix A.

### 3. Where Do Closely Held Corporations Incorporate?

We start by investigating the untested presumption in the literature that closely held firms have a tendency to incorporate locally, meaning in the state where their PPB is located. Table 1 (column 2) shows that, indeed, 93.3% of all corporations in our data set incorporate locally. In Table 3, the percentage of local corporations that are incorporated locally rather than out of state is shown for each state. However, we find strong size effects: The larger the firm size, the less likely corporations are incorporated in their home state. Of the set of corporations with 1000–4999 employees, slightly less than half are incorporated locally, whereas of the largest corporations, 6 of every 10 are not incorporated in their PPB state.<sup>9</sup> Naturally, that raises the question of where those corporations end up that decide against incorporating locally. As column 4 of Table 1 shows, the majority of these firms are incorporated in Delaware. Moreover, as firm size increases, the share of businesses that are incorporated in Delaware (conditional on not being incorporated in their home state) is well above 50% and reaches 83% for the largest size group considered here.

The extent to which Delaware dominates the market for closely held corporations that incorporate outside of their PPB state becomes evident from

9. There are various potential explanations for this size effect that we hope to explore in future research. They particularly include the disproportionate burden that additional filing requirements impose on smaller firms (cf. Ayres 1992), the fact that larger firms are more likely to have access to interstate as opposed to intrastate law firms (cf. Daines 2002), and the fact that smaller firms are more likely to dislike having to litigate external or internal matters in a forum that is geographically distant from their state of incorporation (cf. Ayres 1992). Moreover, one of the potential attractions of incorporating in Delaware—namely having access to high quality courts—may be more important to larger corporations than to smaller ones (cf. *infra* Section V).

Table 2. Where Do Corporations Incorporate Outside of Their Home State?

State of incorporation if not state of PPB	%	State of incorporation if not state of PPB	%	State of incorporation if not state of PPB	%
Delaware	53.10	Minnesota	0.86	Wyoming	0.32
New York	6.43	District Of Columbia	0.82	South Carolina	0.30
Florida	2.66	Tennessee	0.82	Oklahoma	0.28
Nevada	2.41	Connecticut	0.75	Mississippi	0.27
California	2.31	Iowa	0.74	South Dakota	0.25
Illinois	2.31	Kentucky	0.67	Utah	0.24
New Jersey	2.30	Louisiana	0.60	Idaho	0.23
Texas	2.00	Oregon	0.60	New Hampshire	0.23
Pennsylvania	1.96	Kansas	0.58	West Virginia	0.23
Ohio	1.85	Arizona	0.56	North Dakota	0.21
Virginia	1.63	Indiana	0.53	Arkansas	0.20
Georgia	1.61	Wisconsin	0.46	Maine	0.20
Missouri	1.52	Nebraska	0.38	Rhode Island	0.16
Michigan	1.27	Alabama	0.38	Montana	0.15
Maryland	1.18	New Mexico	0.37	Alaska	0.12
Massachusetts	1.10	Washington	0.35	Hawaii	0.11
North Carolina	0.99	Colorado	0.33	Vermont	0.08

Source: Own calculations based on ICARUS database.

Table 2. New York is a distant second, attracting 6.4% of those corporations that do not incorporate locally. Florida, Nevada, California, Illinois, and New Jersey all attract about 2.3%–2.7%. These results show that it is justified to focus on Delaware as the main alternative to local incorporation.<sup>10</sup>

#### 4. The Intention to Go Public

One possible motivation behind the decision to incorporate in Delaware may be the desire to go public at a later time. Delaware's popularity among IPO firms is well documented: Daines (2002: 1563) examines a sample of 6671 IPOs between 1978 and 2000 and finds that Delaware "has a nearly 70% share of IPO firms and 95% share of [IPO] firms incorporating outside their home state." Accordingly, some closely held firms may incorporate in Delaware not because Delaware's legal system offers any particular advantage for closely held corporations but because they expect to go public at a later stage.

Whether Delaware's popularity among IPO firms can explain Delaware's popularity among closely held corporations more generally depends on *when* IPO firms incorporate in Delaware: If IPO firms tend to incorporate in Delaware only immediately before going public—and hence at a time when the IPO

10. In unreported work, we also studied whether corporations based in certain states or active in certain industries are more likely to incorporate in Delaware. Whereas there are some regional patterns, we do not find that any one region or any one sector is driving the results.

Table 3. Incorporation Choices by State

	% Incorporated in PPB state	% Incorporated in Delaware		% Incorporated in PPB state	% Incorporated in Delaware		% Incorporated in PPB state	% Incorporated in Delaware
Alabama	0.94	0.03	Kentucky	0.92	0.03	North Dakota	0.95	0.01
Alaska	0.99	<0.01	Louisiana	0.97	0.01	Ohio	0.95	0.03
Arizona	0.94	0.02	Maine	0.96	0.02	Oklahoma	0.94	0.03
Arkansas	0.95	0.02	Maryland	0.91	0.04	Oregon	0.97	0.01
California	0.95	0.03	Massachusetts	0.92	0.06	Pennsylvania	0.94	0.04
Colorado	0.65	0.17	Michigan	0.97	0.02	Rhode Island	0.50	0.20
Connecticut	0.90	0.06	Minnesota	0.95	0.02	South Carolina	0.92	0.03
Delaware	0.96	(0.96)	Mississippi	0.95	0.02	South Dakota	0.96	0.01
District of Columbia	0.71	0.12	Missouri	0.94	0.03	Tennessee	0.94	0.02
Florida	0.95	0.02	Montana	0.97	0.01	Texas	0.94	0.04
Georgia	0.94	0.03	Nebraska	0.96	0.02	Utah	0.94	0.03
Hawaii	0.98	0.01	Nevada	0.96	0.01	Vermont	0.94	0.03
Idaho	0.96	0.01	New Hampshire	0.84	0.07	Virginia	0.93	0.04
Illinois	0.89	0.08	New Jersey	0.84	0.06	Washington	0.95	0.02
Indiana	0.53	0.19	New Mexico	0.96	0.01	West Virginia	0.62	0.11
Iowa	0.96	0.02	New York	0.93	0.05	Wisconsin	0.95	0.02
Kansas	0.90	0.02	North Carolina	0.94	0.03	Wyoming	0.95	0.02

Source: Own calculations based on ICARUS database.



is relatively certain to occur—then the desire to go public cannot explain the large number of closely held firms incorporated in Delaware. That is because there are only relatively few IPO firms, and under the aforementioned scenario, they have only a brief life as closely held Delaware corporations.

If, by contrast, firms planning to go public later on tend to incorporate in Delaware long before they actually go public, then the picture changes. In the latter case, it is entirely conceivable that the ranks of closely held Delaware corporations might be swollen not only by the comparatively small number of actual IPO firms but by the potentially much larger and hard-to-estimate number of firms that originally planned to go public but never realized their aspirations.

To shed some light onto this problem, we perform our own analysis of IPO data. Relying on the database Hoovers, we focus on IPOs in the years 2006 and 2007. For that time frame, we find 270 corporations that went public. Of those 270 corporations, 237 (88%) were incorporated in Delaware at the time of their IPO. The question, then, is how long these corporations had been incorporated in Delaware before going public. To answer this question, we rely on data gathered from the online entity database of the Division of Corporations of the State of Delaware.<sup>11</sup> We find that the 237 corporations that went public in 2006 or 2007 and were Delaware corporations at the time of their IPO had, on average, been incorporated in Delaware 4.95 years before going public. The median time is 4.15 years. Moreover, 181 of the 237 corporations (76%) had incorporated in Delaware more than 1 year before their IPO. This suggests that firms desiring to go public as Delaware corporations incorporate in that state well ahead of the desired IPO. We cannot exclude, therefore, that a nontrivial portion of the closely held corporations that are incorporated in Delaware have chosen that state not because of what its legal system offers to closely held corporations but because of its attractiveness to publicly traded firms.

This matters to the interpretation of our findings. Certain features of the legal system such as courts or rules governing the liability of directors are potentially relevant to both public corporations and closely held corporations. To the extent that such features appear to be correlated with the incorporation choices of closely held firms, this correlation may be due to direct channels (meaning that the relevant features are directly correlated with decisions of closely held firms) or indirect channels (meaning that closely held firms only care about the relevant features because they intend to go public later).

## 5. Courts

In the literature on public corporations, it is widely believed that one reason for Delaware's popularity as a state of incorporation lies in the quality of its judiciary (Alva 1990; Black 1990; Kamar 1998). And a recent empirical study

11. Available at <http://sos-res.state.de.us/tin/GINameSearch.jsp>.

also finds evidence that courts matter to the incorporation choices of public corporations (Kahan 2006).

However, the theoretical relevance of courts for incorporation choices is far less obvious with respect to closely held corporations than with respect to publicly traded ones. On the one hand, the lower number of owners means that closely held firms may find it easier than their publicly traded counterparts to resolve internal conflicts via negotiation rather than litigation. On the other hand, conflicts that do not go to court tend to be negotiated “in the shadow of litigation” (Bebchuk and Fried 2001). In other words, the expected outcome of litigation is highly relevant even to those cases that are resolved without the help of courts. To investigate the relevance of courts, we seek to determine whether corporations are less likely to incorporate out of state if the courts of their PPB are held in high esteem. Following Kahan (2006), we rely on the scores that the state judiciaries were awarded in the 2007 U.S. Chamber of Commerce State Liability Systems Rankings Study. That study relies on a survey of “senior attorneys, in-house general counsel, senior litigators and senior attorneys who are knowledgeable about litigation matters at companies with annual revenues of at least \$100 million” (16). Accordingly, the study does not necessarily offer an objective assessment of the quality of state courts (Abaray 2006). Rather, it may have a certain probusiness bias. In the corporate context, that probusiness bias may conceivably translate into a bias in favor of corporate boards and controlling shareholders and to the detriment of minority investors. To emphasize this limitation, we speak of the “perceived” quality of courts.

## 6. Substantive Law

The debate on public corporations has long been dominated by claims that corporate migration patterns are determined by differences in substantive law. It is not obvious, however, to what extent substantive law plays a role in the incorporation choices of closely held firms. On the one hand, the law on closely held corporations tends to be even more flexible than the law governing public corporations, and that flexibility may eliminate the need to incorporate out of state (Ayres 1992). On the other hand, replacing legal default rules with individually crafted charter provisions can have various disadvantages (Klausner 1995; Hansmann 2006). And in any case, even the law on closely held corporations contains some mandatory rules.

To study the relevance of substantive law, we focus on three particular features of the law governing closely held corporations, namely, the rules governing veil piercing, the law on fiduciary duties, and the legality of so-called exculpation clauses. All three areas of the law have in common that they rely—at least to some extent—on rules that the corporation cannot opt out of in its charter.

### 6.1 Veil Piercing

Given the central importance that limited liability has for investors, the law on veil piercing—that is, the law on the question of whether shareholders will be held personally liable for the debts of the corporation—seems a plausible

suspect for explaining incorporation choices. Nonetheless, it is by no means obvious that the law on veil piercing has any impact on the decision where to incorporate. At first glance, there are reasons to doubt that veil piercing law is relevant to incorporation decisions.

First, it is very difficult for corporations or anyone else to determine which states are more prone to pierce the veil than others. The law on veil piercing relies on vague standards rather than on clear-cut rules (Fox 1994; Bainbridge 2001; Millon 2007), making it difficult to evaluate the piercing risk *ex ante*. Needless to say, to the extent that corporations cannot tell which state laws carry a greater or lesser risk of veil piercing than others, they cannot easily base their incorporation decisions on that factor.

Second, when it comes to piercing the corporate veil, not all states commit to a clear rule of applying the law of the state of incorporation. Rather, some courts have applied state law other than the law of the state of incorporation, usually as a result of balancing all facts of the case and determining that this other state has the strongest interest concerning the transaction at issue, for example, *Coyer v. Hemmer*, 901 F. Supp. 872, 881 (D.N.J. 1995). This is particularly important because of the potential for forum shopping by veil piercing plaintiffs: as a result of their business activities, large corporations will often be subject to personal jurisdiction in more than one state (cf. Dammann 2008). At least in veil-piercing cases, the same is true for their shareholders because the concept of piercing the corporate veil is applied as well when it comes to establishing personal jurisdiction, for example, *Bowers v. Wurzburg*, 501 S.E.2d 479, 490 (W.Va. 1998). Accordingly, large corporations can rarely be sure that all future attempts to pierce the corporate veil will be governed by the law of their state of incorporation. This should reduce the incentive to choose a state of incorporation based on that state's law on veil piercing.

For the sake of clarity, it should be added that the potential for forum shopping does not necessarily eliminate the incentive to incorporate in a state with high standards for piercing the corporate veil. For example, future plaintiffs may base their decision where to bring suit on other factors such as the convenience of the forum. Even more importantly, those courts that have refused to apply the law of the state of incorporation in veil-piercing cases have typically done so as a result of a comprehensive balancing analysis, for example, *Coyer v. Hemmer*, 901 F. Supp. 872, 881 (D.N.J. 1995). Thus, even in states that refuse to adhere to a strict rule of applying the law of the state of incorporation in veil-piercing cases, the place of incorporation may well remain one of the factors in determining which substantive law is applied (cf. *id.*).

In any case, it is noteworthy that those corporations that try to minimize the risk of veil piercing when they choose their state of incorporation are not left without guidance. Thompson (1991) undertakes an empirical analysis of veil-piercing cases across the United States. As part of his findings, he presents—for the law of each state as well as for the law of the District of Columbia—the percentage of veil-piercing decisions in which the plaintiff's attempt to pierce the veil was successful. Needless to say, these data do not really allow any conclusions regarding the *actual* likelihood that the corporate veil will be

pierced in a given state (cf. Thompson 1991). After all, different types of cases may be brought to trial in different states (cf. Priest and Klein 1984). For example, in states where the courts pierce the corporate veil only in a narrowly defined group of cases, plaintiffs may be reluctant to bring suit except in the most egregious situations, meaning that the percentage of cases in which the veil is pierced may actually be higher in such states than in states where courts are quicker to pierce the veil.

Nonetheless, Thompson's study proves helpful in the context at hand. In part, this is because published piercing cases may shape the expectations of lawyers and corporations despite the fact that they do not really allow any conclusions regarding the actual risk of veil piercing. Moreover, to some extent, Thompson's study itself may well have shaped the expectations of lawyers and corporations. This is because his study is being used by incorporation services to support the claim that some states are more likely to pierce the corporate veil than others.<sup>12</sup>

In our regression framework below, we therefore rely on Thompson's data. The variable *easy to pierce* takes on the value 1 if the percentage of cases in which the veil was pierced according to Thompson's study is greater than 50%. If the veil was pierced in 50% or less of all piercing cases, then the variable takes on the value 0. We also perform robustness checks with the percentage pierced directly.

## 6.2 Fiduciary Duties and Oppression Statutes

The second area of substantive law that we focus on is the law governing the protection of minority shareholders. Unlike in publicly traded corporations where the primary agency conflict tends to arise between managers and shareholders, it is the conflict between controlling shareholders and minority shareholders that has proven the most substantial challenge for the law on closely held corporations. The minority shareholders may suffer various sorts of oppressive behavior that aim at enriching the controlling shareholder(s) at the expense of the minority (Ragazzo 1999). Most importantly, the controlling shareholder may use his control to extract private benefits—for example, in the form of a lush salary—while at the same time preventing the payment of dividends to the minority shareholders. To protect minority shareholders against such abuses, state laws have developed two main approaches, namely oppression statutes and enhanced fiduciary duties (Thompson 1993; Moll 2001).

Oppression statutes allow the courts to dissolve the corporation if the minority shareholders suffer oppression or unfairness at the hands of those in control. For coding purposes, it is noteworthy that the relevant statutes vary somewhat in their wording. Some explicitly use the term “oppression” or variations thereof, whereas others use the term “unfairness” or variations thereof or simply ask whether liquidation is “reasonably necessary for the protection

12. See, for example, Corporate Nevada Ltd., *Why Incorporate in Nevada*, available at <http://blog.corpnevadausa.com/2007/04/02/incorporate-in-nevada.aspx> (last visited 14 November 2007).

of the rights or interests of the complaining shareholder” (N.C. Gen. Stat. §55-14-30 (2007)).<sup>13</sup>

Regarding fiduciary duties, some states, such as Massachusetts, are famous for imposing stronger fiduciary duties on the shareholders of closely held corporations than on the shareholders of public corporations. The underlying idea is that shareholders in a closely held corporation are more comparable to partners in a partnership than to shareholders in a public corporation, so that their relations should be governed by partnership-style fiduciary duties, *Donahue v. Rodd Electrotype Co.*, 328 N.E.2d 505, 515 (Mass. 1975). Other states, such as Delaware, have explicitly rejected such an approach, for example, *Nixon v. Blackwell*, 626 A.2d 1366, 1380–81 (Del. 1993).

Obviously, oppression statutes and partnership-style fiduciary duties are to some extent interchangeable mechanisms (Mitchell 1990, Thompson 1993): For a minority shareholder oppressed by those in control, the question of whether he is protected by an oppression statute or by partnership-style fiduciary duties matters far less than the question of whether he is protected by at least one of these two instruments. Therefore, we have constructed a variable—*low protection*—that takes into account both the existence of oppression statutes and the extent to which the law recognizes partnership-style fiduciary duties in closely held corporations.

With respect to fiduciary duties, we build on a recent article by Siegel (2004) that classifies states according to what position their courts take on the issue of fiduciary duties in closely held corporations. Siegel refers to the Massachusetts approach with its partnership-style fiduciary duties as the “true majority” rule, whereas she calls Delaware’s position the “true minority” rule. According to her, the states can be divided into six main categories namely (1) states that have adopted the true majority rule, (2) states that have partially adopted the majority rule, (3) states that are too close to call, (4) states that cannot be assigned to either the minority or the majority rule because their courts solve the relevant cases under an oppression statute rather than by invoking fiduciary duties, (5) states that cannot be assigned to either the majority or the minority rule because their courts have not decided the issue, and (6) states that have adopted the minority rule.

Our variable *low protection* takes into account whether the state has adopted an oppression statute and to what extent it recognizes enhanced fiduciary duties in closely held corporations. The variable *low protection* takes on the value 0 if either the state has enacted an oppression statute (see above) or if the state has adopted the “true majority rule,” that is, the generous Massachusetts position on fiduciary duties. By contrast, the variable *low protection* takes on the value 1 if neither of the aforementioned conditions is fulfilled (cf. Appendix A).

For robustness checks, we have also constructed two further variables, namely *low protection 2* and *low protection 3*. Both variables are more

13. We do not distinguish between statutes that directly allow for dissolution and statutes that view dissolution as a means of last resort. Furthermore, we disregard those provisions that only apply to so-called statutory close corporations, that is, corporations that have opted into a special set of norms for closely held firms.

generous than *low protection* when it comes to evaluating the protective effect of fiduciary duties. For *low protection 2* to be zero—indicating a high level of protection—the state must either have adopted an oppression statute or must have truly or partially adopted the (generous) Massachusetts position on fiduciary duties. *Low protection 3* is largely identical to *low protection 2* except that *low protection 3* also takes on the value 0 if, regarding the fiduciary duty question, the state falls into the “too close to call” category.

### 6.3 Exculpation Statutes

Another issue of potential relevance to closely held corporations concerns the legality of so-called exculpation clauses: Corporate directors are generally protected from personal liability for bad business decisions by the so-called business judgment rule. However, as a general rule, they lose that protection if they face a conflict of interest, act in bad faith, or fail to get reasonably informed. For independent directors on the boards of publicly traded corporations, the risk of being held personally liable began to seem quite real after the famous *Smith v. Van Gorkom* decision in which the Delaware Supreme Court, to the surprise of many, found that the directors of a public corporation that had been sold in a somewhat hasty fashion were grossly negligent and could not claim the protection of the business judgment rule, *Smith v. Van Gorkom*, 488 A.2d 858, 881 (Del. 1985). The Delaware legislature reacted by enacting section 102(b)(7) of the Delaware General Corporation Law—a provision that specifically allows corporations to limit or eliminate the personal liability of directors for certain types of duty violations via so-called exculpation clauses in the corporate charter. Many other states soon followed suit (Kahan and Rock 2005), but some did not. This leads to the question of whether the existence of a statute that allows for exculpation clauses in the charter or even provides for a limitation of directorial liability as the default has any impact on incorporation decisions. In a recent article, Kahan (2006) uses state-level data to analyze that question with respect to IPO firms and finds that a larger share of firms incorporates in the home state if the home state has a statute allowing exculpation clauses.

However, there is reason to doubt whether the rules on exculpation clauses also matter to closely held corporations. In particular, the prevalence of exculpation statutes may at least in part be owed to opportunism on the part of corporate boards.<sup>14</sup> In closely held corporations that tend to be controlled by one or more shareholders, such opportunism should be easier to contain.

14. One might be tempted to point out that opportunism on the part of directors should not matter for IPO firms and that those are the very firms that (Kahan 2006) focuses on. However, to the extent that investors anticipate opportunistic midstream charter amendments, they will not reward IPO firms that abstain from including an exculpation clause in their charter. Inter alia for that reason, (anticipated) opportunism on the part of directors may explain why even IPO charters are inefficiently prone to contain exculpation clauses. For a more general assessment of why IPO charters may contain inefficient terms see, for example, Bebchuk (2003).

To study the relationship between incorporation choices and exculpation clauses, we rely on the coding used by Kahan (2006) who distinguishes between those states that have enacted statutes allowing exculpation clauses and those that have not. Accordingly, our variable *exculpation statute* is equal to 1 if a state has enacted statutes allowing exculpation clauses, and 0 otherwise.

## 7. Results

This section provides the main empirical results regarding the determinants of incorporation decisions. In all of the following regressions, the dependent variable is an indicator function that is 1 if a corporation is incorporated in its PPB state, 0 otherwise. Therefore, all regressions results are from probit models, and we show the marginal probit coefficients. Furthermore, note that all standard errors are corrected for correlation of standard errors at the state level, which is important in the present context because we use firm-level observations, whereas the key variables of interest only vary at the state level. We include a standard set of baseline controls at the firm level and at the state level, which is guided by Bebchuk and Cohen (2003).<sup>15</sup> Thus, we include in all specifications the logarithms of the corporation's employment and revenue. We also include variables to control for state population, the number of manufacturing establishments in a state, as well as state GDP per capita. Finally, we also control for industry effects by including a full set of industry dummies at the two-digit level. The key results are in Table 4.<sup>16</sup>

### 7.1 Baseline Variables

As regards the baseline variables, we confirm the size effects that we observed earlier: The estimated coefficients for both indicators of firm size—revenue and employment—are negative. Larger corporations are less likely to incorporate locally. The results regarding the state-level variables are mixed: Whereas state population and the number of manufacturing establishments in state are not significant, GDP per capita is correlated with the decision where

15. Notably our specification differs because we do not have firm value and therefore we cannot compute Tobin's Q. Nor can we compute return on assets. However, note that these two variables were insignificant in their baseline results (Bebchuk and Cohen 2003, table 7) and not included in later specifications. Bebchuk and Cohen (2003) also include variables that indicate whether the firm went public recently. Unfortunately, information about the year of incorporation in our data is missing for a large number of observations (about two-thirds of the observations). Therefore, we have left out this variable in our baseline regressions. However, in unreported regressions that include this measure (and therefore exclude observations from District of Columbia), we confirm that our findings regarding key variables remain essentially unchanged.

16. The information about quality of courts does not exist for the District of Columbia. Therefore, the following empirical analysis does not include the 601 corporations with PPB in the District of Columbia (of the 266,531 corporations in our full sample). However, in unreported results we confirm that the key results regarding the other variables are unchanged when we include the observations from the District of Columbia.

Table 4. Baseline Results

Dependent variable = 1 if incorporated in home state				
	20–99 employees (1)	100–999 employees (2)	1000–4999 employees (3)	5000+ employees (4)
Log(revenue)	−0.012 (0.001)***	−0.030 (0.003)***	−0.057 (0.016)***	−0.080 (0.026)***
Log(employees)	−0.008 (0.001)***	−0.059 (0.004)***	−0.096 (0.021)***	−0.019 (0.029)
Log(total state population)	0.022 (0.016)	−0.004 (0.036)	−0.070 (0.115)	−0.153 (0.142)
Log(total state establishments)	−0.014 (0.014)	0.014 (0.033)	0.034 (0.102)	0.165 (0.145)
Log(state GDP per capita)	−0.054 (0.026)**	−0.137 (0.066)**	−0.298 (0.157)*	−0.205 (0.165)
Low protection	−0.002 (0.005)	0.007 (0.016)	0.108 (0.049)**	0.278 (0.055)***
Excultation statute	−0.013 (0.007)**	−0.030 (0.018)*	−0.110 (0.060)*	−0.130 (0.041)***
Easy to pierce (>50%)	−0.002 (0.008)	−0.026 (0.026)	−0.125 (0.071)*	−0.185 (0.053)***
(R)MBCA state	0.003 (0.006)	0.009 (0.015)	−0.043 (0.040)	−0.044 (0.045)
Courts quality (score/100)	0.072 (0.056)	0.136 (0.142)	0.838 (0.366)**	1.814 (0.342)***
Industry fixed effects included at two-digit level	Yes	Yes	Yes	Yes
Observations	218,419	42,832	3667	964
Log-pseudolikelihood	−36,141.8	−16,057.1	−2250.7	−551.8

Marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level.  
Significant at \*10%, \*\*5% and \*\*\*1%.

to incorporate for all but the largest firms. Corporations from richer states (as measured by GDP per capita) are less likely to incorporate locally.

## 7.2 Courts

As the perceived quality of a state's judiciary increases, so does the likelihood that a corporation with its PPB in that state incorporates locally. A positive association exists for all size groups that we are looking at, but it is particularly strong and statistically significant for larger firms with 1000 or more employees (columns 3 and 4). Importantly, the parameter estimate on the courts score variable is not only statistically significant, but the magnitude is also economically important. The parameter estimate for firms in the 1000–4999 employees category implies that increasing the perceived quality of courts score by 1 point (and leaving all other variables at their mean values of the sample) is associated with a 0.838 percentage points higher probability of being incorporated locally (note that for the regressions the courts score measure is rescaled, namely divided by 100). Therefore, a corporation from a state that is at the 75th percentile of the courts score (with a score of 66.7) has a probability of being incorporated in the PPB state that is approximately 7.5



percentage points higher than it is for a corporation at the 25th percentile of the courts score (with a score of 57.7).

We are controlling for many other state characteristics that high-quality courts may be a proxy for, so these cannot explain the finding. In other words, courts remain positively correlated with incorporation choices even after controlling for other relevant state-level characteristics.

For the sake of clarity, we wish to emphasize that we cannot be sure whether any correlation that the perceived quality of courts has with the incorporation choices of closely held firms is of a direct or indirect nature. Given the apparent importance of courts to publicly traded firms (cf. Kahan 2006), some closely held firms may take into account the quality of courts because they plan to go public later (see *supra* Section IV). Other closely held firms may mimic the incorporation choices of their publicly traded parent corporations, for example, because the parent does not wish to deal with different corporate law regimes. Thus, to the extent that the perceived quality of courts matters for the incorporation choice of the publicly traded parent, it may indirectly matter to the subsidiary as well.

### 7.3 Veil piercing

We find that corporations with 1000 or more employees are less likely to incorporate in their PPB state if, under the law of that state, the perceived risk of the corporate veil being pierced is relatively high (as indicated by our variable *easy to pierce*). As a comparison across columns shows, this finding is strongest for firms with 5000 or more employees, where it is both statistically and economically significant. For the smallest firms in our sample, there still is a negative coefficient, but it is no longer statistically significant (columns 1 and 2).

### 7.4 Fiduciary Duties and Oppression Statutes

We find that our variable indicates low protection is positive for corporations with 100 or more employees and statistically significant for the larger firms with 1000 or more employees (columns 3 and 4). Thus, large firms are more likely to incorporate in their PPB state if the degree of protection that the PPB state's law offers minority shareholders is low. Once again, the parameter estimate on the *low protection* variable is not only statistically significant, but the magnitude is also economically significant. For larger firms (1000–4999 employees), the coefficient of 0.108 implies that being located in a PPB state with low protection as opposed to a state with high protection (and the mean values in the sample of other variables) is associated with a 10.8 percentage points larger probability of being incorporated in the PPB state.

We stress that these findings are somewhat difficult to interpret, and in particular do not allow us to conclude that there exists a race to the bottom with respect to minority protection. Admittedly, opportunism on the part of controlling shareholders provides one possible explanation for why a low level of

minority protection increases the likelihood that a corporation remains incorporated locally. However, it is also possible that lower levels of minority shareholder protection are preferred because they are more efficient. For example, in light of the ability of shareholders in closely held firms to enter into detailed shareholder agreements, partnership-style fiduciary duties and oppression statutes may prove unnecessary and may simply make future litigation less predictable.

### 7.5 Exculpation Statutes

The findings in Table 5 indicate that corporations are less likely to incorporate in their PPB state if that state has adopted an exculpation statute. This is the opposite of what Kahan (2006) finds for public corporations. Previewing a result from our robustness checks below we note, however, that the variable *exculpation* is no longer statistically significant at conventional levels once we include region fixed effects. As regards the interpretation of these findings, we should also note that, similar to what we said about courts (see above), we cannot be sure whether the observed correlation between exculpation statutes and incorporation choices of closely held firms is due to direct or to indirect channels.

### 7.6 (Revised) Model Business Corporation Act

Finally, we also include an indicator variable that is 1 if a state has adopted the Model Business Corporation Act (MBCA) or the Revised Model Business Corporation Act (RMBCA) and 0 if the state has adopted neither act. There is no statistically significant association between a state having adopted the RMBCA or the MBCA and the probability that corporations in that state incorporate locally. For the largest corporations (1000–4999 and 5000+ employees), there is a negative correlation but that correlation is not significant at conventional levels. This finding parallels findings of Bebchuk and Cohen (2003) who find no association between the incorporation decisions of public firms and whether their home state has adopted the RMBCA or the MBCA or not.

### 7.7 Robustness Checks for Data Limitations

We now provide a number of robustness checks that will demonstrate that some limitations of the data cannot account for our key results. In particular, we investigate whether (a) the inclusion of wholly owned subsidiaries of other companies can account for our findings, (b) whether the number of shareholders, about which we only have limited information, is an omitted variable that other variables proxy for, and (c) whether missing data for state of incorporation can explain our findings.

We start with the question whether the inclusion of wholly owned subsidiaries of other companies can account for our findings. To this end, we can make use of an independence indicator that is available in the data. Unfortunately,

Table 5. Robustness Checks

Dependent variable = 1 if incorporated in home state						
	Wholly owned excluded			Only corporations with shareholder information		
	20–999 employees (1)	1000–4999 employees (2)	5000+ employees (3)	20–999 employees (4)	1000–4999 employees (5)	5000+ employees (6)
Log(revenue)	–0.014 (0.001)***	–0.063 (0.018)***	–0.086 (0.027)***	–0.032 (0.004)***	–0.015 (0.014)	–0.032 (0.026)
Log(employees)	–0.017 (0.001)***	–0.090 (0.022)***	–0.010 (0.036)	–0.045 (0.005)***	–0.087 (0.027)***	–0.046 (0.026)*
Log(total state population)	0.019 (0.018)	–0.046 (0.116)	–0.098 (0.148)	0.057 (0.057)	–0.058 (0.126)	–0.113 (0.148)
Log(establishments2002)	–0.011 (0.017)	0.014 (0.103)	0.113 (0.149)	–0.055 (0.052)	0.019 (0.113)	0.106 (0.148)
Log(GDP per capita)	–0.063 (0.030)**	–0.276 (0.157)*	–0.252 (0.169)	–0.246 (0.101)**	–0.210 (0.182)	–0.149 (0.176)
Low protection	–0.001 (0.007)	0.109 (0.050)**	0.253 (0.061)***	–0.000 (0.025)	0.137 (0.063)**	0.316 (0.061)***
Exculpation statute	–0.015 (0.008)*	–0.110 (0.057)*	–0.154 (0.042)***	–0.060 (0.030)**	–0.140 (0.075)*	–0.199 (0.040)***
Easy to pierce (>50%)	–0.004 (0.010)	–0.129 (0.073)*	–0.154 (0.061)**	–0.023 (0.035)	–0.151 (0.073)**	–0.193 (0.051)***
R(MBCA) state	0.004 (0.007)	–0.042 (0.041)	–0.031 (0.048)	0.006 (0.022)	–0.028 (0.049)	–0.079 (0.042)*
Courts quality (score/100)	0.081 (0.065)	0.816 (0.354)**	1.760 (0.324)***	0.248 (0.204)	1.192 (0.354)***	2.014 (0.366)***
Log(number of shareholders)				–0.118 (0.012)***	–0.073 (0.032)**	0.003 (0.055)
Industry fixed effects included at two-digit level	Yes	Yes	Yes	Yes	Yes	Yes
Observations	260,014	3482	870	24,191	2295	736
Log-pseudolikelihood	–51,547.6	–2125.8	–495.3	–12,867.0	–1452.1	–395.7

Marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level. Significant at \*10%, \*\*5% and \*\*\*1%.

this independence indicator is coded as “unknown” for about 90% of all companies, so that we cannot use it more generally in our analysis. But, for a subset of companies, this indicator allows us to identify companies with a recorded shareholder with a direct ownership of over 50% (indicated through a “D” in the ICARUS database). There are about 13,000 companies that are coded as having a recorded shareholder with a direct ownership of over 50% and for which we can identify from another variable the percentage of immediate ownership in different hands. Of these 13,000 companies, 1545 (11.9%) have one shareholder who owns 100%.

Note that, where such data are available, it does not allow us to conclude whether the shareholder is a natural person or another legal entity. To check the robustness of our results, we exclude those (relatively few) companies that we know to be wholly owned subsidiaries. The results are reported in columns (1) to (3) of Table 5. All the results are quantitatively and qualitatively similar to our previous findings.

Secondly, we also have only limited information about the number of shareholders of a company. The number of known shareholders is positive for only about 27,000 companies in our data. Because this variable is highly skewed, we use the logarithm of the number of shareholders in our regressions. Columns (4) to (6) of Table 5 show the results. Indeed, we see some change in the significance of the size variables (revenue and employees) in particular for the largest firms, when we include  $\log(\text{shareholders})$ . However, size effects are still large and highly significant except for the largest corporations, even after including the  $\log(\text{shareholder})$  variable. The key results regarding the state-level variables of interest are again very robust.

Interestingly, the number of shareholders variable is negatively correlated with the percentage of corporations incorporating locally, except for the very largest corporations. In other words, corporations with more shareholders are more likely to incorporate out of state. That is intuitively plausible: Given the dominance that Delaware enjoys in the market for public corporations, one would assume that corporations which are more similar to public corporations in that they have more shareholders are also more likely to have a preference for incorporating in Delaware rather than in their PPB state. This said, we caution against overinterpreting this particular finding since it is unclear why there are data on the number of shareholders for some firms but not for others and how the former were selected.

Finally, we investigate whether missing data for state of incorporation can explain our findings. There are four states for which a large fraction of corporations in our data set have missing values for the state of incorporation. The states with the largest share of missing state of incorporation data are Colorado, Indiana, Rhode Island, and West Virginia. All of these states have shares of >80% missing, whereas all other states, with the exception of New Hampshire, which has 54% missing, have significantly less than 50% missing.<sup>17</sup>

17. The District of Columbia has 42% missing, but is not included in our main analysis anyway, because the courts quality data does not exist for District of Columbia.

This is not a problem if missing observations are purely random. However, one could reasonably worry that this is not the case. We investigate whether this may explain some of the results with two robustness checks. To anticipate the findings, we find that all results are remarkably robust to two different approaches to check robustness. First, we simply exclude the five states with share of missing state of incorporation data  $>50\%$ . The results are in Table 6 (columns 1–3). Secondly, one might argue that the state of incorporation is always known whenever a corporation is incorporated outside of its PPB state. If this were true, then all missing values would indicate that the company is incorporated in its home state. We test whether the results would change under this somewhat extreme assumption as follows: Whenever the state of incorporation is missing in the ICARUS data, we assume that the state of incorporation is the PPB state. We use this imputation not just for states with large numbers of observations missing, but for all states. These results are in columns 4–6. Although the absolute magnitudes of some coefficient change, we confirm our earlier key findings in both robustness checks.

## 7.8 Robustness checks for different ways to code substantive law and legal environment

In this subsection, we demonstrate that our results are robust to different ways of coding substantive law and legal environment. We investigate the following areas: (a) minority protection, (b) veil piercing, (c) alternative court coding, and (d) omitted variables at the regional level.

7.8.1. *Minority Protection.* There is some ambiguity regarding the coding of the variable that summarizes whether states offer a high or low degree of protection to minority shareholders. Therefore, we check the robustness of our results by running regressions with two alternative measures of the low protection variable—namely *low protection 2* and *low protection 3* (defined as described above). The results regarding the key variables (see Table 7; baseline controls are included but omitted from the table for brevity) indicate that our main results do not depend on the particular measure of protection that is used.

7.8.2 *Veil Piercing.* Recall, that the variable *easy to pierce* is equal to 1, if in more than half of the court cases ( $>50\%$ ) the veil is pierced. In Table 8, we investigate the robustness of our results to alternative coding possibilities to capture the propensity of state courts to pierce the veil. First, in column (1) and (2), we use a 60% cutoff instead of the 50% cutoff.<sup>18</sup> Secondly, in columns (3) and (4), we use an alternative variable named *percentage pierced*. That

18. Using even higher cutoffs leave us with very few states that are defined as “easy to pierce” and therefore little variation in that variable.

Table 6. Robustness Checks for Missing State of Incorporation Data

Dependent variable = 1 if incorporated in home state						
	Excluding states with share of missing state of incorporation data > 50%			Imputing missing state of incorporation data		
	20–999 employees (1)	1000–4999 employees (2)	5000+ employees (3)	20–999 employees (4)	1000–4999 employees (5)	5000+ employees (6)
Log(revenue)	−0.014 (0.001)***	−0.057 (0.016)***	−0.080 (0.026)***	−0.010 (0.000)***	−0.036 (0.009)***	−0.069 (0.020)***
Log(employees)	−0.017 (0.001)***	−0.096 (0.021)***	−0.019 (0.029)	−0.011 (0.001)***	−0.058 (0.012)***	−0.015 (0.029)
Log(total state population)	0.007 (0.018)	−0.070 (0.115)	−0.153 (0.142)	0.006 (0.011)	−0.028 (0.068)	−0.127 (0.107)
Log(establishments2002)	−0.001 (0.015)	0.034 (0.102)	0.165 (0.145)	−0.002 (0.010)	0.004 (0.061)	0.131 (0.115)
Log(GDP per capita)	−0.055 (0.031)*	−0.298 (0.157)*	−0.205 (0.165)	−0.032 (0.019)*	−0.142 (0.111)	0.103 (0.115)
Low protection	0.003 (0.005)	0.108 (0.049)**	0.278 (0.055)***	0.002 (0.003)	0.067 (0.028)**	0.151 (0.033)***
Exculpation statute	−0.014 (0.008)*	−0.110 (0.060)*	−0.130 (0.041)***	−0.011 (0.006)*	−0.075 (0.038)**	−0.065 (0.029)**
Easy to pierce (>50%)	0.001 (0.007)	−0.125 (0.071)*	−0.185 (0.053)***	0.001 (0.004)	−0.023 (0.041)	−0.091 (0.039)**
R(MBCA) state	0.005 (0.006)	−0.043 (0.040)	−0.044 (0.045)	0.002 (0.004)	−0.026 (0.026)	−0.021 (0.036)
Courts quality (score/100)	0.062 (0.068)	0.838 (0.366)**	1.814 (0.342)***	0.046 (0.050)	0.438 (0.224)*	0.751 (0.216)***
Industry fixed effects included at two-digit level	Yes	Yes	Yes	Yes	Yes	Yes
Observations	258,643	3667	964	378,994	5823	1485
Log-pseudolikelihood	−50,270.6	−2250.7	−551.8	−58,790.2	−3187.7	−913.4

Marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level. Significant at \*10%, \*\*5% and \*\*\*1%.

Table 7. Robustness of Results to Different Low Protection Variables

	Dependent variable = 1 if incorporated in home state					
	20–999 employees (1)	1000–4999 employees (2)	5000+ employees (3)	20–999 employees (4)	1000–4999 employees (5)	5000+ employees (6)
Low protection 2	0.002 (0.006)	0.118 (0.049)**	0.318 (0.058)***			
Low protection 3				–0.001 (0.007)	0.102 (0.056)*	0.272 (0.079)***
Exculpation statute	–0.015 (0.008)**	–0.101 (0.060)*	–0.096 (0.041)**	–0.015 (0.008)**	–0.098 (0.062)	–0.089 (0.048)*
Easy to pierce (>50%)	–0.005 (0.011)	–0.075 (0.069)	–0.075 (0.062)	–0.005 (0.011)	–0.080 (0.072)	–0.081 (0.068)
R(MBCA) state	0.004 (0.007)	–0.053 (0.042)	–0.067 (0.047)	0.004 (0.007)	–0.042 (0.040)	–0.032 (0.053)
Courts quality (score/100)	0.081 (0.066)	0.917 (0.360)**	2.072 (0.354)***	0.080 (0.066)	0.878 (0.375)**	1.905 (0.409)***
Baseline controls included	Yes	Yes	Yes	Yes	Yes	Yes
Observations	261,273	3667	964	261,273	3667	964
Log-pseudolikelihood	–52,387.6	–2251.5	–552.6	–52,388.3	–2255.5	–558.6

Marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level. All regressions include the following baseline controls: log(revenue), log(employees), log(total state population), log(total state establishments); state GDP per capita (in millions); industry fixed effects; and included at two-digit level.

Significant at \*10%, \*\*5% and \*\*\*1%.

Table 8. Robustness of Results to Different Specifications of Veil Piercing

	Dependent variable = 1 if incorporated in home state					
	Easy to pierce if % pierced >60%		Use % pierced		Only states with >5 piercing decisions	
	1000–4999 employees (1)	5000+ employees (2)	1000–4999 employees (3)	5000+ employees (4)	1000–4999 employees (5)	5000+ employees (6)
Low protection	0.087 (0.041)**	0.235 (0.051)***	0.089 (0.048)*	0.252 (0.055)***	0.129 (0.045)***	0.291 (0.051)***
Exculation statute	−0.128 (0.059)**	−0.156 (0.040)***	−0.106 (0.062)*	−0.131 (0.047)***	−0.112 (0.063)*	−0.138 (0.048)***
Easy to pierce (>60%) % Pierced	−0.223 (0.121)*	−0.240 (0.067)***	−0.218 (0.253)	−0.550 (0.263)**	−0.479 (0.220)**	−0.783 (0.239)***
R(MBCA) state	−0.025 (0.037)	−0.009 (0.048)	−0.030 (0.039)	−0.017 (0.045)	−0.019 (0.037)	−0.009 (0.043)
Courts quality (score/100)	0.688 (0.374)*	1.565 (0.342)***	0.717 (0.355)**	1.541 (0.353)***	0.596 (0.361)*	1.434 (0.359)***
Baseline controls included	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3667	964	3667	964	3633	961
Log-pseudolikelihood	−2246.8	−552.2	−2256.4	−553.0	−2227.7	−548.4

Marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level. All regressions include the following baseline controls: log(revenue), log(employees), log(total state population), log(total state establishments); state GDP per capita (in millions); industry fixed effects; and included at two-digit level. Significant at \*10%, \*\*5% and \*\*\*1%.



variable is defined as the percentage of veil-piercing cases in which the veil was pierced. Third, columns (5) and (6) show the results that we obtain if we use *percentage pierced* and only states with  $>5$  piercing decisions. The underlying reason for this robustness check is that in states with few piercing decisions, the perceived veil-piercing risk may well be poorly proxied by the observed percentage. Therefore, we exclude in these robustness checks those observations from states with only few piercing decisions (namely five or less). We obtain similar results if we use 10 piercing decisions as the cutoff. Overall, these robustness checks confirm that our earlier results are robust.

7.8.3 Alternative court coding. One potential problem with using the U.S. Chamber of Commerce State Liability Systems Rankings Study is that some of the characteristics that were part of the underlying survey arguably have no or little relevance to the area of corporate law. To address this problem, we use an alternative variable *new courts score* that parallels the old courts quality measure but excludes from its composition those subscores that arguably have limited or no relevance to corporate law disputes. More specifically, we exclude the scores that states received on the subcategories overall treatment of tort and contract litigation, punitive damages, and noneconomic damages. The results are shown in columns (1) and (2) of Table 9. We find little difference compared to the full Chamber of Commerce variable.

As pointed out above, another shortcoming of the Chamber of Commerce study is its potential probusiness bias, which could conceivably translate into a bias in favor of directors or controlling shareholders. We therefore use two alternative courts quality variables that were developed by Choi et al. (2008). The first of these variables—*independence*—“refers to the judge’s ability to withstand partisan pressures” (Choi et al. 2008: 11). The second is the variable *citations/year*. Roughly speaking, it seeks to capture the quality of state high court opinions by measuring how often state high courts are cited, per judge and year, by out-of-state courts (cf. Choi et al. 2008: 10, 16). The values for these two variables are taken directly from Choi et al. (2008: 16, table 4 column 6; 19, table 6, column 4) and we refer to their paper regarding the details.

The results are displayed in Table 9, columns (3) to (6). Note that the size of the coefficient cannot be compared across quality measures because they are scaled very differently. *Independence* is marginally significant, with an unexpected negative sign.<sup>19</sup> Other key results (regarding low protection and veil

19. In unreported results, we also run a “horse race” between alternative courts quality variables. In particular, we included in our regressions the variables *independence*, *citations/year*, and another variable created by Choi et al. (2008), *opinions\_per\_judge\_per\_year*, individually as well as all three at once, in addition to the Chamber of Commerce courts quality variable. We find that the Chamber of Commerce courts quality variable “dominates” in the sense that it is still highly significant, whereas the other variables are either insignificant or in some cases significant at the 10% level. In all specifications, the Chamber of Commerce variable remains significant for the larger firms, suggesting that it has large explanatory power, even after including the alternative measures.

Table 9. Courts Quality Measure Robustness Checks

Dependent variable = 1 if incorporated in home state						
	1000–4999 employees (1)	5000+ employees (2)	1000–4999 employees (3)	5000+ employees (4)	1000–4999 employees (5)	5000+ employees (6)
Low protection	0.108 (0.049)**	0.280 (0.054)***	0.141 (0.055)**	0.288 (0.064)***	0.111 (0.049)**	0.279 (0.058)***
Exculpation statute	–0.105 (0.055)*	–0.111 (0.035)***	–0.050 (0.057)	–0.017 (0.052)	–0.032 (0.054)	–0.044 (0.066)
Easy to pierce (>50%)	–0.127 (0.070)*	–0.187 (0.053)***	–0.122 (0.079)	–0.160 (0.067)**	–0.115 (0.070)	–0.157 (0.064)**
R(MBCA) state	–0.047 (0.039)	–0.048 (0.044)	–0.013 (0.043)	–0.030 (0.047)	–0.024 (0.042)	–0.006 (0.049)
New courts score	1.178 (0.408)***	2.319 (0.392)***				
Independence			–0.124 (0.219)	–0.413 (0.243)*		
Citations/year					0.003 (0.003)	–0.002 (0.004)
Baseline controls included	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3667	964	3425	897	3667	964
Log-pseudolikelihood	–2248.3	–551.3	–2105.4	–520.8	–2258.4	–562.3

Marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level. All regressions include the following baseline controls: log(revenue), log(employees), log(total state population), log(total state establishments); state GDP per capita (in millions); industry fixed effects; and included at two-digit level. Significant at \*10%, \*\*5% and \*\*\*1%.

Table 10. Including Region Controls

Dependent variable = 1 if incorporated in home state			
	20–999 employees (1)	100–999 employees (2)	1000–4999 employees (3)
Log(revenue)	–0.014 (0.001)***	–0.059 (0.016)***	–0.079 (0.026)***
Log(employees)	–0.017 (0.001)***	–0.092 (0.022)***	–0.013 (0.029)
Log(total state population)	0.015 (0.021)	0.002 (0.123)	–0.244 (0.172)
Log(total state establishments)	–0.009 (0.018)	–0.045 (0.104)	0.236 (0.168)
Log(state GDP per capita)	–0.064 (0.027)**	–0.371 (0.118)***	–0.186 (0.187)
North-East	–0.011 (0.011)	–0.054 (0.046)	–0.002 (0.062)
South	0.008 (0.011)	–0.015 (0.057)	0.096 (0.084)
West	0.024 (0.006)***	0.205 (0.039)***	0.183 (0.070)***
Low protection	–0.004 (0.007)	0.091 (0.048)*	0.261 (0.053)***
Exculpation statute	–0.001 (0.007)	0.010 (0.028)	–0.042 (0.052)
Easy to pierce (>50%)	–0.005 (0.009)	–0.122 (0.064)*	–0.168 (0.053)***
R(MBCA) state	–0.004 (0.009)	–0.066 (0.048)	–0.096 (0.057)*
Courts quality (score/100)	0.149 (0.057)***	1.166 (0.327)***	2.054 (0.342)***
Industry fixed effects included at two-digit level	Yes	Yes	Yes
Observations	261,273	3667	964
Log-pseudo likelihood	–52,100.1	–2224.9	–549.3

The omitted region comprises the BEA's Great Lakes, Plains, and Rockies regions; marginal coefficients from a probit model are shown; robust standard errors are given in parentheses, corrected for clustering at the state level. Significant at \*10%, \*\*5% and \*\*\*1%.

piercing) are remarkably robust to using other courts quality measures. How can one explain our findings regarding *citations/year* and *independence*? Concerning the *citations/year* variable, one possible explanation is that it may capture qualities such as eloquent reasoning that attorneys care less about than judges. The more interesting question is the negative correlation with the variable *independence*. One possibility is that attorneys actually prefer partisan judges (cf. Choi et al. 2008) in that they are more predictable and that attorneys therefore tend to view partisan courts altogether more positively.

7.8.4 Omitted variables at the regional level?. One might think that there are other unobserved variables at the regional level. Examples could be physical proximity to Delaware or the proximity to major law firms. To investigate this possibility, we include three region fixed effects in our regressions, namely North-East, South, and West.

We group states into regions based on the definition of regions used by the BEA.<sup>20</sup> The omitted region comprises the BEA's Great Lakes, Plains, and Rockies regions. The disadvantage of including region fixed effects is that the parameters for the state-level variables are now only identified through the within-region variation, which will make parameter estimates of the state-level variables less precise. This might also explain the main difference to our previous finding, namely that the exculpation variable is now no longer statistically significant.

## 8. Conclusions

Corporations are free to choose the applicable corporate law by incorporating in the state of their choice. The question of how corporations make use of that freedom has long played a central role in the legal and economic literature. However, whereas a rich body of empirical work explores the incorporation choices of publicly held firms (including IPO firms), there does not appear to be a single empirical study on the incorporation choices of closely held U.S. firms.

The present article fills that gap. More specifically, we cast light upon the questions of where closely held firms incorporate and what role the legal system—the quality of courts and the content of substantive corporate law—plays in their incorporation choices.<sup>21</sup>

In the existing literature, it is commonly assumed that closely held firms almost always incorporate locally, meaning in the state where their PPB is located. Our findings are consistent with that view but only so far as closely held corporations of limited size are concerned. By contrast, with respect to larger closely held corporations—defined as firms with 1000 or more employees—our data tell a different story. About half of the relevant firms in our sample are incorporated outside their PPB state. Moreover, as with public corporations, Delaware proves to be the jurisdiction of choice for those firms that do not incorporate locally: Delaware attracts more than 50% of those corporations that do not stay at home, and, among the largest corporations considered here, Delaware's share among the nonlocally incorporated corporations reaches 83%.

20. Available at <http://www.bea.gov/regional/docs/regions.cfm>. Regions are collapsed as follows: North-East comprises BEA's New England and Middle East regions. South comprises BEA's South-West and South-East regions. West comprises BEA's Far West region. The fourth region (which is the omitted reference region in our regressions) comprises BEA's Great Lakes, Plains, and Rockies regions.

21. There may be other factors that influence the incorporation choices of closely held firms. In particular, we do not address conflicts of interest on the part of lawyers (Daines 2002). Nor do we focus on those factors that—like incorporation fees, additional filing requirements, or the fear of exposure to litigation in the state of incorporation (cf. Ayres 1992)—are likely to matter only to small closely held firms. We plan to explore the relevance of these factors in future work.

What factors—apart from size—determine a corporation's choice of where to incorporate? Our findings are consistent with the view that a state's legal system matters. That is true, first, for the quality of a state's courts. Corporations are less likely to incorporate locally if the courts of their PPB state are perceived to be of low quality—a relationship that is both statistically significant and robust. Certain features of substantive corporate law are also strongly correlated with incorporation decisions: corporations tend to migrate away from states where the risk of veil piercing is perceived to be high or that offer a generous level of minority shareholder protection. These findings, too, are both statistically significant and robust. We also find evidence that corporations are less likely to incorporate locally if their PPB state has adopted a so-called exculpation statute. However, the latter finding is no longer significant once one uses regional controls.

Our findings have significant implications. To begin, they suggest that the debate on state competition in corporate law should not, as it has been prone to do, exclude closely held firms. Larger closely held firms also seem to be making use of the freedom to choose, and they are apparently doing so with an eye to the jurisdictions' corporate law and courts. Hence, future discussions about the merits of the present system should take into account not only the interests of public firm but also those of privately held corporations.

Our study also has implications regarding the efficiency of the present legal system. Admittedly, we cannot tell whether the migration that we witness away from states with high levels of minority protection is efficient or not. Nor can we conclude whether or not the freedom to choose the applicable corporate law is efficient on balance.

However, at least with respect to one issue—veil piercing—the implications of our findings seem somewhat clearer: In the literature, it has long been pointed out that the freedom to choose the applicable corporate law may produce negative externalities with respect to involuntary creditors of the corporation (Bebchuk 1992). In particular, scholars have argued that applying the law of the state of incorporation to veil-piercing issues is difficult to justify where involuntary creditors are concerned (Hansmann and Kraakman 1991). Such an approach creates the danger that investors will opt for a state law that is inefficiently tough on involuntary creditors seeking to pierce the veil. Whereas our data on veil piercing do not allow us to distinguish between voluntary and involuntary creditors, our findings suggest that corporations actually seem to migrate away from jurisdictions where the veil-piercing risk is perceived to be high.

## Appendix A. State-Level Variables Used in our Regression Analyses

State	Total state population (in 1000)	Total state establishments	GDP per capita (2006, in current dollars)	Low protection	Low protection 2	Low protection 3	Exculpation	% Pierced	(R) MBCA	Courts quality score
Alabama	4447.1	5053	36,106	0	0	0	1	0.647	1	50.7
Alaska	626.9	495	65,565	0	0	0	1	0.300	1	56.0
Arizona	5130.6	4796	45,309	0	0	0	1	0.412	1	66.3
Arkansas	2673.4	3146	34,352	0	0	0	1	0.391	1	56.5
California	33,871.7	47,558	50,997	0	0	0	0	0.449	0	53.5
Colorado	4301.3	5250	53,584	0	0	0	1	0.539	0	65.1
Connecticut	3405.6	5280	59,941	0	0	0	0	0.636	1	66.3
Delaware	783.6	688	77,030	1	1	1	1	0.000	0	75.6
District of Columbia	572.1	144	153,243	1	1	0	0	0.600	1	N.A.
Florida	15,982.4	14,880	44,643	1	1	1	1	0.413	1	58.2
Georgia	8186.5	8636	46,363	1	1	0	1	0.383	1	61.2
Hawaii	1211.5	915	48,127	0	0	0	1	0.250	1	56.3
Idaho	1294.0	1763	38,569	0	0	0	1	0.667	1	61.3
Illinois	12,419.3	16,556	47,474	0	0	0	1	0.423	0	50.8
Indiana	6080.5	9053	40,937	1	0	0	1	0.688	1	68.2
Iowa	2926.3	3718	42,364	0	0	0	1	0.583	1	68.9
Kansas	2688.4	3181	41,548	1	1	1	1	0.790	0	66.7
Kentucky	4041.8	4166	36,113	1	1	1	1	0.267	1	60.8
Louisiana	4469.0	3427	43,218	1	1	1	1	0.358	0	47.3
Maine	1274.9	1827	36,844	0	0	0	1	0.250	1	68.9
Maryland	5296.5	3929	48,677	0	0	0	1	0.400	0	61.7
Massachusetts	6349.1	8686	53,168	0	0	0	1	0.400	1	65.7
Michigan	9938.4	14,947	38,336	0	0	0	1	0.273	0	64.2
Minnesota	4919.5	7953	49,710	0	0	0	1	0.385	0	70.6
Mississippi	2844.7	2766	29,608	0	0	0	1	0.357	1	46.1

Missouri	5595.2	7112	40,370	0	0	0	0	0.400	0	60.0
Montana	902.2	1201	35,826	0	0	0	1	0.500	1	57.2
Nebraska	1711.3	1930	44,236	0	0	0	1	0.583	1	70.0
Nevada	1998.3	1728	59,251	1	1	0	1	0.417	0	62.0
New Hampshire	1235.8	2184	45,539	1	1	1	1	0.000	1	68.2
New Jersey	8414.4	10,454	53,858	0	0	0	1	0.450	0	63.4
New Mexico	1819.0	1545	41,731	0	0	0	0	0.154	1	57.5
New York	18,976.5	20,778	53,853	0	0	0	1	0.349	0	65.6
North Carolina	8049.3	10,548	46,529	0	0	0	1	0.429	1	65.9
North Dakota	642.2	689	41,085	0	0	0	1	0.750	0	65.4
Ohio	11,353.1	17,189	40,632	1	0	0	1	0.571	0	63.9
Oklahoma	3450.7	3960	39,022	1	1	1	1	0.400	0	57.7
Oregon	3421.4	5521	44,222	0	0	0	1	0.563	1	65.7
Pennsylvania	12,281.1	16,399	41,551	0	0	0	1	0.308	0	60.8
Rhode Island	1048.3	2086	43,555	0	0	0	1	0.333	1	58.5
South Carolina	4012.0	4360	37,192	0	0	0	1	0.375	1	58.1
South Dakota	754.8	897	42,830	0	0	0	1	0.625	1	67.0
Tennessee	5689.3	6833	41,838	0	0	0	1	0.389	1	68.2
Texas	20,851.8	21,051	51,117	0	0	0	1	0.349	0	54.3
Utah	2233.2	3018	43,771	0	0	0	1	0.429	1	67.7
Vermont	608.8	1140	39,770	0	0	0	1	0.000	1	62.5
Virginia	7078.5	5773	52,166	0	0	0	1	0.250	1	66.9
Washington	5894.1	7365	49,801	0	0	0	1	0.444	1	63.7
West Virginia	1808.3	1454	30,778	0	0	0	0	0.429	1	38.0
Wisconsin	5363.7	9771	42,365	0	0	0	1	0.500	1	67.5
Wyoming	493.8	542	59,867	0	0	0	1	0.625	1	64.7

Sources of data: See text.

## Appendix B

### Coding Rules to Identify Closely Held Corporations

The ICARUS database does not provide direct information regarding the entity type. Therefore, we make use of the legal rules governing entity names to identify the entity type. Although we are confident that, overall, our coding rules, which we describe below, lead to reliable results in the sense that the firms identified as corporations really are corporations, inevitably, the inference from the entity name to the entity type will introduce some error in our database. Our coding rules are conservative in the sense that in case of doubt, we do not code a firm as a corporation but omit it from the present analysis. Hence, not all entities that actually are corporations will be identified as corporations. The question whether the error that is unavoidably introduced into the analysis has an effect on our results depends on whether the errors that we make are systematically correlated with firm or state characteristics. If the error that our coding procedure introduces is purely random in the sense that our failure to recognize a corporation as such is independent of firm and state characteristics, this will then result in noisier estimates, and therefore only work against us finding any significant effect, but not bias the parameter estimates. In the overwhelming majority of cases, the coding is straightforward and based on our analysis of the database and knowledge of the legal rules governing entity names we cannot think of reasons why our coding rules should introduce errors in a way that is correlated with firm or state characteristics that are also large enough in scale that they could influence our results. Here, we provide a fuller description of the relevant coding rules

To begin, we restrict the data set as described in the data section in the main text; in particular, we exclude all public companies. Then, we seek to eliminate entities other than corporations from the data set. A private company in the ICARUS database is coded as potentially a corporation if its name contained any of the following words or abbreviations or variations thereof: “Corporation,” “Incorporated,” “Limited,” or “Company.” Obviously, the words “limited” and “company” as well as abbreviations thereof are also used by limited liability companies. Therefore, a company is not classified as a corporation if it contains the words “limited company” or “limited liability company” or abbreviations thereof, such as LLC or “Ltd Company.” Moreover, the word “limited” is often used by LPs, LLPs, and LLLPs. To exclude such entities from our database, we exclude firms with names that contain the words “limited partnership,” “limited liability partnership,” “limited liability limited partnership,” or abbreviations or variations thereof. In addition, to be conservative in our coding, we also exclude companies that contain the words “partner” or “partnership”.

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