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# **Delaware Law as Lingua Franca: Theory and Evidence**

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# Delaware Law as Lingua Franca: Theory and Evidence

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## Abstract

Why would a firm incorporate in Delaware rather than in its home state? Prior explanations have focused on the inherent features of Delaware corporate law, as well as the positive network externalities created by so many *other* firms domiciling in Delaware. We offer an additional explanation: a firm may choose Delaware simply because its law is nationally known and thus can serve as a “lingua franca” for in-state and out-of-state investors. Analyzing the incorporation decisions of 1,850 VC-backed startups, we find evidence consistent with this lingua-franca explanation. Indeed, the lingua-franca effect appears to be more important than other factors that have been shown to influence corporate domicile, such as corporate-law flexibility and the quality of a state’s judiciary. Our study contributes to the literature on the market for corporate charters by providing evidence that Delaware’s continued dominance is in part due to investors’ familiarity with its corporate law.

JEL Classifications: K22, G24, G34

Keywords: incorporation, domicile, Delaware, corporate governance, entrepreneurs, founders, startups, corporation, corporate law, charters, venture capital

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## 1. Introduction

Delaware dominates the corporate chartering market in the U.S—it is the only state that attracts a significant number of out-of-state incorporations.<sup>1</sup> As a result, incorporation decisions are “bimodal:” public and private firms typically choose between home-state and Delaware incorporation, with most public firms and large private firms going to Delaware (Bebchuk and Hamdani, 2002; Daines, 2002; Bebchuk and Cohen, 2003; Dammann and Schündeln, 2011).

Why would a firm today incorporate in Delaware rather than in its home state? Traditional accounts focus on the inherent quality of Delaware’s corporate-law rules. Under the “race-to-the-top” view, firms choose Delaware because its law maximizes firm value for shareholders (Winter, 1977; Romano 1985). Under the “race-to-the-bottom” view, firms choose Delaware because it offers corporate law that favors insiders at other parties’ expense (Cary, 1974; Bebchuk, 1992; Bar-Gill, Barzuza, and Bebchuk, 2006).

More recent explanations for why a firm might choose Delaware turn not on the inherent quality of its law but rather on the number of other firms incorporated in Delaware. Drawing on the network-effects literature, Klausner (1995) argues that a firm (Firm X) committing to a long-term domicile (such as an IPO firm that cannot easily change domicile after going public) may choose Delaware even if its corporate law is not optimal because a large number of other firms will be domiciled in Delaware *in the future*. This large, continuing network of Delaware firms ensures that Firm X will have access to more caselaw and better legal services in the future than if Firm X domiciles in its home state, where the firm network is smaller.

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<sup>1</sup> A firm located in a particular state is generally permitted to incorporate in any other state, and to thereby have its internal affairs governed by that other state’s corporate law (Easterbrook and Fischel, 1991).

Relatedly, Kahan and Klausner (1997) argue that contractual terms (in loan agreements, charters, etc.) may persist not because of their quality but simply because of the “learning benefits” (such as drafting efficiencies and a reduction in uncertainty) that arise from these terms having already been widely used. Their analysis suggests that a firm may choose Delaware simply because of the learning benefits generated by so many other firms having chosen Delaware domicile *in the past*.

We put forward and test a new explanation for why a firm today would go to Delaware rather than stay home: that Delaware law can serve as a *lingua franca* for investors around the country, both in-state and out-of-state. The lingua-franca explanation builds on the fact that, after decades of Delaware’s dominance, business parties throughout the U.S.—including investors and their lawyers—are generally *familiar* only with Delaware law and the law of their home state (Daines, 2002; Klausner, 1995; Kahan and Klausner, 1997). As Daines (2002, pg. 1581) puts it:

Focusing on one national standard allows [corporate lawyers] to economize on the need to keep up to date with developments in multiple jurisdictions. Delaware is thus much like a common language and such lawyers are “bi-lingual,” speaking Delaware law plus the local dialect.

Thus, a firm wishing to attract investors from around the country may choose Delaware merely to provide a law that can be “spoken” by all of its investors.

Although it is potentially related to the network and learning explanations for Delaware’s dominance, the lingua-franca effect is conceptually distinct and yields different predictions. Network effects and learning benefits predict that a particular firm choosing between two jurisdictions will incorporate in the jurisdiction that will serve (network effects) or has served (learning benefits) as the legal domicile for more firms. It depends on other firms’ decisions, *not* on the identity of the firm’s investors. The lingua-franca effect, on the other hand, predicts that this firm’s choice between the two jurisdictions will

be directly affected by its own investors' relative familiarity with these jurisdictions. In other words, unlike network effects or learning benefits, the lingua-franca effect is generated by the background of the particular investors at the bargaining table.

Of course, all of these explanations for Delaware's dominance in the chartering market, including network effects and learning benefits, may help explain why Delaware law (and not the corporate law of some other state) became a lingua franca in the first place. Corporate lawyers may choose to learn Delaware as a second (or first) language in part because of network effects or learning benefits that give Delaware an advantage over other states' corporate laws; in part because of the inherent features of Delaware corporate law; in part because so many firms are or will be incorporated in Delaware (for whatever reason); and in part because it will be easier to work with other Delaware-speaking lawyers to incorporate new firms.<sup>2</sup> We abstract here from the question of *why* Delaware law became a lingua franca. Our claim is that, given that most lawyers around the country are familiar with Delaware law, some firms will domicile in Delaware simply to provide all of their investors with a language that every investor can understand.<sup>3</sup>

We test for a lingua-franca effect using a sample of 1,850 startup firms financed by venture capitalists (VCs) that received their first round of VC financing between 2000 and 2002. VCs and their attorneys will wish to be familiar with the corporate law applicable to

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<sup>2</sup> Church and King (1993) develop a network-effects model in which the benefit of language acquisition is increasing in the number of individuals who speak the language. To the extent that lawyers learn to speak Delaware simply because many other lawyers have learned or will learn to speak Delaware, the lingua-franca effect we identify could itself be considered to reflect the operation of network effects.

<sup>3</sup> Just as network effects and learning benefits associated with Delaware law may strengthen its role as a lingua franca, a lingua-franca effect may strengthen the network effects and learning benefits associated with Delaware incorporation by increasing the number of firms domiciled in Delaware. In other words, causality between the lingua-franca effect and network/learning-benefits effects can run in both directions.

the startup: they rely on a complex set of contracts whose drafting and implementation are dependent on subtle features of the governing law (Fried and Ganor, 2006). By offering a more familiar corporate law (everything else equal), a startup's entrepreneur can lower the cost of capital (Bengtsson and Bernhardt, 2012). Because lawyers typically do not "speak" any other language besides Delaware and home-state law (Daines, 2002), out-of-state investors and their lawyers are likely to be less familiar with the startup's home-state corporate law than with Delaware law.<sup>4</sup> The lingua-franca explanation thus predicts that a startup is more likely to incorporate or reincorporate in Delaware as the number of out-of-state VCs increases.

VC-backed startups provide a particularly desirable empirical setting for testing the lingua-franca theory. First, there is considerable variation in each startup's mix of investors. Some startups receive financing from out-of-state investors, while others are financed exclusively by in-state investors. In contrast, public firms lack such cross-sectional variation because there is no control group of public firms whose investors are all (or even predominantly) located in a single state. Second, startups provide longitudinal variation in both their mix of investors and their state of incorporation. In particular, startups typically receive financing over several rounds, and the identity of participating investors often

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<sup>4</sup> The VC's attorney will handle legal issues arising from a portfolio investment and therefore may have a stronger preference over domicile than the VC itself. Thus, it might be argued that the location of the VC's attorney is what matters, not the location of the VC itself. But VCs are typically advised either by in-house counsel (Kobylarz, 2006) or by law firms located in their home state. We also asked 10 prominent VC firms in our sample about the location of their legal counsel; each of the 7 VC firms that responded to our query reported that its counsel was located in the VC firm's home state. Thus, to the extent it is VC's counsel's location that matters for lingua franca, we believe it is reasonable to treat the location of the VC firm as a proxy for the location of the VC's counsel.

changes from one round to the next (Gompers, 1995; Broughman and Fried, 2012) along with the firm's domicile.<sup>5</sup>

We find, consistent with the lingua-franca hypothesis, that the number of out-of-state investors significantly increases the likelihood of Delaware incorporation in the first round of financing. Everything else equal, moving from zero to two out-of-state investors in the first round of financing increases the likelihood of Delaware incorporation by 14 percentage points (from 68% to 82%). We also find, consistent with the lingua-franca hypothesis, that each additional out-of-state investor increases the likelihood that a firm will reincorporate in Delaware in a follow-on round of financing by approximately four to six percentage points.

The lingua-franca hypothesis also predicts that in-state investors – which are likely to be familiar with both Delaware and their home-state corporate law – will have a relatively weak preference, if any, for home-state law. Consistent with this prediction, the number of in-state investors participating in each round of financing has little effect on choice of domicile. In-state investors appear to be relatively indifferent between Delaware and the home-state law, while out-of-state investors tend to prefer Delaware.

We also divide out-of-state investors into (1) out-of-state investors who have some familiarity with home-state corporate law because they have previously invested in a home-state domiciled firm and (2) out-of-state investors who do not have such exposure to home-state corporate law. Consistent with the lingua-franca effect, we find that a startup is less likely to incorporate in Delaware if its out-of-state VC investors have already invested

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<sup>5</sup> It might be worth noting that because VC-backed firms can easily (and frequently do) change domicile, the network effect described in Klausner (1995), which arises when firms must make a long-term commitment to a particular domicile, is less likely to be present in the startup setting.

in firms incorporated in the startup's home state, and thus have greater familiarity with home-state corporate law. In other words, demand for Delaware law is greatest when a firm receives financing from out-of-state VCs that appear to have no prior exposure to the startup's home-state corporate law.

Our results are statistically significant and robust to alternative econometric specifications. We control for a variety of factors that may affect choice of domicile such as startup firm characteristics, the law firm representing the startup firm, VC reputation, and characteristics of home-state corporate law. In separate specifications, we also include state dummy variables in place of the corporate-law variables.

Of course, omitted variables could correlate with both domicile and the number of out-of-state investors. For example, a more complex firm may simultaneously both (a) face a higher likelihood of litigation, which could in theory increase the value of Delaware corporate law; and (b) require financing from out-of-state investors. If so, unobserved characteristics of the startup firm would independently increase both its need for out-of-state financing and its likelihood of choosing Delaware.

To address endogeneity concerns, we employ two identification strategies. First, taking advantage of the longitudinal variation in our data, we use first-differences regression analysis to investigate whether the arrival of out-of-state investors causes firms originally incorporated in their home states to reincorporate in Delaware in subsequent rounds of financing. This first-differences approach eliminates potential bias due to time-constant unobserved traits of each startup. Under this identification strategy, we obtain statistically significant results consistent with a lingua-franca effect.

Second, we create a VC-fixed effect model that examines variation within each VC's portfolio. We compare the use of Delaware domicile when a VC invests at home to when the same VC invests out-of-state. This approach enables us to eliminate potential bias due

to unobserved variation across different VC firms. We find, consistent with a lingua-franca effect, that the same VC is likely to use Delaware domicile more frequently when investing out-of-state than when investing in-state.

To illustrate by way of a specific VC firm, California-based Kleiner Perkins is approximately 18 percentage points more likely to use Delaware incorporation when it invests in a startup located outside California than one located in California (100% versus 81.6%); and when Kleiner Perkins invests in a California-based startup that is financed solely by California-based VC firms, the likelihood of Delaware incorporation drops to 64.3%. While Kleiner Perkins exhibits a relatively strong lingua-franca effect, its domicile preferences reflect those of VC firms in aggregate: they are more likely to insist on Delaware law out-of-state than in-state.

Not surprisingly, we find that other factors besides lingua-franca also affect domicile choice. Consistent with Kahan's (2006) study of public firms, we find that states with a high-quality judiciary and more flexible corporate law are somewhat more likely to retain in-state corporations. And consistent with Daines's (2002) study of IPO firms, we find that startups represented by regional rather than national law firms are more likely to incorporate in their home states. Our results suggest, however, that lingua franca is likely to be a more important determinant than these other factors.

It is important to emphasize that our results may significantly understate the extent to which the lingua-franca effect (rather than other factors) drives the use of Delaware domicile. Because Delaware has become such a dominant player in the market for incorporations, in any given state there may well be investors (and lawyers) who are more familiar with Delaware law than with that state's own law (Carney, Shepherd and Shepherd, 2012). A firm financed entirely by such in-state investors might thus choose Delaware simply for familiarity reasons. Put differently, Delaware law may also serve as a

lingua franca for in-state investors, some of whom may not be fluent in home-state law. Our methodology enables us to detect only the lingua-franca effect arising from the presence of out-of-state investors.

This project contributes to the empirical literature on corporate charters in three respects. First, we identify a new dimension to domicile decisions. Researchers have previously identified three types of factors bearing on domicile choice: (1) inherent features of home-state corporate law, including anti-takeover statutes (Subramanian, 2002; Bebchuk and Cohen, 2003; Ferris et. al. 2006), flexibility and judicial quality (Kahan, 2006; Dammann and Schündeln 2011), whether the home state had adopted the Revised Model Business Corporation Act (Bebchuk and Cohen, 2003), and franchise taxes (Romano, 1985); (2) whether the corporation's law firm is regional or national (Daines, 2002); and (3) characteristics of the firm itself, including the size of the firm (Bebchuk and Cohen, 2003; Dammann and Schündeln, 2011). Our study suggests a fourth dimension to domicile decisions: the characteristics of investors, and in particular the familiarity of investors with different corporate laws.

Second, our study provides additional evidence that Delaware's continued success is not due solely to the inherent quality of its corporate law, but rather is in part due to investors' relative familiarity with it. Klausner (1995) argues that network effects arising from the presence of so many firms incorporated in Delaware may prevent a state from competing with Delaware even if that state offers better law. The learning benefits associated with the repeated use of Delaware provisions (Kahan and Klausner, 1997) could have similar anti-competitive effects. Our study suggests yet another reason why another state may have difficulty competing with Delaware. For that state to be successful, enough lawyers would need to learn a second or third "language." But the expected benefit of learning a second or third language will be low given that Delaware fluency already allows

a corporate attorney in any state to communicate with most corporate attorneys in that same state and in other states. As a result, lawyers will be reluctant to learn a new language, and any state seeking to challenge Delaware is likely to fail to acquire market share. This lingua-franca effect further raises the barrier to competition, and may hinder desirable state-level legal innovation (Carney, Shepherd and Shepherd, 2012).

Third, this project contributes to the literature on how VCs influence the governance of startup companies. Prior work has shown that VCs negotiate for a complex bundle of cash-flow and control rights (Kaplan and Stromberg, 2003) that typically includes board seats (Lerner, 1995; Broughman, 2013); protective provisions (Bengtsson, 2011); and conversion rights (Schmidt, 2003; Hellmann, 2006). VCs' ability to realize their cash-flow rights depends in part on where the firm is domiciled (Broughman and Fried, 2010). Our study extends this literature by showing that VC investors influence the choice of corporate law that will govern the startup.

For methodological reasons, our study focuses on private firms. But it is worth mentioning its implications for the domicile choices of public firms. If private firms choose Delaware law to provide a lingua franca for all of their investors, it stands to reason that firms wishing to sell their shares to public investors around the country through an IPO may also choose Delaware law in part to provide a common language to their shareholders. Indeed, we find that 93% of the firms in our sample that ultimately went public were incorporated in Delaware at the time of their IPO, a level that is significantly higher than the 78% baseline rate of Delaware incorporation for our sample as a whole.

The remainder of the paper is organized as follows. Section 2 describes our data set and provides summary statistics on 1,850 firms' states of incorporation and reincorporation. Section 3 provides baseline empirical results, testing our hypothesis with both cross-sectional and longitudinal data. Section 4 uses VC fixed-effect regressions to

address potential endogeneity concerns in the baseline results. Section 5 considers alternative explanations for the correlation between out-of-state investors and Delaware incorporation. Section 6 concludes.

## **2. Data**

To test the lingua-franca prediction – that the likelihood of incorporation or reincorporation into Delaware increases with the number of out-of-state investors – we use data from a sample of VC-backed startup firms. This section describes our data and provides summary statistics on state of incorporation and reincorporation for the firms in our sample.

### *2.1. Data Sources*

Data were obtained from the VentureXpert (VX) database provided by Thomson Financial. Our sample is limited to US-based startups that received their first round of VC investment between January 1, 2000 and December 31, 2002, and received at least \$5 million in total VC financing over all rounds of investment.<sup>6</sup> These criteria yield a sample of 1,998 startup firms.<sup>7</sup>

VX does not include firm domicile in its database. We use public records data from Lexis-Nexis and the Delaware Secretary of State to match each firm in our sample with

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<sup>6</sup> Limiting our analysis to firms that received at least \$5 million in financing enables us to focus on higher quality firms, where domicile is likely to matter more.

<sup>7</sup> We collected the data in 2008. Because VentureXpert appears to have since added information about other firms not in the database in 2008, the same criteria would yield a larger sample if the data were collected today. However, we have no reason to believe that increasing the sample size would significantly affect our results.

incorporation records.<sup>8</sup> Matching based on the firm name provided by VX, we identified state of incorporation for 1,850 out of 1,998 firms in our original sample, a 93% match rate. These 1,850 firms received a total of 6,217 rounds of financing.

## *2.2. Sample Description*

Tables 1 through 4 provide descriptive statistics for the 1,850 firms in our sample. Sample firms are primarily high-tech businesses, with almost half in a computer-related sector (Table 4). Startups in our sample received, on average, \$36.8 million over 3.6 rounds of VC financing (Table 1). The median firm received funding from 5 different investors, of which 2 were out-of-state investors. Table 4 shows exit outcomes as reported by VX. Of the 1850 firms, approximately one third of the sample firms had an exit – either an IPO (n=103) or a private sale (n=536). The remaining two thirds were, as of 2008, either defunct (n=295) or active (n=916).

[ADD TABLES 1, 2, 3 & 4 ABOUT HERE]

## *2.3. State of Incorporation and Reincorporation*

For each firm in our sample, we collect data on the initial state of incorporation and any subsequent reincorporation. Consistent with studies of public firms (Daines, 2002; Bebchuk and Cohen, 2003) and private firms (Dammann and Schundlein, 2011), we find that a startup firm typically makes a binary choice, incorporating either in its home state or

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<sup>8</sup> The Lexis-Nexis public records database includes domicile data (via secretary-of-state filings) for locally domiciled firms of all states except Delaware. Information about Delaware domicile was obtained from (a) doing-business forms filed by Delaware-domiciled firms in their home states and (b) the Delaware's Secretary of State webpage (<https://delecorp.delaware.gov/tin/GINameSearch.jsp>).

in Delaware. Table 2 shows that just over two-thirds (67.8%) of sample firms choose Delaware as the initial state of incorporation, and, of the remaining 32.2%, most (28.7%) incorporate in their home states. Only 3.5% of sample firms choose to incorporate in a jurisdiction other than Delaware or their home state.

Larger firms are more likely to incorporate in Delaware and therefore less likely to incorporate in their home state. Table 3 divides sample firms into quintiles based on total amount of VC financing received over the life of the firm, and reports the final state of incorporation for each quintile.<sup>9</sup> In the largest quintile, 89% of the firms use Delaware; in the smallest quintile, only 69% of the firms use Delaware.

The bimodal choice – between Delaware and home state – is especially pronounced at the final state of incorporation. Figure 1 displays each firm’s final state of incorporation relative to its headquarter location. Approximately 98% of firms choose to incorporate either in their home states (the diagonal cluster of points) or in Delaware (the horizontal cluster of points).

[ADD FIGURE 1 ABOUT HERE]

When reincorporation occurs, it is almost always into Delaware. Moving from the initial to the final state of incorporation, Delaware’s share increases from 67.8% to 78.8%, while home-state share declines from 28.7% to 19.4% and other states’ share declines from 3.5% to 1.8% (Table 2). Almost one third of firms originally incorporated in their home states reincorporate into Delaware. Table 5 provides detailed data on reincorporations in our sample. A total of 217 firms reincorporated, out of which 205 (approximately 95%)

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<sup>9</sup> “Final state” is the state of incorporation at the time of exit (IPO or acquisition) or, if there has been no exit event, the state of incorporation as of 2008.

switched into Delaware. This change is typically made in connection with a new round of financing, often the first or second round (Table 5).

[ADD TABLE 5 ABOUT HERE]

#### 2.4. *Investor Location and Delaware Incorporation*

Tables 6 and 7 report the likelihood of Delaware incorporation as a function of the mix of in-state and out-of-state investors. Results are separately displayed for first-round financings (Table 6) and later-round financings (Table 7). The general pattern, for both first-round and later-round financings, is that each additional out-of-state investor significantly increases the likelihood of Delaware incorporation, whereas the number of in-state investors has little effect on domicile choice. For example, in later rounds (Table 7), firms receiving financing from one out-of-state investor incorporate in Delaware with 71%-79% probability, whereas firms receiving financing from four-plus out-of-state investors incorporate in Delaware with 92%-94% probability. Moving from one out-of-state investor to four or more out-of-state investors is associated with an approximate 17% increase in the probability of Delaware incorporation, whereas a similar change in the number of in-state investors (moving from one to more than four) is associated with only a 2% increase in the likelihood of Delaware incorporation. These results are consistent with a lingua-franca effect. Out-of-state investors exhibit a clear preference for Delaware incorporation, whereas in-state investors appear indifferent between home-state and Delaware incorporation.

[ADD TABLES 6 & 7 ABOUT HERE]

## 2.5. *Investors' State-Dependent Domicile Preferences*

We examine the use of Delaware within each VC's portfolio of investments. Figure 2 compares the likelihoods of Delaware incorporation in two situations: when a VC invests in its home state and when the same VC invests out-of-state. For all VCs in our sample that participated in at least 30 rounds of financing, the graph plots the likelihood that a portfolio firm will incorporate in Delaware as a function of whether the startup is headquartered in the same state as the VC investor. Results are displayed according to the fraction of out-of-state firms in the VC's portfolio (the horizontal axis). Consequently, for each VC, Figure 2 plots two points: the likelihood of Delaware incorporation when investing (i) in-state and (ii) out-of-state. The gap between these points is a rough measure of the lingua-franca effect. Figure 2 also includes three Lowess curves reflecting the likelihood of Delaware domicile for (i) out-of-state portfolio firms (solid line), (ii) in-state portfolio firms (dotted line), and (iii) in-state portfolio firms where all VCs in the round are located in the startup's home state (dashed line).

Figure 2 indicates that the lingua-franca effect arises primarily from VCs that invest less than 70% of their portfolio out-of-state (what we call "regional" VCs). VCs that invest principally out-of-state (what we call "national" VCs) use Delaware with higher frequency. For national VCs, the choice between Delaware and home-state law does not seem to depend on where the startup is located; they are likely to use Delaware domicile both when investing at home and when investing out-of-state. Why? National VCs may invest out-of-state with such frequency that they are less familiar with the corporate law in their home states; they may migrate to Delaware simply to standardize contract terms across all the firms in their portfolios; or they may believe that Delaware law is better. Overall, however, Figure 2 supports the lingua-franca hypothesis and shows that, in the aggregate, VCs behave differently when investing in-state than when they go out-of-state.

For illustrative purposes, we report results from four well-known California VC firms in Table 8. For example, Kleiner Perkins is almost 36 percentage points more likely to use Delaware incorporation if it invests in a startup located outside California than if it invests in a startup located in California that relies 100% on California-based VCs (100% versus 64.3%). While Kleiner Perkins exhibits a fairly strong lingua-franca tendency – using Delaware domicile for all of its out-of-state investments – it is not particularly unusual. Indeed, the four VCs listed are on average 32 percentage points more likely to use Delaware when investing outside California than when investing in California with other California-based VCs (94.9% versus 62.5%). Consistent with the lingua-franca effect, the use of Delaware law for in-state investments increases when “foreign” (non-California) VCs participate in the financing.

The domicile choices of these California VCs, and of VCs in aggregate, strongly suggest that the choice of Delaware domicile cannot be fully accounted for by unobserved dimensions of a startup that have nothing to do with the identity of their investors. For unobserved startup dimensions to account for the difference in domiciling decisions, one would need to believe that home-state firms in VCs’ portfolios are, in aggregate, substantially different along these unobserved dimensions than their portfolio companies outside of their home state. To us, this seems unlikely.

[ADD Figure 2 ABOUT HERE]

### **3. Baseline Empirical Results**

This section tests the lingua-franca hypothesis. We first examine the choice of legal domicile made at the first round of VC financing (§ 3.1), and then consider reincorporation into Delaware in connection with a subsequent financing round (§ 3.2).

### 3.1. State of Incorporation at the First Round of VC Financing

We estimate, using logit regression, the following equation for choice of Delaware incorporation in connection with the first round of VC financing:

$$Delaware = \alpha + \beta_1 * Out-of-State Investors + \beta_2 * Local Exposure + \beta * X + \varepsilon \quad (1)$$

where  $\varepsilon$  is the error term and  $X$  is a vector of included control variables. The dependent variable, *Delaware*, equals one if the firm is incorporated in Delaware at the time of the first round of financing, and zero otherwise.<sup>10</sup> For purposes of equation (1), all variables are defined as of the first round of VC financing ( $t = 1$ ).

There are two explanatory variables of interest: *Out-of-State Investors*, which equals the number of out-of-state investors participating in the round; and *Local Exposure*, which equals the number of *Out-of-State Investors* in the financing round that have previously financed a firm (within our sample of 1,850 startups) that was incorporated in the startup's home state. *Local Exposure* can be understood as a rough proxy for out-of-state investors' familiarity with the local dialect: home-state corporate law. Unfortunately, *Local Exposure* only includes experience within our sample period; it does not reflect any familiarity based on a VC's investment activity prior to 2000. Consequently, *Local Exposure* may be an

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<sup>10</sup> Our dependent variable compares Delaware domicile against both in-state and other-state domicile, lumping these last two groups into one category. Firms that incorporate in a state other than Delaware or their home state are somewhat smaller than firms incorporated in their home state (fewer investors, less financing, fewer rounds of financing). The inclusion of the "other-state" domicile firms in the same category as in-state firms, does not, however, substantially impact our results: we re-estimate the models reported in Table 10 excluding "other-state" firms and find qualitatively similar results.

unreliable proxy for out-of-state investor familiarity with home-state law in financing rounds occurring early in our sample period.

*Out-of-State Investors* and *Local Exposure* provide two proxies for investor familiarity. The combination of the two variables lets us separately measure the marginal effect of (i) an *Out-of-State Investor* with no prior exposure to the startup's home-state law [=  $\beta_1$ ] as well as of (ii) an *Out-of-State Investor* with at least some prior exposure to the startup's home state law [=  $\beta_1 + \beta_2$ ]. The lingua-franca hypothesis predicts that  $\beta_1 > 0$ , and  $\beta_2 < 0$ . In words, each additional out-of-state investor will increase the likelihood of Delaware incorporation, but the marginal effect will be smaller for out-of-state investors who have past experience with the startup's home-state law.

We also control for various firm-level and state-level variables that may affect a startup's state of incorporation. Table 9 defines the variables used throughout the remainder of this section and provides summary statistics for each.

[ADD TABLE 9 ABOUT HERE]

Table 10 presents regression results, reporting logit marginal effects with all variables at their mean values. We first estimate *Delaware* as a function of our two treatment variables: *Out-of-State Investors* and *Local Exposure* (model 1). Models 2 and 3 add additional explanatory variables that control for various firm-level characteristics of each business, including (i) the total number of investors (*Total Investors*), (ii) the number of in-state investors (*In-State Investors*)<sup>11</sup>, (iii) the amount invested in the round

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<sup>11</sup> Because the identities of a startup's investors are not always disclosed in VX, we are able to include *Out-of-State Investors*, *In-State Investors*, and *Number of Investors* in a single regression model without introducing perfect multicollinearity among the right-hand-side variables.

(*Investment (\$M)*), (iv) the aggregate amount invested in the firm across all rounds of financing (*Size Proxy (\$M)*), which we use as a proxy for the size and complexity of the firm,<sup>12</sup> (v) the average age, based on year founded, of the VC firms participating in the round (*VC Reputation*),<sup>13</sup> and dummy variables for (vi) firm sector and (vii) year of financing.

In model 4, we add control variables for features of home-state corporate law that may affect choice of domicile. First, we add three variables used in Kahan (2006): *Judicial Quality*, *Flexibility*, and *ATS Index*. *Judicial Quality* addresses the possibility that firms incorporate in Delaware because it is seen as having a higher-quality judiciary than their home states (Romano, 1993); *Flexibility* indicates the level of flexibility given to parties by home-state law to design their internal governance arrangements (Kahan, 2006); and *ATS Index* captures the strength of anti-takeover protections offered by the home state (Kahan, 2006). *ATS Index* should be relevant only if the firm expects to go public.

Second, we record *Franchise Tax* for the startup's home state. *Franchise Tax* reflects the change in home-state fees when a firm incorporates at home rather than in Delaware. If a firm domiciles at home rather than in Delaware, it must pay its home state (a) an initial incorporation fee and (b) an annual franchise tax and/or report fee. But the firm will avoid paying its home state (c) a "foreign qualification fee" and (d) (sometimes) an annual foreign report fee. Thus, we define *Franchise Tax* as (a) + (b) - (c) - (d).<sup>14</sup> Tax rates are defined as

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<sup>12</sup> While the aggregate amount invested in the firms across all rounds of financing is obviously not known with precision before the final financing round, we assume that it correlates with parties' ex ante expectations (as of the first financing round) as to the firm's eventual size and complexity.

<sup>13</sup> VC firm age is used as a proxy for reputation (Gompers, 1996; Hsu, 2004).

<sup>14</sup> By incorporating in its home state rather than Delaware, the firm will also avoid paying (e) franchise taxes charged by Delaware. Since Delaware's franchise tax does not depend on a firm's physical location, item (e) is

of January 1, 2000, and we assume 100,000 shares outstanding (par value = \$.001/share). Most states charge the same flat fees to both home-state and Delaware-domiciled firms (Kahan and Kamar 2001, 2002). For these states, *Franchise Tax* is zero.

Third, to control for the possibility that differences in contracting practices between east and west coast firms affect incorporation-related decisions (Bengtsson and Ravid, 2009), we record whether the firm is headquartered in a state located west of the Mississippi River (*West of Mississippi*). Fourth, to address other potential incorporation network benefits, we control for the number of publicly held firms incorporated in the startup's home state (*State Inc. Count*) and for whether home-state corporate law is based on the Model Business Corporation Act (*MBCA state*).<sup>15</sup>

Finally, in model 5 we include a set of dummy variables for each state.<sup>16</sup> Due to limited within-state variation in the dependent variable, models 4 and 5 are restricted to startups headquartered in states with at least ten observations and are thus estimated on a smaller sample of firms (n=1,774).

[ADD TABLE 10 ABOUT HERE]

In each model reported in Table 10, we find results consistent with the lingua-franca hypothesis. As predicted, *Out-of-State Investors* has a positive and significant effect on

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essentially a constant term that would apply equally to all firms in our sample. Thus, (e) does not need to be included in the definition of *Franchise Tax*.

<sup>15</sup> The first of these network variables, *State Inc. Count*, is also used by Daines (2002), while the second, *MBCA State*, is used by Kahan (2006).

<sup>16</sup> Due to perfect multicollinearity, we cannot include the corporate law variables and the state dummies in the same regression model.

Delaware incorporation, while *Local Exposure* has a negative effect. Adding an *Out-of-State Investor* increases the likelihood of Delaware incorporation by approximately six to eight percentage points [ $\beta_1$ ]. By contrast, *In-State Investors* have negligible impact on choice of domicile. Consistent with familiarity driving domicile choices, an *Out-of-State Investor's* demand for Delaware incorporation is moderated by *Local Exposure* (i.e.  $\beta_2$  is negative in all models).<sup>17</sup> If an *Out-of-State Investor* has at least some prior exposure to the startup's home-state law (as observed within our sample period) the firm is somewhat less likely to incorporate in Delaware and more likely to incorporate in the home state. These results are broadly consistent with the lingua-franca explanation.

The magnitude of the lingua franca effect is material: moving from zero to two out-of-state investors in the first round of financing increases the likelihood of Delaware incorporation from 68% to 82%, nearly halving the likelihood (32% versus 18%) that a startup will incorporate in any state other than Delaware. These forecasts are based on estimates from model 3 with all other controls held at their mean values.

Finally, we compare the impact of out-of-state investors to two legal factors identified in prior research: home-state legal flexibility and judicial quality. Consistent with Kahan (2006), we find that firms are more likely to incorporate in their home states

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<sup>17</sup> It should be noted that the marginal effect for *Local Exposure* is statistically significant only in model 3. As discussed above, there are measurement limitations for *Local Exposure* in the first round of financing; these limitations are likely to reduce statistical significance. To address this concern, we re-estimated model 2 with all financing rounds occurring prior to 2001 removed, reducing the number of observations to 573. In an unreported regression on this reduced sample, we find a marginal effect of -.057 (statistically significant at the 1% level) for *Local Exposure*; the coefficient estimate for *Out-of-State Investors* remains positive and significant. It is also worth noting that even on the full sample (where there are greater measurement limitations for *Local Exposure* than in the reduced sample) our baseline results are still as predicted by the lingua-franca hypothesis:  $\beta_1 > 0$  and  $\beta_2 < 0$ .

and less likely to choose Delaware if the home-state law provides greater flexibility, and if the home state is perceived to have a higher-quality judiciary.

To compare the relative magnitude of these two explanations with *lingua franca*, we examine the likelihood of Delaware incorporation when each variable is one standard deviation below its mean, as compared to one standard deviation above its mean. Based on estimates from model 4, when moving from one standard deviation below its mean to one standard deviation above its mean, *Out-of-State Investors* is associated with a 16 percentage point increase (from 69% to 85%) in the likelihood of Delaware incorporation, while *Judicial Quality* is associated with an 8 percentage point decline (from 81% to 73%), and *Flexibility* is associated with an 11 percentage point decline (from 82% to 71%). While each of these effects is economically meaningful, *lingua franca* appears to have a larger effect on incorporation choice than flexibility or judicial quality.

### 3.2. *Reincorporation in Delaware in Subsequent Financing Rounds*

The results reported above are limited to incorporation decisions around first rounds of financing. We now turn to examine whether the arrival of out-of-state investors in subsequent rounds causes firms that initially incorporated in their home states to reincorporate in Delaware afterwards.

Of firms originally incorporated in their home states, almost one third ultimately switched to Delaware; such reincorporation typically occurs in connection with a new round of financing. To take advantage of this longitudinal variation, we treat each financing round as a separate observation, creating panel data indexed by startup firm (*i*) and round of financing (*t*). We limit our attention to situations in which the firm was not already incorporated in Delaware, because firms already incorporated in Delaware are not ‘at risk’

of reincorporating in Delaware.<sup>18</sup> Our panel thus consists of a sub-sample of 594 firms and 1546 financing rounds.

One advantage of panel data is that we can isolate within-firm variation, eliminating bias due to time-constant unobserved effects. To take advantage of this feature, we construct a first-difference transformation of equation (1):

$$\Delta \text{ Delaware} = \beta_1 * [\Delta \text{ Out-of-State Investors}] + \beta_2 * [\Delta \text{ Local Exposure}] + \beta * [\Delta \mathbf{X}] + \varepsilon \quad (2)$$

where ‘ $\Delta$ ’ indicates the change from round  $t-1$  to round  $t$ , and  $\mathbf{X}$  is a vector of included control variables.<sup>19</sup> The first-differences approach eliminates all time-constant variables, both observed and unobserved effects (Wooldridge, 2002).<sup>20</sup> This forces us to remove time-constant variables, such as sector and most of the state-level control variables.

Before proceeding to multivariate regression results, we note the positive correlation between an increase in the number of out-of-state investors and reincorporation in Delaware (Figure 3). The horizontal axis shows the change in the

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<sup>18</sup> If a firm reincorporates into Delaware in round  $t$ , any future rounds of financing are excluded. Our analysis can be understood as a discrete-time hazard model: we estimate the hazard of switching to Delaware in round  $t$ , conditional on surviving outside Delaware through the previous  $t-1$  rounds (Shumway, 2001; Jenkins, 1995).

<sup>19</sup> We include observations from the first round if the business was incorporated in its home state prior to the first VC round. In first-round observations, the  $t-1$  value of each variable is zero. To address the possibility that first-round reincorporations are different from reincorporations in subsequent rounds, we include separate dummy variables for each round of financing. We find qualitatively similar results when limiting our analysis to follow-on rounds of financing.

<sup>20</sup> Removal of unobserved effects can also be accomplished through a firm fixed-effect model. We chose to use the first-differences model rather than a firm fixed-effect model to focus on the change from one round to the next, rather than the difference between each observation and the average for the firm. We find similar results (unreported) using a firm fixed-effect model.

number of out-of-state investors since the previous round ( $\Delta$  *Out-of-State Investors*), while the vertical axis measures the likelihood of reincorporation in Delaware. For example, if a firm adds 3 out-of-state investors in a new round of financing, there is approximately a 23% probability that the firm will reincorporate in Delaware in connection with the new financing. By contrast, if there is no change in the number of out-of-state investors in a new round, the likelihood of reincorporation is only 6%.

[ADD FIGURE 3 ABOUT HERE]

[ADD TABLE 11 HERE]

Reincorporation regression results are reported in Table 11. Model 6 regresses  $\Delta$  *Delaware* on our two treatment variables:  $\Delta$  *Out-of-State Investors* and  $\Delta$  *Local Exposure*. Models 7 and 8 add the set of firm-level controls described in §3.1. Model 8 also includes dummy variables for each round of financing.

The results reported in Table 11 are consistent with the lingua-franca hypothesis. The arrival of out-of-state investors increases the likelihood of reincorporation in Delaware. We also find that increased familiarity ( $\Delta$  *Local Exposure*) with home-state law decreases the likelihood of reincorporation in Delaware. These results are significant at the 1% level in each model reported in Table 11. Reincorporation in Delaware is (i) most likely to occur when adding out-of-state investors with no prior exposure to home-state law, (ii) of intermediate likelihood when adding out-of-state investors with some prior exposure to home-state law, and (iii) least likely to occur when adding in-state investors.

Importantly, the first-differences regression format eliminates the influence of time-constant unobserved effects on domicile and thereby removes many plausible sources of bias in our estimates of *Out-of-State Investors* and *Local Exposure*. For example, one might

be concerned that *Local Exposure* reflects in part the quality of home-state law, not just out-of-state VCs' familiarity with it. But as long as the quality of home-state law is stable over our sample period, it will not bias the coefficient for *Local Exposure*. The first-differences regression results thus provide further support for the lingua-franca hypothesis.

#### **4. VC Fixed-Effect Regressions**

Because out-of-state investors are not randomly assigned to our sample firms, there is a risk that omitted variables may correlate with both the state of incorporation and the source of VC financing. For example, VCs that invest mostly out-of-state ("national VCs") may use Delaware law with higher frequency than VCs that invest mostly in-state ("regional VCs"), whether they are investing in-state or out-of-state. If national VCs tend to rely on Delaware law, and national VCs tend to choose Delaware law for reasons other than lingua franca (for example, because of the inherent quality of Delaware law), we may observe a correlation between out-of-state investors and the use of Delaware law that is not driven by the lingua-franca effect but rather by the unobserved characteristics of the VCs financing each startup.

To address this concern, we employ a VC fixed-effect analysis where each VC investment to a firm in their portfolio is treated as a separate observation. To ensure meaningful within-group variation, we limit our analysis to VC firms that participated in at least 30 rounds of financing involving startup firms in our sample. This gives us a subsample of 173 VC firms and 13,845 portfolio investments by this group of VC firms – including 3,397 first-round investments and 5,351 at-risk follow-on round investments. Using this sample of portfolio investments, we use fixed-effect regression to estimate the following function:

$$Delaware = \alpha + \beta_1 * Out-of-State VC + \beta_2 * Exposed VC + \beta * X + VC_i + \varepsilon \quad (3)$$

where *Out-of-State VC* equals one if the VC investor is headquartered in a different state than the startup firm, and zero if both the VC and the startup are headquartered in the same state; *Exposed VC* equals one if the VC investor had previously invested in another startup firm incorporated in the startup's home state, and zero otherwise; **X** is a vector of included control variables; and  $VC_i$  are a series of fixed-effects for each VC firm. The inclusion of the VC fixed effect lets us observe how each VC's behavior changes when investing in-state as opposed to out-of-state.

The vector **X** includes other factors which could affect the choice of domicile: the total amount invested in the round (*Investment (\$M)*); the number of other out-of-state VCs participating in the financing round (*Other Out-of-State VC*); the total number of other VCs participating in the financing round (*Other VC Total*); and dummy variables for Sector, Year, and Round.

We separately estimate equation (3) for the first round of financing (models 9 and 10), and for follow-on rounds in which the firm was at risk of reincorporating into Delaware (models 11 and 12). In models 10 and 12, we also include all of the state-level variables used in model 4 to control for differences in state corporate law that may impact the VC's choice of domicile. To avoid double-counting subsequent investments made by the same VCs, Models 11 and 12 only include the first investment made by each VC into the firm, giving us a sample of 4,432 for model 11 and a sample of 4,282 for model 12. Results are reported in Table 12.

[ADD TABLE 12 ABOUT HERE]

For both incorporation in the first round of financing (models 9 and 10) and reincorporation in subsequent rounds (models 11 and 12), we find that VC investors are approximately 5 percentage points more likely to contract for Delaware incorporation when investing out-of-state. This result is statistically significant in both models. Furthermore, the inclusion of fixed effects for each VC means this result is not driven by unobserved differences between the VC firms financing each startup. Regarding our second treatment variable – *Exposed VC* – our results are less conclusive. We find a null result for the first round of financing. As noted above, this is likely due to the fact that our measure of *Exposed VC* is less accurate in first-round financings. For follow-on financings, the coefficient on *Exposed VC* is negative, as predicted by the lingua-franca explanation, but not quite significant at normal levels. Overall, the VC fixed-effect results support the lingua-franca explanation for the use of Delaware domicile, and provide further confirmation that our findings are not driven by unobserved differences between the VC firms financing different startups.<sup>21</sup>

## 5. Alternative Causal Pathways

Even if the presence of out-of-state investors increases the likelihood of Delaware incorporation, this effect might have an explanation other than lingua franca. In this section, we consider four alternative explanations for this relationship and discuss why they are unlikely to explain away the lingua franca results: (1) neutral venue; (2) home-state bias; (3) California effect; and (4) startup’s law firm.

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<sup>21</sup> In addition to the VC fixed-effect analysis reported here, we also estimated a two-stage least squares model using the supply of in-state funds as an instrument for the number of out-of-state investors and found results consistent with the lingua-franca explanation. These results are not reported, but are available upon request.

## *Neutral Venue*

One might believe that the correlation between out-of-state investors and Delaware incorporation is due to the preference for a neutral litigation venue: an out-of-state investor may prefer that a startup incorporate in Delaware rather than stay at home so that the out-of-state investor can have an unbiased adjudicator rather than a home-state judge in the event of a dispute.

While this explanation is plausible on the surface, it is important to remember that Delaware domicile is neither necessary nor sufficient for an out-of-state investor to obtain a neutral venue. Delaware incorporation is not *necessary* to obtain a neutral venue because the parties could contract directly over venue through a choice of forum clause in the charter or elsewhere that requires the parties to resolve disputes in a specified venue. For example, the corporation's charter could require all disputes to be resolved by arbitrators or in the courts of a particular state. If parties wish to have their disputes heard outside of home-state courts, they can easily do so without domiciling in Delaware.

Delaware domicile is not *sufficient* to ensure that a Delaware court will handle a dispute because suits arising in Delaware-domiciled firms can be (and often are) brought elsewhere, typically in federal or state courts where the firms are headquartered (Armour, Black, and Cheffins, 2012). And although litigation between participants in startups is relatively uncommon, it is also easy to find cases involving Delaware-domiciled firms that are adjudicated outside of Delaware.<sup>22</sup> As the Delaware chancery court has reminded lawyers, the only way to ensure that disputes arising in Delaware-domicile firms are heard

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<sup>22</sup> See, *Flying Disc Investments LP v. Baker Communications Fund II* (Superior Court of California, County of San Francisco, 2009)(litigation by founders against New York VC investors in Delaware-domiciled California firm); *John P. Kennedy v. Venrock Associates* (U.S.C.A. 7<sup>th</sup> Circuit) (348 F.3d 584)(2003)(litigation by common shareholders against New York VC investors in Delaware-domiciled Illinois firm).

in Delaware is to put a forum selection provision in the charter.<sup>23</sup> As far as we know, such provisions have not been widely used by startups. Thus, the desire for a neutral venue (that is, to avoid the bias of home-state judges) does not appear capable of explaining our results that a firm is more likely to domicile in Delaware if it has more out-of-state investors.

### *Home-State Familiarity*

Almost all firms domicile either in Delaware or in their home state. Thus, the positive correlation between the fraction of out-of-state investors and Delaware domicile implies a positive correlation between the fraction of in-state investors and home-state domicile. One might think that these results are driven not by Delaware's use as a lingua franca, but rather by in-state investors' relative familiarity with, and thus excessive use of, home-state law. In particular, the observed patterns might appear consistent with a world in which (1) Delaware law is of higher intrinsic quality than in-state law; and (2) each in-state investor must incur learning costs to use Delaware law, but not home-state law. In such a world, firms financed mostly or entirely by in-state investors would often choose home-state law to save learning costs even when the investors know that their law is otherwise inferior to Delaware's.

If home-state familiarity were driving our results, we would expect an increase in the number of in-state investors (everything else equal) to increase the likelihood of home-state domicile. However, we find (tables 5 and 6) that the number of in-state investors has little impact on the choice between home-state and Delaware incorporation. This finding

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<sup>23</sup> *In re Revlon Inc. S'holders Litig.*, 990 A.2d 940, 960 (2010). For a discussion of forum selection clauses, see Armour, Black and Cheffins (2012 at pp. 1392-94).

suggests that while out-of-state investors have a strong preference for Delaware (when they invest out-of-state), in-state investors are relatively indifferent between home-state and Delaware domicile. Our results thus appear more consistent with lingua franca than with home-state familiarity.<sup>24</sup>

### *California Effect*

More than 40% of our sample firms are headquartered in California. VC norms (Suchman and Cahill, 1996) and contracting practices (Bengtsson and Ravid, 2009) may be different in California than elsewhere. More importantly, California has an unusual long-arm statute (CA Corp. Code § 2115) that purports to extend numerous substantive requirements of California corporate law to “quasi-California firms” – firms domiciled out-of-state that have most of their assets and shareholders located in California (Fried and Ganor, 2006). Section 2115 thus subjects a California-based firm domiciled in Delaware to two sets of corporate laws (California and Delaware) when there are relatively few out-of-state investors, making a Delaware domicile less attractive for such a firm. If Delaware domicile is generally beneficial, we would expect § 2115 to produce a correlation between out-of-state investors and Delaware domicile in California, even absent a lingua-franca effect. One may thus be concerned that our results are driven by a “California effect” that has nothing to do with lingua franca.

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<sup>24</sup> Further evidence that home-state familiarity is not driving our results comes from the fact that firms rarely incorporate in a state other than Delaware or the firm’s home state. If home-state familiarity were driving our results, we would expect to see more firms incorporating in a third jurisdiction, namely the out-of-state investors’ home state. For example, if a group of California VCs finance a startup located outside California, home-state familiarity would predict that, everything else equal, these VCs would favor California incorporation for the out-of-state firm, not Delaware. We do not observe this behavior (see Figure 1). Instead, Delaware functions as a national standard regardless of investor location, a pattern that is more consistent with lingua franca than with home-state familiarity.

To address this concern, we exclude firms located in California and then re-estimate equations (1) and (2) on a subsample of 1091 firms headquartered outside California. Regression results for the first round of financing are reported in model 13, and results for reincorporation are in model 15 (Table 13). In both models the exclusion of California firms does not qualitatively change our findings.

[ADD TABLE 13 HERE]

#### *Startup's Law Firm: Regional or National*

The identity of the law firm representing the startup is only reported in VX for about half of the firms in our sample. Consequently, the regressions reported in Sections 3 and 4 do not control for the identity of the startup's law firm, even though that law firm's familiarity with Delaware law (relative to home-state law) may itself affect the choice of domicile. For example, Daines (2002) finds that IPO firms are more likely to incorporate in Delaware (rather than at home) if the firm is represented by a "national" rather than a "regional" law firm.

Not controlling for the source of the startup's legal advice could bias our results (Bengtsson, 2009). National law firms, for example, may help clients attract financing from out-of-state investors and also advise their clients to incorporate in Delaware. If so, the observed correlation between out-of-state investors and Delaware domicile may not be due to a lingua-franca effect but rather due to the type of law firm advising the startup.<sup>25</sup>

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<sup>25</sup> Of course, a national law firm may prefer that all the firms it advises use Delaware law because Delaware is the only corporate law familiar to all the firm's attorneys. Thus, a finding that startups advised by national law firms are more likely to incorporate in Delaware could itself be consistent with a type of lingua-franca

To address this concern, we identify the law firm representing the startup for the subsample of 1,022 firms (55% of the full sample) where this data is reported by VX. Working with this subsample of firms, we create a new variable, *National Law Firm*, equaling one if the law firm is listed by Chambers USA as a ‘national’ law firm (elite or highly regarded) in the area of corporate/M&A practice, and zero otherwise.<sup>26</sup>

We then re-estimate equations (1) and (2). For equation (1) we include *National Law Firm* as an additional explanatory variable alongside our two treatment variables and the firm-level controls (model 14). For the reincorporation analysis, we cannot include *National Law Firm* as an explanatory variable because it is time-constant. Instead, we run two first-difference models, one limited to firms represented by a national law firm (model 16) and another limited to firms represented by a regional law firm (model 17).

Consistent with Daines (2002), in the first round of financing, *National Law Firms* are more likely to cause their clients to incorporate in Delaware. Inclusion of this variable, however, does not change our main findings. The coefficient on *Out-of-State Investors* is positive and highly significant (1% level) in model 14. Using estimates from model 14, when moving from one standard deviation below its mean to one standard deviation above its mean, *Out-of-State Investors* is associated with a 17 percentage point increase (from 65% to 82%) in the likelihood of Delaware incorporation, while *National Law Firm* is associated with a 6 percentage point increase (from 71% to 77%).

For the reincorporation analysis, we find that  $\Delta$  *Out-of-State Investors* is positive for both the national law firm and regional law firm subsamples. The reincorporation result is

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effect: one that operates through the startup’s law firm rather than one which operates through the startup’s investors and their attorneys.

<sup>26</sup> By contrast, Daines (2002) uses the number of IPOs led by each law firm during the period from 1990 to 2000 as a proxy for whether the law firm is a national firm or regional firm.

only significant for the regional law firm subsample, presumably due to the small subsample of startups represented by national law firms that were incorporated outside Delaware (n= 114). In any event, our findings of a lingua-franca effect appears robust to the type of law firm representing the startup.

## **6. Conclusion**

In this paper, we have put forward and tested a “lingua franca” explanation for a firm’s decision to domicile in Delaware rather than its home state: given that most attorneys are “fluent” in home-state law and Delaware law, a firm raising financing from in-state and out-of-state investors will choose Delaware to provide in-state and out-of-state investors a legal language that all can speak. Studying the domicile decisions of 1850 VC-backed startups, we show that the lingua franca has a significant effect on domicile choices in our sample firms. Indeed, it is more powerful than other domicile-influencing factors that have been identified in the literature, such as judicial quality, the flexibility of a state’s corporate law, and the identity of the issuer’s attorneys.

Our findings help explain how Delaware has been able to achieve and build on its dominant position in the market for corporate charters. Its success in attracting new firms is, at least in part, due to investors around the country being relatively more familiar with Delaware corporate law than with the corporate laws of other states.

Our study also suggests another reason why another state may have difficulty competing with Delaware. That state could not succeed without convincing lawyers to learn a new “language”, but the expected benefit to lawyers of learning a second or third language will be low given that Delaware fluency already allows a corporate attorney in any state to communicate with most corporate attorneys in that same state and in other

states. As a result, lawyers will be reluctant to learn a new language. This lingua-franca effect further raises the barrier to competition, and may hinder desirable state-level legal innovation.

Finally, while our study focuses on the domicile choices of private firms, it may well also have implications for public firms' arrangements. To the extent Delaware's dominance in the market for private firm charters arises because of investor familiarity, it is likely that Delaware's success in the market for public firm charters is also not due solely to the inherent features of its corporate law, network effects, and learning benefits. We hope that our work will be useful to researchers taking up this question, which has important implications for ascertaining the desirability of domicile decisions and the corporate governance of public firms.

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**Table 1**  
**Descriptive Statistics for Sample Firms**

	<b>Mean</b>	<b>Med.</b>	<b>S.D.</b>
Number of Financing Rounds	3.58	3	2.19
Number of Investors	5.91	5	3.92
Out-of-State Investors <sup>27</sup>	2.88	2	2.76
In-State Investors	1.82	1	1.83
Amount Invested (in \$M)	36.85	23.2	48.58

**Note:** The sample consists of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002.

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<sup>27</sup> The identities of a startup's investors are not always disclosed in VentureXpert. Consequently, the sum of *Out-of-State Investors* and *In-State Investors* does not necessarily equal a firm's total *Number of Investors* (i.e., the total may include investors whose identity and location are not disclosed).

**Table 2**  
**State of Incorporation**

	<u>Original State of Inc.</u> Count (%)	<u>Final State of Inc.</u> Count (%)	<b>Percent Change</b>
Delaware	1254 (67.8)	1457 (78.8)	+11.0%
Home State	531 (28.7)	359 (19.4)	-9.3%
Other State <sup>28</sup>	65 (3.5)	34 (1.8)	-1.7%

**Note:** The sample consists of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. The above table shows the number of sample firms incorporated in their home states, Delaware, or another state. Data are displayed for each firm’s original and final incorporation choices. The difference between the original and final incorporation is due to firms changing their domicile (reincorporating in a different jurisdiction).

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<sup>28</sup> For firms choosing to incorporate in an “other state” the most commonly selected alternatives as the final state of incorporation are as follows: Nevada (n = 5); California (n=4); Massachusetts (n = 3); Ohio (n=3); and Pennsylvania (n=3).

**Table 3**  
**Final State of Incorporation (%) Sorted by Firm Size Quintile**

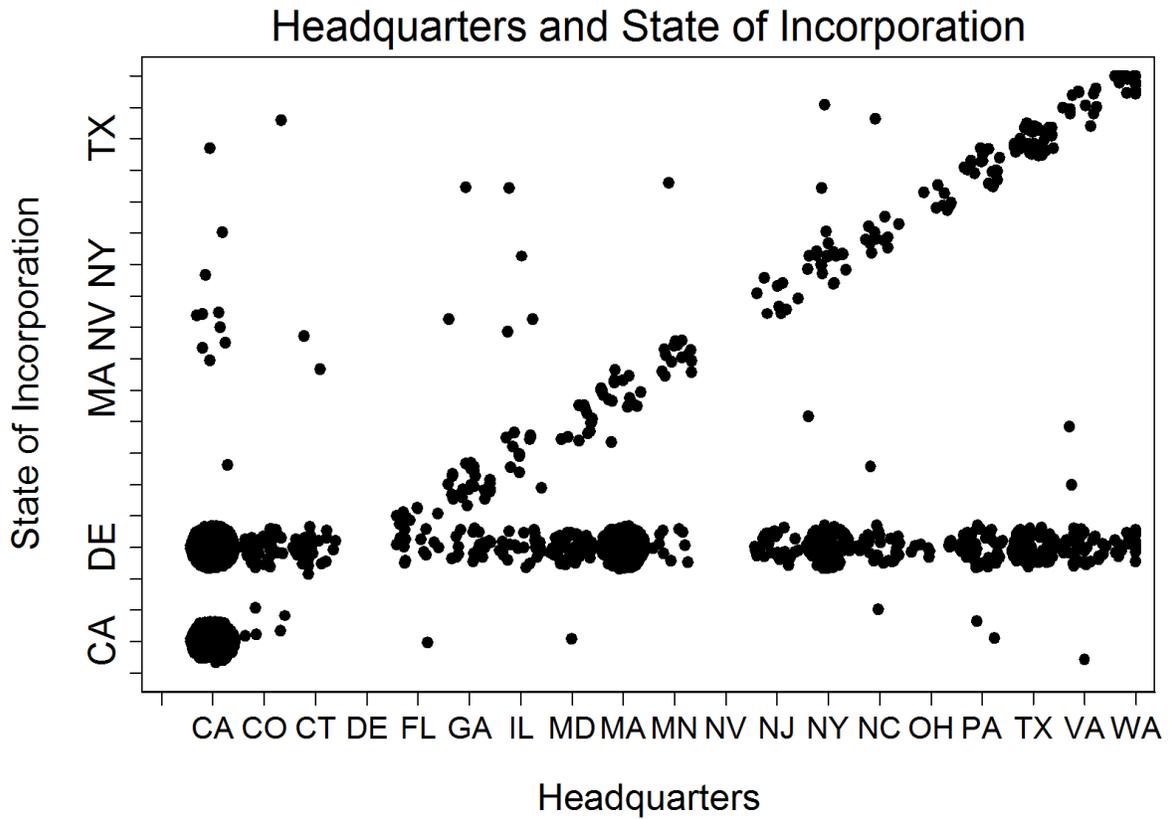
	<i>Smallest</i>				<i>Largest</i>
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Delaware	69.6	75.4	79.6	79.2	89.2
Home State	26.7	22.1	18.8	19.2	10.8
Other State	3.6	2.5	1.6	1.6	0

**Note:** The sample consists of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. Firm size quintile is based on the total amount of financing raised by each firm over all rounds of investment.

**Table 4**  
**Exit Status and Industry Sector**

	Count	DE Original Count (%)	DE Final Count (%)	Percent Change
<b>Exit Status</b>				
IPO	103	76 (73.8%)	96 (93.2%)	+19.4%
Acquisition	536	367 (68.4%)	414 (77.2%)	+8.8%
Active	916	599 (65.4%)	719 (78.5%)	+13.1%
Defunct	295	212 (71.8%)	228 (77.3%)	+5.5%
<b>Sector</b>				
Computer-Related	905	615 (67.9%)	710 (78.5%)	+10.6%
Non-High-Tech	99	58 (58.5%)	70 (70.7%)	+12.2%
Communications/Media	366	255 (69.6%)	286 (78.1%)	+8.5%
Biotech	129	95 (73.6%)	110 (85.3%)	+11.7%
Medical/Life Sciences	158	110 (69.6%)	135 (85.4%)	+15.8%
Semiconductor/Other Electronic	193	121 (62.7%)	146 (75.6%)	+12.9%

**Note:** The sample consists of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. The above table shows the exit status and industry sector of the sample firms, and reports the likelihood of Delaware incorporation for each category.



**Figure 1:** Scatter plot of state of incorporation relative to headquarters location. For ease of presentation, Figure 1 includes results only from firms located in states with at least 15 observations (with the exception of Delaware and Nevada). Delaware and Nevada are included because they represent important chartering destinations. The graph is jittered to avoid points appearing directly on top of each other.

**Table 5**  
**Reincorporation**

	Count	Percent
<b>Reincorporation Destination</b>		
In Delaware	205	94.5%
In home state <sup>29</sup>	7	3.2%
In other state <sup>30</sup>	5	2.3%
<b>Total</b>	<b>217</b>	<b>100%</b>
<b>Reincorporation Timing (into DE only, n=205)<sup>31</sup></b>		
1 <sup>st</sup> Round (or earlier)	116	56.6%
2 <sup>nd</sup> Round	33	16.1%
3 <sup>rd</sup> Round	22	10.7%
4 <sup>th</sup> Round	9	4.4%
5 <sup>th</sup> Round (or later)	11	5.4%
After last round of financing	14	6.8%
<b>Total</b>	<b>205</b>	<b>100%</b>

**Note:** The above table provides data on the destination and timing of reincorporation from a sample of 1,850 US-based startups that received first round VC financing between 1/1/2000 and 12/31/2002.

<sup>29</sup> Of the 7 firms moving to home-state domicile, 4 were in California and there was 1 in each of Texas, Kentucky and Maryland.

<sup>30</sup> Of firms switching to a third-state domicile, 2 went to Nevada, and Connecticut, Florida, and Virginia each got 1.

<sup>31</sup> Reincorporation after the first round of financing typically occurs within a six-month window (3 months on either side) of a new round of financing. When reincorporation does not occur within 3 months of any round, we assume that reincorporation is in connection with the subsequent round of financing. A firm's management may anticipate that subsequent investors will request Delaware incorporation, and thus decide to reincorporate in advance of the new financing round. To determine whether this assumption affects our analysis, we recode the 32 follow-on reincorporations that are not within 3 months of any financing round as if the reincorporation occurred in connection with the previous round of financing. This alternative coding does not substantively affect the regression results reported below.

**Table 6**  
**Delaware Incorporation and Out-of-State Investors**  
**in the First-Round of Financing**

		Number of Out-of-State Investors			
		0	1	2	3+
Number of In-State Investors	0		73.4%	78.7%	93.1%
	1	63.6%	73.3%	82.0%	84.2%
	2	68.9%	81.2%	72.2%	87.5%
	3+	70.8%	79.5%	72.8%	100%

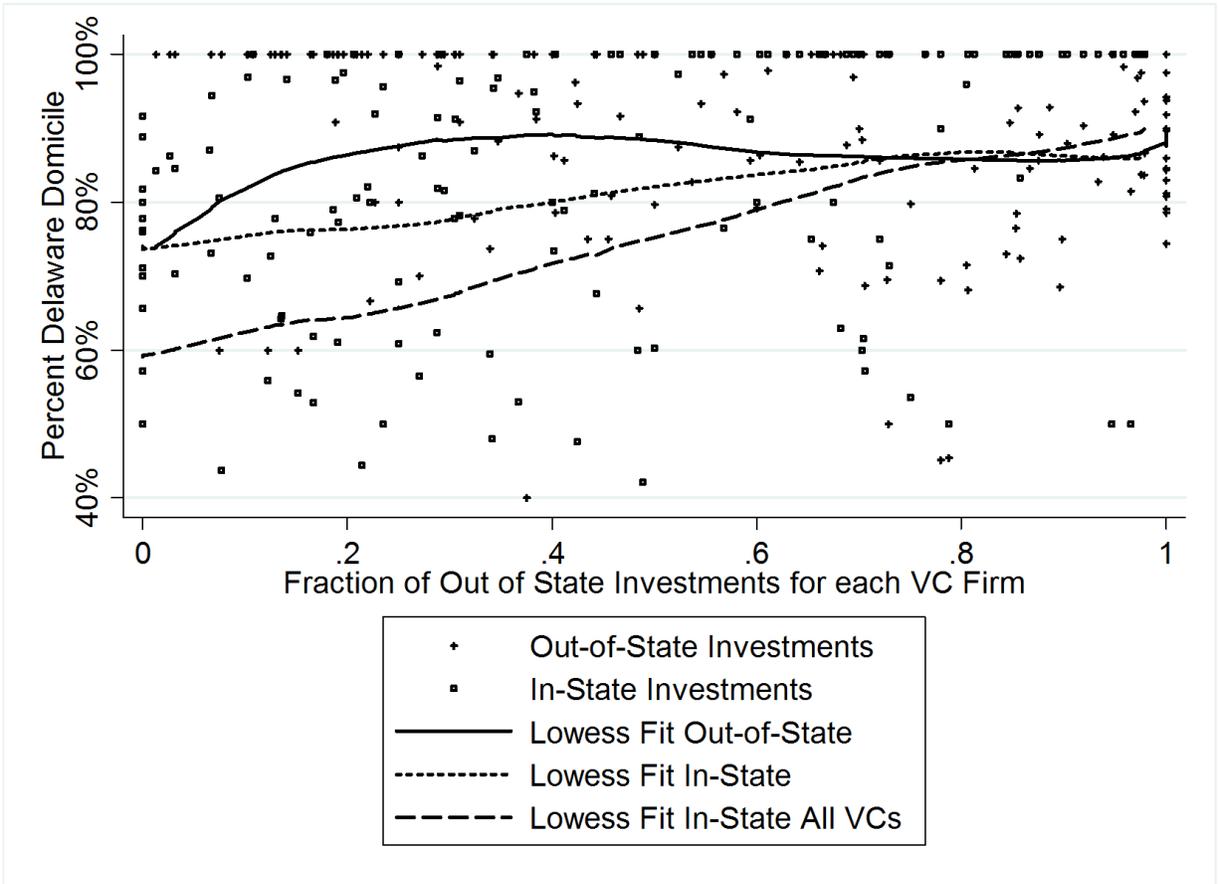
**Percent Delaware Incorporation**

**Note:** The above table shows the likelihood of Delaware incorporation at the first round of VC financing in relation to the number of in-state and out-of-state investors participating in the round.

**Table 7**  
**Delaware Incorporation and Out-of-State Investors**  
**in Follow-on Rounds of Financing**

		<b>Number of Out-of-State Investors</b>				
		<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4+</b>
<b>Number of In-State Investors</b>	<b>0</b>		77.6%	81.9%	79.8%	92.2%
	<b>1</b>	67.2%	72.1%	73.8%	82.6%	92.0%
	<b>2</b>	65.8%	71.1%	86.2%	83.8%	92.3%
	<b>3</b>	69.8%	79.2%	80.8%	81.5%	93.1%
	<b>4+</b>	66.0%	77.8%	77.6%	81.5%	94.4%
	<b>Percent Delaware Incorporation</b>					

**Note:** The above table shows the likelihood of Delaware incorporation in a follow-on round of VC financing in relation to the number of in-state and out-of-state investors participating in the round.



**Figure 2:** Delaware domicile for VC in-state vs. out-of-state investments. For each VC in our sample that invested in at least 30 rounds of financing, we illustrate the likelihood that a portfolio firm will be incorporated in Delaware depending on whether or not the firm is located in the same state as the VC. Out-of-state investments are indicated with a plus sign, while in-state investments are indicated with a square. The graph also shows three Lowess curves plotting the likelihood of Delaware domicile at each round of financing for (i) Out-of-State portfolio firms (solid line), (ii) In-State portfolio firms (dotted line), and (iii) In-State portfolio firms where all VCs in the round are located in the startup’s home state (dashed line). Data are plotted over the fraction of out-of-state investments in each VC’s portfolio.

**Table 8**  
**Likelihood of Delaware Incorporation (%)**  
**for Portfolio Firms Financed by Select California VCs**

<b>Select California VCs</b>	<b>% Delaware Incorporation</b>		
	<b>In-state investments (100% Cal. VCs)</b>	<b>All in-state investments</b>	<b>Out-of-state investments</b>
Accel Partners	76.3	76.0	100.0
Draper Fisher Jurvetson	60.6	60.3	79.7
Kleiner Perkins	64.3	81.6	100.0
U.S. Venture Partners	48.9	61.1	100.0
<b>Average</b>	<b>62.5%</b>	<b>69.8%</b>	<b>94.93%</b>

**Note:** Using data from a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002, the above table reports the likelihood that a portfolio firm financed by each of the listed California VCs will incorporate in Delaware if (i) the portfolio firm is headquartered in California and all other VC investors providing financing to the firm are also located in California (column 2), (ii) the portfolio firm is headquartered in California (column 3), or (iii) the portfolio firm is headquartered outside Californian (column 4).

**Table 9**  
**Variable Definitions and Summary Statistics**

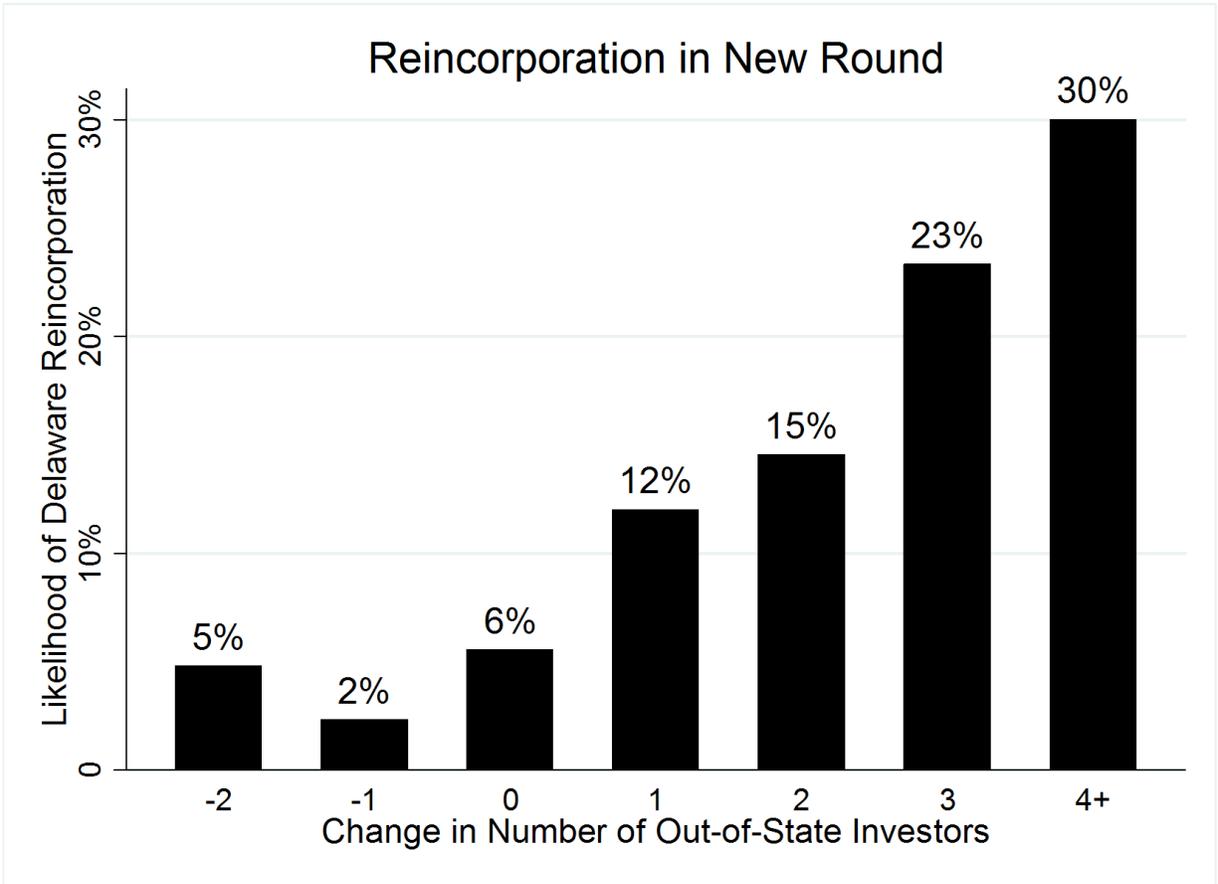
<b>Variable</b>	<b>Mean</b>	<b>Median</b>	<b>SD</b>
<i>Delaware</i>	.769	1	.422
<i>Out-of-State Investors</i>	1.765	1	1.929
<i>Local Exposure</i>	.390	0	.889
<i>Total Investors</i>	3.725	3	2.605
<i>In-State Investors</i>	1.243	1	1.399
<i>Investment (\$M)</i>	10.793	6.75	15.145
<i>Size Proxy (\$M)</i>	36.069	25	41.911
<i>VC Reputation</i>	25.828	25	9.988
<i>Judicial Quality</i>	2.147	2.1	.298
<i>Flexibility</i>	3.144	3	.755
<i>ATS Index</i>	1.848	1	1.951
<i>Franchise Tax</i>	-39.270	0	230.520
<i>MBCA state</i>	.291	0	.454
<i>West of Mississippi</i>	.564	1	.496
<i>State Inc. Count</i>	97.649	100	48.613

**Note:** The financing round (n = 6217) is the unit of analysis. *Delaware* equals one if the firm is incorporated in Delaware, and zero otherwise; *Out-of-State Investors* is the number of out-of-state investors participating in the round; *Local Exposure* equals the number of out-of-state investors participating in a financing round that have previously financed a firm within the sample of 1,850 startups that is incorporated in the startup's home state; *Total Investors* is the total number of VC investors participating in the round; *In-State Investors* is the number of in-state investors participating in the round; *Investment (\$M)* equals the amount of financing received in the new round (in millions of dollars); *Size Proxy (\$M)* equals the aggregate amount of financing that the firm received over all rounds of VC investment (in millions of dollars); *VC Reputation* equals the average age, as of 2010, of the VC firms participating in a round of financing; *Judicial Quality* equals the Chamber of Commerce 2001 score for each state's judicial quality; *Flexibility* is an index variable (0 to 4) measuring how much flexibility a state's corporate law provides for firms to design their governance arrangements, following Kahan (2006); *ATS Index* is an index of anti-takeover statutes, as coded in Kahan (2006); *Franchise Tax* equals the sum of the home state's initial incorporation fee and its annual franchise tax and/or annual report fee, minus the sum of the home state's foreign qualification fee and its annual foreign report fee, based on tax rates as of 1/1/2000 and an assumption of 100,000 shares outstanding (par value = \$.001/share); *MBCA state* equals one if the firm is located in an MBCA state, and zero otherwise; *West of Mississippi* equals one if the firm is located in a state located west of the Mississippi River, and zero otherwise; and *State Inc. Count* equals the number of publicly-held firms incorporated in the startup's home state.

**Table 10**  
**State of Incorporation at the First Round of VC Financing**

	Logit Marginal Effects (Dependent Variable = <i>Delaware</i> )				
	(1)	(2)	(3)	(4)	(5)
<b>Treatment Variable</b>					
<i>Out-of-State Investors</i>	.0793** (.010)	.0600** (.016)	.0652** (.017)	.0612** (.015)	.0581** (.019)
<i>Local Exposure</i>	-.0305 (.028)	-.0373 (.030)	-.0569* (.025)	-.0411 (.029)	-.0199 (.025)
<b>Firm-Level Controls</b>					
<i>Total Investors</i>		.0235* (.011)	.0205* (.011)	.0174 (.011)	.0153 (.015)
<i>In-State Investors</i>		-.0058 (.013)	-.0070 (.013)	-.0041 (.015)	-.0018 (.018)
<i>Investment (\$M)</i>		-.0001 (.001)	-.0013 (.001)	-.0010 (.001)	-.0014 (.002)
<i>Size Proxy (\$M)</i>		.0013** (.000)	.0016** (.000)	.0017** (.000)	.0016** (.000)
<i>VC Reputation</i>		-.0011 (.001)	-.0019* (.001)	-.0019* (.001)	-.0015 (.001)
<i>Sector Dummies</i>		Yes	Yes	Yes	Yes
<i>Year Dummies</i>			Yes	Yes	Yes
<b>State-Level Controls</b>					
<i>Judicial Quality</i>				-.1274 (.173)	
<i>Flexibility</i>				-.0781 (.075)	
<i>ATS Index</i>				-.0036 (.029)	
<i>Franchise Tax</i>				.0000 (.000)	
<i>MBCA state</i>				.0267 (.089)	
<i>West of Mississippi</i>				-.1953** (.062)	
<i>State Inc. Count</i>				-.0006 (.001)	
<i>State Dummies</i>					Yes
Observations	1847	1847	1847	1774	1774
Pseudo R-squared	.034	.049	.073	.097	.148

**Note:** Using data from a cross-section of 1,850 US-based VC-backed startups, the above table reports marginal effects based on logit estimates evaluated at the mean of each variable. All variables are defined as of the first round of VC financing. The dependent variable is *Delaware*, which equals one if the firm was incorporated in Delaware, and zero otherwise. All explanatory variables are defined in Table 9. Standard errors (clustered at the state level and calculated via the delta-method) are reported below each coefficient estimate. We use a two-sided test for statistical significance (\* = 10% and \*\* = 1% significance).



**Figure 3:** The above figure illustrates the likelihood that a firm will reincorporate in Delaware in connection with a new round of financing. The horizontal axis shows the change in the number of out-of-state investors since the previous round ( $\Delta$  *Out-of-State Investors*). Figure 3 only reports observations in which the firm was not incorporated in Delaware prior to the round (i.e. firms at 'hazard' of reincorporating in Delaware).

**Table 11**  
**Reincorporation in Delaware**

	First-Difference Regression Model (OLS)		
	(6)	(7)	(8)
<b>Treatment Variable</b>			
<i>Out-of-State Investors</i>	.0627** (.009)	.0440** (.012)	.0442** (.012)
<i>Local Exposure</i>	-.0315** (.010)	-.0233** (.008)	-.0246** (.009)
<b>Firm-Level Controls</b>			
<i>Total Investors</i>		.0096 (.007)	.0104 (.007)
<i>In-State Investors</i>		-.0153 (.011)	-.0175 (.011)
<i>Investment (\$M)</i>		-.0005 (.001)	-.0004 (.001)
<i>VC Reputation</i>		.00004** (.0000)	.00009** (.0000)
<i>Round Dummies</i>			Yes
<i>Year Dummies</i>			Yes
Observations	1546	1546	1546
Firm Clusters	594	594	594
R-squared	.051	.067	.081

**Note:** The above table reports first-difference regression estimates on a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. Data are estimated for each financing round in which the firm was at risk of reincorporating in Delaware, a total of 594 firms and 1546 rounds. The dependent variable is  $\Delta$  *Delaware*, which equals one if the business reincorporated in Delaware in the round of financing, and zero otherwise. All explanatory variables are defined in Table 9. Standard errors are clustered at the firm level and reported in parentheses below each coefficient estimate. We use a two-sided test for significance (\* = 10% and \*\* = 1% significance).

**Table 12**  
**VC Fixed-Effect Regression Models**

	VC Fixed Effect			
	<u>First Round</u>		<u>At-Risk Subsequent Round</u>	
	(9)	(10)	(11)	(12)
<b>Treatment Variables</b>				
<i>Out-of-State VC</i>	.0551* (.025)	.0511* (.026)	.0417* (.024)	.0433* (.025)
<i>Exposed VC</i>	.0026 (.037)	.0114 (.038)	-.0245 (.032)	-.0227 (.033)
<b>Control Variables</b>				
<i>Investment (\$M)</i>	.0000* (.000)	.0000* (.000)	.0000** (.000)	.0000** (.000)
<i>Size Proxy (\$M)</i>	.0006** (.000)	.0007** (.000)	.0006** (.000)	.0006** (.000)
<i>Other Out-of-State VC</i>	.0225** (.006)	.0156* (.006)	.0290** (.005)	.0228** (.006)
<i>Other VC Total</i>	.0194** (.004)	.0196** (.004)	.0111** (.004)	.0119** (.004)
<i>Judicial Quality</i>		-.1054* (.055)		-.1023* (.051)
<i>Flexibility</i>		-.0636** (.025)		-.0494* (.023)
<i>ATS Index</i>		.0104 (.012)		.0067 (.011)
<i>Franchise Tax</i>		-.0001* (.000)		-.0001* (.000)
<i>MBCA state</i>		.0263 (.025)		.0476* (.023)
<i>West of Mississippi</i>		-.1466** (.039)		-.1425** (.034)
<i>State Inc. Count</i>		-.0006 (.000)		-.0003 (.000)
<i>Sector Dummies</i>	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes
<i>Round Dummies</i>			Yes	Yes
<i>VC Fixed Effects</i>	Yes	Yes	Yes	Yes
Observations	3397	3272	4432	4282
VC Clusters	172	172	173	173
R-squared (within)	.071	.099	.257	.273

**Note:** The above table reports VC fixed-effect regression estimates on a sample limited to VC firms that participated in at least 30 rounds of financing involving the startup firms in our full sample. The unit of analysis is each investment by the VC firms meeting the above qualification. The dependent variable (*Delaware*) records whether the portfolio firm was incorporated in Delaware at the time of the investment. The primary explanatory variable is *Out-of-State VC*, which equals one if the startup was headquartered in a different state than the VC firm, and zero otherwise. Models 9 and 10 are limited to first-round financing observations. Models 11 and 12 include subsequent at-risk rounds of financing, but are limited to the first investment by each VC in the company. Remaining explanatory variables are defined in Table 9. Robust standard errors are reported below each coefficient estimate. We use a two-sided test for statistical significance (\* = 10% and \*\* = 1% significance).

**Table 13**  
**Robustness Checks – Alternative Explanations**

Treatment Variable	First Round DV = <i>Delaware</i>		Reincorporation DV = $\Delta$ <i>Delaware</i>		
	<u>Logit Marginal Effects</u>		<u>First-Difference Regression (OLS)</u>		
	<i>Non-CA Firms</i> (13)	<i>Law Firm Data</i> (14)	<i>Non-CA Firms</i> (15)	<i>National Law Firm</i> (16)	<i>Regional Law Firm</i> (17)
<i>Out-of-State Investors</i>	.0370* (.022)	.0635** (.023)	.0428* (.019)	.0333 (.031)	.0380* (.019)
<i>Local Exposure</i>	-.1164* (.065)	-.0134 (.034)	-.0334* (.016)	-.0040 (.008)	-.0356* (.016)
<b>Firm-Level Controls</b>					
<i>Total Investors</i>	.0309* (.018)	.0117 (.017)	.0112 (.013)	.0120 (.015)	.0162 (.011)
<i>In-State Investors</i>	-.0031 (.027)	-.0138 (.019)	.0245 (.024)	.0044 (.021)	-.0281* (.016)
<i>Investment (\$M)</i>	.0018 (.002)	.0015 (.002)	-.0006 (.001)	-.0007 (.003)	-.0006 (.001)
<i>VC Reputation</i>	-.0012 (.001)	-.0015* (.001)	.0001** (.000)	.0000 (.000)	.0001* (.000)
<i>National Law Firm</i>		.0498* (.021)			
<i>Sector Dummies</i>	Yes	Yes			
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes
<i>Round Dummies</i>	n/a	n/a	Yes	Yes	Yes
Observations	1091	1022	765	284	635
Firm Clusters	n/a	n/a	324	114	223
Wald Chi-squared	173.57	467.46	n/a	n/a	n/a
R-Squared	n/a	n/a	.122	.074	.078

**Note:** Models 13 - 14 report logit marginal effects regarding the decision to incorporate in Delaware at the first round of financing, with *Delaware* as the dependent variable. Using first-difference regression, models 15 - 17 estimate the decision whether to reincorporate in Delaware in each subsequent financing round, with  $\Delta$  *Delaware* as the dependent variable. Models 13 and 14 are limited to a subsample of non-California firms. Model 14 is estimated on a subsample of firms in which VentureXpert identified the startup's law firm; model 16 is limited to firms represented by a "national" law firm; and model 17 is limited to firms represented by a "regional" law firm. The explanatory variables for the reincorporation models are in first-difference format (i.e. " $\Delta$ "). All remaining explanatory variables are defined in Table 9. Robust standard errors (clustered at the firm level in models 15 - 17) are reported below each coefficient estimate. For models 13 and 14, standard errors are calculated using the delta-method. We use a two-sided test for statistical significance (\* = 10% and \*\* = 1% significance).