How Do Firms Choose Legal Form of Organization?

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Abstract: In this study, we analyze the firm's choice of legal form of organization ("LFO"). We find that only about one in three firms begins operations as a proprietorship, while almost as many begin as limited liability companies and as corporations. Moreover, this distribution is remarkably stable over the first seven years of the firm's life. Fewer than one in ten firms changes LFO during its first seven years. Those that do change LFO disproportionately move to a more complex form, primarily from proprietorship to a form with limited liability. Our analysis of the firm's initial choice of LFO reveals that a firm chooses LFO based upon factors that include access to capital markets, tax consequences, and personal liability and risk exposure. At start-up, the entrepreneur chooses a LFO that can accommodate the expected future complexity of her firm.

Key Words: corporation, entrepreneurship, Kauffman Firm Survey, LLC, legal form of organization, organizational form, partnership, proprietorship, small business, start-up

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1. Introduction

One of the first decisions any entrepreneur has to make is the choice of the legal form of organization ("LFO"). The five available LFOs (sole proprietorship, partnership, Limited Liability Company, S-corporation, and C-corporation) differ substantially in terms of the firm's ability to raise capital, tax considerations, and owner(s) exposure to risk and personal liability. The choice of initial LFO is undoubtedly related to the firm's and entrepreneur's needs and exposure to these considerations at start-up. This choice also alters the way the newly established firms behave, including willingness to take risks, obtaining financing, and managing expenses.

In this study, we examine several fundamental questions related to the initial LFO choice. Why and how do entrepreneurial firms initially choose one organizational form over another? Do entrepreneurial firms change organizational form, switching, for example, from proprietorship to partnership, LLC or corporation? What factors influence the entrepreneur's choice of initial LFO and how does this choice relate to future operational decisions and outcomes? These are fundamental decisions facing any entrepreneur, yet very little research and analysis has been done on the topic.

We utilize data from the Kauffman Firm Survey ("KFS") and its annual follow-ups to examine the link between the expected complexity of the firm and the choice of initial LFO. The KFS tracks a panel of 4,928 new businesses established during 2004, providing information about the firm in the year of its inception and, for those firms that survive, providing information about the firm in each of seven subsequent years—2005 – 2011. Because the KFS collects information on each firm's legal form of organization in each survey year, we can identify firms that change their LFO.

Our analysis reveals that a firm's choice of LFO is largely set in stone at inception, in contradiction to the life-cycle theory of the firm. Only about one in three firms begins life as a proprietorship, while almost as many begin as LLCs and as corporations. Moreover, this distribution is remarkably stable over the first seven years of a firm's life. Fewer than one in ten firms changes LFO during these first seven years, but those that do disproportionately move to a more complex form, primarily from proprietorship to a form with limited liability.

Our analysis of the firm's initial choice of LFO reveals that a firm is more likely to choose a more complex LFO to accommodate greater expected firm's complexity, proxied by employment size, comprehensive employee benefits plans, use and extension of trade credit, use of business credit financing, and obtaining intellectual property rights. A more complex initial LFO also is more likely when its primary owner is more educated, has a higher number of prior start-ups, and puts more working hours into the firm. These findings suggest that firms' owners endogenously choose the initial LFO that is best suited to pursue the owner(s) growth objectives and complexities of the business.

This study makes an important contribution to the literature by providing new evidence on: (i) a firm's initial choice of LFO at start-up; (ii) the determinants of a firm's initial choice of LFO; and (iii) the incidence of changes in LFO during the first seven years of a new firm.

The rest of our paper is organized as follows. Section 2 describes various LFOs, emphasizing the differences in terms of the firm's ability to raise capital, tax considerations, and owner(s) exposure to risk and personal liability. Section 3 provides review of related literature. Section 4 develops hypotheses. Section 5 describes data and methodology, while Section 6 presents the results of empirical tests. Section 7 concludes.

2. Different Legal Forms of Organization

Obviously, there are advantages and disadvantages to each organizational form and the entrepreneur must calculate the costs and benefits of these advantages and disadvantages. We explore these tradeoffs below.

2.1. Proprietorship

The proprietorship is the simplest LFO—one that has no separate legal existence from its owner. A proprietorship is simply a person operating a business under her own name or a trade name ("doing business as"). In general, there are no legal requirements to operate a proprietorship. Consequently, the law treats the legal obligations of the proprietorship as those of the owner. Also, because there is no separate legal entity, the profits and losses of the business flow through to the owner, as do any legal liabilities. The owner is personally responsible for all legal obligations of the firm and her personal wealth is at risk. A proprietorship can consist of, at most, two persons—a husband and wife filing a joint tax return. Otherwise, a proprietorship has only one owner, and, therefore, is limited in the amount of equity capital by the personal wealth of the proprietor. The life of a proprietorship is limited by the life of the proprietor; the firm dies with the owner. Finally, partial ownership shares do not exist for a proprietorship; the firm must be bought or sold in its entirety.

2.2. Partnership

In order to deal with many of the limitations imposed by the proprietorship LFO, the partnership was established as a legal business entity whereby two or more persons enter into a legal contract in which the partners agree to operate a business and share the profits from that business. There must be at least one general partner, who bears unlimited legal liability for the firm's legal obligations, and there may be one or more limited partners, who enjoy limited

liability if they do not materially participate in the operation of the business. The partnership enables a firm to raise equity capital in excess of that of a single owner; the equity in a partnership is limited by the combined personal wealth of all partners. As with a proprietorship, the profits and losses of the firm pass through the firm to the partners, but on a pro rata share based upon the partnership agreement. As with a proprietorship, there is a limitation on the life of a partnership; it ends with the death of the last general partner. However, ownership of a partnership is divided into shares that can be bought or sold.

2.3. Corporation

A corporation is the most complex LFO. A corporation is a separate legal entity from its owner(s) and, as such, is recognized as a "legal person" that can enter into contracts and enjoys all the legal rights of a "natural person." Consequently, all owners of a corporation enjoy limited liability. In sharp contrast to a proprietorship and partnership, a corporation enjoys an unlimited life. There are two primary types of corporations in the U.S.—the C-corporation and the S-corporation.

C-corporation

C-corporations are subject to corporate income tax at both federal and state levels. Any earnings distributed to shareholders as dividends are subject to a second level of taxation at personal income tax rates. Although this double tax often is cited as a reason not to conduct business as a C-corporation, it is just one factor to consider. Others may outweigh it, and careful tax planning can minimize this disadvantage.

One way the corporation can reduce the double taxation of corporate income is to pay large salaries to shareholders who are managers or employees of the firm. Because compensation is a valid business expense, a C-corporation can deduct compensation in its calculation of taxable

income, avoiding the corporate tax on these distributions. However, the IRS imposes limitations on this practice by setting rules on what is considered reasonable compensation; excessive compensation can be reclassified by the IRS as a dividend distribution that is subject to the corporate tax plus penalties.

C-corporation's shareholders may postpone the double tax if earnings are reinvested in the business rather than paid as dividends. In this case, retained earnings are taxed only at the corporate level. The amount of earnings retained, however, is effectively limited by the accumulated earnings tax. It also is important to remember that shareholders will pay tax if the earnings eventually are distributed or if corporate assets are sold and the corporation is liquidated.

When corporate assets are sold, shareholders will pay a capital gains tax on the proceeds of the sale. If a tax-free exchange of stock occurs instead of a sale, owners will not pay tax unless they sell some of the shares received in the exchange. States generally do not offer favorable rates on capital gains.

Because some state corporate income tax rates are higher than individual rates, a business organized as a regular corporation may pay higher state taxes than if it is organized as a partnership or S-corporation. However, this difference may not be significant in the few states that tax unincorporated businesses.

S-corporations

An S-corporation is a firm that elects special tax status as defined by Subchapter S of the Internal Revenue Code. The S-corporation was created in 1958 to provide tax relief primarily to small privately held firms. An S-corporation requires the same corporate formalities as a

C-corporation, including articles of incorporation, a board of directors, an annual shareholders' meeting, corporate minutes and shareholder votes on major corporate decisions.

S-corporations are subject to a number of restrictions that do not apply to C-corporations, including a limit to one class of stock and a limit on the number of shareholders. Originally, this shareholder limit was set at 10, but subsequently was raised to 15 in 1976, to 25 in 1981, to 35 in 1982, to 75 in 1996 and to 100 in 2004. Both new and existing corporations may elect S-corporation status.

The major difference between a C-corporation and an S-corporation is that S-corporation income "passes through" to its shareholders so that it is subject to a single level of taxation—at the personal level. Its income, whether or not distributed, is passed through to shareholders on a pro rata basis and included on their individual tax returns. Because an S-corporation passes through its income to its shareholders, it avoids the double taxation of corporate income suffered by C-corporations. As a general rule, the higher is the percentage of corporate income to be distributed, the more beneficial is the S election. The S-corporation form is beneficial for an existing profit-making corporation that does not reinvest earnings, or cannot do so because of an accumulated earnings problem, and expects to distribute substantially all of its income to shareholders. For an ongoing business that anticipates an accumulated earnings problem, an S-corporation election may be beneficial, at least during the interim period when earnings are distributed.

Some C-corporations avoid double taxation by paying out salaries and bonuses large enough to reduce corporate net income to zero. The IRS may challenge such compensation as excessive and reclassify part of the compensation as a nondeductible dividend. A business

effectively can eliminate the possibility of excessive compensation disputes with the IRS by electing S-corporation status.

In contrast to their C-corporation counterparts, shareholder-managers of S-corporations have incentive to favor dividend distributions over managerial compensation. This result obtains because salary income is subject to a 15.3% payroll withholding tax mandated by the Federal Insurance Contributions Act (FICA), which funds the Social Security (12.4%) and Medicare (2.9%) social insurance programs. Dividend distributions are not subject to the FICA tax, so a shareholder manager avoids the payroll tax to the extent she can shift income from salary to dividends. After the Tax Reform Act of 1982, both salaries and dividends were treated as ordinary personal income, which was subject to federal and state personal income taxes. However, the Jobs and Growth Tax Relief Act of 2003 set the federal personal-income tax rate on qualified dividends at 15% rather than at the taxpayer's marginal tax rate on ordinary income. This increased the incentive of a shareholder-manager in a high tax bracket to shift salary income to dividends. Not only would the dividend income avoid the payroll taxes, it also would be taxed at a lower rate than ordinary income, which includes salary.

For the most part, the incentive to shift salary income to dividends applies only to manager-shareholders earning less than the Social Security Wage Base, which was $60,600 in the early 1990s, but is indexed to inflation and, subsequently, has increased to $106,800 as of tax year 2009. Salary income above this cap is subject only to the Medicare Hospital Insurance portion of FICA, which is only 2.9%.

The IRS imposes a requirement of "reasonable compensation" at S-corporations to limit avoidance of the payroll tax just as it imposes a requirement at C-corporations to limit avoidance of the corporate tax. Manager-shareholders must pay themselves a "reasonable" salary based

upon what comparable non-shareholder managers working comparable hours are paid at other firms of similar size operating in the same industry. The IRS may reclassify dividends as salary if it deems managerial compensation to be "unreasonably" low. This has led many accounting firms to recommend a "60/40" rule: pay out at least 60% of earnings as salary and only 40% as dividends.

Most states follow the federal example, exempting S-corporations from the corporate income tax. However, some states, most notably California and New York, recognize the pass-through nature of S-corporations but still impose a tax at the entity level. Others do not recognize S status and treat all corporations operating in their jurisdictions as regular corporations, subjecting the entity to a corporate tax and its shareholders to a personal income tax on any dividends received from the corporation.

The S-corporation provides a significant advantage over a regular corporation if a business is operating at a loss, particularly if most or all of the owners are in the highest tax brackets. If the losses are not generated by passive activities, shareholders can use those losses to shelter other personal income.

In contrast, the C-corporation does not provide an immediate tax benefit from operating losses unless it can use an optional provision permitting carry-back of losses against profits during the three most recent tax years. However, if a new business loses money in the first years of operation, the carry-back provision does not provide any current benefit. Losses not used in the current tax year or carried back can be carried forward and used to offset profits in future years, but several years may pass before the firm's profits are large enough to realize the full tax benefit of the early losses.

2.4. Limited Liability Company

The limited liability company ("LLC") is a relatively new business structure allowed under most state laws, but not recognized as an LFO by the IRS, that is, in essence, a hybrid between the partnership and the S-corporation. Owners of an LLC enjoy limited liability, ease of transfer of ownership shares, pass-through of income to the owners, and less administrative burden than faced by owners of a corporation. For example, an LLC is not required to have a board of directors or officers, and, typically, is required to file much less burdensome paperwork with the government. However, like a corporation and unlike a partnership, an LLC enjoys an unlimited life.

Many of the LLC's disadvantages arise from its short history. Some states do not treat LLCs as offering limited liability, and some lenders may be hesitant to lend to an LLC because of difficulty in determining who actually has the authority to enter into a contract on behalf of the LLC. For federal tax purposes, an LLC must choose to be treated as a partnership, a corporation, or, for single-owners, a proprietorship.[1]

3. Literature Review

The literature on determinants of LFO is extremely sparse partially because there was no suitable source of data for analyzing this issue prior to the KFS. Consequently, most of the literature on organizational form is theoretical, dating back to Adam Smith (1776). Much of this theory focuses on finances and human resources. Berle and Means (1932), Jensen and Meckling (1976), Fama and Jensen (1983a, 1983b), Jensen (1983), Williams (1985) and others point to the separation of ownership and control and control mechanisms such as the board of directors that

[1] For more information on the tax treatment of LLCs, go to the IRS website: http://www.irs.gov/businesses/small/article/0,,id=98277,00.html

have evolved to limit agency costs as one of the reasons why most large firms are organized as C-corporations.

Fama and Jensen (1983a, 1983b) argue that firms choose their organizational form base upon a tradeoff between the costs and benefits of financial risks and decision making. As firms grow larger and more complex, corporations become more efficient relative to proprietorships because the owner must be wealthy enough to bear all of the firm's financial risk as well as possess the expertise to run the firm. Separating financing from control enables the firm to operate more efficiently by allowing separate persons to specialize in bearing risk and managing the firm. The cost of this separation is the divergence of interests between owners and managers so that corporations must develop governance mechanisms for minimizing these agency costs.

Allen and Sherer (1995) develop a theory of organizational form where the proprietorship fosters quality, whereas the corporation fosters efficiency. Proprietors are tied to their firm through both their financial and human capital, so that they suffer directly the consequences of poor quality. Corporate managers, on the other hand, are not tied to the firm by their financial resources. Consequently, Allen and Scherer's theory predicts that corporations will be the dominant form for firms that can guarantee quality in ways other than the dedication of the owner, such as through the provision of warranties.

Easterbrook and Fischel (1985) argue that most of the advantages of corporation, including limited liability, can be achieved by proprietorships and partnerships through contracting with their customers, creditors and suppliers, so that the corporation is largely irrelevant.

Another group of papers, including Harberger (1966), Shoven (1976), Ballard et al. (1985), Gravelle and Kotlikoff (1988, 1989, 1993), Gordon and Mackie-Mason (1990, 1994,

1997) and Goolsbee (1998, 2004), focus on taxes as the key issue in choosing organizational form. In the U.S., C-corporations are taxed at a different, higher rate than other LFOs, so taxes are expected to influence a firm's organizational decision, inducing them to shift out of the C-corporate form. Goolsbee (2004), for example, exploits cross-sectional variation in corporate taxes at the state level and finds strong evidence that higher corporate tax rates reduce the incidence of C-corporations relative to other LFOs.

Several empirical studies look at organizational form and firm growth. Harhoff et al. (1998) analyze a sample of 11,000 firms in Germany and find that incorporated firms grow faster than unincorporated firms. Demirguc-Kunt et al. (2006) analyze a cross-sectional sample of firms from 52 countries and find that the incidence of corporations is higher in countries with higher measures of corporate governance and that incorporated firms grow faster than unincorporated firms in countries with better corporate governance.

4. Hypotheses

The existing literature is largely silent on the initial choice of LFO. We propose two competing hypotheses—the life-cycle hypothesis and the prescient entrepreneur hypothesis.

The *life-cycle hypothesis* posits that a firm starts out as a proprietorship, which is the simplest LFO. As the firm grows larger, more complex and needs more capital than is available from the proprietor, the proprietor-entrepreneur chooses to change her firm's LFO to a partnership, Legal Liability Company (LLC), S-corporation or C-corporation. Each of these alternatives enables her firm to raise capital from outside investors and obtain funds for growth that are unavailable to a proprietorship. These alternatives also limit the owner's personal liability, which is likely to increase with the firm's growth.

However, the life-cycle hypothesis ignores the fact that there is a large degree of heterogeneity among firms, even at start-up stage. The firm heterogeneity is likely to have a great impact on the choice of initial LFO. Consider, for example, Google, which was founded as a privately held corporation by two Stanford Ph.D. students in 1998 and was taken public in 2004 and a "mom and pop" shop in California whose owners never had plans or expectations to grow or serve beyond their local community area. Why would these very different businesses with drastically different visions and growth prospects choose the same LFO just because they are at the initial year of operations? In contrast to the life-cycle hypothesis, the *prescient entrepreneur hypothesis* posits that an entrepreneur chooses at start-up the LFO that best fits her needs and desires to finance firm growth, minimize tax liabilities, and limit personal liability.

5. Data and Methodology

5.1. Data

5.1.1. The KFS

We obtain our data from the confidential, fully imputed version of the Kauffman Firm Surveys (KFS). The KFS tracks a panel of 4,928 new businesses established during 2004, providing information about the firm in the year of its inception and, for those firms that survive, providing information about the firm in each subsequent year. The survey results are available for the baseline year (2004) and seven follow-up years (2005 – 2011). The KFS is the largest longitudinal database on new businesses ever created, and the most comprehensive longitudinal database on small U.S. firms of which we are aware.

Like the Federal Reserve Board's Survey of Small Business Finances ("SSBF"), the KFS uses the Dun & Bradstreet ("D&B") database as a sampling frame, selecting a stratified random

sample of 4,928 firms from the frame of approximately 258,000 firms that started during 2004. High-tech firms were oversampled, while wholly-owned subsidiaries of existing firms, inherited businesses and not-for-profit firms were excluded from the sampling frame. Because of this non-random design, the KFS provides sampling weights for researchers to use in order to obtain results that can be generalized to the target population of start-up firms. We incorporate these weights into our analysis using the SURVEY commands available in the Stata 14 software, which we use to conduct our analysis.

The KFS is ideal for this study. Unlike the SSBF, it captures a firm's initial decision to choose an organizational form. In addition, the KFS tracks the firm's organizational form over time, enabling us to identify firms that change organizational form after their initial formation. This enables us to model the firm's decision to change organizational form and, conditional on that decision, to model its choice of a more, or less, complex organizational form. (For more detailed information about the KFS data, see Ballou *et al.,* 2008; and DesRoche *et al*., 2012. For information about the fully imputed dataset, see Farhat and Robb, 2013).

5.1.2. Analysis Variables

Our primary variable of interest is the firm's legal form of organization. For the initial survey and each follow-up, the KFS includes information on each firm's LFO as of that point in time, enabling us to identify the initial LFO and subsequent changes in LFO. The KFS categorizes seven legal forms of organization: Proprietorship, General Partnership, Limited Partnership, Limited Liability Company, S-corporation, C-corporation, and Other. We collapse the seven LFO categories into five to make our analysis more tractable by deleting 11 firms that reported "other" as their initial LFO, and by combining firms that reported general partnerships

or limited partnerships as their LFOs into a single partnership category. We follow convention in ordering organizational forms by complexity with Proprietorship being the simplest, followed by Partnership, LLC, S-corporation and, as most complex, C-corporation.

For explanatory variables, we utilize information from the KFS about the characteristics of the firm and the firm's primary owner. We are primarily interested in measures of firm complexity, as the life-cycle theory posits that firms change to more complex LFOs as they grow more complex over time. We include a total number of firm employees (in the natural logarithm form) as a measure of firm size and complexity. It is important to note that over half of the firms report zero employees. This is because the owner(s) of a firm is not necessarily an employee of the firm. When a firm hires its first employee, it becomes much more complex, especially from a tax viewpoint. The firm must begin keeping records of salary expense, withholding FICA taxes and paying state unemployment taxes. Consequently, we expect that total employment should be positively related to complexity of LFO.

We include a measure of profitability in our model: an indicator for whether the firm was operating at a profit or loss. We expect a negative relation between profitability and complexity of LFO because we expect that more complex start-ups are associated with greater start-up costs and longer periods of time until output can be ramped up and customers brought on board; consequently, they are more likely to incur larger losses from which the owners would like to be protected by the limited liability offered by more complex LFOs.

We include a dummy variable for accounts receivable. A firm with a positive value of accounts receivable is a firm that is offering trade credit to its customers. By functioning as a financial intermediary, as well as performing its primary function, the firm, by definition, is more complex and more likely to choose an LFO offering limited liability in order to protect the

personal assets of the owner. We also include a dummy variable for ownership of intellectual property, such as patents, trademarks, and copyrights. A firm reporting intangible assets, such as patents or trademarks, is more complex than a firm without such assets and is hypothesized to be more likely to choose a more complex LFO.

From information on how the firm is financed, we include dummy variables indicating whether the firm obtained financing from (1) trade credit, (2) business credit, or (3) personal credit. Here, our focus is on limited liability rather than complexity; we expect that a firm with limited liability will be more likely to rely upon debt than equity and less likely to rely upon personal credit than business credit. Consequently, we expect that complexity of LFO will be positively related to the use of trade credit and business credit and negatively related to the use of personal loans for business financing.

We include an index of employee benefits as proxy for firm complexity. Our index ranges in value from 0 to 4, where it is incremented by one if the firm offers each of the following four benefits: (1) retirement plan, (ii) health benefits, (iii) paid vacation leave, and (iv) paid sick leave. We expect our index to be positively related to complexity of LFO chosen.

We include a single measure of firm location as a proxy for firm complexity—a dummy variable indicating that the firm was located in the personal residence of the firm's owner. While there are five categories for location (residence, rental, purchased space, client's space, other space), more than 90 percent of the firms responded that they were either in a residence or a rental space, so we combine the last four categories into "other than residence" and collapse this into a binary variable. We expect that more complex firms would seek space outside of the owner's residence; consequently, we expect a negative relation between choice of organizational complexity and residential location.

Finally, as control variables, we include a set of 16 dummy variables for industrial classification based upon two-digit NAICS code: Agriculture (11); Mining and Utilities (21, 22); Construction (23); Manufacturing (31, 32, 33); Wholesale Trade (42); Retail Trade (44, 45); Transportation (48, 49); Information Services (51); Finance and Insurance (52); Real Estate (53); Professional Services (54, 55, 61); Business Services (56); Health Services (62); Arts & Entertainment (71); Food Services (72); and Other Services (81).

From information on the primary owner of the firm, we include a series of variables that provide information on the age, education, experience, and number of hours worked in the firm. Age and Experience are measured in years. Education is a range of ten categories: High School or less; Some College; College Degree; and Graduate Degree. We expect that older, better educated and more experienced primary owners will choose more complex LFOs. We expect that owners only become employees when the firm is more complex so we expect a positive relation with complexity of LFO.

5.2. Methodology

Our study uses the following research design. First, we model the firm's initial decision to choose a legal form of organization using an ordinal logistic-regression model, where the dependent variable takes on one of five values—one for each organizational form: Proprietorship = 1, Partnership = 2, LLC = 3, S-corporation = 4 and C-corporation = 5.[2]

$$Initial\ LFO_i = f(Firm\ Characteristics_i, Owner\ Characteristics_i, Industrial\ Classification_i) \quad (1)$$

[2] In unreported results, we initially estimated a multinomial logistic regression model and obtained qualitatively similar results. That model produces a set of (N-1) coefficient estimates, one for each LFO relative to an omitted category. The results from that model indicated growing complexity across LFOs, which motivated us to move to the ordinal logit model, which produces only a single set of coefficient estimates, making it much easier to interpret. The ordinal logit model distinguishes among the five categories by including a separate intercept term for each non-excluded category. We are grateful to an anonymous referee for suggesting this change in methodology.

Where:

Initial LFO $_i$ is a categorical variable for organizational form for firm *i* that takes on a value of 1 through 5, with each value corresponding to one organizational form in the order of increasing complexity: Proprietorship, Partnership, LLC, S-corporation and C-corporation.

Firm Characteristics $_i$ is a vector including the number of employees, financing variables, and other variables measuring the complexity of the firms, such as the presence of intellectual property rights, employee benefits, business location, and whether or not the firm provides trade credit through accounts receivables. These variables are defined in Appendix Table 1.

Owner Characteristics $_i$ is a vector including information on the primary owner, including age, prior start-up and industry experience, number of hours worked per week, and education. These variables are defined in Appendix Table 1.

Industrial Classification $_i$ is a vector of 16 dummy variables indicating industrial classification based upon two-digit NAICS code. These variables are also defined in Appendix Table 1.

Because of the complex survey design, we incorporate the sampling weights into our analysis using the SURVEY commands available in the Stata 14 software. These weights account for the differences in selection probabilities across firms and also for the attrition of the sample over time. For each survey year, survey staff calculate different weights that ensure the sample is representative of the original target population. See Farhat and Robb (2014) for details.

6. Results

6.1. Choices of and Changes in Legal Form of Organization

Table 1 presents information on the choices of legal form of organization recorded by the initial Kauffman Firm Survey and each of the seven follow-ups. Perhaps the most interesting finding from this table is that only 36 percent of firms newly established in 2004 chose the simplest legal form of organization—the proprietorship. The life-cycle hypothesis posits that the vast majority of new firms should begin life as proprietorships.

Also surprising is the finding that 31 percent chose to organize as LLCs. This suggests a relatively high level of financial sophistication among this latter group of start-up firms, as the LLC is a relatively new legal form of organization, becoming mainstream only in the past two decades. By comparison, in the 2003 SSBF, which surveys firms with an average age of about 14 years, less than ten percent of the firms reported organizing as LLCs. The incidence among 2004 start-ups is more than three times as high.

S-corporations account for 21 percent of the 2004 start-ups as compared with more than 30 percent of small firms surveyed by the 2003 SSBF. C-corporations account for only 7 percent of the 2004 startups, compared with more than 14 percent of the 2003 SSBF firms. In summary, there are significant differences in the LFO choices of 2004 start-ups relative to those of firms surveyed by the 2003 SSBF, which have an average age of about 14 years. These results support the prescient entrepreneur hypothesis and are inconsistent with the life-cycle hypothesis.

Also shown in Table 1 is the distribution by legal form of organization for follow-up surveys 1 through 7. The weighted distributions by LFO are relatively stable across all surveys, but with a slight decline over time in proprietorships and a slight increase over time in both LLCs and S-corporations. However, the percentage of C-corporations does not increase over

time. This evidence also supports the prescient entrepreneur hypothesis over the life-cycle hypothesis.

The bottom of Table 1 presents the total number of firms, which clearly shows the attrition in the sample—from 4,924 in 2004 (initial survey) to 3,401 in 2011 (7th follow-up survey). This attrition is due in part to firms going out of business and in part to firms refusing to participate in the follow-up surveys.

In Table 2, we present the number of firms changing the legal form of organization in KFS surveys. In Panel A, we present the number of firms that change LFO from a given form in the KFS survey for year (t – 1) to some other form in the KFS survey for year (t – 0). For example, the first row in Panel A shows that, out of the firms that chose the proprietorship LFO in 2004 survey, 64 changed to some other LFO in 2005 (1st follow-up survey); 46 firms that chose the proprietorship LFO in 2005 changed to some other LFO in 2006 (2nd follow-up survey); 31 firms that chose the proprietorship LFO in 2006 changed to some other form in 2007 (3rd follow-up survey), etc.

Overall, this panel shows that: 1) changes in LFO are not very common during the first seven years of the firm's existence; 2) most of the changes in LFO that we observe in data occur during the first few years of the firm's life: 3.26% of the firms changed LFO in the 1st follow-up survey, 2.52% changed in the second follow-up survey, 1.68% changed in the third follow-up survey, and only 0.68% changed LFO in the last (7th) follow-up survey; and 3) consistent with the life-cycle hypothesis, a higher number of simpler LFOs (e.g., proprietorships and partnerships) change LFO than do more complex LFOs (e.g., S- or C-corporations).

Panel B tracks the number of firms that changed LFO from the firm's start-up (KFS 2004) to the 7th follow-up survey (KFS 2011). Only 480 out of 4,924 firms (9.75%) changed

LFO during their first seven years of operations. However, 28% of initial partnerships and 16% of initial S-Corporations changed LFO during their first seven years, while only 3% of LLCs changed form. Panel B also reports the initial LFO and the form of organization to which the firm chooses to change. For example, out the 480 total changes in LFO, 198 changes are for firms that initially organized as proprietorships. Of these 198, 26 changed to partnerships, 12 changed to LLC, 95 changed to S-corporations, and 65 changed to C-corporations. The panel also shows that, out of 480 total changes, 139 and 181 were changes to S-corporations and C-corporations, respectively, which are the most complex forms of business organization. Surprisingly, out 99 changes in LFO from firms that started as S-corporations, only 50 change to a more complex form (C-corporation), while 28 firms change to the simplest form (Sole-proprietorship) and others changed to LLC or partnership. Furthermore, out of 61 firms that started as C-corporations, 11 firms changed to sole-proprietorship. Among partnerships, 76 changed LFO, with 11 going to proprietorship, 55 to C-corporations, and the remaining to LLC and S-corporations. Out of the total 480 changes in LFO, 340 (70.8%) moved to more complex organizational forms and 140 (29.2%) moved to less complex organizational forms. In the remainder of the paper, we seek to explain why some firms choose to become more complex, while others choose to become less complex, LFOs.

6.2. Descriptive Statistics for LFOs

In Table 3, we present descriptive statistics from the initial survey (KFS 2004) for each of the five legal forms of organization and for the full sample of 4,928 firms. These statistics allow us to make univariate comparisons across the five LFOs. We start with firm characteristics in

section 6.2.1, and then move on to owner characteristics in section 6.2.2, and to industry classifications in section 6.2.3.

6.2.1. Firm Characteristics

Panel A of Table 3 presents descriptive statistics for characteristics of the firm. Firm size as measured by total employment rises with firm complexity, from a low of 0.59 at Proprietorships to 1.33 at Partnerships, 2.04 at LLCs, 2.97 at S-corporations and 2.94 at C-corporations.[3] Profit, which is an indicator for firms reporting a profit rather than a loss, ranges from a high of 49% of proprietorships to a low of 41% for C-corporations.

Just over a third of the firms report positive accounts receivable, indicating that they are suppliers of trade credit, with S-corporations (55%) and C-corporations (43%) most likely and Partnerships (35%) and Proprietorships (27%) least likely.

Among financing variables, the importance of limited liability is quite apparent. Only 30% of proprietorships use trade credit, while 50% of C-corporations and 54% of S-corporations do so. Only 20% of proprietorships use business credit, whereas at least 29% of the limited liability LFOs do so. In contrast, there is much less variation in the use of personal credit. Forty percent of both proprietorships and C-corporations use personal credit. Only 37% of partnerships use personal credit while 46% of LLCs do so.

The next group of variables is a set of firm characteristics that we expect to proxy for the firm's complexity at the start-up. *Intell Property* is an indicator variable for the presence of intellectual property rights (trademarks, patents, or copyrights). Only 15% of proprietorships report intellectual property, while 22% of LLCs, 21% of S-corporations and 26% of C-corporations do. *Residence* is an indicator variable for the location of the business in the owner's

[3] Not shown in Table 3 is the number of firms with no employees; only 41 percent of the firms report having at least one employee; 31% of proprietorship, 36% of partnerships, 39% of LLCs, 55% of S-corporations and 56% of C-corporations.

residence. Among Proprietorships, 64% choose to locate in a residence, whereas, among S- and C-corporations, only 39% and 36%, respectively, locate in a residence. *Benefits Index* is an index of comprehensive employee benefits, ranging in value from 0 to 4 for the presence of retirement plan, health benefits, paid vacation leave, and paid sick leave. The average index value for proprietorships is 0.12, while it is 0.59 for LLCs, 0.85 for S-corporations and 0.74 for C-corporations.

6.2.2. Owner Characteristics

Panel B of Table 3 presents descriptive statistics for characteristics of the owners. There is little variation in owner age by LFO; each of the five are in the range of 44 to 46 years old, with S-corporations having the youngest owners (44.15) and C-corporations having the oldest (45.61). Prior start-up experience rises with complexity of LFO from a low of 0.65 years for proprietorships to a high of 1.17 for C-corporations. Similarly, education rises from 5.72 at proprietorships to 6.56 at LLC, 6.28 at S-corporations and 6.27 at C-corporations. Hours worked rises from 38.4 at proprietorships to 46.8 at S-corporations and 46.9 at C-corporations. Prior experience rises from a low of 11.1 years for proprietorships to a high of 12.44 at S-corporations, but is only 11.85 at C-corporations.

6.2.3. Industrial Classification

In Panel C of Table 3 are descriptive statistics for our final set of variables—a set of 16 indicators for industrial classification based upon two-digit NAICS codes. We expect to find sharp differences in organizational form across different industries, and the data bear out our expectations.

Professional-Services (NAICS 54, 55, 61) accounts for 17% of the population, but is over-represented among more complex LFOs (19% of LLCs and C-corporations) relative to less

complex LFOs (17% of Proprietorships and 15% of Partnerships). Retail-Trade (NAICS 44, 45) accounts for 15% of the population, but is over-represented among less complex LFOs (20% of Partnerships and 17% of Proprietorships) relative to more complex LFOs (14% of LLCs, 14% of S-corporations and 11% of C-corporations). Similarly, Other Services, including public administration (NAICS 81, 92) account for 9% of the population but overrepresented among less complex LFOs (13% of Proprietorships and Partnerships but only 6% for LLCs, and 5% for both S- and C-corporations). Construction (NAICS 23) accounts for 11% of the population, but is over-represented among S-corporations (13%) and under-represented among C-corporations (8%).

Manufacturing (NAICS 31, 32, 33) accounts for 6% of the population and is similarly represented among C-corporations (8%) and Proprietorships (7%) and less represented in other LFOs (5%). Transportation and Warehousing (NAICS 48, 49) accounts for 3% of the population but is over-represented among C-corporations (8%) and Partnerships (6%). Finance and Insurance (NAICS 52) accounts for 6% of the population, but is over-represented among more complex LFOs (11% of Partnerships, 7% of LLCs, 6% of S-corporations and 8% of C-corporations) relative to the least complex LFO (2% of Proprietorships).

There also are significant differences among the remaining industries that account for much smaller portions of the population. To summarize, we find wide variation in LFO across industries, as expected.

6.3. Determinants of Initial LFO

Because so few firms change their LFO during the first seven years, the most interesting analysis is looking at the determinants of the owner's initial decision to organize her firm as one LFO rather than another. The results of this ordinal logistic-regression analysis appear in Table 4. For ease of interpretation, we present odds ratios rather than coefficient estimates. The interpretation of these ratios (when multiplied by 100) is, for each variable, the percentage by which a firm with that characteristic is more or less likely to choose a more complex LFO than a Proprietorship (the omitted category). Hence, for variables that proxy for more organizational complexity, our expectation is that odds ratios will be greater than one; and for variables that proxy for less organizational complexity, our expectation is that odd ratios will be less than one.

6.3.1. Firm Characteristics and Initial LFO

Column 1 of Table 4 presents the results for firm characteristics. For our primary measure of size—total employment—the odds ratio is greater than 1.0, and the coefficient from which the odds ratios is calculated is statistically significant at the 0.01 level or better. This result is strongly supportive of our hypothesis that a larger firm, which is likely to be more complex, is more likely to choose a more complex initial legal form of organization.

The coefficient on accounts receivable indicator is positive and significant with the odds ratio of 1.409, supporting the hypothesis that more complex business that offer trade credit to customers are more likely to choose a more complex LFO. Furthermore, the coefficient on trade credit and business credit indicators are positive and significant with odds ratios greater than 1.0 suggesting that firms use trade and business credit financing in the initial year of operations choose a more complex LFO.

Coefficients for our employee benefits index and intellectual property indicator are also positive and significant suggesting that firms that offer comprehensive benefits plans and have intellectual property, such as, patents, trademarks, and copyrights are more likely to choose more complex LFOs. The odds ratio on residence indicator is less than 1.0 suggesting that firms that locate their business in the residence or garage of the firm's owner, rather than in rented or purchased space, are less likely to choose a more complex LFO.

In summary, the results for firm characteristics chosen as proxies for firm complexity support our hypothesis that more complex firms choose more complex LFO at the firm's start-up.

6.3.2. Industry Classification and Initial LFO

In column 2 of Table 4 are the results for the 15 industrial classification indicator variables, where "other services" industry is the omitted category. In general, these results show wide variation in initial LFO across industries. Compared to other services, most industry indicators have odds ratios greater than 2.0 or 3.0 and highly statistically significant. Specifically, firms in construction, manufacturing, information, professional management and education services, health care are twice as likely to choose a more complex LFO than firms in other businesses. Firms in whole sale trade, finance and insurance, real estate are three times as likely to choose a more complex LFO compared to firms in Other Services. These results suggest that the only industry that consistently favors Proprietorship over the more complex LFOs is Other Services.

6.3.3. Owner Characteristics and Initial LFO

Column 3 of Table 4 presents the results for owner characteristics. Prior start-up experience, owner's education, and the number of hours the owner works in the firm play an

important role in the choice of initial LFO, with higher values of these variables associated with higher likelihood of choosing more complex LFO at the firm's start-up. Owners with more years of experience in the same industry are also more likely to choose a more complex LFO, but this result is only marginally statistically significant (t-statistic=1.678). Interestingly, the coefficient on Ln(Age+1) is negative with the odds ratio of less than 1.0, suggesting that older owners are less likely to choose a more complex LFO. This result is significant at the 10% level (t-statistic= -1.699).

Overall, these results suggest that the type of firm owners who are more likely to choose more complex business are also more likely to choose more complex LFO.

6.3.4. Firm, Owner Characteristics, Industry Classifications and Initial LFO

In column 4 of Table 4, we present the results from a model that includes firm characteristics, owner characteristics, and industry classifications. In general, the results in column 4 are qualitatively unchanged from the results in columns 1 – 3, but with some notable exceptions. For our measure of profitability —indicator variable for positive profits —the odds ratio is less than 1.0, and the coefficient is now statistically significant at the 0.10 level. This result is supportive of our hypothesis that a more complex firm has greater startup costs and, consequently, is more likely to choose a more complex LFO with limited liability in order to shield its owners from firm early-years losses. The indicator variable for use of personal credit has a negative coefficient that now is significant at the 0.10 level. This indicates that firms using personal credit are less likely to choose a more complex LFO at start-up. Several of the industry indicator variables lose their statistical significance in this comprehensive specification, but ten retain significance at the 0.10 level or better.

Finally, we note that the four constant terms at the bottom of Table 4 increase monotonically in each specification. This is supportive of our assumption of an ordinal ranking of LFOs from least to most complex.

7. Summary and Conclusions

In this study, we have sought to provide answers to several fundamental questions facing any entrepreneur. Why and how do entrepreneurial firms initially choose one organizational form over another? Do entrepreneurial firms change organizational form, switching, for example, from proprietorship to partnership, LLC or corporation? What factors influence the entrepreneur's choice of initial LFO? Until now, these fundamental questions about entrepreneurial firms have largely gone unanswered.

Surprisingly, our analysis reveals that a firm's choice of LFO is largely set in stone at inception, at least for its first seven years in operation. Only about one in three firms begins its life as a proprietorship, while almost as many begin as limited liability companies and as corporations. This distribution is remarkably stable over the first seven years of a firm's life. Fewer than one in ten firms changes LFO during these first seven years, but those that do disproportionately move to a more complex form, primarily from proprietorship to a form with limited liability. In general, these findings do not support the life-cycle theory of the firm, except for those firms that do change LFO during their first four years. Alternatively, the firm endogenously chooses LFO at start-up to meet the demands of expected complexity of the firm.

Our analysis of the firm's initial choice of LFO reveals that a firm is more likely to choose a more complex LFO when the firm is more complex as proxied by employment size, by offering more complex employee benefit plans, and by offering trade credit. A more complex

initial LFO also is more likely when the firm uses trade and business credit financing, has intellectual property, and is located outside of the owner's place of residence. Owners with higher education, who have greater prior start-up experience and spend more hours working in the firms also choose a more complex LFO.

This study makes an important contribution to the entrepreneurship literature by providing new evidence on: (i) a firm's initial choice of LFO at start-up; (ii) the determinants of a firm's initial choice of LFO; and (iii) the incidence of changes in LFO during the first seven years of a new firm.

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Appendix Table 1
Definition of Analysis Variables

This table presents variable definitions. All variables are from the 2004 Kauffman Firm Survey.

Firm Characteristics:	
N employees	The total number of employees
Profit	Dummy variable, equals 1 if firm reports positive profits
Accounts Receivable	Dummy variable, equals 1 if firm reports accounts receivable
Trade Credit	Dummy variable, equals 1 if firm reports that it uses trade credit or has other liabilities
Business Credit	Dummy variable, equals 1 if firm reports that it uses business credit. Business credit includes any of the following categories: business bank loan, business credit line, business loan from nonbank institutions, business credit card, business credit card issued on owner's name, business loan from the government, business loan from other businesses, business loan from other sources
Personal Credit	Dummy variable, equals 1 if firm reports that it uses personal credit. Personal credit includes any of the following categories: personal bank loan by the primary owner, personal bank loan by other owners, the primary owner's personal credit card used for business purposes, and the other owners' personal credit cards used for business purposes
Benefits Index	Index, ranges in values from 0 to 4, and equals the sum of the following benefits offered by the firm: health benefits, retirement benefits, paid sick leave, paid vacation leave
Intell Property	Dummy variable, equals 1 if firm reports that it has trademarks, patents, or copyrights
Residence	Dummy variable, equals 1 if firm reports that it operates the business from the owner's place or residence or garage
Owner Characteristics:	
Owner Age	Age of primary owner (in years)
Education	Categorical variable for the primary owner's level of education: less than ninth-grade education, has some high school education but no diploma, high school graduate or diploma, attended some college, has a bachelor's degree, attended a graduate school but has no graduate degree, has a master's degree, has a Ph.D. degree
Prior Experience	Prior work experience (in years) of the primary owner in the same industry
Prior Start-ups	Number of prior business start-ups by the primary owner
Hours worked	Number of hours worked per week by the primary owner

Industry Classifications:	*Two-Digit NAICS Code*
Agriculture, Forestry, Fishing and Hunting	11
Mining and Utilities	21, 22
Construction	23
Manufacturing	31-33
Wholesale Trade	42
Retail Trade	44-45
Transportation and Warehousing	48-49
Information	51
Finance and Insurance	52
Real Estate and Rental and Leasing	53
Professional, Management, and Educational Services	54, 55, 61
Administrative and Support and Waste Management and Remediation Services	56
Health Care and Social Assistance	62
Arts, Entertainment, and Recreation	71
Accommodation and Food Services	72
Other Services, including Public Administration	81, 92

Table 1
Distribution of KFS Firms by Legal Form of Organization

This table presents the weighted percentage distributions of KFS firms by legal form of organization (LFO) at startup (initial KFS survey) and for each of its first seven years in operation. PROP indicates a proprietorship; PART indicates a partnership; LLC indicates a limited liability company; SCORP indicates an S-corporation; CCORP indicates a C-corporation. Obs. is the number of observations.

	KFS Survey							
LFO	Initial	1st Follow-Up	2nd Follow-Up	3rd Follow-Up	4th Follow-Up	5th Follow-Up	6th Follow-Up	7th Follow-Up
PROP	0.36	0.34	0.33	0.34	0.34	0.33	0.33	0.31
PART	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04
LLC	0.31	0.31	0.32	0.3	0.32	0.32	0.32	0.34
SCORP	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.25
CCORP	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
Obs.	4,924	4,565	4,253	3,990	3,817	3,662	3,519	3,401

Table 2
Changes in Legal Form of Organization

This table presents the number of KFS firms that changed legal form of organization during their first eight years of operating. Panel A shows the number of firms that changed from a given legal form of organization (LFO) in prior year (*t-1*) to some other type of LFO in the follow-up year (*t-0*). Panel B shows the total number of firms that changed from one LFO to another at any time during their first eight years of operating. PROP indicates a proprietorship; PART indicates a (general or limited) partnership; LLC indicates a limited liability company; SCORP indicates an S-corporation; CCORP indicates a C-corporation. t=0 indicates initial KFS survey (KFS 2004); t=7 indicates 7th follow-up survey (KFS 2011). "N/A" indicates that the information cannot be disclosed publicly according to NORC enclave disclosure rules because the small number of observations (< 10) might enable identification of individual firms in violation of the KFS privacy agreement with survey respondents.

Panel A: Number of Firms Changing LFO from Prior Year to the Following Year

LFO in year t-1	1st Follow-up	2nd Follow-up	3rd Follow-up	4th Follow-up	5th Follow-up	6th Follow-up	7th Follow-up
PROP	64	46	31	17	18	13	N/A
PART	32	N/A	N/A	N/A	N/A	N/A	N/A
LLC	18	N/A	10	N/A	N/A	N/A	N/A
SCORP	21	24	14	13	11	11	N/A
CCORP	14	15	N/A	12	N/A	N/A	N/A
Total	149	107	67	54	43	37	23

Panel B: Number of Firms Changing LFO from the Initial to the 7th Follow-up Year

	PROP (t=7)	PART (t=7)	LLC (t=7)	SCORP (t=7)	CCORP (t=7)	Total
PROP (t=0)	0	26	12	95	65	198
PART (t=0)	11	0	N/A	N/A	55	76
LLC (t=0)	19	N/A	0	14	N/A	46
SCORP (t=0)	28	N/A	N/A	0	50	99
CCORP (t=0)	11	29	0	21	0	61
Total	69	75	16	139	181	480

Table 3
Descriptive Statistics by Legal Form of Organization

This table presents descriptive statistics for variables used to explain the firm choice of legal form of organization and subsequent changes in legal form of organization. Variables are defined in Appendix Table 1. Data are from KFS 2004. For each variable in column one and each organizational form in row one, the table presents the mean value, with standard error reported in brackets. PROP indicates a proprietorship; PART indicates a (general or limited) partnership; LLC indicates a limited liability company; SCORP indicates an S-corporation; and CCORP indicates a C-corporation; ALL indicates all firms. Obs. is the number of observations.

Panel A: Firm Characteristics						
	PROP	PART	LLC	SCORP	CCORP	ALL
N employees	0.59	1.33	2.04	2.97	2.94	1.74
	[0.05]	[0.40]	[0.23]	[0.31]	[0.57]	[0.11]
Ln (N employees +1)	0.29	0.42	0.59	0.83	0.82	0.54
	[0.02]	[0.06]	[0.03]	[0.04]	[0.08]	[0.02]
Profit	0.49	0.42	0.42	0.47	0.41	0.45
	[0.02]	[0.05]	[0.02]	[0.02]	[0.04]	[0.01]
Accounts Receivable	0.27	0.35	0.39	0.55	0.43	0.38
	[0.02]	[0.05]	[0.02]	[0.02]	[0.04]	[0.01]
Trade Credit	0.30	0.35	0.39	0.54	0.50	0.39
	[0.02]	[0.05]	[0.02]	[0.02]	[0.04]	[0.01]
Business Credit	0.2	0.29	0.3	0.38	0.29	0.28
	[0.01]	[0.04]	[0.02]	[0.02]	[0.04]	[0.01]
Personal Credit	0.4	0.37	0.46	0.42	0.4	0.42
	[0.02]	[0.05]	[0.02]	[0.02]	[0.04]	[0.01]
Intell Property	0.15	0.18	0.22	0.21	0.26	0.19
	[0.01]	[0.04]	[0.02]	[0.02]	[0.03]	[0.01]
Residence	0.64	0.44	0.47	0.39	0.36	0.5
	[0.02]	[0.05]	[0.02]	[0.02]	[0.04]	[0.01]
Benefits Index	0.12	0.51	0.59	0.85	0.74	0.48
	[0.02]	[0.09]	[0.04]	[0.06]	[0.09]	[0.02]
Panel B: Owner Characteristics						
Owner Age	45.28	45.52	45.48	44.15	45.61	45.15
	[0.38]	[1.12]	[0.41]	[0.45]	[0.86]	[0.23]
Ln (Owner Age+1)	3.78	3.78	3.79	3.76	3.79	3.78
	[0.01]	[0.03]	[0.01]	[0.01]	[0.02]	[0.01]
Prior Start-ups	0.65	0.84	0.95	0.92	1.17	0.85
	[0.04]	[0.11]	[0.05]	[0.07]	[0.11]	[0.03]
Education	5.72	5.53	6.56	6.28	6.27	6.12
	[0.07]	[0.20]	[0.08]	[0.09]	[0.17]	[0.04]
Hours worked	38.38	42.21	42.22	46.77	46.85	42.12
	[0.84]	[2.14]	[0.95]	[1.01]	[1.83]	[0.51]
Prior Experience	11.13	12.08	12.26	12.44	11.85	11.85
	[0.37]	[1.09]	[0.39]	[0.46]	[0.81]	[0.22]
Obs.	1,635	244	1,557	1,040	441	4,928

Table 3 (continued)

Panel C: Industrial Classification

	PROP	PART	LLC	SCORP	CCORP	ALL
Agriculture, Forestry, Fishing, Hunting	0.01	0.01	0.02	0.01		0.01
	[0.00]	[0.01]	[0.00]	[0.00]	(omitted)	[0.00]
Mining and Utilities	0.00	0.00	0.00	0.00		0.00
	[0.00]	(omitted)	[0.00]	[0.00]	(omitted)	[0.00]
Construction	0.1	0.09	0.1	0.13	0.08	0.11
	[0.01]	[0.03]	[0.01]	[0.02]	[0.03]	[0.01]
Manufacturing	0.07	0.05	0.05	0.05	0.08	0.06
	[0.01]	[0.02]	[0.01]	[0.01]	[0.02]	[0.00]
Wholesale Trade	0.05	0.01	0.04	0.07	0.09	0.05
	[0.01]	[0.01]	[0.01]	[0.01]	[0.02]	[0.01]
Retail Trade	0.17	0.2	0.14	0.14	0.11	0.15
	[0.01]	[0.04]	[0.01]	[0.02]	[0.03]	[0.01]
Transportation and Warehousing	0.03	0.06	0.02	0.03	0.08	0.03
	[0.01]	[0.02]	[0.01]	[0.01]	[0.02]	[0.00]
Information	0.04	0.03	0.03	0.04	0.03	0.03
	[0.01]	[0.02]	[0.01]	[0.01]	[0.01]	[0.00]
Finance and Insurance	0.02	0.11	0.07	0.06	0.08	0.06
	[0.01]	[0.03]	[0.01]	[0.01]	[0.02]	[0.01]
Real Estate Rental and Leasing	0.03	0.06	0.08	0.05	0.05	0.05
	[0.01]	[0.02]	[0.01]	[0.01]	[0.02]	[0.00]
Prof., Management and Educ Services	0.17	0.15	0.19	0.16	0.19	0.17
	[0.01]	[0.03]	[0.01]	[0.01]	[0.03]	[0.01]
Admin and Support Services	0.09	0.06	0.1	0.11	0.09	0.1
	[0.01]	[0.02]	[0.01]	[0.02]	[0.02]	[0.01]
Health Care and Social Assistance	0.03	0.01	0.02	0.03	0.04	0.03
	[0.01]	[0.01]	[0.01]	[0.01]	[0.02]	[0.00]
Arts, Entertainment, and Recreation	0.03	0.03	0.03	0.02	0.01	0.03
	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.00]
Accommodation and Food Services	0.02	0.01	0.04	0.03	0.02	0.03
	[0.00]	[0.01]	[0.01]	[0.01]	[0.01]	[0.00]
Other Services, including Public Admin	0.13	0.13	0.06	0.05	0.05	0.09
	[0.01]	[0.03]	[0.01]	[0.01]	[0.02]	[0.01]
Obs.	1,635	244	1,557	1,040	441	4,928

Table 4
Determinants of Initial LFO

This table presents the results from estimating an ordinal logistic regression model of the firm's choice of legal form of organization (LFO) at startup. LFOs are ranked by complexity, with Proprietorship taking on a value of 1, Partnership a value of 2, LLC a value of 3, S-Corporation a value of 4, and C-Corporation a value of 5. Explanatory variables are defined in Appendix Table 1. For each explanatory variable, the table presents the odds ratio and the t-statistic (reported in brackets) associated with the coefficient estimate. ***, **, and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Obs. is the number of observations.

VARIABLES	1	2	3	4
Firm Characteristics :				
Ln (N employees +1)	1.317***			1.337***
	[4.896]			[4.550]
Profit	0.894			0.854*
	[-1.364]			[-1.876]
Account Receivables	1.409***			1.332***
	[3.810]			[3.011]
Trade Credit	1.200**			1.239**
	[1.995]			[2.281]
Business Credit	1.236**			1.322***
	[2.382]			[3.059]
Personal Credit	0.883			0.867*
	[-1.536]			[-1.703]
Benefits Index	1.275***			1.186***
	[5.946]			[3.769]
Intell Property	1.217**			1.215**
	[2.120]			[1.988]
Residence	0.687***			0.642***
	[-4.372]			[-4.861]
Owner Characteristics :				
Prior Start-ups			1.166***	1.080**
			[5.376]	[2.446]
Ln (Age+1)			0.744*	0.782
			[-1.699]	[-1.386]
Education			1.132***	1.090***
			[6.440]	[4.140]
Hours Worked			1.011***	1.003*
			[6.619]	[1.717]
Prior Experience			1.007*	1.004
			[1.678]	[0.848]

Table 4 (cont.)

VARIABLES	1	2	3	4
Industry Classifications:				
Agriculture, Forestry, Fishing, Hunting		1.994**		1.587
		[2.251]		[1.259]
Mining and Utilities		2.098		1.758
		[1.540]		[1.185]
Construction		2.439***		2.589***
		[4.680]		[4.887]
Manufacturing		1.970***		1.549**
		[3.225]		[2.189]
Wholesale Trade		3.184***		2.389***
		[4.664]		[3.455]
Retail Trade		1.763***		1.415**
		[3.376]		[2.035]
Transportation and Warehousing		2.762***		2.866***
		[3.167]		[3.224]
Information		2.010***		1.540*
		[2.739]		[1.812]
Finance and Insurance		3.775***		3.408***
		[6.889]		[5.886]
Real Estate Rental and Leasing		3.166***		3.436***
		[6.184]		[5.993]
Prof., Management and Educ Services		2.190***		1.941***
		[5.141]		[4.061]
Admin and Support Services		2.542***		2.476***
		[5.104]		[4.887]
Health Care and Social Assistance		2.199**		1.583
		[2.550]		[1.580]
Arts, Entertainment, and Recreation		1.723**		1.429
		[2.246]		[1.459]
Accommodation and Food Services		2.962***		1.336
		[4.758]		[1.094]
Intercepts				
Constant cut1	0.694***	1.197	0.735	1.016
	[-3.762]	[1.365]	[-0.469]	[0.023]
Constant cut2	0.908	1.537***	0.949	1.348
	[-0.993]	[3.267]	[-0.079]	[0.432]
Constant cut3	3.825***	5.799***	3.669**	5.990***
	[12.901]	[12.798]	[1.977]	[2.586]
Constant cut4	21.586***	29.911***	19.189***	34.613***
	[22.469]	[21.748]	[4.486]	[5.091]