

## **Starting off on the Wrong Foot?**

### **The Effects of Adopting Unusual Job Structures**

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#### **Abstract**

Organizations vary in terms of how unusual their structures are. At founding, some organizations imprint on their surroundings by adopting structures that are common among organizations in their industry, which confers legitimacy. Others deviate from industry norms by adopting unusual structures or creating entirely novel ones, which may reflect efforts to be distinctive and avoid competition. Over time, the unusualness of any organization's structure will change in response to changes the organization itself makes and to variation in the mix of structures in use in its industry. In this paper, we study unusualness in one important aspect of structure, job structures, and build on theories of imprinting, legitimacy, and organizational change to argue that organizations with more unusual job structures, both at founding and later in life, have higher rates of failure and higher probabilities of changing those structures. To test these predictions, we analyze data on all boutique wineries founded in the U.S. between 1941 and 1988. The results support our predictions, suggesting that unusual job structures have negative consequences that organizations cannot easily overcome. This study highlights the importance of job structures in determining organizations' life chances, and complements much previous research on employment practices, product portfolios and organizational strategies.

*Keywords:* job structures, entrepreneurship, legitimacy, imprinting, organizational change, failure

Organizations imprint on the environmental conditions prevailing at the time they are founded. Specifically, in response to both technical constraints and social mores, many organizations adopt structures that are commonly used in their industry (Stinchcombe, 1965; Westphal, Gulati, and Shortell, 1997). This strategy lets new organizations blend in and gives them legitimacy. Still, some organizations fail to imprint on environmental conditions at founding, instead adopting other, less common structures or creating entirely novel structures. This may result from efforts to be distinctive, to stand out from the crowd, and so reduce competition (Deephouse 1999). The upshot is that the organizations in any industry begin life with structures that vary in terms of their unusualness – that is, in terms of how few (or many) other organizations in their industry have the same structure.

The unusualness of an organization's structure is likely to vary over time, for two reasons. First, although organizational structures are highly inert (Hannan and Freeman 1984; Barnett and Carroll 1995), and organizations often keep their initial structures in place long after founding ((Stinchcombe, 1965; Westphal, et al., 1997), some organizations do change their structures after founding (Baron, Burton, and Hannan, 1996; Baron, Hannan, and Burton, 2001; Guillén, 2002). Second, the mix of structures in any organization's industry may change as new organizations are founded, existing organizations fail, and other organizations change their structures. As a result, structures that were rarely seen in an industry at the time a focal organization was founded may become common in later years; conversely, structures that were common at founding may become rarer. Thus, an organization's current structure may be more or less unusual than its initial structure.

The unusualness of organizations' structures, at start-up and afterward, has important consequences for performance and survival. Organizations' structures affect their legitimacy, their taken-for-grantedness (or, conversely, their distinctiveness), and their capacity for action. Having structures that are common in their industry legitimates organizations, but it also means that they

will only be able to do what many others in their industry do, and so are likely to face strong competition. In contrast, while having unusual structures does not legitimate organizations, it does give them distinctive identities and capabilities, which allows them to do different things than other organizations in their industry and so may reduce the competition they face. Thus we ask two related questions in this paper: What are the consequences of adopting more (or less) unusual structures at start-up, and what are the consequences of having more (or less) unusual structures at later points in time? In answering these questions, we build on a small literature on organizational innovation and distinctiveness (e.g., Deephouse, 1999; Jennings, Jennings, and Greenwood, 2009).

We answer these questions by studying one aspect of organizations' structures, their job structures – the ways they arrange jobs into functions, departments, and hierarchies. Although Stinchcombe's (1965) imprinting thesis was based in part on observations concerning the structure of work and employment, little subsequent research has examined job structures (for exceptions see Burton, and Beckman, 2007; Beckman, and Burton, 2008). This omission is problematic because job structures have powerful and long-lasting effects on organizations, both internally and externally. Internally, employees of newly founded organizations know little about each other or their jobs, much less how they will work together to achieve their joint goals (Stinchcombe, 1965). Job structures provide information about how work should be done by serving as guidelines for the allocation and coordination of the tasks assigned to people in different jobs. Because organizations' job structures shape patterns of interaction among their employees, job structures influence the level and type of on-the-job conflict (Strang, and Baron, 1990; Morrill, 1995; Fine, 2008), levels of commitment to organizations and turnover from them (Lincoln, and Kalleberg, 1985), and organizational culture (Harrison, and Carroll, 1991). Externally, because job structures shape organizations' identities (Baron, 2004), they determine how organizations will be perceived by customers, competitors, suppliers, distributors, and potential employees. External audiences have

little information on newly founded organizations, and so draw inferences about what organizations are and whether they are legitimate based on what little information is available. Once formed, these impressions are difficult to change, even when those impressions are incorrect (Tetlock, 1983).

When organizations have job structures that are unusual for their industry, they also have job structures that are unfamiliar to both internal and external audiences. Unfamiliarity will result in penalties in terms of both operations and perceptions, which will in turn reduce organizations' life chances. Job structures are subject to strong inertial pressures (Baron, 2004;Hannan, Baron, Hsu, and Koçak, 2006;Beckman, and Burton, 2008). But organizations sometimes do change their job structures after founding, to improve fit to environmental conditions or incorporate what they have learned from their own and others' experiences (Baron, et al., 1996;Baron, et al., 2001;Guillén, 2002). Organizations with unusual job structures face more intense pressures to change; specifically, to adopt more common structures, which are more legitimate and better-understood than rarer structures. To our knowledge, no research has examined whether firms with more unusual job structures are more likely to change them, so we explore this issue, building predictions on theories of imprinting, legitimacy, organizational change, and organizational identity.

We test those predictions on data on boutique wineries founded in the U.S. from 1940 to 1988. Our study period begins when the industry rebounded from its near-demise during Prohibition and ends when the industry was flourishing. After presenting the results of our empirical analysis, we consider the implications of our study beyond our particular research site. Then we generalize beyond job structures to other aspects of organizational structure, and reflect on our study's implications for theory.

### **Job Structures**

Organizations are, fundamentally, created to bind people together in the service of some overarching objective, to accomplish tasks that individuals on their own or in informal groups could

not accomplish. Therefore, the tasks assigned to people – their jobs – are the fundamental building blocks of all organizations. Jobs consist of stable bundles of tasks performed by employees under specific administrative job titles (Cohen, 2013). The ways organizations arrange jobs into functions, departments, and hierarchies – their job structures – vary in terms of the number of jobs they contain and where those jobs are positioned: at which levels, in which functions, and in which departments. Consider top-level job structures for two hypothetical organizations in the same industry: one has a single top-management position in a single function, general administration; the other, three top-management positions in three different functions, general administration, finance, and marketing. The differences between these job structures provide much information about differences between these organizations. Compared to the organization with a three-function, three top-manager structure, the organization with the single-function, single-top-manager structure has a smaller range of capabilities in place, has a less diverse and less complex set of tasks being done by top management, and requires less coordination across top management functions. Therefore, the two organizations are likely to operate differently and to value different work. They are also likely to have different levels of productivity and different cost structures.

To provide more institutional specificity, consider the job structure of a typical university. Specific tasks related to teaching, research, and service are bundled into the professor job. In turn, the professor job is bundled with other jobs (dean, lecturer, teaching assistant, research assistant, admissions officer, career counselor, *etc.*) and located in specific departments or schools (*e.g.*, sociology, art history, chemistry, computer science, law), at specific hierarchical levels (*e.g.*, assistant, associate, and full professor), and in specific organizations (*e.g.*, Columbia University, University of Michigan, Northern Illinois University). A thoughtful analysis of any university's job structure will make clear with whom and how professors interact, what professors (should) do every day, and how professors might succeed in that university. It would also provide information about how that

university operates, whether it operates within the prevailing norms of academia, and its core identity. Take, for instance, Carnegie-Mellon University, which is well known for grouping faculty from multiple disciplines in a single unit, rather than segregating faculty according to discipline. This atypical job structure signals the importance of interdisciplinary research and teaching at Carnegie, which is reflected in web pages highlighting its many interdisciplinary programs for students, both graduate and undergraduate, (<http://www.cmu.edu/academics/interdisciplinary-programs.shtml>, viewed 14 May, 2014) and touting its faculty's innovative interdisciplinary research (<https://www.cmu.edu/homepage/collaboration/>, viewed 14 May, 2014).

Job structures determine what tasks individual employees do and how productive they are. Individual jobs are packaged with financial and non-financial rewards and career opportunities; they are also accorded status and power. In turn, jobs are arranged into functions, departments, and hierarchies; these arrangements have consequences for all organizational operations far beyond the additive effects of individual jobs. These broader job structures determine what work is done and by whom, how this work is coordinated, who interacts with whom, and ultimately whether the work is done effectively and efficiently. Most basically, certain divisions of labor between workers dramatically improve both individual and organizational productivity (Smith, 1937 [1776]; Taylor, 1967 [1931]; Appelbaum, 2000). The canonical example is the pin-making factory visited by Adam Smith: dividing the tasks involved in making and packaging pins into 18 distinct steps made it possible for 10 men to produce 48,000 pins per day, rather than the 20 or so per day that an individual worker, doing all these tasks together, could manage. Job structures also provide employees with schematics of how monetary and psychic rewards are allocated; because employees often use social comparison to assess their well-being, and because relative location within job structures is usually obvious, employees use their relative locations within their employers' job structures to evaluate how well they are treated (Baron, and Pfeffer, 1994).

Symbolically, the array of jobs that exists in an organization, along with these jobs' structural locations, signal what that organization intends to do, what it values, what competencies it requires in workers, and ultimately what it is – its identity (Fligstein, 1987; Baron, 2004; Beckman, and Burton, 2008; Beckman, and Burton, 2011). Because they are available for all to see, job structures are bases for internal and external audiences to assess organizations' legitimacy – the degree to which they are comprehensible and taken for granted as the appropriate or natural way to achieve some collective goal; they are justified and explained on the basis of prevailing cultural models and accounts (Meyer, and Rowan, 1977). Legitimate organizations find it easy to conduct their everyday operations, as they do not constantly have to defend their existence or their actions. Organizations' job structures constitute an “organizational language” (Meyer, and Rowan, 1977: 349); “speaking” this language signals organizations' conformity with prevailing norms – or their deviation from those norms. Having job structures that meet normative expectations not only brings organizations legitimacy, it also brings material resources, stability, and survival.

All job structures provide information to internal and external audiences and influence operations, but these effects are especially strong for job structures at the top of organizational hierarchies, which have spillover effects at lower levels. The array of jobs in place at the top levels signals which competencies are considered most important and what is valued most across all levels in organizational hierarchies (Beckman, and Burton, 2011). For instance, universities whose top-level jobs include the dean of research but not the dean of students clearly signal that they value research over teaching, while those whose top-level jobs include the dean of students but not the dean of research signal that they value teaching, and those whose top-level jobs include both signal that they value both functions. More broadly, organizations with Chief Human Resource Officer positions signal that they value their employees, while those with no such position do not, and those with

Chief Financial Officer positions signal the importance of financial logic, while those with no such position do not (Zorn, 2004).

### **Unusual Job Structures**

The unusualness of job structures will vary along two dimensions. First, they will vary in content – how different one organization’s job structure is from those of other organizations. Only a handful of studies have considered the effects of this kind of difference in job structures or work practices. For instance, one of the few empirical studies of the effects of non-conformity examined the effects of using novel employment practices, specifically tournament-style promotion systems, performance monitoring, and employee involvement; this study found that competitive and institutional pressures reduced performance for firms whose employment arrangements were moderately novel, relative to firms with very novel or very common employment practices (Jennings, et al., 2009). Firms with moderately novel employment practices did not capture the competitive benefits that come from being extremely distinctive; they also paid the price of adopting illegitimate structures.

Second, job structures will vary in commonness – how many other organizations in the industry have the same structure. No research has considered the effects of the frequency (or rarity) with which a job structure is used by organizations in an industry. Research has focussed on convergence on a dominant practice. Typically, when frequency-based unusualness is considered at all, it is as a residual category: those who fail to adopt a dominant work practice or job structure. That residual category, however, is often substantial in size and heterogeneous. In many industries, a small number of job structures will become common, as many studies of the diffusion of many aspects of organizational structures have demonstrated repeatedly. For example, the multidivisional structure came to dominate large American corporations after World War II (Chandler, 1962; Fligstein, 1987), as did highly bureaucratized personnel control systems (Baron, Dobbin, and

Jennings, 1986). But often many organizations deviate have structures that are different from such common structures. Returning to the previous examples, by 1960, half of large American corporations had not (yet) adopted the multidivisional structure, while in 1946, one-quarter did not (yet) have personnel departments or centralized employment systems.

There will not always be a single dominant structure among the organizations in an industry; instead, two or more common structures may develop, reflecting different norms and/or technical imperatives. For instance, most recycling programs in universities took one of two dominant forms: maximalist structures with full-time recycling manager positions and minimalist structures with part-time managers seconded away from their primary duties (Lounsbury, 2001). Among start-ups in Silicon Valley, there were five common blueprints for employment practices, plus several “aberrant” models (Baron, et al., 1996). Firms that adopted programs like Total Quality Management varied in their interpretations of those programs and the practices they entail, and thus in how they fit this activity into their structures (Westphal, et al., 1997;Zbaracki, 1998).

Variation in the array of structures adopted by firms in an industry can be arrayed on a spectrum from completely uniform (all industry incumbents have a single common structure) to completely idiosyncratic (all industry incumbents have unique structures). From the point of view of a single organization, its structure, relative to those adopted by others in its industry, can range from completely “normal” (it has the same structure as all other industry incumbents) to completely idiosyncratic (it has a different structure than every other industry incumbent). In other words, all unusual structures are not equally unusual and all common structures are not equally common.

Given this evidence of variation in the unusualness and commonness of structures across industries at any point in time and within any single industry over time, we conceived of unusualness and commonness of job structures as continuous variables, not categorical ones. For example, we would assess the impact of whether an organization’s job structure was used by just 1 percent of

other organizations in its industry or by 10 percent. To highlight the continuous nature of these variables, we speak of “more” or “less” unusual job structures, or “more” or “less” common job structures.

### **Unusual Job Structures and Survival Chances**

Adopting a more unusual job structure has benefits. Unusual job structures make organizations more visible, simply because they stand out from the crowd. Their distinctiveness would allow organizations with very unusual job structures to can garner more attention from potential customers, investors, suppliers, and employees. For some types of organizations – start-ups in all industries and all organizations in most cultural industries – adopting more unusual structures is congruent with expectations that they break from convention and be innovative in organizational structures and practices as well as products. Unusual, and therefore distinctive, structures may appeal to specific audiences. For instance, employees with atypical work experience and non-standard work preferences, who will not fit well in organizations with common job structures, may be attracted to and fit better in organizations with more unusual job structures. Having more unusual structures gives organizations more distinctive capabilities, which will allow them to do more different things than others in their industry and may reduce the competition they face.

But any positive effects of increasing unusualness on legitimacy and protection from competition are likely to be overwhelmed by negative effects of increasing unusualness on organizational legitimacy and efficiency. Organizations whose job structures are more unusual will be less familiar to employees and exchange partners, including suppliers of human, financial, and material resources. Being less familiar in the eyes of these parties will create challenges for the organization – an *unfamiliarity penalty* – in establishing legitimacy and running operations smoothly and efficiently. People are generally uncomfortable with the unfamiliar; they prefer dealing with the familiar and have greater skill in doing so (Byrne, 1961;Kanter, 1977;Tsui, Egan, and O'Reilly,

1992;Brooks, Highhouse, Russell, and Mohr, 2003). One way this unfamiliarity penalty will be levied is through legitimacy and the resources that come with it. Adopting more unusual (that is, more unfamiliar) job structures violates industry norms and reduces organizational legitimacy(Meyer, and Rowan, 1977). Job structures that are more common in an industry become taken for granted as the “right” or “natural” way to organize in that industry (Deephouse, 1996). Thus, because their job structures are less familiar, organizations with more unusual job structures (at start-up or later) will have less legitimacy. Potential employees with experience in the industry may find more unusual job structures less appealing and so may be less willing to take jobs in those firms. Investors, suppliers, and distributors may also find organizations with more unusual job structures less appealing as business partners, simply because they are more uncertain about which people, in which structural positions, have authority to contract with them.

A second way this unfamiliarity penalty will be levied is through negative effects on operating efficiency. Employees in organizations with more unusual job structures will find it harder to learn from the prior experience of other organizations – especially those with more common job structures. Thus, organizations with more unusual job structures will find fewer established routines to copy from other organizations. Employees in organizations with more unusual job structures will find it harder to understand what their jobs entail, how they are expected to do those jobs, with whom they should interact to get their jobs done, and how those interactions are supposed to unfold (Stinchcombe, 1965). Similarly, suppliers, distributors, and financiers may have more difficulty figuring out with whom they should interact in organizations that have more unusual job structures – where will they find knowledgeable people that have authority to contract with them? These operational issues are similar to the issues facing firms with more unusual product offerings: having products that fit better within established categories gives firms operational advantages that stem from following familiar pathways (Hsu, Hannan, and Koçak, 2009;Negro, Hannan, and Rao, 2011).

This unfamiliarity penalty will be assessed based both on the level of unusualness at startup and the current level of unusualness. After job structures are put in place at founding, the allocation of tasks and authority take on value far beyond the technical requirements of the tasks at hand (Selznick, 1957). Those initial choices set an organization on a path that is often difficult to change and so will have lasting effects even as an organization and the industry change structures. For instance, in a sample of Swedish startups, those that did not begin life by undertaking legitimacy-generating activities – writing a formal business plan and creating legal entities – were less likely to undertake other crucial organizing activities, such as establishing relationships with customers and financiers, and more likely to disband (Delmar, and Shane, 2004). The unusualness of an organization’s structure later in life, however, will create similar difficulties. Any new relationships internal or external to the organization, especially ones established later in organizational life, will be more difficult to navigate for organizations with more unusual structures.

Both aspects of the unfamiliarity penalty lead us to the following predictions:

**Hypothesis 1:** Organizations that adopt more unusual job structures at start-up are more likely to fail than organizations that adopt more common job structures at start-up.

**Hypothesis 2:** Organizations with more unusual current job structures are more likely to fail than organizations with more common current job structures.

### **Unusual Job Structures and Structural Change**

Once in place, job structures are not easily or often changed. Pressures in modern societies favor organizations that perform reliably (demonstrate low variance cross-sectionally and over time) and that can account rationally for their actions (Hannan, and Freeman, 1984). Achieving high reliability and accountability requires that organizations’ job structures be highly reproducible, both over time and cross-sectionally – in other words, highly inert. In addition, having stable job structures allows organizations to develop consistent identities (Carroll, and Hannan, 2000; Pólos,

Hannan, and Carroll, 2002), which makes it easier for internal and external audiences to evaluate them. Organizations with stable structures and the consistent identities that stable structures project will be selected over organizations with shifting structures and unstable identities; therefore, the former will exhibit lower failure rates than the latter. Consistent with these arguments, studies of high-tech start-ups have shown that functions put in place at start-up often persist into the future (e.g., Beckman, and Burton, 2008) and that the imprints made on job structures at start-up are resistant to change (e.g., Burton, and Beckman, 2007). Moreover, pressures for organizations to maintain their current job structures may be stronger for organizations with common job structures because these convey widely accepted identities and greater legitimacy than do unusual job structures.

Organizations with more unusual job structures may also feel more pressures to conform to industry norms, which would lead them to abandon their more unusual job structures and replace them with more common, industry-normative structures. As explained above, more common job structures are more familiar and so more legitimate than more unusual ones; more common job structures also provide operational advantages over more unusual ones because organizations can learn from the experiences of the many other organizations that have those same structures. Moreover, organizations that adopt more common structures find it easier to point to industry history to justify their choices in the face of challenges, while organizations that adopt more unusual structures find it more difficult (Hannan, and Freeman, 1984).

The founders of organizations that adopt more unusual structures at founding may differ in their attitudes toward change from the founders of organizations that adopt more common structures at founding. Psychological research has shown that the likelihood of individuals differentiating themselves from others increases with the openness dimension of personality: those who differentiate themselves are more open to a range of experiences and to experimentation (e.g.,

Barbaranelli, Caprara, and Maslach, 1997). At the organizational level, this openness may translate to decision makers who are more willing to adapt and change. Taken together, and recognizing that job structures vary in their level of unusualness both at start-up and at later points, these arguments lead us to predict:

**Hypothesis 3:** Organizations that adopt more unusual job structures at start-up are more likely to change those structures than organizations that adopt more common job structures at start-up.

**Hypothesis 4:** Organizations with current job structures that are more unusual are more likely to change those structures than organizations with more common current job structures.

## Research Design

### Research Site

To test these hypotheses, we study the job structures of newly founded U.S. wineries from 1940, shortly after Prohibition ended, to 1989, when the industry was flourishing. The U.S. wine industry is an ideal setting for research on job structures at founding because almost 2,000 new wineries were founded during this period, which gives us great empirical leverage, and because the size distribution of U.S. wineries mirrors that of most American industries in that many are small (Granovetter, 1984; Aldrich, and Auster, 1986), which facilitates generalizing the results of our analysis to other settings.

U.S. wineries can be divided into two main forms: specialist farm or “boutique” producers that compete by differentiating their products and appealing to either connoisseurs or adventurist tourists and generalist mass producers that are larger and produce a wide range of products aimed at the center of market and that compete on price (Swaminathan, 1995; Swaminathan, 2001). We focus on farm wineries because these are the most common type of start-up and because the strategic and structural differences between farm wineries and mass producers make it unlikely that new farm wineries will pattern their job structures after mass producers. Following wine-industry conventions,

we defined as farm wineries those producing less than 50,000 cases of wine per year or having storage capacity of less than 100,000 gallons at founding (Hiaring, 1976; Adams, 1990).

In 1940, there were 722 farm wineries. Their numbers declined almost continuously, reaching a low of 141 in 1967. Many early farm wineries produced undifferentiated products for local markets, and they did not thrive because they could not handle increasing competition with the more efficient mass-producer wineries (Swaminathan, 1995). Starting in the mid-1960s, the consolidation of mass-producer wineries prompted a new wave of farm-winery foundings that fuelled the rapid growth of this organizational form (Swaminathan, 2001). These newer farm wineries focused much more on producing dry table wines, rather than the sweet sherries, ports, and dessert wines that earlier cohorts of farm wineries had produced. By the beginning of 1990, there were 1,022 farm wineries across the U.S., all but 31 founded after 1965.

### **Data Sources and Measures**

We gathered data on farm wineries from *Wines & Vines Annual Directories*. For every winery (actually, every bonded premise) every year, the *Directories* record winery name; city and state; year founded; size, as well as number of production facilities; vertical integration in terms of acres of vineyards owned, if any, and presence of bottling facilities; diversification in terms of number of brands and types of wine produced; farm-winery laws; and, central to our analysis, the names of key personnel (owners and employees), along with their titles. Because the *Directories* list only key personnel, we see just the tip of the job-structure iceberg. This is fine for our purposes, because job structures at the top of organizational hierarchies reflect job structures in the middle and bottom; specifically, and the functions delineated at the top are correlated with the breadth of functional specialization in the middle and bottom (Zorn, 2004).

Conversations with the publisher of the *Directories* revealed that wineries can list whatever personnel they wish, so each winery's listing reveals its own perceptions of which positions it

considers key. The lists of personnel and their attendant jobs might be both intended and taken as signals to outsiders as well as reflections of actual operations. That fits our purposes, as we seek to understand the effects of how organizations signal what they considered to be key functions.

Our data take the form of one observation per winery per year and cover all 1,367 boutique wineries founded between 1941 and 1988, inclusive. Of these firms, 533 had failed and 610 had changed job structures at least once by 1989. For the analysis of the impact of having an unusual job structure at start-up and later in life on failure (testing hypotheses 1-4), our data include all wineries from founding to the year they failed, or the end of our observation period (1989), whichever came first. For the analysis of the occurrence of job-structure change (testing hypotheses 5-6/5-8), our data include each winery up to the year it changed from its initial job structure or the end of our study period, whichever came first.

**Measures of job structure and job-structure change.** To measure job structure, we assessed which of five basic functions – corporate governance, general administration, finance and control, marketing and sales, and production – were filled by key personnel in the focal winery and the focal year. We began by coding the job titles of key personnel exactly as recorded in the *Directories*, creating one observation per job title per person per winery per year. If two or more people in a winery had identical job titles in the same year, we entered each person separately into our database as a holder of that title in that firm and that year. If one person in a winery had two or more job titles in a single year, we created one record for each title. If one person worked for two or more wineries in a single year, we created one record for each firm. Job-title listings in the *Directories* were occasionally inconsistent with respect to format and spelling (*e.g.*, Comptroller vs. Controller), sometimes used different short forms (*e.g.*, Vice President, Vice Pres., or VP), and often combined information on functional area and level inconsistently (*e.g.*, Sales Director vs. Director of Sales).

After entering job titles into our database exactly as they appeared in the *Directories*, we imposed a uniform coding scheme.

Next, we coded areas of functional specialization. We assigned every unique job title to one of the five functions mentioned above. Table 1 lists the five functions and some of the most common job tasks under each function. The *Directories* often recorded data for subsidiaries separately from their parent firms, so the final step was to aggregate data to the firm level of analysis. We merged data on subsidiaries into data on parent firms. Then, for each firm each year, we created five dummy variables, each coded one if the focal function was filled by key personnel in the focal winery that year and zero otherwise.

[Table 1 about here]

We determined a winery's *job structure* based on the configuration of functions filled by its key personnel. We then assessed the proportion of firms with each configuration of the five functions. With five functions, there are 32 ( $2^5$ ) possible configurations; we observed 26 of these in start-ups and 29 of these in wineries of any age over our observation period. Figure 1 shows the distribution of job-structure configurations across all wineries across our entire study period (all years pooled). It lists job structures in descending order of frequency. Only the 16 most common job structures are shown; the category "other" includes 13 job structures, each of which was adopted by fewer than 1 percent of wineries. By far the most common was a job structure with only positions in Corporate Governance: across our study period, almost half of wineries had this structure. The next three most common job structures were found in almost one-quarter of all winery-year observations: corporate governance plus production (11.7 percent of winery years); finance and control plus general administration plus production (6.4 percent); corporate governance, general administration plus production (5.8 percent). There were notable shifts in the distribution of configurations over time: for instance, the most common job structure, with positions in Corporate Governance only, was

found in 89 percent of wineries in 1940, but only 28 percent in 1989. But even at 28 percent, this configuration was still far more common than any other. Other configurations became more common over time. For example, the proportion of wineries with Corporate Governance plus Production increased from just 2 percent in 1940 and to a peak of 17 percent in 1985. Thus, without ever changing its job structure, a winery that began life with a job structure that was fairly unusual might have a relatively common structure later in its life, simply because the distribution of job structures in the industry shifted over time.

[Figure 1 about here]

We calculated the *unusualness of the job structure at start-up* as the proportion of existing wineries in the year before its start-up that had job structures different from the focal winery. We calculated the *unusualness of the current job structure* as the proportion of existing wineries in that year that had job structures different from the focal winery. The highest possible value for both variables is one, which would occur when all other wineries (either the year before start-up or in the current year) had job structures different from that of the focal winery. In theory, the lowest value for both variables are zero, which would occur when all other wineries had the same structure as the focal winery. In practice, however, the lowest value observed was .13. The mean value of unusualness at start-up was .76; this variable's mean rose steadily, from .29 in 1941 to .84 in 1989. The mean value of current unusualness was .71; this variable's mean rose steadily, from .34 in 1941 to .87 in 1989.

**Measuring failure.** We created an indicator variable set equal to one the year after a winery last appeared in the directories and zero before that year. Because we do not know their fate, we treated all wineries still in the directory in the final year of our study period as ongoing concerns, and coded the failure indicator as zero

**Measuring job-structure change.** We created an indicator variable for *job-structure change* that was coded one if the set of functions in place in the focal year differed from the set at start-up

and zero otherwise. As explained above, for this analysis we dropped observations for all years *after* the focal winery first changed from its initial job structure. If the focal winery had not changed from its initial job structure by the end of our study period, then the indicator variable for structural change was coded as zero throughout the winery's observed life.

**Measures of control variables.** We controlled for several aspects of the organization and the environment that might affect the likelihood of failure or structural change (Swaminathan, 1995; Swaminathan, 2001). We controlled for *winery size*, which we measured in terms of storage capacity, following industry conventions. We logged size because the distribution was highly skewed. We controlled for *winery age* because much previous research, including research on wineries, has shown this affects both failure and structural-change rates.

We controlled for *competition* in labor and product markets with the number of farm wineries in the focal state and the number of farm wineries in California. California is the dominant geographic region, home to over half of wineries, including the best-known and most highly regarded (Pinney, 1989; Pinney, 2005), and the source of over 90 percent of U.S. wine production (<http://www.wineinstitute.org/resources/statistics/article83>), so its organizational demography has a large effect on the industry in other states. Because it varied over time, we controlled for the *unusualness* of job structures across the industry, calculated as the mean value of unusualness for all wineries operating in the focal year. We controlled for *regulations supporting farm wineries* with a dummy variable set equal to one in the year after a farm-winery law was put into effect in the focal state and zero before. Data on these laws came from the description in the *Wines & Vines Annual Directories*, from Adams (1990), and from correspondence with state alcoholic beverage commissions. We controlled for *local norms concerning alcohol* with two time-varying state-level features: the percentage of the focal state's population living in dry counties (counties that prohibit the sale of alcoholic beverages) in the focal year and the *per-capita* consumption of wine in the state that year. We

controlled for *size of the local market* with two time-varying measures: state population and average personal income in the focal state in the focal year. We controlled for the *complexity of operations* and *diversification* with the number of brands and number of products that the focal winery produced in the focal year and six dummy variables for whether or not the focal winery produced each of six products (table, dessert, fruit or sparkling vermouth or brandy) in the focal year.

## Methods of Analysis

Both organizational failure and job-structure change are discrete events that occur over time and that can be modelled as semi-Markov processes (Tuma, and Hannan, 1984). We estimated models following the general form:

$$r_{it} = \exp[\beta' x_{it}],$$

where  $r_{it}$  is the rate of failure (or change in organizational structure) during the calendar year  $t$ ,  $x_{it}$  is the vector of time-varying explanatory and control variables measured at the start of the calendar year, and  $\beta'$  is a vector of parameter estimates. We performed both failure and change analyses using the *streg* procedure in Stata. Since there are multiple observations on each winery, we clustered standard errors on wineries for both analyses.

## Results

Tables 2 and 3 present univariate statistics and bivariate correlations for all variables in our analysis of organizational failure and structural change respectively. Consistent with Figure 1, these tables show that many wineries adopted at least moderately unusual job structures at founding and maintained job structures that were at least moderately unusual later in life. Specifically, the mean for job-structure unusualness at start-up is .758 for the failure analysis and .751 for the change analysis, meaning that the “typical” start-up winery adopted a job structure that was used by less than 25 percent of existing wineries in the year before its start-up. The mean for current job-structure

unusualness is .834 for the failure analysis and .830 for the change analysis, meaning that the “typical” start-up winery adopted a job structure that was currently used by less than 20 percent of existing wineries.

[Tables 2 and 3 about here]

*Failure.* Table 4 presents these multivariate analyses. Model 1 is a baseline model that contains only control variables. It shows strong negative effects on failure for the level of unusualness in the industry, for winery size, and personal income in the focal winery’s state, and positive effects for the number of wineries operating in California (the largest and most prestigious wine-producing state), winery age, number of brands produced, and per-capita wine consumption in the focal winery’s state. Model 2 adds unusualness of the focal winery’s job structure at start-up. The coefficient on this variable is positive and statistically significant, consistent with hypothesis 1. This effect is substantial. The multiplier of the failure rate for the typical winery (with the mean start-up unusualness score) was 2.134 ( $\exp[.758 \times 1.000]$ ), while the multiplier for a winery with a high unusualness score (start-up unusualness at the mean plus one standard deviation) was 2.686 ( $\exp[(.758 + .23) \times 1.000]$ ). This amounts to an increase of 26 percent from the multiplier of the failure rate at the mean. Model 3 adds the current unusualness of the focal winery’s job structure. The coefficient on this variable is positive and statistically significant, consistent with hypothesis 2. Again, the effect is substantial. The multiplier of the failure rate for the typical winery (with the mean start-up unusualness score) was 2.214 ( $\exp[.834 \times .957]$ ), while the multiplier for a winery with a high unusualness score (start-up unusualness at the mean plus one standard deviation) was 2.604 ( $\exp[(.834 + .166) \times .957]$ ). This amounts to an increase of 17 percent from the multiplier of the failure rate at the mean. Model 4 includes both the measure of job-structure unusualness. Here, only the coefficient on start-up unusualness is significant, which may be due to multicollinearity (the two unusualness scores are correlated at .636).

[Table 4 about here]

*Changing job structure.* Table 5 presents these multivariate analyses. Model 1 is a baseline model that contains only control variables. It shows a strong negative effect of winery age and the number of wineries, population, and income in the focal winery's state, and positive effects for the level of unusualness in the industry that year, winery size, and per-capita wine consumption in the state. Model 2 adds unusualness of the focal winery's job structure at start-up. This coefficient is positive and statistically significant, consistent with hypothesis 3. This effect is substantial. The multiplier of the failure rate for the typical winery (with the mean start-up unusualness score) was 2.938 ( $\exp[.751 \times 1.389]$ ), while the multiplier for a winery with a high unusualness score (with start-up unusualness score at the mean plus one standard deviation) was 3.923 ( $\exp[(.751 + .233) \times 1.389]$ ). This amounts to an increase of 38 percent from the multiplier of the structural-change rate at the mean. Model 3 adds the current unusualness of the focal winery's job structure. This coefficient is positive and statistically significant, consistent with hypothesis 4. This effect is very large. The multiplier of the structural-change rate for the typical winery (with the mean current unusualness score) was 3.636 ( $\exp[.83 \times 1.719]$ ), while the multiplier for a winery with a high unusualness score (with a current unusualness score at the mean plus one standard deviation) was 4.862 ( $\exp[(.83 + .169) \times 1.719]$ ). This amounts to an increase of 34 percent from the multiplier of the structural-change rate at the mean. Model 4 adds both measures of unusualness. Neither coefficient is significant, perhaps due to multicollinearity (the correlation between these measures is .637).

[Table 5 about here]

*Robustness checks.* We conducted several other analyses to determine how sensitive our results were to model specification. (All of these analyses are available from the first author but are not included to save space.) First, to recognize the fact that California is the geographic core of the U.S. industry and the most prestigious wine-producing state, we recalculated unusualness based on the

proportion of wineries in California with different structures from the focal winery. These results were not substantively different from those reported here.

We then constructed two alternative dichotomous measures of unusualness: (1) whether the focal winery had a job structure that was above a threshold of unusualness, which we calculated as mean unusualness plus one standard deviation in that year, and (2) whether the focal winery had *any* structure other than the dominant one (which always included only a single function, Corporate Governance). The first alternative captures only highly unusual job structures, while the second takes into consideration changes in the structure that dominated this industry over our entire study period. These dichotomous measures are more in line with past work, which treated the adoption of structure and practice as either normative or as non-normative. Using these dichotomous measures allows us to consider whether there is a specific cut-off for “normality.” The results using these dichotomous measures were nearly identical to those presented here.

Because previous research suggested that the returns to being unusual depend on the level of unusualness (Jennings, et al., 2009), we replicated our analyses, adding the square of unusualness to all models. In the analysis of failure rates, for both unusualness at start-up and current unusualness, the coefficients on both the linear and squared terms were non-significant. These results suggest that the analyses we showed here captured the effects of unusualness well. However, in the analysis structural change, we found U-shaped relationship for both unusualness at start-up and current unusualness: the coefficient on the linear terms was negative and significant, while the coefficient on the squared term was positive and significant. For both measures of unusualness, the inflection point was below the mean. For unusualness at start-up, fewer than 19 percent of our observations were below the inflection point if .49. For current unusualness, fewer than 15 percent of our observations were below the inflection point of .63. This suggests that the effect of unusualness on change was positive in most of our range.

To recognize that the strategies of boutique wineries varied over time – specifically, they became more and more likely to produce dry table wine and less and less likely to produce sweet ports, sherries, and dessert wines – we searched for differences between wineries born before 1967 and those born during and after 1967. We chose 1967 as the cut-off for this temporal analysis because that is when the first boutique winery with such a strategy was founded (Delacroix, and Solt, 1988; Pinney, 2005). We separated the data into two temporal subsamples, based on founding date – before 1967 and 1967 and later. In both subsamples and for both outcomes, the pattern of results was the same as those shown here, with one exception: in the analysis of structural change, the impact of neither measure of unusualness was significant for wineries founded before 1967. Overall, the results of this temporal analysis indicate that support for our arguments is not drawn exclusively from one time period or the other.

Because firms with unusual job structures were more likely to change, and change may affect failure rates, we examined the effects of change on survival. To do this, we looked at how much more or less unusual a firm became after it changed. The relationship between unusualness and failure was consistent across these models.

## **Discussion**

We began by considering a series of questions about the effects of putting unusual job structures in place at start-up and of having them in place later in life: Does starting off with an unusual job structure help or hinder an organization's life chances? Does having an unusual job structure later in life help or hinder an organization's life chances? Do these factors increase the likelihood of job-structure change? Our findings supported predictions that both firms that started with more unusual job structures and those that had unusual job structures at later points would be more likely to fail than those with more common structures. This suggests that any positive effects

that might come from standing out from competitors are not enough to overcome the unfamiliarity penalty paid in terms of legitimacy and operations.

A variation on this explanation builds on the link between job structures and organizational identities (Baron, 2004). To the degree that their job structures affect organizations' identities, having unfamiliar job structures may create identity issues: organizations with unfamiliar structures fail to fit into established categories or fail to conform to the norms associated with the identity category they are in. This explanation would be consistent with recent work showing that external audiences penalize organizations whose products do not fit within accepted categories or span multiple categories because analysts, investors, critics, and customers do not know how to evaluate such organizations (Zuckerman, 1999; Rao, Monin, and Durand, 2003; Hsu, 2006). However, our findings point to a slightly different mechanism for such negative consequences: audiences are unfamiliar with these categories and extract an *unfamiliarity penalty*.

We also found support for the prediction that organizations that started life with more unusual job structures and those that had more unusual job structures at later points in time are more likely to change them. Such structural changes may be driven by realizations that firms lack legitimacy with critical constituents. Such changes may also occur as managers realize that their firms' initial structures do not meet technical and administrative needs or provide expected benefits. Importantly, changing these structures appeared to have few benefits. Organizations that changed to more common, and thus more normative, structures were no more likely to survive than those that held steady or that changed to less normative structures. It may be that any gains in terms of legitimacy and operations are negated by the process costs of change (Barnett, and Carroll, 1995).

Taken together, our findings highlight the importance of looking at common versus unusual structures in more than dichotomous terms – in relative levels of unusualness. Simply said, it matters not just that a focal organization follows the same pattern as others in its industry; it also matters

how many others have that pattern. These findings also demonstrate that organizations' relative unusualness both at the time of startup and in the current period have strong effects. Unfortunately, because of multicollinearity we were not able to determine whether and when the effects of one of these dominates over the other leaving unanswered the question of whether the effects of unusualness are a product of starting off on the wrong foot or one of currently standing on the wrong foot. This is an issue for exploration in future research.

While our findings suggest that it is risky to deviate from normative structures, they do not necessarily lead to the conclusion that it is altogether bad to deviate. Even with the negative effects associated with adopting unusual structures at start-up, 48 of the 79 wineries founded with structures found in no other wineries in the year of their founding remained in business at the end of our observation period. These firms may have gotten their structure right from the start – 27 of them still had the same structure – or adapted their structures to be more symbolically or technically advantageous. It is possible that adopting unusual structures at start-up provided advantages to some of these firms. This suggests that additional research is needed to disentangle the mechanisms through which being unusual damages life chances and increases the likelihood of change, and how it is that so many of them do survive. What positive effects does adopting unusual structures have for start-ups?

Our focus in this paper was on firm-level conformity to industry norms. Our results suggest that beyond firm-level conformity, industry-level conformity is an important factor. In the analysis of failure, we saw that in years when there was a higher level of structural unusualness in the industry (when firms in the industry were more unusual on average, so the most common structure was less common, less dominant), all firms were more likely to survive, net of the effects of individual firms' unusualness. This presents an interesting dilemma: it seems to be preferable to follow a conformist strategy, but if too many firms follow a conformist strategy, everyone is worse

off. Similarly in the analysis of change, we saw that in years when there was a higher level of structural unusualness in the industry (when firms in the industry were more unusual on average), all firms were more likely to make structural changes, net of the effects of individual firms' unusualness. It may be that when there is less conformity, all firms have more latitude or that there are simply more prototypes that can be imitated. Because in our sample, level of structural unusualness in the industry was highly correlated with calendar year, we cannot make too much of these findings; we merely suggest that the level of variation across industries is an important avenue for future research on unusualness.

Social psychologists have explored when and why it is preferable to be distinctive, as well as how distinctive it is preferable to be (Snyder, and Fromkin, 1977; Maslach, Stapp, and Santee, 1985; Brewer, 1991). Future work might build from these microscopic foundations to build a more macroscopic theory of organizational distinctiveness and unusualness.

We explore only unusualness in terms of job structure. Research on product portfolios and strategy provide some intriguing contrasts to our findings on job structures. A study of wineries in California, based on the same data we use here, showed that entering the table wine market, which was an unusual practice at that time, improved wineries' life chances (Swaminathan, and Delacroix, 1991). Future work might explore the effects of adopting unusual product portfolios, business practices, human-resource policies, and overall strategies. The effects of unusualness should also be explored for different outcomes. We examined two binary outcomes: either firms failed or they did not; either they changed job structures or they did not. It may be that unusualness helps along the way for other less definitive outcomes, such as the ability to attract and retain employees, success in marketing campaigns, or strategic adaptiveness.

Our findings provide further evidence in a debate on the importance of job structures in general and of the structure chosen at start-up. On the one hand, there is a growing body of

evidence demonstrating that the employment structures in place at start-up determine a broader set of structures and practices at subsequent times, as well as the ability to adapt, employee behaviors, and ultimately organizational performance. Others have argued that these structural work arrangements are peripheral aspects of organizations and that making changes to them are inconsequential (e.g., Hannan, and Freeman, 1984) – like rearranging deck chairs on the Titanic. Our findings on organizational failure provide support for the idea that these structures are important aspects of structure with lasting implications.

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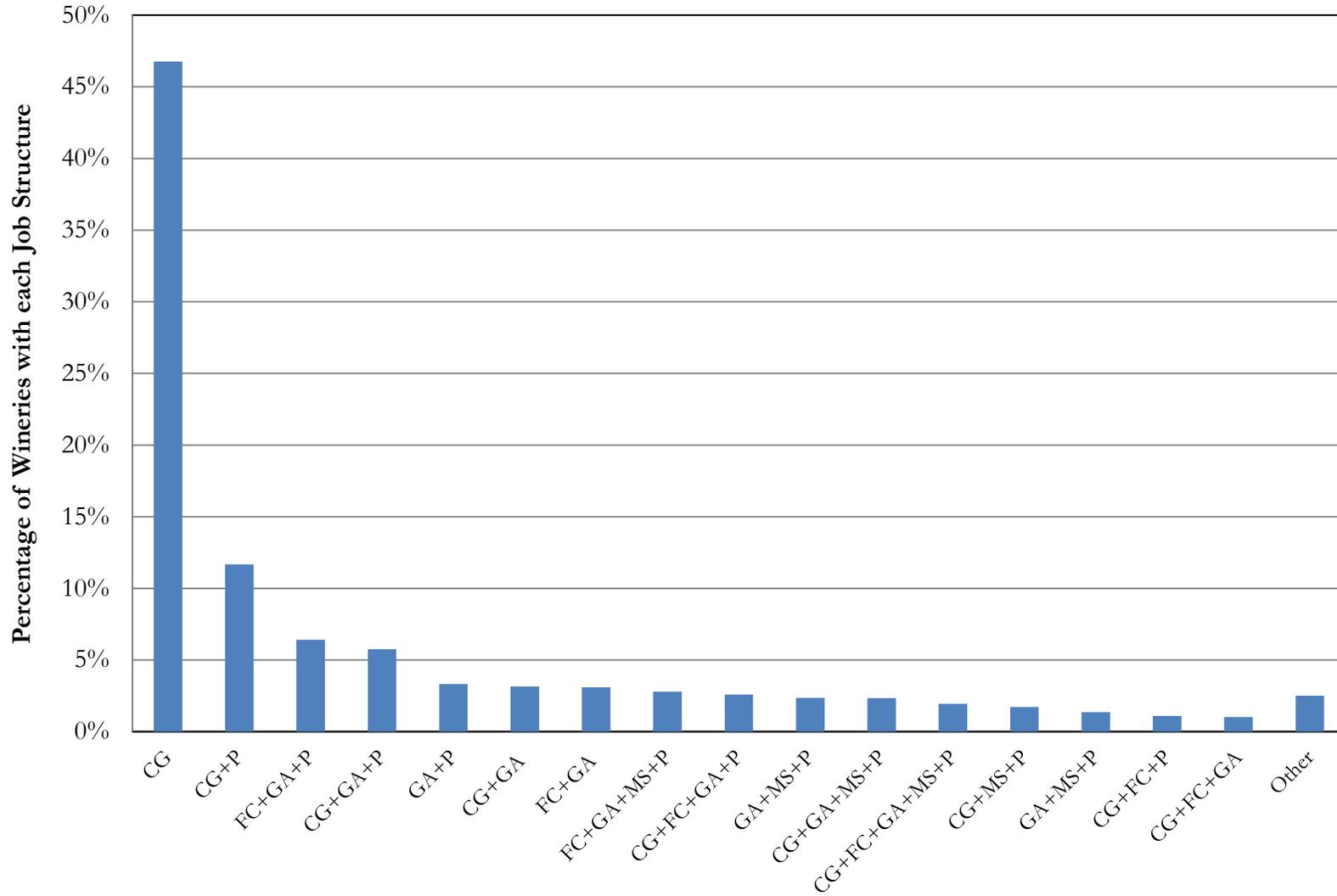
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**Table 1: Winery Functions and Associated Job Tasks**

<b>Function</b>	<b>Example Job Tasks within each Function</b>	
Corporate Governance	Owner	Founder
	Member of the Board of Directors	Partner
Finance and Control	Accounting	Financial Management
	Controller	Treasurer
General Administration	Administration/Management	Planning
	Human Resources	Legal
Sales and Marketing	Advertising	Packaging
	Hospitality	Public Relations
	Merchandising	Sales and Service
	Marketing	
Production	Distribution	Research and Development
	Grape Growing	Quality Control
	Plant	Wine Cellar
	Purchasing	Wine Making

Figure 1: The Distribution of Job Structures in California Wineries, 1940-1989



**Note:** CG=Corporate Governance, FC=Finance & Control, GA=General Administration, MS=Marketing & Sales, P=Production.

**Table 2: Means, Standard Deviations, Correlations for the Analysis of Organizational Failure**

	Mean	S.D.	1	2	3	4	5	6	7	8
1 Organizational failure	0.037	0.189								
2 Degree of unusualness at start-up	0.758	0.23	-0.024							
3 Current degree of unusualness	0.834	0.166	-0.008	0.636						
4 Level of unusualness in industry	0.824	0.088	-0.098	0.458	0.428					
5 Number of wineries in focal winery's state	172.998	175.742	-0.04	0.159	0.106	0.332				
6 Number of wineries in California	314.252	140.503	-0.055	0.395	0.294	0.705	0.434			
7 Age (years)	5.662	5.808	0.055	-0.319	0.046	-0.004	-0.004	-0.053		
8 Size (ln storage)	9.452	1.225	-0.011	0.139	0.229	0.006	0.121	0.039	0.203	
9 Number of product types	1.461	0.801	0.044	-0.041	0.052	-0.254	-0.217	-0.179	0.161	0.186
10 Number of brands	1.317	1.012	0.033	0.002	0.112	-0.103	-0.111	-0.139	0.198	0.181
11 Regulation (farm law in state; yes=1)	0.212	0.409	0.002	0.154	0.106	0.233	-0.421	0.26	-0.044	-0.069
12 Percentage of state population in dry counties	158.456	411.83	0.032	0.003	-0.017	-0.095	-0.324	-0.076	0.028	-0.036
13 Per-capita state wine consumption	58940.19	49245.96	-0.043	0.177	0.135	0.365	0.937	0.314	-0.031	0.124
14 State population	16195.1	9634.118	-0.034	0.151	0.122	0.279	0.872	0.218	0.007	0.161
15 State personal income	12096.14	5567.727	-0.077	0.431	0.341	0.815	0.551	0.93	-0.029	0.059

	9	10	11	12	13	14
10 Number of brands	0.375					
11 Regulation (farm law in state, yes=1)	0.011	-0.013				
12 Percentage of state population in dry counties	0.102	0.013	0.255			
13 Per-capita state wine consumption	-0.216	-0.1	-0.385	-0.352		
14 State population	-0.154	-0.05	-0.328	-0.228	0.954	
15 State personal income	-0.233	-0.133	0.194	-0.168	0.497	0.419

**Table 3: Means, Standard Deviations, Correlations for the Analysis of Structural Change**

	Mean	S.D.	1	2	3	4	5	6	7	8
1 Structural change	0.133	0.34								
2 Degree of unusualness at start-up	0.751	0.233	0.087							
3 Current degree of unusualness	0.83	0.169	0.130	0.637						
4 Level of unusualness in industry	0.821	0.089	0.021	0.463	0.435					
5 Number of wineries in focal winery's state	167.279	170.517	0.005	0.166	0.111	0.339				
6 Number of wineries in California	300.837	138.469	-0.010	0.394	0.295	0.697	0.447			
7 Age (years)	5.476	5.777	-0.041	-0.330	0.038	-0.020	-0.024	-0.077		
8 Size (ln storage)	9.443	1.217	0.119	0.135	0.224	0.008	0.117	0.037	0.203	
9 Number of product types	1.462	0.803	0.019	-0.045	0.051	-0.256	-0.212	-0.180	0.168	0.192
10 Number of brands	1.317	1.007	0.023	0.000	0.111	-0.108	-0.118	-0.144	0.201	0.183
11 Regulation (farm law in focal state, yes=1)	0.203	0.402	-0.016	0.157	0.109	0.235	-0.408	0.262	-0.05	-0.065
12 Percentage of state population in dry counties	159.568	413.903	-0.029	0.012	-0.015	-0.093	-0.322	-0.071	0.028	-0.034
13 Per-capita state wine consumption	59158.01	49479.58	0.023	0.189	0.144	0.379	0.942	0.338	-0.044	0.122
14 State population	16064.86	9425.208	0.025	0.161	0.130	0.288	0.864	0.221	-0.011	0.161
15 State personal income	11514.53	5329.769	0.005	0.439	0.350	0.825	0.569	0.928	-0.060	0.057

	9	10	11	12	13	14
10 Number of brands	0.376					
11 Regulation (farm law in state; yes=1)	0.002	-0.011				
12 Percentage of state population in dry counties	0.099	0.011	0.261			
13 Per-capita state wine consumption	-0.213	-0.107	-0.372	-0.353		
14 State population	-0.148	-0.053	-0.315	-0.229	0.955	
15 State personal income	-0.240	-0.140	0.192	-0.164	0.533	0.431

**Table 4: Event-History Analysis of the Effects of Unusual Job Structures on Organizational Failure**

	(1)	(2)	(3)	(4)
Degree of unusualness at start-up		1.000*** (0.253)		0.833** (0.314)
Current degree of unusualness			0.987*** (0.300)	0.400 (0.393)
Level of unusualness in industry	-3.495*** (0.993)	-4.215*** (0.984)	-4.242*** (0.997)	-4.361*** (1.001)
Number of wineries in the focal winery's state	-0.00228 (0.00119)	-0.00216 (0.00120)	-0.00204 (0.00118)	-0.00207 (0.00119)
Number of wineries in California	0.00402** (0.00148)	0.00398** (0.00148)	0.00387** (0.00148)	0.00391** (0.00148)
Age (years)	0.0359*** (0.00663)	0.0500*** (0.00881)	0.0367*** (0.00666)	0.0482*** (0.00917)
Size (ln storage)	-0.103* (0.0463)	-0.146** (0.0478)	-0.131** (0.0461)	-0.150** (0.0473)
Number of product types	0.0267 (0.0597)	-0.00979 (0.0592)	0.00791 (0.0580)	-0.0109 (0.0586)
Number of brands	0.0885* (0.0445)	0.0702 (0.0456)	0.0671 (0.0465)	0.0652 (0.0459)
Regulation (farm law in state, yes=1)	0.361 (0.187)	0.366* (0.186)	0.393* (0.187)	0.377* (0.186)
Percentage of state population in dry counties	0.000154 (0.000108)	0.000102 (0.000114)	0.000141 (0.000105)	0.000106 (0.000112)
Per-capita state wine consumption	1.39e-05* (5.94e-06)	1.46e-05* (5.89e-06)	1.39e-05* (5.85e-06)	1.44e-05* (5.86e-06)
State population	-1.05e-05 (2.22e-05)	-1.57e-05 (2.18e-05)	-1.36e-05 (2.22e-05)	-1.60e-05 (2.19e-05)
State personal income	-0.000118** (4.44e-05)	-0.000128** (4.45e-05)	-0.000116** (4.42e-05)	-0.000126** (4.46e-05)
Constant	-0.0563 (0.772)	0.332 (0.770)	0.0700 (0.770)	0.293 (0.771)
Number of Observations	8,899	8,899	8,899	8,899

**Note:** \* p < .05; \*\* p < .01; \*\*\* p < .001; significance levels are two-tailed for control variables and hypothesized effects.

**Table 5: Event-History Analysis of the Effects of Unusual Job Structures on Structural Change**

	(1)	(2)	(3)	(4)
Degree of unusualness at start-up		1.389*** (0.300)		0.611 (1.121)
Current degree of unusualness			1.719*** (0.382)	0.989 (1.427)
Level of unusualness in industry	3.272*** (1.109)	2.428** (1.101)	2.323** (1.093)	2.359** (1.095)
Number of wineries in the focal winery's state	-0.00303** (0.00121)	-0.00283** (0.00121)	-0.00282** (0.00120)	-0.00282** (0.00120)
Number of wineries in California	0.00200 (0.00137)	0.00173 (0.00138)	0.00170 (0.00139)	0.00171 (0.00138)
Age (years)	-0.0786*** (0.0172)	-0.0507*** (0.0178)	-0.0582*** (0.0172)	-0.0544*** (0.0177)
Size (ln storage)	0.333*** (0.0431)	0.289*** (0.0442)	0.291*** (0.0441)	0.290*** (0.0442)
Number of product types	0.110 (0.0737)	0.0990 (0.0717)	0.0901 (0.0721)	0.0937 (0.0726)
Number of brands	0.0367 (0.0537)	0.0173 (0.0552)	0.0159 (0.0549)	0.0162 (0.0551)
Regulation (farm law in state, yes=1)	-0.116 (0.178)	-0.123 (0.179)	-0.129 (0.180)	-0.126 (0.180)
Percentage of state population in dry counties	0.000146 (0.000152)	0.000125 (0.000143)	0.000130 (0.000141)	0.000127 (0.000142)
Per-capita state wine consumption	2.14e-05*** (6.47e-06)	2.08e-05*** (6.32e-06)	2.07e-05*** (6.29e-06)	2.08e-05*** (6.30e-06)
State population	-4.93e-05** (2.47e-05)	-4.95e-05** (2.47e-05)	-4.91e-05** (2.48e-05)	-4.93e-05** (2.48e-05)
State personal income	-9.59e-05** (3.90e-05)	-0.000100** (3.94e-05)	-9.83e-05** (3.96e-05)	-9.91e-05** (3.95e-05)
Constant	-7.658*** (0.906)	-7.567*** (0.928)	-7.768*** (0.938)	-7.685*** (0.963)
Number of Observations	4,819	4,819	4,819	4,819

**Note:** \* p < .05; \*\* p < .01; \*\*\* p < .001; significance levels are two-tailed for control variables and hypothesized effects.