REGULATION AND DISTRIBUTION OF WINE IN THE UNITED STATES

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

REGULATION AND DISTRIBUTION OF WINE IN THE UNITED STATES

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a candidate for the degree of doctor of philosophy of Agricultural Economics,

and hereby certify that, in their opinion, it is worthy of acceptance.

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DEDICATION

This dissertation is dedicated to…

Troy, if you love learning half as much as we all love you, you will be the smartest Mullins ever,

Chucho, I will never have the words to express how much your love, support, sacrifice and research assistance have meant to me,

Pam, for always, always being there for me, even at two o'clock in the morning; I know you already know I will always be there for you too,

Mom, for your willingness to enter addresses when I only had so much time,

Nikki, for volunteering to help even when I knew you did not have the time, and for not rubbing it in my face that you are the smarter twin for having finished first,

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ABSTRACT

This dissertation provides an empirical linkage between New Institutional Economics and the United States alcohol industry, with a specific look at the wine industry. Using an institutional economics framework, it analyzes the motivations for the industry's current regulatory environment, examines the impact of a changing institutional environment on contractual relations between parties in the wine value chain, and explores the criteria that wineries use to choose among alternate organizational forms. The analyses directly contribute to three sets of literature, literature on the impact of institutions, literature on general organizational design and governance, and specific literature on wineries' organizational designs. The first two literatures are mostly academic, while the last is of direct importance to the wine industry. The overarching theme of the dissertation is that institutions matter- they matter to the ways that firms structure their businesses and the ways that firms facilitate their transactions.

Chapter 1

Introduction

Political Economy is a term used by economists and political scientists to describe the interdependent connections that the sciences of economics and political science have on one another. Economics, formally the study of resource allocations, cannot be viewed independent of the institutions in which those allocations take place, although much of traditional economic research tries to provide analysis in precisely this way. Economics often studies the exchange of resources in the context of markets. In modern classical economics these markets and the rules governing exchange were often taken as given, with little thought as to how the markets or rules came about or evolved. New Institutional Economics (NIE), a branch of economics which gained popularity in the last century, was founded on the premise that institutions matter to resource allocation and exchange. Douglass North, a founding father of NIE, defines institutions as either formal or informal, and characterizes three dimensions of institutions: formal rules, informal constraints and enforcement mechanisms. Formal rules are classified as laws or rules that help facilitate exchange by reducing uncertainty; these laws and rules are the foundation of most industry regulation.

North (1990) postulates the more complex the environment, the greater the need for formal rules, which increases the need for third-party enforcements. North's description accurately represents the institutional background of the United States alcohol industry, especially the wine industry. The heterogeneous patchwork of state regulations

creates a complex environment for intra- and inter-state trade. Conflict among regulations translates to the necessity for trade agreements and third-party enforcement. Third-party enforcement has emerged in the form of the U.S. court system, especially within the last 20 years.

This research suggests the United States wine industry is an industry rich for testing the economic effects of regulation. Restrictive economic regulations affect almost every facet of the industry, from prohibition on integration between downstream links in the value chain, to dealer protections and site and sale limitations. The driving interests in these regulations and resulting organizational and transactional arrangements are all of economic concern, and can provide an important account of the various impacts regulation can have on the players in an industry.

This research examines economic implications of two facets of the regulatory process: regulatory motivation and regulatory change. In Chapter 2 the regulatory features of the United States alcohol industry are explained. A brief history of the industry's structure and organization are given, along with identification of the four general policy measures the government has to regulate alcohol. These underlying features are at the heart of each of the research questions and provide a unifying foundation for the dissertation research questions. Chapters 3-5 are the heart of the dissertation and will function as the dissertation's primary essays examining the motivations for and implications of regulatory change in the United States wine industry. Chapter 3 progresses with the dissertation's first topic: the identification of the motivating interests of states' alcohol regulations. Regulation may be both costly and

beneficial to actors in any industry, and while alcohol industry regulation is often cited for its public health benefits, it may in fact be motivated by private economic benefits. Chapter 4 progresses with a different look at the economic implications of regulation: one through the lens of transactional arrangements in the face of environmental change. Wine distribution agreements are analyzed as the transactional arrangement between wine manufacturers and distributors, with changes in agreements and features hypothesized in response to recent changes in direct wine shipment legislation. Chapter 5 narrows the topic of winery distribution channels using a case-study approach to examine the criteria that wineries use to select a distribution structure. Chapter 6 offers conclusions and suggestions for further research.

The overarching theme for this dissertation is how motivation for, and regulation of, the United States wine industry affects the industry's organizations and transactional arrangements. Hypotheses are concerned with private versus public interests in motivation for regulation, if and how changes in legislation contribute to the evolution of transactional governance, and what economic criteria parties use to decide on organization form, given a regulatory structure. Each of Chapters 3-5 is focused on answering a different piece of that puzzle, and together the chapters begin to provide a complete picture. Chapter 6 provides some general conclusions and avenues for future research.

This research is expected to add to our understanding of both the literature on regulation and the literature on distribution. Specific contributions to various literatures would include literature on economic regulation theories, contractual design and

evolution, and organizational design. In addition to these literatures, this dissertation research is contributes to the literature on the structure and organization of supply relationships between suppliers and distributors in the U.S. wine industry. This vital, but rarely documented supply relationship is essential to the promotion and sale of wine in the U.S. Once understood, this supply relationship may have the ability to aid the growth of both wine and wine tourism industries.

Chapter 2

Regulatory Features of the United States Alcohol Industry

Regulation is an underlying feature in each of the following three chapters. As the patchwork of federal and state alcohol regulations is extremely complex, a brief overview and explanation of the most pertinent regulations are necessary background for each of the following sections. Chapter 3 is concerned with motivation for regulation, Chapter 4 with organizational and transactional changes in response to changing legislation, and Chapter 5 with choice of market channels given regulation. Given these different research topics, a basic description of industry regulation in the current chapter will prevent the need for similar repetition in the following sections, and allow attention to be directed toward the actual purpose of each section.

Although the direct economic significance of the alcohol industry varies by state[1], the indirect economic significance that externalities of consumption (both moderate and heavy) of alcoholic beverages can have, has been stated as the main reason the industry is heavily regulated. In the United States that heavy regulation has evolved over four specific periods of government and industry interaction, with the most recent two periods, Tolerance and Mothers Against Drunk Driving ("MADD"), having the most impact on current regulations (McGowan 1997). It is regulations originating from these two periods that with which this dissertation will be concerned.

[1] In 2005 the full economic impact of the US wine, grapes and grape products on the U.S. economy was estimated at $162 billion dollars, and in Missouri in 2007 at $702.4 million (MKF Research, 2007)

The Tolerance movement existed from the end of Prohibition to the mid-1980's, and at a time in the industry when economic regulation was touted as a benefit to public health. During this period the 21st Amendment, which repealed Prohibition, was passed, and granted states control of their own alcohol industries. Of the Amendment's three sections, the second section is essential to this dissertation's discussion as it provides each state with the right to regulate its own alcohol beverage industry. This regulatory right has been applied to all links of the supply chain and includes the taxation and temperance rights. Although each state implemented their 21st Amendment regulatory rights differently, three distinct types of distribution systems emerged: state operated distribution, a three-tiered system and a ban on alcohol. Three-tiered distribution systems regulate the influence that each downstream segment of the industry has on the other segments by prohibiting the integration of manufacturers with distributors, distributors with retailers, and retailers with manufacturers. While state-wide bans ended with Mississippi in 1966, state-operated and three-tier distribution systems have endured.

The 21st Amendment has additional impact when combined with the Interstate Commerce Clause set forth in the U.S. Constitution. The Commerce Clause applies to interstate shipment; combined with the 21st Amendment, these two regulations give states the right to regulate the sale and distribution of alcoholic beverages within their borders. The complexity of the industry's three-tier distribution system is a direct result from these combined laws. In additional to the 21st Amendment, it was during the Tolerance movement that some states changed their minimum legal drinking ages ("MLDA") to 18 or 19 years old.

The MADD movement started in the mid-1980's and was a time when public health concerns had an innovative approach to influencing alcohol policy. "This approach to alcohol control was quite new. It did not involve an economic argument nor did these critics demand the prohibition of alcoholic products" (McGowan 1997, p. 137). Instead, social movement organizations like MADD used their resources and status as victims of drunk-driving to influence federal, and—through federal—state policy regulation to increase the MLDA to 21 years old, for all states (Wolfson 1995).[2]

Currently, the government (collectively state and federal) has four policy measures to regulate alcohol: the MLDA; penalties for drunk-driving; excise taxes on alcoholic products; and limitations on the sale of alcohol, including special license requirements at each stage of sale, and the determination of when, where and how alcoholic beverages may be sold, along with their prices advertised; (McGowan, 1997; Cook and Moore, 2000, 2002).

Most states still operate under a three-tier distribution system which prohibits integration between the supplier, distributor and retail links in the supply chain[3]. Most states monitor their three-tiered system by requiring operating licenses or permits at each stage, issued by the state's Alcohol Beverage Control board ("ABC")[4], with periodic audits of the group members. In addition to prohibiting integration, states also cite the

[2] This influence of social policy on regulation was different from the influence that social policy had on regulation back in colonial times. In colonial times, social policy influenced regulation through religion and temperance, instead of through non-partisan, victim's rights groups like MADD.

[3] Some states allow producers to own interest in some kinds of distribution outlets, but the interest is not supposed to be controlling. California allows brewers to hold ownership interest in distribution outlets although this is prohibited in other states.

[4] States with state-controlled distribution systems are called control states or "monopoly states" and include Alabama, Idaho, Michigan, Mississippi, Montana, New Hampshire, North Carolina, Ohio, Oregon, Pennsylvania, Utah, Vermont, Virginia, Washington, and West Virginia. In these states, the state controls the sale of beer, wine and/or spirits through state-operated retail stores.

three-tiered system for other regulations including price posting, advertising, and restrictions on sites of sale and franchise laws.[5] The purpose of the three-tier system has been reported to limit the power of producers to influence lower retail prices to increase quantity demand, as increased demand presumably increases the occurrence of negative externalities associated with increased consumption.[6]

Although states require licensing and/or permit systems for firms in the industry, the number of producers and distributors has changed. As beer and wine gradually became more popular the number of wineries and breweries increased, especially the number of small wineries and microbreweries.[7] Growth was also a trend in distribution; however it was growth regarding firm size, not number of firms. Distributor consolidation in each alcohol segment in the last 20 years has led to a sizable reduction in the number of distributors per state, especially in the wine and spirits segments, and has led to an increase in the power of the national and regional distributors that have emerged.[8] These changes in industry structure have skewed market and contract power in favor of the distributor and made it especially difficult for wineries to market to consumers. As most wineries are small, they are not able to produce large enough quantities that would make national (or even regional) distribution feasible. Additionally, as the ratio of distributors to wineries is very small, distributors effectively have a large

[5] There are a multitude of other regulations that states implement including standards on container sizes, production methods, and ingredient labeling. These regulations are standard legislation in other agricultural industries and are not unique to the three-tier distribution system.
[6] This reasoning is commonly cited in the literature for increased taxation and industry protection in each state although Reikhof and Sykuta (2005) show direct shipment laws were enacted for economic protection.
[7] The number of specialty brewers increased from 37 in 1985 to 1552 in 2006, while the number of wineries has increased from 953 in 1983 to 4333 in 2007.
[8] The number of beer distributors has decreased from 4181 in 1985 to 2036 in 2006, while the number of wine distributors has decreased from 953 in 1983 and 733 in 2006.

pool of wine producers or brands from which to select. This bottleneck makes it very hard for wineries to secure a distribution agreement, and when they do, the terms are inherently in the distributor's favor.[9]

In addition to the bottleneck, distributors in some states receive an agreement advantage through state distributor franchise laws. These franchise laws are not about the typical franchising of businesses, but are regulations that provide protection to state's distributors, either through territory or termination provisions (or both). Franchise laws can include two provisions regarding distributor territory and/or termination, and it depends on the state if one, both, or neither are enacted. The territory provision gives a distributor a territorial monopoly over a brand when the producer first contracts with the distributor. The second provision is a termination provision; in most cases this means one of two things: a supplier must give at least 30-60 days notice to the distributor of intended termination or the supplier may only terminate on the basis of "good cause", which has been shown extremely hard to prove in court. Distributors, on the other hand, do not have substantial exit barriers to the distribution agreement. Distributors may formally terminate the agreement by notice or informally terminate the agreement as easily as not re-ordering supplier product. Existing franchise laws can make an already complex regulatory environment even more difficult for industry producers.

[9] While distributor consolidation has also occurred in the industry's other segments, distribution of beer is less restrictive than that of wine or spirits which has allowed some breweries to take advantage of self-distribution and/or build distribution networks across regions. Distributor consolidation in the spirits industry has mirrored that of the wine industry, but as spirits distributors consolidated, so did spirits producers.

While only a small subset of the regulations that affects the alcohol industry have been discussed in this chapter, an understanding of these laws is necessary to an understanding of the material to follow. The next chapter will delve deeper into the motivations behind one of the most common regulations, taxes.

Chapter 3

Motivation for Regulation

Economics has two predominant theories concerning regulation. Public interest theory contends that to improve social welfare the government will regulate markets that have failed or created externalities detrimental to social welfare. At the opposite spectrum, private interest theory (Stigler 1971) contends the government will regulate in response to the private interests of groups able to wield political influence. Currently, skepticism of the independence of the theories exist (Yandle 1983). While most people accept the private interest theory as the theory applicable to a variety of economic regulations today, one might expect that if an economic theory of regulation were relevant to the regulation surrounding public health, it would be the public interest theory.

The alcohol industry has long history, one that has been surrounded by regulation and controversy. During the United States' colonial times alcohol was considered by groups to be an immoral substance; in modern time alcohol has been shown as a contributor to public health concerns. Moral concerns have historically been cited as the motivation behind regulation encompassing both the industry and the Prohibition Movement in the U.S. during the 1920's, while public health is oft cited as the modern reason for regulation. Numerous medical organizations like the American Medical Association and the National Institute on Alcohol Abuse and Alcoholism have published research showing the correlation between increased alcohol consumption and deteriorating public health. Concern for public interest associated with drunken driving

casualties, particularly among teens and young adults, incidence of liver disease and other illnesses imposing costs on public health services, and alcohol-related incidence of abuse are the more common public interest concerns highlighted in calls for increased regulation of alcohol[10]. Economists add to the debate with conflicting research determining how regulatory policies and economic factors such as personal income and elasticity of alcoholic products affect the demand for and consumption of alcohol. Given the controversy surrounding the industry, it may not be surprising that alcohol is one of the most highly regulated consumer product industries in the U.S.. Provided the correlation between alcohol consumption and public health, we can hypothesize the motivation behind improving public interest (by implementing regulations aimed at curbing the negative externalities of consumption of alcohol industry products) to be motivated by public interest theory. This chapter attempts to test if the variation between states regulatory policies of the alcohol industry can be explained by the public interest theory of regulation.

3.1 Health Effects of Alcohol Consumption

Numerous medical studies have determined that consumption of alcohol can have varying health and social interest effects including both positive and negative short- and long-term effects. Reported positive short-term effects include desirable social outcomes and relaxation; while negative short-term effects include impaired judgment, hangovers,

[10] A recent example occurred in March 2009, when California State Assemblyman Jim Beall Jr. introduced Assembly Bill 1019, to raise the excise tax per alcoholic drink (on each beer, wine and liquor), by $0.10. In a press release regarding the motivation for the bill he remarked, "The alcohol industry creates devastating problems – traffic accidents, alcoholism – and walks away with money stuffed in its pockets while the public -- including non-drinkers -- are left to pay billions for the mess,'.'

black-outs, drunken driving violations, violence, family problems, and absence or loss of productivity at work (USDHHS 2004). Although long-term positive health effects of moderate alcohol consumption may include a possible reduction in heart disease, gallstones and Type II diabetes, for most consumers the negative health effects can outweigh the positive. Direct negative long-term health effects can include alcoholism, alcohol abuse, liver disease, heart disease, cancer, and pancreatitis for all drinkers, and possible alcohol related birth defects for women drinkers (USDHHS 2004). Other negative social and long-term effects may include early death, divorce, family problems, loss of employment, increased crime, and increased medical expenses (Cook and Moore 2000).

The various health and social interest effects of alcohol consumption afford many measures of public health used by researchers. Typical measures of public health used in economic studies include mortality, vehicle fatalities and accidents (Chaloupka, Grossman and Saffer 1998; Ruhm 1995; Saffer 1997), binge-drinking (Williams, Chaloupka, and Wechsler 2002; Kuo et al 2003), adolescent alcohol consumption (Saffer and Dave 2003; Cook and Moore 2000), crime, alcoholism and alcohol abuse (Pogue and Sgontz 1989), and other physical effects such as liver cirrhosis or risky teen sexual activity (Dills and Miron 2002; Carpenter 2005; Markowitz, Grossman, and Kaestner 2005). These measures of public interest tend to be modeled as the dependent variable when testing for the marginal impact of government policy and regulation.

Almost all public interest measures are developed from aggregate data, although some are modeled from individual data, and many face endogeneity, autocorrelation, and

measurement issues. Using any of these measures as explanatory variables for state regulatory level can lead to endogeneity issues, as level of public interest and level of state regulation are simultaneously determined. Also, any of the public interest measures that are typical externalities of heavy drinking (vehicle fatalities and accidents, alcoholism and alcohol abuse, and liver cirrhosis) might preclude explanatory power for regulation that equally applies to all types of alcohol consumers.

3.2 Alcohol Regulatory Effect on Public Interest

As previously mentioned, the government has four policy measures to regulate alcohol: limitations on the sale of alcohol, including requiring special retail licenses and determining when, where and how alcoholic beverages may be sold and their prices advertised; the MLDA; penalties for drunk-driving; and excise taxes on alcoholic products (McGowan 1997; Cook and Moore 2000; Cook and Moore 2002).

Since each of the government's policy measures is directly or indirectly aimed at curbing alcohol consumption by influencing demand for the products, it is important to understand the demand. Cook and Moore (2000) review an extensive body of economic literature that focuses on modeling and testing specific regulations on the demand for alcoholic beverages. Cook and Moore identify a consensus in which a number of studies estimating the demand for alcoholic beverages find the own-price elasticity for each beer, wine and distilled spirits, to be negative and elastic for the general population of alcohol consumers (Cook and Moore 2000; Cook and Moore 2002; Chaloupka, Grossman and Saffer 1998; Johnson and Oksanen 1977). As beer is the most elastic, the demand for

beer should be the most responsive to price changes, while distilled spirits tend to be the least responsive to price (Cook and Moore 2002). Major policy implications result from these elasticity estimates, which imply that raising alcohol prices can lower alcohol consumption, although at distinct amounts for different types of alcohol. However when consumers demand less alcohol, they may not necessarily be demanding less quantity of alcohol products, but may be substituting higher-priced quality for lower-priced quantity of the same alcoholic product (Kenkel, et al 1994), or switching products. Because a standard drink can be uniformly defined as one 12-ounce bottle of beer, one 5-ounce glass of wine, or 1.5 ounces of 80-proof distilled spirits, substituting quality of product may not result in a decrease of consumed alcohol (USDHHS 2004).

3.2.1 Taxes and Increased Beverage Prices on Consumption

One of the most common findings and policy recommendations in alcohol public health literature is related to alcohol excise taxes. Most studies recommend the excise tax on alcohol be raised as a means to discourage public consumption, especially consumption by youths. Pogue and Sgontz (1989) determined that average excise tax levels, for all government levels, would have had to double in 1989 to keep up with inflation and equal the previous 1951 excise tax level. Even though the government raised the excise taxes on alcohol in 1991, taxes on beer doubled and distilled spirits increased, the increase did not offset inflation over the same time period, and real prices of alcohol have continued to decline over time (Chaloupka, Grossman and Saffer 1998).

Increased excise taxes would feasibly increase the direct price paid for alcoholic products, which should decrease the quantity of alcohol consumed. Decreased consumption through increased excise taxes can be directly attributed to the negative elastic nature of alcoholic products, and improved health effects are presumed to result from that decreased consumption.

Opponents of an increased excise tax typically include the beer industry, which markets and sells most of its product, by volume, to young adults that have lower disposable income levels. Due to the regressive nature of an increased excise tax, the demand for and sales of beer products would receive the greatest effect by an excise increase. Wine and distilled spirits industries would not be as affected, primarily because the typical wine consumer is older and has a higher disposable income, and the excise tax on distilled spirits is already more than double that of beer and wine. Although the beer industry is against the increased excise tax because of its regressive nature, proponents use the regressive nature of the tax to their advantage. Because a high number of binge and heavy drinkers are young adults or underage adolescents with lower or fixed incomes, an increased tax would directly affect their ability to consume alcohol, which could have an impact on public health measures such as drunk driving or risky teen sexual activity.

One criticism of the current tax regime is that all types of drinkers are taxed at the same rate, when heavy drinkers and alcoholics are assumed to consume the highest proportion of alcohol, and could have different demand drivers and elasticity for alcoholic products than the general population. Pogue and Sgontz (1989) propose a framework that would determine alcohol tax rates using efficiency criteria to modify

standard welfare theory. They find that the optimal tax rate will increase when the relative demand elasticity's of both typical and heavy drinkers are taken into account.

Literature on taxes and increased beverage prices also concludes an increase in excise taxes could lead to improved economic and socioeconomic factors. Kenkel's, et al (1994) article using human capital models of the determinants of earnings shows that alcohol consumption by young adults affects their labor productivity, earnings, and family life.

3.2.2 Legal Age Restrictions on Consumption

The primary legal age restriction on consumption is the MLDA, enacted by all states by 1988. The law, which raised the legal drinking age from 18 or 19 depending on the state, to 21 for all states, was a restriction specifically targeted to younger drinkers, which typically have a higher incidence of alcohol related problems. Although the law was enacted at the state level, and is technically a state regulation, it originated at the federal level when the federal government tied highway funds to the adoption of a 21-year old MLDA, in the mid-1980s. As a result of this exhortation by the federal government, the state adoption of a 21-year old MLDA thus became a de facto federal regulation. The National Highway Traffic Safety Administration (NHTSA) has estimated the raising of the MLDA to 21 has prevented between 700-1000 annual deaths from youth traffic accidents, although they do not speculate how many of those deaths have been saved as a direct result of reduced impaired driving from alcohol consumption (USDOT 2000).

3.2.3 Restrictions of Retail Sites on Consumption

There are numerous limitations that states can place on establishments that sell alcohol, either for on-premises or off-premises consumption, which can all reduce the ability of consumers to purchase and consume alcoholic beverages. State limitations can include requiring specific licenses to sell, limiting or prohibiting advertising of prices, limiting or prohibiting "happy hours", blue laws (prohibiting Sunday sales), MLDA, and "dram shop laws", which could make the retailer liable for any damage done by a drinker, which drank too much while at that retailer. A recent article by Kuo, et al (2003) looked at the proximity of bars close to college campuses, and the effects that bars' proximity to campus, advertising, and "happy hour" drink specials had on the binge drinking (defined as five or more drinks in one setting for men and four or more drinks in one setting for women) of college students. Results showed that the frequency of promotions by bars, and the volume of alcohol available during those promotions, caused higher levels of binge drinking on college campuses.

Other articles focus on the advertising limitations placed upon the general industry and retail establishment. As Saffer (1997, p. 431) points out, the "central issue in this debate over alcohol advertising is whether the effect of alcohol advertising is limited to brand choice or whether alcohol advertising also increases total alcohol consumption". The implications advertising has on amount of actual consumption is very important to studies that focus on youth consumption, as many alcoholic advertisements are found in magazines that are read by youths, although youths are not the target demographics of those magazines (Nelson 2005). Many advertising studies find that

although there are restrictions on alcohol advertising in order to prevent adolescents from reacting, many adolescents still receive exposure to the advertising and develop brand loyalties to alcoholic beverages before they reach the legal drinking age.

3.2.4 Drunk-Driving Laws

One of the most noticeable externalities associated with alcohol consumption is drunk-driving. Drunk-driving is determined by a driver's Blood Alcohol Content (BAC) and is routinely ascertained when drivers are stopped by the police for suspected alcoholic intoxication. For those 21 or older, intoxicated is formally considered a BAC of 0.08 grams per deciliter (USDOT 2000), but national "Zero tolerance" laws make it illegal for youths under 21 to drive with any positive BAC level (USDOT 2000). Zero tolerance laws, while enacted separately by each state, can be considered de facto federal regulation, similar to the Minimum Legal Drinking Age laws. The federal government used the same exhortation methods to motivate passage of zero tolerance laws as it did MLDA; the National Highway Systems Designation Act of 1995 tied a portion of federal-aid highway construction funds to the passage of state zero tolerance laws, funds which the states would lose if they did not pass zero tolerance of BAC less than or equal to 0.02 for all persons under 21, by 1999.

Penalties for drunk-driving are typically factored into the "full price" of alcoholic beverages, instead of the direct price like excise taxes (Chaloupka, Grossman and Saffer 1998), although NHTSA has estimated the direct savings per driver that lowering the BAC, and implementing "zero tolerance" laws for youths, have had (USDOT 2000).

Drunk-driving measures such as vehicle fatalities or accidents also tend to be modeled as the dependent variable when empirical studies are performed on the effects of advertising on consumption (Saffer 1997), but little research on the direct impact of drunken driving laws on alcoholic consumption is available.

3.2.5 Summary

Common conclusions that emerge from the literature that test regulations' effect on alcohol consumption is that regulations do have an impact on alcohol consumption. Because the demand for alcoholic beverages has been shown to be the same pattern as the demand for other normal goods, the regulation most cited to have an impact on consumption is excise taxes. Specifically cited is an increase in the excise tax on alcohol will lead to higher prices and reduce alcohol consumption. Other conclusions in the literature generally show that restricting access to alcohol, either through site, age or advertising limitations, can reduce consumption.

3.3 Threads within Economic Literature

As referenced above, numerous papers exist that study the regulatory effects on public health interests. These studies taken together form two of the three research threads within the economic literature on the alcohol industry: research focused on factors affecting consumer demand for the product and research focused on effects related to consumption of the product. The third thread, research focused on industry structure and logistics, is not typically considered in the context of alcohol and public

health. Economists focused on the first two threads have typically researched the effects of specific policies and regulations on consumption, as noted above. The purposes of many of these studies can be grouped into three broad areas: the demand for and consumption of alcoholic beverages (Johnson and Oksanen 1977); the effects of regulatory policies on public health measures, such as price on consumption (Chaloupka, Grossman and Saffer 1998) and taxes as a means of curbing consumption (Pogue and Sgontz 1989; Tremblay and Okuyama 2001); and the effects of limitations on the sale and distribution of alcohol, such as advertising on consumption (Kuo et al 2003).

Cook and Moore (2000) review an extensive body of economic literature that focuses on modeling and testing specific regulations on the demand for alcoholic beverages, while Johnson and Osanken (1977) performed one of the first studies to empirically test for the significance of price and socioeconomic factors on consumption rates. Articles in the demand and consumption thread broadly confirm the elasticity of alcohol's status as a non-Giffen good, and the underlying motivation of articles in the thread is not a concern for public health, but a general inquiry into the product's market demand.

3.3.1 Effects of Regulatory Policies on Public Interest Measures

The four government regulatory policies are typically tested with respect to their effectiveness on public interest measures. Research testing the effects of regulatory policies on public interest measures typically models a type of regulatory policy as the independent variable with a public interest measure as the dependent variable.

Ruhm (1995), Carpenter (2005) and Markowitz, Grossman, and Kaestner (2005) all researched the effects of one or two of the general types of government regulation on different public health measures, while Chaloupka, Grossman and Saffer (1998) reviewed many empirical studies that looked at the effects of the "full price" of alcohol on drinking and driving. Ruhm (1995) found that macroeconomic factors of the economy affect the consumption of alcohol and vehicle fatalities related to alcohol, but only indirectly through consumption. He also found that certain regulatory policies like MLDA and the excise tax affected consumption, which in turn reduced the motor vehicle fatality rate. Carpenter (2005) found the adoption of zero tolerance laws was associated with a significant reduction in youth male sexually transmitted diseases, while Markowitz, Grossman, and Kaestner (2005), looked at the effect of alcohol consumption on risky teen sexual behavior.

The results of any one of these articles is not necessarily striking, but combined, the research shows consumption impacts public health and specific regulations do have an impact on curbing alcohol consumption and/or reducing some of the harmful externalities of alcohol consumption. Researching the effectiveness of specific alcohol regulations can help determine which regulations have the greatest benefit and are the most cost beneficial.

3.3.2 Limitations on Sale and Distribution of Alcohol

Most of the articles researching limitations on sale and distribution focus on the effects limiting the sale of alcohol through restrictions on advertising and/or distribution can have on measures of public interest (ability of consumers to consume). Many articles test the restriction on the sale of alcohol by primarily testing the restrictions on advertising, although some focus on distribution restrictions.

Other research on advertising effects include Milyo and Waldfogel (1999) and Wiseman and Ellig (2005). Both papers provide a distinct analysis on advertising restrictions through their focuses on the effects of advertising on retail prices and direct shipping, respectively, with no underlying motivation tied to public health. Their articles are also unique in that both sets of authors look at the differences in retail prices when restrictions on advertising and direct shipping are relaxed.

3.3.3 Implications

The literature in these three broad areas show researchers study the effects of regulatory policies aimed at curbing demand and consumption, and implicitly accept the idea of public interest as the motivation behind alcohol industry regulations. When testing for alcohol consumption and the effects of various regulatory policies on public interest, researchers take regulatory policies surrounding the industry as exogenous, when really an argument could be made the regulatory regime is endogenously determined as the level of public interest and level of state regulation are simultaneously determined. Also, few consider the possible significance that different public interest arguments could

have varying impacts on the regulatory policies implemented across states. Given the conflict between the two economic theories of regulation, it is surprising that little economic research exists to test this idea of public interest as the true motivator behind regulatory policies surrounding the industry; although determining if public interest is the true motivator should be a noteworthy question to economists and policy makers alike.

Since states are given the right to regulate production, distribution and sale of alcohol by the 21st Amendment, testing the differences in state's public, economic and political health and state excise taxes over time is a natural experiment to determine the motivation behind the regulations. As previously mentioned, researchers typically fail to control for the endogeneity of state regulations, also biasness or omitted variable problems can arise when using cross-sectional data if there are underlying latent variables correlated with both the manifest dependent and independent variables. Using a state-level fixed effects model to test twenty years of cross-sectional data can help to control for some of that bias and will allow for control of factors that may vary across states but remain fixed within states across time.

Determining the true motivation of alcohol regulation can have specific impacts for policy makers responsible for regulating the industry, and the results may be generalized to any industry that has public interest concerns and consequences. "Sin" industries such as gambling and tobacco can benefit from this research, as can regulations affecting the environment. The research also has implications for other public interest and social welfare policy debates such as the fatty food tax debate.

3.4 Theory

The underlying theory for testing the motivation behind alcohol industry regulation is the public interest theory of regulation. Because the public interest theory predicts regulation to occur in markets that have failed or created externalities detrimental to social welfare, we should expect to see regulation of an industry whose products contribute to harmful externalities, motivated by public interest.

Harmful social externalities resulting from alcohol consumption could result from any of the negative effects associated with consumption. Reported negative short-term effects include impaired judgment, hangovers, black-outs, drunken driving violations, violence, family problems, and absence or loss of productivity at work. Direct negative long-term health effects can include alcoholism, alcohol abuse, liver disease, heart disease, cancer, and pancreatitis for all drinkers, and possible alcohol related birth defects for women drinkers (USDHHS 2004). Other social and legal negative long-term effects may include early death, divorce, family problems, loss of employment, increased crime, and increased medical expenses (Cook and Moore 2000). If concern for public interest and the negative externalities caused by alcohol consumption is the motivation behind alcohol regulation, then when testing for motivation, we should expect to find support for the public interest theory.

It should be noted while most economic research focused on alcohol policy implicitly accepts public interest as the motivator behind industry regulation; some studies explore alcohol industry applications in order to test the idea of regulation as a function of private interests. The focus of most of these studies is not on public theory of

regulation versus private theory as motivators for alcoholic regulations, but on other theories. Wolfson (1995) focuses on the impact of social movement organizations on legislative actions, while the focus of Kubik, Milyo and Moran (2006) is campaign finance. Only Reikhof and Sykuta (2005) have the explicit purpose of testing Stigler's private theory of regulation as it related to alcohol industry logistics and distribution, and they found that private economic interests played a role in the ability of some state's wineries to legally ship wine direct to consumers.

3.5 Hypotheses and Model

3.5.1 Hypotheses

Expecting to find support for the public interest theory of regulation can lead us to hypothesize the effects that political and public interest variables will have on alcohol tax rates as a proxy for alcohol regulation.

Hypothesis 1: Excise taxes on alcohol are determined by public interest concerns.

1a: The variables proxying public interest will be significantly different from zero.

1b: The greater a state's public health problem (with relation to alcohol consumption) and therefore public interest, the larger the state's alcohol excise taxes.

Rationale: Legislators and social lobby groups often cite consumption effects and the necessity to curb consumption as the motivating forces behind increased legislation for the alcohol industry. As cited above, alcohol consumption can lead

to a number of alcohol-related social problems, so the larger states' alcohol-related health problems, the greater the public interest motivation.

Hypothesis 2: Excise taxes on alcohol are determined by public interest concerns.

2a: Variables proxying private interests will be significantly different from zero.

2b: The greater the private alcohol interests in the state, the smaller the state's alcohol excise tax rates.

Rationale: Although private interest groups do not often popularize their interests in specific legislation, the greater the interest by a group, the more likely the group is to petition for a beneficial outcome.

3.5.2 Model

The economic model for this essay is a derivation of the fixed effects model utilized by Ruhm (1995) in his paper "Economic Conditions and Alcohol Problems". Ruhm tested for the effects of macroeconomic conditions on alcohol-related outcomes using pooled state-level data over a 14-year time period; he used a fixed-effects model to control for within states' macroeconomic conditions. Similarly, this essay proposes to use a fixed effects model, but to account for the differences between states' alcohol excise taxes.

Specifically this essay uses the fixed-effects model:

(1) $$Y_{it} = \alpha_t + V_{it-1}\theta + X_{it-1}\beta + Z_{it-1}\gamma + W_{it-1}\delta + M_{t-1} + S_i + T_{t-1} + \lambda_{it}$$

where Y_{it} is the value of the dependent variable for state i at time t, V is consumption per state per time and lagged, X is the measure of lagged socioeconomic conditions; Z is the measure of political conditions, W is the measure of public health conditions; M is a measure of industry characteristics and λ is an error term. The intercept, α, is a time-specific value that accounts for time-varying characteristics that influence states' beer excise tax rates. The state-fixed effect, S, is a vector of dummy variables that controls for factors that vary across states but remain fixed within states across time, while the time-fixed effect, T, is a vector of dummy variables that controls for factors that vary across time.

3.6 Data

3.6.1 Dependent Variable

For this essay, the dependent variables in the full models are alcohol excise tax rates for each of the 50 states, collected over the twenty-year period, 1986-2006. State alcohol excise tax rates were collected from the *Brewer's Almanac,* published by the U.S. Beer Institute. The data is collected over the time period to account for any exogenous changes faced by all states, not for variation within a state across time. Excise tax is used as the dependent variable as it is a common policy available for collection across states, and it is a continuous variable that has some change over the time period. Other alcohol regulatory measures were considered for the dependent variable, but would be coded as a binary variable, and once enacted would not change for the remainder of the time period.

3.6.2 Explanatory Variables

The V-vector of variables is individual per capita consumption of ethanol for each type of alcohol, and was collected from the National Institute on Alcohol Abuse and Alcoholism. It is included in the model as the literature indicates increased taxes could lead to improved public interest. Ex-ante, the consumption variables could be signed either way. While states with higher levels of consumption may have higher levels of public interest concern and may therefore be more likely to have higher tax rates, private interests in those states may benefit from higher consumption levels and therefore be less likely to have higher tax rates. The X-variable measures per capita disposable income, and was collected from the United States Census Bureau. It is included as a control in the model. The Z-vector variables measure political factors and include a dummy variable accounting for a state's direct control over the sale of alcohol, relative state campaign contributions by firms and employees of the alcohol industry, and a measure of government ideology. Ex-ante, a license state is signed positive, as those states that have direct control over alcohol distribution would have more direct financial incentive to raise taxes than those that do not. State campaign contributions were collected from The National Institute on Money in State Politics, and ex-ante would be expected to have a negative sign as the industry would have a direct economic disincentive to have higher taxes. The government ideology measure is one originally created by Barry et al. that weight the political affiliation of elected state officials and legislatures to measure the ideology of the state government. The measure ranges from 0 to 100, with 0 being the

most conservative (Republican) and 100 being the most liberal (Democratic) government. Ex-ante we would sign the variable as positive for those states with a lower score, as Republicans tend to be more conservative and may promote temperance thorough increased taxes as a public interest measure. The W-variables measuring state public interest include the state's driver vehicle fatalities involving alcohol, the state's alcohol-related arrests and the number of DUI's. The driver vehicle fatality rate associated with alcohol is available from the *State Alcohol Related Fatality Rates* report- published by the U.S. Department of Transportation's National Highway Traffic Safety Administration. Alcohol-related arrests and DUI's were collected from the U.S. Department of Justice's *Handbook of Criminal Justice Statistics*. Each of these is expected to increase the level of excise tax in a state. The M-variables are characteristics of the structure of the alcohol industry and include a dummy variable indicating the presence of a large brewery in the state and the Herfindahl-Hirschmann Index (HHI) for wineries and wine and spirits distributors. These variables, along with campaign contributions by the alcohol industry constitute the proxies for private interest, as they proxy economic interests of specific industries in the political process, and not general public interests. The HHI for wineries was calculated using information on wine production from annual editions of the *Wines & Vines Annual Buyers Guide*- for distributors it was calculated using information on sales revenue available from annual editions of the *National Beverage Marketing Directory*. Ex-ante, the presence of a large brewer in a state is expected to have a negative impact on excise taxes as the brewing industry is politically well organized and has a direct economic incentive to make sure alcohol taxes are not increased. HHI is

expected to have negative sign, ex-ante, as a higher levels of distributor concentration would be more likely to sustain current taxes levels instead of increase them. Table 3.1 below describes the summary statistics of the variables.

Table 3.1: Summary Statistics for Variables

Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Beer Excise Tax	1050	0.3293823	0.4974484	0.02	2.68
Wine Excise Tax	1008	0.8031728	0.7636073	0.01	5.5555
Spirits Excise Tax	803	3.439603	1.985541	0.115	12.8
License (=1)	996	0.6405622	0.4800767	0	1
Government Ideology	1050	49.4152	25.00489	0	97.91666
Campaign Contributions by Alcohol Industry	632	164064.3	529934.6	0	5721557
Large Brewery (=1)	600	0.28	0.4493735	0	1
Winery HHI	780	4495.756	3268.613	0	10000
Distributor HHI	1010	1962.097	1479.777	0	10000
Disposable Per Capita Income	1000	20622.32	5662.443	9323	39974
Spirits Consumption	1050	0.7343053	0.2604993	0.3548	2.1056
Wine Consumption	1050	0.0303543	0.1473537	0.0809	0.8784
Beer Consumption	1050	1.292094	0.2160121	0.69	2.1824
Alcohol related fatalities	1050	375.0667	401.1045	23	2961
Alcohol-related arrest	1010	0.2772238	0.1028228	0	1.072054
DUIs	1008	0.1166828	0.0556536	0	0.5899385

Note: This table provides the descriptive statistics for the variables used in the following models. Excise taxes are used as the dependent variables in different models. All observations were collected over the time period 1986-2006, although some like Large Brewery and Winery HHI were not available for the full time period. Campaign Contributions by the Alcohol Industry could be collected at the minimum every two years as most states only held major elections every two years. Spirits excise tax could only be collected for those states that used a discrete tax rate and not a percentage by volume tax rate.

3.7 Empirical Results

In general, beer is the least regulated of the three alcohol industry segments, and spirits is the most regulated. As such, beer excise tax is the starting point for the analysis, and is the original dependent variable. The spirits excise tax is used as a follow up to test the robustness of the model. Due to the lack of variation over time in the tax rates (even over a period of 20 years), it was not possible to use a state fixed effects model, so the

data have instead been tested as a cross-sectional time series panel data set, with robust standard errors- clustered by state.

Table 3.2 includes two models; Model A uses nominal beer excise tax rate as the dependent variable, while Model B uses the real beer excise tax rate. As the table shows, very little is significant in either model, although the results are robust. Those variables that are statistically significant include government ideology and distributor HHI. Government ideology has a positive sign in both models, which would indicate the more liberal the government, the higher the beer excise tax level. HHI also has a positive sign in both models, which, while counterintuitive can be explained in that wine and spirits distributors may have an incentive to see beer excise tax rates increase, as beer is at times a substitute product to wine and spirits.

Table 3.3 presents results for the same specification using the spirits excise tax rates as the dependent variable. It also includes two models; Model A again uses the nominal tax rate while Model B uses the real excise tax rate. Fitting the model with the spirits excise tax rate provides more statistically significant results than Table 3.2, but still does not provide the best insight. The model is possibly a better fit to the spirits excise tax rate than the beer excise tax rate as spirits tax rates tend to change more often than beer tax rates, and at a higher magnitude than beer. Both spirits and wine consumption are robustly significant across the models, and while ex-ante signs were not given, both are signed in a logical way as the two are usually consumed as substitutes. A negative sign on spirits consumption would reduce the level of spirits excise tax, while a positive sign on wine consumption would increase the level of the spirits excise tax.

Disposable per capita income is also positive and significant in the first model, which would indicate the higher a states' income, the higher the level of excise tax, but again with an extremely small coefficient.

Table 3.2: Beer Excise Tax Rate

	Model A		**Model B**	
Variable Name	Coefficient	RSE	Coefficient	RSE
Constant	1.071164	0.696007	0.7427985	0.4412307
License	-0.2920816	0.2034236	-0.1637065	0.1150388
Government ID	0.0043559	0.0023846**	0.0025093	0.0013764**
Campaign Contributions by Alcohol	6.17e-09	8.79e-08	4.56e-09	5.18e-08
Large Brewery (=1)	-0.1525311	0.1331525	-0.0881897	0.0792927
Winery HHI	6.03e-06	0.000024	2.23e-06	0.0000146
Distributor HHI	0.0001348	0.0000629**	0.0000815	0.0000386**
Disposable Per Capita Income	-0.0000186	0.0000181	-0.0000149	0.0000113
Spirits Consumption	0.4027928	0.3824898	0.2630647	0.2345129
Wine Consumption	-1.122465	0.7319681	-0.6142767	0.411712
Beer Consumption	-0.3260768	0.4833813	-0.2363286	0.3001488
Alcohol related fatalities	0.000268	0.0002124	0.001675*	0.0001291
Alcohol-related arrest	-0.279776	0.6846997	-0.139876	0.4118951
DUIs	-1.155487	1.43803	-0.6913423	0.8601604
Number of Observations	269		269	
R2	0.2458		0.2434	

Note: This table presents results from an OLS-like panel regression. The regressions are based on a sample of 269 beer excise tax rate levels between 1986 and 2006. The dependent variable in Model A is the beer excise tax rate in nominal dollars, while the dependent variable in Model B is the beer excise tax rate in real dollars. Large Brewery is a dummy variable equal to one if there is a larger brewery located in the state. The models were estimated with robust standard errors clustered by state. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

Both of the models in Tables 3.2 and 3.3 seem to be suffering from lack of variability in any given tax rate. An alternative model, one that wouldn't suffer from little variation in any single tax rate, uses the change in any excise tax rate as a binary variable. Table 3.4 shows the results of logit models estimating the likelihood of a change in excise tax rates, where a change in any tax rate has been coded equal to one for

that year. The two models differ in the sample over which the model is run; Model A uses the full data set including both states that had an excise tax change over the 20 year period and states that had no change, while Model B uses a subset of the data, only those states that had an increase in the tax rate at some point in the time period are included. The large brewery variable has been dropped from Model B due to colinearity with the dependent variable. The alternative specifications are a much better fit to the data and are extremely robust across both models tested.

Table 3.3: Spirits Excise Tax Rate

	Model A		Model B	
Variable Name	Coefficient	RSE	Coefficient	RSE
Constant	-0.853344	2.083496	0.8456093	1.308822
License	0.8235415	0.6748341	0.5004817	0.398987
Government ID	-0.0016965	0.0096603	-0.001398	0.0057648
Campaign Contributions by Alcohol	-2.34e-07	4.40e-07	-1.86e-07	2.67e-07
Large Brewery (=1)	0.5770528	0.6539802	0.3906885	0.3898697
Winery HHI	0.0000192	0.0000678	7.34e-06	0.0000399
Distributor HHI	0.0000628	0.0001591	0.0000272	0.000094
Disposable Per Capita Income	0.0001073	0.0000574*	0.0000303	0.0000347
Spirits Consumption	-5.340509	2.631526**	-3.084814	1.636416**
Wine Consumption	8.401855	2.57675***	5.546812	1.539566***
Beer Consumption	0.2370391	1.984631	-0.0951171	1.20672
Alcohol related fatalities	-0.0007356	0.0009935	-0.004212	0.005965
Alcohol-related arrest	-0.0422776	4.3310054	0.2927772	2.625993
DUIs	13.0161	13.23614	7.429098	7.920365
Number of Observations	205		205	
R2	0.3532		0.3677	

Note: This table presents results from an OLS-like panel regression. The regressions are based on a sample 205 spirits excise tax rate levels between 1986 and 2006. The dependent variable in Model A is the spirits excise tax rate in nominal dollars, while the dependent variable in Model B is the spirits excise tax rate in real dollars. Large Brewery is a dummy variable equal to one if there is a larger brewery located in the state. The models were estimated with robust standard errors clustered by state. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

Government ideology is no longer significant, and no longer has a robust sign across models. As expected alcohol campaign contributions decrease the likelihood that the collective excise tax rate will change, across both models. This is a significant measure of political influence in the industry, and supports the theory that regulation is supported by political interests. Although different regulations have been examined, this finding is consistent with that Riekhof and Sykuta (2005). Also significant in the first model is the presence of a large brewery in the state and winery HHI across both models. Although the sign on each is counterintuitive, it could be explained given the competing interests across segments of the alcohol industry and the knowledge that a majority of tax rate changes occurred in the spirits segment. Thus, the presence of a large brewer or a more concentrated wine industry may wield sufficient political clout to affect increases in the excise tax on spirits as a preemptive or defensive strategy against excise tax changes in either of the beer or wine industries.

Disposable per capita income is also statistically significant in the first model, and with a sign robust to the model to test the level of spirits excise taxes. Again this positive sign would indicate the higher the state's' disposable income, the more likely the state is to have an excise tax change. Wine, spirits and beer consumption are all significant in Model B, and the signs on each are again logical if the majority of excise tax changes in the sample occur in the spirits sector. Alcohol-related fatalities are significant in Model B, with the expected sign, which would indicate higher levels of fatalities will increase the likelihood of excise tax increases. This finding, in conjunction with Ruhm's (1995) and Carpenter's (2005) earlier work on the impact of excise taxes and other regulation as

a deterrent to consumption and therefore negative public interest behavior, lend support for the public interest theory of regulation, although it is not robust across models. Also significant in Model B, and expected, is the sign on DUI's, which would indicate higher levels of DUI's increase the likelihood of an excise tax increase. This finding also lends support for the public interest theory. One enigma in Model A is the counterintuitive sign on alcohol-related arrests. It may be that higher levels of legal enforcement may be seen as an alternate form of deterrent to increased regulation and thus a substitute to higher excise taxes.

Table 3.4: Alcohol Excise Tax Rate Change

	Model A		Model B	
Variable Name	Coefficient	RSE	Coefficient	RSE
Constant	-17.5367	7.214484	-16.299	5.171379
License	2.170834	2.025982	0.3733551	1.231108
Government ID	-0.0112129	0.0171688	0.0216422	0.0256084
Campaign Contributions by Alcohol	-225.822	135.0615**	-85.34717	65.90999*
Large Brewery (=1)	3.090941	1.25783**	---	---
Winery HHI	0.0005051	0.0002299**	.0002577	.0001473**
Distributor HHI	-0.0000208	0.0004217	.0000215	.0003954
Disposable Per Capita Income	0.0003242	0.0001494**	.0001253	.0001475
Spirits Consumption	-9.356086	5.869937*	-7.755318	3.047432***
Wine Consumption	5.153741	5.795903	8.709091	5.667459*
Beer Consumption	6.411074	3.58511**	6.089317	2.740998**
Alcohol related fatalities	-0.0023708	0.0022827	.0032483	.0021676*
Alcohol-related arrest	-15.46066	8.966084**	-6.4341	7.084674
DUIs	21.55999	14.79239*	29.25467	18.20334*
Number of Observations	269		163	
Log Likelihood	-21.703		-23.922	
Pseudo R2	0.3971		0.2504	

Note: This table presents results of a logistic regression, for the likelihood of an excise tax rate change. The first regression is based on a sample 269 observations between 1986 and 2006, while the second on 163 observations. Model A is run with the full dataset; with the dependent variable any excise tax rate change. Model B uses a subset of the data, with the dependent variable only from those states that had an increase in the tax rate at some point in the time period. Large Brewery is a dummy variable equal to one if there is a larger brewery located in the state, but was dropped from the second model due to colinearity. The models were estimated with robust standard errors clustered by state. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

3.8 Conclusions and Discussion

Previous literature has shown alcohol excise tax rates are one way that states have to indirectly regulate the consumption of alcohol, and are commonly cited as an effective measure. One unexpected result of this study has found that although excise taxes are often cited as a significant deterrent to consumption, the states' excise tax levels rarely change; in fact in 23 states none of the excise taxes changed during the 20 year time period collected. This may indicate that while increased excise taxes receive a lot of media attention, states are using other alcohol regulations as a deterrent to public interest externalities related to consumption, which may be an avenue for future research. It is also interesting to note that in the last year approximately 37 states have introduced legislation to increase alcohol excise taxes, with the most often cited motivation is not public interest resulting from consumption externalities, but public interest resulting from fiscal concerns given the current recession and the strain on state budgets. It would be interesting to extend the dataset through the current time period and recent legislative changes to see if the results are still robust.

The empirical models lend support to both hypotheses, that state alcohol excise tax rates are motivated by public interest, and by private interest. This joint influence supports the Baptists and Bootleggers theory (Yandle 1983) that while one group may be publicly motivating regulation, another group may be privately working behind the scenes to motivate regulation as well. Legislation serving the public interest may also serve a complementary private interest. Those complementary interests may provide additional motivation for regulation, although they may not be explicitly stated.

These findings may also have implications for the motivation of regulation in other heavily-taxed industries such as tobacco and gambling, and industries with proposed tax increases such as fatty foods.

Chapter 4

Contractual Change in Wine Distribution Agreements

Although economic research on contracts has its roots in Coase's fundamental ideas on transaction costs (1937, 1960), research on the nature of transactions and alternate organizational forms (including contract) dates back just to the early 1970s. Since that time, three general approaches or perspectives of contract have emerged: one focusing on incentive alignment and asymmetric information in a principal-agent framework, one focusing on an economic theory of contract law and enforcement, and one related to relational contracting (Masten 1999). Most economic research specifically on contract structure and design follows the principal-agent or relational contracting perspectives. This research is primarily based on a static equilibrium approach in which agents choose optimal organizational practices. While researchers acknowledge the role of institutions in affecting transactional incentives and changing contract structures (Holmstrom and Milgrom, 1994; Baker and Hubbard, 2004; Baker and Hubbard, 2001), there is little research linking changes in regulatory environments to changes in contracting practices or contractual terms.

Contractual change is the process by which contracts change, in terms of both general (common) contracting practices and relationship-specific contracting practices. The theoretical basis for this dynamic view of contracting is the role of learning (in general) and the development of trust, relationship-specific knowledge between trading parties, or transaction-specific knowledge within repeated transactions. While general

patterns of contractual change could result from factors such as length of time spent in the contract or state of transactional uncertainty, contracts also evolve or change in response to specific events or shocks to the contracting environment. These shocks could be legal, regulatory, or fiscal. Identifying how contracts change given these factors could lead to greater understanding of contractual arrangements between parties and to future empirical predictions when regulatory or other environmental shocks do occur to industry.

As shown in Chapter 2, the alcohol industry is an industry faced with heavy regulation. Direct wine shipment is one recent issue that has stemmed from regulatory change, and can provide a natural milieu to identifying what changes if any occur as a result to institutional change. Before examining any change though, a benchmark must be determined, which is currently unavailable for upstream distribution agreements in the wine industry. This chapter has three analytical components: the first examines the choice between oral contracts and formal, written contracts as a measure of contracting within these stages of the industry. The second examines the choice of contractual provisions for the subsample of producers using written contracts, a much less common analysis in applied contracting studies (Lafontaine and Slade 1997; Goodhue et al 2003). The third examines the likelihood that changes in institutional regime will affect the use of the contract, either in form or completeness. This chapter builds on both static and dynamic theories of contract by studying the nature of contractual practices (i.e., the type or formality of contracts and the terms of contracts) across different regulatory regimes and how those practices change in response to regulatory changes. It also specifically

contributes to a better understanding of distribution structure and changes in the wine industry, an often overlooked segment of the industry.

4.1 Theoretical Literature on Contracting

As noted above, economic research on contracting has primarily adopted either the principal-agent perspective of contracting or the relational contracting perspective. Although these perspectives focus on different aspects of the transaction relationship, they share certain characteristics that are relevant for this research.

4.1.1 Principal-Agent/Incentive Theories of Contract

The principal-agent perspective on contract focuses on the misalignment of incentives between a principal, who owns an asset, and an agent, who exercises decision rights over the use of the asset that affect its value, in the context of information asymmetry between the two actors. While the specific transaction setting may vary, the crux of the contracting problem is to design an incentive mechanism that more closely aligns the incentives of the agent with those of the principal, subject to informational and participation constraints. The problem essentially boils down to the tradeoff between the ability to measure and reward behavior and the ability to measure and reward outcomes while transferring risk to the agent.

This literature is split between positive theory that describes agency problems and incentive mechanisms (Jensen and Meckling 1976) and normative theory that relies more

on formal mathematical models of mechanism design (Salanie 1997). The literature can be further split into *complete* versus *incomplete* contracting theories.

Complete contracting refers to concept that the contract stipulates price, quantity, quality and delivery terms for all possible states of nature. For a complete contract to be enforceable, it needs to be verifiable, which would indicate the presence of a formal, documented contract. Following Macaulay's (1963) definition, a formal contract is viewed as an agreement between two parties regarding future action, and is enforceable through the legal system. As Macaulay points out, a contract is not the same as a transaction and does not have to be in written form to be enforceable, although non-written agreements may be harder to legally enforce. The informational and foresight assumptions of complete contracting theory are obviously unrealistic. However, models of complete contracting can provide a baseline or comparative reference for more realistic models of incomplete contracts. Since complete contracting already assumes that all contingencies have been identified, the considerations of any contractual changes due to environmental shock or regulatory change become unnecessary (Holmstrom and Tirole 1989, p. 68).

Theories of incomplete contracting allow for more realistic assumptions of imperfect information and bounded rationality. In the context of formal incentive modeling, Grossman and Hart (1986) and Hart and Moore (1988, 1990) develop what has come to be referred to as *incomplete contract theory* (ICT). Despite its name, ICT is less a theory of contracting, per se, than a theory of asset ownership and integration, since the

solution concept revolves around the *ex ante* realignment of asset ownership and assumes *ex post* incentive problems are contracted around perfectly.

Contractual change is not explicitly considered in the context of incomplete contract theory. Some studies consider renegotiation as a mechanism to get (or keep) efficient incentive alignment in light of changes in market prices, for instance. Studies tend to consider conditions under which a renegotiation clause could be used to respond to ex-post opportunities, but determine the success of these clauses as related to the combination of a parties risk preference and level of asset specificity (Hart and Moore 1988; Edlin and Hermalin 2000). Their considerations of renegotiation could be considered a form of contractual change, although renegotiation tends to focus almost exclusively on price re-determination, ignoring more general changes in the incentive to contract, the choice of contract form, or non-price terms.

4.1.2 Relational Contract Theory

Relational contracting is a theory that views the transaction as a relationship between contract parties and the contract as a mechanism for governing the relationship over time. This perspective underlies Williamson's transaction cost economics (TCE) theory and similar research focusing on the broader terms of contractual agreements. Williamson suggests that relational contracting should be the governance mechanism when a transaction is repeated frequently and the assets involved are specific to that transaction (1979). This mechanism is suggested to mitigate contractual hazards such as

hold-up resulting from asset specificity or bilateral dependence and moral hazard-type shirking more generally.

There is no unified definition of relational contracting; it has been interpreted as an incomplete contract that only accounts for general terms and relationship goals while specifying some decision making methods (Milgrom and Roberts 1992), a long-term incomplete contract in which prior relationships and dealings matter (Furubotn and Richter 1998) and an implicit (i.e. not formal) contract that directs both parties' behaviors (Baker et al 2002). Studies documenting features of relational contracting are often conducted on industries where alliances are common, (Gulati 1995b; Ryall and Sampson 2003), risk and opportunism are relatively high, some technological aspect is involved (Poppo and Zenger 2002) or in agricultural industries (Allen and Lueck 1992; Wu 2006).

One of the main premises of relational contracting is trust (Jeffries and Reed 2000); trust that the social norms governing the relationship will not change, trust that both parties will enforce the terms of the agreement, trust that parties are going to be flexible if unforeseen contingencies arise, and trust that parties are not going to act opportunistically given ex-post opportunities. Whereas incomplete contract theory relies on third-parties (courts) for enforcement, relational contracting is often described as lacking verifiability by third-parties and relying on self-enforcement. Since relational contracting relies on self-enforcement, it has strong ties to literature on related to self-enforcement mechanisms. Both reward and the threat of punishment are cited as effective self-enforcement mechanisms; one common punishment for lack-of-enforcement or "cheating" is loss of reputation. This loss of reputation is one enforcement mechanism

that parties use when involved with relational contracting, especially in agricultural industries (Allen and Lueck 1992). Enforcement is one way the two theories are complementary.

In addition to trust, another common feature of informal relational contracting is the lack of formality which traditional contracting offers. This lack of formality promotes an environment of flexibility, solidarity, and informational exchange to parties involved in the relational contract (Poppo and Zenger 2002). Parties to a relational contract do not have to feel hindered by specific terms and processes that are customarily laid out in formal contracts, and can use the created environment to increase cooperation and commitment. Features of the relationship can be altered as a result of either endogenous or exogenous events, without incurring the transaction costs of renegotiation for every unforeseen event. Baker and Hubbard (2004) show the identity of the trading partner is very important in a relational contract and once the relationship is established, parties prefer to maintain that bilateral relationship for the long-term. This inherent flexibility of relational contracting would seem to lend itself to studies of contractual evolution, but this is difficult given the lack of formal benchmarks to compare parties' behavior with. Macneil (1978) does allude to this feature of evolution by identifying that most relational contracts are expected to have indefinite life-spans, constantly evolving into something else.

In the relational contract framework, the completeness of formal contracts is considered endogenous to the transaction relationship. Crocker and Reynolds (1993) develop a model of "optimal incompleteness" in which contract parties balance *ex ante*

negotiation costs with expected *ex post* enforcement costs. These decision variables are affected by transaction attributes and previous experience between contracting parties. Crocker and Reynolds find negative prior experiences increased the completeness of contracts in their sample, suggesting contracts are more complete when trust or relationships are weaker.

Although incomplete contracts and informal relational contracting have historically been viewed as substitutes (Macaulay 1963; Williamson 1979), recent literature has made strides to show complementarities between the two theories Poppo and Zenger (2002) show that as contracts become more complex to the relationship, more relational features are incorporated, and vice versa. Similarly Ryall and Sampson (2003) found that when firms have a previous alliance, their contracts tend to be more complete. Wu and Roe (2007) have shown that enforcement mechanisms are one area the two theories are compatible by looking at distribution contracts in agricultural industries. Although distribution contracts in certain agricultural industries are formal written contracts, relational agreements are able to fill holes on various aspects of performance through informal enforcement mechanisms.

The empirical evidence of formality, completeness, and the role of trust and experience is mixed. Researchers have typically assumed that contracts would become more relational as trading parties' relationships mature and trust increases. This is consistent with Crocker and Reynolds' (1993) results. However, Mayer and Argyres (2004) and Argyres, et al, (2007) find that learning apparently plays a greater role in contract change than does trust. Mayer and Argyres (2004) study a set of 11 contracts

between two information technology companies over more than a decade and find that contract length increased even as inter-organizational trust increased. Argyres, et al, (2007) study a sample of over 380 contracts and finds contingency planning becomes more complete as relationships evolve, suggesting that parties increase contractual completeness as they come to better identify and understand the implications of a wider set of contingencies.

4.2 Distribution Contracts

4.2.1 Distribution through Franchise Agreements

The majority of empirical research on using contracts as the governance mode to facilitate distribution is documented in the literature on franchise agreements. Franchise agreements create a vertical relationship between an upstream firm, a franchisor, and a group of downstream firms, the franchisees. These agreements typically include some type of asset property right transfer from the franchisor to the franchisees, monetary transfer from the franchisees to the franchisor, and restrictions on the behaviors of both groups (Raynaud 2008). Behavioral restrictions may include, but are not limited to, minimum quality or quantity standards, minimums on advertising or promotion by the franchisor, a minimum level of training for the franchisee staff, exclusive territory (Brickley 1999) and exclusive dealing.

While both parties may have behavioral restrictions, the franchisor maintains the position of relational power because the intangible assets that create the firm's profitability remain the property of the franchisor; this divergence of rights and claim is

the fundamental agency problem. Granting residual claimancy through monetary provisions (Mathewson and Winter 1985), and self-enforcing behavior (Klein 1995) are the two most often cited mechanisms to reduce these agency problems, although some non-monetary mechanisms are also being recommended. Raynaud (2008) summarizes the literature on franchise contracts as it relates to these mechanisms and finds that in terms of monetary provisions, franchise contract terms often include establishing royalty rates and initial franchise fees when the agent's effort is observable, and fixed price conditions when it is not, although this is uncommon as franchise contracts involve a shared relationship. Self-enforcing behavior terms include specifying agent obligations from the principal, like the franchisee is required to purchase mandatory minimum levels of inputs from the franchisor, and ensuring the stream of rents from the franchisee, possibly by using exclusive territories to limit intra-brand competition (Klein 1995). Non-monetary incentives include decision and enforcement rights, and multi-unit ownership, as measured in Bercovitz (2003) by termination and litigation levels as a signal for active monitoring by chains.

These franchise contracts govern the transaction between the parties, and are formal, written agreements that do impose some vertical coordination between the parties, although they say nothing about the organizational governance of either party.

4.2.2 Distributor Contracts in the Wine Industry

In the last decade increased study has been made of transactional governance used in the wine industry, but only between firms in the upstream stages of the production

process as a means to control supply.[11] Goodhue et al. (2003) reported that in a 1999 survey, more than 90 percent of California winegrape growers reported contracting for the sale of their grapes, and the choice of formal contracts suggests that formal coordination is more closely associated with securing high quality inputs. Similarly, Fraser (2005) reported from a 2001 survey that 85 percent of grape growers in Australia have a written contract, and wineries use different contractual terms to influence growers in different regions with respect to the grape input.

The manufacture and distribution of alcoholic beverages is strongly regulated at state and federal levels. The 21st Amendment to the U.S. Constitution, which repealed prohibition, granted states the right to regulate the distribution and sale of alcohol within their borders. States almost uniformly adopted a three-tier regulatory structure requiring manufacturers of alcoholic beverages to sell their products to state-licensed or franchised wholesalers who then distribute the products to licensed retailers for resale to end consumers. Exceptions were made in most states for (particularly small) manufacturers to sell their products directly to consumers, but only on-premises—often requiring food service as well, thereby limiting direct retail possibilities.

The effect of the three-tier system is to tremendously increase the costs of distributing wine, particularly for small wineries.[12] Because distributors must be licensed within each individual state and states typically grant geographic monopolies to distributors of specific brands, there are few multi-state distributors. Thus, wineries must

[11] To date I have not come across any articles that discuss contracts used in wine distribution agreements.
[12] For firms with fewer than 20 employees (as most small wineries claim), Crain (2005) estimated that in 2004, the cost of federal regulations per employee was $7,647, given that the total cost of federal regulations was $1.1 trillion.

develop relationships with many distributors if they hope to sell their product at the regional or national level; a similar arrangement to the franchise contracts discussed above. Moreover, because retail is a volume-driven business, distributors have incentives to carry and promote labels that sell in large volumes.[13] This creates a bottleneck for smaller producers seeking to access the retail market and places distributors in the driver's seat for contractual relations.[14] This bottleneck skews the relational power from the upstream firm to the downstream one, a clear divergence from the relational power in a traditional franchise agreement. This asymmetry of negotiating power is exacerbated in some states due to distribution franchising laws that give distributors near-unilateral rights to terminate distribution relationships. Within the alcohol industry, these laws are known as franchise laws (not to be confused with the laws governing the franchise agreements discussed in the previous section), and collectively are regulations that provide protection to state's distributors, either through territory or termination provisions (or both).[15]

[13] Thach and Olsen (2006) found that the top factors by distributors to carry a wine in a portfolio are the taste of wine, dependability of the supplier, price of the wine, personal relationship the distributor has with the winery, customer service received from the winery, and the wine label.

[14] In the past 30 years, the number of wineries in the United States has increased 100-fold. There are now over 4500 wineries, with at least one winery located in every state. At the same time, the number of distributors has greatly decreased at both the state and national level, reducing the number of potential channels for wineries and retailers or consumers to connect with one another. In 2007 approximately 90 percent of wine and spirits were distributed through 500 wholesale firms (WSWA).

[15] The laws could include two provisions regarding territory and/or termination. The territory provision gives a distributor a territorial monopoly over a wine brand when the producer first contracts with the distributor. The second provision is a termination provision which in most cases means one of two things: a supplier must give at least 60 days notice to the distributor of intended termination or the supplier may only terminate on the basis of "good cause" which has been shown extremely hard to prove in court. Distributors, on the other hand, do not have substantial exit barriers to the contract. Distributors may formally terminate the agreement by notice or informally terminate the agreement as easily as not re-ordering supplier product.

Anecdotal evidence from trade publications and the investigator's interaction with distributors and winery owners suggest that distribution agreements between wineries and wholesalers have traditionally been informal, oral agreements couched in this highly-regulated institutional environment. Furthermore, contract terms grant most all significant decision rights, including marketing, product promotion, and termination, to the distributor. Thach and Olsen (2006, p. 75) claim that because "distributors maintain a position of power over most wineries" the two parties have not had a mutual incentive to build a relationship that equally benefits both parties.

The features of these theories suggest the following hypothesis for wine distribution contracts.

1. *Ceteris paribus*, wineries will utilize written distribution agreements when the winery has fewer available distribution channels, the state has a larger wine market, wineries ability to self-enforce is low and the winery has little or prior knowledge of the distributor or has had negative prior distribution experiences.

With the growth of the U.S. wine industry since the 1970s, states have sought ways to foster greater opportunities for industry development. Beginning with California in 1986, several states adopted laws allowing consumers to order wine from out-of-state producers and have it shipped directly to the consumer's home, thereby circumventing the three-tier system. States adopting direct shipment laws typically required reciprocal treatment of their own wineries as condition for direct shipment from other states. Some state adopted laws allowing intrastate direct shipment while prohibiting interstate direct shipments. Riekhof and Sykuta (2005) studied states' adoptions of interstate direct shipment laws and found states were less likely to adopt direct shipment when the state's

wholesale distribution industry was more concentrated and when a greater percentage of the state's budget and staffing is dependent on alcohol-related licensing fees.

In 2005, the U.S. Supreme Court ruled in *Granholm v. Heald* that states must treat in-state and out-of-state wineries the same in their provisions for direct shipment. This ruling has spurred yet another wave of legislative activity as states attempt to comply. Thus far, there has been a move toward a limited form of direct shipment for intra- and interstate transactions. States that only allowed intrastate shipment have generally moved toward more open markets. States that formerly allowed reciprocal privileges with other states have adopted permitting systems that apply universally given concern about the discriminatory nature of reciprocal restrictions. To date approximately 75% of states have adopted some form of direct shipment provisions, allowing wineries—particularly smaller wineries—the opportunity to reach near-national markets without dealing with traditional distributors.

This change in regulatory regimes suggests the following hypotheses derived from contract theory. These hypotheses include:

2. *Ceteris Paribus*, contract terms will become more balanced, with greater decision rights granted to wineries in states allowing wineries more distribution outlets.
   Rationale: As wineries have greater market access, negotiating leverage shifts toward producers, especially for higher quality/priced products.

3. The above effects will apply differently between wineries with pre-existing distributor relations and new market entrants/producers.
   Rationale: Given the homogeneity of distribution services in general, we expect contracts to be more complete when wineries enter new geographic territories (i.e., enter relationships with new distributor partners), ceteris paribus, and the winery's experience in off-site distribution, ceteris paribus.

This chapter will attempt to assess how wine distribution contracts are arranged, and if those arrangements are consistent with theories of contracting. It will also try to determine what role the institutional environment plays in the contractual arrangement. The following section describes the data and methods used to examine the arrangement of wine distribution agreements and what role, if any, environmental changes like regulation will have on the type of agreement, and its formality, completeness or complexity.

4.3 Data and Methods

4.3.1 Data

In order to address the above hypotheses, information was needed on the contracts that wineries have with their distributors. Because of the proprietary nature of the contracts, no wineries were willing to disclose the particular details of their distribution agreements, which made analyzing the exact contracts impossible. Instead, information was collected on the features of the agreements through surveys, coupled with secondary data collected through industry marketing and buyers guides.

Traditionally response rates are low for surveys sent to businesses, and can average around 21% (Dillman 2007), although surveys sent from a university research center may achieve a higher response rate. Other surveys sent from researchers to businesses in the wine industry (grapegrowers) have received response rates of 20 percent (Fraser 2005) or nearly 20 percent (Goodhue et al 2003). Surveys of one questionnaire and one reminder postcard can obtain an average response of 37%, but employing

techniques such as a small financial incentive and addressing the survey to a specific individual could increase the response rate to as high as 84% (Dillman 2007). In order to achieve as high of a response rate as possible, Dillman suggests nine principles to tailoring surveys to businesses, including identifying the appropriate respondent and developing multiple ways of contacting them, using a mixed-mode survey design, providing completion instructions within the survey itself and offering a token incentive (2007).

For the primary data collection, two populations were identified: a population on each side of the supplier/wholesaler relationship. For the supplier population, approximately 4500 suppliers were identified using the wine supplier section of the 2007 Wines & Vines Buyers Guide. The guide includes the names and titles of winery owners and executives, as well as other winery characteristics, as reported to the guide publishers at the end of October 2006. For the wholesaler population, 437 unique distributors were identified operating at 730 branch locations in the United States, using the 2006 Beverage Marketing Directory. The directory and guide, while not exhaustive, were each used to determine their respective populations as each is publicly available and each provided supplementary material about the business operations of each firm in each population.

4.3.2 Survey Methodology

To collect the primary data a unique survey was sent to a sample of each population. The surveys collected information on the types of wine distribution agreements each party has with the other and their views of how the distribution

agreements with the other party might have changed in response to direct shipping. The surveys were unique to each party as the transactional language familiar to each party was used as to avoid any unnecessary confusion while answering the questions. Included with each survey was a cover letter from the university research center requesting participation, explaining the purpose of the survey, and offering a token incentive of a copy of the research results at the study's conclusion. The survey questions were designed as multiple choices, in order to be filled out quickly and with no need to reference any company records. Copies of the survey questions mailed to the two samples are attached as Appendixes A and B.

Each survey was divided into six main sections. Both surveys followed the same question order and the corresponding sections of each survey were intended to determine the same information about the agreements, but from each party's perspective. In order to access the first section, the respondent had to enter a unique access code, which allowed for the identification of the respondent. The respondent was identified for two reasons: first, in order to only send non-respondents a survey reminder, and second, to allow additional organization and performance data to be collected on each firm that responded.

The second through fifth sections of questions were intended to create a picture to serve as the baseline. The second section of the survey asked questions about general business and contracting practices. These questions were intended to give an idea of the size and scope of the branch, and the avenues the branch uses to negotiate their wine distribution agreements. The third, fourth and fifth sections were intended to paint

individual pictures of the branch's typical wine distribution agreements. The third section asked about distribution agreements, which for the purposes of this study were defined as the agreement between a wine supplier and a wholesaler to distribute specific wine brands, in a specific region, over a specific time period. The fourth section asked about wine marketing agreements, which for the purposes of this study were defined as the agreement between a wine supplier and a wholesaler to market specific brands of wine, in a specific region, over a specific time period. The fifth section asked about wine performance agreements, which for the purposes of this study were defined as agreements between wine suppliers and wholesalers, over a given time period, specifying measures of relationship performance that each party must meet. In each of these sections, questions were asked that alluded to the formality, duration, and renegotiation of each type of agreement. Questions were also asked that give a picture of which clauses may be included in each agreement.

The sixth section of the survey asked questions to determine how environmental shocks may have changed the winery's distribution agreements. Specifically the survey asked parties to identify the types of direct shipment that are legal in their state, and then qualify how they feel direct shipment has affected their wine distribution agreements and relationships with the other party. For those states not allowing direct shipment, the parties were asked to qualify how they think their relationships and distribution agreements would change if direct shipment were allowed.

Since there are a relatively small number of wine distributors in the United States, the wholesaler sample size was the full wholesaler population, as identified in the Wine

and Spirits Wholesaler section of the 2006 Beverage Marketing Directory (730 distributors). On the other side of the relationship, the winery sample size was narrowed as a result of costs, using a stratified sample technique. Stratified sampling is commonly used when there is a high degree of variability within a population (Dillman, 2007). Within the wine industry, producers are spread out over the 50 states although half of the producers are located in California. The presence of large distributors is somewhat correlated with the presence of large producers, but each state has different regulatory regimes and distribution structures. These characteristics translated the necessity for a stratified sample, in order to survey a representative sample of the producer population.

The population was stratified in two levels, first by the proportion of wineries in states that allow direct wine shipment, and then by state. Within each direct shipment state, surveys were sent to randomly selected wineries, using a random number generator. In order to combat the possibility non-response, this sample selection over-sampled non direct-shipment states. Surveys were sent to 2255 producers, 255 to the wine producers in states that do not allow direct wine shipment, and the other 2000 proportionally selected by state from producers' states that do allow direct wine shipments. Table 4.1 shows the breakdown of producer surveys mailed, by direct shipment policy and by state. Missouri was the only exception to this proportional sampling in direct-shipment states, as all wine producers in the state were sent a survey.

The appropriate survey was mailed to each individual in each sample, with a cover letter explaining the purpose of the survey and the instructions to fill it out and return it. The cover letter offered respondents two ways to fill out the survey, either the

paper copy that was mailed to them, or an electronic version on the web. Respondents were given four weeks to initially respond, but could only respond once and were not able to change their answers once a survey was submitted. Four weeks after the initial mail out, a reminder card was sent to all non-respondents in both samples, reminding them of the survey's electronic link and their unique survey code. Five months after the initial mail out, a reminder email was sent to all non-respondents in the producer sample for which an email address was on file in the Wines and Vines Buyer's Guide. Included in the email was a closing date for each survey.

Table 4.1: Producer Surveys Mailed and Responded by State

Direct Shipment Prohibited			Direct Shipment Allowed					
State	*Mailed*	*Responded*	*State*	*Mailed*	*Responded*	*State*	*Mailed*	*Responded*
AL	7	0	AK	5	0	MO	63	7
AR	6	0	AZ	11	1	NE	7	0
DE	1	0	CA	1038	63	NV	5	0
KY	22	1	CO	31	6	NH	6	2
ME	8	0	CT	12	0	NM	13	2
MS	2	0	DC	0	0	NY	97	5
MT	6	1	FL	15	1	NC	29	3
NJ	30	2	GA	10	1	ND	4	0
OK	34	4	HI	4	1	OH	40	0
PA	100	7	ID	13	0	OR	133	8
SD	8	2	IL	32	2	RI	7	2
TN	25	2	IN	17	3	SC	7	0
UT	6	2	IA	21	1	TX	48	10
			KS	10	1	VT	8	0
			LA	7	1	VA	51	5
			MD	10	1	WA	172	19
			MA	7	1	WV	7	0
			MI	35	0	WI	14	1
			MN	8	1	WY	2	1
Total	255	21	Total				2000	149

Note: This table shows the breakdown of producer surveys mailed and received, by direct shipment policy and by state. A stratified sampling technique was used to narrow the total winery population from 4000+ to 2255. Missouri was the only exception to this proportional sampling in direct-shipment states, as all wine producers in the state were sent a survey.

4.3.3 Model

As most of the dependent variables are ordinal variables collected from the survey responses, logit regression is used to test most of the models. Depending on the dependent variables, some poisson and ordered logit models were also used. Logit models are common in the contracting literature and are used to test the probability that a binary event or outcome will occur (Sykuta 2008). In this case, the logit models are testing the likelihood that winery's ability to distribute, their previous history with distributors, and the changing regulatory regime will affect formality, completeness and complexity of the winery's distribution agreement. In order to test the above hypotheses, the following general model is proposed:

(1) $$\Pr(Y) = f(W, Z, S)$$

The dependent variable, Y includes measures of the features of the wine distribution contract, while the explanatory variables include a set of control measures in the form of winery characteristics, W; a measure of regulatory conditions, Z; and a measure of regional industry conditions, S. As the control group, W would include the size of the wine industry in terms of sales and/or volume and the number of wine products sold. As a measure of political conditions, Z would include the presence of distribution franchise laws in the state, if the state is a control state, and what level the state allows direct-to-consumer shipment or direct-to-retailer shipment of wine. Table 4.2 below describes theoretical and corresponding empirical variables to be included in the analysis and the predicted effects for each on the independent variables, while Table 4.3 below provides descriptive statistics for the different model variables.

Table 4.2 Relationships of Dependent, Theoretical and Empirical Variables, and Predicted Variable Signs

Dependent Variable	Theoretical Variable	Empirical Variables	Predicted Sign
Formality	Trust	Reputation	(-)
	Behavioral Uncertainty	Duration of Current Relationship	(-)
		Previous Legal Suits	(+)
	Market Uncertainty	Growth/size of industry	?
		Availability of distribution channels	(+)
Completeness	Market Uncertainty	Growth/size of industry	?
	Previous Relations w/ same party	Length of formal relationship	(+)
	Negative Prior Experiences	Previous Legal Suits	(+)
	Verifiability/Enforcement Mechanisms	Performance clauses	(+)
		Termination/Dispute Resolution	(+)
	Transaction Costs	Winery size	(-)
Complexity	Market Uncertainty	Growth/size of industry	(+)
	Regulatory Environment	Franchise state	(-)
	Transaction Costs/ Asset Specificity	Products involved in transaction	(+)
		Brand Name/Trademark Clauses	(+)
	Moral Hazard	Winery Sales	(+)
		Traditional Distribution Channel	(+)

Table 4.3 Summary Statistics for Variables

Variable Name	Observations	Mean	Standard Deviation	Minimum	Maximum
Wpaf	95	.7894737	.9988796	0	3
Years	149	13.75168	15.3398	2	125
Annlsls	151	2.145695	2.24914	1	17
Products	160	1.63125	.873235	1	5
Rtlmkts	144	2.479167	.6892659	1	3
Wdalegal	118	.1016949	.3035356	0	1
Dcsttnum	131	9.198473	13.10045	0	51
Winemkt	166	58578.99	54152.73	767	127285
License	143	2.685315	1.230021	1	4
Hmstds	166	.873494	.3334246	0	1
hmstfl	166	.1746988	.3808582	0	1
Hmst	166	23.86747	17.71681	3	51
Anncgp	151	1.701987	1.176405	1	7
Dcr4	166	.6699608	.2567394	0	1
Wdaformal	105	.447619	.4996336	0	1
Dstchnnld	150	.5266667	.500961	0	1
Dstchnnlonpc	150	.82	.3854745	0	1
Dstchnlbr	150	.2066667	.4062708	0	1
Dstchnnlmkt	150	.0466667	.2116305	0	1
Cpdcdfprps~t	166	.5138122	.5011956	0	1
Dstchnnlrsl	150	.6466667	.4796065	0	1
Dstchnnlrsv	150	.6866667	.4654026	0	1
Dstchnnlof~c	150	.7933333	.4062708	0	1
Wdac	80	2.3125	1.207506	1	5
Wdacl	58	1.517241	1.404771	0	5
Wdareng	97	3.319588	1.303412	0	4
Wmaf	99	1.080808	.9654941	0	3
Wpaf	95	.7894737	.9988796	0	3
Orgmix	166	1.160221	.7162929	0	2
Cpdcwnprd	150	.4266667	.4962499	0	1
Cpdcdfprps~t	166	.5138122	.5011956	0	1
Cpdcaprdvlm	166	.519337	.5010119	0	1
Cpdcwfhr	166	.5359116	.5000921	0	1
Cpdcdchcosts	166	.4088398	.4929833	0	1
Cpdcdlctn	166	.3701657	.4841883	0	1
Cpdcdprtfl	166	.3314917	.4720552	0	1
Cpdcdpstg	166	.3149171	.4657713	0	1
cpdcmktcntrl	166	.4309392	.4965813	0	1
Cpdclegal	166	.2154696	.4122882	0	1
cpdcroi	166	.2209945	.4160677	0	1

Note: This table provides the descriptive statistics for the variables used it the following models. The survey data were collected from respondents, and coupled with public available information on each winery, and state wine laws.

4.4 Results

At the survey's close, 170 producer surveys were received, of which 166 were usable (a 7% response rate of the initial sample). Reminder emails were not sent to the distributor sample as email addresses were not on file in the Beverage Marketing Directory, and too few responses had been received from the initial mailing and postcard follow-up. Only 17 distributor surveys were received, of which 10 were usable (a 2% response rate). While these response rates are not exceptional, the winery survey responses do provide enough material to analyze and report on.

Table 4.4 shows that the majority of respondents utilize multiple distribution channels. Small wineries used a range of one to five channels, with the average number of channels at 3.72. While 33 percent of small wineries reported using traditional distribution/wholesale channels, 55.7 percent reported using direct sales as their primary distribution channel. The most common distribution channels, as shown in the table, are the traditional channel and direct sales channels. All of the large wineries use traditional distributors as their primary channel, but the small number of respondents does not add reliability to this figure.

Table 4.5 shows the types and forms of distribution agreements used by small wineries. Oral agreements are the most common across all types of the agreements surveyed (distribution, marketing and performance), but a significant number do use written agreements to govern their distribution relationships. Of those small wineries that use traditional distributors as their primary channel, 42.8 percent use some type of written agreements.

Table 4.4: Wineries Primary Distribution Channels

	Average Number of Distribution Channels	Traditional Distributor	Direct to Retail Sellers	Direct to Retail Servers	Direct to Consumer On-Premise	Direct to Consumer Off-Premise	Direct to Broker	Direct to Marketer
All Wineries (N=151)*	3.72	51	10	3	74	9	3	1
Small Wineries (N=149)	3	49	10	3	74	9	3	1
Large Wineries (N=2)	4**	2	0	0	0	0	0	0

*N does not sum to total sample size as a result of non-respondents. **One large winery reported only using the traditional distribution channel, while the other reported using all channels

Table 4.5: Types and Forms of Distribution Agreements Used by Small Wineries

Agreement	Distribution	Marketing	Performance
Written	27	16	9
Oral	58	41	27
Both	20	3	4
Neither	--	39	55
Total	105	99	95

Note: This table describes the types of distribution agreements that are used by small winery respondents and include distribution, marketing and performance agreements. Wineries could indicate the form of agreement as either written, oral both or neither.

4.4.1 Formality

As previously noted, formality is an often researched aspect of contract theory. For my purposes, formality is defined as having a written rather than oral distribution agreement. In several cases, wineries responded that they had both oral and written agreements. These cases were coded as being formal agreements because a written contract exists, resulting in a binary variable equal to one if there is a formal distribution agreement. I ran a logit model against the legal structure variables as well as the control

variables suggested by the existing contracts literature. Table 4.6 shows results for the formality model.

Table 4.6: Distribution Contract Formality Model Results

Variable Name	Coefficient	Robust SE
Constant	-2.7213	1.5574*
Years in Existence	0.0208	0.0152*
Annual Sales	0.3537	0.1838**
Product Produced	-1.0460	0.4785**
Retail Markets	0.9494	0.4650**
Legal dissatisfaction (=1)	1.7881	0.9574**
Number of states winery distributes	-0.0722	0.0319**
Size of state wine market	0.00002	8.93e-06**
State Direct Shipment Law (=1)	-2.2984	1.1657**
State Franchise Law (=1)	1.4476	0.7918*
Distributor Concentration (HHI)	0.0007	0.0003**
Number of Observations	82	
Log Likelihood	-45.098	
Wald Chi-Square(10)	21.29	
Prob > Chi-Square	0.0192	
Pseudo R2	0.1979	

Note: This table presents results of a logistic regression of the likelihood of a formal agreement occurring. The regressions are based on a sample 82 survey respondents. Legal dissatisfaction is a dummy variable equal to one if the winery ever legally documented dissatisfaction with a distributor. State direct shipment law is set to one if the state allows direct shipment of wine. Likewise, the state franchise law is set to one if the state has franchise distribution laws. The model was estimated with robust standard errors. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

The results show that the state's regulatory structure appears to have a significant effect on the formality of distribution contracts. In states that allow direct shipment of wine, small wineries are less likely to have formal distribution contracts with their immediate trading partners. In states that have franchise distribution laws, small wineries are more likely to have formal, written distribution contracts. This is what we expect, since the formal contract may provide more specific evidence of the intended relationship

between the winery and the distributor, making third-party enforcement of distribution terms more effective.

The remaining coefficients are also consistent with my hypotheses. When the distribution industry is more concentrated (as measured by the Herfindahl-Hirschman Index, HHI) and the state's wine retail market is larger, contracts are more likely to be written. Larger wineries and wineries with longer histories are more likely to use written contracts. Likewise, formal contracts are much more likely when the winery has had negative prior experiences with distributors, as measured by having previously filed legal complaints.

Formal contracts appear to be less likely when the winery sells its products to many states or has a larger product portfolio. Given the structure of the distribution industry described above, selling in more states means dealing with a larger number of distributors and thus would require a proportionally larger cost of negotiating formal contracts. This is consistent with anecdotal remarks written on some survey forms; as one respondent commented "[it] depends on the state", and another remarked "Oral in Texas, written elsewhere as necessary". Likewise, a larger portfolio of product types may increase the cost of negotiating details for each individual product. A larger portfolio of products also gives the winery greater negotiating power, all else equal, relative to the distributor.

One other factor potentially influencing formality was unable to be addressed as a result of the lack of distributor surveys; namely, the size of the distributor the winery uses. A common response from wineries was the larger the distributor, the greater the

likelihood of a formal contract, or as two respondents put it "3 of 4 distributors are oral, 1 of 4 (our largest distributor) is written", and "Written with larger distributor, oral with smaller".

4.4.2 Complexity

Complexity was measured in two different ways, the duration of distribution agreements, and the types of additional agreements the winery uses. Duration, the first measure, is another often researched feature of the contract and is used as a measure of complexity. Table 4.7 shows the duration of respondents typical wine distribution agreements, by form. Most wineries indicate duration of their distribution agreement is indefinite, regardless of the form.

Table 4.7: Duration of Respondents Typical Wine Distribution Agreement

	Written	Oral
6 months or less	0	3
12 months or less	6	3
1-2 years	6	3
Indefinite	28	47
Total	40	56

Note: This table describes the duration of the typical distribution agreements that are used by small winery respondents. Wineries could indicate the form of agreement as either written or oral, while the duration could be six months or less, one year or less, one to two years, or indefinite.

As suggested by Table 4.7, the duration variable is coded as a categorical variable rather than a continuous variable. As a result, I ran an ordered logistical model to identify the factors that affect contract duration. Table 4.8 shows the results of the first model. Winery governance is a categorical variable that measures the degree of winery integration (0 is strictly market, 1 if dual distribution, and 2 if vertically integrated). The

coefficient is significant and, as expected, reduces the likelihood of the duration of the agreement. Also significant and expected is the presence of a renegotiation clause in the agreement, which increases the likelihood of the agreement's duration. This is consistent with Crocker and Masten's (1991) results regarding contract duration and uncertainty. It should be noted though that causality may exist between the contracts duration and the presence of a renegotiation clause, as we might expect to see a renegotiation clause in a longer-term agreement as more may change in the longer term than the shorter one. Finally, the size of the winery (in annual sales) is positive and significant.

Because the winery governance variable is an ordered categorical variable, I also ran the model using two dummy variables to specifically control for vertical integration and dual distribution, respectively. As shown in Table 4.9, breaking out these organizational forms is enlightening. While the coefficient on winery governance in Table 4.8 is negative and significant, the results in Table 4.9 suggest that the previous finding is driven by wineries that are vertically integrated. Vertically integrated wineries have much shorter distribution agreements than do wineries that exclusively use market distribution channels (the default case). Wineries that engage in dual distribution do not appear to have statistically different distribution contract lengths.

The second measure of complexity, types of agreements, refers to the winery's use of additional types of agreements to govern the transaction, specifically the use of a marketing agreement and/or a performance agreement. Table 4.10 shows results for the first complexity models, where Model A was for the marketing agreement and Models B and C for the performance agreement. The regulatory environment proxy (franchise law)

has the expected sign in each model although it is not significant in any. The annual sales of the winery are significant and increase the likelihood of a marketing agreement, as expected, although the results are not robust in predicting the likelihood of a performance agreement. The number of years is also a significant predictor of both a marketing agreement and a performance agreement, indicating the longer the existence, the more likely the winery is to have additional agreements. This seems logical as wineries tend to grow over time, through product portfolio and sales. Sales through a distributor and sales through a marketer also increase the likelihood of a performance agreement, and are significant which could indicate that wineries feel an inherent risk in relinquishing control and want some measure of performance stability.

Table 4.8: Duration of Typical Distribution Agreement Results

Variable Name	Coefficient	SE
Winery governance	-2.635622	1.09622**
Years in Existence	0.0109801	0.0313697
Product Produced	-0.1180078	0.6025843
Annual Case Goods Production	0.2442077	0.2600173
Completeness of Distribution Agreement	-0.4768318	0.5304727
Number of Agreement clauses included	-0.5286256	0.4535525
Renegotiation Clause in Dist. Agreement (=1)	1.722327	0.5115261***
Formality of Wine Marketing Agreement	0.1554602	0.8391322
Formality of Wine Performance Agreement	0.4880227	0.8686298
Number of Observations	32	
Log Likelihood	-20.268582	
Pseudo R2	0.4080	

Note: This table presents results of a logistic regression, of the likelihood of length of distribution agreement. The regressions are based on a sample 32 survey respondents. Winery governance is a dummy variable equal to zero if they only use a distributor, one if they use some form of dual distribution, and two if they are vertically integrated. Completeness of distribution agreement equals the number of provisions included in agreements (as surveyed). Number of agreement clauses included equals the number of clauses included in the agreement (as surveyed). Renegotiation Clause is a dummy variable set equal to one if there is a renegotiation clause in the agreement. Formality of wine marketing agreement and wine performance agreement are dummy variables set equal to one if the agreements are written. The model was estimated with standard errors. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

Table 4.9: Duration of Typical Distribution Agreement by Organization Type Results

Variable Name	Coefficient	RobustSE
Vertically Integrated Winery (=1)	-7.4765	3.4875**
Dual Distribution Winery (=1)	-4.4517	4.6784
Years in Existence	-0.0020	0.0185
Product Produced	0.2467	0.5061
Annual Sales	0.1421	0.0704**
Completeness of Distribution Agreement	-0.7530	0.5054*
Renegotiation Clause in Dist. Agreement (=1)	2.0047	1.1549*
Formality of Wine Marketing Agreement	-0.0937	0.9740
Formality of Wine Performance Agreement	0.4448	0.8714
State has Direct Shipment Law (=1)	0.7743	1.8977
Distributor Concentration (HHI)	-0.0002	0.0012
Number of Observations	32	
Log Likelihood	-19.1711	
Wald Chi-Square(11)	38.55	
Prob > Chi-Square	0.0001	
Pseudo R2	0.4401	

Note: This table presents results of a logistic regression, of the likelihood of length of distribution agreement. The regressions are based on a sample 32 survey respondents. Integrated winery and dual distribution winery are dummy variables set to 1. Completeness of distribution agreement equals the number of provisions and termination-related clauses included in agreements (as surveyed). Renegotiation Clause is a dummy variable set equal to one if there is a renegotiation clause in the agreement. Formality of wine marketing agreement and wine performance agreement are dummy variables set equal to one if the agreements are written. The model was estimated with robust standard errors. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

Table 4.10: Complexity as Measured by Agreement Type Results

	Marketing Agreement		Performance Agreement			
	Model A		Model B		Model C	
Variable Name	Coefficient	SE	Coefficient	SE	Coefficient	SE
Home State Franchise Law	-0.1460	0.5145	-0.2013	0.7626	-0.2121	0.7915
Years	0.2223	0.0138*	0.0432	0.0156***	0.0442	0.0158***
Annual Sales	0.2224	0.1084**	0.0154	0.1393	-0.0130	0.1370
Distributor Concentration	-0.0534	0.7009	---	---	---	---
Sales through Distributor	---	---	1.9798	0.6422***	2.0624	0.6692***
Sales On-Premise	---	---	-0.7181	0.5345	-0.7379	0.5463
Sales through Broker	---	---	-0.2530	0.5840	-0.2441	0.5950
Sales through Marketer			2.7878	1.3097**	2.7284	1.3006**
Desired future product position in market	---	---	0.1819	0.2496	0.1609	0.2530
Sales retail sellers	---	---	---	---	-0.4674	0.8322
Sales retail servers	---	---	---	---	0.0121	0.8572
Sales off-premise	---	---	---	---	0.2778	0.6751
Number of Observations	136		134		134	
Log Likelihood	-85.3605		-57.6778		-57.2712	
Pseudo R2	0.0613		0.2595		0.2558	

Note: This table presents results of a logistic regression, of the likelihood of complexity of marketing or performance agreement. The regressions are based on a sample of 136 (marketing agreement) and 134 (performance agreement) survey respondents. Models A, B, and C differ in they each have been run with only the variables indicated. Home state franchise law is a dummy variable equal to one if the state has wine franchise laws. Sales through a distributor, sales on-premise, sales through broker, sales through marketer, sales retail sellers, sales retail servers are dummy variables set each equal to one if the producer uses that distribution channel. Desired future product position in the market is a dummy variable equal to one if the winery indicated that was a criteria used in selecting the primary distribution channel. The model was estimated with standard errors. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

4.4.3 Completeness of Contracts

A frequent focus of contract economics is the completeness of contracts. Completeness is inherently difficult to measure. The survey asked respondents to indicate whether their typical contract included any of a set of common provisions related to decision rights, quantity and quality standards, incentives and dispute resolution with a total of 12 possible clauses. The measure for completeness is simply the number of clauses included in the winery's typical contract. Given the nature of this variable, I ran poisson regressions to determine the factors related to completeness. Table 4.11 shows the results of the model.

Table 4.11: Completeness of Typical Distribution Agreement Results

Variable Name	Coefficient	RobustSE
Constant	1.9307	0.3415***
Years in Existence	-0.0020	0.0026
Annual Sales	0.0301	0.0235*
Distribution Agreement Duration	-0.0589	0.0532
State has Direct Shipment Law (=1)	0.4384	0.1928**
State has Franchise Distribution Law (=1)	-0.3653	0.2416*
Distributor Concentration (HHI)	-0.0003	0.0001***
State Wine Market Size	-2.12e-6	1.63e-6
Number of States to Which Winery Sells	-0.0047	0.0043
Formal Wine Marketing Agreement	-0.0002	0.0978
Formal Performance Agreement	0.0010	0.1079
Number of Observations	31	
Log Likelihood	-57.1880	
Wald Chi-Square(11)	45.44	
Prob > Chi-Square	0.0001	
Pseudo R2	0.1036	

Note: This table presents results of a poisson regression of the number of clauses contained in the typical distribution agreement. The regressions are based on a sample 31 survey respondents. Years and winery size by sales. Formality of wine marketing agreement and wine performance agreement are dummy variables set equal to one if the agreements are written. The model was estimated with robust standard errors. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

4.5 Organizational Governance Choice

The primary focus of this chapter is the effect of state regulations on the structure of wine distribution contracts. The previous results provide support for the hypothesis that contract structure is affected by the regulatory institutional environment. Given these results, it is reasonable to wonder whether regulatory institutions also affect the firm's organizational form choice. If regulations affect contract structure, they presumably affect the costs of transacting. Based on Coase's (1937) fundamental argument, this suggests organizational form choice may also be affected.

The hypotheses discussed above would extend naturally to the organizational form choice. Specifically:

4. The existence of Direct Shipment Laws will increase the probability of the winery engaging in distribution.
   Rationale: Direct Shipment provides a relatively low cost way for wineries to sell directly to consumers and potentially receive a higher margin than by selling through traditional distribution channels.

5. The existence of Franchise Distribution Laws will reduce the probability of the winery engaging in dual distribution.
   Rationale: Franchise distribution laws give distributors effective monopoly control of the winery's product in the distributor's market region. Thus, wineries will either sell primarily through traditional distributors or will self-distribute (vertically integrate) and avoid the franchise restrictions.

I ran a multinomial (conditional) logit using the Winery Governance variable described above. The Winery Governance variable takes on a value of 1 if the winery only uses the market, 2 if the winery dual distributes (a hybrid form), and 3 if the winery if vertically integrated into wholesale distribution. To help control for other dimensions of the

distributor relationship, we include wineries' responses regarding their motivations for choosing their primary distribution channel.[16]

Table 4.12 shows the results of the multinomial logit model. The model predicts the conditional probability of an outcome relative to the benchmark case. Because the most common organizational form is hybrid, or dual distribution, that was used as the benchmark case. The column on the left shows the coefficients for the relative probability of market organization. The column on the right shows the coefficients for the relative probably of hierarchy or vertical integration. The results are consistent with my hypotheses. Direct shipment laws reduce the probability of choosing a strict market organizational form and of choosing vertical integration. Direct shipment allows wineries to access some consumers at higher margins and reduces the incentive to forego traditional distribution systems. Franchise laws increase the probability of choosing market organization and/or vertical integration relative the hybrid form.

Other factors that appear to be important in the choice of the hybrid form relative to vertical integration are the winery's size, the size of the wine market, concern for the product's quality image and market product position, the winery's financial and human resource base, the location of the market, and concern around legal issues, all of which increase the probability of a hybrid form. Concern over distribution channel costs increases the probability of vertical integration.

[16] Survey respondents were asked "What were the criteria used in selecting your PRIMARY wine distribution channel?" Criteria included the wine product, desired product position in the market, location of the target market, available production volume, the winery's human and financial resources, distribution channel costs, distributor location, distributor portfolio, distributor prestige, control of product marketing, legal restrictions and financial margins (ROI).

Table 4.12: Organizational Form Choice Results

Variable Name	Pr(Market)/Pr(Hybrid) Coefficient (Robust SE)	Pr(Int)/Pr(Hybrid) Coefficient (Robust SE)
Constant	-0.1608	6.9570***
	(2.8665)	(1.5792)
State Direct Shipment Law (=1)	-2.9971*	-1.4762*
	(2.2347)	(0.9245)
State Franchise Distribution Law (=1)	2.7199*	0.7414
	(2.0198)	(0.7732)
Criteria for Primary Distribution		
Wine Product	-1.5758	-1.3046**
	(1.5450)	(0.6867)
Desired Product Positioning	0.1673	-1.1908*
	(1.3217)	(0.6883)
Market Location	-1.5803	-0.5290
	(1.5740)	(0.6344)
Production Volume	-0.5391	0.3192
	(1.5651)	(0.6202)
Financial & Human Resources	-0.5147	-1.4834**
	(1.362)	(0.7103)
Distribution Channel Costs	-22.4351	1.5920**
	(1.81E+7)	(0.7551)
Distributor Location	1.3491	-2.6182***
	(2.1934)	(0.9881)
Distributor Portfolio	-1.5940	-2.2682*
	(2.003)	(1.3570)
Distributor Prestige	0.3003	-0.7899
	(2.0202)	(1.3487)
Control over Product Marketing	1.2896	-0.2029
	(1.8743)	(0.6678)
Legal Issues	-33.803	-3.5206***
	(4.35e+7)	(1.3164)
Financial Margins	-34.119	-0.4126
	(3.74e+7)	(1.1592)
Size of State Wine Market	0.00003	-0.00001**
	(0.0002)	(6.78e-6)
Winery Years in Existence	-0.0751	-0.0188
	(0.0857)	(0.0174)
Winery Size (Annual Sales)	-0.0993	-1.6012***
	(0.3936)	(0.4613)
Number of Observations	135	
Log Likelihood	-56.0239	
Wald Chi-Square(34)	104.3	
Prob > Chi-Square	0.0001	
Pseudo R2	0.4821	

Note: This table presents results of a multinomial conditional logit regression of the choice of organizational form. The regressions are based on a sample 134 survey respondents. The model was estimated with robust standard errors. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels, respectively.

4.6 Conclusions

The literature on contracting typically studies how the characteristics of transactions affect the structure of the contract and its terms. Although researchers point to the importance of the institutional environment, there is little research on how changes in the legal and regulatory system affect the use and structure of contracts. Given changes in the wine industry over the past several years, the distribution of wine products provides a perfect natural experiment to examine the effects of institutional changes on industry organization and contracting practices.

The results of this chapter illustrate the importance of the legal environment. Franchise laws granting distributors market advantage appear to increase the use of formal, written contracts and reduce the degree of contractual completeness, as measured by the number of frequently used contract clauses. Laws that grant wineries greater access to consumers through direct shipment appear to reduce the use of formal, written agreements, but increase the number of clauses contracts contain when they are used. Other factors that have been identified in the previous contracting literature also appear to affect contract duration, complexity and completeness.

In addition to their effect on contract use, this research also finds that states' laws concerning wine distribution affect the structure of the wine industry itself by affecting wineries' choices of organizational forms. Franchise laws that grant distributors monopoly status reduce the likelihood (or ability) of wineries to adopt dual-distribution, and instead encourage either exclusive use of market distribution channels or vertical integration. Direct shipment laws, on the other hand, appear to have a countervailing

influence, leading wineries to be more likely to adopt dual distribution. While beyond the original scope of this chapter, these results are significant for understanding the effects of regulations on market structure as well as for understanding the wine industry and the distribution strategies of wineries, particularly smaller wineries.

Chapter 5

Wine Distribution Channel: A Case Study in Governance Choice

As shown in Chapter 4, for samples of the wine producing population (small wineries), traditional distribution channels and the agreements governing those transactions have not been sweepingly affected by the current institutional changes. Results from Chapter 4 show that the legal environment does affect the wineries' organizational governance, but more importantly it showed that particular criteria are influencing wineries' selection of their distribution channels. Although 33.7% of small wineries sampled in Chapter 4 used traditional distributors, of which 44.7% indicated they used some type of formal, written agreement, these agreements translate to only a fraction of sales for small wineries. Given that small wineries are circumventing the three-tier system in favor of alternative channels, the question arises what channels are small wineries using and what criteria are motivating the selection of those channels? This chapter builds on the theories of firm governance as it attempts to determine what factors are influencing small business governance in the wine industry.

5.1 Available Distribution Channels

Alcohol industry regulation principally dictates that alcohol producers may not distribute their own products to downstream markets, but most states will slightly relax the distribution laws, depending on the type of product and/or size of the producer. Within the wine industry, many states recognize the distributor bottleneck that exists and

have relaxed the marketing channel regulation to offer alternate distribution channels for producers. The specifics of these alternate channels are determined at the state level, but mainly include allowing smaller producers to directly sell through a winery sales force to retail outlets like grocery stores, specialty liquor stores, restaurants and also to traditional distributors; allowing producers with special licenses and facilities to directly sell minimal amounts through the winery's sales room or through mail or internet orders; allowing producers to indirectly sell through brokers (the winery has no sales force); and allowing producers to indirectly sell through a marketing company (Gooner 2001). These alternative channels, combined with the traditional distributor channel, offer wineries five distinct channels to distribute product. The traditional distribution channel is commonly referred to as the three-tier system of distribution, and has historically been the only distribution channel for many producers. But Thach and Olsen (2006, p. 75) remark that "wineries' commitment to their relationship with [traditional] distributors appears to be more calculative than affective; in other words, the services provided by distributors are mandated but not necessarily desired". Although most channels are available in most states[17], wineries tend to choose one predominate distribution method with the same choice of distribution channel governed in different ways by different wineries. This feature leads to the underlying research of this chapter: are the significant channel selection criteria determined for the broad sample of respondents in Chapter 4, the same factors that are used to determine a winery's governance structure? In order to

[17] Some control states only have one channel as they regulate the sale of wine and act as that state's only distributor. Other states prohibit the direct shipment of wine to consumers.

address this question, the factors that determine governance mechanism must first be discussed.

5.2 Governance Mechanisms

Governance mechanisms are the methods by which organizations govern themselves. Each time a firm makes a transaction there are costs to that transaction (transaction costs). Each transaction has elements that determine the transaction costs including asset specificity, uncertainty and frequency (Williamson 1979), as well as measurement costs (Barzel 1982) and connectedness (Milgrom and Roberts 1992). Transaction Cost Economics (TCE) is a theory of the firm that suggests the firm will organize itself to govern those transactions in such a way as to minimize the transaction costs. These organizations can be arranged along a continuum, ranging from the spot market to vertical integration, and can broadly be categorized into three forms; market, hybrid and hierarchy (Williamson 1985a).

As federal and state regulation prohibits producers (and other consumers) from selling alcohol without a bonded license there is no wine distribution spot market. Alcoholic products cannot currently be distributed on eBay or at a local farmer's market anytime the need arises; there must be some formal distribution mechanism in place, either through the producer acting as a distributor, or a broker, marketer or traditional distributor acting as a distributor. As a result of this feature, it would seem the only true form of market governance would be to sell strictly through traditional wholesalers, brokers and/or marketers. As shown in Chapter 4, wineries are governing their

distribution agreements with formal and informal contracts. The use of formal contracts to govern transactions is one of the classifications that Williamson cites for market governance, while the use of relational contracts is cited for hybrid governances (1991a). As also shown in Chapter 4, many wineries are using direct to consumer and retailer sales as distribution channel; if this direct distribution is the winery's only method of distribution it would indicate a hierarchical governance structure. Any combination of these market mechanisms and direct distribution would result in a hybrid form of governance.

Hybrid governance structures are those that fall on the continuum between market and hierarchy. Hybrids can include long-term contracts, joint ventures, strategic alliances, and dual sourcing (partial vertical integration) among others. The hybrid that most relates to distribution is dual distribution, a topic most often cited in literature on retail franchising agreements (Raynoud 2008). Empirical literature in franchising has often cited the existence of both company-owned and franchised units within most chains; chains using these two mechanisms are incorporating aspects of both the market and integration. Franchising a unit of the firm, instead of operating it in house, is cited for two reasons in the literature. First, franchising is cited as a way to increase the capital investment in the firm (Caves and Murpy 1976), and second, franchising is cited as a way to reduce agency costs within the firm (Lafontaine 1992; Lafontaine and Raynaud 2002). Both of these arguments have been used to explain the dual distribution characteristic of franchises, although Gallini and Lutz (1992) offer an alternative argument and suggest that dual distribution is used as a device to signal the value of the brand to potential

investors. While the rationale for dual distribution is still debated, the literature does have some agreement as to the governance benefits that dual distribution provides. These benefits include reducing asymmetrical information that a complete dependence on market mechanisms could have, and creating a credible commitment for termination of outside parties by vertically integrating part of the value chain (Dutta et al 1995).

Although there are different theories as to why this hybrid governance is so prevalent in retail chains and the benefits dual distribution provides over other organizational mechanisms, there is an inherent acceptance in the literature that the organizational governance mechanism is the discrete choice made by the firm. As Raynaud remarks "the overall governance design may be broken down into a two-step, sequential decision: first, get the allocation of the ownership right (the "make-or-buy decision); second, get the contractual design right" (2008, p. 236). This sequential decision stance mirrors that of other researchers in TCE, and it is this assumption that needs to be further examined.

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5.3 Research Questions

Gooner (2001) offers multiple criteria that wineries should consider before selecting a distribution channel including the winery's characteristics, its product, and its target market. Specifically the winery should consider the product, desired product position in the market, the available product volume, and the winery's financial and human resources before deciding on a channel. Gooner also indicates the winery should not consider its own arrogance in deciding on a distribution channel. In addition to these

criteria, wineries also responded to the survey used in Chapter 4 that location of target market, control over product marketing, distributor channel costs, and location of the distributor were important criteria they used when selecting their distribution channels.

In listing the criteria, Gooner implicitly offers an interesting research question as to how wineries choose their distribution structures. His criteria are fundamental to the organizational governance decision. These criteria, coupled with the literature on governance mechanism choice, and the results of Chapter 4 offer the following hypothesis:

> H1: The distribution channel selection criteria found significant to the broad sample in Chapter 4, will be supported on a micro-level, to individual wineries.
>
> 1a. Distribution channel costs will be a significant factor in a winery's decision to vertically integrate.
>
> 1b. Criteria significant in the decision to dual distribute will also play a role in the decision to vertically integrate, as dual distribution includes measures of hierarchical control.

5.4 Case Studies as a Methodology in New Institutional Economics

Social sciences often view case studies as the research method to use when nothing else can be applied, and while case studies in economics are used, they are not the standard method and tend to be especially viewed as empirically inadequate. This stereotype is assessed because case studies are often cited as having little generalization because of their relaxed rigor, infrequent use of quantifiable data, limited focus, and

easily become "a good story" (Alston 2008). But, as Yin (2003) shows, case studies have their place in social science research, especially in researching questions focusing on the "how" or "why" events an investigator has minimal control over, and current events that offer perspective to real-life.

Case study approaches are not often used in traditional economics, but they are more common in branches of economics that have relaxed some of the traditional assumptions, like NIE. Much of the theoretical work in NIE is about how institutions and institutional change facilitate and affect transactions, but there is no one underlying theory for institutional change. Alston suggests case studies case studies can effectively be used to examine the causes and determinants of those changes and can be used to build "the framework for understanding the role of institutions in societies" (2008, p. 104).

In addition to case studies investigating the broader understanding of institutional development, they can also offer in-depth study of distinct examples from industry or the economy as support for theoretical principles that are unable to be tested from more traditional quantitative panel or historical time series data. Much of Coase's work is focused on such ideas, and his first paper effectively used the case study approach to illustrate the idea of transaction costs and introduce the theory of a firm (1937). Arguably the most infamous case study in NIE also illustrated how, in a specific industry's case, vertical integration was able to solve for hold-up incurred over specific assets. Klein, Crawford and Alchain (1978) introduced the now famous example of the acquisition of Fischer Body by General Motors (GM) as a concrete example of the choice of governance structure minimizing transaction costs. Although they did not formally

term their method of research as a case study, it did use case study methodology. Since their introduction of the Fisher Body-GM case, numerous other papers in economics have used formal case study approaches to show how the original Fischer Body-GM case study was flawed (Freeland 2000, Coase 2000), although they do not explicitly identify the methodology as a case study.

5.5 Research Methodology

In order to address the hypothesis, some underlying data on the criteria that wineries use to select their distribution channel will be addressed through the survey responses received in Chapter 4, while information on how these criteria relate to organizational governance choice will be addressed through a case study. A multiple-case case study would be ideal, although a single-case case study will also address the question if only from a limited perspective. Due to the time and financial constraints of the case study approach, and in order to better understand the issue initially, one winery was studied for the purposes of this research.

5.5.1 Jowler Creek Winery

Jowler Creek Vineyard and Winery of Platte City, Missouri, was selected for analysis in the case study, and agreed to participate to the fullest extent possible. Jowler Creek is a self-reported "boutique vineyard and winery", and is one of the newest wineries in Missouri, having been established in 2006. Because they are such a young winery, the owners are much more likely to accurately recall events surrounding their

formation, and any criteria related to their governance selection. Jowler Creek is a small winery, owned and operated by a husband and wife team, Jason and Colleen Gerke. Colleen, Jowler Creek's CEO, grew up in California's wine country and as a hobby studied viticulture and enology at California Polytechnic-San Luis Obispo, while Jason, the winery's COO, grew up in central Missouri and graduated from the University of Missouri with a degree in Agricultural Journalism.

As a small winery in Missouri, Jowler Creek had the option of any of the five different distribution channels when was forming. Although a young firm, the winery has had a short but productive history; they planted their first 250 grape vines in the spring of 2004, added 850 in 2005, and an additional 1900 in 2006. They currently have over 3000 vines. Jowler Creek grows four different grape varietals on five acres: Norton, Vignoles, Traminette, and Cabernet Franc. Their first batch of licensed wine was released in 2006, and released in retail stores in the summer of 2007.

5.5.2 Case Study Methodology

Information on Jowler Creek Winery and their distribution channels were collected using a number of different procedures. First, the winery was a respondent to the survey mentioned in Chapter 4, which collected a variety of information on their transactions and any agreements covering those transactions. Second, the owners of the winery were interviewed both formally and informally about all aspects of their business, including production, distribution and environmental sustainability practices over a four-month time period. While the owners were given the underlying motivation for the

research, they were never told the specific hypothesis of the research, so as not to bias any of their recall. Information collected in these conversations, as it related to their choice of distribution channel and the criteria motivating that choice, is summarized below. Third, formally documented information about the winery's evolution was collected from the owners and from neutral third parties. This documentation from the owners includes a five-part entrepreneurship journal the CEO kept in the year before the winery's inception, studies conducted by the CEO about what qualities and characteristics it takes to be an entrepreneur and what resources are available for entrepreneurs, a study about the zoning laws and government regulations that could potentially affect the winery, an overview of similar businesses in the marketplace, an overview of a winery's financing needs and how best to secure financing, and the original Jowler Creek Winery business plan. Additional documents from the owners include a timeline of wine retailers the business sells to, and the quarterly newsletter published by the winery. Neutral, third-party documentation collected includes copies of all newspaper articles published about the winery.

5.5.3 Description of Case

As previously stated Jowler Creek Winery started it's vineyards in 2004, but the winery was not licensed until the spring of 2006. The Gerkes originally started making wine in their basement in 2001, as a hobby that they both enjoyed. They had no notion to start a winery and originally planted the vineyards when they moved to their current location as a means to make wine strictly for their own consumption, and because they

"thought the grapes would be pretty on the driveway". In the spring of 2004 they planted 250 Norton grape vines, thinking that would be enough to "break a sweat", and to learn about viticulture. Norton was a deliberate grape choice, because they had tried Missouri Norton wines[18] and other wineries and felt like Norton would be the easiest to grow. The couple reported the first year was spent learning about pest management, but the vineyards were very much still a hobby at that point. In the fall of 2004 they prepped the soil and decided on the next year's vines, adding more Norton and an acre of Vingoles vines. In the spring of 2005 they knew they would be able to market their grapes later on, and had started thinking about agritourism – possibly having tourists come pick out their own grapes and make their own wine.

The CEO's entrepreneurship journals confirm in November 2004 they started thinking about the idea of a value added business, and had started performing research. Conversations with the couple and corroboration with the journals indicate the target product was the first decision, followed by the target market. Once the couple decided on the target product, they started in-depth research on the target markets, followed by any regulatory matters they would need to address to set up the winery's production on their 15.97 acre property. In early January 2005, they had already put together basic information on production volume, sales and costs through 2011, and by late January had researched wholesale prices available from vendors. In early February 2005 the couple attended the Mid-America Grape and Wine Conference in Osage Beach, MO, and left with the following "take-aways" (as Colleen likes to call them): "Develop a mission statement and decide what part of the wine business you want to target; Benchmarking is

[18] Norton has been designated as the official grape of Missouri

key – have a good tasting room philosophy and keep your tactics focused on the philosophy; Rely on distribution managers to sell your story instead of managers; and Make something unique about your winery". These tips about distribution through tasting rooms and traditional channels are the first time the couple recalled thinking about distribution channels (Gerke 2005).

In the week following the conference Colleen spoke to the owner/winemaker of a winery nearby in Kansas[19] about the idea of opening a winery/do-it-yourself winemaking store and again recorded the following "take-aways": "the primary business model of the Midwestern Winery involves a tasting room. Typically 80% of a winery's sales come from their tasting rooms; however [the winery she was speaking with] does not have a tasting room and sells all of its wine directly through liquor stores and restaurants. [The winery she was speaking with] chose not to use a distributor because many in the area don't fully understand the importance of wine and the wineries they represent." Colleen also took away "the wholesale cost of Midwest wineries is typically 60-75% of the retail cost. However if you sell wine out of a tasting room, you can sell it higher than you would for retail" (Gerke 2005).

The rest of February Colleen spent gathering information on retail prices of local wines of comparable quality. She also spoke with another small business owner[20] who advised her to keep the costs of the business as conservative as possible, and "really emphasized the benefits of going wholesale from a financial standpoint". At this point Colleen and Jason first decided on the idea of converting their garage into a winemaking

[19] Names of any specific individuals and/or wineries that Jowler Creek does business with have been kept out of the dissertation to protect the proprietary nature of the businesses.
[20] See footnote 19.

facility, and converting their basement into a wine storage site as these ideas would require dramatically less funding than leasing a winemaking facility (Gerke 2005).

In mid-March 2005 Colleen spoke with a financial lender[21] about what lenders look for in start-up businesses. In addition to general tips, the lender specifically told Colleen "it is comforting to a lender to see what sort of contracts you have…For example, will a restaurant or liquor store guarantee to buy certain amount of wine at a specific price for the next year? The more stable the prices the better and less risky". Also, while Colleen was in Washington D.C. she spoke with a Missouri Congressmen and asked about trade issues of the wine between Missouri and other states, such as Kansas. He "didn't give me an exact date of when states could trade freely, but indicated that it wouldn't be too much longer", to which Colleen commented in her journal "That will be great, and should allow us to sell much more through our web site once we're opened!", (Gerke 2005).

Between March 31 and April 18, 2005 Colleen had put together a document outlining zoning laws and regulations that could potentially affect their business. In it, she explicitly identifies for the first time, the federal regulations necessary to become a commercial winery including becoming a bonded winery, having a facility inspection, and receiving label approvals for each label (each type wine, each year) from the Alcohol and Tobacco Trade Bureau (TTB), and contacting the Missouri Alcohol Control Board (ABC) for a resident winery permit, a winery special event permit and label approval applications and distribution agreement forms. She also outlined a list of various taxes and fees that would have to be paid for both the sale of wine and owning a small business.

[21] See footnote 19.

At the end of her paper she remarks "based on these interviews and research completed, the most logical next step is to proceed with our most recent plan of initially marketing our wines (2008-2011) through a wholesale approach." Additionally she commented that they would grow all of the grapes need for their wine on their land, and initially process the grapes themselves to save on additional costs. She went on to write that "projections show that by the end of the year 2011 we will outgrow this facility and we will need more capacity", to which she details the idea of building a building to house a tasting facility, winemaking store, and processing facility for the wines (Gerke 2005).

In the weeks after Colleen had decided on a direct sales distribution channel, she spent a lot of time figuring profit margins on different types of wine products and grape varietals. Her reports indicated that certain types of wine would bring in more revenue than other wines they had considered, and from this Colleen and Jason revised their planting schedule to increase the number of plantings of grapes that had the highest profit margins (Gerke 2005). In addition to calculating these profit margins, Colleen had also written an overview of similar wineries within the marketplace, in which she identified the types of products each sold, the product prices, the wineries' marketing tactics, and what each wineries' distribution channels were.

By the fall of 2006 the winery was bonded and licensed as a domestic winery. Because they knew that Kansas and Missouri had entirely different sets of distribution laws, it did not take them long to determine a "domestic wine permit" would be the best license for them; it would allow them to sell both retail and wholesale, the taxes paid would be on volume, and wholesale would offer the highest profit margin. Under the

domestic winery license they were able to direct sell to consumers, which they remarked "was definitely a benefit (that was included) to Missouri wineries". In the fall of 2007 they had to apply for a new license, a wholesaler/solicitor and a manufacturer/solicitor license, as the winery was growing so fast they needed to purchase bulk wine to add to inventory (bulk wine cannot be purchased under a domestic wine license in the state of Missouri).

Currently Jowler Creek uses two distribution methods, direct to consumer sales and direct to retailer sales; they do not distribute through a traditional distributor, broker or marketer. Direct to consumer sales are through the winery's wine club and through their tasting room, opened at the vineyard July 4, 2008. Direct to retailer sales are focused on wine and liquor stores, not restaurants. A timeline of their direct to retailer sales locations is given in Table 5.1. Jowler Creek chose their original retail stores based on specific criteria: the stores had to have a customer base that goes into the store specifically to buy wine, it had to carry other local products (Missouri and Kansas wines), and the manager of the store had to be interested in carrying Missouri wines. Their biggest concerns with additional retailers are not having so many as to not run out of product for shelf space, and not having retailers located too far from the winery since the Gerke's are still learning about the logistics of having to deliver all product to the retailers in a timely manner. The goal of the winery has been cited to be self-sustaining, and the Gerke's keep that vision in mind with regards to their distribution channel, "We're never gonna compete with the big guys (in the state); we want to stay on the boutique side," Jason has said (Chapin 2007). The couple mentioned that even if they

wanted to, right now they do not have enough volume to sell through a traditional distributor, although they commented if the winery one day had the volume, traditional distributors could provide a service to more efficiently move wine around.

The winery's focus is on product quality. "We plan to keep the focus on quality – from grape to glass," Colleen was quoted in the *Platte County Citizen*, "And when it's time to harvest we'll keep the emphasis on quality rather than quantity. Our goal is to truly get the most flavor in every glass" (2006). The first case sold was in 2007, at the Wine and Bluegrass Festival in Excelsior Springs, and the rest of the product over the course of the summer and fall. By Christmas 2007 Jowler Creek was "pretty much sold out", with 80-90 percent sold through retail stores and the other 10-20 percent direct to family and friends through the winery's wine club.

Table 5.1: Timeline of Jowler Creek Direct to Retailer Locations

Retailer	Location	Date started supplying
Cellar Rat Wine Merchants	Kansas City, MO	8/9/2007
Gomer's Fine Wine and Spirits	Parkville, MO	8/9/2007
Lukas Liquor Superstore	Kansas City, MO	7/28/07
Olive-or-Twist Liquor	Platte City, MO	6/15/07
Platte City Cash Saver	Platte City, MO	7/23/07
Rimann Liquor	Kansas City, MO	7/28/07
The Saint George Hotel Wine Bank	Weston, MO	7/28/07
Vino 100	Kansas City, MO	8/13/07
Willow Springs Mercantile	Excelsior Springs, MO	10/11/07
Wines by Jennifer	Parkville, MO	8/14/07
Green Acres Market	Kansas City MO	Between 4/08 – 11/08
Heavenly Scent	Platte City, MO	Between 4/08 – 11/08
Hyvee	Belton, MO	Between 4/08 – 11/08
Hyvee	St. Joseph, MO	Between 4/08 – 11/08
Pop A Top Liquor and Deli	Liberty, MO	Between 4/08 – 11/08
Red X	Kansas City, MO	Between 4/08 – 11/08
The Wine Cellar	Kansas City, MO	Between 4/08 – 11/08

Note: This table shows the timeline of Jowler Creek's addition of direct to retailer locations, from the beginning of the winery's formation to the present.

5.6 Analysis

The case study performed on Jowler Creek provides some interesting results. First, let me emphasize that Jowler Creek's primary distribution channel was representative of other wineries that responded to the survey in Chapter 4. The majority of respondents indicated that direct sales were their primary distribution channel, as is show in Table 5.2, and although Jowler Creek uses two distribution methods, they are both in the direct sales channel.

Table 5.2: Wineries' Primary Distribution Channel

	Traditional Distributor/ Wholesaler	Direct Sales
All Wineries (N=151)*	51	96
Small Wineries (N=149)*	49	96

Note: This table shows the number of survey respondents from Chapter 4 that used market and direct sales distribution channels as their primary distribution channel. *N does not sum to total sample size as a result of non-respondents.

The analysis in Chapter 4 showed that many criteria were important in selecting a winery's distribution channel. The most significant included wine product, the winery's desired future product position in the market, the winery's financial and human resources, distributor channel costs, the distributor's location, the distributor's portfolio and a state's legal restrictions. Also found significant included the state's wine market, a state's direct shipment laws and the annual sales of the winery, although these last criteria were not explicitly identified by wineries. From the case summary and the timeline of Jowler Creek's recorded decisions, the initial selection criteria Jowler Creek felt were important included costs of the channel and the winery's financial and human resources. When Jowler Creek made their decision to wholesale, they specifically commented on the costs associated with the distribution channels, and ways the winery could save on expenses. The winery's mission is self-sustainability and keeping expenses manageable is extremely important to them. After deciding on the general type of channel (direct sales), other characteristics played an important part in refining the channel selection (direct to consumer, direct to retailer, or both) including the state's direct shipment laws, the amount of wine available to sell, the profit margin on each type of outlet, how the wine

they produced fit into a respective channel, and the location of the winery with respect to selected retail outlets.

The criteria identified in the Jowler Creek case study provide support for the hypothesis, that the distribution channel selection criteria found significant to the broad sample, will be supported on a micro-level, to individual wineries. In deciding their distribution channel, Jowler Creek employed the same selection criteria that were found significant in Chapter 4, either in initially deciding the type of distribution channel, or in refining that decision to focus on more specific avenues within the channel. The analysis of the case study also provides specific support for the hypothesis that distribution channel costs will be a significant factor in a winery's decision to vertically integrate. Jowler Creek's primary selection criteria were costs associated with the distribution channel and the winery's financial and human resources. Given Jowler Creek's understanding of traditional distributor costs, and even the costs associated with direct sales, they decided to distribute their own wine, and further narrowed the channel into direct to retail (seller) sales and direct to consumer sales. While financial and human resources were shown to increase a winery's probability of choosing a dual distribution method, it could be that for some one- or two-person operations like Jowler Creek, their concerns with channel costs are more prominent if they are directly related to the winery's financial and human resources, in that even partly distributing through a traditional distributor would increase the transaction costs to the winery. With any type of sales through an agent, there are transaction costs like negotiation, and monitoring and

enforcement, which could put a strain on any firm with small financial and human resources.

5.7 Conclusions

While the results of this case study add to our understanding of what criteria wineries use to select their distribution channels, and how those criteria are further used to refine the channel, the analysis of this case study should be interpreted conservatively. This case study was performed on only one winery operating in a state allowing multiple distribution channels. The winery is extremely small and very new, and while it is representative of those responding to the survey in Chapter 4, may not be representative to all wineries across the United States, or for that matter all firms. Additional research is needed to determine if the process by which Jowler Creek organized is similar to the process that other wineries use, although that data collection may be difficult, as older, more established wineries, are less likely to document their organizational process, and tend to be less willing to share proprietary information.

Chapter 6

Summary and Future Research

This dissertation provides an empirical linkage between New Institutional Economics and the United States alcohol industry, with a specific look at the wine industry. Using an institutional economics framework, it illustrates the motivations for part of the industry's current institutional environment, examines the impact of a changing institutional environment on contractual relations within a subsector of the industry, and explores the criteria that firm's within that subsector use to organize. The analyses in the preceding chapters directly contribute to three sets of literature, literature on the impact of institutions, literature on general organizational design and governance, and specific literature on wineries' organizational designs. The first two literatures are mostly academic, while the last is of direct importance to the wine industry. The overarching theme of the dissertation is that institutions matter- they matter to the ways that firms structure their businesses and the ways that firms facilitate their transactions.

Regulation is one type of formal institution, and is an underlying feature of each chapter. Regulation of alcohol is nothing new, but continues to impact the structure and organization of firms within the industry. Structural changes with the production and distribution segments of the industry coupled with changing consumption patterns have facilitated the need for judicial interpretation of long-standing laws, and regulatory response by states. These changes in industry regulation have led researchers to question

the purpose of the extensive institutional network, and the motivation for the extensive body of legislation.

The motivation for these changing regulations has been shown by other researchers to be explained by the private interest theory of regulation. This dissertation shows that other, more long-standing types of industry regulation like excise taxes can be explained by the private interest theory as well, but are better explained by the Baptists and Bootleggers theory, that different groups work together for common regulation, although they are separately motivated. This dissertation also shows that while certain types of regulation like direct shipment are often cited as having a direct impact on firms within an industry, and therefore cited as a primary concern to those firms, actors within the industry may view the importance of the regulatory situation differently. The legal environment was shown to be a significant factor in the structure and content of transactional governance, and a significant criterion impacting the choice of organizational governance although more study is needed on this in order to confirm the findings across broad spectra of the producer population.

This dissertation is not without room for improvement. Some extensions to the research include examining the underlying motivation for other regulations within the industry in Chapter 3, possibly by calculating some measure of state alcohol policy ideology to measure the stringency of the states' regulations. Additionally it would be interesting to extend the data set through the current period, in order to see if the motivations for regulation stay consistent or change over time given institutional changes or exogenous economic shocks like the current recession.

A natural extension of Chapter 4 would be to view the transactional analysis through the other side of the relationship to see if the same contractual forms and structures hold for the distributor. Also in Chapter 4, it would be interesting and quite innovative to research the idea of contractual evolution as a dynamic process as opposed to the static process of contractual change from institutional shocks. This would require increased participation from wineries, either in terms of survey response or through a combination individual contract submission and winery interviews, which could be extremely difficult to achieve.

Finally, a natural extension of Chapter 5 would be to extend the case study analysis to multiple firms, of varying ages, across different states regulatory regimes, in order to understand how the organizational selection criteria affect wineries differently. Regulation will continue to play an important role in the industry, and understanding the true motivations for it, and how it impacts the transactions of firms along the value chain can only add to researchers understanding of the economic opportunities available.

Winery Distribution Agreements--Mailer

1. Survey Code

The code listed at the bottom of the mailed cover letter is required for participation.

1. Please enter the survey code found at the bottom of the mailed cover letter.

2. General Distribution Information

In thinking about the general business functions and operations at your winery branch:

1. Under which general type of license does your winery operate? Check only one.

- ◯ Production (but not on-site retail)
- ◯ On-site retail (OSR)
- ◯ Solicitor and OSR
- ◯ Wholesaler, solicitor and OSR

2. If your winery is a subsidiary of a parent company, which party negotiates your wine distribution agreements? Check only one.

- ◯ Winery
- ◯ Parent company
- ◯ Not a subsidiary

3. How would you classify your annual sales? Check only one.

- ◯ $0-500,000
- ◯ $500,000-1 million
- ◯ $1-2 million
- ◯ $2-3 million
- ◯ $3-5 million
- ◯ $5-10 million
- ◯ $10-15 million
- ◯ $15-20 million
- ◯ $20-25 million
- ◯ $25-30 million
- ◯ $30-40 million
- ◯ $40-50 million
- ◯ $50-75 million
- ◯ $75-100 million
- ◯ $100-150 million
- ◯ $150-200 million
- ◯ over $200 million

4. How would you classify your annual production (by cases)? Check only one.

- ◯ Under 5,000
- ◯ 5,000-9,999
- ◯ 10,000-49,999
- ◯ 50,000-99,999
- ◯ 100,000-499,999
- ◯ 500,000-999,999
- ◯ Over 1,000,000

5. To which groups do you directly supply wine? Check all that apply.

- ☐ Retail sellers (grocery or liquor stores)
- ☐ Retail servers (restaurants)
- ☐ On-premises consumers (sales room or tasting facility)
- ☐ Distributor(s)/Wholesaler(s), if so indicate approximately how many
- ☐ Off-premises consumers (mail, phone, or internet orders)
- ☐ Brokers
- ☐ Marketers

Winery Distribution Agreements--Mailer

6. What is your PRIMARY distribution channel? Check only one.

- ◯ Distributor(s)/Wholesaler(s)
- ◯ Direct-to-retail sellers(grocery or liquor stores)
- ◯ Direct-to-retail servers(restaurants)
- ◯ Direct-to-consumer on premises (sales room or tasting facility)
- ◯ Direct-to-consumer off premises (mail, phone, or internet orders)
- ◯ Direct-to-brokers
- ◯ Direct-to-marketers

If checked distributors or direct-to-retail, indicate approximately how many do you service?

7. What were the criteria used in selecting your PRIMARY wine distribution channel? Check all that apply.

- ☐ Wine product
- ☐ Desired future product position in the market
- ☐ Location of target market
- ☐ Available product volume
- ☐ Other (please explain)
- ☐ Winery's financial and human resources
- ☐ Distribution channel costs
- ☐ Location of distributor
- ☐ Portfolio of distributor
- ☐ Prestige of distributor
- ☐ Control over product marketing

8. What was the MAIN criterion used in selecting your PRIMARY wine distribution channel? Check only one.

- ◯ Wine product
- ◯ Desired future product position in the market
- ◯ Location of target market
- ◯ Available product volume
- ◯ Other (please explain)
- ◯ Winery's financial and human resources
- ◯ Distribution channel costs
- ◯ Location of distributor
- ◯ Portfolio of the distributor
- ◯ Prestige of distributor
- ◯ Control over product marketing

Winery Distribution Agreements--Mailer

9. In which states do you currently have distribution agreements? Check all that apply.

- [ ] AL
- [ ] AK
- [ ] AZ
- [ ] AR
- [ ] CA
- [ ] CO
- [ ] CT
- [ ] DE
- [ ] DC
- [ ] FL
- [ ] GA
- [ ] HI
- [ ] ID
- [ ] IL
- [ ] IN
- [ ] IA
- [ ] KS
- [ ] KY
- [ ] LA
- [ ] ME
- [ ] MD
- [ ] MA
- [ ] MI
- [ ] MN
- [ ] MS
- [ ] MO
- [ ] MT
- [ ] NE
- [ ] NV
- [ ] NH
- [ ] NJ
- [ ] NM
- [ ] NY
- [ ] NC
- [ ] ND
- [ ] OH
- [ ] OK
- [ ] OR
- [ ] PA
- [ ] RI
- [ ] SC
- [ ] SD
- [ ] TN
- [ ] TX
- [ ] UT
- [ ] VT
- [ ] VA
- [ ] WA
- [ ] WV
- [ ] WI
- [ ] WY

10. At which level are your wine distributor supply agreements negotiated? Check only one.

- ◯ Within-state (regional)
- ◯ Single-state
- ◯ Multi-state
- ◯ Other (please explain)

11. Are your wine distribution agreements brokered by a third party? Check only one.

- ◯ Yes
- ◯ No

12. Which party typically initiates your wine distributor agreements? Check only one.

- ◯ We approach distributor
- ◯ Distributor approaches us
- ◯ Broker approaches distributor
- ◯ Distributor approaches broker

13. How is product price determined at the supplier/distributor transaction level? Check all that apply.

- [ ] Fair market price, e.g. negotiated yearly
- [ ] Price based on some reference point (market rank)
- [ ] Fixed price in agreement
- [ ] Distributor suggests a maximum price
- [ ] Other (please explain)
- [ ] Distributor suggests a minimum price
- [ ] Winery suggests a maximum price
- [ ] Winery suggests a minimum price

14. Have you ever legally documented dissatisfaction with your primary distributor? Check only one.

- ◯ Yes
- ◯ No

If Yes, did the legal documentation improve the relationship with the distributor?

3. Wine Distribution Agreements

In thinking about the distribution agreement with your typical wine distributors, please respond to the following questions:

Note: For the purposes of this study, a distribution agreement is defined as the agreement between a winery and a distributor/wholesaler to distribute specific wine brands, in a specific region, over a specific time period.

1. Do you use written or oral distribution agreements with your distributors? Check only one.

- ◯ Written
- ◯ Oral
- ◯ Both (please explain)

2. For approximately how many years and months have you used written and/or oral distribution agreements?

Written

Oral

3. What is the duration of your typical distribution agreement? Check only one.

- ◯ 6 months or less
- ◯ 12 months or less
- ◯ 1-2 years
- ◯ indefinite
- ◯ Other (please explain)

Winery Distribution Agreements--Mailer

4. Does your distribution agreement specify:

	Yes	No
Quantity to be sold	◯	◯
Quality to be delivered	◯	◯
Minimum quality standards	◯	◯
Exclusive wholesaler in territory	◯	◯
Wholesaler's orders subject to approval by winery	◯	◯
Incentives based on case sales	◯	◯
Incentives based on number of employees per account	◯	◯

5. Clauses included in the distribution agreement (check all that apply):

- ☐ Clauses for disagreement resolution
- ☐ Termination clause
- ☐ Liquidated damages clause
- ☐ Other (please explain)
- ☐ "Good cause" defined or outlined in the agreement
- ☐ "Good cause" clause in termination clause

6. How often do you renegotiate the distribution agreement terms? Check only one.

- ◯ Every 6 months
- ◯ Annually
- ◯ At Renewal
- ◯ As Needed
- ◯ Other (please explain)

7. When you renegotiate the distribution agreement, which terms are typically renegotiated? Check all that apply.

- ☐ Price
- ☐ Quantity
- ☐ Territory
- ☐ Other (please explain)

4. Wine Marketing Agreements

In thinking about the marketing agreements with your typical wine distributors, please respond to the following questions:

Note: For the purposes of this study, a marketing agreement is defined as the agreement between a winery and a distributor/wholesaler to market specific wine brands, in a specific region, over a specific time period.

Winery Distribution Agreements--Mailer

1. Do you use written or oral marketing agreements with your distributors? Check only one.

- ◯ Written
- ◯ Oral
- ◯ Neither
- ◯ Both (please explain)

If you answered "Neither" to the first question on this page, please proceed to the first question of the next section, "Wine Performance Agreements".

2. For approximately how many years and months have you used written and/or oral marketing agreements?

Written

Oral

3. With which types of distributors do you also have marketing agreements? Check all that apply.

- ☐ Within-state (regional)
- ☐ Single-state
- ☐ Multi-state

4. What is the duration of your marketing agreements? Check only one.

- ◯ 6 months or less
- ◯ 12 months or less
- ◯ 1-2 years
- ◯ indefinite
- ◯ Other (please explain)

5. What features are included in the marketing agreement? Check all that apply.

- ☐ Amount of product to be sold in a given time period
- ☐ Suggested minimum or maximum price at which to sell product
- ☐ Maximum or minimum amount spent on product promotion
- ☐ Amount of promotional dollars dedicated to an account
- ☐ Number of promotional events to be held in a give time period
- ☐ Events or sponsorships to be held
- ☐ Display programs
- ☐ Incentives for product sale
- ☐ Amounts of sales samples
- ☐ Other (please explain)
- ☐ Point of Sale Printing Support
- ☐ Off Condition Product
- ☐ Depletion Allowance
- ☐ Incentives based on number of employees per account
- ☐ Case based incentives by territory
- ☐ Case based incentives per time period
- ☐ Promotional event incentives
- ☐ Incentives based on promotional dollars per account

6. Is there a clause for disagreement resolution in the marketing agreement?

- ◯ Yes
- ◯ No

7. How often do you renegotiate the marketing agreement terms? Check only one.

- ◯ Every 6 months
- ◯ Annually
- ◯ At Renewal
- ◯ As Needed
- ◯ Other (please explain)

8. When you renegotiate the marketing agreement, which terms are typically renegotiated? Check all that apply.

- ☐ Promotional dollars
- ☐ Promotional events
- ☐ Other (please explain)

9. Are your marketing agreements separate from the distribution agreements?

- ◯ Yes
- ◯ No

10. Are your marketing agreements separate from the performance agreements?

- ◯ Yes
- ◯ No

5. Wine Performance Agreements

In thinking about the performance agreements with your typical wine distributor, please respond to the following questions:

Note: For the purposes of this study the performance agreement is defined as an agreement between a winery and a distributor/wholesaler over a given time period, specifying measures of relationship performance that each party must meet.

1. Do you use written or oral performance agreements with your distributors? Check only one.

- ◯ Written
- ◯ Oral
- ◯ Neither
- ◯ Both (please explain)

If you answered "Neither" to the first question on this page, please proceed to the first question of the next section, "Direct Shipment of Wine to Consumers".

2. For approximately how many years and months have you used written and/or oral performance agreements?

- Written
- Oral

Winery Distribution Agreements--Mailer

3. With which types of distributors do you also have performance agreements? Check all that apply.

- [ ] Within-state (regional)
- [ ] Single-state
- [ ] Multi-state
- [ ] Distributors with relations less than a year
- [ ] Distributors with relations more than a year

4. What is the duration of your performance agreements? Check only one.

- ◯ 6 months or less
- ◯ 12 months or less
- ◯ 1-2 years
- ◯ indefinite
- ◯ Other (please explain)

5. What features are included in the performance agreement? Check all that apply.

- [ ] Amount of product to be sold in a given time period
- [ ] Suggested minimum or maximum price at which to sell product
- [ ] Number of cases to be sold in a given area
- [ ] Number of employees dedicated to an account
- [ ] Other (please explain)
- [ ] Maximum and/or minimum amount spent on product promotion
- [ ] Amount of promotional dollars dedicated to an account
- [ ] Number of promotional events to be held in a given time period
- [ ] Wholesaler's use of winery's trademarks

6. Are your performance agreements separate from the distribution agreements?

- ◯ Yes
- ◯ No

7. Is there a clause for disagreement resolution in the performance agreement?

- ◯ Yes
- ◯ No

8. How often do you renegotiate the performance agreement terms? Check only one.

- ◯ Every 6 months
- ◯ Annually
- ◯ At Renewal
- ◯ As Needed
- ◯ Other (please explain)

6. Direct Shipment of Wine to Consumers

1. Does your state allow direct-to-CONSUMER shipment of wine? Check all that apply.

- [ ] Intra-state (within state)
- [ ] Inter-state (between states)
- [ ] Neither

Winery Distribution Agreements--Mailer

2. If your state does not allow direct-to-CONSUMER shipments, do you expect your wine distribution agreements to change in the near future (next 1-2 years)?

- ◯ No
- ◯ Yes, please explain

If you responded to the previous question, please proceed to the beginning of the next section, "Direct Shipment of Wine to Retailers".

3. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the NUMBER of DISTRIBUTION agreements you have with:

	More	Fewer	No Change
New distributors	◯	◯	◯
New markets in established states	◯	◯	◯
Previous distributors in new states	◯	◯	◯
New distributors in new states	◯	◯	◯
Within-state (regional) distributors	◯	◯	◯
Single-state distributors	◯	◯	◯
Multi-state distributors	◯	◯	◯

4. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the CONTENT and FORM of DISTRIBUTION agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous distribution agreements	◯	◯	◯
Termination clauses in new distribution agreements	◯	◯	◯
Formality with previous distributors	◯	◯	◯
Formality with new distributors	◯	◯	◯

5. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the NUMBER of MARKETING agreements you have with:

	More	Fewer	Not changed
Previous distributors in previous states	◯	◯	◯
New distributors in previous states	◯	◯	◯
Previous distributors in new states	◯	◯	◯
New distributors in new states	◯	◯	◯

Winery Distribution Agreements--Mailer

6. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the CONTENT and FORM of MARKETING agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous marketing agreements	◯	◯	◯
Termination clauses in new marketing agreements	◯	◯	◯
Formality with previous distributors	◯	◯	◯
Formality with new distributors	◯	◯	◯

7. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the NUMBER of PERFORMANCE agreements you have with:

	More	Fewer	Not changed
Previous distributors in previous states	◯	◯	◯
New distributors in previous states	◯	◯	◯
Previous distributors in new states	◯	◯	◯
New distributors in new states	◯	◯	◯

8. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the CONTENT and FORM of PERFORMANCE agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous performance agreements	◯	◯	◯
Termination clauses in new performance agreements	◯	◯	◯
Formality with previous distributors	◯	◯	◯
Formality with new distributors	◯	◯	◯

9. If your state currently allows direct-to-CONSUMER shipment, to what extent do you agree with the following statements, "Direct shipment has changed our relationships with..."

	Strongly disagree	Disagree	Agree	Strongly agree
Small distributors	◯	◯	◯	◯
Mid-size distributors	◯	◯	◯	◯
Large distributors	◯	◯	◯	◯

7. Direct Shipment of Wine to Retailers

Winery Distribution Agreements--Mailer

1. Does your state allow direct-to-RETAILER shipment of wine? Check all that apply.

☐ Intra-state (within state) ☐ Inter-state (between states) ☐ Neither

2. If your state does not allow direct-to-RETAILER shipments, do you expect your wine distribution agreements to change in the near future (next 1-2 years)?

◯ No

◯ Yes, please explain

If you responded to the previous question, please proceed to the beginning of the next section, "Additional comments".

3. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the NUMBER of DISTRIBUTION agreements you have with:

	More	Fewer	Not changed
New distributors	◯	◯	◯
New markets in established states	◯	◯	◯
Previous distributors in new states	◯	◯	◯
New distributors in new states	◯	◯	◯
Within-state (regional) distributors	◯	◯	◯
Single-state distributors	◯	◯	◯
Multi-state distributors	◯	◯	◯

4. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the CONTENT and FORM of DISTRIBUTION agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous distribution agreements	◯	◯	◯
Termination clauses in new distribution agreements	◯	◯	◯
Formality with previous distributors	◯	◯	◯
Formality with new distributors	◯	◯	◯

5. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the NUMBER of MARKETING agreements you have with:

	More	Fewer	Not changed
Previous distributors in previous states	◯	◯	◯
New distributors in previous states	◯	◯	◯
Previous distributors in new states	◯	◯	◯
New distributors in new states	◯	◯	◯

Winery Distribution Agreements--Mailer

6. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the CONTENT and FORM of MARKETING agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous marketing agreements	◯	◯	◯
Termination clauses in new marketing agreements	◯	◯	◯
Formality with previous distributors	◯	◯	◯
Formality with new distributors	◯	◯	◯

7. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the NUMBER of PERFORMANCE agreements you have with:

	More	Fewer	Not changed
Previous distributors in previous states	◯	◯	◯
New distributors in previous states	◯	◯	◯
Previous distributors in new states	◯	◯	◯
New distributors in new states	◯	◯	◯

8. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the CONTENT and FORM of PERFORMANCE agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous performance agreements	◯	◯	◯
Termination clauses in new performance agreements	◯	◯	◯
Formality with previous distributors	◯	◯	◯
Formality with new distributors	◯	◯	◯

9. If your state currently allows direct-to-RETAILER shipment, to what extent do you agree with the following statements, "Direct shipment has changed our relationships with..."

	Strongly disagree	Disagree	Agree	Strongly agree
Small distributors	◯	◯	◯	◯
Mid-size distributors	◯	◯	◯	◯
Large distributors	◯	◯	◯	◯

8. Additional Comments

If you would like to contribute an agreement sample to supplement the research or receive a copy of the research report and summary of survey results, please send an email to cori@missouri.edu.

Thank you for your time. Please include any additional comments regarding the organization of wine distribution agreements:

Wholesaler Wine Distribution Agreements--Mailer

1. Survey code

The code listed on the first page of your paper survey is required for participation.

1. Please enter the survey code found at the bottom of the mailed cover letter.

2. General Distribution Information

In thinking about the general business functions and operations at your branch:

1. As which type of distributor do you primarily operate? Check only one.

- ◯ Distributor
- ◯ Importer
- ◯ Broker
- ◯ Marketer

2. With what PRIMARY product do you work? Check only one.

- ◯ Beer
- ◯ Wine
- ◯ Spirits

3. What type of distributor is your firm? Check only one.

- ◯ Within-state (Regional)
- ◯ Single-state
- ◯ Multi-state

4. At which level are your supply agreements negotiated? Check only one.

- ◯ Within-state (Regional)
- ◯ Single-state
- ◯ Multi-state

5. How many suppliers does your branch office represent?

Number of suppliers

6. How would you classify your annual sales? Check only one.

- ◯ $0-500,000
- ◯ $500,000-1 million
- ◯ $1-2 million
- ◯ $2-3 million
- ◯ $3-5 million
- ◯ $5-10 million
- ◯ $10-15 million
- ◯ $15-20 million
- ◯ $20-25 million
- ◯ $25-30 million
- ◯ $30-40 million
- ◯ $40-50 million
- ◯ $50-75 million
- ◯ $75-100 million
- ◯ $100-150 million
- ◯ $150-200 million
- ◯ over $200 million

7. How would you classify your branch's market share of state wine sales?

Market share (%)

8. Are your wine distribution agreements brokered by a third party?

- ◯ Yes
- ◯ No

9. Which party TYPICALLY initiates your wine distributor agreements? Check only one.

- ◯ Supplier approaches us
- ◯ We approach supplier
- ◯ Broker approaches us
- ◯ We approach broker

10. How is product price determined at the supplier/distributor transaction level? Check all that apply.

- ☐ Fair market price, e.g. negotiated yearly
- ☐ Price based on some reference point (market rank)
- ☐ Fixed price in agreement
- ☐ Distributor suggests a maximum price
- ☐ Other (please explain)
- ☐ Distributor suggests a minimum price
- ☐ Winery suggests a maximum price
- ☐ Winery suggests a minimum price

11. Have you ever legally documented dissatisfaction with a supplier? Check only one.

- ◯ Yes
- ◯ No

If Yes, did the legal documentation improve the relationship with the supplier?

3. Wine Distribution Agreements

In thinking about the distribution agreement with your typical wine suppliers, please respond to the following questions:

Note: For the purposes of this study, a distribution agreement is defined as the agreement between a winery and a distributor/wholesaler to distribute specific wine brands, in a specific region, over a specific time period.

1. Do you use written or oral distribution agreements with your wine suppliers? Check only one.

- ◯ Written
- ◯ Oral
- ◯ Both (please explain)

2. For approximately how many years and months have you used written and/or oral distribution agreements?

Written

Oral

Wholesaler Wine Distribution Agreements--Mailer

3. What is the duration of your typical distribution agreement? Check only one.

- ◯ 6 months or less
- ◯ 12 months or less
- ◯ 1-2 years
- ◯ indefinite
- ◯ Other (please explain)

4. Does your distribution agreement specify:

	Yes	No
Quantity to be sold	◯	◯
Quality to be delivered	◯	◯
Minimum quality standards	◯	◯
Exclusive wholesaler in territory	◯	◯
Wholesaler's orders subject to winery's approval	◯	◯
Incentives based on case sales	◯	◯
Incentives based on number of employees per account	◯	◯

5. Clauses included in the distribution agreement (check all that apply):

- ☐ Clauses for disagreement resolution
- ☐ "Good cause" defined or outlined in the agreement
- ☐ Termination clause
- ☐ "Good cause" clause in termination clause
- ☐ Liquidated damages clause
- ☐ Other (please explain)

6. How often do you renegotiate the distribution agreement terms? Check only one.

- ◯ Every 6 months
- ◯ Annually
- ◯ At Renewal
- ◯ As Needed
- ◯ Other (please explain)

7. When you renegotiate the distribution agreement, which terms are typically renegotiated? Check all that apply.

- ☐ Price
- ☐ Quantity
- ☐ Territory
- ☐ Other (please explain)

4. Wine Marketing Agreements

In thinking about the marketing agreements with your typical wine supplier, please respond to the following questions:

Note: For the purposes of this study, a marketing agreement is defined as the agreement between a winery and a distributor/wholesaler to market specific wine brands, in a specific region, over a specific time period.

Wholesaler Wine Distribution Agreements--Mailer

1. Do you use written or oral marketing agreements?

- ◯ Written
- ◯ Oral
- ◯ Neither
- ◯ Both (please explain)

If you answered "Neither" to the first question on this page, please proceed to the first question of the next section, "Wine Performance Agreements".

2. For approximately how many years and months have you used written and/or oral marketing agreements?

Written

Oral

3. What is the duration of your marketing agreements? Check only one.

- ◯ 6 months or less
- ◯ 12 months or less
- ◯ 1-2 years
- ◯ indefinite
- ◯ Other (please explain)

4. With which types of suppliers do you also have marketing agreements? Check all that apply.

- ☐ Small (Annual Production under 50,000 cases)
- ☐ Mid-Size (Annual Production 50,000-99,999 cases)
- ☐ Large (Annual Production over 100,000 cases)

5. What features are included in the marketing agreement? Check all that apply.

- ☐ Amount of product to be sold in a given time period
- ☐ Suggested minimum or maximum price at which to sell product
- ☐ Maximum or minimum amount spent on product promotion
- ☐ Amount of promotional dollars dedicated to an account
- ☐ Number of promotional events to be held in a give time period
- ☐ Events or sponsorships to be held
- ☐ Display programs
- ☐ Incentives for product sale
- ☐ Other (please explain)
- ☐ Amounts of sales samples
- ☐ Point of Sale Printing Support
- ☐ Off Condition Product
- ☐ Depletion Allowance
- ☐ Incentives based on number of employees per account
- ☐ Case based incentives per time period
- ☐ Promotional event incentives
- ☐ Incentives based on promotional dollars per account

6. Is there a clause for disagreement resolution in the marketing agreement?

- ◯ Yes
- ◯ No

7. How often do you renegotiate the marketing agreement terms? Check only one.

- ◯ Every 6 months
- ◯ Annually
- ◯ At Renewal
- ◯ As Needed
- ◯ Other (please explain)

8. When you renegotiate the marketing agreement, which terms are typically renegotiated? Check all that apply.

- ☐ Promotional dollars
- ☐ Promotional events
- ☐ Other (please explain)

9. Are your marketing agreements separate from the distribution agreements?

- ◯ Yes
- ◯ No

10. Are your marekting agreements separate from the performance agreements?

- ◯ Yes
- ◯ No

5. Wine Performance Agreements

In thinking about the performance agreements with your typical wine supplier, please answer the following questions:

Note: For the purposes of this study the performance agreement is defined as an agreement between a winery and a distributor/wholesaler over a given time period, specifying measures of relationship performance that each party must meet.

1. Do you use written or oral performance agreements? Check only one.

- ◯ Written
- ◯ Oral
- ◯ Neither
- ◯ Both (please explain)

If you answered "Neither" to the first question on this page, please proceed to the first question of the next section, "Direct Shipment of Wine to Consumers".

2. For approximately how many years and months have you used written and/or oral performance agreements?

Written

Oral

3. With which types of suppliers do you also have performance agreements? Check all that apply.

- ☐ Small (Annual Production under 50,000 cases)
- ☐ Mid-Size (Annual Production 50,000-99,999 cases)
- ☐ Large (Annual Production over 100,000 cases)
- ☐ Suppliers with relations less than a year
- ☐ Suppliers with relations more than a year

Wholesaler Wine Distribution Agreements--Mailer

4. What is the duration of your performance agreements? Check only one.

- ◯ 6 months or less
- ◯ 12 months or less
- ◯ 1-2 years
- ◯ indefinite

5. What features are included in the performance agreement? Check all that apply.

- ☐ Amount of product to be sold in a given time period
- ☐ Suggested minimum or maximum price at which to sell product
- ☐ Number of cases to be sold in a given area
- ☐ Number of employees dedicated to an account
- ☐ Maximum and/or minimum amount spent on product promotion
- ☐ Amount of promotional dollars dedicated to an account
- ☐ Number of promotional events to be held in a given time period
- ☐ Wholesaler's use of winery's trademarks
- ☐ Other (please explain)

6. Are your performance agreements separate from the distribution agreements?

- ◯ Yes
- ◯ No

7. Is there a clause for disagreement resolution in the performance agreement?

- ◯ Yes
- ◯ No

8. How often do you renegotiate the performance agreement terms? Check only one.

- ◯ Every 6 months
- ◯ Annually
- ◯ At Renewal
- ◯ As Needed
- ◯ Other (please explain)

6. Direct Shipment of Wine to Consumers

1. Does your state allow direct-to-CONSUMER shipment of wine? Check all that apply.

- ☐ Intra-state (within state)
- ☐ Inter-state (between states)
- ☐ Neither

2. If your state does not allow direct-to-CONSUMER shipments, do you expect your wine distribution agreements to change in the near future (next 1-2 years)?

- ◯ No
- ◯ Yes, please explain

If you responded to the previous question, please proceed to the beginning of the next section, "Direct Shipment of Wine to Retailers".

Wholesaler Wine Distribution Agreements--Mailer

3. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the NUMBER of DISTRIBUTION agreements you have with:

	More	Fewer	No Change
New intra-state wineries	◯	◯	◯
Previous intra-state wineries	◯	◯	◯
New inter-states wineries	◯	◯	◯
Previous inter-state wineries	◯	◯	◯

4. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the CONTENT and FORM of DISTRIBUTION agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous distribution agreements	◯	◯	◯
Termination clauses in new distribution agreements	◯	◯	◯
Formality with previous suppliers	◯	◯	◯
Formality with new suppliers	◯	◯	◯

5. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the NUMBER of MARKETING agreements you have with:

	More	Fewer	No Change
New intra-state wineries	◯	◯	◯
Previous intra-state wineries	◯	◯	◯
New inter-states wineries	◯	◯	◯
Previous inter-state wineries	◯	◯	◯

6. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the CONTENT and FORM of MARKETING agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous marketing agreements	◯	◯	◯
Termination clauses in new marketing agreements	◯	◯	◯
Formality with previous suppliers	◯	◯	◯
Formality with new suppliers	◯	◯	◯

Wholesaler Wine Distribution Agreements--Mailer

7. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the NUMBER of PERFORMANCE agreements you have with:

	More	Fewer	No Change
New intra-state wineries	◯	◯	◯
Previous intra-state wineries	◯	◯	◯
New inter-states wineries	◯	◯	◯
Previous inter-state wineries	◯	◯	◯

8. If your state currently allows direct-to-CONSUMER shipment, which of the following changes have occurred in the CONTENT and FORM of PERFORMANCE agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous performance agreements	◯	◯	◯
Termination clauses in new performance agreements	◯	◯	◯
Formality with previous suppliers	◯	◯	◯
Formality with new suppliers	◯	◯	◯

9. If your state allows direct-to-CONSUMER shipment, to what extent do you agree with the following statement, "Direct shipment has changed our relationships with..."

	Strongly disagree	Disagree	Agree	Strongly Agree
Intra-state small wineries	◯	◯	◯	◯
Inter-state small wineries	◯	◯	◯	◯
Intra-state mid-size wineries	◯	◯	◯	◯
Inter-state mid-size wineries	◯	◯	◯	◯
Intra-state large wineries	◯	◯	◯	◯
Inter-state large wineries	◯	◯	◯	◯

7. Direct Shipment of Wine to Retailers

1. Does your state allow direct-to-RETAILER shipment of wine? Check all that apply.

☐ Intra-state (within state) ☐ Inter-state (between states) ☐ Neither

2. If your state does not allow direct-to-RETAILER shipments, do you expect your wine distribution agreements to change in the near future (next 1-2 years)?

◯ No

◯ Yes, please explain

Wholesaler Wine Distribution Agreements--Mailer

If you responded to the previous question, please proceed to the beginning of the next section, "Additional comments".

3. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the NUMBER of DISTRIBUTION agreements you have with:

	More	Fewer	No Change
New intra-state wineries	◯	◯	◯
Previous intra-state wineries	◯	◯	◯
New inter-states wineries	◯	◯	◯
Previous inter-state wineries	◯	◯	◯

4. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the CONTENT and FORM of DISTRIBUTION agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous distribution agreements	◯	◯	◯
Termination clauses in new distribution agreements	◯	◯	◯
Formality with previous suppliers	◯	◯	◯
Formality with new suppliers	◯	◯	◯

5. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the NUMBER of MARKETING agreements you have with:

	More	Fewer	No Change
New intra-state wineries	◯	◯	◯
Previous intra-state wineries	◯	◯	◯
New inter-states wineries	◯	◯	◯
Previous inter-state wineries	◯	◯	◯

6. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the CONTENT and FORM of MARKETING agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous marketing agreements	◯	◯	◯
Termination clauses in new marketing agreements	◯	◯	◯
Formality with previous suppliers	◯	◯	◯
Formality with new suppliers	◯	◯	◯

Wholesaler Wine Distribution Agreements--Mailer

7. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the NUMBER of PERFORMANCE agreements you have with:

	More	Fewer	No Change
New intra-state wineries	◯	◯	◯
Previous intra-state wineries	◯	◯	◯
New inter-states wineries	◯	◯	◯
Previous inter-state wineries	◯	◯	◯

8. If your state currently allows direct-to-RETAILER shipment, which of the following changes have occurred in the CONTENT and FORM of PERFORMANCE agreements:

	Have increased	Have decreased	Not changed
Termination clauses in previous performance agreements	◯	◯	◯
Termination clauses in new performance agreements	◯	◯	◯
Formality with previous suppliers	◯	◯	◯
Formality with new suppliers	◯	◯	◯

9. If your state allows direct-to-RETAILER shipment, to what extent do you agree with the following statement, "Direct shipment has changed our relationships with..."

	Strongly disagree	Disagree	Agree	Strongly Agree
Intra-state small wineries	◯	◯	◯	◯
Inter-state small wineries	◯	◯	◯	◯
Intra-state mid-size wineries	◯	◯	◯	◯
Inter-state mid-size wineries	◯	◯	◯	◯
Intra-state large wineries	◯	◯	◯	◯
Inter-state large wineries	◯	◯	◯	◯

8. Additional Comments

If you would like to contribute an agreement sample to supplement the research, or receive a copy of the research report and summary of survey results, please send an email to cori@missouri.edu.

Thank you for your time. Please include any additional comments regarding the organization of wine distribution agreements:

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