

**OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA**

EVALUATION REPORT

Liquor Regulation



MARCH 2006

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OFFICE OF THE LEGISLATIVE AUDITOR
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March 2006

Members of the Legislative Audit Commission:

Minnesota's liquor laws have been controversial in recent years. Some people have suggested that Minnesota consumers pay a significant price for the state's restrictions on retail and wholesale competition in the liquor industry. Others maintain that prices in Minnesota are competitive with other states and current state laws help control excessive consumption of alcoholic beverages.

The Legislative Audit Commission directed the Office of the Legislative Auditor to examine the competitiveness of the state's liquor industry and the impact that fewer restrictions would have on alcohol abuse and public safety.

We found that good information on liquor prices across states is not readily available, and few studies have examined the link between state regulatory provisions and liquor prices. In addition, research does not clearly answer many questions about the relationship between regulations on the liquor industry and alcohol abuse.

We surveyed off-sale liquor prices in Minnesota and Wisconsin and concluded that Minnesota consumers would benefit from fewer restrictions on retail competition. Additional consumer savings may be possible by changing state laws regulating beer and wine wholesalers. However, policymakers will want to weigh the benefits of lower prices and improved convenience against the potential for increased alcohol abuse and negative impacts on municipal liquor stores.

This report was researched and written by John Yunker (project manager) and Jan Sandberg. We appreciate the cooperation we received from the many retailers we visited in both Minnesota and Wisconsin. In addition, we thank the wholesalers and others who provided us with information during this study.

Sincerely,



James Nobles
Legislative Auditor

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Summary

Removing state restrictions on competition in the liquor industry would lower prices and improve convenience, but some adverse impacts are also possible.

Major Findings:

- Minnesota restricts retail competition in the liquor business more than most states. Minnesota prohibits most grocery, convenience, drug, and general merchandise stores from selling strong beer, wine, and spirits for off-premises consumption. In addition, most of the 226 cities with city-owned liquor stores have an off-sale monopoly on these products within their city boundaries (pp. 11-14).
- Minnesota's laws for beer and wine wholesalers are similar to those in other states. A retailer is generally able to purchase a manufacturer's brands from only one wholesaler (pp. 7-8).
- In contrast, Minnesota requires manufacturers of distilled spirits to sell their brands to any licensed wholesaler, which encourages strong price competition among spirits wholesalers (p. 7).
- Adjusted for differences in taxes and dram shop insurance costs, off-sale beer prices are 7 to 9 percent higher in Minnesota compared with Wisconsin, where there are few state restrictions on retail competition (pp. 28, 33).
- Similarly, adjusted wine prices are 5 to 7 percent higher in Minnesota than Wisconsin (p. 28).
- However, adjusted prices for distilled spirits are 8 to 10 percent lower in Minnesota despite the state's more restrictive retail environment. The state's prohibition on the use of exclusive territories for the wholesale distribution of spirits is most likely responsible for Minnesota's lower off-sale retail prices (pp. 28, 39).
- Overall, adopting less restrictive retail laws like those in Wisconsin could save Minnesota consumers about \$100 million annually. But such law changes would negatively impact existing private liquor stores and jeopardize the \$16 million in annual profits that municipal liquor stores currently provide for city services (p. 40).
- In addition, some research suggests that adopting Wisconsin's retail laws might increase problems with alcohol abuse. But allowing grocery stores to sell wine would probably have significantly smaller economic and social impacts (pp. 41, 53, 58).
- While there would probably be significant price savings for consumers, banning exclusive territories for beer and wine distribution might limit product availability and reduce other consumer benefits (pp. 42-43).

Report Summary

For a number of years, legislation has been introduced in the Minnesota Legislature to allow the sale of wine in grocery stores. During the 2005 legislative session, the Minnesota Grocers Association presented a consultant's report on liquor prices. The report contended that Minnesotans pay substantially higher wine and spirits prices than residents of Wisconsin. The report blamed Minnesota laws for fostering a lack of competition in the wholesale and retail sectors of Minnesota's liquor industry. Liquor retailers and wholesalers disputed the report's findings about prices. They and others also raised concerns about increased problems with alcohol use that might result from greater retail availability of intoxicating beverages.

Minnesota laws generally restrict competition in the liquor industry.

As a result, the Legislative Audit Commission directed us to examine the competitiveness of the wholesale and retail sectors of Minnesota's liquor industry. This report examines the price differences between Minnesota and Wisconsin stores selling intoxicating beverages for off-premises consumption. The report also assesses whether Minnesota liquor laws are restricting competition and increasing consumer prices. Finally, the report considers the potential negative social impacts of encouraging alcohol use through lower prices and greater availability.

Minnesota restricts off-sale retail competition in the liquor business more than most states.

Minnesota does not allow most grocery, convenience, drug, or general merchandise stores to sell strong beer, wine, or spirits for off-premises consumption. Minnesota allows grocery and other non-liquor stores to sell only 3.2 beer and malt beverages.

State law also restricts the number of off-sale stores in Minneapolis, St. Paul, and Duluth.

In contrast, at least three-fourths of the states allow strong beer to be sold in grocery, convenience, and drug stores, and about two-thirds of the states allow wine to be sold in these types of stores. One-third of the states also allow spirits to be sold in grocery and convenience stores.

In addition, 226 Minnesota cities operated municipal liquor stores in 2004. These cities, representing close to 18 percent of the state's population, generally do not allow private off-sale liquor stores to operate within their boundaries. Overall, Minnesota ranked 9th highest among the 50 states in 2002 in revenues from government-operated retail stores and wholesale operations.

Even though Minnesotans consume about 9 percent more alcohol than the national average, state laws have restricted the number of off-sale liquor stores selling strong beer, wine, or spirits to well below the national average. Minnesota has fewer off-sale liquor outlets per adult than 40 other states and the District of Columbia. The number of off-sale outlets per adult is only about one-third of the national average.

Minnesota laws encourage competition among spirits wholesalers but restrict competition among beer and wine wholesalers.

In all states including Minnesota, each brewer assigns territories to beer wholesalers. Retailers purchasing a particular brewer's products may only obtain them from the one wholesaler who represents the brewer in that area. Similarly, in nearly all states, a vintner assigns territories to wine wholesalers, although one wholesaler will generally represent a vintner throughout most, if not all, of the state.

Restrictions on retail competition result in higher beer and wine prices.

Spirits manufacturers also assign exclusive territories to wholesalers in most states. However, in Minnesota and Oklahoma, spirits manufacturers are required to sell to any licensed wholesaler. The prohibition on exclusive territories encourages competition by allowing retailers a choice of wholesalers.

Minnesota state law also provides protection for beer wholesalers from being terminated by brewers. Franchise protection, combined with Minnesota's requirement for exclusive territories, may make it difficult for brewers to terminate inefficient wholesalers.

Off-sale prices for beer and wine are higher in Minnesota than in Wisconsin, but prices for distilled spirits are lower.

Comprehensive information on retail liquor prices across the United States is not available from any source. As a result, we conducted an in-store survey of prices in Minnesota and Wisconsin during a 10-day period in November 2005. Wisconsin was selected as a comparison state because of its less restrictive retail laws, as well as its proximity to Minnesota. We focused on prices of liquor sold for off-premises consumption because of the difficulties of making fair comparisons of on-sale prices.

However, distilled spirits prices are lower because state law encourages competition among spirits wholesalers.

The results of our price survey suggest that beer and wine prices are higher in Minnesota than in Wisconsin. But prices of distilled spirits are lower in Minnesota despite Minnesota's more restrictive retail laws. Including sales prices, beer prices were 9 percent higher in Minnesota than Wisconsin, after adjusting for differences in taxes and the cost of mandated dram shop insurance coverage. Similarly, Minnesota wine prices were 7 percent higher than Wisconsin prices. However, prices of distilled spirits were about 8 percent lower in Minnesota than Wisconsin after tax and insurance adjustments.

Within Minnesota, municipal liquor stores tend to charge prices that are about 3 to 8 percent higher than privately owned liquor stores. Municipal liquor stores are able to charge higher prices because of the monopoly most of them have within city boundaries. However, the proximity of liquor stores licensed by a county or neighboring city keeps the price difference at a modest level.

Minnesota's more restrictive retail laws are probably responsible for the state's higher beer and wine prices, while its relatively unique law for spirits wholesaling is responsible for its lower spirits prices.

Although data on wholesale and manufacturers' prices are not available for the two states, we think the main reason for Minnesota's higher wine and beer prices is the state's more restrictive retail laws. There are few differences between Minnesota and Wisconsin in the wine market other than the differences in retail restrictions. As a result, Wisconsin has twice the number of off-sale wine outlets that operate in Minnesota. Although there are other factors that may affect the difference in beer prices between the two states, we think that Minnesota's more restrictive retail environment probably explains most of the difference.

Minnesota's lower spirits prices appear to be largely the result of the state's ban on the use of exclusive territories for spirits distribution. Even though Minnesota does not have a large number of spirits wholesalers, the ban encourages competition among them and allows retailers to choose from more than one wholesaler. Minnesota spirits wholesalers appear to operate with much lower profit and cost margins than Wisconsin wholesalers. In addition, those wholesalers who distribute both wine and spirits in Minnesota indicate that their margins

Removing all state restrictions on competition may increase alcohol abuse and could jeopardize the existence of municipal liquor stores.

on spirits are much lower than the margins on wine.

Less restrictive retail laws could save Minnesota consumers about \$100 million annually but could have some negative impacts.

Minnesota consumers would benefit from improved convenience and could save about \$100 million per year for off-sale purchases of alcoholic beverages, if Minnesota laws on retail competition were similar to those in Wisconsin. This estimate assumes that Minnesota wine and beer prices would be similar to those in Wisconsin. In addition, we assume that Minnesota spirits prices would be about 7 percent lower than current Minnesota prices due to increased retail competition.

However, achieving such savings would probably require significant changes in Minnesota's retail environment. Wisconsin has twice the number of wine and spirits outlets per capita that currently operate in Minnesota and generally allows any type of store including convenience stores to sell alcoholic beverages.

Implementing Wisconsin-style retail laws could jeopardize the existence of Minnesota's municipal liquor stores and eliminate much of the \$16 million currently transferred to city budgets annually. In addition, competition from grocery, convenience, and supercenter stores could cause significant numbers of private liquor stores to go out of business. Wisconsin has fewer than half the number of traditional liquor stores that currently operate in Minnesota.

Enacting retail laws similar to those in Wisconsin would also raise concerns about the impact of lower prices and the increased availability of alcoholic beverages on alcohol abuse. The costs of excessive alcohol consumption have been estimated to be more than \$4.5 billion annually in Minnesota. While the evidence from research is

not definitive, policymakers should be cautious in considering dramatic changes in Minnesota's retail laws. Even a minor increase in the costs of alcohol abuse would offset the savings consumers would receive from lower prices and improved convenience.

Allowing grocery stores to sell wine would probably have relatively modest economic and social impacts.

In recent years, the Minnesota Legislature has considered allowing wine to be sold in grocery stores of a certain size. Such sales would have relatively modest economic and social impacts, since wine accounts for only about 15 percent of off-sale purchases. In addition, wine is not generally the alcoholic beverage of choice for underage users. Selling wine in grocery stores would likely lower wine prices in Minnesota but would probably save consumers only about \$15 million annually. Profits of existing stores would be affected, but most stores would probably stay in business.

Changes in state laws regulating beer and wine distribution would probably lower retail prices but could have some disadvantages for consumers as well.

Minnesota's lower spirits prices suggest that consumers might benefit significantly from additional competition in the wholesale distribution of beer and wine. Studies of beer distribution suggest that banning exclusive territories reduces retail beer prices. However, banning exclusive territories may also reduce the freshness of beer and limit product selection and availability.

Introduction

In 1933, the 21st Amendment to the United States Constitution ended Prohibition and gave states broad authority to regulate the liquor industry. All 50 states adopted a three-tier system consisting of manufacturers, wholesalers, and retailers. Most states place restrictions on the involvement of manufacturers and wholesalers in the retailing tier of the industry. Some states also place restrictions on the involvement of manufacturers in the wholesale tier. The purpose of those restrictions is to prevent the encouragement of alcohol consumption that occurred prior to Prohibition when manufacturers could be involved in retail operations.

States have taken different paths in regulating the liquor industry, particularly the retail sector. In Minnesota, grocery, convenience, drug, and general merchandise stores are prohibited from selling strong beer, wine, and distilled spirits for off-premises consumption. These stores may only sell beer and other malt beverages that contain no more than 3.2 percent alcohol by weight. In contrast, about three-fourths of the states allow grocery, convenience, and drug stores to sell strong beer; and two-thirds of the states allow these stores to sell wine. About one-third of the states allow these stores to sell spirits to the public.

Minnesota also has a significant local government presence in the operation of liquor stores. In 2004, 226 cities, accounting for close to 18 percent of the state's population, owned and operated liquor stores. Most of those cities do not allow private off-sale liquor stores to operate within their city boundaries. Only five other states have liquor stores operated by local governments, although state governments in 11 states operate, or control the operations of, retail liquor stores.

Legislation to allow the sale of wine in grocery stores has been considered by the Minnesota Legislature for several years. In 2005, the Minnesota Grocers Association presented a consultant's report on liquor prices to the Legislature. The report contended that Minnesota consumers paid an additional \$444 million in 2004 due to state laws that foster a lack of competition in the wholesale and retail sectors of the liquor industry. As evidence, the report said the results of a price survey showed substantially higher prices for wine and spirits in Minnesota, compared with Wisconsin, where there are few restrictions on the type of stores that may sell alcoholic beverages.

As a result, the Legislative Audit Commission directed us to examine the competitiveness of the wholesale and retail sectors of the liquor industry in Minnesota. Legislators were specifically interested in evaluating the restrictions currently placed on the type of stores eligible to sell alcoholic beverages at the retail level. In addition, there was legislative interest in examining state laws governing the wholesale sector. Concerns were also raised about the detrimental impact that removing current restrictions could have on public safety by encouraging greater consumption of alcoholic beverages. This report addresses the following issues:

- **How do Minnesota’s restrictions on the type of retail stores eligible to sell alcoholic beverages affect consumer prices?**
- **How do Minnesota’s restrictions on the wholesale sector affect consumer prices?**
- **Would less restrictive regulatory approaches negatively affect public safety or increase the costs of excessive alcohol consumption?**

To some extent, we also considered the impact of state laws on product availability. Our ability to address this issue was, however, limited by the lack of information and research on product availability. Comparisons of product availability within and across states are further complicated by the fact that differences in local consumer tastes significantly affect the availability of products.

To conduct this evaluation, we reviewed existing studies and applicable state and federal laws and regulations. We interviewed manufacturers, wholesalers, and retailers, or the interest groups representing the three sectors. We also interviewed staff from the Alcohol and Gambling Enforcement Division of the Department of Public Safety and faculty from the University of Minnesota’s Epidemiology Department.

In order to compare prices, we conducted a price survey at retail liquor outlets in Minnesota and Wisconsin. We visited 79 stores in Minnesota and Wisconsin, as well as three stores in North Dakota and two stores in Iowa. Retail price information was collected on 5 beers, 9 wines, and 16 spirits products. We used appropriate statistical methods to estimate price differences between Minnesota and Wisconsin for beer, wine, and spirits. We also adjusted our results for differences in state taxes and the costs of state-mandated dram shop insurance.

It was more difficult, however, to identify the source of the remaining price differences. Retail prices may vary due to differences in manufacturer’s prices, wholesale margins, or retail markups. But information on the differences in these three factors across states is not generally available. Through a combination of methods, we were able to provide a reasonable explanation for the remaining price differences. But, due to the lack of information on the finances of the three sectors of the industry, we cannot definitively identify the reasons for price differences.

Chapter 1 of this report provides background information on the liquor industry in Minnesota. It also compares state laws and regulations affecting the liquor industry in Minnesota with those in other states. Chapter 2 presents the results of our price survey of liquor stores in Minnesota and Wisconsin. We compare prices in Minnesota with those in Wisconsin and examine the factors that may explain the differences we found. We also present our observations on product availability and discuss the difficulties of comparing product availability. In Chapter 3, we examine the link between taxes or prices of alcoholic beverages and alcohol consumption. We also discuss the costs of alcohol abuse and examine the link between liquor taxes or prices and problems with alcohol abuse such as alcohol-related traffic fatalities.

Background

SUMMARY

Minnesota restricts retail competition in the liquor business by prohibiting certain types of private businesses from selling intoxicating beverages for off-premises consumption. In addition, most of the 226 cities in Minnesota operating liquor stores do not allow any private off-sale competition within their boundaries. As a result, Minnesota has substantially fewer retail outlets per capita selling intoxicating beverages for off-premises consumption than most states.

Minnesota laws affecting the wholesale industry vary significantly for beer, wine, and distilled spirits. Minnesota laws encourage competition in the wholesaling of distilled spirits but restrict competition among beer or wine wholesalers.

All 50 states have chosen to have a three-tier system for the production, distribution, and retail sales of alcoholic beverages. But states differ in the particular ways in which they regulate the economic activities of producers, wholesalers, and retailers. This chapter examines the regulation of the liquor industry by Minnesota and other states. In particular, the chapter addresses the following questions:

- **What are the main ways in which Minnesota regulates the economic activities of businesses that produce, distribute, or sell alcoholic beverages?**
- **How does Minnesota’s regulation of the liquor industry compare with that in other states?**

This chapter presents information on the key provisions of Minnesota laws and rules that impact competition in the liquor industry. Our focus is on those regulations that most affect the prices and availability of alcoholic beverages in Minnesota. We do not attempt to outline all the regulations affecting the liquor industry in Minnesota. When possible, we also provide comparative information on regulations in other states.

ALCOHOLIC BEVERAGES

Like most states, Minnesota state law defines an alcoholic beverage as any beverage containing more than one-half percent alcohol by volume.¹ There are three types of alcoholic beverages: malt liquor, wine, and distilled spirits. Malt liquor is any beer, ale, or beverage made from malt by fermentation. Wine is the product made from the alcoholic fermentation of grapes. Distilled spirits include ethyl alcohol, hydrated oxide of ethyl, and other products of distillation.

An alcoholic beverage contains more than one-half percent alcohol by volume.

¹ *Minnesota Statutes* 2005, 340A.101, subd. 2.

Intoxicating beverages contain more than 3.2 percent alcohol by weight.

Common types of distilled spirits include vodka, rum, whiskey, brandy, gin, tequila, cordials, and liqueurs. In this report, we use the terms alcoholic beverages and liquor interchangeably. In addition, we generally use the term beer when referring to malt liquor.

In Minnesota, a further distinction is made between intoxicating and non-intoxicating liquor. Intoxicating liquor includes beer, wine, and spirits containing more than 3.2 percent alcohol by weight. Minnesota law has fewer restrictions on the types of stores allowed to sell non-intoxicating beverages such as 3.2 percent beer or malt liquor, which may contain no more than 3.2 percent alcohol by weight.² Minnesota is one of only about six states in which 3.2 beer is sold.

THREE-TIER SYSTEM

The 21st Amendment to the United States Constitution, adopted in 1933 to repeal Prohibition, gave states the authority to regulate the liquor industry within their boundaries. Although Prohibition failed to stop the use of alcoholic beverages and resulted in the involvement of organized crime in the liquor industry, the U.S. Congress and state legislatures were wary of returning to pre-Prohibition regulations that allowed manufacturers of alcohol beverages to own or control the operation of retail businesses. As a result, states established regulations that spelled out the roles of each of the three tiers of the liquor industry: manufacturers, wholesalers, and retailers. States were particularly careful in restricting the activities of manufacturers and wholesalers in the retail sector of the industry.³

In Minnesota, with some minor exceptions, a manufacturer or wholesaler of alcoholic beverages cannot hold a retail liquor license. In addition, a retailer cannot own a manufacturer, importer, or wholesaler of alcoholic beverages.⁴ For the most part, shipments of alcoholic beverages manufactured outside Minnesota must be sent to a licensed wholesaler in Minnesota before being sold at the retail level.⁵ Licensed retailers in Minnesota are prohibited from buying alcoholic beverages for resale from another retailer.⁶

PUBLIC OR PRIVATE CONTROL

States also have the authority to operate the liquor industry or delegate the operation to cities or counties. Eighteen states have chosen to operate at least a

² *Minnesota Statutes* 2005, 340A.403 gives cities and counties the authority to issue off-sale and on-sale licenses for 3.2 malt liquor. *Minnesota Statutes* 2005, 340A.411 lists only three restrictions on such licenses.

³ Federal law also contains certain restrictions on the activities of manufacturers and wholesalers in the retail tier. State laws override the federal restrictions, so the federal provisions only apply in the absence of state laws on the subject.

⁴ *Minnesota Statutes* 2005, 340A.301, subd. 7.

⁵ *Minnesota Statutes* 2005, 340A.305 and *Minnesota Statutes* 2005, 340A.3021.

⁶ *Minnesota Statutes* 2005, 340.415.

portion of the wholesale or retail sector of the liquor industry.⁷ These states are generally referred to as “control states.” All of the control states are involved in the operation of some portion of the wholesale sector. Thirteen of the control states operate spirits wholesalers, while four states operate both spirits and wine wholesalers. Only one state operates the wholesale distribution of all alcoholic beverages. Of the eighteen control states, eleven operate retail liquor stores or hire private parties to operate stores on their behalf. In one control state, North Carolina, cities and counties operate retail liquor stores. The types of liquor sold at public retail stores vary from state to state. One common arrangement is that state stores only sell distilled spirits, since this is the product that most control states distribute at the wholesale level.⁸

The other 32 states and the District of Columbia are considered “license states,” since they do not operate wholesale or retail stores.⁹ Like other license states, Minnesota licenses private businesses to distribute and sell alcoholic beverages. However, Minnesota and three other license states allow certain local governments to operate retail liquor stores. Later in this chapter, we will compare the sales of Minnesota’s municipal stores with those made by publicly-operated stores in both the license and control states.

MANUFACTURING

Most of the alcoholic beverages consumed in Minnesota are produced elsewhere.

While there is some production of alcoholic beverages in Minnesota, the state is not a major producer. More than three-fourths of the beer sold in Minnesota is sold by the three largest brewers in the United States—Anheuser-Busch, SAB Miller, and Coors. Less than 5 percent of the beer sold in Minnesota is brewed within the state.¹⁰ There are two producers of distilled spirits and 20 farm wineries in Minnesota, but these businesses account for a small share of the spirits and wine sold in the state.

Minnesota regulates manufacturers, including those who import their products into Minnesota from other states or countries, through both state laws and rules. Minnesota’s regulations prevent manufacturers and wholesalers from operating, controlling, or having an undue influence on retailers.¹¹ For example, as noted above, manufacturers, importers, and wholesalers are generally prohibited from having a retail license in Minnesota. In addition, no person may communicate in any manner to an off-sale retailer a suggested retail price for intoxicating liquor.¹² Manufacturers and wholesalers are prohibited from requiring any retailer to

⁷ *Adams Liquor Handbook 2005* (Norwalk, CT: Adams Beverage Group, 2004), 11.

⁸ Alexander C. Wagenaar, *Alcohol Policies in the United States: Highlights from 50 States* (Minneapolis, MN: Alcohol Epidemiology Program, University of Minnesota, School of Public Health, November 2000): 10-11. We updated some classifications in this publication based on more recent information from four states.

⁹ Even though Maryland is a license state, one county in Maryland (Montgomery County) is a control jurisdiction.

¹⁰ These figures are based on reports made by manufacturers or importers to the Minnesota Department of Revenue for calendar year 2004.

¹¹ *Minnesota Rules* 2005, 7515.0300, subp. 5-7.

¹² *Minnesota Statutes* 2005, 340A.314.

purchase only the products of one manufacturer to the exclusion of the products of other manufacturers.¹³

The Department of Public Safety's administrative rules also prohibit manufacturers, importers, or wholesalers from providing gifts to retailers or having different wholesale price schedules for different retailers in the same wholesaler's or manufacturer's territory.¹⁴ State laws provide more specific details about transactions between retailers and either brewers or beer wholesalers. Brewers and beer wholesalers may provide a retailer with outside signs up to \$400 in value, inside signs and promotional material up to \$300 per year in value, and dispensing equipment up to \$100 per tap each year.¹⁵

WHOLESALE DISTRIBUTION

Minnesota has 5 spirits wholesalers, 48 wine wholesalers, and 77 beer wholesalers.¹⁶ Each of the spirits wholesalers is also a wholesaler of wine. Two of these wholesalers account for about two-thirds of both the spirits and wine sold in Minnesota.¹⁷

In addition to the restrictions already discussed, Minnesota regulates wholesalers in a number of key ways that may affect consumer prices and product availability. These regulations include laws and administrative rules dealing with the establishment of exclusive territories for wholesalers, franchise termination laws for wholesalers, restrictions on price discrimination and quantity discounts, and restrictions on credit provided by wholesalers to retailers.

Exclusive Territories

Manufacturers of alcoholic beverages or other products often prefer to contract with wholesalers for the exclusive distribution of their products within a defined geographic area. This means that a manufacturer will only use one wholesaler to distribute its products within a given territory. No other wholesaler will be able to obtain that manufacturer's products and distribute them within that territory.

The use of exclusive territories eliminates intrabrand competition among wholesalers and may increase retail prices as a result. However, proponents of exclusive territories maintain that they encourage wholesalers to provide valuable services that would otherwise not be provided sufficiently. Such services for a beer wholesaler might include maintaining proper temperature control for the products, rotating retail stock to ensure product freshness, and performing merchandising and advertising services. In the absence of exclusive territories, wholesalers may not provide these services because they would not receive the

Manufacturers often prefer to contract with wholesalers for the exclusive distribution of their products in a particular territory.

¹³ *Minnesota Statutes* 2005, 340A.309.

¹⁴ *Minnesota Rules* 2005, 7515.0300, subp. 5 and 6, and 7515.0310, subp. 12.

¹⁵ *Minnesota Statutes* 2005, 340A.308.

¹⁶ The number of wholesalers is from license totals provided by the Department of Public Safety in September, 2005.

¹⁷ The information on market share is based on reports by wholesalers to the Minnesota Department of Revenue for calendar year 2004.

Minnesota requires the use of exclusive territories for beer, allows them for wine, and bans them for spirits.

benefits of increased sales from providing the services. A wholesaler providing merchandising services could build up sales and then lose them to another wholesaler with lower prices. As a result, wholesalers would not be likely to provide those services without the protection afforded by exclusive territories. Proponents also suggest that interbrand competition among wholesalers is still very strong with exclusive territories and provides an incentive to keep prices competitive.

Minnesota Laws

Minnesota has very different laws on exclusive territories for the three types of alcoholic beverages. For beer, Minnesota mandates exclusive territories.¹⁸ Within a given territory, only one beer wholesaler may distribute a particular manufacturer's brands of beer. Beer wholesalers tend to be regional operations. Each brewer has a different set of territories in the state and contracts with wholesalers in each of their territories. Some wholesalers only distribute one brewer's brands of beer, while other wholesalers distribute for two or more brewers. Multi-brand wholesalers generally have a somewhat different territory for each brewer.

Minnesota law is silent on wine distribution, thus allowing, but not mandating, the use of exclusive territories. As a result, wine manufacturers generally use exclusive territories in Minnesota. However, for wine distributors, their territory usually includes the entire state.

For distilled spirits, Minnesota law prohibits the use of exclusive territories for spirits brought into the state of Minnesota.¹⁹ Spirits importers must sell their products to all licensed wholesalers on an equal basis. Importers cannot discriminate in their prices and must use the same price schedule for all wholesalers, not including shipping costs.²⁰

Other States

Minnesota's laws on exclusive territories for beer and wine wholesalers are similar to those used in most states. For beer distribution, 27 states, including Minnesota, mandate the use of exclusive territories, while the other states allow their use.²¹ Currently, no state bans the use of exclusive territories, although Indiana banned their use from 1978 to 2002. North Dakota is the only neighboring state to Minnesota that mandates exclusive territories for beer, although the Midwest states of Illinois, Michigan, and Ohio also mandate them.

¹⁸ *Minnesota Statutes* 2005, 325B.03.

¹⁹ *Minnesota Statutes* 2005, 340A.307 subd. 1.

²⁰ The requirements cited in this paragraph do not apply to spirits that are further distilled, refined, rectified, or blended in Minnesota and are bottled within the state and labeled with the importer's own labels after importation into Minnesota. In addition, the requirements do not apply to any brand of spirits that is offered for sale only in Minnesota.

²¹ This number is based on information collected from the *Modern Brewery Age Blue Book* (Norwalk, CT: Modern Brewery Age Journals, 2005).

Only one other state bans the use of exclusive territories for the distribution of alcoholic beverages.

Like Minnesota, the vast majority of states allow the use of exclusive territories for wine distribution.²² Only seven states mandate the use of exclusive territories for wine, and one state (Oklahoma) bans their use. In four of the control states, the state government distributes wine.

Minnesota is, however, different from most states in its regulation of spirits distribution. While Minnesota and Oklahoma ban the use of exclusive territories, most states allow their use. Seven states mandate the use of exclusive territories for spirits distribution. In eighteen states, the state government distributes spirits, and there are no private spirits wholesalers to regulate.

Franchise Termination

In addition to mandating exclusive territories for beer distribution, Minnesota has a franchise termination law that protects the rights of beer wholesalers.²³ Under this law, brewers must have good cause to terminate an agreement with a wholesaler. The brewer must provide the wholesaler with 90 days notice prior to termination and allow the wholesaler an opportunity to correct any deficiency within the 90-day period. Minnesota does not provide the same protections for wine or spirits wholesalers.²⁴

A recent report suggests that all but three states have beer franchise laws.²⁵ Fewer than half the states with private spirits wholesalers—14 of 32—have a spirits termination law. Twenty of the 46 states with private wine wholesalers have a wine franchise law.²⁶

Proponents of franchise laws claim that these laws are necessary in order to ensure that manufacturers do not arbitrarily terminate wholesalers. They maintain that some manufacturers—particularly large brewers—have considerable market power and could cause unnecessary hardship on wholesalers. Opponents of franchise laws say that these laws are detrimental to the consumer, particularly when combined with mandated exclusive territories, as is the case for beer in Minnesota. Under the franchise law, a wholesaler may be difficult to terminate. And, with a monopoly on a particular territory, the wholesaler may be able to charge higher wholesale prices. Wholesalers maintain, however, that beer is a very competitive business. Competition from other brands of beer puts pressure on them to keep prices low.

²² Wine and Spirits Wholesalers, *States At a Glance*, downloaded August 11, 2005 from <http://www.wswa.org/public/state/>. Some information from this publication was modified based on communications with state regulators.

²³ *Minnesota Statutes* 2005, 325B.04 through 325B.08.

²⁴ Minnesota has a generic franchise law (*Minnesota Statutes* 2004, 80C) that provides protections to franchise businesses in other industries, but does not appear to apply to spirits and wine wholesalers.

²⁵ Douglas Glen Whitman, *Strange Brew: Alcohol and Government Monopoly* (Oakland, California: The Independent Institute, 2003), 8.

²⁶ *Ibid.*, 8.

Price Discrimination

In Minnesota, wholesalers cannot generally use price discrimination and charge a favored retailer lower prices than other retailers. Wholesalers must offer the same price schedule to each retail customer, although shipping or delivery charges may vary.²⁷ A wholesaler's price schedule may, however, include lower prices for larger purchases. Minnesota does not regulate quantity discounts for beer, but state law sets 25 cases as the maximum amount for which quantity discounts would apply for purchases of wine or spirits.

In large part, the purpose of restrictions on price discrimination is to limit the influence that manufacturers or wholesalers can have on retailers. Such regulations also level the playing field to some extent by making the same prices available to retailers of all sizes. Quantity discounts, however, provide larger retailers with the opportunity to purchase products at lower unit costs.

Credit Restrictions

In an attempt to limit the influence that manufacturers and wholesalers could have on retailers, many states limit the credit that may be provided to retailers. Minnesota prohibits manufacturers and wholesalers of wine and spirits from providing any credit to retailers other than credit for the merchandise purchased from them. In addition, that credit is limited to a period of 30 days.²⁸ A retailer delinquent after the 30-day period may not purchase additional wine or spirits products.

Minnesota is more restrictive with respect to beer purchases. Like 31 other states, Minnesota has a "beer cash law."²⁹ Minnesota requires retailers to pay for beer purchases in cash.³⁰ Cash payments are typically made by check, withdrawal from an escrow account, or electronic transfers. Fifteen other states and the District of Columbia allow credit to be used for beer purchases by retailers. These states set limits on the amount of time for which credit may be extended. The limits vary from 7 to 60 days. In addition, three states do not regulate the use of credit.

Wholesalers generally support beer cash laws. They suggest that these laws discourage marginal operators from entering the retail business and prevent retailers from becoming overextended financially. For example, retailers with financial problems may be more inclined to sell to minors. Since wholesalers are responsible for replacing beer that is beyond its expiration date, wholesalers

Minnesota allows retailers to pay for wine and spirits on credit but requires cash payments for beer.

²⁷ State law (*Minnesota Statutes*, 2005, 340A.308) indirectly prohibits price discrimination for beer, while administrative rules (*Minnesota Rules* 2005, 7515.0300, subp. 5 and 6) provide a basis for regulating price discrimination in sales of all alcoholic beverages. This does not mean, however, that wholesale prices for a particular brand of alcoholic beverage are the same throughout the state. A wholesaler must charge all retail customers the same price, but two wholesalers of the same brand may charge different prices.

²⁸ *Minnesota Statutes* 2005, 340A.318.

²⁹ The information on beer cash laws in the United States was from the *Modern Brewery Age Blue Book*.

³⁰ *Minnesota Statutes* 2005, 340A.308.

favor a system in which retailers are discouraged from overbuying.³¹ A cash law could raise beer prices if the cost of borrowing money is greater for retailers than for wholesalers.

RETAIL SALES

States regulate retail sales in a variety of ways. For example, states can establish licensing requirements for businesses selling alcoholic beverages.³² States also frequently set the days and hours during which stores selling liquor may be open for business.

In this report, we are primarily interested in those regulations that impact the prices and availability of alcoholic products. States impact prices by regulating the number of retail outlets that can sell alcoholic beverages. Prices are also affected by regulating the type of stores eligible to sell alcoholic beverages. For example, states determine what types of private stores are allowed to sell alcoholic beverages for off-premises consumption. States may restrict sales to liquor stores or expand sales to grocery, drug, convenience, and other stores. States may also give state or local government stores an off-sale monopoly in certain geographic areas.

States may also affect prices by passing dram shop laws. These laws make retail outlets responsible for injuries and other damages caused by illegal sales. Illegal sales may include sales to minors, sales to obviously intoxicated persons, and after-hour sales. In addition, states with dram shop laws may require retail outlets to purchase dram shop insurance. While encouraging more responsible use of alcohol, these laws may increase liquor prices by placing liability on retail outlets and requiring insurance coverage.

Prices and product availability may also be affected by restrictions on advertising, particularly restrictions on price advertising. While states differ in the particular restrictions placed on advertising, these differences are less important since the United States Supreme Court banned restrictions on price advertising.³³

Restrictions on Competition in Minnesota

The primary way in which Minnesota restricts entry into the on-sale liquor business is by limiting the number of licenses. In Minnesota, cities are restricted to a specified number of on-sale licenses.³⁴ For example, cities of the first class (Minneapolis, St. Paul, and Duluth) may issue one intoxicating liquor license for

³¹ Michael D. Madigan, President and Legal Counsel for the Minnesota Beer Wholesalers Association, *Intoxicating Liquor Regulation and the Beer Cash Law* (Minneapolis: 2005).

³² States often delegate the responsibility for licensing retail liquor outlets to local governments. States may also give local governments the authority to set more restrictive requirements than those set by the state.

³³ *44 Liquormart v. Rhode Island* 517 U.S. 484 (1996) struck down Rhode Island's ban on advertising prices outside the retail store.

³⁴ *Minnesota Statutes* 2005, 340A.413, subd. 1 and 2.

Minnesota does not allow the sale of strong beer, wine, and spirits within grocery, convenience, and general merchandise stores.

each 1,500 in population up to 200 licenses. These on-sale limits, however, do not apply to liquor licenses issued to clubs, restaurants, hotels, bowling centers, or establishments with wine licenses.³⁵ City voters may also choose in a referendum to allow their city to issue additional on-sale licenses.³⁶

Minnesota does not have similar statewide limits for off-sale establishments, except for intoxicating liquor sales in cities of the first class.³⁷ But Minnesota restricts competition in the off-sale liquor business by limiting sales of intoxicating liquor only to “exclusive liquor stores.”³⁸ In addition to liquor, exclusive liquor stores may sell certain other products such as tobacco, ice, soft drinks, corkscrews, home brewing equipment, food products containing more than one-half percent alcohol by volume, and publications and videos on alcoholic beverages.³⁹ But these establishments may not sell groceries, snacks, gasoline, pharmaceutical products, or other merchandise. While grocery, convenience, drug stores, and supercenters may obtain a license to sell 3.2 beer, they are not permitted to sell other alcoholic beverages within their stores. They may, however, obtain a license for a liquor store adjacent but separate from their main store premises.

Minnesota has also restricted competition by allowing cities with populations of up to 10,000 to establish municipal liquor stores.⁴⁰ The stores may sell alcoholic beverages for on-premises or off-premises consumption, or both. Generally, cities with municipal liquor stores do not issue off-sale licenses to privately-owned competitors. As a result, most municipal liquor stores have a monopoly on the sale of packaged liquor within city boundaries. Outside those boundaries, however, other cities—or the county government in the case of unorganized territory—may issue licenses to private liquor stores.

More than one-sixth of Minnesota residents live in cities that have municipally-owned liquor stores.

In 2004, 226 cities in Minnesota had municipal liquor stores. These cities, which include about 18 percent of Minnesota’s population, had a total of 255 stores. Overall, municipal stores had sales of \$256 million and a net income of \$18.6 million. The stores transferred \$16 million to other city funds in 2004.⁴¹

³⁵ *Minnesota Statutes* 2005, 340A.413 subd. 4.

³⁶ *Minnesota Statutes* 2005, 340A.413 subd. 3.

³⁷ In Minneapolis, St. Paul, and Duluth, one off-sale license for sales of intoxicating liquor can be issued for each 5,000 residents. But state law does not place any restrictions on the number of off-sale licenses in other cities. *Minnesota Statutes* 2005, 340A.413 subd. 5.

³⁸ An exclusive liquor store is the only type of off-sale store that is allowed to sell strong beer, wine, and spirits for off-premises consumption. However, *Minnesota Statutes* 2005, 340A.406 allows a city of the fourth class or a statutory city with a population no greater than 10,000 to issue combination licenses. This type of license allows an establishment to sell intoxicating liquor for both on-premises and off-premises consumption.

³⁹ *Minnesota Statutes* 2005, 340A.412, subd. 14.

⁴⁰ *Minnesota Statutes* 2005, 340A.601. A city with a municipal liquor store may retain that store even though the city’s population increases to more than 10,000. In 2004, 24 of the 226 cities with municipal liquor stores had populations in excess of 10,000. Half of these 24 cities were in the seven-county Twin Cities metropolitan area.

⁴¹ All of our statistics on municipal liquor stores are based on information from Minnesota State Auditor, *Analysis of Municipal Liquor Store Operations for the Year Ended December 31, 2004* (St. Paul, December 29, 2005).

There are more cities with combination stores that sell for both on-premises and off-premises consumption than there are cities with just off-sale stores. But the off-sale stores are in cities with greater populations and had three-fourths of the total municipal store sales and 80 percent of the net income in 2004. The 93 off-sale-only cities had sales of \$189 million and a net income of \$14.9 million in 2004. In contrast, 133 cities with combination stores had sales of \$67 million and a net income of \$3.6 million from 138 stores.⁴²

Comparisons with Other States

There are three ways to compare Minnesota's restrictions on retail competition with those in other states. First, we can examine the extent to which states allow stores that sell groceries and other products to sell alcoholic beverages for off-premises consumption. Second, because Minnesota allows some cities to sell alcoholic beverages, it is useful to compare municipal sales in Minnesota with sales by public entities in other states. Finally, we can compare the number of retail outlets per capita in each state. This last comparison provides some overall indication of the impact of retail restrictions. However, the number of retail outlets may also be affected by a state's demographics and the propensity of its residents to consume alcohol.

Types of Stores Selling Alcoholic Beverages

Minnesota's laws on the types of businesses eligible for off-sale liquor licenses are among the most restrictive in the United States. As Table 1.1 indicates:

- **Unlike Minnesota, more than three-fourths of the states allow strong beer to be sold in grocery stores, and close to two-thirds of the states allow wine to be sold in grocery stores.**

In addition, about one-third of the states allow distilled spirits to be sold in grocery stores.⁴³ The pattern is similar for convenience and drug stores. A slightly higher number of states allow drug stores to sell alcoholic beverages, while a slightly lower number allow convenience stores to sell these products.

Revenues from Public Retail Stores and Wholesale Operations

In 2004, the 226 Minnesota cities with municipal liquor stores had sales of \$256 million and a net income of \$18.6 million. Retail store sales and income cannot be directly compared with figures for publicly-owned retail stores in other states. But information from the 2002 Census of Governments suggests that Minnesota probably ranks fairly high among the states in retail sales of alcoholic beverages

Most states allow grocery, convenience, and drug stores to sell beer and wine, and one-third of the states allow the sale of spirits in these stores.

⁴² While municipal combination stores represent a smaller share of overall sales and net income than municipal off-sale stores, the combination stores are more profitable on a per capita basis. In 2004, sales per capita at combination stores were more than double sales at off-sale stores, and their net income per capita was 52 percent higher.

⁴³ Information on the types of stores selling strong beer, wine and spirits is from the *Adams Liquor Handbook 2005*. We modified that data to reflect information we received from regulators in a number of states.

Table 1.1: Number of States Allowing Alcoholic Beverages to Be Sold in Various Types of Stores, 2004

| Type of Store | Strong Beer | Wine | Spirits |
|---------------|-------------|------|---------|
| Drug | 42 | 37 | 22 |
| Grocery | 40 | 33 | 17 |
| Convenience | 37 | 31 | 16 |

NOTE: The table includes the 50 states as well as the District of Columbia.

SOURCE: Office of the Legislative Auditor analysis of data from Adams Beverage Group.

by public stores. The available data indicate that:

- **In 2002, Minnesota ranked 9th highest among the states in revenues from government retail stores and wholesale operations.**

Since all of the control states are involved in wholesale distribution of alcoholic beverages, it is somewhat surprising that Minnesota ranked this high. Minnesota ranked higher than any of the 32 license states and higher than 10 of the 18 control states. Minnesota’s high ranking reflects the fact that about 18 percent of its population resides in cities with municipal liquor stores. In addition, even in most control states, grocery stores and convenience stores are allowed to sell strong beer and wine.

Number of Retail Outlets

Available data indicate that Minnesota’s restrictions on retail competition have a definite impact on the number of retail outlets for alcoholic beverages. Although Minnesota ranks 15th highest among states in total alcohol consumption:

- **Minnesota has fewer retail outlets per capita for sales of alcoholic beverages than most states.**

As Table 1.2 indicates, Minnesota ranks 42nd highest in the number of off-sale retail outlets, or 69 percent below the national average. For on-sale retail outlets, Minnesota ranks 36th highest, or 20 percent below the national average.⁴⁴ For all types of outlets, Minnesota ranks 43rd highest per capita among the 50 states and the District of Columbia. The total number of retail outlets per capita in Minnesota is 29 percent below the national average.

⁴⁴ In calculating Minnesota’s rank for off-sale and on-sale outlets, we did not include combination on/off establishments. Data on this type of establishment is only provided by 20 states. It is unclear how many other states have on/off establishments but did not report information on them. For example, in Wisconsin, cities may allow on-sale establishments to sell alcoholic beverages for off-premises consumption. But there is no statewide information on the number of on/off outlets. If we had included the reported numbers of on/off outlets for all types of alcoholic beverages, Minnesota would have been 39th highest in the number of off-sale outlets per capita and 32nd highest for on-sale outlets. Minnesota’s rank of 43rd highest in the number of total retail outlets per capita includes the reported numbers of on/off establishments. Data on the number of outlets are from the *Adams Liquor Handbook 2005*.

Minnesota ranks low in the number of off-sale retail outlets per capita.

Table 1.2: Minnesota's Rank in the Number of Retail Outlets per Capita, 2004

| Retail Outlets per Capita | Beer ^b | Wine | Spirits | Any Alcoholic Beverage |
|---------------------------|------------------------|------------------------|------------------------|------------------------|
| Off-Sale | 40 th of 45 | 42 nd of 48 | 26 th of 48 | 42 nd of 50 |
| On-Sale | 34 th of 46 | 35 th of 49 | 31 st of 49 | 36 th of 50 |
| All Types ^a | | | | 43 rd of 51 |

^a On/off outlets were included in all types of retail outlets but not in the categories of off-sale or on-sale outlets.

^b Reported figures may significantly understate the number of beer outlets in Minnesota because the reporting of 3.2 beer licenses to the state is a relatively new requirement.

SOURCE: Office of the Legislative Auditor analysis of data from the Adams Beverage Group.

These data provide reasonably good comparative information on the number of outlets selling strong beer, wine, and spirits. However, the figures for beer understate the number of overall beer outlets in Minnesota, including those selling 3.2 beer. This undercounting of 3.2 outlets occurs because the reporting of 3.2 licenses to the state is a relatively new requirement in Minnesota.

For off-sale outlets, Minnesota ranks higher for spirits than for either beer or wine. This difference occurs because, in at least one-third of the states, grocery and convenience stores sell beer, or beer and wine, but not spirits. The number of off-sale spirits outlets and off-sale wine outlets are roughly the same in Minnesota. But, throughout the United States, the number of off-sale wine outlets per capita is more than double the number of off-sale spirits outlets per capita.

Data from the 2002 Economic Census suggest that Minnesota's relatively small number of off-sale outlets is largely due to its limiting sales to exclusive liquor stores. Minnesota is 12th highest among the 50 states and the District of Columbia in the number of liquor stores per capita. This category of liquor stores includes stores for which the majority of sales consist of package beer, wine, or spirits for off-premises consumption. Minnesota ranks high in the number of traditional liquor stores per capita but does not allow grocery, convenience or other stores to sell alcoholic beverages within their main stores. As a result, Minnesota ranks below average in the overall number of off-sale retail outlets.

Minnesota requires most retail liquor outlets to have "dram shop" insurance coverage.

Dram Shop Requirements

Most states including Minnesota have "dram shop" laws. These laws allow persons who are injured or have suffered a financial because of the illegal sale of alcoholic beverages to recover damages from the party responsible for the illegal sale. In Minnesota, dram shop liability covers any person who suffers an injury or financial loss due to the actions of an intoxicated person, except that a

voluntarily intoxicated person is barred from recovery of damages.⁴⁵ The damages must have resulted from an illegal sale of alcoholic beverages, including an underage sale, a sale to an obviously intoxicated person, an after-hours sale, or a non-licensed sale. The parties suffering an injury or loss may sue the parties who sold alcoholic beverages illegally.

While many states have dram shop laws, those laws may differ in terms of what types of damages and circumstances are covered. In addition, states vary as to whether they require retail outlets to purchase dram shop insurance. Minnesota requires that most holders of retail alcoholic beverage licenses must purchase dram shop liability insurance, file a surety company bond, or deposit sufficient funds with the commissioner of finance. Minnesota law also establishes the minimum amounts of insurance coverage that are required in dram shop insurance policies.⁴⁶ But other states like Wisconsin do not require dram shop insurance. As a result, liquor licensees in Wisconsin have lower operating costs. However, Wisconsin licensees could be sued under Wisconsin's dram shop laws and found liable for damages.

TAXES

Minnesota levies excise, sales, and gross receipts taxes on alcoholic beverages.

It is difficult to compare the amount of taxes states collect from sales of alcoholic beverages. States vary in terms of the types of taxes levied. In Minnesota, there are two basic types of taxes on liquor. First, Minnesota levies excise taxes on either the manufacturer or wholesaler of alcoholic beverages.⁴⁷ In Minnesota, brewers pay the beer excise tax, and wholesalers pay the excise tax on wine and spirits. Second, Minnesota applies an ad valorem tax to purchases of alcoholic beverages at the retail level.⁴⁸ Until recently, Minnesota had a 9 percent sales tax on retail purchases, reflecting the 6.5 general sales tax rate plus a 2.5 percent sales tax specifically for liquor. The overall rate of tax paid by retail consumers has not changed. But, effective January 1, 2006, the 2.5 percent tax changed from a sales tax to a gross receipts tax.⁴⁹

Most states levy excise taxes on alcoholic beverages, although control states that distribute wine or spirits may instead use a wholesale markup to generate revenue for their states. Iowa, for example, adds 50 percent to the cost of spirits and passes that markup along to retailers. The markup covers the costs of the state's wholesaling operation and provides revenues for the state of Iowa.

In most states, the general state and local sales tax rates apply to liquor purchases. However, some states may impose additional sales taxes on alcoholic

⁴⁵ *Minnesota Statutes* 2005, 340A.801.

⁴⁶ *Minnesota Statutes* (2005) 340A.409. Some licensees are exempt from the dram shop insurance requirement. They include holders of temporary wine licenses, as well as holders of on-sale wine licenses with annual sales under \$25,000. On-sale 3.2 malt liquor licensees with annual sales of less than \$25,000 and off-sale 3.2 malt liquor licensees with annual sales under \$50,000 are also exempted from the requirement.

⁴⁷ *Minnesota Statutes* 2005, 297G.03 and 297G.04.

⁴⁸ An ad valorem tax is a tax based on the price or value of a product.

⁴⁹ *Minnesota Statutes* 2005, 295.75.

beverages. In addition, some states impose additional ad valorem taxes to on-sale purchases.⁵⁰

Because of these difficulties, we limited our comparisons to state excise taxes. Comparisons of excise taxes, however, do not provide a comprehensive picture of how Minnesota's overall taxes on liquor compare with those in other states.

State Excise Taxes

Minnesota's excise taxes are \$4.60 per barrel of strong beer and \$2.40 per barrel of 3.2 beer. These taxes are the equivalent of about 15 cents per gallon of strong beer and 8 cents per gallon of 3.2 beer. The tax is 30 cents per gallon for wine containing no more than 14 percent alcohol by volume.⁵¹ For spirits, the tax is \$5.03 per gallon.

Minnesota's beer excise tax of 15 cents per gallon is below the national average of 26 cents.⁵² Neighboring states have higher taxes than Minnesota except Wisconsin, where the tax of 6 cents is the second lowest beer excise tax in the nation.

Minnesota's wine tax is also relatively low, at least for table wines with an alcoholic content of 14 percent or less. The national average is 80 cents per gallon compared with Minnesota's tax of 30 cents. Once again, Minnesota's neighbors have higher taxes, except Wisconsin. The tax of 25 cents per gallon in Wisconsin is the fifth lowest in the nation.

Minnesota ranks 19th highest in the nation in excise taxes on spirits. Its tax of \$5.03 per gallon is below the national average of \$5.37 but above the median of \$3.93. Among neighboring states, only Iowa has higher spirits taxes than Minnesota. With a tax of \$3.25 per gallon, Wisconsin ranks 34th highest in the nation.

Minnesota's excise tax rates, like those in many states, have not changed in many years. Minnesota's excise tax rates were last increased in 1987. The excise tax rates on spirits and most table wine have increased only 11 percent since November 1971. The tax rate on strong beer has increased 15 percent since 1971.

Minnesota's excise tax rates on liquor have not changed since 1987.

⁵⁰ The Federation of Tax Administrators collects information on state taxes for beer, wine, and distilled spirits. Information for January 2006 is now available from <http://www.taxadmin.org>.

⁵¹ Minnesota imposes higher taxes on sparkling wine and wine with a higher alcoholic content than 14 percent. The tax on sparkling wine is \$1.82 per gallon. The tax on wine is 95 cents per gallon for wine with an alcoholic content greater than 14 percent but no more than 21 percent. Between 21 and 24 percent alcohol, the tax on wine is \$1.82 per gallon. Above 24 percent alcohol, the tax is \$3.52 per gallon. See *Minnesota Statutes* 2005, 297G.03.

⁵² Our tax comparisons are based on data from the Federation of Tax Administrators for January 1, 2005.

Federal Taxes

In addition to state taxes, all alcoholic beverages are taxed at the federal level. The federal government levies an excise tax of approximately 58 cents per gallon of beer. For wine containing not more than 14 percent alcohol by volume, the federal excise tax is \$1.07 per gallon. Higher taxes apply to sparkling wines and wines with an alcoholic content higher than 14 percent. For distilled spirits, the federal excise tax is \$13.50 per proof gallon. A proof gallon is one gallon of 100 proof spirits. Since 200 proof spirits is 100 percent alcohol, 100 proof spirits is 50 percent alcohol.

Federal excise taxes last increased in 1991. That increase was large enough to cause a noticeable increase in the prices of alcoholic beverages, which had been declining in inflation-adjusted terms. Since the tax increase, inflation-adjusted prices have continued to decline.⁵³

Overall Taxes

The overall state and federal taxes can amount to a significant share of the price for alcoholic beverages. For example, in Minnesota, state and federal taxes would be about 19 percent of the cost to the consumer on a case of beer costing \$15, including state retail taxes. For a 750 milliliter bottle of wine of similar cost, the state and federal taxes would be only 10 percent of the consumer's cost. On spirits, however, taxes are a much larger share of the cost. On a one liter bottle of 80 proof spirits costing \$15, state and federal taxes would account for 36 percent of the product cost in Minnesota. These examples are illustrative and do not necessarily indicate the average share of the cost accounted for by taxes. The share varies depending on the product price, size, and, for spirits and wine, alcoholic content.

⁵³ U.S. Department of Health and Human Services, *10th Special Report to the U.S. Congress on Alcohol and Health* (Washington, D.C.: June 2000), 343.

SUMMARY

Minnesota consumers pay higher retail beer and wine prices than Wisconsin consumers, but the difference in off-sale prices appears to be much less than previously reported. Minnesota's restrictions on retail competition are probably the main reason for its higher beer and wine prices. Despite these restrictions, retail prices for distilled spirits are generally lower in Minnesota than Wisconsin. Minnesota's prohibition on exclusive territories for spirits wholesalers is likely responsible for its lower spirits prices.

During the 2005 legislative session, questions were raised about the competitiveness of the liquor industry in Minnesota. Much of the discussion centered on a report that claimed that retail wine and spirits prices were significantly higher in Minnesota than Wisconsin. The report estimated that Minnesotans pay more than \$440 million extra each year because of Minnesota laws and other factors restricting competition in the retail and wholesaler sectors of the industry.¹ In this chapter, we examine the economic competitiveness of Minnesota's liquor industry. In particular, we address the following issues:

- **What evidence is there that retail prices in Minnesota are higher than in other states?**
- **What laws or other factors may explain any difference in prices?**

Because we found that no existing data source provides adequate data for interstate price comparisons, this chapter focuses on the results of a survey we conducted of beer, wine, and spirits prices in Minnesota and Wisconsin. We present the results of our survey and then consider the influence state laws may have on prices in Minnesota. We also present our observations about product availability in the two states and discuss the difficulties of making comparisons of product availability.

EXISTING SOURCES OF PRICE DATA

In examining the competitiveness of the liquor industry, it would be useful to have information on retail, wholesale, and manufacturers' prices of alcoholic beverages in Minnesota and other states. Retail price information would indicate how final prices to consumers vary across the nation. Information on wholesale and manufacturers' prices would help sort out the underlying sources of retail price differences. Unfortunately, price information on alcoholic beverages is generally not available or, if available, not sufficient for our purposes.

¹ American Economic Group, Inc., prepared for the Minnesota Grocers Association, *Impact of the Highly Regulated Wholesale and Retail Alcoholic Beverage Markets in Minnesota* (Washington, D.C., March 2005).

Legislators are interested in how liquor prices in Minnesota compare with those in other states.

Retail Prices

The main source of retail price information used by researchers is the beer and wine price information collected for the American Chamber of Commerce Researchers Association (ACCRA). This organization prepares a quarterly cost of living index for metropolitan areas across the United States and parts of Canada. The ACCRA cost of living index consists of price information on a large number of products and services and is useful in comparing the cost of living across the country.

Good information on retail liquor prices across states is not available.

But the price data collected for the ACCRA index are not necessarily suitable for comparing prices of individual products like beer or wine. Information is collected for the ACCRA index on only one type of beer (a six-pack of Heineken) and one type of wine (either Livingston Cellars or Gallo chablis or chenin blanc). This information is unsatisfactory for comparison of alcoholic beverage prices since it does not represent a broad enough selection of products. In addition, Heineken accounts for only about one percent of beer sales in Minnesota.

The other potential source of retail price information for Minnesota and Wisconsin is the report prepared by the American Economics Group, Inc. for the Minnesota Grocers Association and presented to the 2005 Minnesota Legislature. The findings in this report were based on price information collected in the two states on five spirits brands and four wine products. However, neither the Minnesota Grocers Association nor its consultant would share that price information with us. As a result, we conducted our own price survey of beer, wine, and spirits prices in Minnesota and Wisconsin.

Wholesale Prices

In general, there is no comprehensive source of information on the prices wholesalers charge retailers for alcoholic beverages. A few states collect information on private wholesale prices for some types of alcoholic beverages. But neither Minnesota nor Wisconsin collects these data.

In the control states, information would be available on the wholesale prices of those types of beverages that are distributed by the states. We did not attempt to obtain that information since it would be of little use to us. The wholesale prices in control states are not set in a private competitive markets and thus would not be of use for comparison with Minnesota prices. For example, the state of Iowa distributes distilled spirits and marks up the cost of spirits by 50 percent when setting wholesale prices for purchases by retailers. Wholesale prices for spirits in Iowa and many control states are generally expected to be higher than in Minnesota and Wisconsin because control states are not competing with other private wholesalers.

We were able to obtain information on the wholesale prices charged by two spirits wholesalers in Minnesota. Both of these wholesalers provide monthly price lists to retailers. This information, along with information on manufacturers' prices for spirits, was useful in confirming that spirits wholesalers in Minnesota have relatively low price markups.

Manufacturers' Prices

Manufacturers may charge a different price in one state than in another. Information on the prices manufacturers charge to wholesalers would thus be useful in determining whether price differences observed at the retail or wholesale levels are due to differences in price markups at those levels or simply due to price discrimination by manufacturers.

Unfortunately, for the most part, information on manufacturer's prices is not publicly available. In some states, manufacturers' prices on certain types of alcoholic beverages must be reported to a state agency. For example, in Minnesota, manufacturers must report any changes in the prices charged to Minnesota wholesalers for distilled spirits to the Department of Public Safety on a monthly basis.² However, Wisconsin does not have a similar requirement.

The control states are another potential source of information on manufacturers' prices for distilled spirits. However, the usefulness of such data for comparisons in license states such as Minnesota and Wisconsin is questionable. Control states may be able to negotiate lower prices than private wholesalers in license states. In addition, knowledge of manufacturers' prices in control states would not tell us whether prices in Minnesota are different than in Wisconsin.

Product Availability

There is also a lack of good information on product availability across the nation. Some states, like Minnesota, require manufacturers or importers to register brands that are sold in those states. However, examining brand registrations in a state may not provide an accurate picture of the products currently sold in the state. In addition, brand registrations do not provide information on the relative availability of particular products within a state. A brand may be registered with a state but not widely sold across the state.

Even if good information on product availability was available, it is unclear what conclusions could be drawn from it. Clearly, there are differences in tastes among residents of different states. For example, certain brands of wine are more popular in Minnesota than in Wisconsin and may be hard to find in Wisconsin. Other brands are more popular in Wisconsin and may not be widely available in Minnesota. It is difficult to know whether the differences in product availability reflect differences in consumer tastes or differences in state laws regulating the liquor industry.

LEGISLATIVE AUDITOR'S PRICE SURVEY

The lack of adequate retail price data led us to conduct our own survey of off-sale retail prices in Minnesota and Wisconsin. We focused on Wisconsin in part because the survey conducted for the Minnesota Grocers Association also compared prices in Minnesota to those in Wisconsin. In addition, Wisconsin has a less restrictive regulatory environment than Minnesota has at the retail level.

Information on product availability is not readily available and would be difficult to interpret.

² *Minnesota Rules 2005, 7515.0320, subp. 2.*

Wisconsin generally allows grocery, convenience, drug, and general merchandise stores to sell beer, wine, and spirits, while Minnesota only allows such stores to sell 3.2 beer.³ Wisconsin is also a neighboring state with a similar number of residents and somewhat similar tastes in alcoholic beverages. Minnesota's other neighboring states do not provide good comparisons for Minnesota. North Dakota and South Dakota have significantly smaller populations, and North Dakota's retail restrictions are not much different from those in Minnesota. Iowa is a control state and does not have private wholesalers of distilled spirits.

Background

Due to the lack of available price data, we conducted an in-store price survey in Minnesota and Wisconsin.

We conducted our survey of retail beer, wine, and spirits prices during a ten-day period (November 9-18, 2005). The survey included prices at off-sale retail outlets. No attempt was made to collect information on on-sale prices, since those prices may vary significantly within any community based on the ambiance of the establishment.

Metropolitan Areas and Cities

In Minnesota and Wisconsin, we attempted to visit cities or metropolitan areas of roughly comparable size. In addition, we selected certain cities on the border between Minnesota and Wisconsin in order to see if price differences between the two states also existed in border cities.

Overall, we visited 84 retail liquor outlets including 43 in Minnesota and 36 in Wisconsin. We also visited 3 stores in North Dakota and 2 in Iowa. Our main purpose was to collect price information in Minnesota and Wisconsin. But we decided to visit a small number of stores in North Dakota and Iowa, since we were traveling close to those states. Table 2.1 lists the cities or metropolitan areas we visited in Minnesota and other states.

Products

We collected price data on five brands of beer, nine brands of wine, and nine brands of distilled spirits. Most of the brands were selected because they are among the best selling products of their type in Minnesota and/or Wisconsin. As Table 2.2 indicates, we collected price information on a specific size and product of each brand. For example, we collected price information on 24-packs of 12-ounce cans of Miller Lite. In some cases, we collected information on more than one size of a particular product. For 7 of the 9 spirits brands, we collected price information on both 1.0 liter and 1.75 liter bottles, since we knew some types of stores only carried the larger bottles. For two brands of beer (Busch Light and Miller High Life), we gathered information on 18-packs and 30-packs as well as 24-packs because some Wisconsin stores did not carry the 24-packs. We estimated prices for 24-packs using the prices for 30-packs when necessary.

³ A few cities in Wisconsin have chosen to restrict sales of alcohol beverages for off-premises consumption to certain types of stores. Hudson, for example, does not allow grocery or convenience stores to sell alcoholic beverages.

Table 2.1: Cities Included in Price Survey, 2005

We surveyed liquor prices in cities of various sizes.

| Large and Medium-Sized Cities | | | |
|--------------------------------------|-----------------------------|--------------------------|-----------------------------|
| <u>Minnesota Areas</u> | <u>2004 Area Population</u> | <u>Comparison Areas</u> | <u>2004 Area Population</u> |
| Major Metropolitan Areas | | | |
| Twin Cities | 3,116,206 | Milwaukee | 1,515,738 |
| | | Madison | 531,766 |
| Medium-Sized Cities | | | |
| Duluth | 275,820 | Green Bay | 295,473 |
| Rochester | 174,853 | Eau Claire | 153,150 |
| St. Cloud | 179,154 | Appleton | 213,102 |
| Small City Groups | | | |
| <u>Minnesota Cities</u> | <u>2004 City Population</u> | <u>Comparison Cities</u> | <u>2004 City Population</u> |
| Private Stores | | Private Stores | |
| Grand Rapids | 8,046 | Baraboo | 10,771 |
| Little Falls | 8,191 | Black River Falls | 3,563 |
| New Ulm | 13,705 | Richland Center | 5,208 |
| Wabasha | 2,573 | Tomah | 8,614 |
| Public Stores | | | |
| Cambridge | 6,762 | | |
| Fergus Falls | 13,715 | | |
| Jackson | 3,466 | | |
| Worthington | 11,087 | | |
| Border Cities | | | |
| Central | | | |
| Stillwater | 17,171 | Hudson | 10,754 |
| South | | | |
| Winona | 26,451 | La Crosse | 50,695 |
| North | | | |
| Duluth | 85,556 | Superior | 26,947 |
| Northwest | | | |
| Moorhead | 33,390 | Fargo, ND | 91,048 |
| West | | | |
| Breckenridge | 3,366 | Wahpeton, ND | 8,411 |
| Southwest | | | |
| Worthington | 11,087 | Spirit Lake, IA | 4,493 |
| Jackson | 3,466 | | |

NOTE: All cities in comparison areas are located in Wisconsin unless otherwise noted.

SOURCE: U.S. Census Bureau estimates of 2004 city and metropolitan and micropolitan statistical area populations.

For the most part, the products we selected were available at most stores. If a particular product was not available at a store, we did not substitute another product for the unavailable product. For example, if Beringer Napa Valley chardonnay was unavailable, we did not substitute a Beringer Founders' Estates chardonnay or a different brand of chardonnay for the Beringer Napa Valley chardonnay. For a few wines, however, we did substitute a different varietal than the one listed in Table 2.2. However, we only substituted if we knew that the industry generally priced certain varietals the same as the one on our list. For example, Franzia merlot, cabernet, chardonnay, or white merlot were acceptable substitutes for Franzia white zinfandel. But Franzia blush was not an acceptable substitute since it tends to be priced differently.

Table 2.2: Alcoholic Beverages Included in Price Survey, 2005

| Type | Product | Type or Variety | Sizes |
|----------------|-----------------------------------|-----------------------|--|
| Beer | | | |
| | Miller Lite | Domestic beer | Case of 24 cans (12 oz) |
| | Bud Light | Domestic beer | Case of 24 cans (12 oz) |
| | Miller High Life | Domestic beer | Case of 24 cans (12 oz) Case of 30 cans (12 oz) |
| | Busch Light | Domestic beer | Case of 24 cans (12 oz) Case of 30 cans (12 oz) |
| | Corona Extra | Imported beer | Case of 12 bottles (12 oz) |
| Spirits | | | |
| | E&J VS | Brandy | 1.0 liter bottle, 1.75 liter bottle |
| | Kahlua | Cordial | 1.0 liter bottle |
| | Jagermeister | Liqueur | 750 ml bottle |
| | Bacardi Superior | Rum | 1.0 liter bottle, 1.75 liter bottle |
| | Captain Morgan Original Spiced | Rum | 1.0 liter bottle, 1.75 liter bottle |
| | Absolut | Vodka | 1.0 liter bottle, 1.75 liter bottle |
| | Smirnoff | Vodka | 1.0 liter bottle, 1.75 liter bottle |
| | Seagram's 7 Crown | Whiskey, Blended | 1.0 liter bottle, 1.75 liter bottle |
| | Windsor Canadian | Whiskey, Canadian | 1.0 liter bottle, 1.75 liter bottle |
| Wine | | | |
| | Carlo Rossi | Chablis | 4 liter jug |
| | Beringer Napa Valley | Chardonnay | 750 ml bottle |
| | Clos du Bois | Chardonnay | 750 ml bottle |
| | K-J Vintner's Reserve | Chardonnay | 750 ml bottle |
| | Yellow tail | Chardonnay, Australia | 1.5 liter bottle |
| | Blackstone | Merlot | 750 ml bottle |
| | Ecco Domani | Pinot Grigio, Italy | 750 ml bottle |
| | Franzia | White Zinfandel | 5 liter box |
| | Sutter Home | White Zinfandel | 1.5 liter bottle |

SOURCE: Office of the Legislative Auditor.

Types of Stores

In each city or metropolitan area in our survey, we attempted to select stores that were the likely price leaders in the community. For example, in the Twin Cities

We collected price information on 5 brands of beer, 9 brands of wine, and 9 brands of spirits.

and Milwaukee metropolitan areas, we selected stores that advertised in local papers or had multiple locations in those areas. We were concerned that a purely random selection of stores could yield questionable results since we could only visit a small number of stores in a short period of time.

We also wanted to select a group of stores that would be somewhat representative of the retail liquor industry in Minnesota and Wisconsin. In Minnesota, the majority of off-sale retail liquor outlets are not affiliated with a grocery store, drug store, warehouse club, or supercenter. In Wisconsin, however, only about 36 percent of the packaged liquor sales are made by traditional liquor stores that primarily sell beer, wine, and spirits. Grocery stores have higher liquor sales than traditional liquor stores in Wisconsin. As a result, only about one-third of the stores in the Wisconsin portion of our survey were traditional liquor stores. In contrast, about 70 percent of the stores in the Minnesota portion of our survey were traditional liquor stores and were not collocated and affiliated with a grocery or other type of store. Table 2.3 shows the types of stores we visited in each state.

Table 2.3: Stores in the Price Survey, 2005

| Type ^a | Minnesota | Wisconsin | Other States | Total |
|-------------------|-----------|-----------|--------------|-------|
| Liquor | 21 | 12 | 4 | 38 |
| Grocery | 10 | 13 | 1 | 23 |
| Supercenter | 3 | 10 | 0 | 13 |
| Municipal | 9 | 0 | 0 | 9 |
| Drug | 0 | 1 | 0 | 1 |
| All Types | 43 | 36 | 5 | 84 |

^a Outside of Minnesota, we classified stores by their primary retail business. In Minnesota, all retail liquor outlets are technically liquor stores. However, we classified Minnesota stores based on their ownership and location. For example, a liquor store owned and operated by a grocery store chain with an adjacent grocery store was classified as a grocery store.

SOURCE: Office of the Legislative Auditor.

Types of Prices

We collected two types of price information. First, we gathered information on the *current prices* that were being charged in each store for a particular product. Current prices reflected any sales prices that were in effect at the time of our survey. Second, for any items on sale, we gathered information on the *regular prices* charged for those items.

By collecting information on both current and regular prices, we hoped to address the concern that only some stores may be conducting sales at the time of our survey. If we only collected information on current prices, the results could be questioned if sales were more prevalent at the time of our survey in one state than the other. As we will see in the next section, our results are very similar whether we compare current prices or regular prices.

We collected information on both regular and sales prices.

Analysis of Prices

After collecting price information, we analyzed the data in several ways. We first made some direct comparisons of prices in certain metropolitan areas and cities. For example, we compared average prices at privately-owned stores in the Twin Cities area with those at stores in the Milwaukee, Wisconsin area. We also counted the number of products for which average prices at stores in the Twin Cities were higher than those in the Milwaukee area. Finally, we calculated the average percentage difference between prices in the Twin Cities and those in Milwaukee. Separate calculations were made for beer, wine, and spirits.

A direct price comparison is a simple way of illustrating price differences but has several deficiencies. A direct comparison does not tell us whether there is a statistically significant difference between prices in Minnesota and Wisconsin that cannot be explained by some other factor unrelated to differences in the states' regulatory structures. In addition, a direct comparison does not provide a good estimate of the overall difference in prices between the two states.

We used statistical analyses to estimate the price differences between Minnesota and Wisconsin.

To accomplish those objectives, we used multiple regression analysis. We sought to explain the extent to which prices could be explained by a number of factors, including the state in which a store is located, the ownership of the store (private or public), the type of store (traditional, supercenter, or other), the size of the city or metropolitan area in which a store is located, and whether the store was near the state's border.

Three of these factors were relevant in considering the impact of Minnesota's regulatory structure on retail prices. Clearly, the state in which the store is located is relevant. Ownership of the store is also relevant since, unlike Wisconsin, Minnesota has a substantial share of its population served by publicly-owned liquor stores. Minnesota and Wisconsin also vary significantly in types of stores selling alcoholic beverages. The percentage of sales made by traditional liquor stores is much lower in Wisconsin than in Minnesota. The regression results for each of these three factors were used to estimate the overall percentage difference in prices between the two states.⁴

We also ran several different types of regressions. For example, we ran individual regressions for each product in our survey. In addition, we ran pooled regressions for each of the three types of alcoholic beverages—beer, wine, and spirits. The results of the pooled regressions were very similar to the average results of the individual regression. As a result, we only report the pooled regression results here.

⁴ More specifically, to estimate the overall price difference, we added the coefficient for the state variable, 18 percent of the municipal store variable, and 50 percent of the traditional liquor store variable. The weighting represents the approximate percentage point difference in sales between Minnesota and Wisconsin. For example, we estimated that municipally-owned stores account for about 18 percent of sales in Minnesota and close to zero percent in Wisconsin. Using information from the 2002 Economic Census, we estimated that about 86 percent of alcoholic beverage sales are made by traditional liquor stores in Minnesota compared with 36 percent in Wisconsin. We counted liquor stores owned by grocery stores, convenience stores, or supercenters in Minnesota as non-traditional stores. A coefficient for each of these three variables was only used in calculating the overall price difference if it was statistically significant at the .05 level.

We adjusted our results for the differences in taxes and required dram shop insurance costs.

Adjustments to Results

Several adjustments were also made to our results to correct for additional costs that are built into Minnesota retail prices. For example, Minnesota's excise taxes for alcoholic beverages are higher than those in Wisconsin.⁵ For each product in our survey, we calculated the excise taxes in both states. We then subtracted the tax difference before calculating the final difference in prices between the two states.⁶

In Minnesota, retailers must purchase dram shop insurance coverage, while coverage is not mandatory in Wisconsin. In adjusting overall price differences, we used the rate charged by the Minnesota Joint Underwriting Association (MJUA) for the minimum coverage required of Minnesota off-sale retailers.⁷ Some retailers may be able to purchase less expensive insurance in the private sector. The MJUA offers insurance to those unable to purchase dram shop insurance from private insurers.

Our results are not dramatically changed by making these adjustments. The overall price differences between Minnesota and Wisconsin are in the same direction before and after the adjustments. For beer and wine, the results change by one or two percentage points. For spirits, the results change more—three to four percentage points—since there is a greater difference in excise taxes for spirits than for beer or wine.

Survey Results

In this section, we present the results of our survey. We first discuss our estimates of the statewide differences in alcoholic beverage prices between Minnesota and Wisconsin. The statewide results include both current and regular prices and are based on regression analyses of prices in both states. Next, we provide price comparisons for various metropolitan areas and cities in the two states. These comparisons use the paired communities previously presented in Table 2.1. The community comparisons are based on average current prices in

⁵ There is a larger difference between the two states in sales and gross revenues taxes levied at the retail level. However, that difference was not relevant for our price comparisons. While our retail price data include any excise tax passed on to consumers, they do not include any sales or gross revenues taxes added to those prices.

⁶ We are, in effect, assuming that the full amount of any excise tax imposed on the manufacturer or wholesaler is ultimately passed on to consumers. Whether this is true in practice is debatable. Economic theory would suggest that no more than the full amount of any excise tax would be passed on to consumers, and the exact increase in prices would depend on market conditions, specifically the elasticity of demand and supply. However, some research suggests that prices for alcoholic beverages have sometimes increased more than the full amount of an increase in excise taxes. In light of the uncertainty about the impact of excise taxes on prices, we have assumed that prices for alcoholic beverages reflect the full amount of any excise taxes levied on them.

⁷ The Minnesota Joint Underwriting Association's rates for off-sale retailers are 42 cents per \$100 in sales, or 0.42 percent of sales. Because these rates apply to retailers that are unable to purchase insurance from private companies, they may be higher than the rates paid by some Minnesota liquor stores. As a result, it could be argued that a smaller adjustment to Minnesota prices would have been more appropriate. We used MJUA rates because of the difficulty of estimating the average rate paid by liquor stores and the relatively minor impact that this adjustment has on our price comparisons.

each community. Finally, we compare current Minnesota prices for different types of stores.

Statewide Price Comparisons

Overall, our survey results suggest that:

- **Beer and wine prices are higher in Minnesota than Wisconsin, but spirits prices are lower in Minnesota.**

As Table 2.4 indicates, we estimated that beer prices at the time of our survey were about 10 percent higher in Minnesota than in Wisconsin, while wine prices were about 8 percent higher. In contrast, spirits prices were about 4 percent lower in Minnesota.

These results changed a little when we adjusted for differences in excise taxes and the costs of mandated dram shop insurance. After these adjustments, we estimated the price differences to be 9 percent for beer and 7 percent for wine, while Minnesota prices for spirits were 8 percent lower. These adjusted results are probably a better indication than the unadjusted results of the impact of the differences in regulatory structure between the two states.

Table 2.4 also shows that the results are similar if we ignore any sales prices in effect at the time of our survey. Regular prices adjusted for tax and insurance cost differences were higher in Minnesota for beer (7 percent) and wine (5 percent) and lower for spirits (10 percent). These results are slightly more favorable for Minnesota than those that included sales prices. This suggests that sales were a little more of a factor in Wisconsin at the time of our survey.

Beer and wine prices are higher in Minnesota than in Wisconsin, but spirits prices are lower.

Table 2.4: Statewide Price Comparisons for Minnesota and Wisconsin, November 2005

| Product Type | Percentage Difference of Minnesota Prices from Wisconsin Prices | | | |
|--------------|---|--------------------------------|--------------------|-------------------|
| | Current Prices ^a | | Regular Prices | |
| | Before Adjustments | After Adjustments ^b | Before Adjustments | After Adjustments |
| Beer | 10% | 9% | 9% | 7% |
| Wine | 8 | 7 | 6 | 5 |
| Spirits | -4 | -8 | -6 | -10 |

^a Current prices are the prices in effect at the time of our survey, including any sales prices. Regular prices are those prices usually charged for products when they are not on sale.

^b The price differences were adjusted for differences in state excise taxes and the cost of mandated dram shop insurance coverage.

SOURCE: Office of the Legislative Auditor analysis of price survey results.

Our findings are different from the results presented in a March 2005 report prepared by the American Economic Group, Inc. (AEG) for the Minnesota Grocers Association. The AEG report estimated that wine and spirits prices were 17.5 percent less in Wisconsin than in Minnesota. It is unclear, however, how

the AEG price survey was conducted. We were unable to obtain either the AEG price data or sufficient details about AEG's survey methods from either AEG or the Minnesota Grocers Association. It appears that AEG's sample may have been heavily reliant on price information from municipal stores.⁸ This reliance on municipal stores may explain, to some extent, why AEG found a larger price difference for wine. However, it does not necessarily explain why AEG found a price difference for spirits opposite in direction to our results.

Area and City Comparisons

We also compared current prices in various Minnesota metropolitan areas and cities with prices in Wisconsin communities. While useful, these comparisons should be used with some caution. The comparisons are based on a limited sample of stores in each community. Unlike our statewide results, no attempt was made to test the statistical significance of these comparisons.

Table 2.5 indicates how current beer prices in Minnesota communities compared with prices in their Wisconsin counterparts. These comparisons were made after adjusting for differences in excise taxes and the cost of required dram shop insurance. For the most part, Minnesota prices were higher for all of the beer products in our survey.⁹ For example, beer prices at privately-owned stores in the Twin Cities metropolitan area averaged about 6 percent more than prices in the Milwaukee area and were higher for each of the products.

In one case, however, the comparison produced dramatically different results. Beer prices in Stillwater, Minnesota were, on average, 7 percent lower than across the border in Hudson, Wisconsin. Prices were lower in Stillwater for each of the beers in our survey.

Comparisons of current wine prices are somewhat similar to the beer price comparisons. Table 2.6 shows that Minnesota wine prices were higher than Wisconsin prices for most of the comparisons except the Stillwater/Hudson comparison. However, Rochester and St. Cloud also appear to have wine prices that are competitive with their Wisconsin counterparts. In fact, Rochester prices were lower than Eau Claire prices on three-fourths of the wines surveyed.

For spirits, Minnesota prices were generally lower than those in Wisconsin. For example, current spirits prices were about 10 percent lower at private stores in the Twin Cities area than in the Milwaukee area. As Table 2.7 indicates, Twin Cities prices were higher than those in Milwaukee for only 2 of the 16 spirits products surveyed. Spirits prices in Duluth were about 1 percent lower than those in Green Bay despite Duluth's much higher beer and wine prices.

In comparisons of cities of similar size, Minnesota beer prices were generally higher than those in Wisconsin.

⁸ It appears that two-thirds of the Minnesota cities in the AEG study were cities with municipal liquor stores. A sample heavily weighted toward municipal stores would not be appropriate without some adjustment of the results to recognize that municipal stores account for only about 18 percent of sales in Minnesota.

⁹ Beer prices in St. Cloud were slightly lower than those in Appleton for two of the five beers.

Table 2.5: Metropolitan Area and City Comparisons of Beer Prices, November 2005

| Minnesota Area or City | Wisconsin Area or City | Number of Products for Which Minnesota Prices were Higher | Average Percentage by Which Minnesota Prices were Higher |
|-------------------------------------|------------------------|---|--|
| Areas Matched by Size | | | |
| Twin Cities Area (private stores) | Milwaukee Area | 5 of 5 | 6% |
| Twin Cities Area (municipal stores) | Milwaukee Area | 5 of 5 | 13 |
| Duluth | Green Bay | 5 of 5 | 14 |
| St. Cloud | Appleton | 3 of 5 | 4 |
| Rochester | Eau Claire | 5 of 5 | 6 |
| Small Cities (private stores) | Small Cities | 5 of 5 | 10 |
| Small Cities (municipal stores) | Small Cities | 5 of 5 | 16 |
| Border Comparisons | | | |
| Duluth | Superior | 5 of 5 | 13 |
| Winona | La Crosse | 5 of 5 | 4 |
| Stillwater | Hudson | 0 of 5 | -7 |

NOTE: These comparisons are based on current prices adjusted for differences in excise taxes and the costs of required dram shop insurance.

SOURCE: Office of the Legislative Auditor analysis of price survey results.

Wine prices in some Minnesota cities were competitive with prices in Wisconsin cities of comparable size.

Table 2.6: Metropolitan Area and City Comparisons of Wine Prices, November 2005

| Minnesota Area or City | Wisconsin Area or City | Number of Products for Which Minnesota Prices were Higher | Average Percentage by Which Minnesota Prices were Higher |
|-------------------------------------|------------------------|---|--|
| Areas Matched by Size | | | |
| Twin Cities Area (private stores) | Milwaukee Area | 7 of 9 | 5% |
| Twin Cities Area (municipal stores) | Milwaukee Area | 8 of 9 | 20 |
| Duluth | Green Bay | 9 of 9 | 26 |
| St. Cloud | Appleton | 4 of 9 | 1 |
| Rochester | Eau Claire | 2 of 8 | -2 |
| Small Cities (private stores) | Small Cities | 6 of 9 | 6 |
| Small Cities (municipal stores) | Small Cities | 8 of 9 | 11 |
| Border Comparisons | | | |
| Duluth | Superior | 8 of 9 | 21 |
| Winona | La Crosse | 7 of 8 | 8 |
| Stillwater | Hudson | 0 of 9 | -12 |

NOTE: These comparisons are based on current prices adjusted for differences in excise taxes and the costs of required dram shop insurance.

SOURCE: Office of the Legislative Auditor analysis of price survey results.

Even municipal stores in Minnesota tended to have lower spirits prices than private stores in Wisconsin.

Table 2.7: Metropolitan Area and City Comparisons of Spirits Prices, November 2005

| Minnesota Area or City | Wisconsin Area or City | Number of Products for Which Minnesota Prices were Higher | Average Percentage by Which Minnesota Prices were Higher |
|-------------------------------------|------------------------|---|--|
| Areas Matched by Size | | | |
| Twin Cities Area (private stores) | Milwaukee Area | 2 of 16 | -10% |
| Twin Cities Area (municipal stores) | Milwaukee Area | 4 of 16 | -4 |
| Duluth | Green Bay | 8 of 16 | -1 |
| St. Cloud | Appleton | 0 of 16 | -15 |
| Rochester | Eau Claire | 2 of 16 | -9 |
| Small Cities (private stores) | Small Cities | 1 of 16 | -12 |
| Small Cities (municipal stores) | Small Cities | 3 of 16 | -6 |
| Border Comparisons | | | |
| Duluth | Superior | 5 of 16 | -1 |
| Winona | La Crosse | 4 of 16 | -5 |
| Stillwater | Hudson | 1 of 16 | -17 |

NOTE: These comparisons are based on current prices adjusted for differences in excise taxes and the costs of required dram shop insurance.

SOURCE: Office of the Legislative Auditor analysis of price survey results.

Type of Store Comparisons

In addition to interstate comparisons, our price survey can be used to compare prices for different types of liquor stores within Minnesota. Our survey results indicate that:

- **Municipal liquor store prices are generally higher than prices at private liquor stores in Minnesota.**

In addition:

- **Liquor stores operated by a grocery store chain generally have lower prices than other privately-owned traditional liquor stores in Minnesota.**

Table 2.8 provides information on the differences in price in the Twin Cities metropolitan area for selected beer, wine, and spirits products.¹⁰ In general, current prices at municipal stores were 3 to 8 percent higher than at privately-

¹⁰ These results are based on regression analyses for Minnesota stores. The results indicate the differences in price that the regressions predict for particular products at different types of stores in the Twin Cities area. Using different products might change the size of the price differences, but not their direction.

Within Minnesota, liquor prices were lower at liquor stores operated by grocery store chains than at municipal and other private liquor stores.

owned liquor stores not operated by a grocery store chain or a supercenter.¹¹ Current prices at liquor stores operated by a grocery store chain were 4 to 7 percent lower than at privately-owned traditional liquor stores. Results for regular prices in the Twin Cities area were similar except that there was no significant difference between spirits prices at municipal stores and privately-owned traditional liquor stores.

Results for Minnesota communities outside the Twin Cities area are not displayed in Table 2.8 because they are similar to the results for the Twin Cities area. However, prices were generally lower in the Twin Cities area. For example, prices at municipal stores in the Twin Cities area were roughly comparable to those at the privately-owned traditional liquor stores we surveyed outside the Twin Cities area.

Table 2.8: Twin Cities Liquor Prices by Type of Store, November 2005

| Type of Prices | Type of Store | Percentage Difference from Traditional Liquor Store | | |
|----------------|---------------|---|------|---------|
| | | Beer | Wine | Spirits |
| Current Prices | Municipal | 5% | 8% | 3% |
| | Grocery | -4 | -5 | -7 |
| Regular Prices | Municipal | 6 | 5 | 0 |
| | Grocery | -3 | -6 | -7 |

NOTE: These comparisons are based on the regression results for Minnesota stores. They apply to particular products: Miller Lite or Bud Light beer, Carlo Rossi wine, and Jagermeister liqueur.

SOURCE: Office of the Legislative Auditor analysis of price survey results.

Availability

We did not attempt to formally measure the availability of various alcoholic beverages during our survey. Taking stock of all brands available for sale would have greatly lengthened the time necessary for our survey and jeopardized our ability to collect price information in a timely manner. We needed to collect price information in a relatively short period of time so that the results were not affected by changes in wholesale or manufacturers’ prices.

More importantly, we were concerned that there would be problems in interpreting any data we collected on product availability. Differences in availability between Minnesota and Wisconsin could simply reflect differences in consumer demand and taste and not differences in state regulatory structures. In addition, differences within each state might reflect differences in taste as well as the number of customers. Stores in small cities might offer a more limited product selection than stores in larger metropolitan areas due to the smaller number of customers that might potentially be interested in less popular products.

¹¹ Although prices at supercenters tended to be lower than those at grocery stores, we did not include that information in Table 2.8 due to the small number of Minnesota supercenters in our survey.

As we visited stores in both states, we were generally able to find the products included in our survey. In addition, there were considerable similarities in the products offered for sale in Minnesota and Wisconsin. However, it appeared that there were some differences between Minnesota and Wisconsin in product availability and shelf space for particular brands. Certain brands of beer, wine, and spirits are more popular in one state than the other. Cordials, blended whiskey, and sparkling wine are also more popular in Wisconsin, while Canadian whiskey is more popular in Minnesota.

Overall, we did not see any major differences in the availability of particular products between Minnesota and Wisconsin. The differences we observed would also be hard to link to differences in state laws governing the liquor industry.

Analysis

In this section, we examine the regulatory differences between Minnesota and Wisconsin at both the retail and wholesale level. We then attempt to draw conclusions about the impact of these regulatory differences on retail prices for alcoholic beverages in the two states.

Regulatory Differences at the Retail Level

We selected Wisconsin as a comparison state for our price survey because of its proximity to Minnesota as well as its very different retail environment for alcoholic beverages. Table 2.9 shows some of the key differences between Minnesota and Wisconsin laws governing retail competition in the liquor industry. The most significant difference between the two states is in the type of stores allowed to sell alcoholic beverages for off-premises consumption. As we noted earlier, only “exclusive liquor stores” may receive an off-sale license to sell strong beer, wine, and spirits in Minnesota.¹² Wisconsin law allows other types of businesses to sell liquor for off-premises consumption.¹³ As a result, many grocery stores and some convenience, drug, and general merchandise stores are in the off-sale liquor business in Wisconsin. A few Wisconsin communities restrict the type of stores allowed to sell alcoholic beverages for off-premises consumption. For example, Hudson restricts sales to traditional liquor stores. Green Bay has restrictions similar to those in Minnesota. In Green Bay, grocery stores may sell alcoholic beverages only from a store separated from the grocery part of the store.

While Minnesota has a more restrictive law governing the types of stores selling liquor, Wisconsin has a law regulating the prices charged by retailers. Wisconsin’s minimum markup law requires a retailer to charge a retail price that is at least 6 percent higher than the retailer’s cost for the product. Since retail markups on alcoholic beverages are typically much higher than 6 percent, this

Unlike Minnesota, Wisconsin places few restrictions on retail competition in the liquor industry.

¹² Other types of stores may be licensed to sell 3.2 beer and malt beverages for off-premises consumption in Minnesota.

¹³ Minnesota also allows cities of the fourth class or statutory cities with a population of 10,000 or less to issue combination licenses that allow the sale of strong beer, wine, and spirits for both on-premises and off-premises consumption from within the same facility. Wisconsin state law allows off-sale operations within on-sale facilities if authorized by local licensing authorities.

Table 2.9: Minnesota and Wisconsin Laws Regulating Off-Sale Retail Competition in the Liquor Industry, November 2005

| Minnesota | Wisconsin |
|--|---|
| Type of Store Selling Strong Beer, Wine, or Spirits for Off-Sale Consumption | |
| Package liquor stores | Package liquor stores, grocery and convenience stores, and other businesses as permitted by local ordinance |
| Bars and restaurants with combination licenses | Bars and restaurants as permitted by local ordinance may sell any quantity of wine and 4 liters or less of distilled spirits to a customer. |
| Statutory Restrictions on Number of Off-Sale Outlets Selling Strong Beer, Wine, or Spirits | |
| Cities of the first class may issue one off-sale license per 5,000 residents. Other cities and townships may set their own limits on the number of licenses. | No state limits on the number of off-sale retailers |
| A person or business may operate only one off-sale outlet in a municipality. | No restrictions on multiple ownership (There are restrictions on operators licenses and temporary licenses.) |
| Municipal Stores | |
| Cities with populations of 10,000 or less may open liquor stores. | Cities may operate retail stores. |
| Stores may continue to operate if city population later exceeds that limit. | Citizens may close city-run stores by referendum. |
| Minimum Markup over Retailer Cost for Certain Retail Products Including Alcoholic Beverages | |
| State law forbids retailers from selling below cost. | Retail price must be at least 6 percent over cost to retailer. |
| Manufacturers Coupons (applies to all alcoholic beverages) | |
| Manufacturer's cents-off coupons may not be used at retail locations. | All type of coupons and rebates allowed |
| Mail-in rebates allowed | |
| Advertising | |
| Certain advertising must be submitted to state regulators and approved prior to distribution. | No preliminary state approval is required. |
| Certain restrictions on advertising content | No restrictions on advertising content |
| Free novelty items only if available to all retailers | No limitations on free novelty items |
| Only certain premiums permitted | No limitation on premiums |
| Sunday Sales of Strong Beer, Wine, or Spirits at Off-Sale Stores | |
| No | Yes, if allowed by local ordinance |

NOTE: Minnesota law differentiates 3.2 beer from strong beer. In Minnesota, grocery stores, convenience stores, and other businesses with a 3.2 license may sell 3.2 beer for off-premise consumption, as may bars and restaurants with a combination 3.2 license. With an appropriate license, these establishments may sell 3.2 beer for off-premise consumption on Sundays after 10 AM.

SOURCE: Office of the Legislative Auditor review of Minnesota and Wisconsin statutes.

law probably does not affect our price comparisons much. But the law may limit the extent to which large retailers are able to drive competitors out of the market.

Other retail regulatory differences between the states are probably less important in terms of their potential impact on retail prices. Both states allow mail-in manufacturers' rebates, but Minnesota does not allow direct discounting of manufacturers' coupons at the retail cash register. We noticed the use of mail-in rebates in both states, but we only saw in-store manufacturers' coupons used for one product in one store in Wisconsin. The two states also differ in how they regulate advertising. Minnesota requires some advertising to be submitted for state review prior to its use, and state regulators restrict the use of certain premium items. Wisconsin does not have advertising restrictions. Unlike Wisconsin, Minnesota does not allow strong beer, wine, and spirits to be sold for off-premises consumption on Sundays. This restriction may affect the timing and location of sales but probably does not have a strong influence on price differences between the two states, particularly outside border communities.

Compared with Minnesota, Wisconsin has more than twice the number of retail outlets selling strong beer, wine, and spirits.

The differences in retail competition in Minnesota and Wisconsin can be seen in the large differences in the number of retail outlets selling alcoholic beverages. As Table 2.10 illustrates, Wisconsin has nearly three times as many off-sale retail outlets per capita selling beer as Minnesota. Wisconsin also has twice as many retail outlets per capita selling wine and spirits for off-premises consumption. Wisconsin also likely exceeds Minnesota in the number of on-sale outlets that sell liquor for off-sale consumption.¹⁴ To some extent, Wisconsin's greater consumption of alcoholic beverages, particularly beer, may explain its greater numbers of retail outlets. But Minnesota's restriction on the types of stores allowed to sell intoxicating beverages may play a significant role in determining the number of outlets. Minnesota cities and counties may also be more restrictive than Wisconsin officials in the number of off-sale outlets licensed.

Regulatory Differences at the Wholesale Level

The state laws governing wholesale distribution of liquor vary not only among states but often vary within a state for the various types of alcoholic beverages. In Minnesota, for example, state law mandates the use of exclusive territories for beer distribution, allows their use for wine distribution, and prohibits their use for spirits. As a result, we will review the differences in wholesale laws between Minnesota and Wisconsin for each of the three types of alcoholic beverages. Overall, there are substantial differences in state laws governing spirits distribution, some differences for beer distribution, and few differences for wine.

Minnesota's laws governing the wholesale distribution of distilled spirits generally promote a greater level of competition than the laws in Wisconsin. Minnesota's laws are different in three key ways from those in Wisconsin. First, Minnesota prohibits the use of exclusive territories, while they are allowed and used in Wisconsin. Starting in 1973, Minnesota required that spirits

¹⁴ While Minnesota has about 1,350 on/off establishments, Wisconsin has over 11,000 on-sale establishments, many of which may be eligible to sell liquor for off-premises consumption. On-sale establishments in Wisconsin are eligible to sell off-sale products if authorized by the local licensing authority. However, Wisconsin does not collect statewide information on the number of on-sale establishments that sell packaged beverages for off-premises consumption.

Table 2.10: Minnesota and Wisconsin Outlets for On-Premise and Off-Premise Sales of Beer, Wine, and Spirits, 2004

| Type of Retail Outlet | Minnesota | Wisconsin |
|--|-----------|----------------------|
| Off-Sale Outlets (Number per 100,000 Adults) | | |
| Strong Beer | 33.8 | 95.2 ^a |
| Wine or Spirits | 24.7 | 49.8 |
| On-Sale Outlets | | |
| Beer | 122.2 | 321.2 |
| Wine | 122.2 | 291.1 |
| Spirits | 100.9 | 278.6 |
| Combination On-Off Sale Outlets | | |
| Strong Beer, Wine, or Spirits | 37.2 | Unknown ^b |
| Total Off-Sale and On-Sale Outlets | | |
| Strong Beer, Wine, or Spirits | 193.2 | 422.9 |

^a In addition to this number, establishments holding an on-sale malt beverage license may also sell beer for off-premises consumption.

^b On-sale liquor establishments may also sell wine and spirits for off-premises consumption with the approval of local licensing authorities. The Wisconsin Department of Revenue does not, however, maintain records of the number of on-sale outlets that also sell wine and spirits for off-premises consumption.

SOURCE: Office of the Legislative Auditor analysis of data from the Adams Beverage Group.

Unlike those in Wisconsin, Minnesota laws strongly encourage competition among wholesalers of distilled spirits.

manufacturers offer their products for sale to all licensed Minnesota wholesalers. At the time of its passage, this law was expected to increase the number of spirits wholesalers in Minnesota and the competition among wholesalers. Although Minnesota only has five spirits wholesalers today, the wholesale industry is competitive. Minnesota retailers can choose from a number of wholesalers when purchasing a particular spirits product. In contrast, Wisconsin retailers generally must deal with the one wholesaler that carries a particular product.

Second, Wisconsin has a franchise termination law for spirits wholesalers that protect existing wholesalers from being terminated by the manufacturers they represent. Spirits wholesalers in Wisconsin cannot be terminated without good cause, notice, and an opportunity to fix any performance problems. Finally, unlike Wisconsin, Minnesota allows wholesalers to purchase spirits from sources other than the manufacturer. This lack of a “primary source” law means that Minnesota wholesalers may purchase spirits from wholesalers in other states.

For beer, Minnesota’s laws are somewhat more restrictive than those in Wisconsin. Minnesota requires the use of exclusive territories while, at the time of our price survey, Wisconsin allowed, but did not mandate, their use.¹⁵ Minnesota requires retailers to pay wholesalers in cash for any beer, while Wisconsin allows purchases on credit for up to 15 days. Both states have franchise termination laws that protect existing beer wholesalers from being

¹⁵ Effective July 1, 2006, Wisconsin is requiring the use of exclusive territories for beer distribution. See *2005 Wisconsin Act 103*, section 9.

terminated by brewers without cause, notice, and an opportunity to fix any performance problems.

There are few differences in Minnesota and Wisconsin laws governing the wholesale distribution of wine. In both states, exclusive territories are allowed,

Table 2.11: Minnesota and Wisconsin Laws Regulating Wholesale Competition in the Liquor Industry, November 2005

| | Minnesota | Wisconsin |
|--|--|--|
| Exclusive Territories | | |
| Beer | Required | Permitted (required as of July 2006) |
| Wine | Permitted | Permitted |
| Spirits | Banned | Permitted |
| Franchise Termination Laws | | |
| Beer | Specific beer wholesaler franchise law | General dealership law and specific beer wholesaler franchise law |
| Wine | General franchise law does not apply. | General dealership law |
| Spirits | Without exclusive territories, there are no potential franchises. | General dealership law with exceptions for small manufacturers |
| Retailer Payment Requirements | | |
| Beer | Cash | 15 days credit |
| Wine and Spirits | 30 days credit | 30 days credit |
| Primary Source Law | | |
| Beer | Yes | Yes |
| Wine | Yes | Yes |
| Spirits | No | Yes |
| Manufacturer Ownership Interest in Wholesaler | | |
| Beer | Brewers may hold a limited partnership interest in a wholesaler for a short period of time. A few brewers are grandfathered as wholesalers. Importers may not hold an interest in a beer wholesaler. | Brewers may wholesale beer but requires off-brewery premises with exceptions for small brewers and those shipping only to other wholesalers. Brewers may wholesale wine. |
| Wine | Minnesota wineries may wholesale their own wine. Other relationships are not specifically forbidden by state law. | Wisconsin wineries may wholesale their own wine. Wine wholesalers may be owned by brewers. |
| Spirits | Not specifically forbidden by state law | Manufacturers may not hold any interest in a wholesaler of spirits. |

SOURCE: Office of the Legislative Auditor review of Minnesota and Wisconsin statutes.

and retailers may purchase on credit for up to 30 days. Both states also have a primary source law for wine. The only difference is that wine wholesalers in Wisconsin are protected by a franchise termination law, while Minnesota does not have a similar law for wine distribution.

Conclusions

It is difficult to draw conclusions about the source of the price differences without information on wholesale and manufacturers' prices.

Drawing conclusions about the impact of state liquor laws is difficult for several reasons. First, except for the spirits industry in Minnesota, we did not have access to information on wholesale and manufacturers' prices in the two states. Access to such data would have helped identify the sources of retail price differences. Those differences could potentially result from differences in manufacturers' prices, wholesale markups, or retail markups. Second, there may be other market factors unrelated to state law that affect relative prices in the two states. Prices for certain products may be higher in a state that has greater consumer demand for the product. Also, proximity to a large brewery may reduce beer prices. Finally, our analysis is limited to only two states, since it would have been much more costly to collect data from additional states. From a statistical standpoint, a sample limited to two states makes it much more difficult to draw strong conclusions about the sources of price differences.

Nevertheless, we think that some tentative conclusions can be drawn about the reasons for price differences between Minnesota and Wisconsin. Our comparison of state laws suggests that Minnesota laws are more restrictive at the retail level than Wisconsin laws. This would tend to cause retail prices for all types of alcoholic beverages to be higher in Minnesota than Wisconsin, absent any differences in wholesale laws or other economic factors.

For wine, one would expect the retail laws to be the key difference between the two states. The consumption of wine is about the same in both states. Regulatory laws affecting wine wholesalers are also similar. Consequently, one would expect that Minnesota wine prices would be higher than those in Wisconsin. Our survey confirms that expectation. After adjustments for differences in taxes and costs, Minnesota wine prices were between 5 and 7 percent higher than Wisconsin prices, depending on whether we included sales prices.

It is more difficult to account for the differences in beer prices. As with wine, Minnesota's restrictions on retail competition may cause Minnesota's beer prices to be 5 to 7 percent higher than Wisconsin's prices. Several economic factors may also affect the differences in prices, although their exact impact is not entirely clear. Beer wholesale laws in Minnesota would tend to increase the price gap with Wisconsin. In addition, the greater presence of breweries in Wisconsin, including a major brewery in Milwaukee, would tend to increase the price gap by lowering beer prices in Wisconsin. The presence of major breweries tends to lower prices due to lower shipping and wholesale costs. On the other hand, Wisconsin residents consume more beer than Minnesotans. The higher demand would tend to increase beer prices in Wisconsin and lower the gap between the states.

Overall, we found that Minnesota beer prices were 7 to 9 percent higher than Wisconsin prices, after the appropriate adjustments. This price gap is slightly more than we found for wine. But it is hard to know whether Minnesota's

slightly more restrictive wholesale laws are responsible for this small change relative to wine. It is not possible to isolate the impact of Minnesota's beer wholesaling laws from the impact of other economic factors affecting beer prices.

For spirits, Minnesota's retail restrictions would tend to raise prices, but its wholesale laws would tend to lower prices relative to those in Wisconsin. Based on what wholesalers told us about wholesale markups in both states, we would expect Minnesota retail prices to be 12 to 16 percent lower than Wisconsin prices, absent any differences in regulation or other factors at the retail level. Our results for wine and beer suggest, however, that Minnesota's more restrictive retail laws may result in retail prices for spirits that are 5 to 9 percent higher than those in Wisconsin.¹⁶ The net effect of these lower wholesale margins and higher retail markups is consistent with our price survey results for spirits. We found that Minnesota spirits prices after adjustments were 8 to 10 percent lower than Wisconsin prices.

Evidence suggests, however, that Minnesota's higher wine and beer prices are mostly the result of the state's restrictions on retail competition.

Despite the lack of complete information on wholesale and manufacturers' prices, we think the evidence on retail prices supports two important conclusions about the impact of Minnesota's liquor laws. First:

- **Minnesota's restrictions on off-sale retail competition appear to result in wine and beer prices that are 5 to 9 percent higher than those in Wisconsin.**

Minnesota's higher off-sale prices are probably due to the restriction of sales to exclusive liquor stores as well as the monopolies granted to municipal liquor stores. As we noted earlier, municipal stores appear to have even higher prices than traditional liquor stores. Minnesota's restrictions on the number of outlets in cities of the first class and community licensing decisions may also play a role in limiting the number of off-sale outlets in the state. Second:

- **Minnesota's pro-competitive laws for the wholesale distribution of spirits result in lower off-sale spirits prices than those in Wisconsin, despite Minnesota's retail restrictions.**

Minnesota's prohibition on the use of exclusive territories for spirits distribution appears to significantly lower wholesale prices in the state. The lack of a primary source law for spirits may also be a factor in Minnesota's lower prices. While retail markups on spirits may be higher in Minnesota than Wisconsin, Minnesota's wholesale laws result in spirits prices that are 8 to 10 percent lower at the retail level than those in Wisconsin.

Economic Impact

Overall, we estimate that Minnesota consumers pay about \$45 million more each year for off-sale purchases of alcoholic beverages than they would if they paid Wisconsin prices. Minnesota's higher beer and wine prices cost consumers about \$80 million annually, while the state's lower spirits prices save consumers about

¹⁶ Wisconsin's higher consumption of distilled spirits could also partially explain Wisconsin's higher spirits prices.

\$35 million annually.¹⁷ The \$45 million figure represents about 3 percent of the annual purchases of alcoholic beverages for off-sale consumption in Minnesota.

However, this figure greatly understates the potential savings for Minnesota consumers from changes in Minnesota's liquor laws. Minnesota consumers would benefit from changing the Minnesota laws that restrict retail competition and adopting laws similar to those in Wisconsin. In addition, Minnesota consumers could potentially benefit if Minnesota bans the use of exclusive territories for beer and wine distribution. But, the potential savings for Wisconsin consumers from banning exclusive territories are even greater than those in Minnesota, since Wisconsin currently allows exclusive territories to be used for spirits, as well as beer and wine, distribution. The potential savings for Minnesota consumers are discussed below.

Retail Sector

Our price comparisons suggest that, based on retail markups alone, Minnesota prices are about 7 to 9 percent higher than those in Wisconsin.¹⁸ Based on this difference in markups, we estimate that:

- **If Minnesota was similar to Wisconsin in retail sector competition, Minnesota consumers could potentially save about \$100 million annually in off-sale purchases of alcoholic beverages.**

To achieve the full amount of those savings, however, Minnesota would need to adopt laws and practices similar to Wisconsin. That would include allowing the sale of strong beer, wine, and spirits in grocery, convenience, and other stores. In addition, the number of outlets selling these products in Minnesota would probably need to double. Minnesota would also have to either eliminate municipal stores or allow competition in cities with municipal stores. Such changes would reduce or eliminate the \$16 million in funding that municipal liquor stores currently generate for municipal budgets.

Implementing laws similar to those in Wisconsin could drive a significant number of privately-owned liquor stores out of business. Although the total number of off-sale outlets is much higher in Wisconsin than Minnesota, Wisconsin has fewer traditional liquor stores. Information available from the 2002 Economic Census suggests that Wisconsin has about half the number of traditional liquor stores per capita that currently operate in Minnesota.

Recent legislative discussions have focused on more modest changes in Minnesota's liquor laws. The most discussed change has been the Minnesota Grocers Association's proposal to allow wine sales in grocery stores, including a requirement that all cities, including those with municipal liquor stores, approve

¹⁷ Minnesota's lower wholesale prices for distilled spirits may also result in some savings for Minnesota consumers at on-sale establishments. However, we do not know the overall impact of state retail and wholesale laws on on-sale prices in the two states because we did not conduct a survey of on-sale prices.

¹⁸ The 7 percent figure is based on our results for the current price of wine. For beer, current prices in Minnesota were 9 percent higher than in Wisconsin. We suspect that spirits prices would also have been higher in Minnesota absent Minnesota's laws governing the wholesale distribution of spirits.

Eliminating all restrictions on retail competition could save Minnesota consumers about \$100 million annually, but would have significant adverse impacts on municipal and private liquor stores.

license applications from eligible grocery stores. This proposal would allow wine sales in grocery stores with at least 8,000 square feet of space for grocery operations. The proposal would not affect sales of strong beer or spirits, which would still have to be sold exclusively in liquor stores.

Approximately 440 grocery stores would be eligible to sell wine under the proposal. Even if all eligible stores decided to sell wine, Minnesota would still have about one-fourth fewer off-sale wine outlets per capita than Wisconsin. In addition, the proposal would not affect the number of outlets selling strong beer and spirits. The proposal would likely have some impact on Minnesota wine prices, particularly the lower- and middle-tier wines that grocery stores are likely to sell. But beer and spirits prices would not likely be affected.

Allowing wine to be sold in grocery stores would provide modest savings for Minnesota consumers.

Wine represents only about 15 percent of total off-sale purchases of alcoholic beverages in Minnesota. As a result, allowing wine to be sold in grocery stores would save consumers substantially less than the \$100 million possible if Minnesota adopted more dramatic retail changes. Based on the differences in Minnesota and Wisconsin wine prices, we estimate that:

- **The proposal for wine sales in grocery stores could potentially save up to \$15 million annually for Minnesota customers.**

The consumer benefits of less restrictive retail laws cannot be measured only by their impact on prices. While some reduction in wine prices could be expected from allowing the sale of wine in grocery stores, the proposal would also provide increased convenience for some Minnesotans. Wine consumers could purchase a bottle of wine on their trip to the grocery store without making a separate trip to a liquor store. Beer and spirits consumers would still need to visit their local liquor store.

While loosening Minnesota's retail laws has potential benefits for consumers, there is a downside for existing liquor stores. Profits at existing private stores and transfers from municipal stores to city budgets would likely decline, unless the Legislature allowed cities with municipal stores to prevent grocery stores in their cities from obtaining a license. However, it is difficult to predict exactly how much the financial viability of existing liquor stores in Minnesota would be affected by allowing sales of wine in grocery stores. Information from other states is not particularly useful, since all the states allowing wine to be sold in grocery stores allow strong beer to be sold there as well. We would expect significant impacts on existing stores if laws like those in Wisconsin were adopted in Minnesota.¹⁹ But, expanding wine sales to certain grocery stores would have less impact on most existing stores, since sales of beer and spirits probably exceed wine sales at most liquor stores. Nationally, wine accounts for only about one-sixth of the sales of alcoholic beverages for off-premises

¹⁹ States allowing wine and strong beer to be sold in grocery stores have about 25 percent fewer traditional liquor stores per capita than states without wine in grocery stores. States allowing wine, strong beer, and spirits to be sold in grocery stores have about 45 percent fewer traditional liquor stores per capita than states without wine in grocery stores. But no state has just wine in grocery stores like has been proposed in Minnesota. In addition, many of the states allowing grocery stores to sell alcoholic beverages also allow convenience and other stores to sell the products.

consumption.²⁰ The financial viability of less profitable stores and stores that are more dependent on wine sales could be jeopardized by the sales of wine in grocery stores.

Wholesale Sector

Spirits prices in Minnesota are lower than in Wisconsin despite Minnesota's more restrictive laws for the retail sector. The prohibition on exclusive territories, the lack of a franchise termination law, and the lack of a primary source law for spirits distribution are the most likely factors behind Minnesota's lower spirits prices. But Minnesota laws for beer distribution mandate the use of exclusive territories, and those for wine allow their use. Beer distributors are also protected by a franchise termination law. While the franchise termination law prevents arbitrary and capricious terminations by brewers, the law also makes it difficult for a brewer to terminate an inefficient or underperforming wholesaler. This is particularly true for small Minnesota brewers who lack the resources of the large national brewers. Beer wholesalers with a monopoly on the distribution of certain brands in a certain territory and protection from termination may be able to charge higher prices than if they faced constant competition from other wholesalers. While wine wholesalers are not protected by a similar franchise termination law, they generally have exclusive territories. If the use of exclusive territories were banned, wine wholesalers would face more competition and would probably charge lower prices to retailers.

Eliminating exclusive territories for beer and wine wholesalers may provide significant savings for Minnesota consumers.

Changes in the laws regulating wholesale distribution of beer and wine could provide substantial savings for Minnesota consumers, in addition to any savings from loosening the restrictions on retail competition in the liquor industry. The additional savings are difficult to estimate, but could be as much as \$130 million annually if they are comparable to our estimates of the savings that Minnesota consumers already receive from lower wholesale prices for spirits.

Changes in wholesale distribution laws should be carefully considered, however, because economists have found that the use of exclusive territories can have both positive and negative impacts on consumers. While prices are expected to be higher when only one wholesaler can supply a retailer, wholesalers are more willing to provide services valued by manufacturers and consumers. With exclusive territories, wholesalers may pay more attention to maintaining the freshness of beer in a retailer's possession and perform marketing and other services that lead to sales growth. Without exclusive territories, wholesalers are not as likely to perform these services in an attempt to build sales in an area because they would not receive the benefits of such efforts. Other wholesalers could undercut their prices and receive the benefits of their marketing efforts.

The use of exclusive territories also does not eliminate all competition for wholesalers. While intrabrand competition is minimal, a distributor may face intense interbrand competition. For example, a Budweiser distributor in Minnesota does not face competition from other distributors of Budweiser products, but the distributor may face intense competition from a Miller distributor or distributors of other brands of beer.

²⁰ However, wine may account for a more than one-sixth of the profits from sales, since retail markups on wine tend to be higher than those on beer and spirits.

However, eliminating exclusive territories may reduce product availability and other consumer benefits.

Most states mandate or allow the use of exclusive territories. As a result, there are only a handful of studies that have examined the impact of exclusive territories on consumers in the liquor industry.²¹ All of these studies have focused on exclusive territories for beer and the ban on their use in Indiana from 1978 to 2002. The best studies show that exclusive territories increase, or at least do not reduce, the consumption of beer. This finding suggests consumers value the services provided by wholesalers.²² If consumers did not value those services, they would instead reduce their consumption of beer because of the higher beer prices that occur with the use of exclusive territories. Very few studies have examined the nature of those services, but one unpublished study found that removing the ban on exclusive territories in Indiana resulted in a modest improvement in beer freshness at off-sale retail outlets.²³

Wholesalers also suggest that, without exclusive territories, there might be a reduction in the variety of brands available to consumers. In fact, one spirits wholesaler suggested that some reduction occurred following the passage of the 1973 law that prohibited exclusive territories for spirits distribution in Minnesota. It is difficult, however, to verify if that happened. In addition, there are apparently no studies that have examined the availability issue.

Some economists suggest that states should allow wholesalers and manufacturers to use exclusive territories but should not mandate them, as Minnesota does for beer.²⁴ The logic behind this recommendation is that exclusive territories should be allowed because they have benefits for consumers. However, exclusive territories should not be mandated because they may sometimes constitute a restraint of trade. A state mandate for exclusive territories precludes any investigation to determine whether the use of exclusive territories is having negative impacts on consumers.

Some observers have also suggested that Minnesota's "beer cash law" merits additional scrutiny. In Minnesota, retailers must pay wholesalers using a form of cash when receiving a delivery of beer, while up to 30 days credit is allowed for wine and spirits. While most states have a beer cash law, some allow credit to be used for a limited amount of time. Beer wholesalers claim that the law is needed to discourage marginal retailers from entering the business, prevent excessive promotion and overbuying, and facilitate tax collections.

²¹ We are also unaware of any studies that have examined the impact of franchise termination laws on consumers of alcoholic beverages.

²² Tim R. Sass and David S. Saurman, "Mandated Exclusive Territories: Efficiency Effects and Regulatory Selection Bias," in *Advertising and Differentiated Products*, Michael R. Baye and Jon P. Nelson, eds. (Oxford, England: 2001), 55-72. Tim R. Sass and David S. Saurman, "Efficiency Effects of Exclusive Territories: Evidence from the Indiana Beer Market," *Economic Inquiry*, 34, July 1996, 597-615. Tim R. Sass and David S. Saurman, "Mandated Exclusive Territories and Economic Efficiency: An Empirical Analysis of the Malt-Beverage Industry," *Journal of Law and Economics*, 36, 1993, 153-177.

²³ Daniel L. Vazzana, "Theoretical and Empirical Examination of Exclusive Territories in the Malt Beverage Industry," Ph.D. Thesis, Purdue University, December 2004.

²⁴ Francine Lafontaine and Margaret Slade, "Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy," forthcoming in *Handbook of Antitrust Economics*, Paolo Buccirossi, ed. (Cambridge: 2006). James C. Cooper, Luke M. Froeb, Dan O'Brien, and Michael G. Vita, "Vertical Antitrust Policy as a Problem of Inference," *International Journal of Industrial Organization*, 23, September 2005, 639-664.

We are not aware of any studies that have examined the impact of beer cash laws in detail. One study that focused on exclusive territories for beer also contains an estimate of the impact of beer cash laws on beer prices.²⁵ The statistical analysis in this study indicates that having a beer cash law raises beer prices by almost 13 percent. It is, however, somewhat difficult to understand how prices could be so strongly affected by a beer cash law. Under such a law, retailers must have a sufficient cash flow in order to pay cash for a beer delivery prior to selling the beer to customers. Without such a law, retailers need to maintain a larger cash reserve so that they can pay brewers while waiting longer to receive payment from retailers. In either case, either wholesalers or retailers need to have high enough prices to maintain the cash flow necessary to conduct business. The reason why a beer cash law could raise prices is that borrowing money to attain a sufficient cash flow may be more expensive for some retailers than it is for wholesalers. Retailers may face higher interest rates when borrowing money.

The impact of Minnesota's "beer cash law" on beer prices is unclear.

It is unclear to us whether a beer cash law is needed. We are skeptical of the arguments made by the beer wholesalers and do not think they have made a strong case for retaining Minnesota's beer cash law. However, we are not persuaded by the limited evidence on the link between cash laws and beer prices. Minnesota's beer cash law did not have any apparent effect on the price differences between Minnesota and Wisconsin even though Wisconsin allows credit for up to 15 days.

Other Three-Tier Issues

Others have suggested that liquor industry competition throughout the United States would benefit from a loosening of the restrictions imposed by the three-tier system. For example, some suggest greater flexibility for consumers to buy direct from manufacturers, thus bypassing wholesalers and retailers. Others suggest that retailers should be allowed to do their own wholesaling.

Minnesota already allows some purchases of wine directly from wineries. Allowing greater quantities of wine to be purchased or expanding the authority to beer and wine would provide additional competition for Minnesota's wine and liquor stores and possibly increase product availability for Minnesota consumers. But there does not appear to be strong consumer interest in such a broad expansion of direct shipping. The interest appears to be limited to higher-priced wines, particularly those that are not available locally. In addition, direct shipping raises several concerns. Direct shipping would reduce tax collections if it is widely used. Policymakers are also concerned that direct shipping could be used by underage drinkers to obtain alcohol. Because no state allows unlimited direct shipping, there is little experience with which to judge the financial and social impacts of expanding the ability of consumers to purchase liquor directly from manufacturers.

The interest in allowing retailers to be wholesalers appears to come primarily from supercenters or other retailers that already have their own wholesale distribution centers for other types of products sold at their stores. In order for

²⁵ Tim R. Sass and David S. Saurman, "Mandated Exclusive Territories and Economic Efficiency: An Empirical Analysis of the Malt-Beverage Industry," *Journal of Law and Economics*, 36, 1993, 153-177.

retailers to become liquor wholesalers, the state would have to prohibit exclusive territories for beer and wine and loosen the restrictions that prevent a wholesaler from owning a retailer. While these changes would likely put additional downward pressure on liquor prices, it is unclear what additional impacts they might have on consumers and existing liquor wholesalers and retailers. Such changes may benefit large supercenters at the expense of other existing liquor stores. The number of industry jobs in Minnesota may decline. Unfortunately, there is no evidence from other states that provides a guide for policymakers in Minnesota.

Public Safety Concerns

SUMMARY

Removing competitive restrictions on the off-sale liquor industry would lower prices and increase the number of outlets selling alcoholic beverages. Some research suggests that lower prices and greater accessibility would increase the problems caused by excessive and underage use of alcoholic beverages. However, the price differences between Minnesota and Wisconsin suggest that allowing wine to be sold in grocery stores might result in relatively modest price declines and a small increase in total liquor consumption. More significant changes such as allowing strong beer to be sold in other stores, including convenience stores, raise a greater level of concern about the impact on excessive and underage consumption.

In Chapter 2, we examined the potential savings for Minnesota consumers from changing state laws that restrict competition in the liquor industry. Opponents of these changes often point out the additional social costs that might be incurred if current restrictions are removed from law. Lower liquor prices and greater accessibility to alcoholic beverages could potentially lead to increased rates of alcoholism, greater underage consumption, and larger numbers of alcohol-related traffic accidents. This chapter examines the evidence linking lower prices and increased product accessibility to increased social costs. In particular, we address the following questions:

Legislators are concerned about how loosening competitive restrictions on the liquor industry would affect alcohol abuse and public safety.

- **How does Minnesota’s consumption of alcoholic beverages and problems with its misuse compare with other states?**
- **What evidence is there that lower prices and increased accessibility of alcoholic beverages lead to excessive alcohol consumption and greater social costs?**
- **Is it possible to estimate how removing current restrictions on off-sale competition would affect the consumption of alcoholic beverages and problems with alcohol abuse? To what extent would allowing wine in grocery stores have undesired impacts on the consumption of alcoholic beverages?**

ALCOHOL CONSUMPTION AND COSTS

In this section, we examine the consumption of alcoholic beverages in Minnesota and other states. We also consider the costs incurred by drinkers and others because of the excessive consumption of liquor. We highlight problems such as binge drinking and driving while impaired (DWIs) and compare the incidence of these problems in Minnesota with other states.

Consumption

In Minnesota and most of its neighboring states, people consume more alcoholic beverages than the national average.

In 2004, the average adult in the United States consumed 7 liters of distilled spirits, 12 liters of wine, and 115 liters of beer.¹ Minnesotans consumed more spirits, but less wine, than the national average. As Table 3.1 shows, Minnesota's spirits consumption per adult was 10th highest among the 50 states and the District of Columbia, or about one-third higher than the national average. In wine consumption, Minnesota ranked 25th highest but consumed about 14 percent less than the national average. Minnesota's beer consumption was close to the national average. According to the National Institute on Alcohol Abuse

Table 3.1: Consumption of Alcoholic Beverages per Adult, 2003-04

| Beverage | Minnesota | Iowa | North Dakota | South Dakota | Wisconsin |
|----------------------------------|-----------|------|--------------|--------------|-----------|
| Beer (2004) | | | | | |
| Difference from National Average | 3% | 13% | 37% | 28% | 26% |
| Rank among States | 27 | 16 | 3 | 5 | 6 |
| Wine (2004) | | | | | |
| Difference from National Average | -14% | -56% | -49% | -51% | -14% |
| Rank among States | 25 | 48 | 42 | 43 | 26 |
| Distilled Spirits (2004) | | | | | |
| Difference from National Average | 33% | -17% | 49% | 3% | 54% |
| Rank among States | 10 | 40 | 7 | 25 | 6 |
| Total Ethanol (2003) | | | | | |
| Difference from National Average | 9% | -8% | 16% | 10% | 27% |
| Rank among States | 18 | 38 | 10 | 16 | 6 |

SOURCES: Office of the Legislative Auditor analysis of wine and spirits data from Adams Beverage Group, beer data from the Beer Institute, and total ethanol data from the National Institute on Alcohol Abuse and Alcoholism.

¹ Data for spirits and wine from *Adams Liquor Handbook 2005* (Norwalk, CT: Adams Beverage Group, 2004). Data on beer consumption based on data from the Beer Institute, *Shipments of Malt Beverages and Per Capita Consumption by State, 2004*, downloaded on December 12, 2005 from <http://www.beerinstitute.org>. These figures overstate the average consumption per adult since alcoholic beverages are also consumed by underage drinkers. In 2004, the consumption per person of age 14 or older was 6 liters of spirits, 10 liters of wine, and 101 liters of beer.

and Alcoholism, Minnesota's overall consumption of ethanol from alcoholic beverages was about 9 percent above the national average per adult in 2003.² This figure reflects the higher alcoholic content of distilled spirits, which Minnesotans consume in greater quantities than the average United States adult.

Consumption of alcohol is even higher in three of the four states bordering Minnesota. Wisconsin residents consume 27 percent more alcohol than the national average, while residents of North Dakota and South Dakota also consume more alcohol per adult than Minnesota residents. Iowa residents consume less alcohol per adult than the national average due to their below average consumption of distilled spirits and wine.

All four of Minnesota's neighboring states consume more beer per adult than Minnesotans. North Dakota, South Dakota, and Wisconsin rank among the top six states in the nation in beer consumption. Although Minnesotans consume significantly more spirits than the national average, residents of both Wisconsin and North Dakota consume more than Minnesotans. Consumption of spirits in those two states is about 50 percent higher than the national average. Wine consumption is lower than the national average in Minnesota and all of its neighboring states. Among these five states, wine consumption is highest in Minnesota and Wisconsin, but consumption in each of those states is still 14 percent below the national average.

Costs of Excessive Consumption

The estimated costs of alcohol abuse in Minnesota were more than \$4.5 billion in 2001.

Many people enjoy the consumption of alcoholic beverages and may even derive health benefits from moderate consumption.³ However, excessive consumption of alcoholic beverages has significant costs for those abusing alcohol, their families, and others. Based on the results of national studies, the Minnesota Department of Health estimated the costs of alcohol abuse in Minnesota to be more than \$4.5 billion in 2001.⁴ This figure amounts to over \$900 for every person in the state. In addition, the costs are almost 20 times the amount of excise and sales taxes collected from alcohol sales in Minnesota.

Almost two-thirds of the costs of alcohol abuse—or about \$2.9 billion—involve lost productivity due to illness or crime, or lost future earnings due to premature deaths. Health care expenditures to treat the medical consequences of excessive consumption or to treat or prevent alcohol abuse cost \$0.6 billion. Other items such as motor vehicle crashes, crime, fire destruction, and social welfare administration account for another \$1 billion in costs to Minnesotans.

Previous national studies have found that a significant share of the costs of alcohol abuse was borne by people other than the alcohol abusers themselves.

² N.E. Lakins, G.D. Williams, H. Yi, and M.E. Hilton, *Surveillance Report #73: Apparent Per Capita Alcohol Consumption: National, State, and Regional Trends, 1977-2003* (Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism, August 2005).

³ Harvard School of Public Health "Alcohol" downloaded February 23, 2006 from <http://www.hsph.harvard.edu/nutritionsource/alcohol.html>.

⁴ Minnesota Department of Health, *The Human and Economic Cost of Alcohol Use in Minnesota* (St. Paul, January 2004).

Roughly 45 percent of the costs were borne by the alcohol abusers and their families. But, the federal government paid for 20 percent of the costs, while state and local governments absorbed 18 percent. Another 10 percent was paid by private insurance, while 6 percent was borne by victims of alcohol-related crimes and by non-drinking victims of alcohol-related motor vehicle crashes.

Consumption Problems

For certain alcohol-related problems, we can compare Minnesota with other states. For example, surveys of self-reported activity compare the incidence of binge drinking in Minnesota with that in other states.⁵ In addition, the federal government compiles information on the number of alcohol-related traffic fatalities.⁶ Finally, law enforcement data provide information on the number of liquor violations and DWI arrests in Minnesota and other states.⁷

Since the consumption of alcoholic beverages in Minnesota exceeds the national average, it is not surprising that the state's incidence of binge drinking is also above the national average. But, as Table 3.2 shows, the incidence of binge drinking was 23 percent above the national average in 2002-03, while Minnesota's overall consumption was only about 9 percent higher than average.

All of Minnesota's neighboring states also had above average percentages of residents reporting that they drank five or more drinks at least once in the last 30 days. Minnesota and three of its neighbors were the top four states in the nation in reported binge drinking, while Iowa was the eighth highest state.

Despite Minnesota's higher consumption and incidence of binge drinking, the rate of traffic fatalities involving alcohol was below the national average. In 2003, Minnesota had 12 percent fewer traffic fatalities per vehicle mile traveled in which a driver's blood alcohol content was .08 or higher. Iowa's rate of alcohol-related fatalities was lower than Minnesota's rate, but the rates in the other three states were higher than the national average. South Dakota had the highest rate in the nation.

In contrast to its traffic fatality rate, Minnesota's rates of DWI arrests were above the national averages. In 2003, Minnesota had an adult DWI arrest rate that was 14 percent higher than the national average, while its DWI arrest rate for youth under the age of 18 was more than two and a half times the national average and was the third highest in the nation. All of Minnesota's neighbors had above average rates of DWI arrests as well, except that Iowa's adult DWI arrest rate was slightly below the national average. South Dakota's youth DWI arrest rate was the second highest in the nation.

Minnesota has an above average rate of DWI arrests but a below average rate of alcohol-related traffic fatalities.

⁵ Douglas Wright and Neeraja Sathe, Substance Abuse and Mental Health Services Administration Office of Applied Studies, *State Estimates of Substance Use from the 2002-2003 National Surveys on Drug Use and Health* (Rockville, MD: Department of Health and Human Services, January 2005).

⁶ National Center for Statistics and Analysis, National Highway Traffic Safety Administration, *Traffic Safety Facts 2003 Data: Alcohol* (Washington D.C.: undated).

⁷ Federal Bureau of Investigation, *Uniform Crime Reports, Crime in the United States, 2003, Table 69: Arrests by State* (Washington, D.C.: Department of Justice, October 27, 2004).

Table 3.2: Measures of Alcohol-Related Problems, 2003

| Measure | Minnesota | Iowa | North Dakota | South Dakota | Wisconsin |
|---|-----------|------|--------------|--------------|-----------|
| Binge Drinking^a | | | | | |
| Difference from National Average | 23% | 16% | 38% | 24% | 27% |
| Rank among States | 4 | 8 | 1 | 3 | 2 |
| Traffic Fatalities by Driver Blood Alcohol Content (BAC)^b | | | | | |
| <i>BAC more than .01</i> | | | | | |
| Difference from National Average | -13% | -16% | 31% | 99% | 16% |
| Rank among States | 35 | 36 | 16 | 2 | 22 |
| <i>BAC at least .08</i> | | | | | |
| Difference from National Average | -12% | -19% | 37% | 113% | 19% |
| Rank among States | 35 | 37 | 10 | 1 | 21 |
| <i>BAC at least .16</i> | | | | | |
| Difference from National Average | -12% | -11% | 55% | 129% | 35% |
| Rank among States | 37 | 36 | 7 | 1 | 17 |
| Adult DWI Arrests^c | | | | | |
| Difference from National Average | 14% | -1% | 39% | 66% | 25% |
| Rank among States | 15 | 22 | 11 | 6 | 14 |
| Youth DWI Arrests^d | | | | | |
| Difference from National Average | 161% | 86% | 82% | 187% | 61% |
| Rank among States | 3 | 10 | 11 | 2 | 15 |
| Liquor Violations | | | | | |
| Difference from National Average | 149% | 141% | 392% | 399% | 262% |
| Rank among States | 6 | 8 | 2 | 1 | 5 |

^a Binge alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. The data is for all age groups.

^b This rate is the number of alcohol-related fatalities per 100 million vehicle miles traveled. Alcohol-related means that the driver's blood alcohol content (BAC) exceeded the specified level.

^c Adults are defined as age 18 and older.

^d Youth are defined as under age 18.

SOURCES: Office of the Legislative Auditor analysis of reported drinking data from Substance Abuse and Mental Health Statistics (SAMHSA) Office of Applied Studies, traffic fatality data from the National Highway Traffic Safety Administration, and arrest data from the Federal Bureau of Investigation.

Similarly, Minnesota's rate of liquor violations per capita was 149 percent higher than the national average.⁸ South Dakota and North Dakota had the highest rates of liquor violations in the nation. Minnesota, Iowa, and Wisconsin were among the six highest states in the rate of reported liquor violations.⁹

While data on arrests and violations suggest Minnesota has a much greater incidence of alcohol-related problems than other states, the differences may be due to much stronger enforcement in Minnesota. Unlike some other crimes, many DWI arrests and liquor violations are not just the result of reports by crime victims or observers. Instead, many arrests and violations are the result of active police enforcement efforts. In addition, if police are more inclined to test blood alcohol when they observe other traffic violations, more DWI arrests would occur.

Unfortunately, little is known about the relative strength of enforcement efforts across the nation. As a result, it is somewhat difficult to determine the causes of differences in alcohol-related traffic fatalities. While some might attribute Minnesota's lower alcohol-related traffic fatality rate to its smaller number of liquor stores and bars, Minnesota's strong efforts to enforce liquor and traffic laws may be the primary reason for its lower fatality rate.

EXISTING RESEARCH

Researchers have examined the link between liquor taxes or prices and the consumption of alcoholic beverages. In addition, researchers have directly examined how liquor taxes or prices affect traffic fatalities, health, educational attainment, and violence and other crimes. Research has also been conducted on the link between the density of liquor outlets and liquor consumption. In this section, we summarize the results of the research conducted in each of these areas.

Responsiveness of Consumption to Prices

Most research examining the link between prices and consumption of alcoholic beverages supports the economic principle that higher prices lead to lower consumption. Researchers, however, do not agree on the strength of the relationship between prices and consumption. One widely quoted study estimated that beer consumption increased by 0.3 percent for each 1 percent decrease in beer prices, while wine consumption rose 1 percent for each 1 percent decrease in wine prices. Spirits consumption was estimated to grow by 1.5

Lower liquor prices lead to greater use of alcoholic beverages, but researchers do not agree on the exact relationship between prices and consumption.

⁸ A liquor violation is any violation of state or local laws or ordinances prohibiting the manufacture, sale, purchase, transportation, possession, or use of alcoholic beverages, not including driving while impaired or drunkenness.

⁹ Reported violations may overstate the extent to which Minnesota and its neighbors exceed the national average. Some states were excluded from our comparison because they do not fully report liquor violations.

percent for each 1 percent decrease in spirits.¹⁰ Another study estimated the consumption of alcoholic beverages, particularly wine and spirits, to be much less responsive to price increases.¹¹ For example, the increase in wine consumption was estimated to be 0.58 percent in response to a 1 percent decrease in wine prices, while spirits consumption was estimated to increase 0.39 percent when spirits prices decreased 1 percent. The study also estimated that beer consumption would increase by only 0.16 percent in response to a 1 percent decrease in beer prices.

Impact of Taxes and Prices on Social Problems

The research on the impact of taxes and prices on alcohol-related problems is extensive. Despite some disagreement over the strength of the relationship between prices and consumption:

- **Most research supports the view that alcohol tax or price increases can be effective in reducing alcohol consumption, as well as alcohol abuse and related problems.**

For example, research suggests that tax or price increases would reduce alcohol-related traffic fatalities and reduce some crimes such as rape and robbery, improve health, and increase educational attainment.¹² However,

- **More recent research has been critical of the data and methods used in examining the link between alcohol taxes or prices and social problems.**

First, many of the studies examining the link between the cost of alcoholic beverages and social problems have used state excise taxes, particularly beer excise taxes, rather than prices to measure the differences in the cost of alcoholic beverages across the states. More recent research has pointed out that state excise taxes are only a small percentage of alcoholic beverage prices and are not a good indicator of prices. A 2002 study found that beer excise taxes, which have been widely used by researchers as the main indicator of liquor prices, were negatively correlated with the price of beer and had little correlation with an overall price index for alcoholic beverages.¹³ This result is not surprising since state beer excise taxes only account for about 3 percent of the price of beer.

Most research suggests that higher liquor taxes and prices, particularly for beer, would reduce problems with alcohol abuse.

¹⁰ Leung, S.F., and Phelps, C.E., "My Kingdom for a Drink...? A Review of Estimates of the Price Sensitivity of Demand for Alcoholic Beverages" in M.E. Hilton and G. Bloss (eds.), *Economics and the Prevention of Alcohol-Related Problems*, National Institute on Alcohol Abuse and Alcoholism, Research Monograph No. 25, NIH Publication No. 93-513 (Rockville, MD: 1993), 1-32.

¹¹ J. P. Nelson, "Economic and Demographic Factors in U.S. Alcohol Demand: A Growth Accounting Analysis," *Empirical Economics*, 22(1), 83-102.

¹² Frank Chaloupka, "The Effects of Price on Alcohol Use, Abuse, and Their Consequences," in National Research Council Institute of Medicine, *Reducing Underage Drinking: A Collective Responsibility* (Washington, D.C.: 2004), 541-564.

¹³ Douglas J. Young and Agnieszka Bielinska-Kwapisz, "Alcohol Taxes and Beverage Prices," *National Tax Journal*, Vol. LV, No. 1 (March 2002). The negative correlation means that higher state beer excise taxes tend to be associated with lower beer prices.

However, some recent research casts doubts on the link between beer taxes and prices and certain problems with alcohol abuse.

Many other market and regulatory factors besides taxes may be responsible for differences in prices across states.

Second, studies linking higher taxes to decreased social problems may have neglected to consider other factors that are linked to the consumption of alcoholic beverages. For example, residents of some states may be more inclined to consume alcoholic beverages because of their cultural, ethnic, or religious background. In those states, excise taxes on liquor may be relatively low because state political leaders reflect citizens' interests. As a result, low taxes may be related to higher levels of liquor consumption. But the underlying reason for the higher consumption may be the background and tastes of the residents and not the excise taxes. Several studies have found little relationship between taxes and traffic fatalities once other factors have been considered.¹⁴ Some studies have similarly found little or no relationship between prices and traffic fatalities.¹⁵

Finally, the price data typically used to measure the link between prices and alcohol-related problems are of questionable validity for this use. Price data from the ACCRA survey have often been used in existing research because they are the only readily available state-by-state information on alcoholic beverage prices. However, as we mentioned earlier in this report, the ACCRA data are of questionable use as a broad indicator of alcoholic beverage prices. Beer price data are based on one brand of beer, while wine price data are based on one brand of wine. This minimal collection of alcoholic beverage price information is appropriate for the ACCRA survey which attempts to measure differences in the cost of living across major metropolitan areas in the United States. But it is ill-suited for studies that rely on an accurate measurement of beer prices across states.

Overall, most existing research suggests that policymakers should be cautious in considering regulatory changes that would reduce the price of alcoholic beverages. Price reductions could lead to increases in consumption and possibly to costly increases in the problems associated with excessive consumption. However, some research points out the flaws in the data and methods that have been used in the past. In addition, some recent research suggests that the link between liquor taxes or prices and alcohol-related problems such as traffic fatalities is unclear.

Impact of Outlet Density on Consumption

Outlet density is believed to affect consumption of alcohol beverages by affecting the total cost of obtaining those products. A lower density of retail liquor outlets means that customers may have to travel farther and spend more time to purchase alcoholic beverages. Those additional costs add to the overall

¹⁴ For example, see Brent D. Mast, Bruce L. Benson, and David W. Rasmussen, "Beer Taxations and Alcohol-Related Traffic Fatalities," *Southern Economic Journal*, 1999, 66(2), 214-249.

¹⁵ Douglas J. Young and Thomas W. Likens, "Alcohol Regulation and Auto Fatalities," *International Review of Law and Economics*, 2000, Vol. 20, 107-126. This study found that mandatory seatbelt laws, a higher minimum legal drinking age, and dram-shop laws lead to lower traffic fatality rates, while beer taxes and prices have little apparent impact.

cost of obtaining the products and may reduce the consumption of alcoholic beverages.

Research on the impact of outlet density, however, has produced inconsistent results. For example, the results of a 1993 study suggest that a 10 percent reduction in the density of liquor outlets would reduce consumption of spirits from 1 to 3 percent and consumption of wine by 4 percent.¹⁶ But a 2000 study by some of the same researchers did not find a significant relationship between consumption and outlet density in neighborhoods.¹⁷ A literature summary prepared for the National Research Council's Institute of Medicine indicates that the minimum drinking age and its enforcement, zero tolerance or graduated drivers licensing, and compliance checks for underage sales at retail outlets are among the most effective policies for reducing the availability of alcohol to youth. But the summary concludes that the effects of reducing outlet density on youth drinking need further study.¹⁸

The link between the number of retail liquor outlets and problems with alcohol abuse is unclear.

Establishing cause and effect is one of the difficulties in considering the link between outlet density and consumption. While researchers have attempted to measure the impact that outlet density has on consumption of alcoholic beverages, they may instead be measuring the impact that higher consumption has on outlet density. States whose residents are more interested in consuming alcohol may tend to adopt policies that result in greater outlet density and improved convenience for consumers. In addition, more stores will tend to sell alcoholic beverages in states where there is a greater demand for the products.

It is difficult for researchers to determine whether higher outlet density leads to increased consumption, or whether higher consumption leads to increased outlet density. However, researchers have been able to examine a number of cases in which states, countries, or Canadian provinces have changed their laws and allowed certain types of stores to sell wine that were previously prohibited from doing so. For example, a number of states that once sold wine only from state-owned stores allowed wine to be sold in private stores, sometimes including grocery stores.

The results from these studies appear to suggest that outlet density may play a significant role in alcohol consumption. Some states experienced a dramatic increase in wine consumption when they eliminated their retail wine monopolies. However, the states with the largest increases experienced very large increases in the number of outlets. For example, wine consumption in Maine jumped by 137

¹⁶ Gruenewald, P.J., Ponicki, W.B., and Holder, H.D., "The Relationship of Outlet Densities to Alcohol Consumption: A Time Series Cross-Sectional Analysis," *Alcoholism: Clinical and Experimental Research*, 17(1), 38-47.

¹⁷ Gruenewald, P.J., Millar, A., Ponicki, W.B., and Brinkley, G., "Physical and Economic Access to Alcohol: The Application of Geostatistical Methods to Small Area Analysis in Community Settings" in R.A. Wilson and M.C. Dufour (eds.), *The Epidemiology of Alcohol Problems in Small Geographic Areas* (Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism, 2000), 163-212.

¹⁸ Harold D. Holder, "Supply Side Approaches to Reducing Underage Drinking: An Assessment of the Scientific Evidence," in National Research Council Institute of Medicine, *Reducing Underage Drinking: A Collective Responsibility* (Washington, D.C., 2004), 458-489.

percent due to the 1971 elimination of the state's retail wine monopoly.¹⁹ The increase in consumption followed an increase from 65 to 1400 retail outlets.²⁰ In the country of New Zealand, wine consumption increased 17 percent and the number of off-sale retail outlets increased by about 25 percent following the introduction of table wine into grocery stores in April 1990.²¹ Researchers found no significant change in spirits consumption and attributed a 6 percent decline in beer consumption to other national policies.

It is somewhat difficult to interpret the results of these studies since we do not know the magnitude of the price changes caused by the expansion in outlets. In addition, most of these studies have not attempted to isolate the impact of lower prices from that of increased outlet density. It is unclear to what extent outlet density has an impact of consumption independent of the impact of prices.

Overall, existing research provides unclear guidance to policymakers about the impact of outlet density on consumption of alcoholic beverages. However, studies examining changes in state restrictions on the types of stores allowed to sell alcoholic beverages suggest that liberalization of these restrictions can have an impact on consumption. The magnitude of impact on consumption probably depends on the size of the increase in the number of outlets and its resulting impact on prices.

RESTRICTIONS ON COMPETITION

The findings in Chapter 2 suggest that Minnesota consumers could save about \$100 million from the removal of all current restrictions on retail competition in the liquor industry. A lesser amount of savings—possibly as much as \$15 million—might result if grocery stores were allowed to sell wine. In addition, consumers might experience lower prices if the state banned the use of exclusive territories for beer and wine distribution.

But the lower prices that result from increased competition in the liquor industry could increase the consumption of alcoholic beverages. Greater consumption could increase the already high costs of alcohol abuse. In this section, we consider whether it is possible to predict how changes in Minnesota's liquor laws would impact the consumption of alcoholic beverages and the incidence of problems with alcohol abuse.

Removing All Retail Restrictions

Removing all retail restrictions would mean that any type of store would be able to be licensed to sell strong beer, wine, and spirits. In addition, municipal liquor

Removing all restrictions on retail competition in the liquor industry would lower consumer prices and improve convenience.

¹⁹ Alexander C. Wagenaar and Harold D. Holder, "Changes in Alcohol Consumption Resulting from the Elimination of Retail Wine Monopolies: Results from Five U.S. States," *Journal of Studies on Alcohol* (September 1995), 56, 1-7.

²⁰ Scott MacDonald, "The Impact of Increased Availability of Wine in Grocery Stores on Consumption: Four Case Histories," *British Journal of Addictions* (1986), 81, 381-387.

²¹ Alexander C. Wagenaar and John D. Langley, "Alcohol Licensing System Changes and Alcohol Consumption: Introduction of Wine into New Zealand Grocery Stores," *Addiction* (1995), 90, 773-783.

stores would no longer have a retail monopoly within their city boundaries. The number of off-sale retail outlets in Minnesota could double as a result of the changes. However, the increase in outlets would depend on how many non-traditional stores want to sell alcoholic beverages and the willingness of local licensing officials to license additional stores.

Based on the difference in prices between Minnesota and Wisconsin, we would expect increased competition to lower liquor prices by about 7 percent in Minnesota. The effect of lower prices alone would probably increase consumption by about 3 to 7 percent. The large expected growth in the number of outlets could cause the growth in consumption to be significantly greater. Existing research, however, does not provide a reliable basis for estimating how the growth in the number of outlets would affect consumption.

But, even minor increases in the costs of alcohol abuse would offset the potential savings to Minnesota consumers from removing all retail restrictions.

It is extremely difficult to estimate how removing all current retail restrictions would impact the problems caused by excessive consumption. Not only is it difficult to estimate how much consumption would increase, but it is difficult to estimate how increased consumption would impact the problems associated with alcohol abuse.

Despite this uncertainty, we would urge legislators to be cautious in considering drastic changes in state liquor laws. Most, but not all, research suggests that increases in consumption lead to increased problems with alcohol abuse. In addition, the costs of alcohol abuse are large relative to the potential savings from lower prices. The \$100 million in potential savings is only about 2 percent of the estimated costs of alcohol abuse in Minnesota.

It should be pointed out, however, that policymakers do not necessarily have to maintain the current system just because its higher prices deter the consumption of alcoholic beverages. Policymakers could choose to improve competition and consumer convenience by changing the state's laws and maintain current price levels by increasing taxes on alcoholic beverages. With this alternative, consumer prices would not decline, but a higher share of the prices would be collected by the state instead of by retailers and wholesalers. The additional tax collections could be used to offset the relatively high costs of alcohol abuse.

Allowing Wine Sales in Grocery Stores

For a number of reasons, we would expect the effects of allowing wine to be sold in grocery stores to be relatively modest. We would only expect wine prices to decline by 7 percent while beer and spirits prices would probably not be affected. While wine consumption could increase by more than 7 percent due to an increase in retail outlets of up to 50 percent, the increase in overall liquor consumption would be limited. Wine sales are currently only about 15 percent of liquor sales in Minnesota. As a result, even if wine consumption increased by 25 percent, overall consumption of alcoholic beverages would increase by less than 4 percent. In addition, the increase could be less than 4 percent if consumers

purchase less beer or spirits in response to the lower prices and increased accessibility of wine.²²

The impact of wine in grocery stores on problems with alcohol abuse is not easy to estimate. But, for a number of reasons, we think the impact would be relatively modest. Most studies that have examined the link between lower prices and problems caused by alcohol abuse have focused on beer, not wine. In addition, across states, there is little or no relationship between beer consumption and wine consumption. While lower beer prices may be linked to problems with alcohol abuse, there is little or no evidence that indicates the results would be the same for wine.

Allowing wine sales in grocery stores would probably have modest impacts on consumer prices and problems with alcohol abuse.

Using state-level data, we found that there are significant correlations between higher beer consumption and higher rates of binge drinking, liquor violations, and alcohol-related traffic fatalities. However, there is generally no significant relationship between wine consumption and binge drinking by persons under age 26 or liquor violations. Also, states with higher wine consumption tend to have lower rates of alcohol-related traffic fatalities and DWI arrests.

In addition, there do not appear to be large differences in problems with alcohol abuse between states with wine in grocery stores and states not allowing wine to be sold in grocery stores. As Table 3.3 indicates, states with wine in grocery stores have more than twice the number of off-sale outlets per adult than other states and about one-third more on-sale outlets per adult. States with wine in grocery stores consume 23 percent more wine per adult and 11 percent more beer than other states. Overall, states allowing wine to be sold in grocery stores consume 8 percent more total alcohol per adult than other states.

Despite their significantly greater number of outlets and modestly greater consumption of alcohol, states with wine in grocery stores have fewer liquor violations per capita than other states. In addition, youth DWI arrests in states with wine in grocery stores are 6 percent lower than in other states. Adult DWI arrests are, however, 4 percent higher. Binge drinking is about 2 percent higher in states with wine in grocery stores, and alcohol-related traffic fatalities are 7 to 8 percent higher than in other states.

These simple comparisons do not prove that allowing wine in grocery stores will have modest impacts on problems with alcohol abuse. But, they show that there is no obvious relationship between allowing wine to be sold in grocery stores and increased problems with alcohol abuse. The comparisons in Table 3.3 are even more noteworthy when one considers that states with wine in grocery stores are different from other states in a number of other regulatory respects. Every state with wine in grocery stores allows beer to be sold in grocery stores, and some allow spirits to be sold there as well. In addition, most states with wine in grocery stores allow beer and wine to be sold in drug and convenience stores as well. As a result, some of the modest differences in problems between states with wine in grocery stores and other states may be due to the sale of beer and spirits or the expansion of sales to convenience and other stores.

²² *Ibid.*, 776-777. This study of the impact of allowing grocery stores to sell wine in New Zealand found that the impact on overall consumption of ethanol was not significantly different from zero, even though wine consumption was estimated to have increased 17 percent.

Table 3.3: Comparison of States That Do and Do Not Allow the Sale of Wine in Grocery Stores, 2002

| Measure | States Allowing the Sale of Wine in Grocery Stores | States Not Allowing the Sale of Wine in Grocery Stores ^e | Percent Difference |
|---|--|---|--------------------|
| Wine Consumption in Gallons of Ethanol Per Adult | 0.4 | 0.3 | 23% |
| Beer Consumption in Gallons of Ethanol Per Adult | 1.5 | 1.4 | 11 |
| Spirits Consumption in Gallons of Ethanol Per Adult | 0.8 | 0.8 | -1 |
| Total Alcohol Consumption in Gallons of Ethanol Per Adult | 2.7 | 2.5 | 8 |
| Off-Sale Outlets per 100,000 Adults | 138.5 | 67.5 | 105 |
| On-Sale Outlets per 100,000 Adults | 178.5 | 131.7 | 36 |
| Percentage Drinking in Past Month | 51.2 | 50.1 | 2 |
| Percentage Binge Drinking in Past Month ^a | 23.2 | 22.9 | 1 |
| Traffic Fatalities with Driver BAC more than .01 ^b | 0.7 | 0.6 | 8 |
| Traffic Fatalities with Driver BAC at least .08 ^b | 0.6 | 0.5 | 7 |
| Adult DWI Arrests per 100,000 Adults ^c | 580.4 | 555.9 | 4 |
| Youth DWI Arrests per 100,000 Youth | 29.8 | 31.7 | -6 |
| Adult Liquor Violations per 100,000 Adults ^c | 257.1 | 288.8 | -11 |
| Youth Liquor Violations per 100,000 Youth ^d | 231.2 | 290.2 | -20 |

^a Binge alcohol use is defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days. The data is for all age groups.

^b This rate is the number of alcohol-related fatalities per 100 million vehicle miles traveled. Alcohol-related means that the driver's blood alcohol content (BAC) exceeded the specified level.

^c Adults are defined as age 18 and older.

^d Youth are defined as under age 18.

^e In addition to Minnesota, we identified 17 states that generally do not allow the sale of wine in grocery stores: Alaska, Arkansas, Colorado, Connecticut, Delaware, Kansas, Kentucky, Mississippi, New Jersey, New York, North Dakota, Oklahoma, Pennsylvania, Rhode Island, Tennessee, Utah, and Wyoming.

SOURCES: Office of the Legislative Auditor analysis of wine and spirits and number of outlets data from Adams Beverage Group, beer data from the Beer Institute, and total ethanol data from the National Institute on Alcohol Abuse and Alcoholism, reported drinking data from Substance Abuse and Mental Health Statistics (SAMHSA) Office of Applied Studies, traffic fatality data from the National Highway Traffic Safety Administration, and arrest data from the Federal Bureau of Investigation.

Overall, we think that allowing wine in grocery stores will have modest impacts on wine prices and overall liquor consumption. The impact on problems associated with alcohol abuse, while difficult to estimate, would probably be relatively minor.

Eliminating Exclusive Territories

There is no evidence that banning exclusive territories would increase problems with alcohol abuse.

As we noted in Chapter 2, available studies suggest that banning the use of exclusive territories for beer would either reduce beer consumption or leave it unchanged. This suggests that consumers could benefit from lower beer prices, but those lower prices would not result in increased problems with alcohol abuse. In fact, beer consumption and alcohol abuse problems may even decline.

Despite the potential benefits from banning the use of exclusive territories for beer and wine distribution, there may be reasons to retain them. The use of exclusive territories may result in fresher beer in retail outlets and improved marketing and other services provided by wholesalers to retailers. In addition, it is unclear how banning exclusive territories would affect the availability of various brands of alcoholic beverages, particularly brands of wine.

Recent Program Evaluations

Forthcoming Evaluations

Public Assistance Eligibility Determination for Non-Citizens, Spring 2006

Agriculture

Pesticide Regulation, March 2006

Animal Feedlot Regulation, January 1999

Criminal Justice

Substance Abuse Treatment, February 2006

Community Supervision of Sex Offenders, January 2005

CriMNet, March 2004

Chronic Offenders, February 2001

District Courts, January 2001

Education, K-12 and Preschool

School District Integration Revenue, November 2005

No Child Left Behind, February/March 2004

Charter School Financial Accountability, June 2003

Teacher Recruitment and Retention: Summary of Major Studies, March 2002

Early Childhood Education Programs, January 2001

School District Finances, February 2000

Minnesota State High School League, June 1998

Remedial Education, January 1998

Education, Postsecondary

Compensation at the University of Minnesota, February 2004

Higher Education Tuition Reciprocity, September 2003

The MnSCU Merger, August 2000

Environment and Natural Resources

State-Funded Trails for Motorized Recreation, January 2003

Water Quality: Permitting and Compliance Monitoring, January 2002

Minnesota Pollution Control Agency Funding, January 2002

Recycling and Waste Reduction, January 2002

State Park Management, January 2000

Counties' Use of Administrative Penalties for Solid and Hazardous Waste Violations, February 1999

Metropolitan Mosquito Control District, January 1999

School Trust Land, March 1998

Financial Institutions, Insurance, and Regulated Industries

Liquor Regulation, March 2006

Energy Conservation Improvement Program, January 2005

Directory of Regulated Occupations in Minnesota, February 1999

Occupational Regulation, February 1999

Government Operations

Tax Compliance, March 2006

Professional/Technical Contracting, January 2003

State Employee Health Insurance, February 2002

State Archaeologist, April 2001

State Employee Compensation, February 2000

State Mandates on Local Governments, January 2000

Fire Services: A Best Practices Review, April 1999

State Building Code, January 1999

9-1-1- Dispatching: A Best Practices Review, March 1998

State Building Maintenance, February 1998

Health

Nursing Home Inspections, February 2005

Minnesota Care, January 2003

Insurance for Behavioral Health Care, February 2001

Human Services

Substance Abuse Treatment, February 2006

Child Support Enforcement, February 2006

Child Care Reimbursement Rates, January 2005

Medicaid Home and Community-Based Waiver Services for Persons with Mental Retardation or Related Conditions, February 2004

Controlling Improper Payments in the Medicaid Assistance Program, August 2003

Economic Status of Welfare Recipients, January 2002

Juvenile Out-of-Home Placement, January 1999

Child Protective Services, January 1998

Housing and Local Government

Preserving Housing: A Best Practices Review, April 2003

Managing Local Government Computer Systems: A Best Practices Review, April 2002

Local E-Government: A Best Practices Review, April 2002

Affordable Housing, January 2001

Preventive Maintenance for Local Government Buildings: A Best Practices Review, April 2000

Jobs, Training, and Labor

Workforce Development Services, February 2005

Financing Unemployment Insurance, January 2002

Miscellaneous

Gambling Regulation and Oversight, January 2005

Minnesota State Lottery, February 2004

Transportation

Metropolitan Airports Commission, January 2003

Transit Services, February 1998

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