

An Analysis of the Politics and Economics of Allowing Wine in Grocery Stores in Tennessee

SENIOR THESIS

JAMES SCOTT WHITE

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I. Introduction

On March 21, 2014, some of the most important people in Tennessee government joined together to celebrate the signing of a bill into law. “Congratulations,” said Governor Haslam as he signed into law something that the majority of Tennesseans had been wanting for years, “It’s done.”¹

The bill that was just signed, HB610, had nothing to do with something people typically associate with government. It was not a tax plan, but it would increase tax revenue. It was not a bill about local governments, but it gave these governments more power. Everyone in the room applauded as the Governor signed into law a bill which was estimated to bring state and local governments nearly \$13 million dollars in revenue during the next few years.² Yet there were some who were not pleased with this and believed that their livelihoods were at risk. The politics of allowing wine in groceries stores in Tennessee were not as simple as they seemed on the surface. It is true that some people may lose their jobs but the passage of HB610 will result in a net positive economic result for the typical consumer in Tennessee.

This paper will examine both the economic impact and politics of allowing the sale of wine in grocery stores in Tennessee. In many ways, the economic impacts and politics of this issue are closely related. The interest groups who support this measure are the ones who stand to benefit economically, mainly the grocery stores³. The ones against it are the ones who have the most to lose: the liquor stores⁴. Some voters support it because they have something to gain from cheaper wine prices. Others are against it because of moral opposition to alcohol

¹ Chas Sisk, “Governor Haslam Signs Wine In Grocery Stores Bill” *The Tennessean* 3/21/14

² Geise, HB610 Fiscal Note

³ TN Grocers and Convenience Store Association Website, tngrocer.org

⁴ TN Wine and Spirits Retailers Association Website

consumption. All of these forces shape the struggle over wine in grocery stores, and this struggle is particularly fierce in Tennessee, a state where one of most recognizable exports, Jack Daniels, is found in watering holes around the globe. There have been numerous studies that look at the economics of the wine market. There are others that have looked at politics in Tennessee. But there is a gap in the literature regarding the specific set of circumstances surrounding wine in grocery stores in Tennessee.

What follows is a detailed look at the political and economic forces surrounding this issue in Tennessee. The next section will look at the history of alcohol regulation in the United States. This history will show that many of the issues that surrounded alcohol regulation throughout time are still prevalent today. When one looks at the moral opposition, the economic arguments, and the granting of authority to resolve this issue, it is apparent that these issues are extant.

The third section will look at the current politics of wine in grocery stores. This includes an analysis of the supporters and opposition of this measure as well as statements from Tennessee politicians. While economic arguments certainly play a part in why these groups are aligned the way they are, this section will not consist of economic analysis. The importance of the liquor industry to the state will also be addressed. When one looks at the groups on the opposite sides of this issue, it becomes clear that this issue is not as simple as it may appear.

The fourth section will consist of an economic analysis of the effects of allowing wine in grocery stores in Tennessee. Using previous literature in wine economics, estimates for the price elasticity of demand will be used to calculate the consumer surplus gained by the passage of this bill. This section will look at the impact of lower wine prices on tax revenue, competition, and employment. This section will also consider the implications of the 20% mandatory markup of wine prices included in the law. Ultimately, I will conclude that even though some Tennesseans

may lose their jobs, the average Tennessean will see a net positive economic effect from allowing wine in grocery stores.

The final section will conclude the paper by presenting all of the findings and discussing what they imply for the future. The issue of allowing wine in grocery stores is far from being resolved; local referendums will start in 2015 to establish which communities will allow this measure. Our lawmakers have already voted on this issue, but it is now up to the people of Tennessee to decide if this is good for them.

Ultimately, the economic effects of allowing wine in grocery stores in Tennessee will be positive, but like any political issue, there will be winners and losers. This study will show that among the winners are the citizens of Tennessee, who will enjoy lower prices and more tax revenue.

II. A Brief History of Alcohol Regulation in the United States

The history of alcohol regulation is useful to analyze because it gives us an idea of where current policy originates as well as where it might go in the future. In American history, alcohol regulation can be organized into four historical periods: colonial times to the 1850s, 1850s to 1933, the end of prohibition in 1933 to 1985, and 1985 to present. Throughout each of these periods, the public perception of alcohol varied significantly, and these fluctuations of perception show the tenuous nature of support (and opposition) to alcohol regulation.

The origins of alcohol in this country are almost inseparable from the origins of the country itself. People drank while they were still a part of the British empire, people drank during the fight for independence, and people drank after the colonies gained independence. One of the most interesting parts of this period was that even the *Puritans* drank a little bit. Puritan

leaders believed that beer was a wholesome and nourishing beverage, while condemning the consumption of distilled spirits like liquor.⁵ The tradition of beer occupying a more accepted role in society continues to this day and can be seen in modern day law.

During this time, domestic beer production seemed to be encouraged by government, while production of spirits was either condemned or merely tolerated. The story of wine, however, is a bit more complex.

Early attempts at cultivating European varieties of grapes for wine production were largely unsuccessful. Production was limited to the size of the United States, which in the beginning was just the eastern seaboard. Thomas Eichelberger was the first person to run a profitable vineyard in 1818. At the same time, Spaniards in California had discovered that European vines could be cultivated in this region and used for religious ceremonies.⁶

Controversy about policy regarding alcohol arose as fast as the industries themselves. The founding fathers had to confront issues of taxation that included whether home brewers and commercial brewers should be taxed the same. During this time rural farmers discovered that distilling corn into moonshine or “Mountain Dew” was more profitable than selling plain corn on the market. These farmers viewed the production of potent liquors as a way to put food on the table, but the government saw this as another economic activity and quickly worked to begin taxing it. Meanwhile, beer producers realized the political advantage that their beverage possessed and began trying to distance themselves from their alcoholic relative. The first confrontation between these two groups- liquor producers and the government- took place in 1791 and continues to this day.

⁵ McGowan 36

⁶ Ibid 37

In the time leading up to prohibition, the markets for all forms of alcohol changed dramatically. The vineyards maintained by religious parishes in California were abandoned and then acquired by various entrepreneurs. Their gamble paid off when the gold rush created a population boom in the area, increasing the demand for wine across the state.

Elsewhere in the United States, companies began to gain market power in the beer and liquor industries. Americans developed a taste for German beer rather than homebrews, and this allowed larger breweries to become profitable. Liquor producers dwindled in number until there were just a few large producers known as “The Whiskey Trust” who produced 70% of the spirits that went to market. In the 1870s these firms became even more profitable due to a crop failure in Europe which increased demand for American liquor. During this period, explicit collusion was common, as many of the larger distilleries began paying other firms to not produce liquor so that the Whiskey Trust could produce at full capacity. The result of this restriction on supply was an increase in price, much to the chagrin of liquor enthusiasts.⁷

During this time a new concern came to the attention of lawmakers: urban chaos and unrest caused by consumption of alcohol in saloons. A large part of this unrest was attributed to immigrants who were largely resented by the native population for economic or religious reasons. It is during this time that the first instance of the coalition of “Baptists and Bootleggers” began to have influence on policy- the result was the passage of the 18th amendment, which prohibited, “the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States”.⁸

⁷ Ibid 38

⁸ US Constitution, 18th Amendment

“Baptists and Bootleggers” refers to the unlikely joining of two forces that are ideologically opposed yet support the same policy. The “Baptists” represent the religious and civil forces that are opposed to the dispersion of alcohol on moral grounds. This group hoped that the alcohol industry in America might completely cease to exist one day. Their economic arguments were similar to those of Henry Ford, who supported prohibition because he thought it would lead to less drunkenness amongst employees and more efficient factories. Women also joined the cause, and advocacy groups for temperance became commonplace.⁹

Bootleggers, on the other hand, supported prohibition solely for economic reasons. Like the restriction of supply that resulted in greater profit during the days of the “Whiskey Trust”, prohibition represented another opportunity to restrict supply in order to increase profit. Prohibition did mean that there were more costs associated with producing alcohol, but these would be passed along to the consumer. Prohibition also increased the barriers to entry in the alcohol industry, since anyone wishing to run a successful bootlegging venture needed supplies, a safe place to brew, and a distribution structure. What resulted was a period of risky but high profits for the bootleggers, and a society in which alcohol was legally condemned for the Baptists. This time saw the rise of famous bootleggers like Al Capone and George Remus.¹⁰

Prohibition had several unintended consequences, and the rise of bootleggers was chief among them. There were also economic problems that resulted from prohibition. Businesses that viewed themselves as substitutes for alcohol (movie theaters, chewing gum producers, soft drink companies) raised their prices and expanded production in anticipation of an increase in demand. Unfortunately this did not come to pass. Demand for these goods remained static, which meant that people were not spending their booze money elsewhere.

⁹ Women’s Christian Temperance Union, History.

¹⁰ Burrough 14

The statistics from this period of time are unreliable; it is difficult to collect accurate data on the prevalence of activities which have been condemned by society. However, there is a mainstream consensus that prohibition increased instances of corruption and law enforcement and did very little to curb consumption. There was a medical exemption so people could legally buy liquor from a pharmacist. This led to pharmacies being an ideal front for bootleggers. There was also a religious exemption and a brief surge of aspiring ministers who wished to distribute wine to their congregation. The market for alcohol resisted any form of legal limitation. The industry did not disappear, it changed into something much more lucrative.¹¹

These effects became clear to the public and the end of prohibition came in 1933. However, the effects of being made illegal took their toll on the wine industry. During prohibition home brewers did not have the privilege of having large vineyards or a major company's bankroll. Wine was made from grapes that were cheap and abundant, but the quality was so dismal that a massive surplus began to exist of wine that had been made but not consumed due to the poor quality¹². The demand for higher quality led to the founding of the Wine Institute in California. In addition to this, the late 1930s saw the merger of nineteen large California wine producers who became the Central California Wineries. This group was backed by Bank of America and indicted for conspiracy to control prices in 1938. Even though the charges were eventually dropped, the company split apart. The story of the Central California wineries illustrates how legal restriction of wine can lead to more monopoly power for wine sellers.

Some states continued the prohibition of liquor even after Congress passed the 21st amendment (which repealed the 18th). Still, the politicians in these states were aware of the

¹¹ Lerner, *The unintended consequences of Prohibition*. PBS.

¹² Colman, *Wine Politics* (68)

complex issues surrounding repeal. The issues are best summed up by the politicians of the time, and one of the most famous speeches regarding liquor was given by Mississippi State Representative Noah S. Sweat in 1952:

“All right, here is how I feel about whiskey:

If when you say whiskey you mean the devil's brew, the poison scourge, the bloody monster, that defiles innocence, dethrones reason, destroys the home, creates misery and poverty, yea, literally takes the bread from the mouths of little children; if you mean the evil drink that topples the Christian man and woman from the pinnacle of righteous, gracious living into the bottomless pit of degradation, and despair, and shame and helplessness, and hopelessness, then certainly I am against it.

But, if when you say whiskey you mean the oil of conversation, the philosophic wine, the ale that is consumed when good fellows get together, that puts a song in their hearts and laughter on their lips, and the warm glow of contentment in their eyes; if you mean Christmas cheer; if you mean the stimulating drink that puts the spring in the old gentleman's step on a frosty, crispy morning; if you mean the drink which enables a man to magnify his joy, and his happiness, and to forget, if only for a little while, life's great tragedies, and heartaches, and sorrows; if you mean that drink, the sale of which pours into our treasuries untold millions of dollars, which are used to provide tender care for our little crippled children, our blind, our deaf, our dumb, our pitiful aged and infirm; to build highways and hospitals and schools, then certainly I am for it.

This is my stand. I will not retreat from it. I will not compromise.”¹³

By 1948 all 50 states had legalized the sale of alcohol and the federal government began to collect revenue in the form of excise taxes from these beverages¹⁴. Beer and liquor industries became relatively more concentrated than the wine industry (which faced fierce international competition).

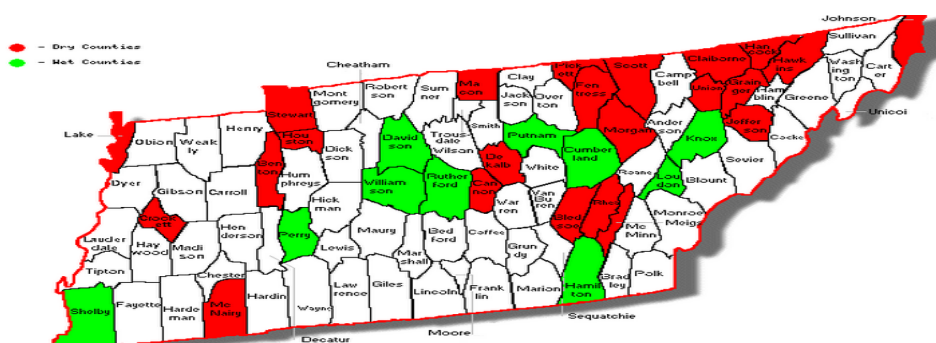
Recent major initiatives in alcohol policy include increased penalties for drunk drivers (advocated by organizations such as MADD), and the decision to allow wine in grocery stores, which is still an issue of contention today.

The history of alcohol regulation in Tennessee takes place in the context of this national history, but there are a few specific moments in Tennessee which are related to this issue.

¹³ Safire 876

¹⁴ Colman 78

Tennessee prohibited the sale of alcoholic beverages in 1910. In 1939, the Tennessee General Assembly allowed localities to hold referendums on whether to allow package stores. In 1967, they allowed localities to vote on whether to sell liquor by the drink.¹⁵ The tradition of giving localities control of an issue which was previously controlled by the state government is common when it comes to alcohol regulation. Right now, 26 of Tennessee's 95 counties are dry, meaning that the sale of alcoholic beverages is completely restricted. The remaining counties are either wet (alcohol sale is legal in all jurisdictions), or limited (sale of alcohol is only permitted in certain jurisdictions).



III. The Politics of Wine in Grocery Stores in Tennessee

This section will analyze the politics of the issue of wine in grocery stores in Tennessee. It will look at the groups in favor of the allowing this and the groups against it. These are the winners and losers of this policy. Politics is defined as the struggle for control over the authoritative allocation of resources. This section will look at the different sides of this struggle.

¹⁵ TN House of Representatives Session 2/20/2014 52:00

The defeat of the wine in Grocery Stores bill in the 2012 legislative session was the result of the efforts of an unlikely coalition which has been seen throughout the history of alcohol regulation. The strongest voices in the coalition belong to a liquor industry which has traditionally had a good deal of influence in Tennessee politics. The liquor industry has an unlikely ally in conservative religious groups, who oppose most measures regarding the expansion of alcohol due to moral reasons. These two groups have the same political objective: restrict the supply of alcohol (particularly liquors) through legislative action. Their respective reasons for doing this, however, differ significantly. This impact of this coalition is far from negligible. In 2012, the leaders in the state legislature supported allowing wine in grocery stores, but the measure failed by one vote in committee.¹⁶

The liquor industry in Tennessee has one of Tennessee's most recognizable trademarks as its foundation. Jack Daniels is a staple at bars not only in Tennessee, but around the entire world. The Lynchburg original is one of the most famous whiskeys in the world, both at bars and in search inquiries- according to Google, Jack Daniels is the most searched for whiskey in the world. References to Jack Daniels are found throughout American pop culture, from *The National Lampoon's Christmas Vacation* to modern day sensations like Ke\$ha. The cultural influence of Jack Daniels is rivaled only by its economic power.

In the fiscal year ending in April 2013, Jack Daniels had sold over 11 million cases of its flagship Black Label product. In addition to the substantial tax revenue sales of this volume bring to the state, Jack Daniels also brings tourists to the state to see the town on the label, Lynchburg, Tennessee. The amount of revenue this brings to the town is difficult to pinpoint, but the Jack Daniels distillery recommends, "For maximum enjoyment, you will want to spend at

¹⁶ Caloway (2013), "Tenn. lawmakers reject wine in grocery stores bill" WKRN

least 5 hours in Lynchburg, so that you have time to take a tour of the Distillery, stop by the Lynchburg Hardware & General Store, and enjoy a bite to eat on the Square.”¹⁷

In a town of just over 5,000 people¹⁸ (contrary to the advertisements, which claim the population is 361) this large source of revenue brings political influence as well. It is telling that Moore County, the home of Lynchburg, is a dry county, meaning that citizens must go to nearby counties if they wish to purchase alcohol. There is, however, one exception. For those in Lynchburg who wish to buy a drink, the gift store at the Jack Daniels distillery is open and sales various brands of Lynchburg’s trademark product.

The influence that Jack Daniels has locally illustrates what an ideal situation would be for the company: in Lynchburg, they are the only game in town, and anyone who wishes to purchase alcohol in Lynchburg must go through their monopoly. If one purchases alcohol in Lynchburg, their only option is whiskey; beer and wine are off the menu. The removal of substitute goods and the restriction on alcohol supply presents a situation in which the Brown-Forman Corporation, which owns Jack Daniels, can maximize their profits in the local market. The alcohol laws in Lynchburg illustrate that Jack Daniels aims to restrict supply for economic reasons. Wine producers and liquor vendors aim to restrict supply in a similar manner.

Yet Jack Daniels represents only one stage in the supply chain. While politicians may consider the impact on this company, the reasons they give to the public concern another player in the market. Before the bill was voted on in the most recent legislative session, Governor Bill Haslam showed that he was not concerned with the people who made liquor but rather the people who sold it: "If it went to a vote, I think it would probably pass, the flip side is those 500 or so

¹⁷ Jack Daniels Website, Jackdaniels.com

¹⁸ US Census Bureau, 2012 ACS

liquor store owners all made an investment based on a certain set of rules. I do think ... they have a seat at the table in this argument."¹⁹

Included in this certain set of rules was the promise that only liquor stores would be able to sell wine. Now that the rules have changed, liquor store owners are concerned about the future of their business. Josh Hammond, President of the Tennessee Wine & Liquor Association put these concerns succinctly: "Wine and spirits retailers will have to lay employees off and many will have to close. Where will the jobs come from? Certainly not the grocers. They're not adding square footage or shelf space. They won't need to hire one extra person."²⁰

This concern has led to numerous concessions being made to liquor stores, and as part of the new law in Tennessee they will be able to sell snacks, beer, and memorabilia. Another major concession is that grocery stores have to mark up the price of the wine they receive by at least 20%. Also, grocery stores within 500 feet of an already existing liquor store must have the liquor store owner's permission to begin selling wine.²¹ These concessions are a direct result of the dilemma that Tennessee politicians faced: the goal of the bill was to expand the market for wine, but because of this people might lose their jobs.

The issue of balancing jobs with economic efficiency is one that has been seen throughout the political history of Tennessee. Politicians make numerous concessions to potential employers in order to persuade them to come to Tennessee at the cost of holes in the tax base. Recent examples of this include the Volkswagen plant in Chattanooga²², the Nissan plant

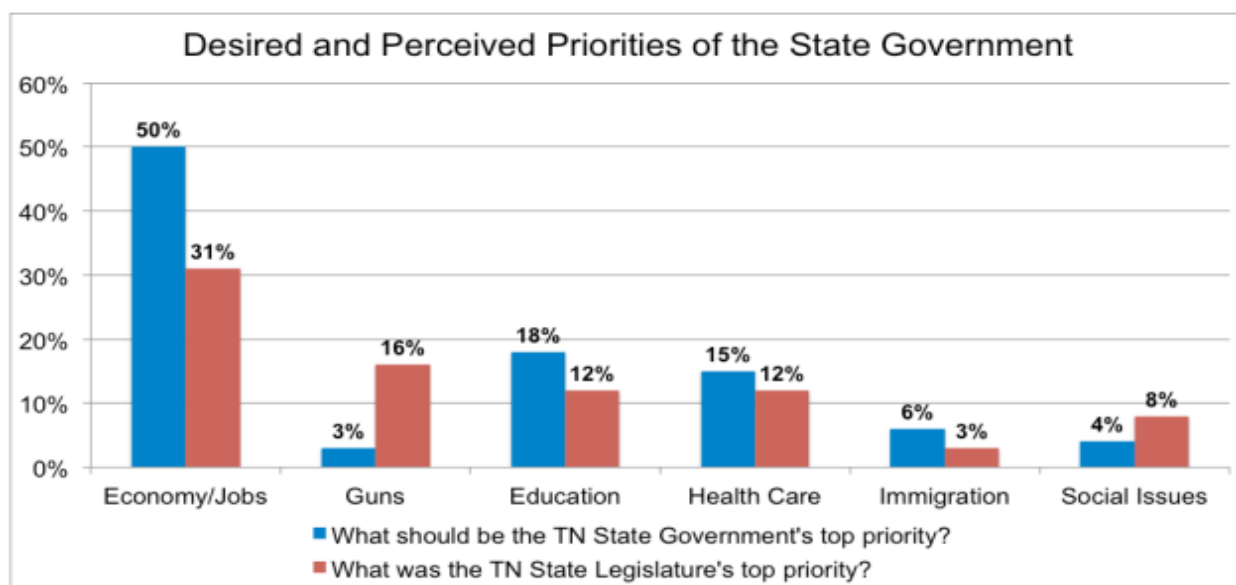
¹⁹ Locker (2012) "Tennessee wine-in-grocery-stores advocates say chances for passage better" Memphis Commercial Appeal

²⁰ Ibid

²¹ Text, HB610

²² Roche (2014) Report: Tennessee offered incentives tied to VW vote. *The Tennessean*

in Smyrna²³, and even the stadium for the current Tennessee Titans²⁴. This is essentially the same conflict, only instead of attracting jobs, the state government is trying to ensure their existence. The prevalence of tax and price incentives show that politicians still consider special interests when making decisions about state finances. A recent Vanderbilt poll found that this happens because the economy is the most important issue to voters in the state²⁵.



This leads to one of the main questions surrounding this issue: Would allowing wine in Grocery Stores be beneficial to the economy of Tennessee?

One way it could be harmful would be if it takes away jobs and money that were otherwise being provided to Tennesseans and gives them to large corporations.

²³ O'Dell (2005) Tennessean foots bill to move Nissan plant. *LA Times*

²⁴ Keating (1998) "The Oilers: A casestudy in corporate Welfare" *Freeman Institute*

²⁵ Center for the Study of Democratic Institutions (2013) "Vanderbilt University Poll Executive Summary" *Vanderbilt University*.

The concern that wine in grocery stores will cause money to flow to big corporations rather than small businesses is a legitimate one. There are over 500 liquor stores in Tennessee, and most of them are owned by individual proprietors rather than large corporations. The concern here is that a revenue source is being taken away from these individuals who live and spend money in the state and given to large corporations who have no obligation to reinvest their money in Tennessee. Consider the most popular grocery stores in a city like Nashville. Large corporations like Kroger, Publix, Walmart, Whole Foods, and Harris Teeter dominate the marketplace. These corporations are able to use economies of scale when they price all of their goods, and wine will be no exception. The concern here is that small liquor stores owned by Tennesseans won't be able to compete. This has led to a 20% mandatory markup for grocery stores, which is a result of the long standing struggle between equity and efficiency in the marketplace.

Some criticize the mark-up for defeating the whole purpose of wine in grocery stores. These critics had their day in the legislature when they proposed an amendment to eliminate this mandatory mark-up.

The sponsor of the amendment that would have eliminated the mark-up stated that, Rep. Joe Carr (R-Lascassas), "What your bill is essentially trying to do is create fair and open markets with regards to wine and grocery stores...and by voting (to pass) the amendment, you are voting yes to a free and fair market."²⁶

The amendment was defeated in a 60-22 vote. The Republican Party, which has long advocated free market principles and holds 71 of the 99 seats in the house, voted

²⁶ House Session 2/20/2014 56:00

overwhelmingly in favor of this measure. This illustrates that politics and ideology sometime conflict.

The Tennessee Wine and Spirits Retailers Association (TWSRA) says that jobs are only a small part of the reasons to oppose wine in grocery stores. They claim that the projected revenue increase is unrealistic; apparently this will only happen if Tennesseans double their consumption of wine in the next year. This claim will be evaluated in the next section, but the TWSRA fails to cite any studies that support this claim on their website.²⁷

Another political concern is rooted in moral and health reasons. Lower prices are theoretically linked to increased consumption of wine, and this raises moral concerns. In addition to this, religious leaders argue that voting on these types of referendums can create friction within families. Randy Davis, chairman of the Tennessee Baptist convention (the largest religious organization in the state), talked about his concern for smaller towns like Pigeon Forge: “It gets bad in these towns over these kinds of issues.”²⁸

It is true that alcohol can be a polarizing issue for some families. Unlike topics like gay marriage, healthcare, or gun control, positions within a family on the availability of liquor can differ substantially. From the beginning of prohibition, which was advocated by the Women’s Christian Temperance League, to the current prevalence of MADD (Mothers Against Drunk Driving), female interest groups have traditionally lead the charge against the irresponsible consumption of alcohol. This makes it seem like the issue of the legality of alcohol is also linked to the issue of gender equality. Academic studies largely support this claim, and one of the most

²⁷ TN Wine and Spirits Retailer Association Website (2014): twsra.com

²⁸ Farmer, Blake (2013). Wine in supermarkets debate turns biblical.

recent studies (Roberts 2012²⁹) showed that, “most significant findings suggest that higher levels of equality are associated with less alcohol consumption overall.”

This lends credibility to Randy Davis’ argument- perhaps this is a controversial enough decision to create conflict between spouses. However, the direction of causality does not imply that equality will be lowered because there is more alcohol consumption. This is little consolation to people like Randy Davis, who are concerned about the conflict that will happen before these referendums. The responses to these religious concerns mainly center on the fact that wine has been a centerpiece of Christianity since its creation. Senator Bill Ketron (R-Murfreesboro), a sponsor of Wine in Grocery store legislation, put this very simply: “Wine has been around a long time. Jesus poured it.”

Senator Ketron is one the heroes of the Tennessee Grocers and Convenience Stores Association (TGCSA), the main lobby behind the wine in grocery stores effort. This association represents the group of people who have the most to gain from allowing wine in grocery stores, the grocery stores themselves. This group argues that they will have to employ more people to handle selling wine in grocery stores³⁰, which would mean both economic growth and more sales and income tax revenue for the government. The grocery stores will be able to move more products through their stores, gaining profit from the newly opened market.

The grocery stores are undoubtedly the winners of this policy. The liquor stores, who now have to compete with large grocery stores and lose some of their profits are the losers. The question that now arises is whether the people of the state of Tennessee will benefit from this policy. This takes a broad, economics based approach rather than a narrow look at those who

²⁹ Roberts (2012), “Macro-level gender equality and alcohol consumption: A multi-level analysis across U.S. States.” 60-68

³⁰ Food Market Institute. “The Economic Effect of Allowing Shoppers to Purchase Wine in Food Stores.”

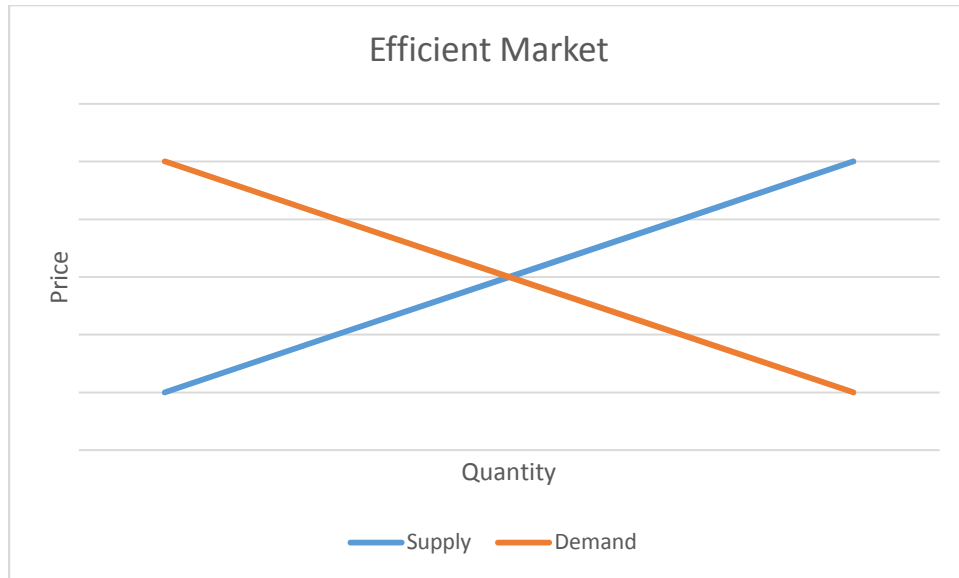
have the greatest stake in this issue. The people of Tennessee believe that the economy is the most important issue in politics. The next section will explore the economic implications of this policy, which is also the most important political facet of this issue.

IV. Economic Analysis.

The next section will look at the overall economic impact of allowing the sale of wine in grocery stores in Tennessee. In order to understand the data available, one must address what economic theory and literature says about markets, restrictions, and surplus. The first part of this section will address this basic economic theory in order to build a theoretical framework for the second part of this section, which addresses what the economic theory implies for policymakers. The final section will look at data and previous literature in the subject of wine economics to determine the impact of this policy on the people of Tennessee. Ultimately, the theory and data both indicate that allowing the sale of wine in grocery stores will be beneficial to the people of Tennessee.

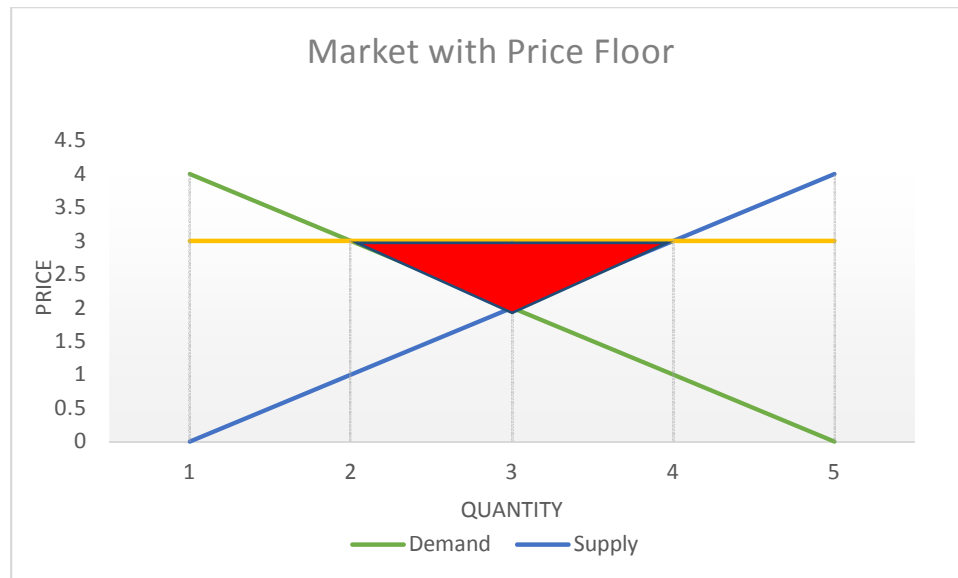
Economic Theory regarding Markets and Surplus

The most repeated principle in any introductory economics course is the idea that competitive equilibrium is reached when the forces of supply and demand meet at a certain price. This principle, represented graphically below, shows how perfect markets work.



These conditions result in a marketplace in which the amount of goods being provided and the price they are being provided at maximize social surplus. On the consumer's side, social surplus represents the difference between the price they pay and the price they value the good. This is known as consumer surplus. On the producer's side, social surplus is the difference between the lowest price they would be willing to sell the good (ie. Cost of supplies, labor, etc.) and the actual price. This is known as producer surplus. A perfectly competitive market that meets these conditions is ideal but also rare.

An important presumption of this model is that there are no artificial restrictions on supply or demand. These restrictions are usually introduced as "price ceilings", "price floors" or "quotas". In the graph below the price floor is represented by the yellow line.



The result of these restrictions is foregone surplus, which is more commonly known as dead weight loss. In this market, dead weight loss is represented by the red triangle. The area of the red triangle, which in this example is 1, represents the surplus society had to forego because of market restrictions. Dead weight loss is bad for society because it represents materials that could have been provided in the market but were not due to restrictions. Sometimes, these materials can be goods like ham or wine, other times they represent jobs that could have been provided in labor markets.

Dead weight loss usually results in fewer goods being provided. This presents a problem for governments who collect revenue from these transactions through tax instruments. A reduction in a tax base is a concerning prospect to any architect of fiscal policy. Consequently, an expansion of a tax base is something that should be considered, and reducing dead weight loss in various markets is an effective way to do so.

Price ceilings and price floors are not the only market conditions which can create deadweight loss. Another source of deadweight loss is the pricing that occurs when one entity

has a monopoly on a certain market. A total monopoly like one held by Bell Telephone Company in the early 1900s or the American Sugar Refinery company in the same period results in higher pricing, which in turn reduces the amount of the product being sold and increases the amount of dead weight loss for society. These monopolies are obviously in the interest of the companies that have them; eliminating competitors allows them to maximize profit. Monopolies have total market power- they set the price and do not have to worry about being undercut by the competition.

Monopolies represent one end of a scale of market power: the part of the scale in which market power is most highly concentrated. On the other side is the ideal of a perfectly competitive market in which there are an infinite number of sellers in the market place. However, actual markets rarely resemble either of these two extremes. Typically, what one sees is a sort of mixed oligopoly, with major powers in an industry competing with each other but showing no concern regarding smaller sellers in a market place. The wine industry is no exception.

An important feature in any marketplace in which the sellers have an oligopoly is the level of cooperation between firms. There are three main levels of cooperation that firms in the same industry can have with each other. In the next section, I will consider these three levels, the factors that contribute to them, and assess what kind of cooperation exists in the wine and liquor industries in Tennessee.

The first level of cooperation is what economists predict will happen if companies respond to incentives: perfect competition. Perfect competition occurs when firms are constantly undercutting each other's prices. Each firm has an incentive to do this, because theory predicts that if they undercut the competition by even a penny, they will capture the entire market and all

of the profits that are associated with it. This situation represents a classic example of the “Prisoner’s Dilemma” first posed by the inventor of game theory, John Forbes Nash. When firms in the same industry do not cooperate, the outcome is represented in the table below on the bottom left hand side. The profits of firm A are represented by the number in the top left corner of every box, while the profits of firm B are located in the bottom left corner of every box.

	Firm B Colludes	Firm B Competes
Firm A Colludes	10 10	0 20
Firm A Competes	20 0	5 5

The other extreme is explicit collusion, and industries in which collusion is the norm are often referred to as cartels. OPEC, the organization that regulates oil suppliers, is a perfect example of this kind of collusion. OPEC meets regularly to discuss what prices should be, and because of this they are able to charge a price that is higher than the theoretical competitive equilibrium in the marketplace. If one wishes to undercut this price, they are either sanctioned or removed from OPEC, which reduces the incentive to undercut prices. Explicit collusion is illegal in the United States per se, but OPEC is allowed to operate like this in the US because they are an international organization.

What usually happens is something in between these two extreme called tacit collusion. Tacit collusion occurs when there is no explicit communication between competing firms, but goods are still priced above the cost they took to produce. Tacit collusion is often unstable since

each firm has an incentive to undercut the other firm's price in order to gain access to the entire market, but it usually results in some equilibrium price above marginal cost.

An appropriate question to ask at this point is how this economic theory relates to a policy that would allow wine in grocery stores. The answer to this is that *according to theory*, wine in grocery stores will make tacit collusion less likely. The next question to ask is why this is the case.

To put it simply, there are certain conditions that make tacit collusion in a certain market more or less likely. Take the number of sellers in a market place. Imagine a market place with just two competing firms. It costs Firm A and Firm B \$5 to produce the same good, yet they both charge \$10 on the market place for it. They never communicate with each other except by looking at the other's prices. All Firm A has to do is make sure Firm B is charging the same price they are in order to maintain the collusion. Even though either side could theoretically undercut the other, they choose not to because they both know that they make a greater profit if they collude, and collusion is easy since there are only two firms.

Consider the opposite scenario, a case in which there are a nearly infinite amount of sellers in the market place. It is now much more difficult to monitor whether other firms are colluding, and the reward for lowering the price is also substantially higher because there are more firms splitting the rewards of collusion. Instead of potentially gaining half of the market, which would be the case in the marketplace with only two firms, these smaller firms could gain access to the entire market if they undercut the market price by a penny. This makes it much more likely that competition will lower the price of a good down to the cost it takes to produce it.

However, the number of sellers in the marketplace is not the only variable that can affect the level of collusion. Things like location, how often goods are priced, transportation costs and the amount of information consumers have access to can all affect the price of a good. The table below summarizes these variables and the effect they have on the level of competition in a market place.

Variable	Monopoly	Perfect Competition	Wine in Grocery Stores
Number of vendors	One	Infinite	Increases number of vendors ³¹
Location of firms	Commuting between firms is impossible or too costly.	Commuting between firms is costless	Decreases transportation costs of commuting between firms
Number of times prices are published	Once/ very rarely	Constant price changes in response to market demand and input costs	Grocery stores publish prices/coupons more regularly
Number of substitutes in marketplace	No substitutes	Many substitutes, varying in price and quality	No significant impact
Variation in quality of good	No variation	Lots of variation	No significant impact

³¹ FMI "Economic Impact of allowing Shoppers to Purchase wine in food stores

Consumer loyalty	Perfectly loyal consumers	Perfectly price sensitive consumers	No significant impact
Consumer Information	Uninformed consumers	Consumers have access to perfect information	No significant impact

Theory and Policy

There are some economic effects that are more important in the eyes of policy makers than others. For example, policy makers are rarely concerned about the number of substitute goods in a marketplace, especially a market like the one for alcohol. Policy usually stops at preventing explicit collusion and monopolies, but there are other concerns once these have been addressed.

One of these concerns is the theory that allowing grocery stores to sell wine will reduce the amount of jobs liquor stores are able to provide. Consider the basic supply and demand graph seen at the beginning of this section, only applied to the market for labor instead of goods. Here, there are no price restrictions, only the amount of revenue the store makes. The amount of jobs provided will still remain at equilibrium; the new law will not result in an imbalance of labor in the employer's eyes because they are hiring as many employees as they need to in order to run the store efficiently. Yet some people will lose their jobs as a direct result of this. This is a reality politicians would like to avoid, but when one looks at the economic effects of what is happening, it is just another consequence of progress.

The argument that opponents of wine in grocery stores use says that since grocery stores have thousands of items on their shelves anyways, the amount of labor (and shelf space) they use will not increase if they are allowed to sell wine. However, since liquor stores do not possess these economies of scale, they *will* have to cut jobs in response to lower revenues from wine.

From a purely economic perspective, this is not necessarily a bad thing. If someone can do the jobs of wine specialists in liquor stores just as well without incurring as much of a cost, is it not more efficient for society to utilize this efficiency? Consider the opportunity cost of someone working in a liquor store whose job depends on high revenues from wine sales. They could perhaps spend their time educating others, making goods to go to the market, or building infrastructure. This is not the first time an occupation has been exposed as inefficient over time, yet per capita GDP continues to rise in spite of the fact that there are no longer things like blacksmiths, rope-makers, and wine merchants. Occupations disappearing is a consequence of economic progress, and this presents policy makers with a challenge. People care about the economy, yet they also care about the well-being of their peers in these occupations.

Data and Analysis

The data shows that while wine-merchants could lose their jobs, other groups will benefit from the passage of a wine in grocery stores referendum. First, consumers will enjoy lower prices as a direct result of greater competition in the marketplace.³² According the Tennessee Fiscal Review Committee, the average price of a bottle of wine in Tennessee right now is \$7.98. They estimate that due to the increase in competition which will be a direct result of this bill, the price will decrease to \$7.58, or almost by 5%. This includes the 20% mandatory markup codified in the bill. Approximately 33,487,469 bottles of wine were estimated to be sold in

³² Geise, Fiscal Note for HB 610. TN Fiscal Review Committee.

Tennessee during FY2011-2012. Using estimates of the elasticity of demand for wine, one can try to estimate how much more wine will be sold as a result of this price decrease, as well as what the consumer surplus from this action will be. Previous work in this subject area is helpful.

Ruhm, Jones, et al... (2012)³³ used Uniform Product Code (UPC) “barcode” scanner data on grocery store alcohol prices to create estimates of the elasticity of demand for alcohol. They estimated a relatively low elasticity of demand, -.3 . This means that for every percentage point increase in price, demand will decrease by .3%. Using the estimates from the Fiscal Review Committee, one can calculate that the expected increase in demand that would result from a decrease in the price of wine. The steps for this calculation are shown below:

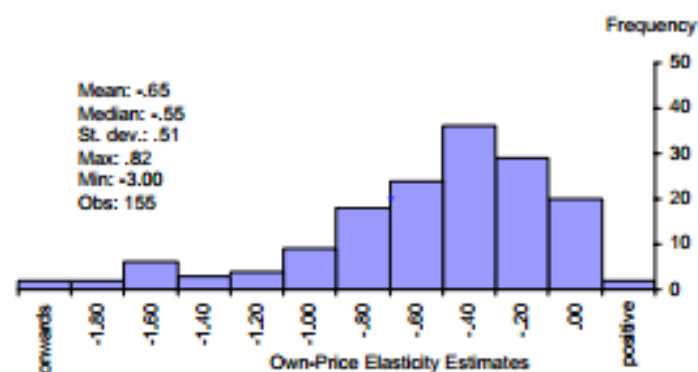
Estimated Decrease in Price	$1 - \frac{Price_{Wine\ In\ Grocery\ Stores}}{Price_{No\ Wine\ in\ Grocery\ Stores}}$	$1 - \frac{7.58}{7.98}$ $= .0501253\ or\ 5.01253\%$
Estimated Proportional Increase of Demand	$Percentage\ Change\ in\ Price$ $* Estimate\ of\ Elasticity\ of\ Demand$	$-5.01253 * -.3 = 1.5\%$
Increase in quantity of Wine Bottles Consumed	$Estimated\ Proportional\ Increase\ in\ Demand$ $* Estimate\ for\ Total\ amount\ of\ Wine\ Bottles\ Sold\ 2012$	$.015 * 33,487,469$ $= 503,570.962$

Using these estimates, one can calculate that the decrease in price resulting from allowing wine in grocery stores will lead to more than half a million more wine bottles being sold in the

³³ Ruhm, Jones et al. (2012) “What data should be used to estimate the price elasticity of demand for alcohol?” p. 851

state of Tennessee. With every bottle sold that wouldn't be otherwise, the state is collecting sales tax revenue that it had previously been missing out on.

However, economists often disagree about the exact price elasticity of wine. There is a wealth of literature in wine economics, and these works produce varying estimates of the elasticity of demand for wine. Fogarty (2008) conducted a survey of these studies and analyzed the distribution of their various findings. The results are summarized below:

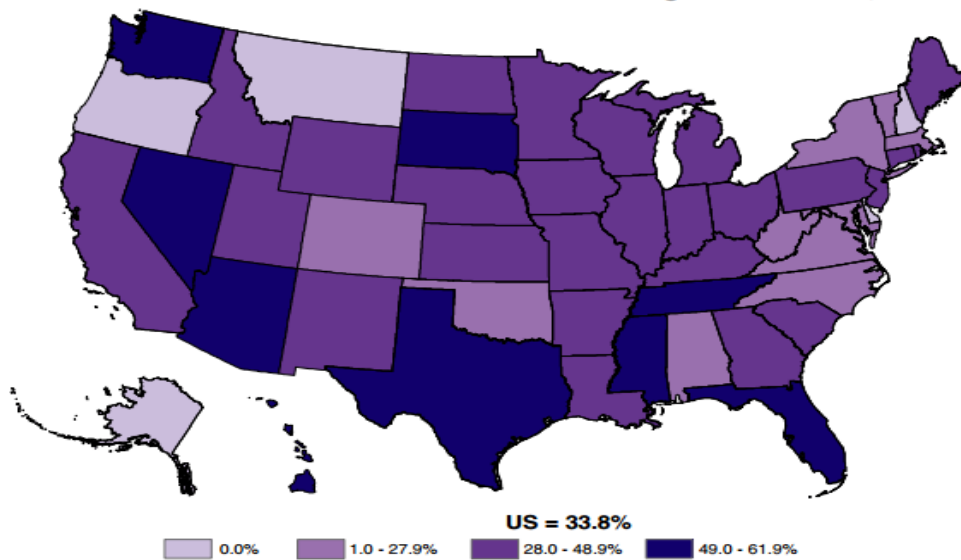


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Most results indicate that an increase in wine consumption is expected when price decreases.

One thing worth noting is that Tennessee is a state that stands to benefit more than its peer states from an increase in wine sales. This is because Tennessee has a relatively high sales tax. While some states may only collect 6 or 7 cents per every dollar of wine sold, Tennessee collects 9 or 10. This amplifies the impact of an increase in consumption in a positive way for the state budget. The map below shows that Tennessee is among a group of states that has the highest proportion of sales tax as its general revenue.

³⁴ Fogarty, James (2008) The demand for beer, wine and spirits: insights from a meta analysis approach.



Source: UT CBER³⁵

Another way to determine the potential effects on consumption is to look at historical trends of consumption and compare states that have allowed wine in grocery stores with those that have yet to or just recently legalized it.



Source: NIH-NIAAA 2009; WIGS, wine in grocery stores.

³⁵ Boyd, Bruce, Fox, Murray: State and Local Government Finances: Today's Structure and Tomorrow's Challenges. UT CBER

This graph shows that consumption in states that have recently legalized the sale of wine in grocery stores grows at the fastest rate. States that allowed the sale of wine in grocery stores always consumed more than their liquor-store only counterparts. It is prudent to say at this point that correlation in this case does not necessarily equal causation.

States that have high per capita consumption of wine, such as New Hampshire and California, are more likely to allow wine in grocery stores because there is a greater amount of societal pressure.

Another economic concern about wine is that it contains a drug, and drugs can be harmful when overused or misused. A 2011 Cornell university paper³⁶ collected data to see if allowing wine in grocery stores has an effect on the variables that could be costly to society: youth fatalities, overall consumption, etc...

The results are shown in the chart below:

	Policy change from "no alcohol sales in grocery stores" to "grocery sales of beer and wine"	Policy change from "only beer available in grocery stores" to "grocery sales of beer and wine"
Beer prices	-5.1%	-4.1%
Wine prices	-6.8%	-13.3%
Spirits prices	4.4%	-2.5%
Beer consumption share	-3.6%	no significant effect
Spirits consumption share	no significant effect	no significant effect
Total consumption	21.3%	21.8%
Total traffic fatalities	no significant effect	no significant effect
Weekend	no significant effect	no significant effect
Total non-weekend	no significant effect	no significant effect
Youth total	no significant effect	no significant effect
Youth weekend	-1.0078%	no significant effect
Youth non-weekend	1.0633%	no significant effect

Author: Amanda Garris

³⁶ Rickard, Constanigro, Garg (2011) Regulating the availability of beer, wine, and spirits in grocery stores: Beverage-specific effects on prices, consumption, and traffic fatalities.

These findings mostly support the idea that allowing wine in grocery stores will be beneficial for the people of Tennessee. The only finding that may be of concern is the increase in consumption, but this study shows that consumption will only increase by half of a percentage point compared to the current situation in most counties in Tennessee. This somewhat conflicts with what previous economic literature on the elasticity of demand for wine says (approx. 1.5% increase in consumption), but the approach in this study is less theoretical than analyzing abstract elasticities and assumptions about changes in price. Still, there will be a positive effect on total consumption and no significant effect on fatalities.

Ultimately, the evidence shows that allowing wine in grocery stores will have three main economic effects. First, the average price for a bottle of wine will decrease due to the increased number of sellers in the marketplace and more competitive behavior. One survey found that states that allow wine in grocery stores have almost four times more outlets to buy wine per capita than those that restrict wine sales to package stores³⁷. The state government projects a 40 cent decrease in the average bottle of wine due to the passage of wine in grocery stores.

The second important economic effect is the increase in wine consumption. Estimates on this exact figure vary, but the majority of literature on the subject indicates that an increase in consumption of at least one hundred thousand bottles is imminent. These bottles that will now be consumed represent the dead weight loss that not allowing wine in grocery stores imposed on Tennessee.

The final economic effect is the increase in sales tax revenue. The state will receive sales tax from this increase in sales, and this creates more revenue for the state budget.

³⁷Food Market Institute. "The Economic Effect of Allowing Shoppers to Purchase Wine in Food Stores."

In a state without an income tax like Tennessee, the impact of higher sales is relatively greater than it would be in states with a lower sales tax.

All three of these economic effects suggest that allowing wine in grocery stores will be beneficial to the average Tennessean. Economic theory says that allowing open markets will result in a more efficient outcome. The evidence shows that when it comes to opening wine markets in Tennessee, this principle holds. Opening markets in Tennessee will get us closer to equilibrium in the wine market, which means increased surplus for consumers. The 20% mandatory markup shows that there are still restrictions on this market that keep it from equilibrium, but it appears as though allowing wine in grocery stores is a step in the direction of economic efficiency.

V. Conclusion

Politics is defined as the struggle for control over the authoritative allocation of resources, and the issue of wine in grocery stores will definitely impact the distribution of resources in Tennessee. The implications of this policy are not negligible- neither for the consumers who will be able to purchase wine in grocery stores or the liquor store owners who make part of their living selling wine. The goal of this paper is to look at the stakeholders in this conflict: What do they have to gain? What do they have to lose? How will this impact the overall wellbeing of the state?

As with any political conflict, there are winners and losers that will come from wine in grocery stores. The main winners will be not only wine consumers but every citizen of

Tennessee. The projected increase in revenue will allow the state to provide more services and build more infrastructure. Of course the size of government is always a source of political contention, but bringing in more money with no additional taxes is something that representatives from both sides of the aisle can be pleased about. If wine in grocery stores had somehow cost the state money, it is doubtless that the road to passage would have been even more turbulent than it was. The moral objections that one has to the heightened availability of alcohol are much quieter when the benefits of the policy can go to local schools and hospitals.

However, there is another group who wins from this policy. This group is much smaller, wealthier, and more powerful than your average Tennessean. Grocery stores, like Food City, Kroger, Whole Foods, Harris Teeter, and the oft criticized Walmart will enjoy more profits without having to build any additional infrastructure. For these companies, the necessary ingredients for selling wine- shelf space, employees, and an ID checking system, are already in place. These benefits will go to these corporations, rather than the employees working for close to minimum wage. Unfortunately, these new earnings do not come from thin air. They come from our paychecks, our savings, and the money that we would otherwise be spending at the local liquor store.

These liquor stores have the most to lose from permitting the sales of wine in grocery stores in Tennessee. The owners of liquor stores say they will almost certainly have to fire employees if this measure is passed in their town. To these employees, the ability to buy a Chardonnay along with a chicken dinner will not be enough to make up for the fact that their primary source of income is now gone. Yet, this is the price paid throughout history for the advancement of markets and technology.

Another important facet of this policy is what it implies about the future of Tennessee politics. The first implication is that the majority party in the Tennessee legislature, the Republican Party, is gaining and consolidating power. Five years ago, wine in grocery stores was never seriously considered as a legitimate policy. Eventually, the leadership in this party decided that this was an issue that they wanted to address. In the 2012 session, the bill failed by a single vote in committee while Speaker Beth Harwell and Lt. Gov. John Ramsey looked on in surprise. This year, the bill passed with an overwhelming majority. The increase of support for wine in grocery stores illustrates that those in the highest positions of power in the state have become much more efficient at using this power to achieve their goals. If anything, the passage of wine in grocery stores implies that the Republican party will be able to utilize their strength in numbers even more in the upcoming years.

The struggle over wine in Grocery stores in Tennessee illustrates how economic motives can lead to political conflict. However, the people who have the best idea of what is economically beneficial for them are the consumers themselves, who will go to the polls in 2015 and 2016 to vote on whether to allow wine sales in grocery stores in their community. When this happens, we will learn if this policy is truly good for the people of Tennessee. This paper can be used to help these people gain a greater understanding of the issue, but only the people of Tennessee can decide if the sale of wine in grocery stores will be allowed in Tennessee.

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