

Bernalillo County Health and Social Services



## The Economic and Health Effects of A Twenty-Five Cents Per Drink Alcohol Excise Tax Increase in New Mexico

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**March 31, 2015**

## Table of Contents

	<b>Page</b>
Executive Summary	3
Introduction	5
The Effects of Alcohol on Health	6
Why an Alcohol Tax Increase?	6
Inflation's Impact on Alcohol Excise Taxes	7
The Costs of Excessive Drinking	7
<i>Increased Total Costs and Costs to our Government</i>	
<i>Increased Health Care Costs and Lost Productivity</i>	
<i>Underage Drinking Costs</i>	
Economic Effects of an Alcohol Excise Tax Increase	10
<i>Low-Income Populations</i>	
<i>Minority Populations</i>	
Modeling the Effects of a Tax Increase	11
Consumption Decrease and Increased Revenue Generation	11
<i>Impact on Total Costs and Costs to our Government</i>	
<i>Impact on Health</i>	
<i>Impact on Productivity</i>	
<i>Impact on Jobs</i>	
<i>Impact on Underage Drinking</i>	
Cross-State Border Sales and an Excise Tax Increase	17
<i>Review of the Literature</i>	
<i>Impact of New Mexico Alcohol Excise Taxes on Cross-State Border Sales</i>	
Bernalillo County	18
Policy Considerations	19
Conclusion	19
Bibliography	21

## Executive Summary

This report describes the likely health and economic effects of an alcohol excise tax increase in New Mexico. In light of New Mexico's high level of alcohol-related problems, a 25 cent alcohol excise tax increase saves lives, reduces health care costs, creates and preserves jobs, and prevents alcohol-related problems. Key report findings include:

### DEATH BY ALCOHOL

- New Mexico has the country's highest alcohol related death toll with an annual average rate of 51.2 deaths per 100,000 people, equivalent to 1,139 deaths each year (Stahre, et al., 2014).
- 70 of the 1,139 deaths in New Mexico each year are due to alcohol related violent crimes (CDC ARDI database, 2014).
- Excessive drinkers cause 91% (1,042 deaths) of New Mexico's alcohol related deaths (CDC ARDI database, 2014).
- Alcohol is responsible for 46 deaths in New Mexico's under 21 population each year. Ninety-eight percent of these deaths are from alcohol related injuries (CDC ARDI database, 2014).

### COSTS OF ALCOHOL USE

- Excessive drinkers (who consume an average of 3.3 drinks per day), heavy drinkers (who consume an average of 12.7 drinks per day), and underage drinkers consume 66% of total alcohol consumption each year and contribute 65.5% toward total alcohol sales each year (Foster, et al., 2003).
- In 1977, alcohol taxes brought in .75% of New Mexico's own-source general revenues; by 2012 this had fallen to .47% of general revenues (Tax Policy Center, 2015). These taxes cover only 5% of the costs incurred by New Mexico governments as a result of alcohol use (Sacks, et al., 2013).
- Excessive alcohol use costs New Mexicans \$1,876,100,000 per year, the equivalent of \$2.36 per drink and \$960 per person per year. In contrast, current New Mexico alcohol tax rates range from less than 1 cent for a 12 oz. can of micro-beer to 22 cents for a 5 oz. drink of fortified wine (New Mexico Taxation and Revenue Department, 2015). Costs of excessive drinking include healthcare, productivity losses, and property damage due to crime; criminal justice system costs; motor vehicle crashes; property damage from fires; and special education services related to fetal alcohol syndrome (Sacks, et al., 2013).

### TWENTY-FIVE CENTS PER DRINK = ECONOMIC GAINS + LIVES SAVED

- A 25 cent per drink increase in New Mexico's alcohol excise tax would result in \$154,090,910 in new state revenues and an additional \$187,234,780 in

- total cost savings for New Mexico's economy. It would also result in a 9.98% decrease in alcohol consumption.
- This decreased consumption would save 52 lives, prevent 306 violent acts, and prevent 12,375 cases of alcohol dependence or abuse in New Mexico every year.
  - The decrease in alcohol consumption would also result in an annual increase in economic productivity of \$128,133,220 in New Mexico.
  - Productivity gains would more than offset job losses in the alcohol industry. The additional \$154,090,910 in state revenues generated from the increased alcohol excise tax would create 616 jobs in the health and mental health care fields (if the additional revenues were directed toward health care) or 2,898 jobs if the funds simply went into the state's general fund (Center on Alcohol Marketing and Youth, 2015).
  - Underage drinking - alcohol use among New Mexicans between the ages of 12 and 20 - would decrease by 13% (7,150 youth). Binge drinking among youth would decrease by 4,680 people. The annual costs of underage drinking would be reduced by \$20,618,000.
  - Excessive drinkers, who make up 18.9% of adults age 18 and above, will pay the overwhelming bulk (75%) of the tax, an average of \$51.14 in additional tax per year, compared to \$9.85 for non-excessive drinkers (32.1% of adults). Non-drinkers (who comprise 49% of adult New Mexicans) will pay nothing. (Center on Alcohol Marketing and Youth, 2015).
  - Case studies from other states that have raised alcohol excise taxes suggest that states do not lose alcohol sales to neighboring states because of increased alcohol excise taxes, particularly if, like New Mexico, they have thriving tourism markets and gaming establishments, and are sparsely populated along borders (Nesbit, 2005).

## Introduction

Increased alcohol excise taxes have consistently saved lives, reduced health care costs, created and preserved jobs, and prevented alcohol-related problems.

New Mexico's 2010 population was 2,059,179, comprised of 46.3% Hispanic or Latino and 53.7% non-Hispanic or Latino. Of the 53.7% non-Hispanic or Latino, 40.5% are white, 8.5% are American Indian, 1.7% are Black, and 1.3% are Asian (U.S. Census, 2010). In addition to a diverse population, New Mexico is largely rural with wide expanses of land between communities. The two largest cities in New Mexico are Albuquerque having a population of 545,852 and Las Cruces with a population of 97,618 (U.S. Census, 2010).

According to the 2014 Kids County Data Book, New Mexico was among the three lowest ranked states in the nation for child wellbeing (Annie E. Casey Foundation, 2014). An overwhelming twenty-three percent of Hispanic, 8% of white, 32% of Native American, 23% of Black, and 10% of Asian New Mexican families lived in poverty in 2014. Poverty is widespread throughout New Mexico, occurring in both urban and rural counties.

Due to New Mexico's income inequities and high health burden among low-income and people of color communities, it is imperative that local and state wide policies correct rather than exasperate existing community conditions. To that end, decision-makers should seek to understand the underlying dynamics of New Mexico's vulnerable communities as part of their policy making.

For the purposes of this report, excessive drinking is defined as underage drinking, drinking while pregnant, heavy drinking, and binge drinking. Ninety percent of people who drink excessively are not alcoholic or alcohol dependent (Esser, et al., 2014)

### Binge drinking:

- For women, 4 or more drinks during a single occasion
- For men, 5 or more drinks during a single occasion

### Heavy drinking:

- For women, 8 or more drinks per week
- For men, 15 or more drinks per week

### A standard drink:

- 12-ounces of beer (5% alcohol content).
- 8-ounces of malt liquor (7% alcohol content).
- 5-ounces of wine (12% alcohol content).
- 1.5-ounces of 80-proof (40% alcohol content) distilled spirits or liquor (e.g., gin, rum, vodka,

## **The Effects of Alcohol on Health**

New Mexico has the country's highest alcohol related death toll with an annual average rate of 51.2 deaths per 100,000 people, roughly twice the national rate (NMDOH, 2014); this is equivalent to 1,139 deaths each year (Stahre, et al., 2014).

Native Americans experience the highest alcohol-related death rates across all races and ethnicities. McKinley and Rio Arriba counties have extremely high alcohol-related death rates, particularly among their large Native American (McKinley) and Hispanic (Rio Arriba) male populations. The counties with the most deaths attributed to alcohol for the five year period of 2008 – 2012 are: Bernalillo – the most urban county in the state; San Juan; Santa Fe; Dona Ana – the second most urban county in the state; and McKinley County (NMDOH, 2014).

Alcohol use is responsible for 1,139 deaths in New Mexico each year, 70 of which are from violent crimes (CDC ARDI database, 2014). During 2011-2012, approximately 124,000 New Mexicans (7.28%), age 12 and above, fit the criteria for alcohol abuse or dependence, and 118,000 New Mexicans (6.95%), age 12 and above, needed, but did not receive, treatment for alcohol use (SAMHSA, 2012).

Each year, 46 New Mexico youth lose their lives because of alcohol (CDC ARDI database, 2014). From 2011-2012, 55,000 (21.65%) New Mexicans between the ages of 12 and 20 drank alcohol in the past month, and 36,000 (14.08%) reported binge drinking (SAMHSA, 2012). Among New Mexico high school students, 8.9% reported drinking and driving, and 22.3% reported drinking before age 13 (NMDOH, 2014).

## **Why an Alcohol Tax Increase?**

Alcohol is a major cause of premature death in New Mexico and contributes to high economic costs and societal problems. In addressing alcohol problems, policy makers have typically used education, law enforcement, and rehabilitation programs with a primary focus on underage drinking, drinking and driving, and alcohol dependence. An alcohol excise tax increase is an evidence-based policy approach that will reduce the broad spectrum of alcohol problems and provide much needed revenue for law enforcement programs, and alcohol problems prevention and treatment programs.

According to a recent meta-analysis of more than 100 studies containing more than 1,000 estimates of the effects of price and tax on alcohol consumption, like other commodities, when alcohol prices increase, alcohol sales and consumption fall leading to decreased alcohol-related mortality and morbidity (Wagenaar, et al., 2009). Another study estimated that doubling the federal alcohol tax would result in a 35% decrease in alcohol related mortality, 11% decrease in traffic deaths, 6% decrease in sexually transmitted disease, 2% decrease in violence, and 1.4% decrease in crime (Wagenaar, et al., 2010).

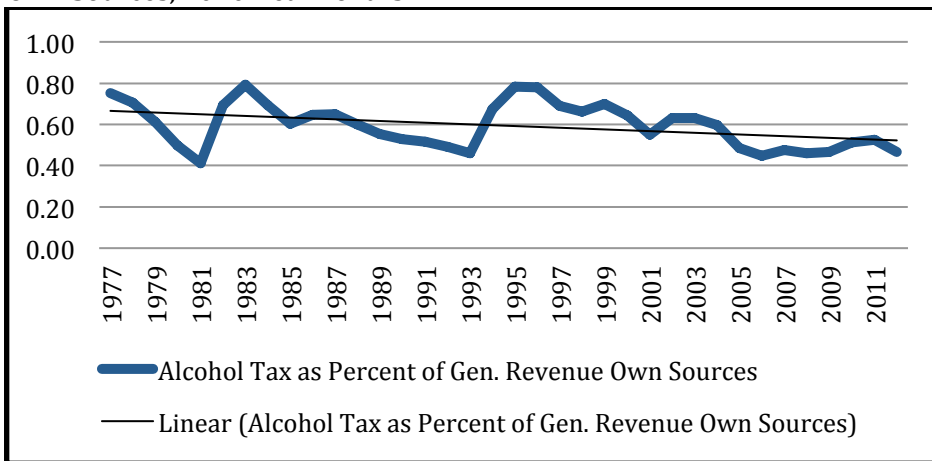
Based on this strong evidence, both the World Health Organization and U.S. Task Force on Community Preventive Services have endorsed increasing alcohol taxes to reduce alcohol-related harm, including alcohol-related motor vehicle crashes, liver cirrhosis, all-cause mortality, violence, sexually transmitted disease, and alcohol dependence (Task Force on Community Preventive Services, 2010; World Health Organization, 2010).

**Inflation’s Impact on Alcohol Excise Taxes**

At a national level, inflation has consistently eroded the value of alcohol taxes. In 1951, the federal beer tax was \$9 per barrel, and increased to \$18 per barrel in 1991 (Jernigan, et al., 2011). If the federal beer tax had kept pace with inflation since 1951, the 2014 beer tax would equal \$81.95 per barrel (U.S. Department of Labor, 2015). The federal liquor excise tax was \$10.50 per proof gallon in 1951 and increased to \$13.50 per proof gallon in 1991. The inflation-adjusted tax, based on the 1951 tax, would equal \$95.60 per proof gallon in 2014 (U.S. Department of Labor, 2015).

As a percentage of New Mexico’s own-source total general revenues, alcohol excise taxes have fallen over time (Figure 1). In 1977, alcohol taxes made up .75% of New Mexico’s revenues, while in 2012 alcohol taxes only made up .47% of New Mexico’s revenues (Tax Policy Institute, 2015).

Figure 1. New Mexico’s Alcohol Tax Revenues as a Percentage of Total General Revenue – Own Sources, 2010 Real Dollars



**The Costs of Excessive Drinking**

***Increased Total Costs and Costs to our Government***

The production and consumption of alcohol generates tax revenues and creates jobs for New Mexico. However, the revenue and job benefits from the alcohol industry are small when compared to the negative economic effects of alcohol use.

According to a 2003 study published in the Journal of the American Medical Association, nationally adult excessive drinkers and heavy drinkers account for 46.3% of all alcohol consumed annually, representing 46.1% of all alcohol sales (Foster, et al., 2003).

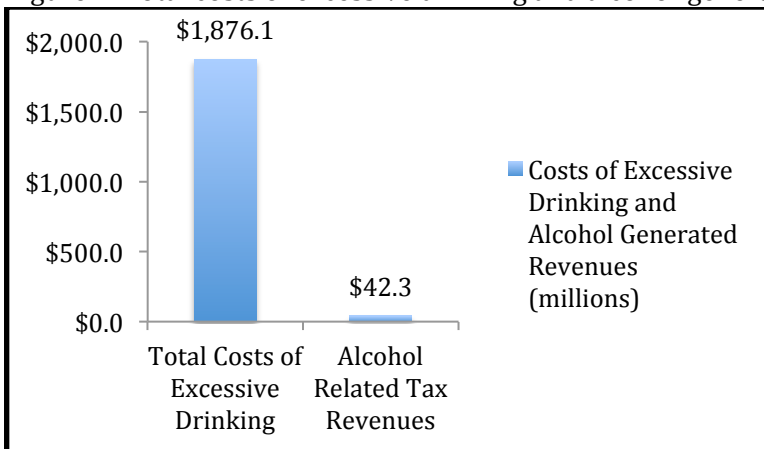
Costs associated with excessive alcohol use include healthcare costs and costs associated with productivity loss; property damage due to crime; criminal justice system expenses; motor vehicle crashes; property damage from fires; and special education services related to fetal alcohol syndrome (Sacks, et al., 2013).

A 2013 study on the total costs associated with alcohol use in the U.S. estimated the cost of excessive drinking at \$223.5 billion in 2006 (Sacks, et al., 2013). Excessive drinkers and their families bore less than half (41.5%) of these costs, while federal, state, and local governments paid 42.1% of the costs – placing a significant tax burden on non-drinkers and non-excessive drinkers to cover costs associated with excessive alcohol use.

In 2006, the total costs attributed to excessive drinking to New Mexico were \$1,876,100,000, equivalent to \$2.36 per drink or \$960 per person (Sacks, et al., 2013). The cost of excessive drinking to New Mexico’s local and state governments was \$793,500,000, equivalent to \$1.00 per drink or \$400 per person (Sacks, et al., 2013). Thus, the 49% of New Mexicans who do not drink are paying \$400 per year in taxes to subsidize the costs generated primarily by 18.9% of New Mexicans who are excessive drinkers.

For the same year, 2006, New Mexico received alcohol tax revenues of \$42,252,000, only 2.25% of the total cost of excessive drinking, and 5.3% of the costs paid out by local and state governments (Walker-Moran, E., personal communication, 2015). Figure 2 illustrates the total costs of excessive drinking relative to alcohol revenues to the state.

Figure 2. Total costs of excessive drinking and alcohol-generated revenues – New Mexico



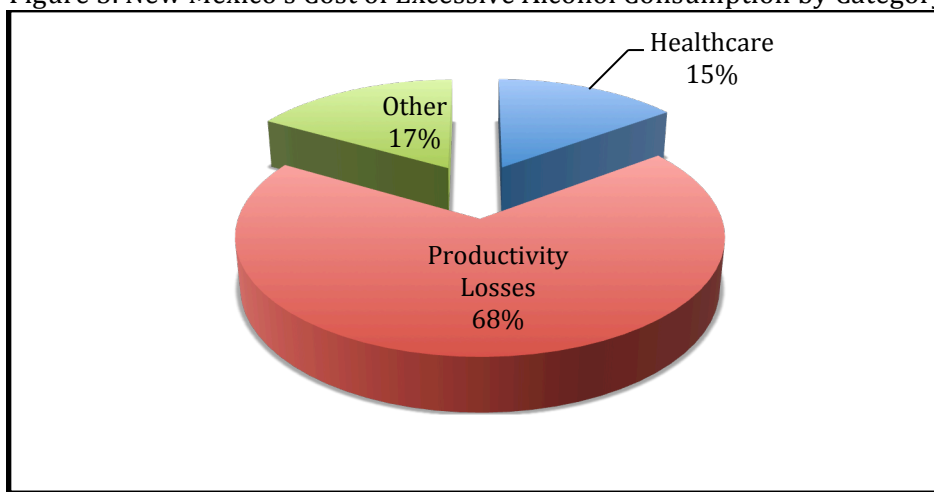


### ***Increased Health Care Costs and Lost Productivity***

In addition to the human tragedy of death and disability caused by alcohol, healthcare costs associated with excessive drinking amounted to \$278,800,000 in 2006, an equivalent of \$143 in per person (Sacks et al., 2013).

With increased excise taxes come decreased alcohol consumption; increased worker productivity; decreased rates of premature mortality, illness, and disability; decreased absenteeism from school and work; and decreased incarceration. Productivity losses throughout the country from excessive drinking represent the largest share of total costs, ranging from 60.9% in Wyoming to 82.1% in the District of Columbia. In New Mexico, productivity losses represent 68.4% of the total costs of excessive drinking. This is an estimated \$1,283,900,000 in productivity losses in 2006, which is equivalent to \$657 per person, (Sacks, et al., 2013). Figure 3 illustrates the cost of excessive alcohol consumption for New Mexico. The “other” category is comprised of costs associated with property damage due to crimes, private legal costs, motor vehicle crashes, property damage from fire, and special education related to fetal alcohol syndrome, as well as other costs.

Figure 3. New Mexico’s Cost of Excessive Alcohol Consumption by Category



### ***Underage Drinking Costs***

Nationally, in 2003, underage drinkers consume 19.7% of all alcohol sold each year, representing 19.4% of total alcohol sales each year (Foster, et al., 2003).

Underage drinking causes premature death and long-term disabilities that are completely preventable. The total cost of underage drinking in the U.S. was estimated at \$24.6 billion in 2006 (Sacks, et al., 2013). In New Mexico in 2006, the total cost related to underage drinking was estimated at \$158.6 million, which is equivalent of \$81.15 per person or 20 cents per drink (Sacks, et al., 2013). The costs related to underage drinking in New Mexico include youth violence linked to alcohol abuse, traffic crashes, high-risk sex, property crime, and injury (Sacks, et al., 2013).

## **Economic Effects of an Alcohol Excise Tax Increase**

For most consumers the increased alcohol excise tax will be hardly noticed. The 49% of New Mexicans who do not drink will not pay an additional cent. The 32% of New Mexicans who drink minimally will only experience a slight increase in the cost of alcohol. Consumers will pay in proportion to how much they drink, with the bulk of the tax increase paid by the small percentage of drinkers who consume the most alcohol and cause the greatest economic and societal harm. Higher taxes will result in excessive drinkers bearing a more equitable share of the costs for the problems they cause, while helping discourage excessive alcohol consumption.

Seventy-five percent of the alcohol excise tax will be paid by excessive drinkers (18.9% of New Mexicans), and 24.9% of the tax will be paid by non-excessive drinkers (32.1% of New Mexicans). Those who abstain from drinking (49% of New Mexicans) will pay no additional tax.

Non-excessive drinkers will pay an average additional cost of only \$9.85 per year, and excessive drinkers, consisting of underage, pregnant, binge and heavy drinkers, will pay an average additional cost of \$51.14 per year (Center on Alcohol Marketing and Youth, 2015).

### ***Low-Income Populations***

The tax is far less regressive than often assumed, non-excessive drinkers earning \$75,000 per year or greater will pay an additional tax of \$11.52 per year, while non-excessive drinkers earning less than \$25,000 per year will pay an additional tax of only \$8.09 per year (Center of Alcohol Marketing and Youth, 2015). Further, alcohol is a discretionary item, and not a necessity. Therefore, increasing the alcohol tax is more equitable than increasing a tax on a necessity, such as food, phone service or gasoline.

The money spent on alcohol represents only a small portion of an individual or family's total expenditures. Although people who have less disposable income will pay proportionately more for higher alcohol taxes, for most people, the additional amount is negligible, \$8.09 per year for non-excessive drinkers earning less than \$25,000 annually, and \$54.04 per year for excessive drinkers earning less than \$25,000 annually.

### ***Minority Populations***

As previously mentioned, the alcohol-related death toll is disproportionately placed on New Mexico's Hispanic and Native American communities. Therefore, a decrease in alcohol consumption among both non-excessive and excessive drinkers is likely to benefit New Mexico counties, such as McKinley and Rio Arriba, that have a larger percentage of minority populations. In light of these preventable deaths and

disability, the economic impact of a tax increase on these population sub-groups is minimal.

### **Modeling the Effects of a Tax Increase**

#### **Consumption Decrease and Increased Revenue Generation**

Evidence shows that alcohol producers pass alcohol excise taxes on to customers at a ratio from 1 to 2, e.g., a 10 cent increase in tax leads to a 10 to 20 cent increase in price (Young, et al., 2002). Modeling conducted for this report assumes a 1:1 ratio (a 25 cent increase in tax leads to a 25 cent increase in price). Price increases strongly influence alcohol consumption; like other commodities, when price (or tax) increases, demand (consumption) decreases (Wagenaar et al., 2009). In their meta-analysis of studies on the relationship between alcohol price (tax) increases and alcohol consumption, Wagenaar et al. found that alcohol prices not only influence alcohol consumption, but heavy drinking as well (Wagenaar et al., 2009). Evidence also shows that alcohol tax increases lead to decreases in drinking frequency and the quantity of drinks consumed among youth because youth are price sensitive (Grossman et al., 1994).

The amount that consumption will decrease, as a result of a tax increase, is dependent on the price elasticity. For purposes of this report, elasticities are based on those recommended in the *Community Guide 2010 – U.S. Review* (Elder, et al., 2010), as follows: beer (-.50), wine (-.64), and spirits (-.80).

Table 1 shows the 2012 levels of alcohol taxes, consumption, and revenues in New Mexico (Walker-Moran, E., personal communication, 2015). New Mexico's per gallon or liter excise tax is: .41 for beer and cider (gallon), .08 for microbeer (gallon), 1.61 for liquor (liter), .45 for wine (liter), 1.50 for fortified wine (liter), and .10 and .20 for wine from small wineries (liter) (Walker-Moran, E., personal communication, 2015). Based on data retrieved from the New Mexico Taxation and Revenue Department, 885,379,299 drinks were consumed in New Mexico in 2012. New Mexico received \$45,169,802 in tax revenue from this consumption.

Table 1. New Mexico Alcohol Taxes, Consumption, and Revenues

Product	Tax per ounce	Current tax per drink	Current volume	Current # of drinks	Current tax revenue (\$)	Current price per drink
Beer (gal)	0.003	0.038	46,315,811	494,035,320	18,989,483	1.25
Micro (gal)	0.001	0.008	1,008,138	10,753,470	87,638	1.42
Cider (gal)	0.003	0.038	64,728	690,431	26,538	1.83
Liquor (liter)	0.047	0.071	11,988,269	270,247,544	19,181,226	1.77
Wine (liter)	0.013	0.067	14,662,051	99,156,521	6,597,927	2.37
Fortified wine (liter)	0.044	0.222	48,471	327,798	72,730	2.37
Small winery (liter)	0.003	0.015	862,621	5,833,732	86,074	2.37
Small winery (liter)	0.006	0.030	640,930	4,334,483	128,186	2.37
Total			75,591,019	885,379,299	45,169,802	

Note: Current price per drink is based on the following price assumptions by alcoholic beverage: beer (\$7.50/six-pack), micro-beer (\$8.52/six-pack), hard cider (\$10.98/six-pack), liquor (\$29.97/750 ml bottle), wine (\$12.04/750 ml bottle), based on in-person surveys of New Mexico outlets by the lead author and colleagues. Modeling is based on tax and volume data provided by the New Mexico Taxation and Revenue Department, accessed January 2015 at: <http://www.tax.newmexico.gov/monthly-alcohol-beverage-excise-tax-report.aspx>.

Table 2 below summarizes the modeled results for a 25 cent per drink tax increase in terms of tax and price increases. This tax would only represent an increase of between 10% and 20% of the final price.

Table 2. New Prices per Drink and Percent Increase per Drink

Product	Current price per drink	New price per drink	% price increase
Beer (gal)	1.25	1.50	20.00
Microbeer (gal)	1.42	1.67	17.61
Cider (gal)	1.83	2.08	13.66
Liquor (liter)	1.77	2.02	14.12
Wine (liter)	2.37	2.62	10.55
Fortified wine (liter)	2.37	2.62	10.55
Small winery (liter)	2.37	2.62	10.55
Small winery (liter)	2.37	2.62	10.55
Total			

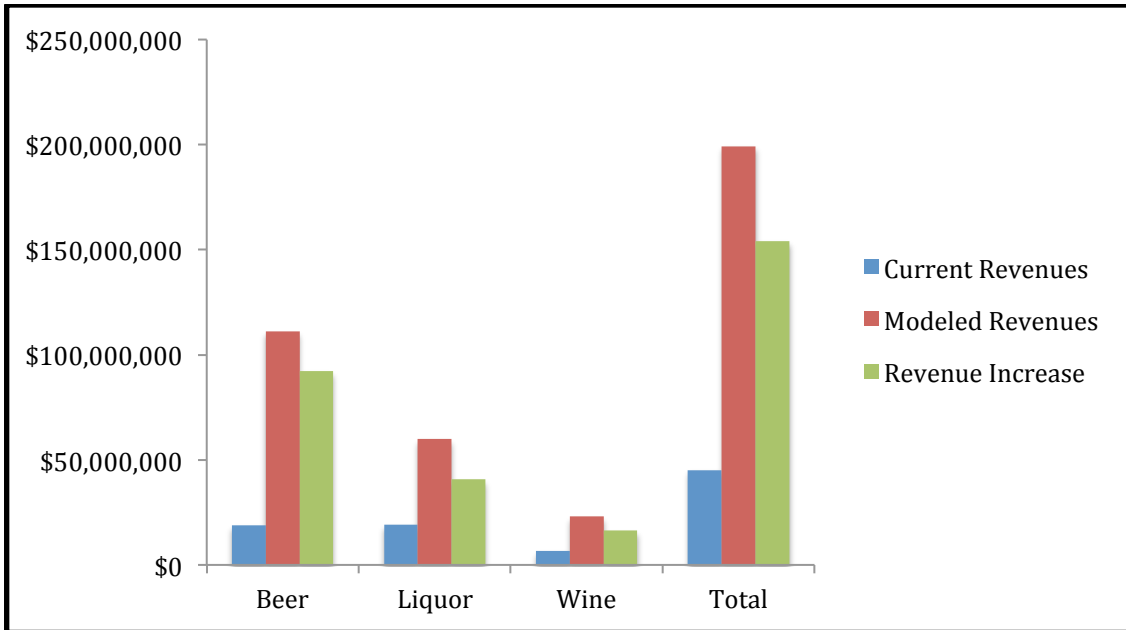
Table 3 below presents the results in terms of decreased alcohol consumption and increased tax revenues.

Table 3. Modeled Consumption Decrease, Projected Total Revenues, and Revenue Increases

Prod.	Elast-icity	Decreased consumption	Projected # of drinks	Projected revenue (\$)	Projected revenue increase (\$)
Beer	-0.50	-10.00	444,631,788	111,157,947	92,168,464
Micro-beer	-0.50	-8.80	9,806,861	2,451,715	2,364,078
Cider	-0.50	-6.83	643,271	160,818	134,279
Spirits	-0.80	-11.30	239,711,098	59,927,775	40,746,548
Wine	-0.64	-6.75	92,462,410	23,115,603	16,517,675
Fort. wine	-0.64	-6.75	305,668	76,417	3,687
Small winery	-0.64	-6.75	5,439,894	1,359,974	1,273,899
Small winery	-0.64	-6.75	4,041,860	1,010,465	882,279
Total		-9.98	797,042,850	199,260,713	154,090,910

Figure 4 illustrates the difference in revenue generation resulting from a 25 cent increase in the excise tax for alcohol.

Figure 4. Increase in alcohol generated revenues from the proposed 25 cent alcohol excise tax.



### ***Impact on Total Costs and Costs to our Government***

A 25 cent per drink tax increase would result in \$154,090,910 in additional revenues and \$199,260,713 in total revenues. A 9.98% reduction in alcohol consumption would result in cost reductions from excessive drinking of \$187,234,780 in total costs and \$79,191,300 in government costs. Additional revenues could generate jobs in New Mexico and cost savings from decreased consumption could be targeted for public safety, health care, and alcohol and substance abuse treatment and prevention programs.

### ***Impact on Health***

Several studies estimate the impact of decreased consumption on health outcomes. One study found a 10% increase in the price of alcohol would result in a 7% decrease in motor vehicle fatality rate, a 6% decrease in suicides, and a 32% decrease in liver cirrhosis (Cook, 2007). Another study found that doubling the federal alcohol tax would result in a 35% decrease in alcohol related mortality, an 11% decrease in motor vehicle fatalities, a 6% increase in sexually transmitted diseases, a 2% decrease in violence, and a 1.4% decrease in crime (Wagenaar, et al., 2010).

Table 4 shows the annual reduction in alcohol related deaths, illnesses, and violence using the assumption that a 9.98% decrease in consumption of alcohol is distributed evenly across New Mexico's drinking population. Based on this assumption, a total of 52 deaths, 12,375 cases of alcohol abuse and dependence, 306 violent acts, 4 cases of fetal alcohol disorders would be prevented with a 25 cent increase in the alcohol excise tax. However, decreases in death, injury, and illness would likely to be greater because the tax increase would not be evenly distributed across the population. Instead the tax increase would have a greater impact on the health and safety of those affected by excessive drinkers. Additionally, a 25 cent excise tax increase would result in health care cost reductions of \$27,824,240 annually.

Table 4. Modeling Results – Annual Reductions in Deaths, Illness, and Violence – New Mexico

Conditions	Total Number	Total Related to Alcohol Consumption	Percent Related to Alcohol Consumption	Total Decrease - for .25/Drink Increase
<b><i>Mortality</i></b>				
Motor vehicle traffic crashes	267	120	45	12
Homicides	113	67	59	7
Liver Disease (includes liver cancer, liver disease and cirrhosis of liver)	388	334	86	33
Violence Against Children	7	2	29	0
<b>Total Deaths</b>	<b>775</b>	<b>523</b>		<b>52</b>
<b><i>Illness and Injury</i></b>				
Alcohol Abuse and Dependence	124,000	124,000	100	12,375
Forcible Rapes	957	354	37	35
Aggravated Assault	8,740	2,360	27	236
Robbery	1,847	277	15	28
Fetal Alcohol Spectrum Disorders	40	40	100	4
<b>Total Illness and Injury</b>	<b>135,584</b>	<b>127,031</b>		<b>12,678</b>
<b>Total Number of Cases</b>	<b>136,359</b>	<b>127,554</b>		<b>12,730</b>
<p>Notes:</p> <p>Number of forcible rapes, aggravated assault, and robbery related to alcohol consumption estimates are calculated using the following percentages: 37% of forcible rape cases, 15% of robberies, and 27% of aggravated assaults, provided in National Council on Alcoholism and Drug Dependence, Inc. Available at: <a href="http://www.ncaad.org">www.ncaad.org</a>. New Mexico data on percent violence caused by alcohol is not available.</p> <p>Mortality: total number, and total number related to alcohol consumption source: CDC Alcohol-Related Disease Impact Software, annual average 2006-2010.</p> <p>Illness and Injury: forcible rapes, aggravated assault, robbery source: U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting Statistics, New Mexico, 2012 data.</p> <p>Alcohol abuse and dependence figures from: SAMHSA 2011-2012 National Survey on Drug Use and Health: Model-Based Prevalence Estimates (50 States and the District of Columbia).</p> <p>Fetal Alcohol Spectrum Disorders estimates used are 1.5 per 1,000 births based on CDC Prevalence of Fetal Alcohol Spectrum Disorders website.</p> <p>Live births in New Mexico for 2013 = 26,242, New Mexico Department of Health, Indicator Based Information System.</p>				

### ***Impact on Productivity***

Employers pay a large portion of the costs of excessive drinking. Based on a national survey, alcohol problems contribute to worker safety issues and a greater work burden for co-workers, with 20% of workers stating they either had to “cover” for a fellow employee or had become injured themselves because of alcohol problems (Ensuring Solutions to Alcohol Problems, 2015).

According to Ensuring Solutions’ database, a company in New Mexico with 100 employees is likely to have 9 excessive drinkers in its workforce. This same company would lose 2 working days per month because of alcohol problems and

would incur alcohol-related health care costs of \$60,573 per year. Excessive drinking not only affects the employee and employer, but the family as well. Among families where alcoholism was present, over 50% of family members said their own ability to work suffered because of their relative’s drinking problem (Ensuring Solutions to Alcohol Problems, 2015).

The alcohol industry claims that increased alcohol excise taxes will deter economic growth and cost jobs. Assuming a linear relationship between consumption and economic productivity, the 9.98% decrease in alcohol consumption resulting from a 25 cent per drink alcohol excise tax increase in New Mexico would increase economic productivity by \$128,133,220. The tax increase would still only recoup a small portion (8.2%) of the total costs of excessive alcohol use. From a purely economic perspective, the high cost of excessive alcohol use and lost productivity provides a strong justification for an increase in the alcohol excise tax in order to reduce the negative impacts on the health of residents and the state’s economy.

***Impact on Jobs***

In spite of the alcohol industry’s arguments to the contrary, literature suggests that in addition to productivity gains described above, the tax can generate spending and jobs (Jernigan, et al., 2011). The money not spent on alcohol does not just disappear from the economy – people will spend it in other sectors. Furthermore, the additional revenues raised by the tax will create jobs of their own accord. Table 5 shows the potential impact of alcohol excise taxes on jobs in New Mexico. A 25 cent increase in the excise tax would yield 2,898 jobs, if revenues were placed in to New Mexico’s general fund, or 616 jobs in healthcare, if revenues were designated for that sector of the economy (Center on Alcohol Marketing and Youth, 2015).

Table 5. Potential Impact of Alcohol Tax Increase on Jobs

<b>Tax/Drink</b>	<b>General Fund</b>	<b>Healthcare</b>
\$0.25	2,898	616

***Impact on Underage Drinking***

Several studies on youth’s price sensitivity to alcohol have been conducted. Estimates on price elasticities of alcohol among youth vary, but for the purposes of this report we used a price elasticity of -.65 for beer only, which is what underage drinkers typically consume based on research conducted by Chaloupka (2002). Given this price elasticity, beer consumption among youth is modeled to decrease by 13% with a 25 cent excise tax increase.

Assuming a linear association and similar elasticities for other alcoholic beverages, overall alcohol use among those who are between the ages of 12 and 20 in the past 30 days in New Mexico would decrease by 13% or 7,150 people. Binge drinking among this population within the past 30 days would decrease by 4,680 people. Annual costs of underage drinking would be reduced by \$20,618,000 (Table 6).



Table 6. Modeling Results – Reductions in Deaths, Behaviors and Costs for Populations Under 21.

	<b>New Mexico</b>	<b>New Mexico - Reduction in variable from .25 per drink tax</b>
Deaths under 21 <sup>1</sup>	46 (98% due to injury)	6
Binge drinking in past 30 days (ages 12-20) <sup>2</sup>	36,000 (14.08%)	4,680
Alcohol use in past 30 days (ages 12-20) <sup>3</sup>	55,000 (21.65%)	7,150
Cost of underage drinking	\$158,600,000	\$20,618,000

## **Cross-State Border Sales and an Excise Tax Increase**

### **Review of the Literature**

Estimates on the effects of differences in excise taxes in neighboring states on alcohol purchases have yielded contradictory results (Jernigan, et al., 2011). One study showed the difference in excise tax rates caused declines in beer revenue, but not liquor revenues (Beard, et al., 1997). Another study found no effect on beer, but a small effect on liquor sales (Stehr, 2007). Yet another study concluded the percentage of population living near the state border was a statistically significant factor for state liquor prices, but not for beer prices (Nelson, 2002). In summing up the results of their systematic review of public health research on the impact of excise tax differences on cross border purchases of alcohol, Jernigan et al. found the net impact of price differences in alcohol was not large, and would be unlikely to prevent states from collecting more revenues as a result of a tax increase (Jernigan, et al., 2011). More important were factors other than price, including prevalence in the state of tourism, gaming establishments, and universities (Nesbit, 2005). States having these factors are less likely to be impacted by cross-state border purchases of alcohol.

### **Impact of New Mexico Alcohol Excise Taxes on Cross-State Border Sales**

New Mexico is the fifth largest state in the country covering 121,599 square miles. It is sparsely populated with 17 people per square mile (U.S. Census, 2010). Due to its sheer size, small population centers near its borders, and relatively long driving times to reach communities in neighboring states, it would seem that relatively few New Mexicans would have the inclination to purchase alcohol across our state border.

<sup>1</sup> From CDC ARDI database, 2006-2010

<sup>2</sup> SAMHSA, 2011-2012

<sup>3</sup> SAMHSA, 2011-2012

This fact, in addition to research findings that alcohol excise taxes have little influence on cross-state border alcohol purchases, suggests it is likely that increased alcohol excise taxes in New Mexico will result in little, if any, impact of the loss of alcohol sales to neighboring states. Table 7 below shows the total populations of New Mexico's border communities and distances to the nearest community in neighboring states.

Table 7. Border Population and Distance to Nearest Community in Neighboring State

<b>New Mexico border community</b>	<b>2010 Population</b>	<b>% of New Mexico population</b>	<b>Nearest community in neighboring state</b>	<b>2010 Population</b>	<b>Distance between two communities (in driving time)</b>
New Mexico	2,059,179	100.00	---	---	---
Las Cruces	97,618	4.74	Anthony, TX	5,011	32 minutes
Gallup	21,678	1.05	Holbrook, AZ	5,053	1 hr. 23 minutes
Raton	6,885	.33	Trinidad, CO	9,096	25 minutes
Clovis	37,775	1.83	Lubbock, TX	229,573	1 hr. 38 minutes
Tucumcari	5,363	.26	Amarillo, TX	190,695	1 hr. 40 minutes
Hobbs	34,122	1.66	Seminole, TX	6,430	30 minutes

Source: 2010 Census Total Population.

### **Bernalillo County**

- Bernalillo County's annual average alcohol related death rate is 49.0 deaths per 100,000 people, or 334 deaths per year (New Mexico Dept. of Health, 2014).
- Approximately 50% (164) of these deaths are from chronic disease, such as cirrhosis of the liver and other liver diseases (New Mexico Dept. of Health, 2014).
- Among Bernalillo County high school students, 19.9% of students reported binge drinking and 9.5% reported drinking and driving (New Mexico Dept. of Health, 2014).
- Thirty-two percent of New Mexico's residents live within Bernalillo County (U.S. Census, 2010); assuming that costs of excessive alcohol use are equally distributed across the state, excessive alcohol use costs Bernalillo County \$600,352,000 annually, and results in an annual lost productivity of \$410,848,000.
- The decrease in alcohol consumption in Bernalillo County would result in:
  - An annual increase in economic productivity of \$41,002,630.
  - A reduction in alcohol dependence and abuse among adults of 3,960 persons.
  - A reduction in binge drinking of 1,498 persons among youth ages 12 – 20.
  - A reduction in alcohol use of 2,288 persons among youth ages 12 – 20.

## **Policy Considerations**

New Mexico is unique in geography and demographics. It is largely a rural state, with two larger population centers, Albuquerque and Las Cruces. It shares its northern border with Colorado and its southern border with Mexico. It is a majority-minority state, with Hispanics in the majority.

New Mexico also has a large Native American population comprised of the Navajo, Pueblo Indian, and other tribes. These unique circumstances result in alcohol-free zones on tribal lands where alcohol cannot be sold; border crossings by youth into Mexico, which has less stringent alcohol laws; and differences in alcohol related mortality dependent on whether an area is predominately Native American or Hispanic.

A 25 cent increase in the alcohol excise tax is a proven tool that can help alleviate New Mexico's alarmingly high alcohol-related death burden. This tool, in combination with other tools, such as culturally appropriate educational outreach and regulations on the density of alcohol outlets in low-income, minority neighborhoods, have been shown to decrease excessive alcohol consumption and alcohol-related mortality and morbidity.

## **Conclusion**

A 25 cent per drink excise tax increase will lead to total state revenues of \$199,260,713; these revenues are particularly important given New Mexico's current economic climate. The proposed excise tax is a proven public health prevention strategy that would make a significant difference in public health in New Mexico, a state having the highest rate of alcohol related deaths in the country. The alcohol excise tax, if enacted, could alleviate untold suffering by preventing 52 deaths and 12,678 cases of injury and illness each year.

The tax will have the least impact on non-excessive drinkers, with an additional annual cost to them of \$9.85. Excessive drinkers will bear the greatest tax burden, with an additional annual cost of \$51.14. The increased excise tax will result in a 10% to 20% price increase on alcohol and a 9.98% reduction in consumption. Due to New Mexico's sheer size and sparse border population centers, this price increase will be unlikely to lead to loss of alcohol sales to neighboring states.

Though a 25 cent per drink increase in alcohol excise taxes may initially sound like a lot, total revenues would only cover 10% of the cost for the harms caused by excessive drinkers. And of most import it would be fair to New Mexicans. Forty-nine percent of New Mexicans do not drink; yet pay \$400 a year in hidden taxes to subsidize the harms caused by the 19% of New Mexicans who drink excessively. The tax increase would introduce a higher-level of fairness into New Mexico's alcohol taxes, increasing the degree to which those who cause these economic and health problems begin to pay for them. In addition, the entire state would benefit

from significantly less underage drinking, alcohol dependence and abuse and related violence, injuries, and death.

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