



The Economic Cost of Alcohol Abuse in Montana

by Patrick M. Barkey

Alcohol is a product that many of us in Montana clearly enjoy. In 2005, we collectively consumed 124.7 million shots of distilled spirits, 33.0 million glasses of wine and 279.6 million 12-ounce cans of beer statewide (National Institute on Alcohol Abuse and Alcoholism, 2008). On a per capita basis, Montana ranks in the top half of states in alcohol consumption, with the 2003 consumption of 435 beers per adult – higher than all but four other states nationwide. Like most states, buying and selling alcoholic drinks is a big business in Montana, employing thousands in production, processing, marketing, distribution, and retailing.

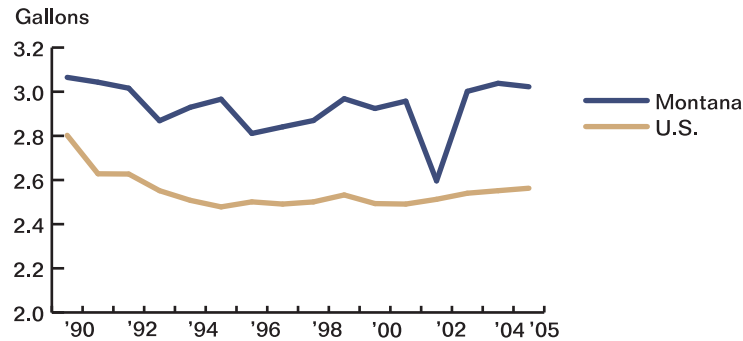
Yet alcohol is not an ordinary good. Its consumption is causally linked to outcomes that none of us enjoy. These include outcomes that affect the drinker – ranging from alcohol-induced illness and premature death to highway crashes due to alcohol impairment and even the impact of heavy drinking on one's ability to earn a living – as well as others who are impacted by a drinker's alcohol-induced behavior. This second category of outcomes is surprisingly broad.

This article summarizes a Bureau study, which found that alcohol abuse costs the Montana economy more than a half billion dollars per year in medical costs, lost wages, and productivity. The study examined the question: What resources would be available to the economy – that could be used on other priorities – if there were no abuse of alcohol? Addressing this question can help inform policymakers who face the difficult task of allocating the scarce funds available for addressing substance abuse problems of all types.

Alcohol: Montana's Drug of Choice

By almost any measure, Montanans consume alcohol at a rate that is above the national average. For certain types of drinking behaviors, Montana ranks among the highest in the nation. The reasons this is so are not fully understood. Climate and geography may play a role – globally the incidence of alcohol-induced conditions such as liver cirrhosis is higher in countries and regions in more northern latitudes. Other factors, such as parental attitudes, ethnic traditions, and the

Figure 1
Alcohol Consumption Per Capita
Gallons of Ethanol per Population
21 and Older



Source: National Institute on Alcohol Abuse and Alcoholism.

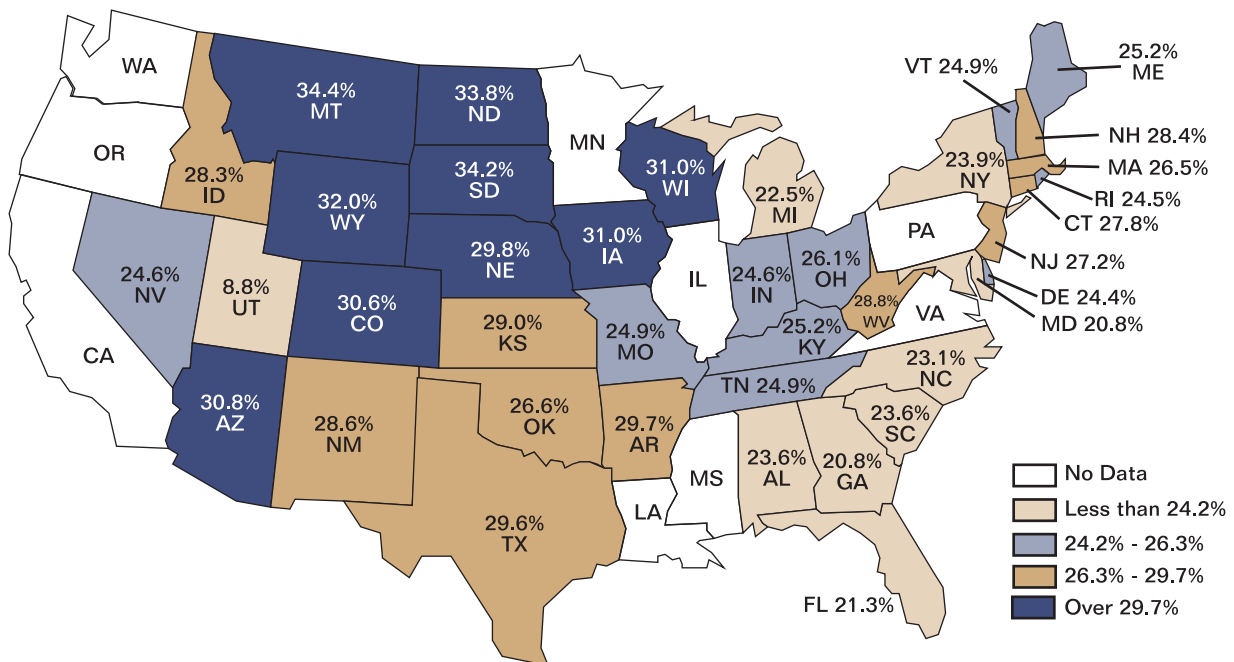
legal environment, also undoubtedly have impacts as well.

Overall consumption of alcohol per person of drinking age in Montana has historically been 15 to 20 percent higher than the national average, as shown in Figure 1. When beer, wine, and spirits consumption are converted to their ethanol alcohol equivalents, the data show that Montanans consumed just over 3 gallons of ethanol per person 21 years and older in

2005, almost 18 percent more than the comparative national figure.

Montana also has a relatively high incidence of underage drinking. According to the Centers for Disease Control's Youth Risk Behavior Surveillance Survey (YRBS), in 2005 more than a third of high school students in Montana experienced a binge drinking episode – consuming five or more

Figure 2
Youth Binge Drinking Percentage by State, 2005



Note: Not all states participated in YRBS.
 Source: Youth Risk Behavior Surveillance (YRBS), 2005.

drinks within a couple of hours – within the last 30 days. As shown in Figure 2, this was a higher percentage than any other state in the country.

The data for individual counties and communities are even more disturbing. Some individual counties in Montana reported that more than half of high school seniors had experienced a binge drinking episode in the last two weeks in 2006, as shown in Figure 3.

These kinds of rankings provide additional motivation for this study. Since Montana’s use of alcohol is high, it stands to reason that the cost imposed on our economic welfare is high as well.

Assessment of Economic Costs

The costs of alcohol abuse can be divided into two broad categories. The first are those that are directly paid out by individuals, businesses, and governments. These include costs paid to support treatment centers that perform detoxification services, those dollars spent imprisoning criminals whose

crimes can be attributed to alcohol abuse, and the money spent on medical treatment for alcohol-related injuries and medical conditions.

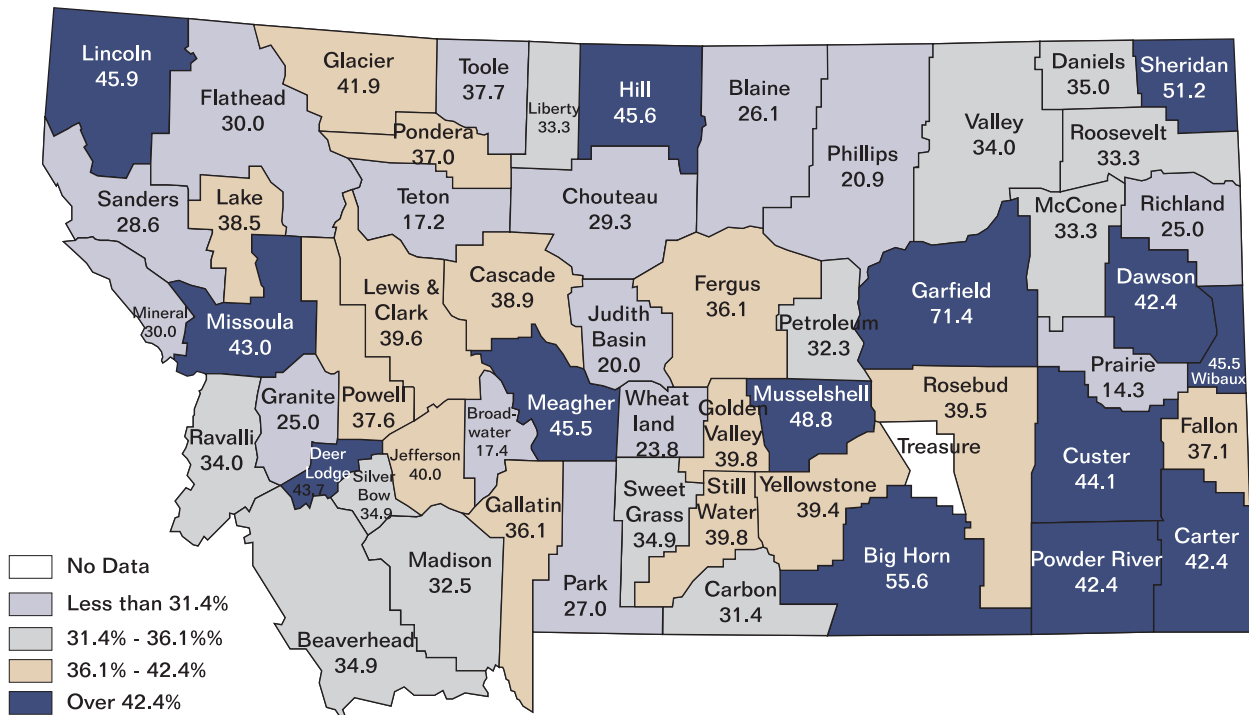
The second category of costs are those which represent foregone benefits. These include the economic contribution that is lost when alcohol abuse results in early retirement or loss of life, as well as the diminished productivity of workers whose physical and mental abilities are impaired by alcohol.

The full study presents a separate analysis for alcohol-induced costs in five areas:

1. Costs of alcohol treatment centers;

There are 46 publicly and privately owned facilities in Montana providing substance abuse treatment that supplied information on their patients to the U.S. Substance Abuse and Mental Health Services Administration. There were 2,399 admissions to treatment facilities related to alcohol alone, and an additional 4,290 admissions for alcohol plus drugs in 2005.

Figure 3
Binge Drinking by County, 12th Grade, Last Two Weeks, 2006



Source: Prevention Needs Assessment (2006); Montana Department of Health and Human Services.

2. Costs of medical care;

There were 7,128 discharges from Montana hospitals recorded in the Association of Montana Health Care Providers COMPdata database in 2005 for diagnoses that were either wholly or partially due to alcohol abuse. Additionally, alcohol abuse is a complicating factor for treatment of non-alcohol induced conditions, increasing hospital costs by an average of 21.5 percent.

3. Costs due to premature mortality;

According to death certificates recorded in Montana in 2005, there were 314 deaths with underlying or contributing cause of death classified as alcohol abuse. Also, 108 people died in alcohol-caused motor vehicle crashes across the state. Apart from the human tragedy, this early death removes from the economy the earning and spending these individuals would otherwise have maintained.

4. Morbidity costs due to alcohol;

It is well known that the consumption of alcohol is associated with impairments that can affect one’s ability to function and earn a living in a number of ways. Alcohol affects the motor skills and decision-making ability of individuals. Heavy drinking can also affect tardiness, absenteeism, and productivity while on the job.

5. Alcohol-related costs for crime and the criminal justice system.

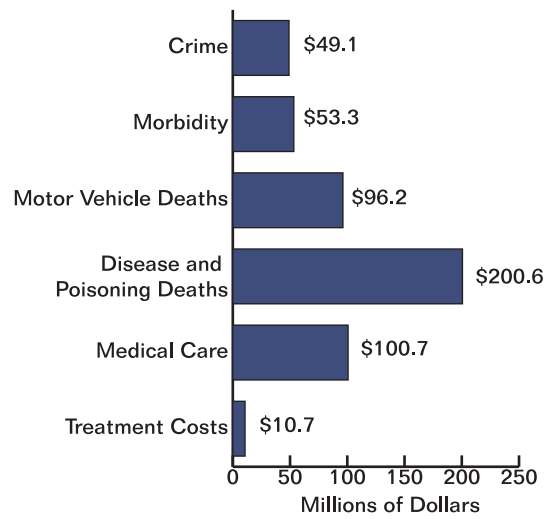
Alcohol and illegal drugs are contributing factors in a substantial amount of criminal activity. Crime that is causally linked to alcohol use imposes costs for law enforcement, courts, and incarceration, as well as personal and property damage.

These represent five different areas where data are available to construct an estimate of costs for the state. They do not exhaust all of the ways in which alcohol abuse impacts our economic welfare. Estimates of economic loss due to alcohol-caused fires, accidents caused by excessive drinking, or the costs presented when families are impacted by alcohol abuse are not included in the study because data were not as readily available.

Results

The research clearly indicates that alcohol abuse imposes a significant cost on all of us in the state of Montana. Totaling the costs shown by category in Figure 4, we estimate that Montanans collectively spend \$510.6 million, or about 1.7 percent of the total state economy as measured by GDP, dealing with the consequences of alcohol consumption.

Figure 4
The Economic Cost of
Alcohol Abuse in Montana



Source: Bureau of Business and Economic Research, The University of Montana.



Not all of these costs are direct spending, although dollars paid for medical care, substance abuse treatment and operations of the criminal justice system are significant. The single largest contributor to costs are the imputed costs of early death caused by alcohol, totalling almost \$300 million in 2005. This reflects the younger age of those who die from alcohol causes, either from medical conditions or in motor vehicle crashes. In 2005, the average age of death from all causes was 73.6 years, whereas the average age for those dying from alcohol-induced conditions was 50.3 years.

One final point should be made. The cost of alcohol abuse to the state economy goes on year after year. With no intervention to bring these costs under control, we can expect to pay a tax – in the form of a smaller economic pie than we would otherwise enjoy – of a half a billion dollars each year that our collective drinking behaviors produce outcomes like those reported in this study. □

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