

Issue Background



BEER INSTITUTE

Beer Tax Facts

The economic and societal impacts
of state and federal taxes on beer

One in a series of occasional reports for government
officials, journalists and other opinion leaders.

Economic Impact of the U. S. Beer Industry

- Directly employs more than 940,000 people in brewing, wholesaling, and retailing.
- Creates hundreds of thousands of additional jobs in agriculture, business services, travel and entertainment, packaging, and many other sectors.
- In all, the industry makes an important contribution to our national economy, generating nearly 1.7 million American jobs, with an economic output estimated at \$190 billion annually.

Beer. That word conjures up many pleasant images ... hot days and ball games ... a tall, cold one at the end of a hard day's work ... good times ... good friends.

What doesn't come to mind for most beer drinkers – but perhaps should – is TAX. Because in the process of enjoying the simple pleasure of beer, consumers are also making a very large hidden tax payment to their state and federal governments. Surprisingly, *taxes are the single most expensive ingredient in beer, costing more than the labor and raw materials combined.*

A detailed economic analysis (Global Insight / Parthenon Group, 2005) found that if all the taxes levied on the production, distribution and retailing of beer are added up, they amount to more than 40% of the retail price! Most consumers would be shocked to learn how much they ultimately pay in taxes on their beverage of choice.

In the study year, taxes on beer amounted to \$31.9 billion. Even in an era of enormous government budgets, that's a lot of money coming from beer drinkers' pockets! The total includes all of the taxes imposed on beer -- not only the sales and excise taxes, but also state and federal income taxes, payroll taxes and other taxes. All told, when people buy beer, the tax burden is nearly 70% higher than for the average purchase made in the U.S.

This Backgrounder looks at some of the real world impacts of these taxes and considers what happens when beer taxes are increased or reduced. The effects are quite wide-ranging, with the potential to touch many lives in many different ways.

Beer taxes get an “F” in fairness

When it comes to taxes, a basic fairness principle is that people of like ability to pay should pay like amounts in taxes. *Regressive* taxes fail on this count. Instead of taxing equitably, they place a much heavier burden on low- and middle-income taxpayers than on the rich.

Beer taxes score a solid “F” in terms of tax regressivity. That's because many more beer drinkers are working men and women with modest incomes rather than wealthy people.

A recent analysis by the Beer Institute found that households earning less than \$50,000 per year pay half of all beer taxes, while accounting for less than one-fourth of all income earned in the U.S. This same study found that beer taxes are actually 6.5 *times higher* as a percent of

income for lower-income households (those earning less than \$20,000 per year) compared to higher-income households (earning \$70,000+ per year). As a result, the tax on beer is one of the most regressive of all taxes in the federal and states' tax codes (Chamberlain and Prante, 2007; Beer Institute, 2008).

The effect of beer taxes on overall tax fairness is simple: *Increasing beer taxes makes the tax system more regressive; cutting beer taxes makes the system more fair.*

If all the taxes levied on the production, distribution and retailing of beer are added up, they amount to more than 40% of the retail price.

Roll back that “luxury” tax

On January 1, 1991, the federal government doubled the beer tax from \$9.00 to \$18.00 per barrel, as part of a budget-balancing effort.

This was the largest single increase in the federal tax on beer in American history, and resulted in an estimated 60,000 people losing their jobs in brewing, distributing, retailing and related industries, according to estimates by the economic firm of DRI/McGraw-Hill (1993).

As part of the same budget package, and justified as an effort to be even-handed, Congress also raised taxes on some of the luxury toys of the very rich – top-of-the-line automobiles, yachts, private airplanes, expensive furs and high-end jewelry.

Less than a year later, however, Congress yielded to pressure and repealed or phased out the tax on every one of those luxury items. But not the tax on beer! While federal excise taxes collected from wealthy Americans were eliminated, working Americans continue to pay the doubled federal beer tax, at the rate of \$70 million a week, plus an additional \$150 million per week in state sales and excise taxes on beer.

As a basic matter of fairness, the time is long overdue to roll back the beer tax to its pre-1991 level. There is strong historical precedent for a rollback, since on four other occasions the federal beer tax was rolled back, after increases to pay for extraordinary war costs. Today, a rollback would correct a serious inequity, and at the same time could restore an estimated 50,000 jobs to the U.S. economy (DRI/McGraw-Hill, 1996).

The case for tax efficiency

No one – rich or poor – wants to pay more than necessary to support the functions of government. That’s why it is important to understand that beer tax increases are very *inefficient* as revenue-raisers.

This inefficiency comes from two major sources. First, the excise tax on beer is levied, by law, at the brewery and becomes an indistinguishable part of the product cost as it moves

through the distribution system. Like other costs, it is marked up by wholesalers and retailers. It is also included in the price used to compute state and local sales taxes, thus causing consumers to pay a tax on a tax.

As a result, beer drinkers actually end up paying about \$2.00 out-of-pocket for each \$1.00 of tax levied by government (Young and Bielinska-Kwapisz, 2002).

Second, because beer taxes are narrowly-based, dollar for dollar they inflict more economic damage than broad-based taxes. A 2002 study by DRI-WEFA and The Parthenon Group compared the economic impact of a nationwide 1% increase in state income taxes compared to an equal increase in sales and excise taxes. They found that the broad-based taxes did far less harm, resulting in less than half the losses in GDP, employment and consumer confidence. This suggests that if taxes *must* be raised, it is best to do so through broad-based taxes.

On the other hand, cutting back on excise taxes could be an extremely *efficient* way to provide lower and middle-class tax relief. When beer taxes are cut, new jobs are created, which

The effect of beer taxes on overall tax fairness is simple: increasing beer taxes makes the tax system more regressive; cutting beer taxes makes it more fair.

increases income taxes and related revenues for the government. PricewaterhouseCoopers estimates that because of these dynamic impacts, every dollar reduction in beer taxes would cost the government only about 65 cents. A full repeal of the doubling of the federal beer tax in 1991 would reduce net revenues by only about \$1 billion annually, while helping low- and middle-income workers.

Beer taxes & “social cost”

There are broader questions about the impact of beer taxes on American society. Some advocacy organizations suggest that regardless of their negative impacts on the American economy, beer taxes should be raised even higher in order to pay for the problems caused by abusive drinkers.

The suggestion is that individuals who abuse alcohol create a “social cost” which has been estimated to be anywhere from \$12 billion annually (Heien and Pittman, 1989, 1993) to \$185 billion (Harwood, 2000). Given their extremely wide range, these “social cost” estimates are subject to many criticisms, not the least of which is their complete failure to consider any *benefits* from alcohol beverages.

As an analysis by the National Conference of State Legislatures *Tax Policy Handbook* notes, “there is no agreed upon methodology for social cost accounting, nor any movement to apply social cost tax adjustments consistently for products thought to have social costs” (NCSL, 2003). As a result, a number of scholars have suggested these

social cost studies have little or no policy relevance. Too often they are simply tools to help make a political claim or to justify a tax increase.

But there is an even more basic problem with the entire “social cost” argument. At heart, it suggests that some people’s taxes should be raised because they make *personal* choices which are a cost to “society,” primarily in the form of lost productivity and lost quality of life. This idea, however, that politicians should use taxes to manipulate private choices doesn’t sit very well with most people. It runs directly counter to basic democratic and free market principles.

If we tax all beer drinkers to pay for the alleged “social cost” created by some problem drinkers (who are a very small minority of those who consume alcohol), will we next start taxing downhill skiers because some people ski out of control and cause accidents? Should the government start mailing out speeding tickets to *all* drivers because *some* people exceed the speed limit, or to impose a tax on those who do not get enough exercise?

Ridiculous exaggeration? A number of activist groups have recently campaigned for new excise taxes to be levied on soft drinks, butter, potato chips, whole milk, cheeses, meat and other foods to reduce their consumption, and to generate new revenues earmarked to fund government-sponsored fitness campaigns (CSPI, 2000).

Unfortunately, some alcohol abusers *do* inflict costs on others. But that does not justify taxing *all* drinkers for the abuses of the few. Such an approach is not consistent with the way our society goes about solving problems or helping people, and should be rejected by our nation’s policymakers.

The “social cost” argument as a basis for higher beer taxes is logically equivalent to mailing out speeding tickets to all drivers because some people exceed the speed limit.

A way to reduce alcohol abuse?

One variation of the social cost argument is that beer taxes can have a beneficial impact on problem drinking and should be used to discourage alcohol abuse. Raising alcohol taxes is sometimes promoted as a way for government to force people to cut back on their drinking.

The problem is, life is just not that simple. In this area, the scientific studies confirm precisely what we all know from common sense: *people can't be taxed into responsible behavior*. Abusive drinkers are the very last people who will reduce their consumption when the price of alcohol goes up.

Several recent studies clearly show that while light and moderate drinkers are sensitive to price, that's not true for the heaviest drinkers. For example, Manning et al. (1995) utilized data from the National Health Interview Survey to analyze drinking patterns among light, moderate and heavy drinkers. The researchers found that the heaviest drinkers had no "price elasticity" – their level of consumption was not influenced by the price of alcohol.¹ On the other hand, the moderate drinkers in the study were most sensitive to prices, cutting back most when prices rose.

The U.S. Supreme Court has noted this behavioral pattern, finding that "... the evidence suggests that the abusive drinker will probably not be deterred by a marginal price increase, and

that the true alcoholic may simply reduce his purchases of other necessities" (*44 Liquormart, Inc. v. Rhode Island*, 116 S. Ct. 1495 (1996)). The evidence clearly shows that higher beer taxes discourage purchases by responsible drinkers but have no impact on alcohol abusers.

Alcohol abuse is a complex problem which deserves a meaningful response. Programs and policies designed to reduce abuse must directly target individuals who have problems with alcohol, and offer them assistance that can be reasonably expected to make a difference. Beer taxes just don't fall into that category.

Abusive drinkers are the very last people who will reduce their consumption when the price of alcohol goes up.

What about drunk driving?

The "tax them into responsibility" rationale is also used by some groups who lobby for higher beer taxes as a way to reduce drunk driving. Here again, the basic idea is that by raising the price, beer sales will fall, and in the process this will lead to less drunk driving on the nation's roadways.

Some early studies of the relationship between beer taxes and drunk driving suggested that higher taxes reduce traffic fatalities (see for example Cook, 1981; Saffer and Grossman, 1987; Chaloupka, 1993). More recently, at least five different studies that utilize longer time series and more current data (including the doubling of the federal beer tax in 1991) consistently find no impact from beer taxes on reducing drunk driving by adults and/or teens

¹Economists consider beer to be relatively price inelastic compared to other products. On average, a 10 percent increase in price will result in a 5 percent decrease in sales – but the response is much greater than this for light and moderate drinkers, and much less than this for problem drinkers, whose response is so small it has been found to be not statistically significant. See Manning et al., 1995.

(see Sloan et al., 1994; Dee, 1999; Mast, et al., 1999; Stout, 2000; Young & Likens, 2000).

One likely reason that these recent studies find no impact for beer taxes is that their effect has dissipated over time. During the 1980s, grassroots movements such as MADD and SADD developed extensive media campaigns to educate people about the consequences of drunk driving and successfully lobbied for stiffer penalties for drunk driving offenders. People responded, and today there is much less drunk driving than in the 1980s (total drunk driving fatalities are down 36% since 1982, while teen drunk driving fatalities are down 63%). Any possible impact from beer taxes on drunk driving, if it ever existed, must have been significantly reduced or eliminated (see Ponicki, et al. 2007 for a detailed discussion.)

In addition, the newer studies by Mast, Dee, and Young and Likens – argue that earlier analyses failed to use appropriate statistical techniques and controls. The most recent studies typically use much more comprehensive data sets along with more powerful statistical techniques to sort out the effect of taxes versus other possible explanatory variables. And in doing so, they find that beer taxes have no explanatory power in predicting changes in drunk driving rates, across states and over time.

Powerful econometric techniques aside, simply looking at what *actually happened* following the 1991 beer tax increase is highly informative. As shown in the accompanying graphic, according to the U.S. Department of Transportation's National Highway Traffic Safety Administration, for more than a decade the drunk driving fatality rate has steadily declined. If higher beer taxes could truly save hundreds of additional lives each year, the

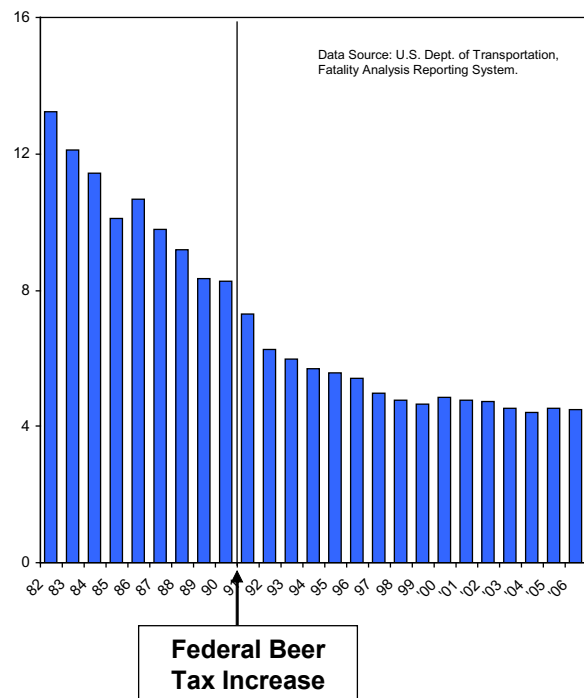
drunk driving trend should have exhibited a steeper decline in 1991 and beyond than it did in the years preceding the federal beer tax hike.

It didn't happen. In fact, the long-term decline in drunk driving simply continued its steady downward pace.

Beer taxes are not the answer to drunk driving. Instead, the evidence clearly points to a small group of hard core drivers who repeatedly drive while very intoxicated. These are individuals who are often repeat offenders, who stubbornly refuse to obey the law, often driving on suspended licenses and are responsible for a very large portion of the drunk driving fatalities which occur each year.

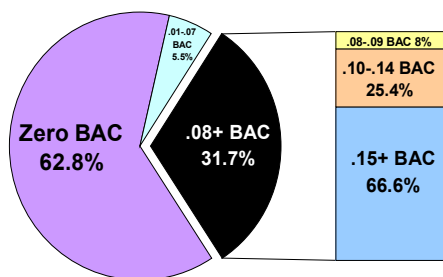
A study by the Traffic Injury Research Foundation (Simpson, et al., 1996) clearly exposes the magnitude of the drunk driving problem caused by these drivers. The report shows that on a typical weekend night, "hard

Fatalities Involving a Drunk Driver (.08+ BAC) per Billion Vehicle Miles Traveled, 1982-2006²



²The graphic shows the actual number of auto fatalities in crashes involving a drunk (BAC .08% or higher) driver from 1982-2006, adjusted for how much driving occurred each year (billions of vehicle miles traveled). It is important to make this adjustment, since in years when there is a high level of driving there are more fatalities, and in years of less driving, fatalities decline – but these swings have nothing to do with the degree to which people are driving while intoxicated.

2006 Fatalities in Motor Vehicle Crashes, by Driver BAC



The average BAC among drunk drivers involved in fatal crashes was 0.18 in 2006.

Source: Department of Transportation, National Highway Traffic Safety Administration, Fatal Alcohol Reporting System for 2006.

core” drinking drivers make up 1% of the traffic on the road, but contribute to approximately 50% of all the traffic fatalities that occur.

Data from the U.S. Department of Transportation show that the average blood alcohol concentration (BAC) among drivers involved in fatal crashes in 2006 was 0.18 – BAC level that is more twice the 0.08 legal limit in all states.

These are not people who can be taxed into responsibility. Instead, serious and *targeted* policies are required – programs which provide appropriate professional assistance, as well as countermeasures such as ignition interlocks, vehicle confiscation and mandatory jail time.

The special challenge of underage drinking

Some advocates claim that beer taxes are a weapon in the fight against underage drinking. Their theory is that teens do not have as much discretionary income as adults, so they should be more sensitive to changes in beer prices than adult drinkers.³ “Raise the beer tax and there will be less underage drinking,” so the theory goes.

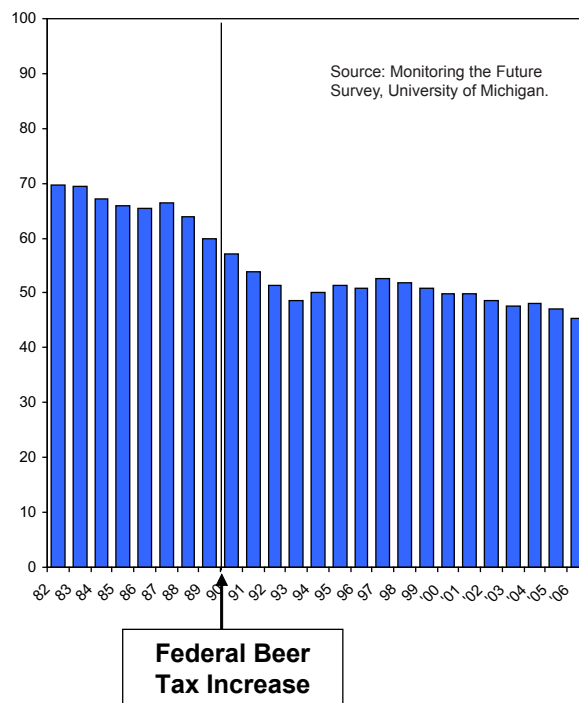
³In fact, it is not true that teens have little discretionary income and base their purchasing decisions heavily on price. A recent article in *American Demographics*, notes that teens spent nearly \$63 billion of their own money in 1994, and that since almost all of their income is discretionary, teens are much less motivated by price than other purchasing considerations. See Zollo, 1995.

This misses the fact that teenagers, unlike adult consumers, must actually *break the law* when they attempt to buy a beer. In many states, teens who are caught risk steep penalties which, depending on the circumstances, can even include the loss of one of their most prized possessions ... their driver’s license.

If underage drinkers are willing to break the law and take these kinds of risks just to buy a beer, it is extremely unlikely that beer taxes can be used as a way to curtail their delinquent behavior. Further, most teens who drink do not directly *purchase* alcohol, but obtain it from their parents’ home supplies or from other noncommercial sources such as parties, older siblings and friends (Wagenaar, 1996). Thus, it becomes clear that teens’ decisions about drinking are quite removed from shelf prices.

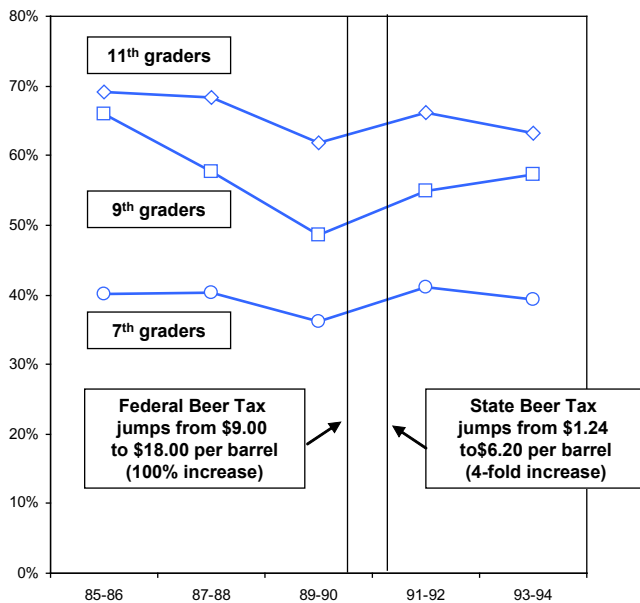
This is readily seen in the real world data on teen drinking. Consider, for example, the

Percentage of High School Seniors Who Report Any Drinking in the Past 30 Days, 1982-2006



Source: Monitoring the Future Survey, University of Michigan.

California: Underage Beer Consumption Increased After Federal and State Beer Tax Hikes in 1991



Source: California Department of Health Services. *Fifth Biennial Statewide Survey of Drug and Alcohol Use Among California Students in Grades 7, 9, and 11*. Appendix A. August, 1996. Shown: Any consumption in past 6 months.

federally-funded *Monitoring the Future* survey, a major national poll of high school students that includes several questions about drinking. The trends in teen drinking behavior measured by this survey clearly show that there was no impact from the federal excise tax in 1991. As the accompanying graphic illustrates, the level of past 30-day drinking by high school seniors continued its steady decline in 1991, 1992, 1993 and 1994 – completely unaffected by the federal tax increase.

What occurred among California's teens over that same time period is also telling. Not only was the federal beer tax doubled in 1991, but in that same year California lawmakers increased the state's beer tax from \$1.24 to \$6.20 per barrel, a four-fold increase. Yet despite these simultaneous tax hikes, teen drinking actually *increased*. According to data from an ongoing survey conducted by the California

Department of Education, drinking among all of the age groups surveyed (7th, 9th, and 11th graders) was *higher* following the tax hikes than in the two-year period that preceded it. See the accompanying graph for details.

These real world examples strongly rebut the claim that raising beer taxes will reduce teen drinking. So do rigorous statistical analyses. For example, a comprehensive study published in the prestigious *Journal of Public Economics* examined data representing the responses of 255,560 high school seniors over a 15 year period (Dee, 1999). The conclusion: No statistically significant relationship was found between beer taxes and three different measures of drinking by high school-aged youth – any drinking, “moderate” drinking, and “binge” drinking. The hypothesized impact of beer taxes simply wasn't there.

“Beer taxes have a relatively small and statistically insignificant impact on teen drinking.”

– Thomas Dee
Journal of Public Economics

Beer taxes & public health

While the problems of alcohol abuse, drunk driving and underage drinking warrant special concern, no discussion of the societal impacts of beer taxes would be complete without considering their potential adverse impacts on *responsible* drinkers.

A growing body of scientific literature consistently finds that moderate levels of alcohol consumption can actually produce certain health benefits for some adults. These benefits primarily occur in the form of reduced risk of coronary heart disease, the nation's number one killer.

The irony is that higher beer taxes target precisely the wrong drinkers. They don't turn abusers into moderate drinkers. But they can force moderate drinkers to consume less. This means that higher beer taxes may reduce the health benefits that some adults receive from moderate consumption, while doing nothing to reduce alcohol abuse.

The numbers here are significant. Based on a review of the scientific literature on the health benefits of moderate drinking, the *Journal of the American Medical Association* has noted that more than 80,000 lives would be lost each year if light and moderate drinkers were forced into becoming abstainers (Pearson, 1994). From a public health perspective, then, higher taxes on beer, which comprises nearly 60% of all the alcohol consumed in the United States, raise serious policy concerns.

So, why beer taxes?

Historically, beer taxes have been levied to pay for the enormous cost incurred in fighting wars. Beer taxes began in this nation to help pay for the Civil War. And prior to the doubling in 1991, beer taxes were last raised to help pay for the Korean War. Unfortunately, these taxes have a tendency to take on a life of their own, even after the national emergency is long past.

Many policymakers have come to recognize, however, that excise taxes of any kind are an antiquated way to levy taxes. As recently as 1900, 50 percent of federal revenues were collected via excise taxes. By 1950, that share had shrunk to 19 percent. And with the elimination of many taxes on luxury goods imposed in 1991 and the recent rollback of the federal excise taxes on telephone service, the share of the federal budget represented by excise taxes now stands at well about 3 percent. But there are those who keep pressing for higher excise taxes on beer.

It's time to stop thinking of beer excise taxes as simple, painless solutions to budgetary problems or as a way to deal with alcohol abuse. In the real world, beer taxes are:

- Regressive and destructive – eliminating jobs, hurting working men and women.
- Inefficient and fiscally unwise – costing taxpayers much more than they raise in new revenues.
- Unfair and divisive – tagging one group of consumers to pay for government services that benefit all.
- Ineffective – failing to have any real impact on alcohol abuse.

Sound tax policy clearly dictates that these taxes be reconsidered as we strive to make the tax system fairer and more efficient. It is time to consider phasing out beer taxes in the interest of a tax policy that makes sense in the 21st century, and beyond.

References

- Barsby & Associates, Inc. 1991. *Economic Contributions of the Alcohol Beverage Industry, 1990*. A study conducted for the Beer Institute, Washington, D.C., June 1991.
- Beer Institute. 2008. Beer Tax Regressivity Analysis. <http://www.BeerInstitute.org>.
- Center for Science in the Public Interest, 2000. Tax junk foods. *Nutrition Action Health Letter*, December, 2000.
- Chaloupka, Frank J., et al. 1993. Alcohol control-policies and motor-vehicle fatalities. *Journal of Legal Studies*, Vol. 22.
- Chamberlain, Andrew and Gerald Prante. 2007. Who pays taxes and who receives government spending? An analysis of federal, state and local tax and spending distributions, 1991-2004. Tax Foundation Working Paper No. 1. March 2007
- Dee, Thomas S. 1999. State alcohol policies, teen drinking and traffic fatalities. *Journal of Public Economics*, 72:289-315.
- DRI/McGraw-Hill. 1993. Macroeconomic impacts of higher federal excise taxes on beer. May, 1993.
- DRI/McGraw-Hill. 1996. The macroeconomic implications of a \$9 decrease in the federal beer tax. March 8, 1996.
- DRI-WEFA and The Parthenon Group. 2002. State Revenue Prospects & Strategies.
- Global Insight, Inc. and the Parthenon Group. 2005. The Tax Burden on the Brewing Industry.
- Harwood, H., et al. 2000. *Updating Estimates of the Economic Costs of Alcohol Abuse in the United States: Estimates, Update Methods and Data*. Report to the National Institutes of Alcohol Abuse and Alcoholism.
- Heien, Dale and David J. Pittman. 1989. The economic costs of alcohol abuse: An assessment of current methods and estimates. *Journal of Studies on Alcohol*, 50(6):567-579.
- Heien, Dale and David J. Pittman. 1993. The external costs of alcohol abuse. *Journal of Studies on Alcohol*, 54(3):302-307.
- Horgen, K. and K. Brownell. 1998. Policy change as a means for reducing the prevalence and impact of alcoholism, smoking and obesity, in *Treating Addictive Behaviors*, Second Edition. Plenum Press.
- Keeler, E. B., et al. 1989. The external costs of a sedentary lifestyle. *American Journal of Public Health*, 79(8):975-81.
- Manning, Willard G., et al. 1995. The demand for alcohol: The differential response to price. 1995. *Journal of Health Economics*, 14:123-148.
- Mast, Brent D. et al. 1999. Beer taxation and alcohol related traffic fatalities. *Southern Economic Journal*. 66(2):214-249.
- National Conference of State Legislatures. 2003. *Tax Policy Handbook for State Legislators*, Second Edition.
- Pearson, Thomas A. and Paul Terry. 1994. What to advise patients about drinking alcohol: The clinician's conundrum. *Journal of the American Medical Association*, 272(12):967-968.
- Ponicki, William R., et al. 2007. Joint Impacts of Minimum Legal Drinking Age and Beer Taxes on U.S. Youth Traffic Fatalities, 1975 to 2001. *Alcoholism: Clinical Experimental Research*, 31:5, 804-813.
- Simpson, Herb M. and D. R. Mayhew, 1991. *The Hard Core Drinking Driver*, Traffic Injury Research Foundation, Ottawa, Canada.
- Simpson, Herb M. et al., 1996. *Dealing With the Hard Core Drinking Driver*, Traffic Injury Research Foundation, Ottawa, Canada.
- Single, E., et al. 1995. *The Costs of Substance Abuse in Canada*. Canadian Centre on Substance Abuse.
- Sloan, Frank A., Reilly, Bridget A., Schenzler, Cristoph M. 1994. Tort Liability versus Other Approaches for Detering Careless Driving. *International Review of Law and Economics*, 14: 53-71.
- Standard & Poor's DRI. 2001. The tax burden on America's beer drinkers. January 17, 2001.
- Stout, E. et al. 2000. Reducing harmful alcohol-related behaviors: effective regulatory methods. *Journal of Studies on Alcohol*. 61:402-412.
- Wagenaar, Alexander C. 1996. Sources of alcohol for underage drinkers. *Journal of Studies on Alcohol*, 57(3):325-333.
- Young, D.J. & Bielinska-Kwapisz, A. (2002). Alcohol Taxes and Beverage Prices. *National Tax Journal*. LV(1):57-74.
- Young, Douglas J. and Thomas W. Likens. 2000. Alcohol regulation and auto fatalities. *International Review of Law and Economics*. 20:107-126.
- Zollo, Peter. 1995. Talking to teens. *American Demographics*, November, 1995, pages 22-39.

For more information on issues facing the brewing industry, please
call the Beer Institute at 202-737-2337 or 1-800-379-BREW
Or visit our website at www.beerinstitute.org.