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## A Free Lunch

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## Abstract

Federal and state excise taxes on alcoholic beverages have declined sharply in real value over the last 50 years. The result is cheaper alcohol, more alcohol abuse, and more alcohol-related problems of all sorts than would otherwise have occurred. Frequently voiced concerns that such taxes are regressive, or that they penalize the majority who drink moderately and safely, are off base. An increase in the federal alcohol taxes could provide almost everyone but the heaviest drinkers with a net financial gain even if there were no behavioral effects; the evidence that there are behavioral effects that improve health and safety is an important bonus. In a sense, alcohol taxes are the proverbial free lunch.

**KEYWORDS:** alcohol, tax

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Alcohol abuse is a multifaceted problem, requiring a diverse portfolio of programs and policies. Adolescent drinking, alcoholism, driving under the influence, alcohol-enabled domestic violence and child neglect, public drunkenness, hooliganism at sports events – to some extent these problems require distinct, tailored policy responses. But there is one policy instrument that is helpful in all these domains: alcohol prices. With higher prices come reduced rates of alcohol abuse and improvements in public health and safety.

Government influences alcohol prices in a variety of ways, but most comprehensively through alcohol excise taxes. Congress and the state legislatures have allowed alcohol excise tax rates to decline greatly in real value since the Korean War – the rates are almost always set in nominal terms, as so many pennies per volume unit, and so are eroded by inflation if not adjusted by law. Fifty years ago, the federal tax on liquor was almost six times as high as it is now (in inflation-adjusted dollars), and the tax on beer was 3.6 times as high, as general inflation has swamped the handful of legislated changes (most recently in 1990 at the federal level). The result is cheaper alcohol, more alcohol abuse, and more alcohol-related problems of all sorts than would otherwise have occurred.

Frequently voiced concerns that such taxes are regressive, or that they penalize the majority who drink moderately and safely, are off base. An increase in the federal alcohol taxes could make almost everyone but the heaviest drinkers better off even if there were no beneficial behavioral effects; the evidence that there *are* behavioral effects that improve health and safety is an important bonus.

The informal motto of the economics discipline is that “there’s no such thing as a free lunch.” The “free lunch” became notorious during the pre-Prohibition era when saloons enticed the working man with this offer, knowing that once inside he would order drinks (which definitely were not free). Ironically, alcohol excise taxes are as close to being genuinely “free” as exists in the array of alcohol policies.

### **The Evidence on Behavioral Effects**

The scientific evidence demonstrating that prices (and hence tax rates) have a direct causal effect on abuse levels is strong enough to support a near-consensus among economists who study health behavior (Cook 2007). It is probably fair to say that this evidence base has not yet become part of the conventional wisdom, which remains under the influence of false lessons from national Prohibition. While that “Great Experiment” was a failure politically (being repealed in 1933 with as much enthusiasm as greeted its enactment in 1919), it did have the effect of greatly increasing (bootleg) alcohol prices, and by a number of measures curtailed alcohol-related problems (Warburton 1932; Dills and Miron 2004). At

the time of Repeal the state legislatures and Congress had not given up on supply-side measures, but rather instituted comprehensive alcohol control and taxation.

The states were offered guidance in this new venture by an excellent policy analysis authored by Raymond Fosdick and Albert Scott (1933), titled *Toward Liquor Control*. The authors described what they saw as best practices in other countries, while endorsing a scientific approach, as suggested by this statement: “Indeed, the forty-eight states will constitute a social science laboratory in which different ideas and methods can be tested, and the exchange of experience will be infinitely valuable for the future (p. 150).” In fact the potential for variation in state policies to provide evidence on efficacy was not realized until five decades later, when I and other researchers began a systematic analysis of this evidence base using modern statistical methods (Cook 1981; Cook and Tauchen 1982). The evidence that has accumulated over the last quarter century from such studies is strong and quite consistent in showing that tax increases result in price increases, and that price increases result in reductions in abuse and in a wide variety of negative consequences, ranging from highway fatalities to liver cirrhosis (Grossman et al., 1994; Cook and Moore 2002; Babor et al. 2003). One consistent set of estimates suggests that an increase in a state’s alcohol excise tax by 10 cents per ounce of ethanol (the amount contained in two standard drinks) would reduce sales of ethanol by 12 percent while reducing injury and liver-cirrhosis mortality rates; for example, the motor vehicle fatality rate would fall by 7 percent or so (Cook 2007 104-5).

Of course prices are by no means the only influence on drinking patterns, or the most important –the age structure of the population, the business cycle, religiosity, and numerous other factors are also important. The focus on excise tax rates is justified simply because taxes, unlike these other factors, are under the direct control of the government, and can in principle at least be fine-tuned to fit the need.

### **Who Pays?**

Perhaps the most telling argument against using excise taxation to curtail alcohol abuse is that it is poorly focused. This approach can be viewed as an unfair penalty on moderate drinkers, who do little harm, for the sake of limiting the consumption of heavier drinkers, who do cause trouble. Intuitively it may seem more efficient to adopt focused interventions, such as strict penalties for drunk driving, criminal violence, and child abuse, counseling for pregnant women, employee-assistance plans for those who drink on the job, tough enforcement of the minimum-age laws to reduce adolescent drinking, and so forth.

In response, it should first be noted that all of these interventions *also* penalize moderate drinkers (and everyone else), since they are costly to

implement. And a moment's consideration suggests that alcohol taxes, unlike these other measures, will actually benefit moderate drinkers financially, assuming that the extra tax revenue allows other tax rates to be reduced (or beneficial public programs to be created or expanded).

Suppose, for example, that the federal government raises all alcohol excises by the equivalent of about 10 cents per drink (where a "drink" is defined as a shot of liquor, a 12-ounce bottle of beer, or a 5-ounce glass of wine, all of which have approximately the same alcohol content).<sup>1</sup> Total sales in the United States are about 600 drinks per adult per year, so the average tax payment (if there is no reduction in drinking) would be \$60. But it turns out that relatively few Americans would pay that much. The 35 percent of adults who abstain would pay nothing at all; among the remaining 65 percent, few drink anything like this average. Drinking, like other consumption activities, tends to be very concentrated. The famous Pareto or 80-20 rule of marketing science (Pareto 1896) fits the data quite well, so that the top 20 percent of drinkers (13% of the entire adult population) consume 80 percent of all drinks in a year – and hence would pay 80 percent of the tax. While it is hard to judge precisely, the data suggest that only 7 or 8 percent of the adults drink more than 600 drinks per year.

So imagine that revenue from the tax increase were distributed fairly uniformly among the adult population, perhaps by reducing the payroll tax a bit and increasing Social Security payments. The result would be that all but the very heaviest drinkers would come out financially ahead by this transaction. That suggests that this tax is much better targeted than one might imagine. Those relative few who are net payers are those who are drinking so much that we would not consider their drinking "moderate."

Notice that this calculation only considers the potential distributional consequences resulting from gathering and distributing the tax increase. Since the tax would have the added benefit of reducing alcohol abuse, the public at large would also benefit from increased safety, lower insurance rates, and general improvements in the public health.

In practice the main impetus behind legislative proposals to increase alcohol excise taxes has been to raise general revenues for government programs, rather than to curtail alcohol abuse and improve the public health. (Indeed, the first inland revenue measure of the first Congress was a whiskey tax intended to help service the debt left over from the Revolutionary War, and alcohol excises have figured prominently in war funding up through the Korean War.) In recent years, grassroots initiatives to raise alcohol taxes have continued the focus on revenues, although often specifying that the revenues should be earmarked for one or more programs designed to prevent or respond to the consequences of alcohol

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<sup>1</sup> This proposed increase would almost double the current federal rate on liquor, and increase the rates on beer and wine by somewhat larger multiples.

abuse. Opinion polls find strong public support for raising taxes *if* the revenues are earmarked in this fashion.<sup>2</sup>

We can only speculate on why alcohol tax measures have been shunned by legislators in recent decades. This political failure stands in sharp contrast to the success of tobacco taxes since the Master Settlement Agreement in 1998: between 1998 and 2008, the federal excise tax per pack was increased from \$.24 to \$.39, while 41 states increased their excise tax rates by more than \$.25 -- 11 of them by more than \$1.00! The public health and economic arguments for increasing alcohol taxes are as strong or stronger than for increasing tobacco taxes, but the political calculus is apparently something else.

### **Concluding Thoughts**

Alcohol is our leading drug problem, and all the available policy instruments should be used to address the variety of problems that alcohol abuse causes. One key element of the policy portfolio -- price -- has been largely neglected. The prices of alcoholic beverages matter across the board for alcohol-related problems, and they can be readily manipulated by adjusting the federal and state excise tax rates. The evidence accumulated over the last quarter century of research on this topic makes a strong case that higher prices would encourage voluntary self-control and enhance our overall standard of living directly. Even on a strict financial accounting most people could come out ahead if the added tax revenues were used in place of tax increases in labor or other broad-based taxes. This is as close to a free lunch as is likely to be on offer anywhere in the market for drug abuse control policies.

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<sup>2</sup> For example, the MADD/CSPI Nationally Representative Poll conducted by Penn, Schoen, Berland & Associates, Inc. July and August 2002, and cited in [http://www.cspinet.org/booze/taxguide/FedBeerTax\\_T\\_P.htm](http://www.cspinet.org/booze/taxguide/FedBeerTax_T_P.htm) (accessed June 5, 2008). It should be said that the public opinion on this matter is subject to manipulation, as demonstrated by the defeat of an initiative to increase alcohol excise tax rates by a nickel a drink in California, 1989; favorable public opinion was undercut by the alcohol industry's media campaign prior to the election (Reynolds 1993).

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