

No. 10-70
November 2010

WORKING PAPER

**BINGE THINKING: A LOOK AT THE SOCIAL IMPACT OF STATE
LIQUOR CONTROLS**

By Antony Davies



MERCATUS CENTER
George Mason University

The ideas presented in this research are the author's and do not represent official positions
of the Mercatus Center at George Mason University.

Binge Thinking: A Look at the Social Impact of State Liquor Controls

1) How does the government regulate alcohol?

Studies on the efficacy of alcohol controls have focused on four broad categories of market intervention:

- *Demand Regulation*: Laws aimed at reducing demand target those who purchase and consume alcoholic beverages. These laws place the restrictive burden on the alcohol buyer and include age and visibly intoxicated person (VIP) restrictions.
- *Supply Regulation*: Laws aimed at reducing the supply of alcohol target those who sell alcoholic beverages. These laws include government ownership of retail or wholesale outlets, restrictions on outlet density, caps on the number of retail licenses, and limits on hours of operation, all of which place the restrictive burden on the alcohol seller.
- *Price Regulation*: These laws principally take the form of taxes and, in some cases, price controls.
- *Social Regulation*: These laws target behavior that is deemed socially undesirable or a public health threat—for example, regulation of public consumption, and laws related to driving under the influence (DUI) or driving while intoxicated (DWI). The restrictive burden is placed on the alcohol consumer (who may or may not be the alcohol buyer).

2) What is a “Control” State?

“Control” is somewhat of a misnomer as all states have authority to exercise control over alcohol sales. The National Alcohol Beverage Control Association (NABCA) defines a control state as one in which the state has a monopoly on the wholesale and/or retail sale of one or more classifications of alcohol (e.g. beer, wine, and/or spirits).^{1,2} A non-control, or “license,” state is one in which the state does not have a monopoly, but limits the distribution and sale of alcohol by licensing vendors.

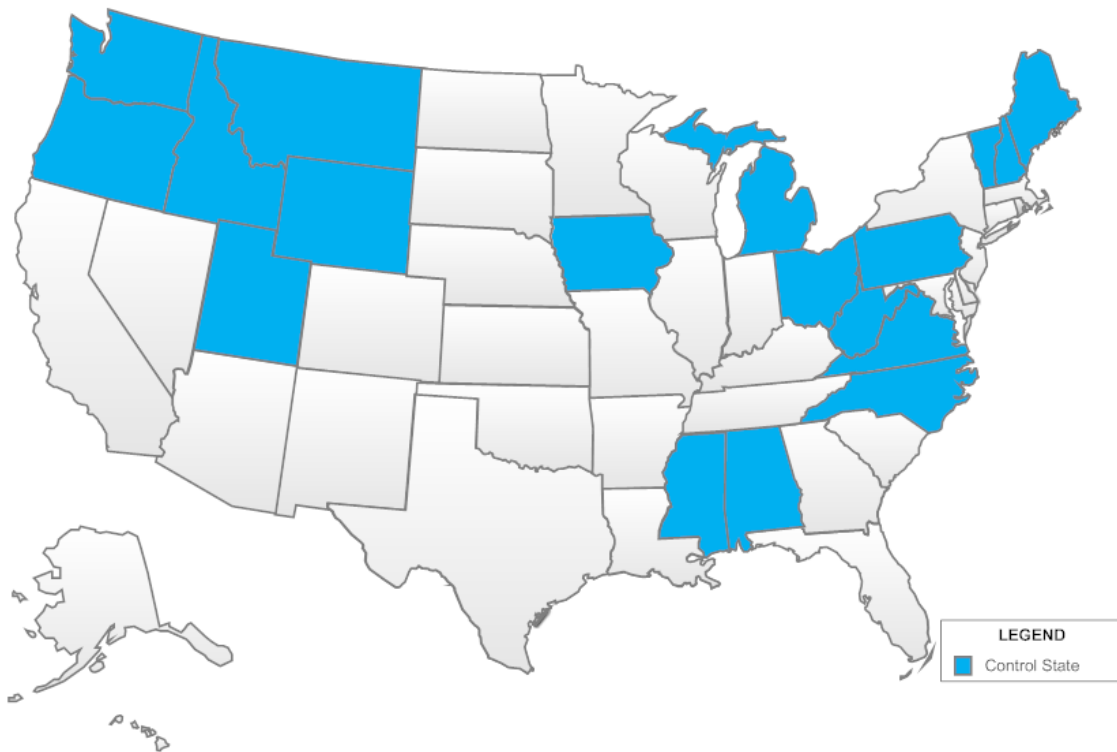
¹ This definition is inferred from the details provided by the NABCA. Specifically, the NABCA classifies a state as a control state if a controlled distribution system substitutes the state for the private marketplace in the retail and/or wholesale of alcohol (NABCA, 2010a).

² This classification ignores variations in state control. For instance, while Pennsylvania has a state monopoly on the retail and wholesale sale of liquor *and* wine, Virginia has a state monopoly on the retail and wholesale sale of liquor only. Regardless of these variations, Pennsylvania and Virginia are control states.

3) How many Control States remain in the United States?

NABCA classifies nineteen states as control states. It is important to note, however, that the state of Maryland itself is not a control state though several counties within Maryland operate as local control jurisdictions. For the purposes of this paper, Maryland will neither be depicted nor discussed as a control state. Therefore only eighteen states will be considered control states.

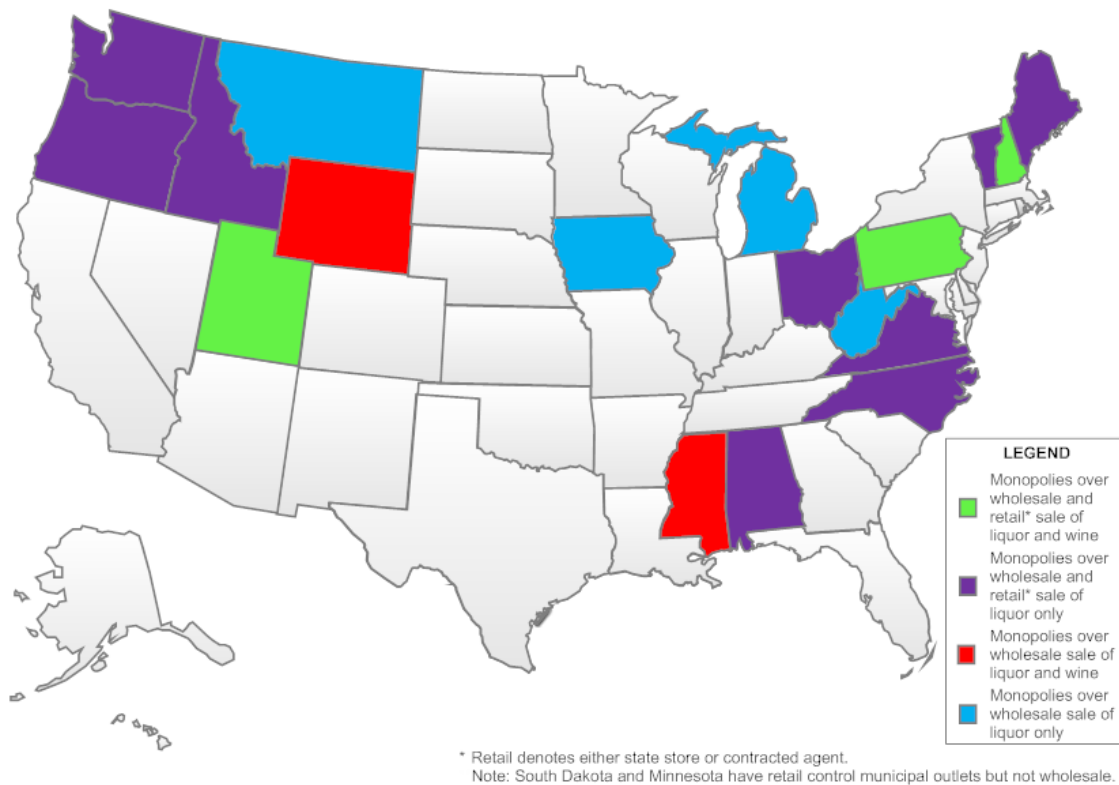
Figure 1 – Control States according to the NABCA in 2010 (NABCA, 2010b). As illustrated below, Maryland is not a control state. However, Montgomery, Somerset, Wicomico, and Worcester counties operate as local control jurisdictions in accordance with state law (Gansler et al., 2009).



4) Do all states regulate alcohol in the same way?

All states regulate alcohol in some form, though the exact form of this control varies from state to state. For instance, of the eighteen control states that have monopolies over the wholesale sale of liquor, twelve of those states also control liquor sales at the retail level. Figure two provides more detail on the current variations.

Figure 2 - Monopolization of alcohol sales by state, alcohol type, and market in 2010 (NABCA, 2010b). As illustrated below, Maryland is not a control state. However, Montgomery, Somerset, Wicomico and Worcester Counties operate as local control jurisdictions in accordance with state law (Gansler et al., 2009).



5) How does a control state privatize its state alcohol retail stores?

The following three examples demonstrate three methods in which a state can privatize its alcohol retail stores.

Pennsylvania: Pennsylvania is considering privatizing its monopoly on the retail and wholesale sale of liquor and wine by auctioning off 750 retail and 100 wholesale licenses (Pennsylvania House Bill 2350, 2010).

Virginia: Virginia is currently considering privatizing its monopoly on the retail and wholesale sale of liquor by auctioning off 1,000 off-premises distilled licenses (McDonnell, 2010).

Washington: On November 2, 2010, two ballot initiatives were voted on—Initiatives 1100 and 1105. Although neither ballot received enough votes to become law, each attempted to privatize Washington’s monopoly on the retail and wholesale sale of liquor. Initiative 1100 called for all state liquor stores to be closed and replaced by a new licensing system (Washington Initiative Measure No. 1100, 2010). Initiative 1105 took this one step further by also requiring changes in the current liquor sales tax laws. For instance, under this initiative, the liquor control board would have been required to present a report to the Legislature by January 1, 2011, recommending a rate of taxation (paid by liquor distributors) that would generate the same amount of revenue as is generated under the current system plus an additional \$100 million dollars (Washington Initiative Measure No. 1105, 2010).

6) Would a control state suffer financially from privatization?

Pennsylvania: Pennsylvania is considering privatizing its monopoly on the retail and wholesale sale of liquor and wine. A bill introduced by Representative Mike Turzai would allow Pennsylvania to auction 750 retail and 100 wholesale licenses (Pennsylvania House Bill 2350, 2010) which could raise approximately \$1.7 billion (Segal and Underwood, 2007). While this would only represent a one-time cash flow, Nathan Benefield of the Commonwealth Foundation estimates that Pennsylvania would continue to generate an estimated \$500 million annually from alcohol sales taxes (Benefield, 2010). In the last fiscal year, Pennsylvania incurred the largest budget deficit in the state’s history—the bulk of which was closed by federal money. The money potentially raised by privatizing the state liquor stores would have closed this budget deficit.

Virginia: Governor Bob McDonnell estimates that Virginia could raise approximately \$400–500 million as a result of privatization. With expected changes to the tax, markup, and fee structures, the governor also expects that the state would continue to receive an additional \$324.2 million annually in taxes and fees (McDonnell 2010).

Washington: According to a state government performance review, state auditor Brian Sonntag examined six possible options for privatizing Washington’s monopoly on the retail and wholesale sale of liquor. From the six possible outcomes, Brian concluded that Washington could increase revenues by as much as \$277 million over five years (Sonntag, 2010).

7) What happens to employees currently working in state-run liquor stores?

Initially, privatization could result in the loss of jobs by employees working in the state-run stores. If state-run stores are simply shut down, some employees will experience temporary unemployment as they shift from working for state-run stores to working for private stores or other jobs. If state-run stores are sold, workers may not experience unemployment at all but simply find themselves working under new management. Noteworthy is that many of the jobs will not disappear, but will merely shift from the public to private sector.

8) Assuming privatization leads to an increase in retail liquor stores, will this lead to a corresponding increase in alcohol consumption?

An increase in retail liquor stores does not necessarily imply an increase in alcohol consumption. Studies that point to a possible relationship between retail store density and alcohol consumption fail to address causality.³ For example, one would expect to observe a higher rate of alcohol consumption and a higher density of alcohol retailers near college campuses. It would be incorrect to conclude that the high density of retailers causes the greater rate of alcohol consumption. In fact, it is more likely that the causality is reversed—i.e. the density of retailers is caused by the concentrated population of alcohol consumers.

While there is a natural tendency to blame markets for people's behaviors, markets are merely the aggregation of people's behaviors. In other words, markets do not cause behavior; behavior causes markets. Liquor stores are more likely to choose to locate where there are customers as opposed to customers choosing to live where liquor stores are located. Finally, it is possible that, if the relationship between density and consumption is causal, that the causality is bi-directional. It may be that increased density causes increased consumption *and* increased consumption contributes to increased density. For example, one might imagine college students choosing where to live based on proximity to bars, whereas bar owners choose where to locate based on the proximity to on- and off-campus student housing.

9) How will privatization affect alcohol consumption?

Although numerous studies have been conducted in this area, there is no clear evidence that privatization of alcohol markets leads to either an increase or decrease in alcohol consumption.⁴ Studies that show a positive relationship between privatization and alcohol consumption are countered with studies, using the same data, which show no relationship.

While over-consumption of alcohol clearly has deleterious consequences, alcohol consumption, per se, is not bad. In addition to being an activity that many people find enjoyable, research has shown that moderate alcohol consumption reduces the risk of heart disease, stroke, gallstones, and diabetes (Mayo Clinic Staff, 2010).

10) How will privatization affect underage drinking, underage binge drinking, and DUI fatalities?

Although numerous studies have been conducted in this area, there is no clear evidence that privatization of alcohol markets leads to either an increase or a decrease in underage drinking, underage binge drinking, or DUI fatalities. Studies showing a positive

³ Refer to Gruenewald et al. (1996), Douglas et al. (1997), and Presley et al. (2002).

⁴ Refer to MacDonald (1986), Holder and Wagenaar (1990), Wagenaar and Holder (1991), Mulford, Ledolter, and Fitzgerald (1992), Wagenaar and Holder (1995), Weitzman et al. (2003), Trollidal (2005a, 2005b), Miller et al. (2006), Pulito and Davies (2009), and Stockwell et al. (2009).

relationship (e.g., Stockwell et al., 2009, Weitzman et al., 2003, Wagenaar and Holder, 1995) are counterbalanced by others showing an absent or ambiguous relationship (Pulito and Davies, 2009, Trollidal, 2005a, Trollidal, 2005b).

Some studies that show relationships may suffer from unaddressed statistical anomalies that bias the results in favor of finding relationships where none exist. For example, Wagenaar and Holder (1995) include wine cooler sales in their study despite the fact that wine coolers were excluded from the change in alcohol laws and during the period of time studied, there was a coincidental surge in the popularity of wine coolers. The analysis done by Stockwell et al.'s (2009) suffers from unaddressed statistical complications that render their results meaningless.

Studies that do show relationships also suffer from unaddressed causality, making the results useless for guiding policy makers. Implicit in many studies is the assumption that alcohol consumption causes, rather than is caused by (or related to), social ills. If in fact the causality is reversed or absent, one would expect that reducing alcohol consumption would have no effect on social ills.

11) What type of control minimizes underage drinking, underage binge drinking, and DUI fatalities?

Pulito and Davies (2009) test for differences in the incidence of underage drinking, underage binge drinking, per-capita alcohol consumption, and DUI fatalities among privatized versus non-privatized states. Unlike previous research, this study looks at 48 states over a period of 16 years and classifies the states according to the *degree* of privatization. They categorize the possible degrees of privatization versus control as:

- *full control* (sales of beer, wine, and liquor are monopolized at the retail and wholesale levels).
- *moderate control* (sales of beer, wine, and liquor are monopolized at the wholesale level, and sales of only one type of alcohol are monopolized at the retail level).
- *light control* (sales of beer, wine, and liquor are monopolized at the wholesale level, and sales of all three types are privatized at the retail level).
- *license* (sales of beer, wine, and liquor are privatized at the wholesale and retail levels; the state only monopolizes alcohol sales via the licensing of private firms).

They compare the degree of state ownership to per-capita alcohol consumption, the incidence of underage drinking, the incidence of underage binge drinking, and alcohol-related traffic fatalities and find that alcohol consumption is significantly *greater* in license states versus light-control states.

States with full, moderate, and light control are statistically identical. They find no significant difference in the incidence of underage drinking or the incidence of underage binge drinking among the four control classifications, and no difference in the rate of DUI arrests among the four control classifications. The number of alcohol-related traffic

fatalities per DUI arrest is the same for full control and license states, and significantly lower for moderate and light control states.

Table 1 – Pulito and Davies (2009) results (changes are as compared with no privatization)

	Underage Drinking	Underage Binge Drinking	Total Sales	DUI Fatalities
Partial privatization of retail stores	No change	No change	No change	Decrease
Full privatization of retail stores	No change	No change	Decrease	Decrease
Full privatization of retail and wholesale stores	No change	No change	Increase	Decrease

References:

- Benefield, N. (2010). “Failing to understand liquor store revenues.” *Commonwealth Foundation*.
- Douglas, K.A., Collins J.L., Warren, C., Kann, L., Gold, R., Clayton, S., Ross, J.G., and Kolbe, L.J. (1997). “Results from the 1995 national college health risk behavior survey.” *Journal of American College Health*. 46(2): 55-66.
- Gansler, D.F., Darsie, J.L., and McDonald, R.N. (2009). “Liquor control boards—whether liquor control boards are subject to state or county ethic laws.” *Letter to the State Ethics Commission*.
- Gruenewald, P.J., Millar, A.B., and Roeper, P.J. (1996). “Access to alcohol: Geography and prevention for local communities.” *Alcohol Health and Research World*. 20(4): 244-251.
- Holder, H.D. and Wagenaar, A.C. (1990). “Effects of the elimination of a state monopoly on distilled spirits’ retail sales: A time-series analysis of Iowa.” *British Journal of Addiction*. 85(12): 1615-1625.
- Pennsylvania House Bill 2350. (2010). “Privatizing retail and wholesale wine and spirits sales in Pennsylvania.”
- Macdonald, S. (1986). “The impact of increased availability of wine in grocery stores on consumption: Four case histories.” *British Journal of Addiction*. 81(3): 381-387.
- Mayo Clinic Staff. (2010). “Nutrition and healthy eating.” *Mayo Foundation for Medical Education and Research*.
- McDonnell, B. (2010, September 09). “McDonnell: End Virginia’s outdated government monopoly.” *Richmond Times-Dispatch*.

- Miller, T., Snowden, C., Brickmayer, J., and Hendrie, D. (2006). "Retail alcohol monopolies, underage drinking, and youth impaired driving deaths." *Accident Analysis and Prevention*. 38(6): 1162-1167.
- Mulford, H.A., Ledolter, J., Fitzgerald, J.L. (1992). "Alcohol availability and consumption: Iowa sales data revisited." *Journal of Studies on Alcohol*. 53(5): 487-494.
- National Alcohol Beverage Control Association (NABCA). (2010a). "Historical overview."
- National Alcohol Beverage Control Association (NABCA). (2010b). "The effects of privatization of alcohol control systems."
- Presley, C.A., Meilman, P.W., and Leichliter, J.S. (2002). "College factors that influence drinking." *Journal of Studies on Alcohol*. Supplement 14: 82-90.
- Pulito, J. and Davies, A. (2009). "Government-run alcohol stores: The social impact of privatization." *Commonwealth Foundation Policy Brief*. 21(3): 1-16.
- Segal, G. and Underwood, G. (2007). "Divesting the Pennsylvania Liquor Control Board." *Reason Foundation*.
- Sonntag, B. (2010). "State government performance review: Opportunities for Washington."
- Stockwell, T., Zhao, J., Macdonald, S., Pakula, B., Gruenewald, P., and Holder, H. (2009). "Changes in per capita alcohol sales during the partial privatization of British Columbia's retail alcohol monopoly 2003-2008: A multi-level local area analysis." *Addiction*. 104(11): 1827-1836.
- Trolldal, B. (2005a). "An investigation of the effect of privatization of retail sales of alcohol on consumption and traffic accidents in Alberta, Canada." *Addiction*. 100(5): 662-671.
- Trolldal, B. (2005b). "The privatization of wine sales in Quebec in 1978 and 1983 to 1994." *Alcoholism: Clinical and Experimental Research*. 29(3): 410-415.
- Wagenaar, A.C. and Holder, H.D. (1991). "A change from public to private sale of wine: Results from natural experiments in Iowa and West Virginia." *Journal of Studies on Alcohol and Drugs*. 52(2): 162-173.
- Wagenaar, A.C. and Holder, H.D. (1995). "Changes in alcohol consumption resulting from the elimination of retail wine monopolies: Results from five U.S. states." *Journal of Studies on Alcohol and Drugs*. 56(5): 566-572.
- Washington Initiative Measure No. 1100. (2010).
- Washington Initiative Measure No. 1105. (2010).

Weitzman, E.R., Folkman, A., Folkman, K.L., and Wechsler, H. (2003). "The relationship of alcohol outlet density to heavy and frequent drinking and drinking-related problems among college students at eight universities." *Health and Place*. 9(1): 1-6.