

LIQUOR PRIVATIZATION

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I thank Chairman Pippy and the members of this committee for inviting me to present results of my research on the privatization of alcohol markets.

Good afternoon. I am Antony Davies, Associate Professor of Economics at Duquesne University and Mercatus Affiliated Senior Scholar at George Mason University. I conduct studies on public policy issues for the Commonwealth Foundation and for the Mercatus Center. My primary area of expertise, however, is in the field of econometrics – the statistical analysis of economic data. Specifically, I invented the methodology that has become the standard for analyzing the most complex data sets – what we call multi-dimensional panel data. My research has appeared in the *Journal of Econometrics*, considered one of the top academic journals in the field of econometrics, and in academic texts published by the Cambridge University Press and the Oxford University Press.

In the summer of 2009, my co-author, John Pulito, and I conducted a study for the Commonwealth Foundation on the relationship between the privatization of alcohol markets and alcohol-related social outcomes. Our review of the then existing literature revealed numerous studies that came to no clear consensus. For example, a 2003 study of alcohol outlet density and DUI fatalities in California over an eight year period found that increased outlet density was associated either with no change in DUI fatalities or a decrease in DUI fatalities, depending on how one defines “density”.¹ A 2003 study of outlet density among students at eight public universities found a positive relationship between outlet density and self-reported drinking problems.² A 2005 study of alcohol privatization in Alberta over the period 1950 through 2000 found no relationship between privatization and DUI fatalities.³ A 2006 study looking at privatization across all states for a single year found a positive relationship between privatization and DUI fatalities.⁴ These and other studies detailed in the literature review I have submitted to the committee provide conflicting stories as to the relationship between privatization and social outcomes.^{5,6}

In response to this cacophony of disparate results, Pulito and I attempted to improve on the existing literature in two ways. First, rather than classifying states as either “control” or “license” as previous authors had done, we ranked states according to the degree of control the states exercised over alcohol markets. States that controlled alcohol sales at both the wholesale and retail levels and that controlled beer, wine, and spirits received the highest control rating. States that controlled sales only at the wholesale or the retail level, or that did not control all forms of alcohol received lower control ratings.

¹ McCarthy, P., 2003. Alcohol-related crashes and alcohol availability in grass-roots communities. *Applied Economics*, 35: 1331-1338.

² Weitzman, E.R., A.Folkman, K.L. Folkman, and H. Wechsler, 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: 1-6.

³ Trollidal, B., 2005. An investigation of the effect of privatization of retail sales of alcohol on consumption and traffic accidents in Alberta, Canada. *Addiction*, 100: 662-671.

⁴ Miller, T., C. Snowden, J. Brickmayer, and D. Hendrie, 2006. Retail alcohol monopolies, underage drinking, and youth impaired driving deaths. *Accident Analysis and Prevention*, 38: 1162-1167.

⁵ Davies, A., 2010. Review of studies on liquor control and consumption. *Commonwealth Foundation*.

⁶ Davies, A. and J. Pulito, 2010. Binge thinking: A look at the social impact of state liquor controls. *Mercatus Center Working Paper*, no. 10-70.

Our goal was to extract more information from the data by examining the level of state control, not merely the presence or absence of control. Second, whereas previous studies looked at one state over time, or at several states at single point in time, we looked at all states over time. Our goal was to extract more information from the data by examining changes that occur over time and changes that occur across states. In econometrics, we call a data set like this a “panel data” set. Panel data sets are superior to traditional longitudinal or cross-sectional data sets not merely because they contain more data, but because they capture information and relationships that are impossible to capture in traditional data sets.

I mention all this to bring to the fore the fact that the two studies we wrote and which I have submitted to the committee, stand apart from the previous literature because they are the only studies to date that use the most advanced data sets and the most advanced analytic techniques that can be brought to bear.

In our first study, we looked at all states and compared the incidence of underage drinking and underage binge drinking across states with different degrees of alcohol control.⁷ We found no relationship between alcohol control and underage drinking. For example, among the ten states with the highest rates of underage drinking, seven are license states (i.e., the lowest level of control). But, among the ten states with the lowest rates of underage drinking, six states are license states. We found no statistically significant change in the incidence of underage drinking among the four levels of control. Similarly, we found no difference in the incidence of underage binge drinking among the four levels of control. We also looked at all states over sixteen years and compared DUI fatality rates across states with different degrees of alcohol control. We found that states with the most stringent controls have DUI fatality rates that are significantly greater than in states with less stringent controls.

Our first study used a more comprehensive data set than has been used by previous studies, but employed the same sort of simple cross-state comparison employed in previous studies. In our second study, we looked at forty-nine states over twenty-one years and employed sophisticated panel data analytic techniques.⁸ In this study, we looked only at DUI fatalities, but we controlled for differences (across states and across time) in the minimum drinking age, mandatory seat belt laws, BAC limits, zero tolerance laws, keg registration laws, preliminary breath test laws, open container laws, and dram shop laws. After filtering out the effects of these laws on DUI fatality rates, we found that states that controlled alcohol markets experienced higher alcohol-involved fatality rates among the legal age population and the same or higher alcohol-involved fatality rates among the underage population.

In more than twenty years of research, numerous studies have failed to reach a consensus as to what social benefits, if any, people derive from their states controlling alcohol markets. The results of our two studies indicate that state control of alcohol markets does not contribute to improved social outcomes and, disturbingly in the case of DUI fatalities, appears to contribute to reduced social outcomes.

⁷ Pulito, J. and A. Davies, 2009. Government-run alcohol stores: The social impact of privatization. *Commonwealth Foundation Policy Brief*, 21(3): 1-16.

⁸ Pulito, J and A. Davies, 2010. State control of alcohol sales as a means of reducing traffic fatalities: A panel analysis. Under review.