## Liquor Control and Consumption

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SUMMARY. Per-capita consumption of alcohol and incidence of alcoholism are generally lower in monopoly states than in open states.

Eighteen states have created a monopoly by a state agency to control the distribution and sale of distilled spirits at the retail or wholesale level, or both.<sup>3</sup> Since the postprohibition relegalization of alcoholic beverages, no control or monopoly state has elected to end its monopoly on the spirits trade; and conversely, no open or license state has chosen to establish a spirits monopoly. One argument raised by spirits-retailing lobbyists against the latter points to the high start-up costs involved in switching to a state monopoly system. Counter to this has been the argument that monopolistic profits contribute substantially to control-state treasuries. An additional explanation for lack of such action by the states is that there has been little research and information regarding the actual impact of control on consumption in the respective states.

Total consumption of distilled spirits in control states on a weighted average basis was equal to 2.57 wine gallons per capita of the drinking-age population (14 years and older) in the years 1975–77, whereas purchases in open states amounted to 2.92 wine gallons per capita (1). The obvious, but undocumented, reason for lower consumption in control states is that the political act of establishing state control is indicative of values, attitudes and beliefs that would discourage alcohol consumption. A secondary reason is the nonmarket but increased cost to consumers of inconvenience in control states due to the restriction of retail outlets, which increases the time and travel costs of purchasing alcoholic beverages.

We initially assumed that monopoly states would have higher prices than open states, which would reduce consumption in the former; however, prices are lower in the monopoly states. A simple average of a

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<sup>3</sup> Two of these states, Mississippi and Wyoming, maintain a state monopoly only over the wholesale distribution of alcoholic beverages but nevertheless were included in this analysis. Other states operating wholesale and retail spirits monopolies are as follows: Alabama, Idaho, Iowa, Maine, Michigan, Montana, New Hampshire, North Carolina, Ohio, Oregon, Pennsylvania, Utah, Vermont, Virginia, Washington, and West Virginia. The District of Columbia does not maintain a spirits monopoly and therefore was considered as an open "state" for purposes of this report. BRIEF REPORTS

1977 price index of 8 selected types and brands of spirits was constructed for all 50 states. This index revealed that monopoly states had an average price of \$6.56, compared with \$6.71 in open states. To check for distortions due to varying consumption of each type of spirit in all 50 states during a 10-yr period beginning in 1967, a weighted price index for each state was constructed. This index showed the mean price in monopoly states to be \$6.12 and in open states, \$6.44.<sup>4</sup>

Consumption data per capita must in fact be viewed with a degree of suspicion because of illegal activities that are not recorded in the official statistics. Illegal production or "moonshine" is not recorded, but this would not appear to be of sufficient magnitude to alter the official consumption significantly. A more significant activity, partly illegal, is the transportation of alcohol from another state.<sup>5</sup>

To estimate the impact of this illegal transportation, the state of Iowa was used to measure the difference in consumption per-capita in all of the border counties and the average per-capita sales in the interior counties of the state. Since all states surrounding Iowa are open states, it was hypothesized that the border-county population would be more likely to transport alcohol across the state line for consumption. This hypothesis is based on the reasoning that, because Iowa's spirits prices are artificially controlled by the authorities rather than by market forces, sufficient incentive exists for private-liquor-store owners of closely neighboring outof-state cities to post lower prices on their inventory, thereby drawing more consumers from the border counties of Iowa.<sup>6</sup> A survey in the surrounding states showed the spirits prices in the out-of-state border cities to be significantly lower than their respective state average and lower than the average prices charged by similar interior cities within each respective state. An eight-brand average price index showed that the outof-state border cities had average prices at least 10% lower than the state average in Nebraska, South Dakota, Illinois, Wisconsin and Missouri. The average consumption in Iowa's border counties was only 70% of the average consumption of its interior counties. The interior counties had \$26.81 retail sales per capita, compared with \$18.50 per capita in the border counties. These sums represent a substantial liquor-revenue loss for the state of Iowa. Indeed, if the average retail sales per capita had been the same in Iowa's border counties as in its interior counties, the state would have increased its revenues by over \$8 million in 1977 alone.

What seems remarkable about the magnitude of the apparent illegal transportation of spirits is that each surrounding state's spirits prices (except in Illinois) are higher on average than Iowa's. Also, as Table 1

<sup>4</sup> Spirits price data were furnished by the Distilled Spirits Council of the United States, Inc., Washington, D.C.

<sup>5</sup> According to the Iowa Beer and Liquor Control Act, an individual of legal age may import and have in his possession an amount of spirits (purchased from another state) not exceeding one quart.

<sup>6</sup> Iowa's spirits prices are uniformly applied throughout the state, presumably so as to prevent "unequal" treatment of its citizens. This pricing system obviously ignores the presence of varying market forces at work in different regions of the state.

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	Average Price, 8-Brand Index	Wine Gallons per Adult	
Iowa	\$6.04	2.02	
Nebraska	6.46	2.53	
Missouri	6.27	2.10	
Minnesota	6.70	3.13	
South Dakota	7.20	2.80	
Illinois	5.90	3.35	
Wisconsin	6.33	3.43	

# TABLE 1.—Average Prices and Consumption of Spirits per Adult in Iowa and Bordering States\*

a Source: Distilled Spirits Council of the United States, Inc., Washington, D.C.

demonstrates, each surrounding state experiences a higher spirits consumption per adult, despite their higher prices.

It has been argued that "those states with the most restrictive liquor laws have the least need for them because the same attitudes that gave birth to the laws would also tend to restrict consumption even without the laws" (2). To test the validity of this conclusion, data on consumption per capita and the alcoholism rate per 100,000 in the nine statistical geographic regions of the United States (3) were compared.

Table 2 shows that two regions had a higher per-capita consumption in the monopoly states than in the open states in the respective regions. The results of the New England region are to be expected since New Hampshire and Vermont have lower prices than the surrounding states, as well as considerable tourism, which could account for the increased consumption in the monopoly states. The East South Central region also had a higher consumption in the monopoly states, but it was not

Region	Monopoly States		Open States	
	Consumption	Alcoholism	Consumption	Alcoholism
New England	3.39	8,374	2.36	11,729
Mid-Atlantic	1.45	9,180	2.24	11,190
East North Central	1.61	9,118	2.09	10,048
West North Central	1.41	5,840	1.71	7,890
South Atlantic	1.61	4,841	2.61	7,130
East South Central	1.51	4,221	1.37	6,471
Mountain	1.52	5,004	2.59	12,140
Pacific	1.91	5,706	2.45	13,048
West South Central		-	1.48	6,147

 TABLE 2.—Distilled Spirits Consumption (in Wine Gallons) per Capita and
 Alcoholism Incidence in Monopoly and Open States, by Region\*

<sup>a</sup> Source: Distilled Spirits Council of the United States, Inc., Washington, D.C.

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significantly different.<sup>7</sup> The lower consumption in the monopoly states in the other six regions substantially weakens the geographic and demographic argument for lower consumption in monopoly states since the regional influences should minimize the intraregional differences except for the form of liquor control.

The alcoholism rates within each region would also support the contention that monopoly states discourage consumption. In each of the eight regions that allow a comparison, the monopoly-state average rate of alcoholism is lower than the rate in the states with free marketing within each region. The monopoly control system does appear to reduce consumption of alcohol and the incidence of alcoholism.

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<sup>7</sup> The difference between consumption behavior in these two regions was not significantly different from that in the open states of these regions. All six of the remaining regions where consumption was lower in the monopoly states were significantly lower at the 20% level of confidence. The statistical testing formulae are published elsewhere (4, p. 326).