

5/18/88

U 2160-1 A

A publication of the
Indiana Business Research Center,
Indiana University School of Business



Indiana Business Review

Volume 63, No. 1

April 1988

John L. Mikesell

The Lottery: Its Financial Effects

C. Kurt Zorn

The Lottery: Its Economic Effects

Larry DeBoer

**The Lottery and Pari-Mutuels: Strange
Bedfellows**

James Palmieri

**Wholesaling of Wine and Spirits in
Indiana**

in this issue. . .

The Lottery: Its Financial Effects

Government regulation is rarely subject to the vote of the people. This November, however, Hoosiers will have an opportunity to decide on aspect of that complex subject with their votes on the so-called "lottery" issue. The articles presented here on that popular topic are the result of academic research and should be of interest and concern to all citizens.

Of the many issues that will remain for the legislature if the constitutional amendment passes, one will be, "Who may enter the gambling business?" States that have entered the lottery field in this century have opted for government monopolies. But one could imagine a competitive-enterprise approach that would permit multiple lotteries, regulated and taxed by the state but competing with each other for the recreation dollar. In other heavily regulated industries, the private market operates under conditions established by government. Airlines, banking, and medicine are examples of this practice.

Even the "sin" sector of our society, when commerce is permitted in it, is open to the private sector. In Indiana, cigarettes and liquor are distributed and sold by private firms, not by the state. The regulation of the wine-and-spirits industry has undergone many changes, as social perceptions have varied over time and as market conditions have changed. For an added view of government regulatory issues, we offer a report on a fragment of that industry that does not receive extensive public attention, but which is a fascinating example of public regulation interacting with private forces.

We are indebted to all four authors for their thoughtful approaches to important questions of public policy.

MJM

John L. Mikesell

Professor of Public and Environmental Affairs, Indiana University

Lotteries are the fiscal gimmicks of state finance in the 1980s. They have received legislative attention far exceeding their fiscal significance, have been popular beyond reason, and have spread across the nation like a fire out of control. From being a fiscal oddity, raising disappointing amounts of revenue in New York and New Hampshire in 1970, the lottery has become a common feature of state finance. In 1980, 14 states containing slightly over one-third of the nation's population operated lotteries. They now operate in 26 states and the District of Columbia; two more states, Wisconsin and Virginia, have approved lottery referenda and are setting up administrative structures to operate their lotteries. More than 60% of the nation's population lives in lottery jurisdictions.

The lottery retains remarkable public acceptance. Of the 23 lotteries operating in 1986, 13 had received statewide voter approval before going into operation. Seven more states approved lottery referendums in 1986 or 1987. In fact, since the first modern state lottery began in New Hampshire in 1964, only once, in North Dakota in 1986, has a statewide lottery question been defeated.

How Much Revenue?

During fiscal year 1986, state-administered lottery sales exceeded \$11 billion, while net state proceeds after prize payouts and administrative costs exceeded \$4.69 billion. Net proceeds in the 14 states that operated lotteries in both 1980 and 1986 grew at the astounding average annual compounded rate of almost 26% per year; the total rate was 32%. On a gross basis, this is a very large revenue pool. But the relative size of lottery proceeds is a different matter. The comparison can easily be made by computing the share of general revenues

generated by lotteries. States such as Maryland have occasionally been able to generate as much as 3% of their general revenues from their lotteries. Typically, however, the share is much smaller. The mean share in 1986 was below 1.5%. Of the 23 lottery jurisdictions, eleven had shares below 1%.

What about Indiana? We can hope that an Indiana lottery would perform, in

An Indiana lottery with a similar record might net around \$190 million. That is a large figure, but it is still only around 2% of state general revenues.

per capita sales, about as well as the Ohio lottery. Ohio has a mature lottery with a full line of products and no major scandals in its past. An Indiana lottery with a similar record might net around \$190 million. That is a large figure, but it is still only around 2% of state general revenues. A new lottery, of course, could not be expected to perform at that level immediately. In general, lottery revenue is not likely to be sufficient to remedy any major fiscal imbalance. This is the case even in the urbanized states of the northeast, where relative proceeds from the lottery have been most lucrative. It would certainly be the case in Indiana.

Lotteries Over Time

Research shows that lottery sales are especially sensitive to economic growth, increasing around 3% for each 1% increase in state personal income. This suggests that the lottery could be an effective state magnet for gathering additional resources as economic growth continues. Unfortunately, lottery revenue does not follow a constant pattern over time. A number of forces complicate the flow of lottery sales, the base from which states ultimately generate their profits.

These forces include lottery activities in adjacent states, the maturation of the lottery, the advent and decline of new state lottery products, and so on. Although lottery sales are heavily shaped by marketing efforts, not all countervailing trends can be controlled. This produces dramatic instability of cash flow. The lottery in fact provides neither a sizeable nor a stable revenue foundation for government.

Administrative Costs

All important revenue sources for state government require considerable resources for their collection. Much of the expense is private, involving taxpayer record keeping, accounting, and the like, but the costs of enforcement are not small. Most state taxes can be collected at a cost no greater than 5% or 6% of collections, including both taxpayer and administrative costs. Costs much greater than that would be clearly excessive and would cause a tax to be dismissed as an inefficient revenue producer. On revenue efficiency, the lottery does not rate well. Analysis of several lotteries shows that from 1978-84, the average cost as a percentage of revenue has never been as low as 15%. Only a few times has any state ever achieved a cost percentage as low as 5%. And these percentages are understatements, because lottery accounting principles take most commissions paid to lottery vendors directly out of recorded sales, excluding them from recorded administrative costs. These high costs are necessary in lottery management. They cannot be avoided.

Why not? First, because the lottery must be aggressively marketed and promoted. Without these sizeable marketing costs, total and net proceeds will be disappointing. Second, the lottery customers must be certain that the game has not been fixed. This requires continued security precautions to preserve the integrity of the game. Both marketing and security are necessary elements of successful lottery operations, but both are costly and prevent major reductions in adminis-

trative expense. By necessity, the lottery is a remarkably high-cost revenue source. Such revenue inefficiency would disqualify a tax as a revenue source. Lotteries may be immune from that criticism, because they are classed as voluntary payments. But the high costs associated with them show that they do require substantial marketing to be successful. And if marketing is so necessary, how voluntary can the revenue truly be?

It is difficult to determine to what extent the lottery revenue represents new resources to the designated function and to what extent it represents resources that the function would have received anyway from some other state source.

Earmarking Revenues

Many states direct lottery profits to the general fund, but about a dozen designate proceeds for individual items. Lottery profits may be a small part of overall state resources, but wouldn't they be significant for a specific function to which they might be dedicated, such as education?

They could be, of course, but the comparison is not that simple. Lottery profits, regardless of accounting formality, are mixed with other revenues available for state expenditure. Therefore, it is difficult to determine to what extent the lottery revenue represents new resources to the designated function and to what extent it represents resources that the function would have received anyway from some other state source. Accounting reports simply cannot provide the information needed to track down that influence. Some evidence can be seen, however, in states that have both some lottery history and very explicit designation of revenues to particular functions. Michigan, New Hampshire, and New Jersey meet these

criteria, and education was the supportive function in each of those states. By comparing the percentage of total state and local expenditures going for education in the years before and after lottery revenues began to be earmarked, one can see whether there was a marked shift as a result of the lottery. Only in New Hampshire did the percentage spent on education increase. There was, in fact, some decline in the other two states. Of course, the decline could have been greater without the lottery, so clear conclusions are difficult. It is impossible, however, to conclude that lottery designation guarantees more money for the supported function. A lottery in Indiana, if earmarked for primary and secondary education, might add around 5% to current spending in that area. That is not enough for a quantum jump, but it certainly is within the range that would allow these funds to be substitutes for, not additions to, the current funds spent on education.

Conclusions

Does the fiscal evidence suggest that a state without a lottery, Indiana, in this case, should start one? The state could certainly function indefinitely without a lottery. It is an entertainment service, being critical neither for anyone's survival nor for the protection of persons or property. If lottery entertainment is important, why can't private businesses, rather than the state, provide the service? The lottery's sole purpose is to provide revenue for the state. That revenue, while large in an absolute sense and capable of rapid growth, would be relatively small, rather unreliable, and expensive to generate. Few positive statements can be made about a lottery's fiscal aspects, except that it does generate some revenue and appears to do no major fiscal damage. The greatest fiscal damage done by the lottery is to divert state attention from more important and more pressing fiscal concerns. □

The Lottery: Its Economic Effects

C. Kurt Zorn

Assistant Professor of Public and Environmental Affairs, Indiana University. For more detail and a complete bibliography, see John L. Mikesell and C. Kurt Zorn, "Another Look at the Structure and Performance of State Lotteries" (Bloomington, IN: Office of the Dean, School of Public and Environmental Affairs, August 1987).

Despite the overwhelming acceptance of state lotteries by the public and politicians alike, it is important to keep in mind some of the significant issues associated with the adoption and operation of a lottery. As one researcher noted, the true worth of a lottery can only be found by a careful and thoughtful balancing of all its economic, political, social, and moral implications.¹

This article will briefly discuss three significant economic questions about lotteries: Is the lottery a form of taxation? If it is, who bears the burden? What are the limits to growth in lottery revenue? It will also suggest two questions as candidates for further analysis.

Is A Lottery A Tax?

It is argued by some that the application of standard tools of public-finance analysis to state lotteries is inappropriate, because the lottery is not a form of taxation. As a result, they say, public finance-economists should not even try to analyze a lottery. This argument is probably correct: the lottery is not a tax in the strict sense. Participation in a lottery is voluntary, and by definition a tax is compulsory if one performs the acts that are taxed (own property, buy taxable items, earn taxable income). It can then be argued that a state lottery should be viewed as a business being operated by the public sector where the profits go to the state's general fund or are earmarked to some specific expenditure category.

If we look at it this way, if the lottery is indeed a profit-making business, a few

interesting questions can and should be raised. Is it proper for the state to be engaged in this type of business? States restrain or restrict private gambling operations presumably because of the negative effects generated by gambling. But there is little distinction between a state-run numbers game, or lottery, and the numbers games being run by the underground sector of the economy. In fact, it's not uncommon for illegal number games to use the winning numbers drawn in a state-run lottery, even using the state game as a form of security in case they sell too many tickets for a specific set of numbers.

There is little distinction between a state-run numbers game, or lottery, and the numbers games being run by the underground sector of the economy.

Is it proper for a state to reap monopoly profits from lottery operations? More to the point, is it economically efficient? Even if a lottery is not a tax, a public-finance economist can still get involved in the issue by talking about monopoly profits.

And why should the lottery be the government service most heavily marketed? A glance at lottery annual reports and newspaper, radio, and television advertisements shows that the merchandising of lotteries is quite intense and somewhat misleading. Lotteries are seldom anxious to disclose critical details of their operations. The odds against winning are not advertised clearly, and the prizes that are distributed are always talked about in total payment over a time period instead of the present value. A million dollars paid over 20 years is not worth a million dollars right now.

It is common for public-finance economists to reject the argument that the lottery is not a tax. They consider net

revenue from lottery ticket sales a tax placed on ticket sales, which should be looked at as being similar to sumptuary excise taxes—those taxes that attempt to discourage consumption of a particular item, such as cigarette and alcoholic-beverage taxes and the luxury excise taxes we find in states' fiscal structures. When a state lottery is viewed as a tax, the objections concerning the use of standard public-finance analysis diminish.

When a state lottery is viewed as a tax, the objections concerning the use of standard public-finance analysis diminish.

Is a Lottery Regressive?

Accepting the fact that the lottery is a form of excise taxation, the question becomes, who bears the tax? Who bears the largest burden? At the very least, the same degree of concern for the equity of sumptuary and luxury taxes should be applied to the lottery "tax." Lottery proponents argue that the lottery is ideal, even if it is a tax, because it is voluntary, has broad participation, and is not regressive. Surveys indicate that participation is heaviest in the middle- to upper-income groups, and that the lottery is a game that appeals to a wide spectrum of the population, not just to the poor.

Unfortunately, participation data do not address the question of incidence. Standard analysis of vertical equity asks whether a tax places a greater relative burden on low-income families or high-income families. If the higher burden is on low-income people, the tax is regressive because it reduces the net income of low-income groups relative to that of the high-income groups.

Numerous studies have demonstrated decisively that state lotteries are a regressive form of raising revenue.² These studies clearly indicate that the arguments

based on participation rates do not apply to the consideration of equity. There may be quibbling over the degree of regressiveness, but the raising of lottery tax revenues worsens the overall fairness of the state's revenue system.

What Are the Limits to a Lottery's Growth?

We've all heard about the phenomenal growth in lottery revenues. This growth can be traced to two things: new adoptions and increased participation in existing lotteries. By the end of 1986, 27 states had lotteries. Since we only have 50 states in our union, there is a limit to the total number of adoptions. The increase in participation will level off someplace, although no one knows quite where. So there are limits to growth. One researcher concludes it's likely that the growth in lottery revenues will slow before 1995.³

Other studies have tried to identify the determinants of lottery sales, and it is clear from the studies that lotteries are affected by employment rates, per capita income levels, and so forth. Any predictions of future growth, therefore, must consider the effects of the business cycle on sales. Probably more important, though, is the finding of some of these studies that other factors besides economic conditions have significant effects on sales. As more states adopt lotteries, there will (of course) be fewer non-lottery states. It turns out, though, that a lottery state that has a non-lottery state on its border will have significant higher sales per capita than a state that has no non-lottery states on its border. The Illinois lottery, with Indiana on its border, illustrates that very well.

Lottery games have also been found to have a natural life cycle. As people get bored with the games, interest wanes and sales decrease. Despite the relative newness of the Lotto game, sales will peak at some point and then slowly slide, as has been the case with instant games and numbers games. Thus, there has been intense marketing, variations in existing

games, and creation of new games to ensure total sales do not fall.

It seems likely that the lottery has no aggregate impact on the state economy, that it does simply transfer business activity from one set of vendors to another, but that has not been proven.

Issues for Exploration

At least two significant issues need further analysis before they can be answered definitively. First, there is concern about loss of income that is suffered by a non-lottery state when its citizens cross the border to play a neighboring state's lottery. Almost everyone either makes trips across the border to pick up lottery tickets or knows someone who does. There is ample anecdotal evidence that this border effect exists, although there has been no scholarly demonstration of either its importance, its significance, or of the winnings brought back to Indiana.

Second, there is no consensus on a lottery's impact on a state's business activity. Proponents of lotteries note the sizable commissions paid to vendors who sell the lottery tickets to the public and argue that these dollars stimulate economic activities. Opponents suggest that the commissions represent simple economic transfers--the money is not being spent at other stores on other goods and services, it is just transferred from a grocery store to a convenience store that sells the lottery tickets. It seems likely that the lottery has no aggregate impact on the state economy, that it does simply transfer business activity from one set of vendors to another, but that has not been proven. Of course, if a negative border effect is significant, the lottery state would gain business activity at the expense of the non-lottery state.

Conclusion

There are a number of economic issues that a state should consider when weighing the pros and cons of adopting a lottery. First, the lottery is similar to sumptuary excise taxes imposed on tobacco and alcohol; consumption is voluntary, yet once the choice is made to consume, the tax is compulsory. Second, since the lottery is a form of taxation, it should be subjected to vertical equity analysis, which has typically indicated that the lottery is a regressive revenue source. Third, despite predictions that revenue from lotteries will continue to grow, some evidence indicates that lottery sales growth will slow in the early 1990s. This slowdown will increase emphasis on the introduction of new games and the stepped-up marketing of existing games. Without consideration of these points, the state, and its citizens, cannot make informed choices on the lottery question. □

Notes

1. Robert Blakey, "State Conducted Lotteries: History, Problems, and Promises," *Journal of Social Issues*, Summer 1979, pp. 62-86.

2. See: Roger Brinner and Charles Clotfelter, "An Economic Appraisal of State Lotteries," *National Tax Journal*, December 1975, pp. 395-404; Charles Clotfelter, "On the Regressivity of State-Operated 'Number' Games," *National Tax Journal*, December 1979, pp. 543-548; Jerome E. Heavey, "The Incidence of State Lottery Taxes," *Public Finance Quarterly*, October 1978, pp. 415-426; M.H. Spiro, "On the Tax Incidence of the Pennsylvania Lottery," *National Tax Journal*, March 1974, pp. 57-61; and Daniel B. Suits, "Gambling Taxes: Regressivity and Revenue Potential," *National Tax Journal*, March 1977, pp. 19-35.

3. Larry DeBoer, "When Will State Lottery Sales Growth Slow?" *Growth and Change*, January 1986, pp. 28-36.

The Lottery and Pari-Mutuels: Strange Bedfellows

Larry DeBoer

Assistant Professor of Agricultural Economics, Purdue University

Why is there such a controversy over a lottery in Indiana? What started it? The Indiana Constitution currently has a provision (Article 15, Section 8) that reads, "No lottery shall be authorized nor shall a sale of lottery tickets be allowed." In 1986 and 1987, the General Assembly took the first steps in amending the constitution by passing a resolution to eliminate this section and allow lotteries (and other forms of gambling). In November 1988, the question goes to the voters. If they approve the referendum, the constitution will be amended. Then the legislators could, if they wanted, pass a bill that would legalize the lottery in Indiana.

But eliminating this section of the constitution would also make pari-mutuel betting on horse racing a possibility in Indiana. The reason is that in 1979 the Indiana Supreme Court ruled that the anti-lottery clause in the constitution also prohibits pari-mutuel betting on horse racing.

The national trend in lotteries in the last few years is one of great growth: 30% revenue growth annually during the 1980s, sales topping \$8 billion in 1985 and \$11 billion in 1986, net receipts in 1986 of almost \$4.7 billion, and lotteries in 27 states at the end of 1987. The story of pari-mutuels is different. The number of states that currently allow pari-mutuel betting on horse racing is 31. A few states also use the pari-mutuel system for betting on dog racing and jai alai, but almost 90% of pari-mutuel revenue comes from horse racing. In November 1986, two more states (Kansas and Missouri) adopted pari-mutuel betting. But the revenue raised from pari-mutuels was only \$646 million in 1986, less than one-seventh of that raised from lotteries and with several more states having operations. Revenue was down by 9% from 1985, and this continues a trend begun in the mid-1970s of declining pari-mutuel revenues. The declines have been averaging 1.5% per

year since 1977, and track attendance has been declining since 1975.

Pari-mutuel betting is, in a sense, a stagnant industry. Lotteries may also eventually stagnate, and sales may stop their current rate of growth and reach a plateau.

There are three big racing states in the United States: California, New York and Illinois. They account for about 60% of the total revenue raised from betting on horse races in the United States. The other 28 states divided the other 40% of the racing revenue, averaging only \$7 million apiece. Thus, the revenue potential from pari-mutuel betting is small.

The evidence is conclusive that lotteries are a regressive form of taxation. Pari-mutuels are also regressive, but to a lesser extent. At least one study has shown that pari-mutuels are about as regressive as state sales taxes.

The evidence is conclusive that lotteries are a regressive form of taxation. Pari-mutuels are also regressive, but to a lesser extent. At least one study has shown that pari-mutuels are about as regressive as state sales taxes. The reason is that extra travel time is required to get to a track and an admission fee must be paid to enter a track. Therefore, tracks probably attract people with somewhat higher incomes than do lotteries.

When discussing taxation, we are really discussing the state's extracting part of the consumer benefits of a product from the people who buy that product. When a state taxes cigarettes the price increases, and people who before received benefits from cigarettes for a relatively low price now must pay a higher price. If the same process occurs with lotteries and pari-mutuel betting, there must be perceived consumer benefits from playing the lottery and from betting on horse races. If the taxation aspect of lotteries

and pari-mutuels is regressive, then the consumer benefits (the entertainment value) may be progressive (lower-income people may get proportionately more pleasure from lotteries and pari-mutuels).

Lottery and Pari-Mutuel Revenue

The lottery industry, those firms that produce lottery tickets and lottery equipment for the states that have lotteries, has estimated the amount of revenue states could raise from lotteries by taking the U.S. per capita revenue figure for all existing lotteries and multiplying it by the populations of the states that do not have lotteries. In 1986, that figure was \$34 per capita. For Indiana, that would mean that 1986 revenue would have been about \$187 million dollars. This number probably is too high for two reasons. First, it has been shown conclusively that states with a higher proportion of their populations in rural areas tend to have lower per capita sales. The eight least urban states that had lotteries averaged \$34 in per capita sales in 1986, while the seven most urban states that had lotteries averaged \$106 per capita in the same year. Compared to the states that currently have lotteries, Indiana is a more rural state. For that reason, Indiana would probably have lower per capita sales than the national average.

The industry's estimate is that states with smaller sales tend to spend a higher proportion of their sales on administrative costs. Indiana, with its relatively small population and its more heavily rural population, will probably be a small-sales state.

The second reason that Indiana's net revenue would probably be less than the industry's estimate is that states with smaller sales tend to spend a higher proportion of their sales on administrative costs. The eight states with the lowest

lottery sales in 1986 spent, on average, 13% of sales on administrative costs. The eight states with the highest sales in 1986 spent only 4% of sales on administrative costs. Indiana, with its relatively small population and its more heavily rural population, will probably be a small-sales state, averaging about \$300 million to \$400 million in gross sales per year. We could expect 10%-15% of those sales dollars to be spent on administrative costs. If both of these factors (the higher rural population and the higher administrative-cost percentage) are taken into account, a good estimate of net lottery revenue for Indiana is about \$134 million, about \$50 million less than what the industry is projecting.

If the estimated \$134 million in revenue from the Indiana lottery is a small number compared to the state's \$7 billion annual budget, then the \$7 million from pari-mutuels is not even worth discussing.

If the state would use that money for tax relief, the income-tax and sales-tax rates could be reduced by about .5% each. The sales tax could drop from 5% to 4.5%, and the income tax could drop from 3.4% to about 2.9%.

The potential for pari-mutuels depends on the take-out rate set by a state racing commission—the percentage of the betting dollar that is not returned to the bettors as prizes. Other factors that may affect revenue are the state's population, the number of racing days that the commission allows, and the number of tracks built in the state.

In 1977, Indiana did pass a law legalizing pari-mutuels (the Indiana Supreme Court's 1979 decision declared this law unconstitutional). If that law were in effect and pari-mutuel betting

existed in Indiana, the state's share of the revenue would be between \$5 million and \$7 million. This minuscule amount means that if we are considering pari-mutuel betting, we should probably debate it on its merits, not on the amount of revenue it will raise. If the estimated \$134 million in revenue from the Indiana lottery is a small number compared to the state's \$7 billion annual budget, then the \$7 million from pari-mutuels is not even worth discussing.

Economic Development Issues

Economic development for the state from the introduction of a lottery would probably be negligible. The major production activity for the lottery, printing tickets and buying equipment, would probably take place out of state. Most states hire out-of-state companies to run their lotteries, so lotteries contribute little to the state's economic development, and the lottery would contribute very little, fewer than 50 people statewide, to Indiana's total employment.

In this year's campaign, we are likely to hear proponents of pari-mutuels talk about the total contribution. It is important to remember, however, that some of this money would be taken from that spent on other activities within the state.

Pari-mutuels would probably have a positive effect on economic development, because the production activities involved in pari-mutuels are performed at race-tracks and at horse farms. The three or four tracks that probably would be constructed would create jobs within each county where a track was located. Between \$30 million and \$50 million could be added to state income if pari-mutuels were adopted. This revenue would be

generated through track-maintenance workers, construction workers, ticket takers, parking attendants, and jockeys. One would also expect to see increased vitality in the horse industry.

Although pari-mutuels would contribute between \$30 million and \$50 million to the overall economy, they would undoubtedly subtract revenue from other forms of entertainment. Instead of going bowling or to the movies, people would sometimes go to the track. The likely net increase in state income will probably be smaller than the total contribution racing makes to state income. In this year's campaign, we are likely to hear proponents of pari-mutuels talk about the total contribution. It is important to remember, however, that some of this money would be taken from that spent on other activities within the state.

Conclusion

Pari-mutuel wagering has a much smaller revenue potential than does a lottery, but it probably has a greater economic-development potential. However, both the revenue and the economic-development effects are small relative to state totals. □

Wholesaling of Wine and Spirits in Indiana

James Palmieri

Research Associate, Indiana Business
Research Center, Indiana University School
of Business

The wine and spirits industry in Indiana faces an uncertain future. Extensive consolidation of suppliers and drastic reductions in the number of wholesalers complicate any analysis, as does the nature of the product itself.

If wine and spirits are considered goods, then the consumer would be best served if prices were as low as possible. However, the State of Indiana clearly does not view wine and spirits as goods. The Indiana Alcoholic Beverage Laws of 1987 state the general purposes of the Indiana Alcoholic Beverage Statutes as follows:

A) To protect the economic welfare, health, peace and morals of the people of this state.

B) To regulate and limit the manufacture, sale, possession, and use of alcohol and alcoholic beverages.

C) To provide for the raising of revenue.¹

This article will first discuss the wine and spirits industry in general and give some background information concerning basic liquor laws. Then it will present trends in consumption both nationally and in Indiana, examine the tax structure in detail and explain where alcoholic-beverage tax revenue is spent, look at the decreasing number of wholesalers and what that fact means, and recommend some future courses of action.

The Industry: The Legal Situation

When prohibition was repealed in 1933, the states took primary responsibility for control of the sale and distribution of alcoholic beverages. The states wanted to regulate and control alcoholic beverages from the time they entered the state to the time the consumer bought the product. States have used two methods of meeting this objective--regulation of licensed manufacturers, distributors, and

retailers (license states), or monopoly at the wholesale level, retail level, or both (control states). Currently, there are 32 license states (the District of Columbia operates on this system as well) and 18 control states (see Figure 1).

In the license states, the manufacturer's control over the retailer is eliminated through the three-tier system

of manufacturer, wholesaler, and retailer. In each of these states except Oklahoma and Minnesota (spirits only), suppliers are allowed to enter into franchise arrangements with specific wholesalers to restrict the distribution of their products. In Oklahoma and Minnesota, a supplier is required to make a product available to all wholesalers if it is made available to at

Figure 1
License States and Control States

License States		Control States
Alaska	Arizona	Alabama
Arkansas	California	Idaho
Colorado	Connecticut	Iowa
Florida	Delaware	Maine
Hawaii	Georgia	Michigan
Indiana	Illinois	Mississippi
Kentucky	Kansas	Montana
Maryland	Louisiana	New Hampshire
Minnesota	Massachusetts	North Carolina
Nebraska	Missouri	Ohio
Nevada	New Jersey	Oregon
New Mexico	New York	Pennsylvania
Oklahoma	North Dakota	Utah
Rhode Island	South Carolina	Vermont
South Dakota	Texas	Virginia
Tennessee	Wisconsin	Washington
District of Columbia		West Virginia
		Wyoming

Table 1
U.S. Beverage Consumption 1970-1986
Share of Total Market

Category/Type	1970	1975	1980	1985	1986
Alcoholic Beverages					
Beer	10.3	12.0	12.9	12.4	12.6
Wine	0.7	0.9	1.1	1.1	1.0
Distilled Spirits	1.0	1.1	1.1	0.9	0.9
Coolers	—	—	—	0.2	0.4
Total Alcoholic Beverages	12.0	14.0	15.1	14.6	14.9
Non-Alcoholic Beverages					
Soft Drinks	15.0	17.7	22.9	26.6	27.3
Coffee	18.3	16.1	14.2	13.3	12.4
Milk	14.7	13.6	11.5	11.0	11.2
Fruit Juice/Drinks	4.0	4.7	5.2	5.4	5.5
Tea	3.1	3.5	3.7	3.4	3.3
Water	32.0	29.2	26.2	24.5	24.3
Other	0.9	1.2	1.2	1.2	1.2
Total Non-Alcoholic Beverages	88.0	86.0	85.0	85.4	85.2
Total	100.0	100.0	100.0	100.0	100.0

least one wholesaler in the state. In the control states the state itself is the wholesaler, and in 14 of the 18 states the distribution of liquor to the public through retail outlets is through state liquor stores (and privately owned "agency stores" in rural communities). Mississippi, Michigan, Wyoming, and Iowa limit their responsibilities to the wholesale function.

At-Rest Laws

All license states require an out-of-state supplier to sell to a locally licensed wholesaler, not directly to a retailer through an at-rest law. These laws are

designed to discourage the practice of "clearing" (in which wholesale houses write receipts for goods that are never placed inside their warehouses to give the appearance of being the second tier of the system) by requiring all merchandise shipped into a state to be consigned and delivered to a wholesaler. In addition, at-rest laws centralize the collection of taxes by specifying a single point where they are imposed (the wholesaler's premises). Some at-rest laws require the wholesaler to take physical control of the merchandise and deposit it in the warehouse. Indiana's version of the at-rest law states, "The sale, transportation, and delivery of

liquor shall be made only from inventory that has been located on the wholesaler's premises before the time of invoicing and delivery. . . ."² For wine wholesalers, the law reads, "He (the holder of a wine wholesaler permit) is entitled to sell, furnish, and deliver wine from inventory that has been located on the wholesaler's premises before the time of invoicing and delivery to a wine wholesaler, a wine retailer, a supplemental caterer, a temporary wine permittee, a supplemental retailer, and a wine dealer, but not at retail."³ The law does not specify a time period that the goods must remain in the warehouse before they can be shipped to retailers. This gives the wholesalers some flexibility to better serve retailers' demands.

Table 2
Consumption Trends

Distilled Spirits:	1986	'86v.'85	1981	'86v.'81
	1000 Gallons	% Change	1000 Gallons	% Change
Blends/Lights	28,488	-10.2	39,568	-28.0
Bonds/Straights	46,933	-11.8	67,343	-30.3
Canadian	46,916	-7.4	54,624	-14.1
Scotch	36,501	-8.9	47,567	-23.3
Vodka	87,767	-3.7	100,597	-12.8
Gin	33,403	-9.1	44,140	-24.3
Rum	30,802	-5.7	32,566	-5.4
Brandy	18,792	-9.6	21,329	-11.9
Cordials	43,803	-0.6	39,641	+10.5
Tequila	8,290	-0.3	7,940	-4.4
Cocktails	9,418	+18.3	8,496	+10.9
Totals	391,804	-5.7	465,268	-15.8

Wine-Foreign and Domestic:	1986	'86v.'85	1981	'86v.'81
	1000 Gallons	% Change	1000 Gallons	% Change
Table	350,567	-7.3	386,696	-9.3
Dessert	34,983	+2.0	42,287	-17.3
Wine Coolers	120,372	+36.8	—	—
Sparkling	44,231	-4.2	34,319	+28.9
Total	586,589	1.1	505,684	16.0

Beer-Foreign and Domestic (1 Barrel equals 31 gallons)	1986	'86v.'85	1981	'86v.'81
	Barrels	% Change	Barrels	% Change
Package	157,409	+2.6	154,546	+1.9
Draft	21,315	-2.1	22,151	-3.6
Total	178,724	+2.1	176,696	+1.2
Foreign-Package				
Draft	273,978	+11.6	161,848	+69.3

Table 3
Per Capita Consumption of Beer,
Liquor and Wine in Indiana

Year	Beer	Liquor	Wine
1974	16.70	1.26	0.67
1975	17.50	1.31	0.76
1976	18.30	1.32	0.76
1977	19.30	1.48	0.82
1978	20.40	1.44	0.92
1979	20.90	1.49	0.94
1980	21.90	1.46	1.05
1981	22.30	1.48	1.10
1982	22.50	1.44	1.12
1983	22.30	1.39	1.14
1984	22.00	1.39	1.27
1985	22.00	1.39	1.35

Table 4
Indiana Gallonage, 1981-1986

	Spirits	Beer	Wine
1981	8,093,244	123,448,194	5,998,881
1982	7,898,187	124,327,751	6,131,980
1983	7,615,661	123,022,933	6,234,154
1984	7,654,043	121,195,009	6,991,273
1985	7,644,922	120,623,389	7,398,958
1986	7,080,568	121,070,516	7,809,767

Primary-Source Laws

Primary-source laws prohibit nonresident suppliers from selling to wholesalers in the state unless the supplier is the primary American supply source for the brand of wine or distilled spirit. A primary source of supply is defined as a distiller, producer, vintner, rectifier, bottler, brewer, importer, or owner of the alcoholic beverage. Concerning liquor wholesalers, the law says, "A liquor wholesaler shall be entitled to purchase liquor within this state from a person who holds a distiller's permit, a rectifier's permit, or a liquor wholesaler's permit. A liquor wholesaler also may purchase

liquor outside this state from the primary source of supply and, from that source, may transport and import liquor into this state."⁴ Wine wholesalers "may purchase, import, and transport wine and brandy from the primary source of supply."⁵

Indiana's primary-source law also provides an audit trail for excise-tax collection, as it requires that a copy of each supplier's invoice be sent to the Indiana Department of Revenue and the Alcoholic Beverage Commission.

Price-Affirmation Laws

Price-affirmation laws require suppliers to sell to wholesalers at the lowest

prices they give any buyer in any state, including monopoly states. Indiana currently has no price-affirmation laws.

Trends in Consumption

The alcohol industry has national gross sales of \$44.5 billion and pays federal and state taxes, U.S. Customs duties, and license fees of approximately \$12.2 billion. There have been considerable changes in how these dollars are spent. Figures on the consumption of wine and spirits show a significant shift from distilled spirits to wine and beer nationally (see Tables 1 and 2).

This national trend away from spirits is also a trend in Indiana, as can be seen in per capita consumption figures.

Table 5
Indiana Alcoholic Beverage Sales

	1986 Wine Gallons	1985 Wine Gallons	% Change	% of state sales
Bonds/Straights	928,469	1,093,603	-15.1	13.1
Blends/Lights	705,565	769,427	-8.3	5.7
Scotch	401,941	463,066	-13.2	5.7
Canadians	1,121,484	1,351,186	-17.0	15.8
Other Imported Whiskey	5,188	4,721	9.9	0.1
Total Whiskey	3,162,647	3,682,003	-14.1	44.6
Brandy	159,358	175,892	-9.4	2.2
Vodka	1,249,090	1,359,184	-8.1	17.6
Gin	529,262	565,451	-6.4	7.5
Rum	408,053	512,629	-20.4	5.8
Tequila	121,548	138,753	-12.4	1.7
Cordials	981,594	1,028,925	-4.6	13.8
Cocktails/Misc.	482,074	182,603	164.2	6.8
Total	7,093,626	7,645,440	-7.2	100.0
Wine				
Total	7,810,000	7,399,000	+5.6	100.0
Beer (31 gallons equal 1 barrel)				
Packaged	3,498,572	3,472,020	+0.8	
Draft	412,840	422,898	-2.4	
Total	3,911,412	3,894,918	+0.4	

Table 7
Allocations from Alcoholic Beverage Taxes and Fees (Fiscal Years)

	84-85	85-86	86-87	87-88	88-89
General Fund	13,820,406	13,768,181	13,729,228	13,100,000	12,900,000
Dedicated Funds	29,767,196	32,198,466	30,147,733	30,600,000	30,200,000
Totals	43,587,602	45,966,647	43,876,961	43,700,000	43,100,000

After a \$1.50 increase in the federal excise tax per proof gallon of distilled spirits was imposed in 1985 there was a 5.7% drop in consumption of distilled spirits, the largest sales reduction in more than 50 years. Especially hard-hit were the whiskeys, which showed substantial losses in all categories but still took 40.7% of the total market.

The total wine market in the U.S. reached a record 586.6 million gallons in 1986. This total was due in large part to a 7.7% growth in sales of U.S.-produced wines fueled by a 36% growth in wine-cooler sales (an unknown product just a few years ago). Sales of imported wines

Table 6
Indiana State Excise Tax Structure

Beverage	Tax per Gallon
Malt Beverage	\$1.15
Liquor, Wine over 21% alcohol	2.68
Wine (21% Alcohol)	.47
Mixed Beverages—15% or less alcohol	.47
Wine-produced by a small winery	.27
Liquid Malt, wort	.05

were down considerably. Table wines sold 25.4% less in 1986 than in 1985, mostly because of the appreciating dollar against European currencies and consumer fears of the methanol scandal surrounding Italian table wines.

This national trend away from spirits is also a trend in Indiana, as can be seen in per capita consumption figures (Table 3).

These numbers place Indiana 38th out of the 50 states in liquor and wine consumption and 34th in beer consumption. The reduction in sales of spirits and increased sales of lighter alcoholic beverages can also be shown by total gallons consumed in Indiana from 1981-1986 (Table 4), as well as an examination of 1985 and 1986 sales figures in Indiana for the various categories of distilled spirits, wine, and beer (Table 5).

liquor tax per gallon (Florida's is the highest, \$6.50 per gallon, while Kentucky's is the lowest, \$1.92 per gallon). Indiana ranks 13th among the 32 license states in wine tax per gallon and 17th in beer tax per gallon. Actual fund allocation in 1984-1987 and estimated allocation in 1988-1989 (Table 7) reveal that estimated revenues from these sources are expected to decline over the next few years.

Revenues from the various taxes are distributed to the two funds according to the formula in Table 8. Permit fees and fines make up a small portion of total receipts. Most of the receipts come from excise taxes. Indiana has a much higher tax rate on liquor than do the license states on its borders, but tax rates on wine

Table 8
Revenue Distribution Formula

Fund		Tax/Gallon
General	Beer	.04
	Liquor	1.00
	Wine	.25
	Small Wine/Winery	.14
Dedicated PWCF ¹	Beer	.0475
	Liquor	1.17
	Wine	.16
	Small Wine/Winery	.09
Enforcement & Administration	Beer	.0075
	Liquor	.11
	Wine	.04
	Small Wine/Winery	.02
Pension Relief Fund	Beer	0
	Liquor	.34
	Wine	0
	Small Wine/Winery	0
Addiction Services Fund	Beer	.02
	Liquor	.06
	Wine	.02
	Small Wine/Winery	.02

1. Post-War Construction Fund used for the construction of penal, benevolent, charitable, and educational institutions

Tax Structure

Indiana state excise taxes on alcoholic beverages are imposed by the tax formula detailed in Table 6. Currently, Indiana ranks 17th out of 32 license states in

Table 10
Alcoholic Beverage License Fee and Excise Tax Revenues

Year	Current Dollars	1974 Constant Dollars	% Change in Real Dollars
<i>License Fees</i>			
1974	4,901,028	4,901,028	—
1975	5,281,597	4,898,765	-0.05
1976	5,696,309	5,114,261	-4.40
1977	5,857,583	5,116,165	0.04
1978	6,034,409	4,977,065	-2.72
1979	6,225,846	4,759,666	-4.37
1980	6,304,876	4,460,454	-6.29
1981	6,435,357	4,251,529	-4.68
1982	6,525,914	4,125,254	-2.97
1983	6,657,858	4,055,144	-1.75
1984	6,708,274	3,975,496	-1.92
1985	6,821,699	3,934,791	-1.02
<i>Tax Revenues</i>			
1974	25,106,728	25,106,728	—
1975	26,348,236	24,126,686	-3.9
1976	26,723,809	23,150,185	-4.0
1977	30,256,187	24,608,143	+6.3
1978	33,397,764	25,244,880	+2.6
1979	34,047,672	23,121,108	-8.4
1980	34,927,636	20,902,803	-9.6
1981	35,794,069	19,408,164	-7.2
1982	36,562,449	18,679,604	-3.8
1983	36,946,137	18,287,347	-2.1
1984	37,118,504	17,622,639	-3.6
1985	36,348,598	16,662,594	-5.4

1974 Base using the Consumer Price Index for all urban consumers.

Table 9
Comparison of State Alcoholic-Beverage Taxes

State	Liquor	Beer	Wine
Indiana	2.68	.115	.47
Illinois	2.00 ¹	.07	.23
Kentucky	1.92	.8645	.50

1. Cook County, Illinois places an additional \$1.00 on liquor, \$0.04 on beer, and \$1.12 on wine.

and beer are in the middle of those of the three license border states (Table 9).

Since permit fees have remain unchanged for over 50 years, their real value has fallen considerably since 1978 (Table 10). In fact, real license-fee revenues collected by the State have fallen by almost \$1 million since 1974. The alcoholic-beverage excise taxes in Indiana have risen \$.40 since 1973, from 2.28 to the current \$2.68, and the wine excise taxes have gone up from \$.40 to \$.47 per gallon. As a result, nominal excise-tax revenues have risen. But real revenues have fallen drastically.

Wholesaler Issues

The drastic reduction in the number of wholesalers operating in Indiana is a puzzling phenomenon, and one that would appear advantageous to the remaining wholesalers. Yet this is a far too simplistic way of examining the wholesaler issue. Traditional economic theory indicates that wholesalers could make exorbitant oligopoly or monopoly profits. However, this theory leaves out some important aspects.

First, the traditional monopoly analysis is of a firm that produces a product and is not under any pressure from the supply side in the production of the good. The "good" in this case is the storage and further transportation of wine and spirits to the retailers. If the wholesaler decides to mark up the prices he charges to retailers, who also want to maintain their profit

margins, then the market price of the good must rise. This will likely result in a reduction of the amount sold. With a declining market in distilled spirits and a relatively slow-growing wine market, maintenance of market share is becoming very important to the suppliers. If a supplier sees its market share declining, it can easily switch to wholesalers who will emphasize its brands more, especially since most supplier/wholesaler contracts do not really safeguard the wholesaler. Most of them can be terminated at will by the supplier in 30 days.

If a supplier sees its market share declining, it can easily switch to wholesalers who will emphasize its brands more, especially since most supplier/wholesaler contracts do not really safeguard the wholesaler.

Florida is just one example of this type of supplier influence; the liquor market there has been like a game of musical chairs. In every big-city market in the state, several brands have recently switched distributors. And Florida isn't the only state in which this is occurring. In Indiana, we have seen many changes in brands carried by wholesalers (Table 11). Since last spring, Fred Beck, General, and

Standard have gone out of business and LaSalle has become a part of Olinger Distributing. Although Jack Daniels, Brown Forman, and Heublein have showed little inclination to change wholesalers, that is not the case with James Beam and Seagrams Distillers. We have also seen large changes in what brands of wine the wholesalers carry.

How extensive has the consolidation of wholesalers been? One can see the trend in beer and liquor wholesalers in Table 12. This trend is not restricted to Indiana, and in fact is becoming national. Florida has had similar experiences. And according to Edward Ashley, President of Wine and Spirits Distributors of Florida, Inc. further movement in this area is expected in the future.

Kentucky places a quota on the number of wholesale licenses that may be issued (one wholesale license for every 31 retail package liquor licenses), and yet wholesalers do not have exclusive territories for wine and spirits. (Indiana wholesalers do not either.) Firms holding wine and liquor licenses can be put into two categories:

1. Those primarily engaged in the wholesale distribution of wine and spirits with statewide distribution; and
2. Those mainly involved in wholesale distribution of malt beverages but who also carry a limited selection of wine or spirits for small areas of distribution.

In the first category there are 22 wholesale wine and liquor licenses held by seven companies, who account for at least

Table 11
Spring 1982-Spring 1987 Terminations and Retentions of Wholesalers

	National	Olinger	Fred Beck	General	Standard	Columbia Heritage	Lake Shore	LaSalle	Terminations	Retentions
<i>Spirits</i>										
Total Terminated	4	1	3	3	2	7	7	5	32	—
Total Retained	10	7	7	9	7	3	2	5	—	50
<i>Wine</i>										
Total Terminated	1	2	1	2	1	1	3	3	14	—
Total Retained	6	0	2	3	1	0	2	1	—	15

Table 12
Beer, Liquor, and Wine Wholesalers in Indiana

	Beer	Liquor	Wine
Jan. 1982	163	22	47
Aug. 1983	159	23	54
Nov. 1984	140	23	63
Jan. 1986	130	22	74
Aug. 1987	122	19	95
	N/A	6	N/A

N/A = not available

98% of all sales of wine and spirits in Kentucky. The remaining 12 licenses are held by beer distributors who are not active in the wine and spirits markets. As in Indiana in the last two years, from 1980-1981 and again in late 1986 considerable consolidation took place.

If the number of wholesalers in Indiana is so small now, it might be thought that the suppliers are forced to go through these remaining wholesalers and accept whatever terms the wholesalers demand. But that is not really the case. Assume that there are only two wholesalers in the market. Both decide that a rise in wholesale prices of wine and spirits is warranted. As a result, market prices will likely rise for some products. If profits become too excessive, other investors may start warehouses of their own. As long as the investors can obtain wholesale wine and liquor licenses from the Alcoholic Beverage Commission (which are \$500 for wine and \$2,000 for liquor per year) and find suitable storage areas, they are in business. If a prospective wholesaler can offer a supplier a lower markup than the other wholesaler, then we would expect a shift toward that wholesaler and away from the current wholesalers. The shift could be significant if a major company (James Beam, Brown-Forman, Heublein, Hiram Walker, or Seagrams, who together constitute approximately 90% of the total spirits market) makes it.

This scenario hinges on two important assumptions. One is that prospective

wholesalers know that some suppliers will shift their business to them soon after they open; and, more important, new wholesale permits are made readily available to qualified wholesalers, allowing quick entry into the market. Indiana requires those seeking wine/liquor wholesalers' permits to be Indiana residents (for a proprietorship or a partnership) or to have 60% of the common stock owned by Indiana residents (for corporations). They must also have the appropriate equipment and facilities. Thus even with only a few firms in a market, a competitive structure can be maintained because of the threat of potential entrants.

As was pointed out earlier, suppliers place major restrictions on what wholesalers can and cannot do. One of the wholesaler's principal functions is to maintain a sales force that will sell the supplier's products. The largest wholesaler in Indiana, National Wine & Spirits (with an estimated market share of 25.4% in distilled spirits and 31.2% in wine) currently has 82 salesmen and is proposing to increase that number to 101. It is up to the wholesaler to find retailers who are willing to purchase the products. One might think that a supplier would like to get his product to as many wholesalers as possible to flood the market. Especially with a declining market in distilled spirits, however, suppliers are becoming more concerned with simply maintaining market share.

An inherent conflict of interest comes

into play if suppliers provide many wholesalers with their products. The suppliers lose some control in distribution, since they are supplying a larger number of wholesalers; more important, the wholesaler's sales team is forced to decide which brand of whiskey or vodka to push hardest.

The small supplier, or the supplier who provides the wholesaler with a small amount of his total inventory, is not likely to have much effect on the wholesaler, but large suppliers will.

The small supplier, or the supplier who provides the wholesaler with a small amount of his total inventory, is not likely to have much effect on the wholesaler, but large suppliers will. For example, National's gross sales (Table 13; specific brands were provided, but National has requested that we label them as brands 1-6 and other suppliers) indicate that three major brands make up 60% of total wine sales. Even more revealing is the fact that the top two spirits brands make up 75% of the spirits National sells and 60% of total gross sales of wine and spirits combined. A discontinued contract (which only requires 30 days notice) would be devastating if either of the top two distilled-spirits brands suddenly decided to go with another wholesaler.

The most straightforward way to see if the reduction in wholesalers is having an adverse market effect is to compare retail prices in Indiana to retail prices in other states. Unfortunately, price data is not maintained. This complicates attempts at an in-depth analysis. Finding prices for all wine and spirits products, while having the advantage of thoroughness, would be much too time-consuming to be practical. Therefore, we have examined only the prices of major brands and sizes in the following major markets: Chicago, Cincinnati, Dallas, Denver, Detroit, Indian-

Table 13
National Wine & Spirits Sales by Supplier

	Wine		Spirits	
	Gross Sales	% of Total	Gross Sales	% of Total
Brand 1	9,000	27.3	50,000	42.7
Brand 2	6,500	19.7	40,000	34.2
Brand 3	4,500	13.6	11,000	9.4
Brand 4	3,000	9.1	6,700	5.7
Brand 5	2,500	7.6	3,300	2.8
Brand 6	2,000	6.0	2,400	2.1
Other Suppliers	5,500	16.7	5,500	4.7
Total	33,000	100.00	117,000	100.00

Table 14
Prices of Alcoholic Beverages in Various Cities

	Chi ¹	Cin	Dal	Den	Det	Indy	LA	Lou ¹	Miam	Minn	NYC	D.C.
<i>Spirits</i>												
Bacardi Rum 1.75 L	10.99	14.99	10.19	15.50	11.69	11.99	11.69	13.99	14.39	12.99	11.95	
Canadian Club 750 ml	6.99		9.19		10.25	6.79	6.99	7.95	7.99	8.99	7.83	
Canadian Mist 1.75 L	10.99		13.99	9.29	15.98	9.99	10.88	11.49	12.99	14.99	12.79	10.98
Dewar's Scotch 750 ml	9.49				13.86	9.89		9.99	10.99	10.49	10.28	10.88
Early Times 1.75 L	9.99		12.99	9.99	15.93	9.99	11.68	11.39	12.34	14.49	12.99	10.95
Gordon's Gin 1.75	9.49		13.99	9.69	14.99	10.99	9.99	11.99	12.99	13.99	11.99	9.99
J & B Scotch 750 ml	9.49			9.49	13.81	9.49	9.99	9.99	10.54	11.99	11.12	
Jim Beam 1.75 L	9.99		14.99	10.19	15.98	10.99	10.99	11.99	12.99	13.99	12.99	10.99
Seagram's Gin 1.75 L	9.99		13.99	9.49	15.44	9.98	9.97	11.99	13.99	13.99	12.80	9.99
Seagram's 7 Crown 1.75 L	9.99		13.99	9.49	16.04	9.97	11.62	11.99	13.49	14.49	12.99	11.99
Seagram's VO 750 ml	6.99				10.31	6.79	7.99	6.99	7.99	8.69	7.99	
Smirnoff Vodka 1.75 L	10.99		14.99	10.29	15.80	10.99	10.58	11.59	12.99	14.39	12.99	9.99
Windsor Canadian 1.75 L	10.99		13.99	8.99	15.20	10.99		11.99	12.99	13.99	12.35	10.35
<i>1. Cook County tax of 46 cents per 1.75 Liter bottle and 20 cents per 750 ml bottle is collected by the retailer at the time of sale to the consumer and should be added to the price for Chicago. Cook County also adds 4.6 cents per 1.5 Liter bottle on table wines.</i>												
<i>Wines</i>												
Gallo 1.5 L	2.50	4.19	3.29	2.29	4.29	2.99	2.49	2.99	3.69	3.49	3.54	3.88
Inglonook 1.5 L	3.33	4.89	3.79	2.99	5.99	3.33	2.79	3.49	3.99	4.69	3.33	4.29
Riunite 750 ml	2.50		2.99	1.99	3.99	2.49		2.79	2.99	3.29		2.99
Taylor 1.5 L	2.99	4.89	3.79	3.69	4.28	2.99	2.99	3.59	4.49	3.99	3.83	3.99
Wild Irish, MD or Thunderbird 750 ml		2.69			1.99	1.99		1.99		2.79		
<i>Coolers</i>												
Bartles & James 4 pack	2.99	3.99	3.49	1.99	3.69	2.99	1.99	2.79	3.99	3.49	2.99	2.99
Seagram's Wine 4 pack	2.99	3.99	3.49	2.19	3.69	2.99	2.49	2.79	3.99	3.69	2.49	2.99

apolis, Los Angeles, Louisville, Miami, Minneapolis, New York City, and Washington D.C. (Table 14).⁶ Denver and Indianapolis seem to be the cities with the least expensive liquor and wine. Prices in Michigan, a control state, were much higher than prices in the license states. Data from Ohio for spirits could not be obtained.

Indiana, like almost every other license state, collects taxes on total gallonage, and different tax rates are placed on products with different alcohol content. Therefore, the states are not interested in actually examining and maintaining price figures.

Conclusions and Recommendations

A price survey sent to various major markets cannot determine whether the abrupt reduction in the number of wine and spirits wholesalers in Indiana is having an effect on market prices. A proper treatment would involve the analysis of state-collected price figures over a wide range of products at three different levels: from supplier to wholesaler, from wholesaler to retailer, and from retailer to customer. Unfortunately Indiana, like almost every other license state, collects taxes on total gallonage, and different tax rates are placed on products with different alcohol content. Therefore, the states are not interested in actually examining and maintaining price figures. Cross-state comparisons are further hindered by the variations in state laws. Illinois has enforced territories for wholesalers, but Indiana does not. Because of this no-guaranteed-territory situation in Indiana, suppliers must use a wholesaler who can distribute throughout the state to sell their products effectively. Kentucky's constant-

ratio formula of wholesalers to package liquor stores will almost always guarantee a constant number of wholesalers in the state regardless of market conditions, although the number of active wholesalers will change.

Each state should choose a certain number of brands and sizes of wine and spirits making up, say, 80% of the total market, and then collect prices at each of the three levels mentioned above. While this will not give comparisons to past prices, it certainly should reveal the effects of a small number of wholesalers on prices.

The wholesale tier is merely one player in the three-tiered system created after prohibition and designed to prevent the old tied-houses from ever returning. There has been extensive consolidation in the supplier market, which would also be expected to affect prices. Restrictions have been placed on the number of retail outlets selling alcoholic beverages. If only retail prices would be kept, researchers would be unable to determine which tier or tiers actually caused the price increase or decrease. Once again, price recording by a state agency could isolate the tier(s) that are responsible for any price changes.

The Alcoholic Beverage Commission is doing an admirable job by having minimal fees for wine and liquor licenses and by processing applications for these licenses quickly (usually 4-6 weeks) while still performing substantial background checks into potential new wholesalers.

Something else that would help to guard against market control by only a few firms is easy entry into the wholesale market. In this respect, the Indiana Alcoholic Beverage Commission is doing an admirable job by having minimal fees for wine and liquor licenses and by processing ap-

plications for these licenses quickly (usually 4-6 weeks) while still performing substantial background checks into potential new wholesalers.

An intriguing preliminary draft of a bill by Senator Carolyn Mosby (D-Gary), who served as a member of the Sunset Committee, would allow retailers to purchase beer, wine, and spirits from other retailers instead of requiring them to purchase from wholesalers. This bill could in effect create a wholesaler/retailer out of such current major retailers such as Hooks, Kroger, and Peoples. A bill such as this might help ensure that retailers can receive their products quickly and at a fair price, but its legality is in serious doubt and its future is not known. □

Notes

1. Indiana Code, Section 7.1-1-1-1.
2. Indiana Code, Section 7.1-3-8-3(b).
3. Indiana Code, Section 7.1-3-13-3.
4. Indiana Code, Section 7.1-3-8-3(c)(5).
5. Indiana Code, Section 7.1-3-13-3.
6. Data provided by Richard Baxter, executive director of the Wine and Spirits Wholesalers of Indiana, from surveys distributed in the major markets.

In the May 1988 Indiana Business Review:

Indiana County Population Projections, 1985-2020

Indiana Business Review

Published six times each year by the Indiana Business Research Center, Graduate School of Business, Indiana University.

Jack R. Wentworth, Dean
Morton J. Marcus, Director and Editor

Brian K. Burton, Managing Editor; Lowell McCoskey, Systems and Programming Manager; Benjamin Kim, Darren Wells, Editorial Assistants; Paula Carroll, Graphics and Pasteup; Vicki Fowler, Compositor Coordinator; Melva Needham, Circulation; Nikki Livingston, Senior Secretary; Jo Clontz, Office Manager; Louise B. Brown, Project Coordinator. Printed by Indiana University Printing Services.

Unless otherwise noted, information appearing in the *Indiana Business Review* is derived from material obtained by the Indiana Business Research Center for instruction in the School of Business and for studies published by the Center. Subscriptions to the *Indiana Business Review* are available to Indiana residents without charge.

Indiana Business Review

Indiana Business Research Center
Graduate School of Business
Indiana University
Bloomington, Indiana 47405

April 1988

Nonprofit Organization
U.S. Postage
PAID
Bloomington, Indiana
Permit No. 2

03580 8311
LIBRARY
CONGRESSIONAL INFORMATION SVS
45-20 EAST WEST HIGHWAY
BETHESDA MD 20814