

Should policymakers worry about harm to bars, VFWs, and fraternal organizations?

The Economic Losers from Smoking Bans

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Smoking bans in public places are promoted for a variety of reasons, including protecting public health and discouraging smoking. Such bans have become increasingly common in the United States. According to the ban-advocacy group Americans for Nonsmokers' Rights, 29 states now prohibit smoking in restaurants and 25 in bars. The group further claims that 17,628 municipalities are covered by either local or state bans on smoking in workplaces, restaurants, and/or bars.

Business owners often raise concerns that they will be economically harmed by the bans. Ban proponents dismiss those concerns. The proponents typically cite two literature reviews, one by M. Scollo et al. in 2003, and the other by Michael Eriksen and Frank Chaloupka in 2007, that describe the academic literature as showing that the bans have no statistically significant negative economic effects on bars and restaurants, and may even have positive economic effects.

Economists are naturally skeptical of assertions that a government intervention could yield benefits with no costs. Such intervention would be an example of the proverbial "free lunch," and free lunches are few and far between.

This article uses empirical evidence from Ohio's recently adopted smoking ban to determine if such bans have negative economic effects on bars and restaurants. The article examines ban noncompliance data from Ohio, under the hypothesis that establishments that regularly violate the ban do so because it is profitable to do so. The detail of the non-compliance data allows this analysis to determine what sorts of establishments, if any, are harmed by the bans and what sorts of establishments are not.

Ohio's comprehensive ban took effect in May of 2007. By

the end of 2009, over 21,000 citations for violating the prohibition were issued to 4,422 restaurants and bars, and another 11,000 citations were issued to 1,190 veterans organizations, fraternal organizations, and private clubs. The data indicate that individuals — owners, employees, customers, and smokers — associated with bars and organizations are much more likely to be harmed than their counterparts in restaurants.

An important implication of this research is that previous studies underestimated harm because they did not consider the implications of establishments not complying with the bans. This article also raises the important question of whether policymakers pay less attention to the desires of some establishments and their clientele — namely, bars and clubs, along with their patrons — than to others — namely restaurants and their customers. Thus, a fuller accounting of who bears the costs of bans should be weighed against any gains — both economic and public health — in a debate over the desirability of smoking bans.

PREVIOUS STUDIES

Previous studies of the economic effect of smoking bans have typically used a "community effects" methodology in their analysis. That is, they used aggregate data in their analysis, looking for changes in total revenues or tax receipts for all restaurants, bars, organizations, and other establishments combined. "Community effects" studies often conclude that bans do not exert harm because nonsmokers outnumber smokers, and thus bans cause more nonsmokers to frequent businesses and out-spend smokers who may lower their frequency and spending.

The problem with this methodology is that it is like looking at a community with 30 bars and restaurants and, after observing that total revenues have been \$150 million for each of the past five years, concluding that no changes occurred over that time. Lost in the aggregation is the possibility that some owners gained \$2 million in revenues, some lost \$2 million, and still others experienced no change. An unchanged or rising community aggregate cannot uncover whether revenues for some owners fell, or some owners went

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out of business, or if new businesses entered the community during the examination period.

More careful studies that disaggregate analysis to the level of individual businesses find that smoking bans exert differential effects: some establishments gain, some lose, and others are unaffected. A 1996 study that I conducted with William Boyes of bar and restaurant owners following the 1990 smoking ban in San Luis Obispo, CA found that 17 percent gained, 25 percent lost, and 57 percent were unaffected. A 2000 nationwide study that I conducted with John Dunham on the anticipated effects of a smoking ban found that surveyed bar owners predicted losses from smoking bans twice as often as restaurant owners. For bars, 82 percent predicted harm, 2 percent reported gains, and 14 percent were unaffected. For restaurants, 39 percent predicted losses, 10 percent reported gains, and 51 percent were unaffected. Owners who catered to many smokers predicted losses much

more often than those who did not. A 2003 study that I also conducted with John Dunham of Wisconsin bar and restaurant owners concluded that bar owners lost business 50 percent more often than restaurant owners following adoption of a local smoking ban. Smoking ban studies that disaggregate to the level of business in the United Kingdom, Scotland, and India also yield evidence of differential effects.

Common sense suggests that owners who had not found it profitable to voluntarily forbid smoking prior to a ban will be harmed by a ban more often and more likely to be cited for non-compliance. As for claims that smoking bans boost the value of bars and restaurants, a recent study by Robert Fleck and Andrew Hanssen suggests that, because bans are often adopted most readily in areas that are experiencing above-average rises in property values, studies of those bans mistakenly conclude that they cause rising business values, when actually business values were merely rising in step with overall real estate gains in those communities.

Bars probably suffer more harm from bans than restaurants because bars provide a more social atmosphere where customers enjoy mingling with one another. Bar owners find it more expensive, and many cus-

tomers would find it unappealing, to segregate smokers from nonsmokers, as would more normally occur in restaurants where such mingling is less important. Most bars are also too small to profitably offer smoking/nonsmoking choices for billiards, darts, or dancing. Research showing that restaurant owners offer substantially more nonsmoking seating than bars is consistent with this hypothesis.

A new study by Dinska Van Gucht et al. of 110 Belgian smokers assessed over four days is consistent with expectations that locations that focus on alcohol and social gathering are much more strongly associated with smoking than other locations. Over one-half of all 6,397 cigarettes (14.5 per person per day, on average) smoked were in just five types of locations: living rooms, kitchens, outdoors, in cars, and in bars. The most frequent circumstances under which these cigarettes were smoked were after eating, while watching TV or listen-

ing to the radio, on a work break, "on the go," together with alcohol, in the company of others, while having coffee, and at work. This study is consistent with expectations that social settings in which alcohol is present are more associated with smoking than restaurants where smokers apparently are more content to smoke upon leaving the premises than during meals. Moreover, studies also suggest that alcohol consumption influences both the magnitude and the emotional valence of cigarette cravings, thus again forging the connection between alcohol establishments and smoking.

SOME MATTER MORE THAN OTHERS?

Ban proponents who cite "community effects" analyses are not arguing that the bans are Pareto-optimal, as that would require either no harm to any bar or restaurant owner or adequate compensation to those who are injured by the ban. They probably mean that harm to individual owners are matched, or smaller than, gains to other owners. However, this distinction is usually never discussed. Community effects studies do not disaggregate to the level of individual owners, thus making it unclear who gains or loses and whether characteristics of gainers and losers differ in any significant manner.

A recent exception is a 2009 study by Hans Melbert and Karl Lund of Norway's ban, in which aggregate revenue gains of restaurants were found to outweigh aggregate losses for bars. The authors conclude, "Some smaller sub-sectors might experience a decline, but the hospitality industry on the whole will not experience a statistically significant decline in revenue." Apparently, the authors used a social welfare function in which all bars and restaurants are treated equally and that, as long as the overall sum of revenues did not decline, the net economic damage is either zero or nonexistent. Of course, this also ignores gains or losses imposed on workers, customers, nonsmokers, and smokers.

This discussion raises questions of whether a policy that creates winners and losers is ethical — certainly an issue that deserves clarification when advocating bans on the grounds that somehow the overall community is either unaffected or gains from bans. If, for example, most winners are restaurants and most losers are bars, does this fact matter? Does it matter if most bars that lose are small, local "mom and pop" establishments that serve little or no food, rather than large corporate chains that offer full-service bars along with large-scale food operations? Unfortunately, the "community effects" methodology does not allow inspection of who actually gains or loses.

NONCOMPLIANCE AS AN INDICATOR OF HARM

A few compliance studies exist based on independent observations of small subsets of affected businesses. A 2003 study by M. D. Weber et al. examining 650 California establishments per year for five years found compliance rates rose from 46 percent to 76 percent for bars and from 92 percent to 99 percent for bars/restaurants over 1998–2002. A 2009 study by Roland Moore et al. of 121 stand-alone bars in San Francisco found a 30 percent noncompliance rate during 2002–2003. A 2008 study by Douglas Eadie et al. of Scotland's ban found that, despite government claims of 98 percent compliance, compli-

ance rates from a sample of eight bars varied substantially, with the lowest levels observed in bars located in lower-income neighborhoods. These studies never entertain the hypothesis that noncompliance indicates bans harm some businesses.

An advantage of examining compliance data is that commonly used measures of revenue or tax receipts may not always reflect harm. Data on profits at the level of individual firms have never been examined either, though such data would provide better measurement of harm than revenues. Moreover, bans affect owners, employees, and customers in ways that involve revenues, prices, services, hours of operation, wages, hours worked, menu items, and other factors. Measuring harm by any subset of these factors is clearly not possible since research has shown that bans exert different effects on these many factors across different businesses.

A recent example makes clear that bans push owners to rearrange their business attributes. Nick Hogan, a former pub landlord, became the first person to be jailed in connection with the UK smoking ban after refusing to pay a fine and costs of roughly \$11,000. Hogan argued: "Ninety percent of people who come into my pub want to smoke. Even the nonsmokers think there should be a choice. These laws are ridiculous." In contrast, Deborah Arnott, chief executive of the anti-smoking group ASH, insisted it was a myth that the smoking bans in any way damaged pubs. Arnott stated: "Many pubs have shifted their focus to serving food, so they have changed their nature." But her analysis is flawed; shifting away from alcohol and toward food reflects harm reduction efforts, and likely would have been implemented prior to the ban if they were truly profit-enhancing. A focus on revenues or tax receipts is unlikely to measure true levels of harm.

Owners who do not find it profitable to comply with a ban will predictably be those with the most to lose from fuller compliance and, other than those who close their businesses, are those most damaged by a ban. Fuller compliance could be promoted through higher fines, more frequent inspections, and possible confiscation of liquor licenses or forced closures of businesses. Continued noncompliance would thus appear to be a useful indicator of harm from bans and does not force us to choose any one attribute — such as revenues or tax receipts — to measure harm.

OHIO'S SMOKING BAN

Ohio voters approved the state's indoor smoking ban in November of 2006. The Ohio Department of Health estimates that 280,000 public places and places of employment are covered by the ban, which excludes only private residences, family-owned businesses with no non-family employees, certain areas of nursing homes, outdoor patios, and some retail tobacco stores. Business owners have three responsibilities: prohibit smoking in any public place or place of employment, remove ashtrays, and post clearly legible no-smoking signs with the toll-free enforcement number in conspicuous places.

The law allows for both businesses and individuals to be fined for violations, though recent court actions have called into question the legality of fining owners for smoking by customers. Businesses receive warning letters for first violations,

\$100 fines for second violations, \$500 fines for third violations, \$1,000 for fourth violations, and \$2,500 for fifth and subsequent violations. Fines may also be doubled for intentional violations at the discretion of the enforcement entity and may also be assessed on a daily basis for continuing violations. Individuals receive warning letters for first violations, and then \$100 for the second and subsequent violations. There are also penalties for retaliation against complainants that begin with a warning letter for first violations, \$1,000 fines for second violations, and \$2,500 fines for third and subsequent violations.

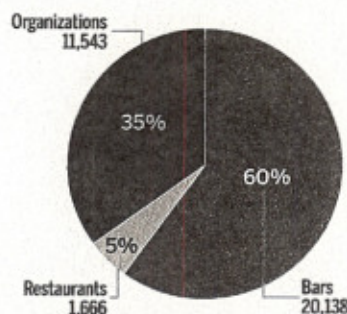
Noncompliance A complete list of citations for violating Ohio's smoking ban beginning with initial enforcement in May 2007 to year-end 2009 was obtained through the kind efforts of Pam Parker of the group "Opponents of Ohio Bans." This list contains the entire population of citations and thus does not suffer from small sample bias that hampered the few previous studies that collected compliance data. Locations of citations were separated into four categories by inspection of their business name and, when it was not obvious, an Internet search was undertaken in order to judge which group they belonged in. The four groups are:

- **Bars**, which are businesses that focus on alcohol sales or, if they also serve food, prominently list alcohol on their menu. Business names often contain "bar," "pub," "brew," "club," "drinking," "sports bar," "billiards," "darts," "lounge," or "public house" in their title. Most are small bars, but there are also national corporate chains, such as Chili's and Applebee's, that offer full-service bars. This category was selected on the basis of previous research indicating that businesses that focus on alcohol are more frequently harmed by bans. Previous research also indicates a connection between smoking and alcohol consumption, thus suggesting bars attract relatively many smokers.
- **Restaurants**, which provide food and non-alcoholic beverages, though some provide limited alcoholic drink menus that are not prominently listed on their menu. Examples of national corporate chains are Denny's and Bob Evans Restaurants, as well as "fast food" chains (e.g., McDonalds, Burger King, Wendy's) and many breakfast/lunch businesses. Previous research has indicated that smokers tend to smoke following meals,

Figure 1

Smoking Ban Violations

May 2007–December 2009

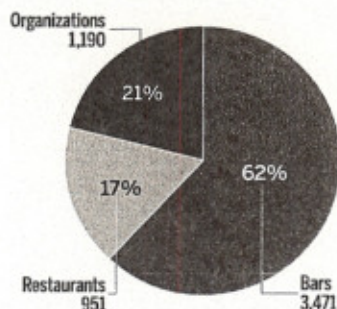


NOTE: Some establishments were cited multiple times.

Figure 2

Locations Cited for Violations

May 2007–December 2009



thus suggesting smokers frequenting restaurants are less apt to want to smoke while in restaurants than when in bars.

- **Organizations**, which include fraternal organizations (e.g., Elk and Moose lodges), veterans' groups (e.g., Veterans of Foreign Wars, American Legion), and private clubs (e.g., shooting clubs, country clubs, swim clubs). Many of these organizations offer full-service bars and thus are closer to "bar" than "restaurant" categories. Research also indicates that smoking prevalence of veterans is as much as 25 percent higher than non-veterans. Research suggests that the military's smoking culture is bolstered by a high rate of alcohol consumption, which many believe to be associated with smoking as well.
- **Other**, which includes all other locations in which citations were given. Locations are highly varied and include elementary and secondary schools, universities, parking garages, courthouses, gasoline stations, supermarkets, convenience stores, floral shops, apartment and office buildings, hotels, manufacturing plants, nursing homes, rental car companies, buses, medical offices, and hospitals.

Figure 1 displays the numbers of citations issued for noncompliance for bar, restaurant, and organization categories from May 2007 to December 2009. The "other" category of roughly 14,000 citations will not be analyzed further because it is heterogeneous and has not been the focus of previous inquiry. Bars lead in violations with 20,138 (60 percent), with organizations cited 11,543 times (35 percent), and restaurants 1,666 times (5 percent). The data thus indicate that bars and organizations find noncompliance more profitable than restaurants. That organizations experience so many citations suggests they are more like bars than restaurants.

Figure 2 displays individual locations cited for noncompliance. In cases of multiple locations of the same business name, each unique location was counted once; e.g., multiple "Mike's Bar and Grill" locations in a town would each be counted once. Bars again lead citations with 3,471 (62 percent), followed by organizations with 1,190 (35 percent), and restaurants with 951 (17 percent).

Table 1 displays average citations per location. Bars average 5.8 citations, restaurants 1.7 citations, and organizations 9.7 citations. Maximum citations ranged from 48 for restaurants (specifically, a restaurant focusing on chicken wings), 119

for bars (specifically, a night club), to 218 for organizations (a VFW). Conventional tests indicate differences in means are significant between these categories and confirm that bars and organizations experience continued noncompliance more often than restaurants. Figure 3 displays the distribution of citation frequency by individual establishments. The evidence indicates restaurants are much less likely to be found in continued noncompliance.

Table 2 displays the top 10 bars and organizations cited for continued noncompliance. Specific names and identifying lodge numbers are removed to protect privacy. All top 10 bars contained the words "saloon," "tavern," "night club," "pub" or "lounge" in their names. Large corporate chains with full-service bars (e.g., Chili's and Applebee's) received just one citation. The top 10 organizations are VFWs and Moose and Eagle lodges.

Table 3 displays summary statistics of the organizations cited for most continued noncompliance. The Fraternal Order of Eagles leads with 2,648 citations issued to 164 branches, followed by Veterans of Foreign Wars with 2,239 citations issued to 253 branches. In total, these eight organizations were issued 9,606 citations to 851 branches. The eight organizations accounted for 83 percent of all citations and 71 percent of individual locations within the organization grouping.

Obviously, citations represent few of the instances in which the ban has been violated and citation data are subject to var-

ious biases. It is unlikely that public health authorities pick their visits on a purely random basis, and common sense suggests locations with relatively many smokers violating the law are targeted. Thus, citation data probably indicate bars and organizations are where smokers continue to smoke the most. No information is available on how many inspections found full compliance. Owners, employees, and customers who prefer to keep smoking have also undoubtedly developed sophisticated tactics to avoid detection. Working hours of enforcement officers are probably well known, and their faces are likely becoming common knowledge.

CONCLUSION

Noncompliance data indicate that smoking bans impose economic harm on some bars, restaurants, and organizations, with continued noncompliance mostly in bars and organizations. Cases of continued noncompliance apparently indicate where smokers congregate and continue to smoke in the presence of the ban. Previous studies underestimated harm to the degree that continued noncompliance indicates higher losses from greater enforcement. Public health authorities rarely publicly complain about noncompliance, since drawing attention to these owners is inconsistent with claims that bans do not cause economic harm. Public airing of continued citations might also empower owners to seek remedies for losses.

Studies claiming that bans impose benefits without costs distort the debate over whether communities should adopt the prohibitions. Even if ban proponents reject the Pareto-optimal framework that requires adequate compensation for harm, the question remains regarding who gains and loses within the net benefit framework that apparently underlies the "community effects" methodology. "Community effects" studies gloss over costs imposed on individual owners, workers, customers, and smokers. This article's focus on continued noncompliance provides new information on who loses — mostly individuals associated with bars and organizations — and a fuller accounting of their costs should be weighed against any benefits — both economic and public health — in debates over desirability of smoking bans.

A reasonable question remains whether it is appropriate to target so much of the harm from smoking bans on sectors that provide social settings for adult customers. Bars and most of the organizations cited for continued noncompliance do not cater to children, which clearly takes away arguments that bans somehow protect the health of children. Members of social clubs and patrons of bars also voluntarily choose these locations and it would appear that nonsmokers have plentiful opportunities for avoiding smoking by visiting one of many locations in full compliance. Bars in continued noncompliance probably reflect the remaining locations where smokers feel comfortable congregating with a shared purpose of violating the ban. It is hard to believe that these locations would not be common knowledge by nonsmokers and easily avoided by those wishing to frequent smoke-free locations.

Some might also worry that smoking bans in effect target

Table 1

Citations Per Business

May 2007–December 2009

	Mean	Median	Max	Min.	Std. Dev.	Obs.
Bar	5.8	2	119	1	9.87	3471
Restaurant	1.7	1	48	1	2.67	951
Organization	9.7	3	218	1	19.10	1190
All	5.9	2	218	1	12.03	5612

Table 2

The Top 10 Noncompliers

Bars and Organizations

Ranking	Bars	Citations	Organizations	Citations
1	Night Club	119	Veterans of Foreign Wars	218
2	Night Club	119	Loyal Order of Moose	207
3	Saloon	103	Fraternal Order of Eagles	157
4	Tavern	99	Loyal Order of Moose	155
5	Lounge	96	Loyal Order of Moose	131
6	Pub	95	Fraternal Order of Eagles	118
7	Sports Bar	95	Fraternal Order of Eagles	116
8	Pub	93	Veterans of Foreign Wars	111
9	Pub	93	Loyal Order of Moose	111
10	Tavern	85	Fraternal Order of Eagles	110

NOTE: Specific business names and organization numbers were removed to protect privacy.

Table 3

Top Organizations in Continued Noncompliance

May 2007–December 2009

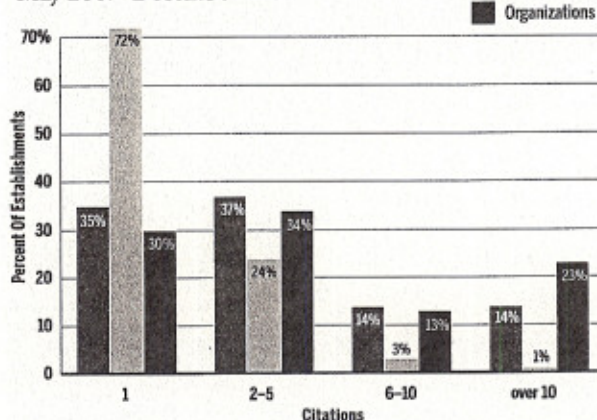
Organization	Citations	Branches	Average Per Organization
Fraternal Order of Eagles	2648	164	16.1
Veterans of Foreign Wars	2239	253	8.8
American Legion	1720	190	9.1
Loyal Order of Moose	1699	85	20.0
Amvets	1015	91	11.2
Elks Lodge	200	47	4.3
Fraternal Order of Orioles	55	10	5.5
Knights of Columbus	28	11	2.5
Total	9604	851	11.3

specific locations for harm such as those catering to smokers and alcohol drinkers. That raises the possibility that bans are used to systematically target individuals who gather at bars, veterans associations, and fraternal organizations. It would appear that these individuals matter less in our definition of communities than those not targeted, when one accepts the validity of a "community effects" methodology to judge whether or not a ban causes economic harm. If true, it would be more ethical to simply state that targeting such locations for harm is appropriate rather than pretending that no one suffers harm or that, even if there are more winners than losers, that bans do not systematically penalize some in our

Figure 3

Citations per Establishment

May 2007–December 2009



communities more than others.

Finally, enforcement costs in Ohio have been estimated at \$3.2 million and, although \$1.2 million in fines have been levied, only \$400,000 has so far been collected. A recent court decision has suggested that owners are not legally responsible for customers who continue to smoke and has lent support for owners wishing to recover past paid fines. Given roughly 47,000 citations, enforcement costs of roughly \$68 per fine is a hefty tax imposed on taxpayers, given only \$8.50 in revenue per citation. The difference — \$59.50 per citation — is picked up by taxpayers and is another cost associated with the ban. 11

Readings

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- "Do Smoking Bans Reduce Heart Attacks?" by Michael L. Marlow. *Journal of American Physicians and Surgeons*, Vol. 15 (Spring 2010).
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- "Short-run Economic Effects of the Scottish Smoking Ban," by B. Adda, S. Berlinksi, and S. Machin. *International Journal of Epidemiology*, Vol. 36 (2007).
- "Smoking Behavior in Context: Where and When Do People Smoke?" by Dinska Van Gucht, Omer Van den Bergh, Tom Beckers, and Debora Vansteenkoven. *Journal of Behavior Therapy and Experimental Psychiatry*, Vol. 41, No. 2 (June 2010).
- "The Differential Effects of Smoking Laws on Restaurants, Bars and Taverns," by John Dunham and Michael L. Marlow. *Contemporary Economic Policy*, Vol. 18 (July 2000).
- "The Economic Effects of Smoking Bans on Restaurants and Pubs in the UK," by Barrie Craven and Michael L. Marlow. *Economic Affairs*, December 2008.
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- "The Public Demand for Smoking Bans," by William J. Boyes and Michael L. Marlow. *Public Choice*, Vol. 88 (July 1996).
- "Warning: Anti-tobacco Activism May Be Hazardous to Epidemiologic Science," by C. V. Phillips. *Epidemiological Perspectives and Innovation*, Vol. 4 (2007).
- "Why Understanding Smoking Bans is Important for Estimating Their Effects: California's Restaurant Smoking Bans and Restaurant Sales," by Robert K. Fleck and F. Andrew Hanssen. *Economic Inquiry*, Vol. 46, No. 1 (January 2008).