Going Smoke-Free

Good for the Public's Health and Safe for the Bottom Line

Georgia PIRG
Education Fund

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Executive Summary

The United States Centers for Disease Control and Prevention has concluded there is no safe level of exposure to secondhand smoke, the third leading cause of preventable death in America.

To reduce exposure to secondhand smoke, thousands of municipalities in all 50 states have enacted smoke-free workplace policies. In 2005, the state of Georgia joined their ranks with the passage of the Smokefree Air Act. However, Georgia's law allows smoking to continue in select locations, including bars and restaurants that do not serve minors under 18. As a result, many workers and citizens in Atlanta and elsewhere in Georgia still face the dangerous health threat of secondhand smoke.

Legislators exempted bars and restaurants primarily because of concerns that smoking restrictions would drive customers away. However, studies in hundreds of locations around the country have found that these fears are simply unfounded. Smoke-free laws have no negative effect on business at bars and restaurants—and in some cases even help.

Atlanta should join the ranks of American cities with strong ordinances restricting smoking in all places of employment, including bars and restaurants. A strong smoke-free workplace ordinance will safeguard the health of Atlanta's workers and public, without harming local businesses.

Scientific studies consistently demonstrate that bars and restaurants are unharmed by the implementation of smoke-free workplace ordinances.

- 100 percent of well-designed, peer-reviewed studies of smoke-free workplace policies published between 1989 and 2005 show that going smoke-free has no negative impact on sales or employment in the hospitality industry. In a number of cases, business performance improved after the transition to a smoke-free environment.

Restricting smoking at bars and restaurants does not reduce revenue or force closures.

- El Paso, Texas, required restaurants, bars and mixed-beverage establishments to become smoke-free in 2002. In a statistical analysis that controlled for inflation and seasonal variability, "Evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry.

— U.S. Surgeon General Richard Carmona, The Health Consequences of Involuntary Exposure to Tobacco Smoke, 2006[1]

the U.S. Centers for Disease Control and Prevention detected no change in revenues in the following year.

- Florida enacted a state-wide smoke-free workplace law in 2002. In the following months, Dr. Chifeng Dai at the University of Florida documented a 7.4 percent increase in gross sales among restaurants and catering services, after accounting for changes in population, income and the economy.

Smoke-free policies do not adversely affect employment in bars or restaurants.

- After Florida's 2002 smoke-free law, a University of Florida study showed that state-wide hospitality employment climbed 4.5 percent after controlling for population, income growth, inflation, underlying economic conditions and for seasonal business variation.

- New York City reported a gain of more than 10,000 restaurant and bar jobs in 2003, the year after its smoke-free law went into effect.

- After restricting smoking in bars and restaurants in 2004, cities in Kentucky and Massachusetts reported no change to restaurant and bar employment.

Local smoke-free regulations do not hurt local businesses.

- Workers in restaurants and bars in Lexington, Kentucky—where officials restricted workplace smoking in 2004—earned just as much pay after going smoke-free as before. Employment levels stayed consistent, and most customers did not travel to do business in other areas of Kentucky without smoke-free policies.

- Wisconsin's Dane County, home to the state capital of Madison, enacted a smoke-free ordinance in 1992, at a time when the majority of the state permitted workplace smoking. Over the next five years, tax receipts from restaurants in Dane County increased faster than the state average.

Smoke-free policies save money for businesses.

- Business owners who permit smoking in the workplace bear elevated health care and worker's compensation costs. Asthma related to secondhand smoke alone costs the United States $773 million each year in direct medical expenses—costs borne in part by business owners.

Studies that claim smoke-free ordinances harm business are likely to suffer from poor design or conflicts of interest.

- Dr. Michelle Scollo at the VicHealth Centre for Tobacco Control in Australia reviewed all published studies on the economic impact of smoke-free policies in 2003 and again in 2005. She found that studies claiming negative impacts were 20 times more likely to have no peer-review than studies showing positive or neutral economic impact. These studies tended to use subjective, anecdotal and scientifically questionable measurements to reach their conclusions.

- Moreover, 100 percent of studies claiming negative impact were funded by groups with ties to the tobacco industry, which has a clear financial stake against smoking restrictions.

Atlanta should adopt a comprehensive smoke-free ordinance for all places of employment, including bars and restaurants.

- According to the U.S. Surgeon General's office, eliminating smoking from the workplace "is the only effective way to ensure that exposures are not occurring."

- While the Georgia Smokefree Air Act allows smoking to continue in select workplaces, it does not prevent local governments from enacting stronger smoke-free policies.

- Atlanta should follow the lead of other major cities across the U.S., including Houston, Miami, New York, Baltimore and Chicago, by enacting a comprehensive smoke-free workplace ordinance.

- The ordinance should apply to areas exempted under the 2005 Georgia Smokefree Air Act, including bars and restaurants that do not serve or employ people under 18 years of age (even those with separate ventilation systems), outdoor areas of employment, long-term care facilities, all hotel rooms, and areas of the Hartsfield-Jackson International Airport.

Introduction

Secondhand smoke kills. The U.S. Centers for Disease Control and Prevention have concluded there is no safe level of exposure to tobacco smoke. Breathing smoky air can lead to asthma, heart disease and lung cancer, among other illnesses. Each year in the United States, as many as 63,000 non-smokers die as the result of exposure to secondhand smoke.[2]

Reducing exposure to secondhand smoke has real, measurable public health benefits. For example, the number of patients admitted with symptoms of a heart attack fell by nearly 50 percent at St. Peter's Community Hospital in Billings, Montana after the city implemented a comprehensive smoke-free workplace ordinance in June 2002.[3]

While the state of Georgia has taken steps to restrict smoking in workplaces, it has not gone far enough. The Asthma and Allergy Foundation of America recently named Atlanta one of the top 5 worst cities for people with asthma in the U.S., in part because the city allows smoking in bars, select restaurants and other workplaces.[4]

To make a living in an Atlanta bar, most workers have no choice but to accept exposure to secondhand smoke. Smokers are allowed to light up in other workplaces as well, including restaurants that don't employ or serve minors under 18, restaurant patios, long-term care facilities, outdoor worksites, hotel rooms designated as smoking rooms, and parts of the Hartsfield-Jackson International Airport.[5]

Legislators crafting the 2005 Smoke-free Air Act included these exemptions in part to satisfy concerns that restricting smoking would harm business. At hearings on the legislation, for example, lobbyists for the tobacco industry argued that restaurants would suffer. Lobbyist E.C. "Rusty" Kidd, representing the R.J. Reynolds Tobacco Company, presented findings from a National Restaurant Association report that showed restaurant sales declining by up to 50 percent in counties with comprehensive smoke-free workplace ordinances that included restaurants and bars.[6] The report also claimed that restaurants with sales declines under smoke-free policy saw even greater decreases in their gross profits.[7]

What Kidd didn't tell the legislature, however, was that the Philip Morris tobacco company paid the National Restaurant Association $75,000 to commission the report.[8] He also didn't tell the legislature how to tell the difference between a valid study on economic impacts and a poorly designed one.

In this report, we take a closer look at the impact that smoking restrictions have on business at bars and restaurants. Dozens of well-designed studies have been conducted in smoke-free cities and states all across the country. Many of these studies have used objective measures of business activity, such as sales tax receipts. Many have used scientifically rigorous analytical techniques, accounting for the influence of population changes and larger economic patterns in order to isolate the influence of smoking regulations on business. Many have been peer-reviewed and validated by experts in the field.

Well-designed studies all come to the same conclusion: at the very least, smoke-free policies do not harm business—and in some cases, they provide economic benefits. Currently, more than half of all Americans live in areas where smoking is completely prohibited in workplaces, restaurants, or bars.[9] And business in these cities continues to thrive.

It is time for Atlanta to join the ranks of other major American cities—including Louisville, Columbus, Houston, Denver, Boston, Baltimore, Chicago and New York—that do not allow smoking in any indoor workplace.

Businesses Remain Successful After Smoking Regulations Are Implemented

Over the past decade, a growing body of scientific work has rigorously examined the economic impacts of smoke-free workplace policies. The data are clear: going smoke-free has no negative impact on business revenues, profitability, or employment. In many cases, in fact, smoke-free laws appear to have helped businesses grow. These findings are consistent in rural and urban areas, at statewide and local levels, and in southern states such as Florida, Kentucky, North Carolina, and Texas, as well as more distant states like Wisconsin, California, and Massachusetts.

Building a Scientific Consensus on the Economic Impacts of Going Smoke-Free

Smoke-free workplace laws have existed in the United States for more than 40 years. However it was only in the 1980s that such laws began to gain real popularity. In the growing public debate over workplace smoking, research on the economic impacts of smoke-free policy took on increasing importance. Between 1988 and 2003, researchers published 97 studies on the economic impacts of smoke-free laws enacted in 31 U.S. states and eight countries around the world.[10]

The findings varied: some studies claimed that going smoke-free helped businesses grow, others showed that businesses were damaged by the laws, and still others showed that smoke-free policies had no economic impact. Of course, each one argued persuasively—but a 2003 review showed a clear and telling trend. Research meeting minimum standards for quality all agreed that smoke-free workplace laws had—at minimum—no adverse effect on business.

Identifying Quality Research

The review, conducted by Michelle Scollo and her colleagues at the VicHealth Centre for Tobacco Control in Australia, set out four widely accepted scientific standards for grading the 97 studies that had been published on the economic impacts of smoke-free laws. Three reviewers, one of whom was blind to both the project's purpose and its funding source, assessed each study based on its use of:

- **Objective data**, such as tax revenues, routinely collected by an independent agency during a period before and after a smoke-free law was put in place. In contrast, anecdotal data collected by polling or interviewing business owners counted as subjective.

- **Rigorous statistical analysis** of a comprehensive data set spanning an adequate length of time both before and after the implementation of a smoke-free law, including rigorous control for variables such as population changes, income fluctuation and broader economic conditions.

- **Peer review** by being published in a peer-reviewed journal.

- **Funding sources.** Reviewers took note of connections to various institutions, including the tobacco industry.

In all, the researchers examined 97 reports. Of these, 34 discussed the impacts of smoke-free policy on drinking establishments and 90 targeted impacts on restaurants. One study also examined hotels while another investigated tourism.

Quality Studies Agree: Going Smoke-Free Does Not Harm Business

Dr. Scollo came to an unequivocal conclusion. Peer review was an overwhelming indicator of study quality: studies that were peer-reviewed were five times more likely to meet all of the remaining three criteria for a scientifically rigorous study. **Overall, 100 percent of studies that met all four of the criteria for quality scientific research showed that smoke-free policies had neutral or positive economic impacts.**[12]

Given the strength and unanimity of these findings, U.S. Surgeon General Richard Carmona concluded in his 2006 tobacco smoke report, "Regardless of the outcome measured, the studies found no evidence of negative economic impacts… No peer-reviewed study using objective indicators such as sales tax revenues and employment levels found an adverse economic impact of smoke-free laws on restaurants and bars."[13]

The following case studies sample the lessons learned from the past two decades of quality scientific research on the economic impacts of smoke-free policy. Drawn from cities, counties and states across the country, these case studies show that bar and restaurant owners have nothing to fear from going smoke-free.

> "Evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry."
>
> — U.S. Surgeon General Richard Carmona, in The Health Consequences of Involuntary Exposure to Tobacco Smoke, 2006[11]

Revenues Are Unharmed by Smoke-Free Policies

Business owners may be anxious that smoke-free laws will drive away customers, reducing revenues. But these worries are unfounded. Numerous studies have shown that—at minimum—smoke-free laws do not decrease revenues. In some cases, net revenues increase as non-smokers patronize businesses in greater numbers.

Florida

In November 2002, Florida citizens voted to protect employees from the dangers of secondhand smoke in the workplace. The Florida Clean Indoor Air Act, which took effect in 2003, ended smoking in restaurants, bars connected to restaurants, hotel lobbies, and bars which earned more than 10 percent of their gross revenues from food sales.

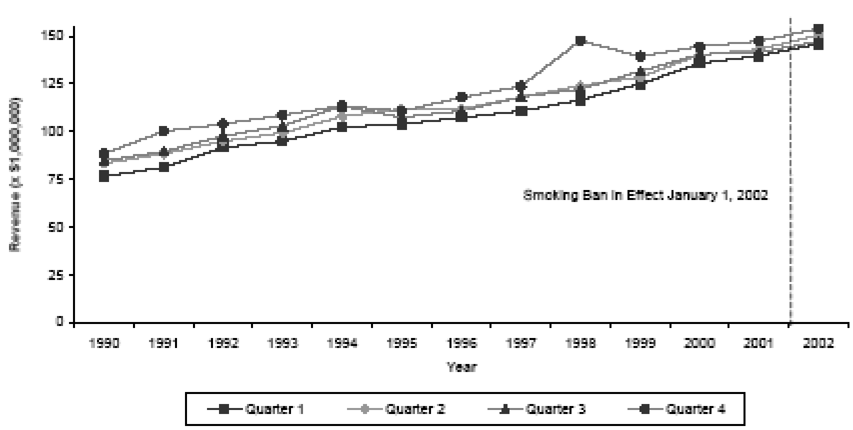
Researchers at the University of Florida-Gainesville kept a close watch on restaurant and catering service incomes around the state during the year following policy implementation. Controlling for changes in population, income growth, inflation, and underlying economic, conditions and for seasonal variation, they measured annual gross sales in busy restaurant districts from Miami to Tampa to West Palm Beach.[14]

Instead of seeing a sharp drop in restaurant revenue, the University of Florida group found the opposite. Restaurant and catering income as a fraction of total sales across the state increased—by 7.37 percent.[15] The group's assessment of income for bars, taverns, night clubs and liquor stores also showed growth, though the increase was not statistically significant.[16] Neither group—restaurants nor bars—suffered falling revenues as a result of the Clean Indoor Air Act.

El Paso, Texas

Restaurateurs and bar owners in El Paso, Texas, had a similar experience in 2002 when the city prohibited smoking in all workplaces, including restaurants and bars. A follow-up report by the U.S. Centers for Disease Control and Prevention (CDC) found that the restaurant and bar industries serving El Paso's half million residents did not experience any statistically significant change in revenue in the year after going smoke-free.[17] Like the University of

Figure 1. Gross restaurant and bar revenues, before and after going smoke-free, by quarter – El Paso, Texas, 1990-2002[18]



Florida study, the CDC report accounted for factors such as inflation and seasonal variability. (See Figure 1.)

California

Critics often claim that small bars are among the hardest hit when smoke-free regulations are put in place. However, small bars in California remained successful after the state's 1998 comprehensive smoke-free workplace law.

In a peer-reviewed study published in 2000, Dr. Stanton Glantz of the University of California San Francisco Medical Center demonstrated that bars throughout California experienced a small, though statistically significant, increase in revenues following the smoke-free legislation.[19] Dr. David Cowling of the California Department of Health Services confirmed this finding by evaluating tax revenues from bars from 1990 to 2002.[20] Dr. Cowling also found that going smoke-free was associated with increased revenues at California restaurants.[21]

New York City

New York City experienced a similar effect following the implementation of Mayor Bloomberg's city-wide smoke-free ordinance in 2003. Far from losing income, New York's world-class restaurants and bars saw their revenues jump 8.7 percent in the following year.[22]

Smoke-Free Laws Do Not Cause Business Closures

While bar and restaurant owners sometimes express concern that implementation of a smoke-free policy will force them out of business, the experience of establishments in Lexington, Kentucky, and in New York City show that this anxiety is unfounded.

Lexington, Kentucky

Lexington, Kentucky, is the state's second largest city. Known as a tourist destination for its bluegrass music and rich legacy of horse breeding and racing, the area is also home to 15 college and university campuses. Service industries account for 41.1 percent of employment in Fayette County, of which Lexington is the county seat.[23]

In April 2004, Lexington ended smoking in restaurants, bars, public areas of hotels, and all buildings open to the public. A 2005 study by Professor Ellen Hahn and colleagues at the University of Kentucky's College of Nursing examined the number of restaurants and bars operating in Lexington before and after the city went smoke-free. The group used data from the Kentucky Workforce Cabinet (based on data from the U.S. Department of Labor) and employed statistical methods to account for seasonal business changes. The researchers discovered that the number of restaurants and bars in Lexington was unchanged in the 10 months following the start of the smoke-free law.[24]

New York City

New York City's Mayor Michael Bloomberg proposed a city-wide smoking ban that was implemented in 2003, despite the city's strained economic climate following the terrorist attacks of September 11, 2001.[25] In 2002, the year before the ban went into effect, the city had netted a loss of 280 bars and restaurants. During the months following the ordinance, however, the city issued 1,416 new liquor licenses (compared to 1,361 in 2002), logging a net gain of 234 liquor licenses between 2002 and 2003.[26]

The Value of Smoke-Free Establishments

Another line of evidence that smoke-free policies do not cause bar and restaurant owners to suffer comes from an examination of a national database cataloguing prices paid to purchase eating and drinking establishments, an objective measure of the long-term value of a business. After controlling for economic variables, Dr. Stanton Glantz and his colleagues at the University of California San Francisco found that restaurants in areas with a smoke-free workplace policy were 11 to 25 percent more valuable than restaurants in areas without such a policy.[27] His research indicates that smoke-free laws are associated with increased restaurant profitability.[28]

Dr. Glantz also documented a similar trend for bars. He found that, after controlling for economic variables, bars in locations with a smoke-free workplace policy sold at prices comparable to similar establishments in areas where smoking was allowed. He concluded that "bar owners' concerns that smoke-free laws will reduce the value of their bars are unfounded."[29]

Smoke-Free Policies Do Not Lead to Layoffs

Studies in a number of locations (including the entire state of Florida) have demonstrated that smoke-free policies do not lead to firings. In some cases, going smoke-free has even lead to rising employment in service and hospitality industries.

Florida

In addition to examining restaurant and bar revenues, the 2004 University of Florida-Gainesville study reviewed state employment data before and after the ban took effect. The University of Florida researchers found that overall restaurant and bar employment increased by 4.5 percent after the ban was implemented.[30] This finding was significant according to the study's statistical model. The researchers also found no significant change in employment in the hotel industry.[31]

Lexington, Kentucky

Prof. Ellen Hahn's 2005 review of the economic impacts of Lexington's smoke-free law revealed similarly increased employment in restaurants after the city enacted its ban. The study accounted for changes in population size, city-wide unemployment, and seasonal business fluctuations, and showed a positive correlation: Lexington's smoking ban helped to increase restaurant employment.[32] After applying the same controls to employment data from Lexington's bars, Prof. Hahn and her colleagues found no statistically significant change in bar employment.[33]

Massachusetts

In 2004, the state of Massachusetts banned smoking in all places of work, including restaurants and bars, on the day following the Fourth of July. A 2005 study by researchers at Harvard University's School of Public Health examined the law's effects on restaurants and bars in five Massachusetts cities with weak or non-existent workplace smoking policies prior to the state-wide legislation.

Prior to the Massachusetts ban, employment in bars and restaurants had been trending gradually upward, while hotel and motel employment had been declining. The study showed no statistically significant change in bar and restaurant employment following the ban. In the case of the accommodation industry, the data revealed that the pre-ban downward trend was moderated and potentially reversed.[34]

New York City

New York City experienced increases in food revenues and business openings following Mayor Bloomberg's workplace smoking ban, and employment in bars and restaurants grew as well. In 2004, the city's Departments of Finance and Health and Human Services reported that between March and December 2003, New York gained 10,600 jobs in the restaurant and bar industry. Adjusting for seasonal fluctuations, the city claimed a net gain of 2,800 jobs.[35]

Local Smoke-Free Ordinances Are Not Bad For Business

Around the country, smoke-free zones are developing in stages. Some states require all workplaces state-wide to be smoke-free. In other states, cities and counties are independently enacting local ordinances. Business owners in cities with local smoke-free ordinances are often concerned that business will suffer because customers who want to go out on a Friday night will simply drive to a town where smoking is allowed. But studies in a wide range of places have shown that this is simply not true. Whether in rural counties or in capital cities, local smoke-free workplace policies are not bad for business. Moreover, as increasing numbers of states, counties and cities adopt comprehensive smoke-free workplace policies, the concern that customers will travel to areas where smoking in bars and restaurants is allowed becomes less relevant.

Kentucky

After Lexington-Fayette County went smoke-free in April 2004, Dr. Hahn and colleagues at the University of Kentucky's College of Nursing found that workers in the hospitality industry were unaffected. In the 10 months following the implementation of the policy, payroll taxes (an indicator of workers' earnings) remained stable, controlling for seasonal variation and other economic variables.[36] This result came despite the fact that other nearby areas of Kentucky had not yet enacted their own smoke-free policies.

Boston and Massachusetts Towns

Between 1992 and 1998, the state of Massachusetts experienced overall growth in restaurant and bar sales. During the same period, a large number of towns and cities implemented varying levels of smoking restrictions in restaurants. Among these was the state's capital city, Boston, the country's 11th largest metropolitan area.

In 2002, analysts William Bartosch and Gregory Pope of the Massachusetts-based Center for Health Economics Research conducted a study of 239 towns that went smoke-free, including the city of Boston. Based on Massachusetts Department of Revenue data, the study controlled for a variety of factors which could impact restaurant income, including seasonal variation, population shifts, and changes in per capita income.[37]

Bartosch and Pope's analysis showed no decrease in revenue among restaurants that restricted smoking. Revenue at these restaurants increased in parallel with the long-term statewide trend during the six-year period of the study.[38]

Madison, Wisconsin

Restaurant incomes throughout the state of Wisconsin rose steadily between 1992 and 1997. In 1992, the city of Madison banned smoking in restaurants—giving researchers the opportunity to test whether restaurants under the local ban suffered a loss of business or followed the statewide upward trend in revenues.

University of Wisconsin economist Laura Dresser found that restaurant revenues in Dane County increased between 1992 and 1997. After controlling for population and income growth, Prof. Dresser found that, in fact, these restaurants experienced a 24 percent increase in revenue—five percentage points greater than the state average of 19 percent.[39]

Smoke-Free Laws Can Save Businesses Money

Business owners can save money following the implementation of a smoke-free workplace law. From reduced health-care costs to fewer worker absences, smoking restrictions provide a variety of benefits.

Health Care

As providers of health insurance coverage, business owners share in the burden of paying for diseases caused by secondhand smoke—and likewise share in the savings from reducing exposure.

The American Society of Actuaries found in 2005 that exposure to environmental tobacco smoke (ETS) causes increased risk of major and expensive conditions and diseases, such as lung and cervical cancer, asthma, chronic pulmonary disease, and coronary heart disease.[40] The Society of Actuaries estimates that ETS-related asthma costs the United States $770 million each year in direct medical expenses, $2.5 billion annually for coronary heart disease, and $1.2 billion annually for chronic pulmonary diseases.[41]

Conversely, the EPA estimated the net health savings of eliminating secondhand smoke in all indoor workplaces (from reducing premature deaths and tobacco-related illness) to be between $35 and $66 billion a year.[42]

Lost Productivity

Employees who smoke are more likely to miss work and deliver less work product than a non-smoking employee. These costs add up quickly—approaching $4,000 per employee per year by one estimate.[43]

Liability Risks

Science is offering growing evidence of the danger of working in an environment contaminated with secondhand smoke. For example, researchers have found elevated levels of a cancer-causing chemical—unsafe at any level—accumulating in the bodies of workers even after just a few hours of exposure to secondhand smoke.[44] And in the August 2007 American Journal of Public Health, experts in public health law write about how employers already are being held legally liable for exposing workers to secondhand smoke, even if state or local laws permit workplace smoking.[45]

Employers who permit smoking on business premises face a number of liability risks. For example, employers can be held liable in worker's compensation claims related to secondhand smoke exposure, as well as in disability discrimination claims. In the case of certain health disabilities, such as severe asthma triggered by smoke exposure, employers are responsible for providing "reasonable accommodation" to a disabled employee. Further, an employee may also file suit against his or her employer based on the employer's common-law duty to provide a safe workplace.[46]

According to Marice Ashe with the Public Health Law Program at the Public Health Institute in Oakland, California, "When employers who allow smoking have scientists telling them that as soon as workers get on the job, they're breathing in some of the most dangerous carcinogens around, it's time to think about whether they want to deal with that kind of liability. The science is making it easier and easier to persuade courts to sanction employers who continue to allow smoking."[47]

By providing a smoke-free workplace, employers can reduce their liability risks, potentially reduce their workers' compensation insurance premiums, and protect the health of their employees.

Assessing the Quality of Smoke-Free Policy Impact Studies

While well-designed studies all show that smoking regulations do not harm the hospitality industry, opponents of smoking regulation have produced a number of studies that claim to contradict this conclusion.

It is important for policy-makers to be able to tell the difference between a well-designed and a poorly designed study, in order to base decisions on the best available information. The quality of a study is apparent in its methods of data collection and analysis, in peer review, and in the source of funding.

The Importance of Peer Review

While smoke-free policy impact studies that use objective data, statistical analysis and peer review show consistent results, other studies published over the years have used alternate methods and come to different conclusions.

These reports may use subjective data collection methods, such as polling restaurant owners for their opinions about a policy's impact. Studies using this approach, for example, often show that business owners observe negative impacts from smoke-free policy. This information—that business owners perceive or perhaps even document a dip in earnings, for instance—is not necessarily wrong. But it may be incomplete.

How can we tell? The choices researchers make help paint the picture of research quality. Did a particular study ask owners' opinions, for example, or did it examine their sales records? Did it compare post-ban earnings to a period of years before the ban? Did it account for other changes that might affect the overall business climate, such as shifts in population, income and state- or nation-wide economic trends? Without answers to questions like these, it is invalid to claim that smoke-free policies cause observed trends in the hospitality industry, whether those trends are positive or negative.

Peer review is meant to be a check-point for precisely this type of question. Objective data collection and statistical analysis are intended to account (or "control") for as many factors that could unduly influence a study's findings as possible—and passing peer review means that a diverse group of researchers unconnected with the study were satisfied that it used both appropriately. The review of smoke-free policy impact studies performed by Michelle Scollo and her colleagues showed that peer review was a strong indicator of research quality for this reason. (See page 7.) Reports that have not gone through the peer review process, in other words, may not be telling the whole story.

Differentiating Between Information and Evidence

In his 2005 effort to weaken the Georgia Smokefree Air Act, E.C. "Rusty" Kidd, a lobbyist for the tobacco industry, presented the state legislature with a report from the National Restaurant Association.[48] The report claimed that smoking policies helped some restaurants, did not affect others, and hurt the majority of restaurants. It provides a useful example of information

Conflict of Interest & Tobacco Industry Studies

"Total prohibition of smoking in the workplace strongly affects industry volume. Smokers facing these restrictions consume 11 to 15 percent less than average and quit at a rate that is 84 percent higher than average...If smoking were banned in all workplaces, the industry's average consumption would decline 8.7 to 10.1 percent from 1991 levels and the quitting rate would increase 74 percent."

— Philip Morris U.S.A., inter-office correspondence[57]

Court-ordered disclosure of internal tobacco industry documents has publicized some ugly realities. Tobacco companies know that smoke-free policies will discourage smoking, cutting into their earnings—and this provides them with a strong profit motive to defeat comprehensive smoke-free workplace policies. For example, scientists estimated in 2003 that if all U.S. workplaces went smoke-free, 1.3 million Americans would quit smoking within one year, 950 million cigarette packs would not be sold that year, and the tobacco industry would lose more than $2 billion in sales annually.[58]

The importance of bars and nightclubs to tobacco industry sales is readily apparent in tobacco marketing strategies. Watchdogs documented numerous campaigns deployed by the industry in the 1980s and 1990s including "aggressive advertising, tobacco brand-sponsored activities, distribution of samples, and financial incentives for club owners and staff to encourage smoking through peer influence."[59] During these decades, the smoking rate among young adult Americans increased by more than 6 percentage points.[60]

It should come as no surprise, then, that Dr. Scollo showed that 100 percent of negative-impact smoking ban studies were funded by the tobacco industry. The bias inherent in such studies is evident, since funding "objective" smoking research with money that depends on the continued success of the tobacco industry constitutes a clear conflict of interest.

that is not necessarily invalid—but that falls short of meeting the standards of scientific evidence.

The National Restaurant Association contracted with the consulting firm Deloitte & Touche, LLP, to produce a report assessing the impacts of smoke-free policies on restaurants around the country. The report's executive summary concludes that the policies sometimes hurt businesses and sometimes help them, but that comprehensive smoke-free policies are damaging:

> **"Restaurant sales decline more than 50 percent when counties implement 100 percent smoking bans that include both the dining and bar areas. With smoking banned completely in the entire restaurant, total annual sales declined an estimated 55.2 percent within a year's time in some restaurants."[49]**

These statements are true—according to the assumptions Deloitte & Touche made in its research model. A closer look reveals that they are based on highly selective data and analysis, called "bizarre" by Dr. Stanton Glantz, a well-known public health scientist at the University of California San Francisco.[50]

Deloitte & Touche did use objective data (sales figures reported by restaurants), but elected to severely limit which data it included. For example, the study excluded all fast food restaurants, all restaurants subject to 100 percent state-wide smoke-free policies, restaurants with annual sales less than $50,000, and restaurants with annual sales greater than $10 million. These filters severely limited the number of restaurants covered by any level of smoking ban that Deloitte & Touche could use in its analysis—from 3,145 restaurants to just 232.[51] The 232 restaurants were further divided into categories according to the type of smoke-free policy that applied to them, meaning that the sample size in each group was smaller still. This creates a clear problem: with small sample groups, researchers can have less certainty about whether trends they find in that small group are true on the whole.

Beyond using limited data, the Deloitte & Touche report also used a regression analysis that included 51 independent variables, contrary to the statistical convention of using as few variables as possible to provide the necessary description of a dependent variable.[52]

The result was data that show some negative impacts of smoke-free policies, but that also lead to strange and counter-intuitive conclusions. The report's data indicate, for example, that restaurant business suffers when per-capita income and employment levels are high—when people have jobs and are earning more money.[53]

When Deloitte & Touche submitted the report to peer review, it drew sharp critique from experts. The final draft was published independently, not in a peer-reviewed publication. The report did in fact convey information that was "correct" within the parameters set by Deloitte & Touche—but, because of these parameters, its findings do not accurately or completely represent reality.

Study Outcomes & Funding Sources

In addition to using questionable methodology and failing peer approval, the National Restaurant Association report was also funded in part by contributions from the Philip Morris tobacco company—an entity with an obvious stake in the study's outcome.[54] This fact alone does not automatically invalidate the report's findings. However, Dr. Michelle Scollo's 2003 study found a clear trend linking studies that

> "Contrary to the fears raised by the tobacco industry and others, comprehensive reviews of research on the economic impact of smoke-free air policies from the Surgeon General, the Task Force on Community Preventative Services, and others consistently concluded that these policies do not have a negative impact."[65]
>
> — Michael Eriksen, ScD, Director and Professor, Institute of Public Health, Georgia State University, and Frank Chaloupka, PhD, Distinguished Professor, Health Policy Center and Department of Economics, University of Illinois

claim to document adverse impacts from smoke-free policy with industry funding.

While examining the group of studies claiming to document harm caused by smoke-free policy, Dr. Scollo recognized a striking split in her data: every study which claimed that smoke-free policy was bad for business was funded by the tobacco industry. All the remaining studies, which showed either no impact or positive impact, were funded by a variety of government, university and non-profit institutions with no ties to the tobacco industry.

Dr. Scollo noted that this division, in which the tobacco industry findings ran counter to the findings of all other peer-reviewed and objective research, is reminiscent of the split between the tobacco industry and the health community on the issue of the health consequences of exposure to secondhand smoke.[55]

In 2005, Dr. Scollo and her colleagues updated their findings, including studies published through July 2005 in their analysis. Of the studies claiming negative impacts, 11 used objective data. Just three of these 11 studies used statistical analysis on their data—and none were peer-reviewed. All studies showing negative impacts were funded by or had ties to the tobacco industry.[56]

Additional Evidence: High-Quality Studies Show that Smoke-Free Policies Do Not Harm Business

The findings of the 2003 Scollo review have been widely endorsed by professional public health researchers and government officials. High-quality studies agree that going smoke-free does not harm business in bars or restaurants.

In March 2005, the Canadian federal health ministry conducted a review of studies on the economics of smoke-free legislation on the hospitality industry. The 115 American, Australian and Canadian studies included in the Health Canada review cover a period from 1988 to 2004. Like Dr. Scollo, Health Canada scored each study based on four main criteria for methodological quality:

- use of objective data,
- use of data before and after smoking legislation was enacted,

- use of statistical methods controlling for time trends and random events, and
- use of statistical methods that control for longer-term economic trends.[61]

The report also examined whether studies had been peer reviewed. Unlike the Scollo study, the Health Canada review did not systematically examine funding sources—yet its findings were extremely similar.

Each one of the 30 studies that met all four criteria for good methodology demonstrated a neutral or positive economic impact of smoke-free laws on the hospitality industry. This was true regardless of whether the studies had been peer-reviewed. Of the 38 studies which reported a negative impact, none met all four quality criteria.[62] Echoing the Scollo review, the Health Canada study concluded, "In summary, high quality studies tend to conclude that smoke-free legislation does not adversely affect the hospitality industry. Those reporting a negative impact of the legislation do not meet the criteria for research quality."[63]

In its December 2007 summary of the status and impacts of smoke-free policies in the United States, the American Cancer Society concluded with equal certainty, "Contrary to the fears raised by the tobacco industry and others, comprehensive reviews of research on the economic impact of smoke-free air policies from the Surgeon General, the Task Force on Community Preventative Services, and others consistently concluded that these policies do not have a negative impact."[64]

The Society was noting simple but compelling facts. Scientific evidence—research that is based on rigorous measures of quality—is at a clear consensus: smoke-free laws do not produce negative impacts on the hospitality industry. While studies concluding the opposite may be based in "correct" information, their conclusions are likely to inappropriately reach beyond the scope of their data. Our public health is best protected by laws grounded in high-quality research—and such research sounds the call for stronger, smarter health policies around the country and in Atlanta.

"Establishing smoke-free workplaces is the only effective way to ensure that secondhand smoke exposure does not occur in the workplace."

— U.S. Surgeon General Richard Carmona, 2006[66]

Conclusion and Recommendations

Reducing exposure to secondhand smoke is a critical step toward improving public health in Atlanta and across the state. Ten thousand Georgians die each year from tobacco-related illnesses, and smoking-related health expenditures in the state total $1.2 billion.[67]

The Georgia Smokefree Air Act was an important first step toward safer workplaces for the state as well as for the city of Atlanta. However, due to exemptions in the law, many workplaces—including bars and restaurants that do not serve minors under 18—remain areas where both employees and patrons are exposed to the dangerous health threat of secondhand smoke.

While the Georgia Smokefree Air act exempts bars and other select workplaces from smoking restrictions, it has one major strength—it does not prevent local governments from enacting stronger smoke-free policies on their own.

Atlanta should take advantage of this opportunity. By enacting a comprehensive smoke-free workplace policy, covering all places of employment in the city, Atlanta can join the ranks of other major cities across the country that prioritize the health and well-being of their citizens. And, Atlanta can go fully smoke-free secure in the knowledge that smoke-free workplace policies have no negative economic impacts on bars or restaurants.

The Atlanta City Council should enact a city-wide smoke-free ordinance for all workplaces.

- This smoke-free ordinance should include those areas not covered by current laws: restaurants and bars which do not serve or employ minors, all hotel rooms, long-term care facilities, and areas of Hartsfield-Jackson Airport. The ordinance should apply to all workplaces—even those with "smoking sections" with separate ventilation systems.

Notes

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