

Economic Impact Evaluation of the 2010 Savannah Smokefree Air Ordinance

Background:

Exposure to secondhand smoke from burning tobacco products causes heart disease and lung cancer in nonsmoking adults and sudden infant death syndrome, acute respiratory infections, middle ear disease, more severe asthma, respiratory symptoms, and decreased lung function in children¹. There is no safe level of secondhand smoke and an estimated 50,000 adult non-smokers die from secondhand smoke exposure in the United States each year¹. Findings from the 2009-2010 National Adult Tobacco Survey indicate that 45% of Georgia adults were exposed to secondhand smoke in their home, in a vehicle, or in indoor or outdoor areas at work or public places in the 7 days prior to survey administration².

In August 2010, the city of Savannah, Georgia adopted the *City of Savannah Smokefree Air Ordinance of 2010*³. The ordinance went into effect on January 1, 2011. It prohibits smoking in all public and work places in the City of Savannah, including full-service restaurants, bars, and outdoor eating service areas. Effective April 2012, Chatham County, Georgia implemented the *Smokefree Air Ordinance of 2012*⁴. Savannah, the largest city in Chatham County, is where the majority of hospitality venues, such as restaurants and bars, are located⁵. With a population of 142,022, Savannah represents more than half of the total population of Chatham County (276,434)⁶. To assess the economic impact of the *City of Savannah Smokefree Air Ordinance of 2010*, the Georgia Department of Public Health Tobacco Use Prevention Program enlisted the Georgia Department of Public Health Epidemiology Section to analyze sales tax revenue data from bars and full-service restaurants in Chatham County, Georgia before and after the ordinance was implemented.

Methods:

The Georgia Department of Public Health Epidemiology Section analyzed sales tax revenue data provided by the Georgia Department of Revenue. These data included Chatham County tax revenue from all sectors including bars (North American Industry Classification System (NAICS) code: 722410), full-service restaurants (NAICS code: 722110), and all other venue types (non-sector sales),⁷ which were then adjusted to the 2009 Consumer Price Index (CPI) obtained from the United States Bureau of Labor Statistics⁸. In addition, unemployment data for Chatham County was obtained from the Federal Reserve Bank of St. Louis by month and averaged by quarter⁹. All data were analyzed from Quarter 3, 2009 through Quarter 1, 2012. Multivariate linear regression models were created to assess the association between the implementation of the *City of Savannah Smokefree Air Ordinance of 2010* and sales tax revenue, while controlling for time, seasonality (quarter), unemployment rate, and non-restaurant or bar sector sales.

This report was developed by the Chronic Disease, Healthy Behavior and Injury Epidemiology Section and the Georgia Tobacco Use Prevention Program of the Georgia Department of Public Health.



Economic Impact Evaluation of the 2010 Savannah Smokefree Air Ordinance

Results:

Following adjustment for potential confounding factors, there was a modest, but statistically insignificant ($p > 0.05$) increase in Chatham County sales tax revenues for bars (by \$164,172) and restaurants (by \$93,524) following the adoption of the City of Savannah Smokefree Air Ordinance.

Conclusion:

The *City of Savannah Smokefree Air Ordinance of 2010* had no impact on taxable sales revenue for bars and full-service restaurants in Chatham County after adjusting for time, seasonality, unemployment rate, and overall sales in all other sectors. These findings are consistent with numerous national and international studies also documenting the neutral impact of smoke-free ordinances on restaurant and bar business^{1,10-14}. This finding is documented by the 2006 U.S. Surgeon General's Report, "The Health Consequences of Involuntary Exposure to Tobacco Smoke"¹, and the 2009 International Agency for Research on Cancer (IARC) Report, "Evaluating the Effectiveness of Smoke-Free Policies"¹⁰. The 2006 Surgeon General's report on secondhand smoke specifically concluded that "evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry¹." The IARC report states, "smoke-free policies do not adversely affect the business activity of restaurants and bars¹⁰."

This report was developed by the Chronic Disease, Healthy Behavior and Injury Epidemiology Section and the Georgia Tobacco Use Prevention Program of the Georgia Department of Public Health.

Economic Impact Evaluation of the 2010 Savannah Smokefree Air Ordinance

References:

1. U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006 <http://www.surgeongeneral.gov/library/reports/secondhandsmoke/index.html>
2. Georgia Department of Public Health 2012 Data Summary: Adult Tobacco Use. http://health.state.ga.us/pdfs/epi/cdiee/2012/2012AdultTobacco_DS_Final.pdf
3. Savannah Smokefree Air Ordinance of 2010 <http://www.healthysavannah.org/smokefree/>
4. A Citizen's Guide to Chatham County's Smokefree Air Ordinance of 2012. Effective 26, 2012. <http://www.healthysavannah.org/documents/Chatham%20County%20Smokefree.pdf>
5. Georgia. Chatham County. <http://georgia.gov/cities-counties/chatham-county>
6. United States Census Bureau. State & County QuickFacts. <http://quickfacts.census.gov/qfd/states/13/1369000.html>
7. NAICS Association: <http://www.naics.com/search.htm>
8. U.S. Department of Labor Bureau of Labor Statistics. Consumer Price Index. <ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>
9. Federal Reserve Economic Data. "Unemployment Rate in Chatham County, GA, Percent, Monthly, Not Seasonally Adjusted". Federal Reserve Bank of St. Louis. <http://research.stlouisfed.org/fred2>
10. International Agency for Research on Cancer, World Health Organization. *Evaluating the Effectiveness of Smoke-free Policies*. IARC Handbook of Cancer Prevention. Volume 13. 2009
11. Eriksen M, Chaloupka F. The Economic Impact of Clean Indoor Air Laws. *CA: A Cancer Journal for Clinicians* 2007;57:367–78 [cited 2012 Feb 6]
12. Hahn EJ. Smokefree Legislation: A Review of Health and Economic Outcomes. *American Journal of Preventive Medicine* 2010;39(6 Suppl 1):S66–76 [accessed 2012 Feb 6]
13. Alamar, B., Glantz, S.A., "Effect of Smoke-Free Laws on Bar Value and Profits," *AJPH* 2007, 97;1400-1402.
14. Collins NM, Shi Q, Forster JL, Erickson DJ, Toomey TL. Effects of Clean Indoor Air Laws on Bar and Restaurant Revenue in Minnesota Cities. *American Journal of Preventive Medicine* 2010;39(6 Suppl 1):S10–S5 [accessed 2012 Feb 6].

This report was developed by the Chronic Disease, Healthy Behavior and Injury Epidemiology Section and the Georgia Tobacco Use Prevention Program of the Georgia Department of Public Health.

Economic Impact Evaluation of the 2010 Savannah Smokefree Air Ordinance

This report was developed by the Chronic Disease, Healthy Behavior and Injury Epidemiology Section and the Georgia Tobacco Use Prevention Program of the Georgia Department of Public Health.

