



JUNE 2003

THE ECONOMIC IMPACT OF A SMOKE-FREE BYLAW ON RESTAURANT AND BAR SALES IN OTTAWA, CANADA

BACKGROUND

- The 1994 Ontario Tobacco Control Act empowered local municipalities to restrict smoking in workplaces and public places. Since then, 73 of 446 Ontario municipalities have implemented smoke-free bylaws in restaurants or both restaurants and bars.
- Yet opposition from restaurant and bar owners and hospitality organizations frequently raises concern about the impact of these bylaws on sales.
- Research in the US, Australia, and the province of British Columbia using objective sales data, rather than reports from owners, has consistently shown that smoke-free bylaws do not adversely affect restaurant and bar sales.¹

OVERVIEW OF OUR STUDY

- Beginning August 1st 2001, the City of Ottawa implemented a 100% smoke-free workplace and public places bylaw, without provision for separately ventilated designated smoking rooms (DSRs). Enforcement began in September 2001. Compliance with the bylaw was high – about 95%.
- The purpose of our study was to determine the impact of this smoke-free bylaw on the taxable sales of restaurants and bars in the city of Ottawa.

METHOD

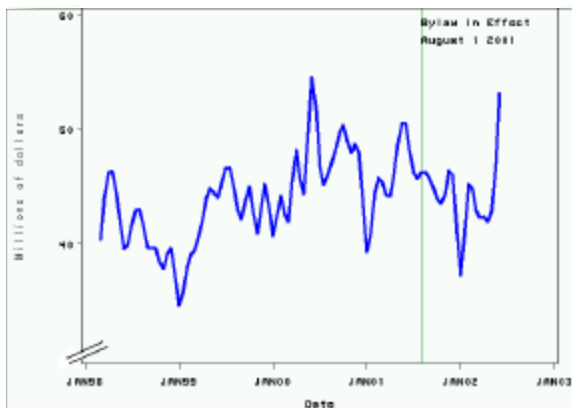
- Monthly taxable sales of (1) licensed restaurants, including bars, (2) unlicensed restaurants excluding take-outs, franchises, coffee and ice cream shops, and (3) goods and services subject to the Retail Sales Act were obtained from the Ontario Ministry of Finance for the period March 1998 to June 2002. All sales were inflation adjusted, with March 1998 as the base month.
- As outcome measures, we used the ratio of licensed restaurant and bar sales to retail sales minus all restaurant and bar sales and the ratio of unlicensed restaurant sales to retail sales minus all restaurant and bar sales.
- We controlled for population growth, economic conditions, seasonal variation and the September 11th terrorist attack.
- If the smoke-free bylaw adversely affected restaurant and bar sales, the mean level of the outcome measure would shift downward.

- We used an intervention time series design to test three hypotheses about the possible timing and pattern of the impact:
 - Abrupt and permanent impact
 - Gradual and permanent impact
 - Abrupt and temporary impact
- To supplement our results, we carried out a separate analysis using a regression approach.

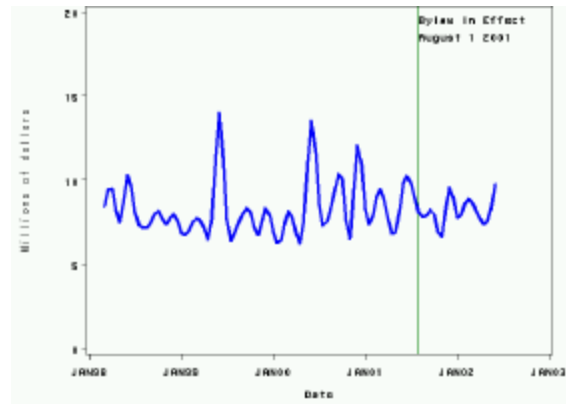
RESULTS

- Since early 2000, restaurant and bar sales stayed relatively constant, whereas retail sales kept rising.
- The 100% smoke-free bylaw was implemented at a time when the ratios of restaurant and bars sales to retail sales had been declining for some time.
- After accounting for the declining trend, seasonal variations, and other factors, results from both analyses showed no statistically significant impact of the bylaw on sales of restaurants and bars.
- This conclusion remains unchanged when we assume a delayed impact of one month to account for delayed enforcement of the bylaw.

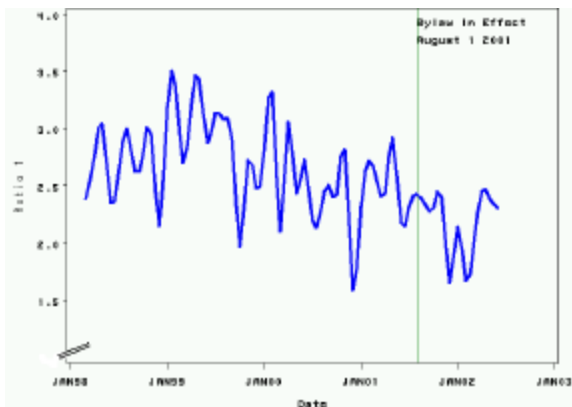
Sales of Licensed Restaurants and Bars (Inflation Adjusted)



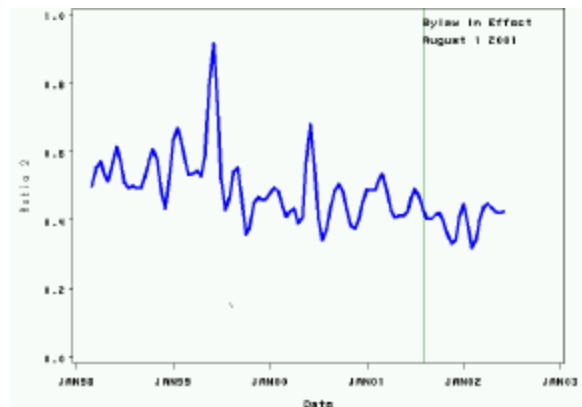
Sales of Unlicensed Restaurants (Inflation Adjusted)



Ratio of Licensed Restaurant and Bar Sales to Retail Sales



Ratio of Unlicensed Restaurant Sales to Retail Sales



SUMMARY

- Using two statistical approaches, and allowing three possibilities for the timing and pattern of the impact, we found no evidence that the Ottawa smoke-free bylaw adversely affected restaurant and bar sales.
- Our results and those of previous studies indicate that communities considering implementing smoke-free bylaws need not be concerned that bars and restaurants will be adversely affected.
- Studies of the health and social costs of smoking and of the impact of bylaws on smoking behaviour suggest substantial economic benefit to the public from 100% smoke-free bylaws.

The research team for this study consisted of Dr. Roberta Ferrence, Director of the Ontario Tobacco Research Unit and a senior scientist at the Centre for Addiction and Mental Health; Rita Luk, Research Officer at the Ontario Tobacco Research Unit; and Dr. Gerhard Gmel, Senior Scientist and Co-Director of Research at the Swiss Institute for the Prevention of Alcohol and Other Drug Problems.

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¹ For an overview of literature in this area see: M. Scollo, A. Lal, A. Hyland, and S. Glantz, "A Review of the Quality of Studies on the Economic Effects of Smoke-free Policies on the Hospitality Industry," *Tobacco Control*, Vol. 12 (2003), pp. 13-20.