

# Summary of Studies Assessing the Economic Impact of Smoke-Free Policies in the Hospitality Industry – includes studies produced to February 2004\*

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<http://www.vctc.org.au/tc-res/Hospitalitysummary.pdf>

## Background

Well-designed studies on the economic impact of policy changes: 1. are based on objective measures; 2. use data several years before and after policy implementation; 3. use appropriate statistical tests which test for significance, controlling for underlying trends and fluctuations in data; and 4. control for changes in economic conditions [1].

A large number of studies have examined the effect of smoke-free policies in the hospitality industry. Studies vary greatly in methodological quality. To facilitate greater analysis of methodological quality and overall trends in findings, we have compiled and summarised the publication details, key features and findings of all available studies.

We attempted to locate all studies in the English language that purported to predict or assess the economic impact of smoke-free policies in the hospitality industry<sup>1</sup>. In late November 2001, we searched Medline, Science Citation Index, Social Sciences Citation Index, Current Contents, PsychInfo, and Healthstar using the terms smok\* and restaurants, bars, hospitality, economic, regulation and law. We also included unpublished studies; these studies were predominantly funded by the tobacco industry or organizations linked to the tobacco industry. These were located from a compilation by the Alberta Tobacco Control Centre [2], by a request to members of the International Union Against Cancer's International Tobacco Control Network (GLOBALink), and an examination of hospitality industry websites and the websites of tobacco companies based in major English speaking countries, including the Philip Morris "Options" website, [www.pmoptions.com](http://www.pmoptions.com). We also conducted an Internet search with the Google search engine, using the terms "smok\* bans" and "restaurants" or "bars", limited by the terms "economic impact" or "study". Since December 2001, we have added further studies as we have become aware of them through monitoring of media reports and alerts on tobacco related publication by the Centers for Disease Control.

Each study was summarised and the following details tabulated: study author and year published; date and location of policy implementation; nature of policy implemented; publisher name and type; funding source indicated; nature of outcome measure used; the type of analysis used; whether economic trends were controlled for; a brief description of the findings; and whether the study was peer-reviewed<sup>2</sup>. Where the source of funding was unclear, we systematically searched previously secret tobacco industry documents made available as part of settlement agreements between tobacco companies the US attorneys general [3, 4] and accessible through [www.tobaccoarchives.com](http://www.tobaccoarchives.com).

Both authors examined each of the reports. Each author made an independent assessment of whether or not study authors had concluded that the actual or potential impact of the smoke-free policies on the measures studied was negative.

## Findings

Characteristics and results of each of the studies are tabulated in **Attachment Tables 1 and 2**. **Attachment Table 1** includes studies using objective outcome measures such as sales tax receipts, business registrations, or employment levels. **Attachment Table 2** includes studies using subjective outcome measures such as patron or proprietor predictions and estimates. Some studies included both objective measures and subjective measures. In this case, findings about objective measures are tabulated in **Attachment Table 1**, and findings about subjective measures in **Attachment Table 2**.

- No negative economic impact from the introduction of smoke-free policies in restaurant and bars is indicated by the 21 studies where findings are based on an objective measure such as taxable sales receipts, where data points several years before and after the introduction of smoke-free policies were examined, where changes in economic conditions are appropriately controlled for, and where appropriate statistical tests are used to control for underlying trends and fluctuations in data. Just a few studies using objective measures have found negative effects. Each of these is methodologically flawed.
- Studies concluding a negative economic impact have predominantly based findings on outcomes predicted before introduction of policies, or on subjective impressions or estimates of changes rather than actual, objective, verified or audited data. These studies were funded predominantly by the tobacco industry or organisations allied with the tobacco industry. Almost none of the studies finding a negative impact are published in peer-reviewed journals.

The key characteristics and findings of each of the studies are summarised in **Tables 1** and **2** below.

**Table 1. Studies using objective measures to assess economic impact of smoke-free policies in the hospitality industry**

	<i>Control for economic conditions</i>		<i>Do not control for economic conditions</i>	
	No effect, or positive effect	Negative effect	No effect, or positive effect	Negative effect
<b>Studies funded from sources other than the tobacco industry</b>				
<b>Taxable sales receipts</b>	Bartosch & Pope, (1995)[5] <b>Bartosch &amp; Pope (1999)</b> [6] <b>Bartosch &amp; Pope (2002)</b> [7] Bialous & Glantz (1997) [8] * Dresser (1999) [9] Ferrence et al (2003) [10] <b>Glantz &amp; Charlesworth (1999)</b> [11] <b>Glantz &amp; Smith (1994)</b> [12] <b>Glantz &amp; Smith (1997)</b> [13] Glantz (2000) [14] Glantz & Wilson-Loots (2003) [15] <b>Goldstein &amp; Sobel (1998)</b> [16] Hayslett & Huang (2000) [17] Huang (2004) [18] <b>Huang et al (1995)</b> [19] <b>Hyland et al (1999)</b> [20] <sup>a</sup> Hyland (2002) [21] <b>Hyland (2003)</b> [22] Maroney et al (1994)[23] Moseley (2003) [24] Pacific Analytics (2001)[25]		California State Board of Equalization (1998)[31] * City of Boulder (1996) [32] Fletcher (1998) [33] New York City Department of Finance (2004) [34]	

	Pope & Bartosch (1997)[26] <b>Sciacca &amp; Ratliff (1998)[27]</b> Styring (2001) [28] Taylor Consulting (1993)[29] <b>Wakefield et al (2002) [30]</b>			
	<b>No effect, or positive effect</b>	<b>Negative effect</b>	<b>No effect, or positive effect</b>	<b>Negative effect</b>
<b>Sales data other</b>	Bourns & Malcomson 2002 [35] Lal 2003 [36]		* Dresser et al (1999)[37]	
<b>Employment levels</b>	<b>Hyland et al (2000) [38]</b> * Bourns & Malcomson 2001[39] * Hild et al 2001[40] * <b>Hyland &amp; Cummings (1999)[41]<sup>b</sup></b> * Hyland & Tuk (2001)[42] Hyland (2003) [22]		New York City Department of Health and Mental Hygiene (2003) [43] New York City Department of Finance (2004) [34]	
<b>Number of establishments</b>	* <b>(Hyland &amp; Cummings (1999)[41])<sup>b</sup></b>		New York City Department of Finance (2004) [34]	
<b>Number of restaurant/bar permits applications</b>			New York City Department of Finance (2004) [34]	
<b>Bankruptcy data</b>	(Bourns & Malcomson 2001[39]) (Bourns & Malcomson 2002)[35]			
<b>Number of Employment insurance claims</b>	(Bourns & Malcomson 2001[39]) (Bourns & Malcomson 2002)[35]			
<b>Studies for which funding source is unknown</b>				
<b>Sales Data</b>				* Pubco 2002 [44]
<b>Studies conducted by organisations or consultants with links to the tobacco industry around the time of the study</b>				

<b>Taxable sales receipts</b>				* Lilley et al (1996) <sup>b</sup> [45] * Masotti et al (1991)*[46] †
<b>Studies funded by tobacco companies or industry groups supported by the tobacco industry</b>				
<b>Taxable sales receipts</b>				* Laventhol et al (1990) [47]
<b>Sales data other</b>				* Applied Economics (1996)[48] Deloitte & Touche LLP [49]
<b>Employment levels</b>				* Lilley et al (1999)[50] * Lilley et al (1996) [51] <sup>a</sup>
<b>Number of establishments</b>				* (Lilley et al 1999) [50])

**Bold type = peer reviewed;** \* Use discrete rather than continuous data prior to and after the introduction of policies; † Only weak evidence of connection with the tobacco industry

**Table 2. Studies using subjective measures to assess the economic impact of smoke-free policies in the hospitality industry**

	<i>Control for economic conditions</i>		<i>Do not control for economic conditions</i>	
	No effect or positive effect	Negative effect	No effect or positive effect	Negative effect
<b>Studies funded from sources other than the tobacco industry</b>				
Public self-reported intentions or actual patronage of restaurants/bars			<u>Allen &amp; Markham (2001) [52]</u> August (2000)[53] <u>Biener &amp; Fitzgerald (1999)[54]</u> <u>Biener &amp; Siegel (1997) [55]</u> Corsun et al (1996)[56] Decima Research (2002) [57] Decima Research (2001)[58] Dresser et al (1999)[37] <u>Field Research (1998)[59]</u> <u>Field Research (1997)[60]</u> <b>Hyland &amp; Cummings (1999)<sup>d</sup> [61]</b> <u>Lam (1995)[62]</u> McGhee 2002[63] <u>Miller &amp; Kriven (2002) [64]</u> Miller & Kriven (2002)[65] Shapiro, (2001)[66] Styring (2001)[28] <b>Wakefield et al 1999 [67]</b>	
Proprietor predictions/ perceptions of sales changes	<b>Hyland &amp; Cummings<sup>c</sup> (1999)[68]</b>		<u>(Allen &amp; Markham (2001)[52])</u> <b>Cremieux &amp; Oulette (2001)[69]</b> (Dresser et al (1999)[37]) Edwards (2000)[70] Huron County Health Unit 1999 [71] <b>Jones et al (1999) [72]</b> Markham & Tong (2001)[73] Parry et al (2001) [74] <b>Sciacca &amp; Eckram (1993)[75]</b> <b>Sciacca (1996)[76]</b> <b>Stanwick (1998)[77]</b> The Conference Board of Canada (1996)[78]	

			Yorkshire Ash (2001) [79]	
<b>Proprietor predictions/perceptions of cost</b>			<b>(Cremieux &amp; Oulette (2001) [69])</b> (The Conference Board of Canada (1996)[78]) Douglas County CHIP (2001) [80]	
<b>Estimated numbers of overseas visitors</b>			<u>Hodges &amp; Maskill (2001)[81]</u>	

<b>Studies for which funding source is unknown</b>				
Proprietor predictions/ perceptions of sales changes				<u>Economists Advisory Group (1998) [82]</u> Pubco (2001) [83] <u>The Publican (2001) [84]</u>
	No effect or positive effect	Negative effect	No effect or positive effect	<b>Negative effect</b>
<b>Studies conducted by organisations or consultants with some links to the tobacco industry around the time of the study</b>				
Proprietor predictions/ perceptions of sales changes			(Masotti et al (1991)[46])†	<u>CCG 1996 [85] †</u> Charlton Research (1994)[86]
<b>Studies funded by tobacco companies or industry groups supported by the tobacco industry</b>				
Public self-reported intentions or actual patronage of restaurants/bars			<u>Auspoll (2000)[87]</u> <u>Decima research (1988)[88]</u>	Fabrizio et al (1995) [89] <u>KPMG Barents Group LLC (1997)[90]</u> Marlow (1999)[91] <u>National Restaurant Association (1993)[92]</u> <u>Sollars et al (1999)[93]</u>
Public self-reported spending/time spent				(Fabrizio et al (1995) [89]) <u>Martin Associates (1999) [94]</u>
Proprietor predictions/ perceptions of sales changes				<u>Advantage Marketing Info. (1997) [95]</u> Applied Economics (1996)[96] <u>CCG 1995 [97]</u> <u>Chamberlain Research Consultants (1998)[98]</u> <b><u>Dunham &amp; Marlow (1998) [99]</u></b> EMRS 2001[100] Fabrizio et al (1996)[101] Gambie (1991) [102]^ KPMG (2001)[103] KPMG Peat Marwick (1998)[104] (Marlow (1999) [91]) <u>Marlow (1998)[105]</u> Mason-Dixon Market Research (1996)[106] Penn & Schoen (1995) [107] <u>Price Waterhouse LLP (1993)[108]</u> Price Waterhouse LLP (1995) [109]



				<u>Roper Starch (1996)[110]</u> <u>The Craig Group Inc (1998) [111]</u> <u>The Eppstein Group (1997) [112]</u>
<b>Proprietor estimates of impact on employment</b>				<u>(Advantage Marketing Info. (1997)[95])</u> (Applied Economics (1996) [96]) (Fabrizio et al (1996) [101]) <u>(Marlow (1998) [105])</u> <u>(Price Waterhouse LLP (1993)[108])</u> (Roper Starch (1996)[110]) <u>(Sollars et al (1999) [93])</u> <u>(Chamberlain Research Consultants (1998) [98])</u> <u>(The Eppstein Group (1997) [112])</u>
<b>Proprietor predictions/perceptions of cost</b>				<u>(Sollars et al (1999) [93])</u>

**Bold type = peer reviewed;** underline = Study based on estimates of predicted changes rather than estimates of actual changes; \* not a random survey;

† Only weak evidence of connection with tobacco industry

# Attachment Table 1: Objective studies

Listed alphabetically, commencing with those funded by sources other than the tobacco industry

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation?§	Economic trends?	Findings	Conclusion of - ve impact? ¶	Comments	Peer Reviewed?*	Record no.m/myy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
<b>Studies funded from sources other than the tobacco industry</b>											
Bartosch & Pope, 1995 [5]  1994, July Brookline, Massachusetts	Smoke-free restaurants GP - Report by Health Economics Research Inc for the Massachusetts Department of Public Health's Tobacco Control Program Health Protection Fund	NF	O  Taxable sales receipts for restaurants in Brookline, four comparison cities and the state aggregate	Y	Y  Multiple Regression	Y	Between 2 <sup>nd</sup> & 3 <sup>rd</sup> qtrs of 1994 Brookline's taxable sales receipts followed normal seasonal variations dropping 2.5%. This decrease is consistent with changes in the same qtrs in previous years. This drop was also evident in 4 other cities. In 1994 Brookline's ratio of taxable meal receipts to taxable sales receipts was stable between 2 <sup>nd</sup> & 3 <sup>rd</sup> qtr consistent with 1992 & 1993.	N	This study examines the short term impact i.e. 3-month impact of Brookline's smoke free ordinance	N	1  10/01
Bartosch & Pope, 1999 [6]  1993 Massachusetts	Smoke-free restaurants <i>JA - Public Health Management Practice</i> Health Protection Fund	NF	O  Taxable sales receipts from all eating and drinking establishments. Also included some stores that are not primarily engaged in selling meals but contain a section from which meals are sold	Y	Y  Multivariate regression analysis	Y	The adoption of a local smoke-free restaurant policy did not cause a statistically significant change in town taxable sales receipts.	N		Y	2  10/01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation?§	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. mm/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Bartosch & Pope, 2002 [7]  1996 Massachusetts	Smoke-free restaurants  Center for Health Economic Research for the Massachusetts Dept of Public Health's Tobacco Control Program  <b>Tobacco Control</b>  Massachusetts Department of Public Health, Tobacco Control Program and the Robert Wood Johnson Foundation	NF	O  Taxable sales receipts of all eating and drinking establishments compared to non-adopting communities from 1992-1998	Y	Y  Fixed effects regression	Y	Local restaurant industries are not substantially affected by highly restrictive restaurant smoking policies	N		Y	3  07/02
Bialous & Glantz, 1997 [8]  1997, October Arizona	Smoke-free restaurants  UR - Produced by the Institute of Health Policy Studies, School of Medicine, UCSF.  Supported by National Cancer Institute, American Cancer Society and Brazilian Ministry of Sciences	NF	O  Taxable sales receipts of restaurants	Y	Y  Multiple Regression	Y	An increase of 2% in restaurant revenues	N		N	4  10/01
Bourns & Malcomson 2001[39]  1 August 2001 Ottawa, Ontario, Canada	Smoke-free restaurants , bars and pubs  CR – KPMG  Funded by City of Ottawa	NF	O  Employment figures  Number of employment insurance claims  Bankruptcy and insolvency statistics	N	N	N	Employment in the Ottawa accommodation and food services sector appears to have risen 6.5% from June to October 2001 despite a decline in total employment. Employment Insurance claims declined by 9% in October over a year previous. Bankruptcy and insolvency statistics for the period August to November 2001 are lower than they have been for the previous 2 years	N		N	87  02.02

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. m/my added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Description						
Bourns & Malcomson 2002 [35] 1 August 2001 Ottawa, Ontario, Canada	Smoke-free restaurants , bars and pubs CR – KPMG Funded by City of Ottawa	NF	O	Y	N	N	An increase of 33 more bars and restaurants since the law was implemented. The number of insolvencies for restaurants is consistent with previous years. The level of insolvencies for bars taverns and nightclubs increased the year before the by law and increased again in the past year. 10% decrease in beer sales in Ottawa	N	The economic context indicates a disruption in two key elements of its economy- business travel and massive lay offs in the high technology industry	N	98
Californian State Board of Equalization 1998, [31] 1998, January California	Smoke-free restaurants and bars GP- Californian State Board of Equalization (state taxation authority)	NF	O	Y	N	N	Increase of 7% in each of two years following bans, greater than increases in previous years.	N		N	5 10/01
City of Boulder Colorado, 1996 [32] 1995, November Boulder, Colorado	Smoke-free restaurants GP - The Ontario Campaign for Action on Tobacco, quoting Associated Press story City of Boulder, Colorado	NF	O	Y	N	N	Increased by 4% between Jan & Oct following ordinance.	N		N	6 10/01
Dresser et al, 1999 [37] 1998, July Corvallis, Oregon	Smoke-free bars GP- Report by the Pacific Research Institute for the Oregon Health Division Measure 44 (Oregon Tobacco Control Program)	NF	O	N	N	N	The smoking ban in Corvallis has had little or no economic impact on most establishments, and has produced no measurable impact on overall alcohol sales. It does appear to be associated with reduced poker revenues, which have effected a few establishments to a small extent. Some migration of smokers to nearby establishments seems to have occurred as expected but the economic impact of this appears to be offset by increased patronage by non-smokers	N		N	7 10/01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation?§	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed?*	Record no./m/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Description						
Dresser, 1999 [9]  1993, July Dane County, Wisconsin US	Smoke-free restaurants AR - Tobacco-Free Wisconsin Coalition Wisconsin Smokeless State Program, Robert Wood Johnson Foundation	NF	<b>O</b>  Taxable sales receipts and restaurant revenue	Y	N  Comparison of trends for Dane county and the rest of the state	Y	From 1992-1997 revenue of Dane County restaurants grew by 24% compared to restaurant revenue gains in the rest of the state of 19%. Restaurant expenditure per capita in 1997 increased by \$150 compared to 1992. In the rest of the state the increase was \$100.	N		N	8  10/01
Fletcher, 1998[33]  1997, Jan Chico, California	Smoke-free bars AR - Report prepared for American Lung Association of California Californian Department of Health Services grant	NF	<b>O</b>  Sales tax receipts from eating and drinking establishments	Y	N	N	Total sales tax receipts for all 118 Chico establishments holding licenses to serve alcohol declined by 4% in 1996 over 1995, but increased by 10.3% in 1997 over 1996. All of the 1997 increase was from establishments that serve beer and wine. In contrast, establishments which serve beer, wine & liquor have been experiencing a steady decline in sales tax receipts since 1995. The decline began prior to implementation of the ordinance.	N	Other variables are likely to have contributed to this decline since it began prior to implementation of the ordinance	N	9  10/01
Ferrence, 2003 [10]  Aug 2001 Ottawa, Ontario Canada	Smoke-free workplace and public places AR - Ontario Tobacco Research Unit Ontario Ministry of Health and Long term care	NF	<b>O</b>  Sales of licensed restaurants, including bars, unlicensed restaurants and goods and services	Y	Y  Intervention time series, regression	Y	No statistically significant impact of the bylaw on sales of restaurants and bars	N		N	100  07.03

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. m/my added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Glantz & Charlesworth, 1999 [11]  1994, 95 & 96  US states (3) (California; Utah & Vermont); and 6 US cities (Boulder, Colo; Flagstaff, Ariz, Los Angeles, Calif; Mesa, Ariz, New York, NY and San Francisco CA.	Smoke-free restaurants  <i>JA - Journal of the American Medical Association</i>  National Cancer Institute and gift from E & H Everett	NF	O  Taxable sales receipts  As a measure of tourism – Hotel room revenues and hotel revenues as a fraction of total retail sales compared with pre-ordinance revenues and overall US hotel revenues	Y	Y  Multivariate linear regression	Y	Statistically significant increase in rate of change of hotel revenue in 4 localities, no significant change in 4 localities, and a significant slowing of rate of increases (but not a decrease) in 1 locality.	N	Dire predictions were made prominently in media in each of these locations before the implementation of smoke-free policies.  In no case were predictions accurate. In no case has either the hospitality or the tobacco industry reported on actual sales.	Y	10  10/01
Glantz & Smith 1994 [12]  Various from 1985 to 1992  California, Colorado (15 cities)	Smoke-free restaurants  <i>JA - American Journal of Public Health</i>  Cigarette and Tobacco Surtax Fund of California (Tobacco Related Diseases Research Program, administered by the University of California)	NF	O  Taxable sales receipts for restaurant and retail sales	Y	Y  Multiple regression including time and a dummy variable for the ordinance	Y	Ordinances had no significant effect on the fraction of total retail sales in communities with ordinances and sales in comparison communities. Ordinances requiring smoke-free bars had no significant effect on the fraction of revenues going to eating and drinking places that serve all types of liquor.	N	Otto Mueksch of Californians for Smokers Rights has claimed that restaurant and bar permits decreased by 3.3% after the policy was introduced while permits for fast food outlets increased 12.7% [113]. No detail is provided about establishment classification methods over the period, and no analysis is provided about wider national trends in consumer preferences towards fast food.	Y	11  12/01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. mm/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Glantz & Smith, 1997 [13]  Various from 1985 to 1992  California and Colorado (15 cities)	Smoke-free restaurants <i>JA - American Journal of Public Health</i>  National Cancer Institute grant	NF	<b>O</b>  Taxable sales receipts  Total restaurant sales were analysed as fraction of total restaurant and retail sales	Y	Y  Multiple regression including time and dummy variables for whether an ordinance was in force	Y	Ordinances had no significant effect on the fraction of total sales that went to restaurants or on the ratio of restaurant sales in communities with ordinances compared with those in the matched control communities.	N	Erratum published in response to critics (Evans from NSA 1996) finding errors in effective dates of ordinances. This led to only minor changes in the results.	Y	12  10/01
Glantz 2000 [14]  1998  California	Smoke-free bars <i>JL - Tobacco Control</i>      National Cancer Institute grant	NF	<b>O</b>  Total revenues from eating and drinking establishments licensed to serve all forms of alcohol	Y	Y  Multiple linear regression analysis	Y	No significant effect of the restaurant provisions of the law on bar revenues as a fraction of total retail sales. There was a small but significant positive change in bar revenues as a fraction of retail sales associated with the bar provisions going into effect. Implementation of the smoke-free restaurant provisions was associated with an increase in the fraction of all eating and drinking establishment revenues that went to venues with liquor licenses, and a larger increase following implementation of smoke-free bar provisions.	N		N	13  10/01
Glantz & Wilson-Loots 2003 [15]  Various  Massachusetts	Smoke-free bingo halls <i>JL - Tobacco Control</i>  National Cancer Institute grant	NF	<b>O</b>  Net profits/losses from games	Y	Y  General linear model implementation of a time series analysis	Y	While adjusted profits fell over time, this effect was not related to the presence of an ordinance. The analysis in terms of the fraction of the population living in communities with ordinances yielded the same result.	N		Y	106  12/03

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation?§	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. m/ly added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Goldstein & Sobel, 1998 [16]  1993, July North Carolina	Separate non-smoking areas in restaurants  <i>JA - North Carolina Medical Journal</i>  No funding source stated. Authors are affiliated with the Department of Family Medicine. U of North Carolina School of Medicine	NF	<b>O</b>  Taxable sales receipts as a fraction of restaurant sales/retail sales	Y	Y  Paired t- tests and regression analyses	Y	Little fluctuation in fraction of restaurant sales to retail sales over 5 years in counties with and without ETS ordinances. No consistent changes in restaurant sales of 10 counties after ETS ordinances took effect.	N	Nth Carolina is the number one tobacco-producing state.	Y	14  10/01
Hayslett & Huang , 2000 [17]  1994-6 Texas	Smoke-free restaurants  GP- Bureau of Disease, Injury and Tobacco Prevention, Texas Department of Health  Texas Department of Health	NF	<b>O</b>  Taxable sales receipts of restaurants and retail outlets from 1987-1999	Y	Y  Linear regression	Y	No detrimental effect on restaurant sales, either in total or was a proportion of total retail sales	N		N	88  05/02
Hild et al 2001[40] July 2000  Anchorage, Alaska United States	Smoke-free eating and drinking places  UR – Institute for Circumpolar Health Studies, University of Alaska, Anchorage  Funded by Municipality of Anchorage	NF	<b>O</b>  Employment figures	N	Y  Mean and standard deviation of percent change in employment	N	Those establishments that changed their smoking status to non-smoking after the ordinance grew 10%. Relative growth rates not significantly different to those who allowed smoking before and after the ordinance	N		N	83  02.02
Huang 2004 [18] January 2002 El Paso, Texas	Smoke-free bars and restaurants  <i>JA - Morbidity and Mortality Weekly</i>	NF	<b>O</b>  Sales tax reports and beverage tax receipts	Y	Y  Multiple linear regression analysis	Y	No decline in total restaurant and bar revenues occurred after the ban was implemented.	N		N	107  04/04



Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation?§	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. mm/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Huang et al 1995 [19]  1993, June  West Lake Hills (suburb of) Austin, Texas	Smoke-free restaurants  <i>JA - Morbidity and Mortality Weekly</i>  No funding source stated (authors work at the Texas Department of Health)	NF	<b>O</b>  Taxable sales receipts	Y	Y  Linear regression model	Y	The regression coefficient for the ordinance variable was positive suggesting total sales of restaurants did not decrease after implementation of the ordinance.	N		Y	15  10/01
Hyland & Cummings 1999 [41]  1995, April 10  New York City, - boroughs of Manhattan, Bronx, Brooklyn, Richmond, Queens	Smoke-free indoor dining area in restaurants with more than 35 indoor seats. Smoking permitted in separate bar areas of restaurants.  <i>JA - Journal of Public Health Management Practice</i>  Robert Wood Johnson Foundation grant	NF	<b>O</b>  Number of restaurants, employment rates	Y	N  Comparisons of absolute and relative county specific changes in the number of restaurants and restaurant employees	Y	Increase in number of restaurants in 9 out of 10 locations. Increase in number of restaurant employees in all locations.	N		Y	16  10/01
Hyland & Tuk, 2001[42]  March 2001  New York City, New York	Smoke-free indoor restaurants  <i>JL - Tobacco Control</i>  No Funding Source Stated –  Author advises, National Cancer Institute, Comprehensive Cancer Center Core Grant for the Roswell Park Cancer Institute.	NF	<b>O</b>  Number of employees	N	N	N	22,000 additional employees were employed between 1994 and 1999 and per capita employment increased by 18%.	N		N	17  10/01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve impact? ¶	Comments	Peer Reviewed? **	Record no. m/m/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Hyland et al 1999 [20]  1995, April 10  New York City, New York	Smoke-free indoor dining area in restaurants with more than 35 indoor seats. Smoking permitted in separate bar areas of restaurants  <i>JA - Journal of Public Health Management and Practice</i>  Robert Wood Johnson Foundation grant	NF	<b>O</b>  Taxable sales receipts  Total taxable sales from eating and drinking establishments.  Total taxable sales from hotels	Y	Y  Multivariate linear regression	Y	Real taxable sales from eating and drinking places and hotels in NYC increased by 2% and 37% respectively. Real taxable sales for eating and drinking venues and hotels in the rest of the state experienced 4% decrease and 2% increase in sales respectively.	N	Policies extended to most indoor public places; did not cover public bars.	Y	18  10/01
Hyland et al, 2000 [38]  1997, 1998  Erie County, New York	Smoke-free restaurants  <i>JA - Journal of Public Health Management Practice</i>  National Cancer Institute, Comprehensive Cancer Center Core Grant for the Roswell Park Cancer Institute.	NF	<b>O</b>  Number of employees	Y	Y  Multivariate modelling	Y	No significant change in the number or percentage of employees. Numbers increased relative to other counties.	N	Higher unemployment in winter months.	Y	19  10/01
Hyland, 2002 [21]  1995-2000  New York City, Suffolk, Erie, Monroe and Westchester	Smoke-free dining areas in restaurants unless area has a separate ventilation system  AR- Roswell Park Cancer Institute  Robert Wood Johnson Foundation and New York State Department of Health	NF	<b>O</b>  Taxable sale receipts of eating and drinking establishments	Y	Y  Multivariate linear regression	Y	The presence of smokefree legislation was not associated with changes in taxable sales from eating and drinking establishments in all five counties	N		N	92  06.02

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. m/my added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Description						
Location	Funding source indicated										
Hyland, 2003 [22] 1995-1999 New York City, Suffolk, Erie, Monroe and Westchester	Smoke-free dining areas in restaurants unless area has a separate ventilation system <i>JA- Cornell Hotel and Restaurant Administration Quarterly</i> Robert Wood Johnson Foundation, the New York State Department of Health, the Flight Attendants Medical Research Institute	NF	Taxable sales receipts of restaurants. Hotel Employment	Y	Y Multivariate linear regression	Y	In all 5 counties, smoke-free legislation was not associated with adverse economic outcomes in restaurants and hotels	N		Y	99 07.03
Lal, 2003 [36] July 2001 Victoria, Australia	Smoke-free restaurants <i>JL - Australian and New Zealand Journal of Public Health</i> VicHealth Centre for Tobacco Control	NF	Self report of sales	Y	Y interrupted time series analysis	Y	The results suggest that the smoke-free policy in restaurants and cafés has had no negative impact on sales turnover in these venues	N		N	105 12/03
Maroney et al 1994 [23] 1990s, early California, 17 cities, 3 counties	Smoke-free restaurants UR - Report by the Claremont Institute for Economic Policy Studies, The Claremont Graduate School Proposition 99, the California Tobacco Tax Initiative of 1988 under a grant from the California Department of Health Services	NF	<b>O</b> Taxable sales receipts of restaurants. Non-restaurant taxable sales receipts as measure of local economic community	Y	Y Linear regression model using sales tax data for 19 communities and 87 control communities	Y	Restaurant revenue changes could not be attributed to ordinance smoking restrictions. Surrounding cities without ordinance restrictions had significant fluctuations in revenues that could not be distinguished from cities with ordinances. Significant shifts in restaurant patronage between ordinance and surrounding cities could not be attributed to smoking restrictions. The time of the ordinance adoption and other city-specific characteristics such as geographic location, dining opportunities in surrounding cities and determinants of smoking prevalence could not be held responsible for significant revenue changes.	N	Results imply that other variables not accounted for in the model affecting one or more cities in a local area also contributed to revenue changes during the time ordinance effects were assessed.	N	20 10/01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve impact? ¶	Comments	Peer Reviewed? **	Record no. mm/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Moseley & Schmidt 2003 [24] I Jan 2002	Smoke-free restaurants  UR - Report by the Minot State University College of Business and the North Dakota Center for Disabilities  Minot State University	NF	<b>O</b>  Restaurant Taxable Sales and Purchases and Total Taxable Sales and Purchases	Y	Y  linear regression analysis	Y	The implementation of the smoke-free ordinance had no significant effect on the fraction of sales that went to restaurants in Minot. The results of the study showed the smoke-free ordinance had no impact on restaurant sales for the City of Minot	N		N	101  07/03
New York City Department of Finance [34] 30 March 2003 New York	Smoke-free restaurants and bars  GR - New York City Department of Finance, New York City Department of Health and Mental Hygiene, New York City Department of Small Business Services, New York City Department of Economic Development Corporation	NF	<b>O</b>  Bar and restaurant tax receipts, employment, openings and closings	Y	N	N	Tax receipts were up 8.7% April 2003-Jan 2004 on same period 2002-3. March to Dec 2003 increase in jobs was 2800 seasonally adjusted, an absolute gain of 10,600. Number of bars and restaurants unchanged between third quarter 2002 and third quarter 2003. At end of 2003 there was a net gain of 234 active liquor licenses from 2002.	N		N	108  04/04
New York City Department of Health and Mental Hygiene [43] 30 March 2003 New York	All establishments and businesses with employees smoke-free  GP- New York City Department of Health and Mental Hygiene	NF	<b>O</b>  Number of jobs	Y	N	Y	Absolute gain of 10,000 jobs or 1500 seasonally adjusted jobs since the implementation of the smoke-free air act.	N		N	103  08/03

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. m/ly added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Type of analysis						
Location	Funding source indicated		Description								
Pacific Analytics 2001[25]  1 Jan 2000  British Columbia, Canada	Smoke-free hospitality and public entertainment venues including stand-alone and hotel based restaurants, pubs, cabarets  GP - Report by Pacific Analytics Inc for the Workers Compensation Board of British Columbia  No Funding Source Stated, but assume WCBBC	NF  No links with tobacco industry could be established in search of documents	O  Cost data for monthly liquor purchases, monthly taxable accommodation revenues, restaurant, caterer and tavern receipts, number of employment insurance recipients	Y	Y  Ordinary least squares regression	Y	A negative impact was apparent in total hotel/resort alcohol purchases, total dining establishment alcohol purchases and total Marine and neighbourhood pub purchases during Jan 2000 but not in months of Feb or Mar. Being close to a border did not result in greater loss of business. No long-term loss of business in another jurisdiction that had similar ordinance since Jan 99. Therefore in the longer term, no measurable impact on either employment or sales would be likely. Some regions in the province would be affected to a greater degree, however the same conclusions are apparent: some short term impacts but generally no longer-term effects.	N		N	21  10/01
Pope et al 1997 [26]  Various from 1992-1995  Massachusetts	Smoke-free restaurants  GP - Report by Health Economics Research for Massachusetts Dept of Public Health Tobacco Control Program  Health Protection Fund	NF	O  Taxable sales receipts	Y	Y  Multivariate regression	Y	All models indicate that smoke-free restaurant restrictions increased restaurant receipts in towns adopting smoke-free policies by 5 to 9%	N		N	22  10/01
Sciacca & Ratliff 1998 [27]  1993, June  Flagstaff, Arizona and six Arizona comparison areas	Smoke-free restaurants  <i>JA - American Journal of Health Promotion</i>  Center for Prevention and Health Promotion, Arizona Dept of Health Services	NF	O  Taxable sales receipts ratio of restaurant sales to total retail sales, hotel/motel sales.	Y	Y  Least squares regression lines as indicators of sales trends.	Y	All analyses resulted in same conclusions: prohibiting smoking in restaurants did not affect restaurant sale.	N	Flagstaff was the first city in Arizona to require restaurants to be smoke-free.	Y	23  10/01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation?§	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed?*	Record no./m/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective		Description						
Location	Funding source indicated										
Styring, 2001[28]  Jan 1999 Fort Wayne, Indiana	Smoke-free restaurants CR- Hudson Institute  Smokefree Indiana and the Centers for Disease Control	NF	O  Food and beverage tax collections	Y	Y  Multiple Regression	Y	The existence of a restaurant smoking ban cannot be said to have had any impact on Allen County restaurant sales.	N	Results are consistent with the second part of this report examining customer estimates of patronage	N	92 06.02
Taylor Consulting Group 1993 [29]  1990, August San Luis Obispo, California	Smoke-free restaurants and bars GP – Report by Taylor Consulting Group  For the City of San Luis Obispo Smoking Ordinance Economic Steering Committee	NF  No links with tobacco industry could be established in search of documents	O  Taxable sales receipts	Y	Y  Regression	Y	No significant effects on the profitability of restaurants and bars. No impact on sales tax revenues.	N	Although no impact on sales, smokers are going to out of town restaurants while non-smokers more likely to go to San Luis Obispo venues. The shifts offset each other.	N	24 10/01
Wakefield et al 2002 [30]  1999, Jan South Australia	Smoke-free restaurants JA - Submitted to <i>Australian &amp; New Zealand Journal of Public Health</i>  Department of Human Services of South Australia	NF	O  Restaurant sales data	Y	Y  Interrupted Time Series Analysis	Y	There was no significant change in the ratio of a) Sth Aus. restaurant turnover to Sth Aus retail turnover or b) Sth Aus restaurant turnover to Australian turnover.	N		Y	25 11.01
<b>Studies for which funding source is unknown</b>											
Pubco 2002 [44] 2001, Sept Ottawa, Ontario, Canada	Smoke-free enclosed public places including bars. AR – Report done on behalf of the Pub and Bar Coalition of Ontario No funding source stated.	UK	O  Beer Sales provided by the Brewers of Ontario	R	N	N	An average decline in sales of 10.5% when compared to the same 10 months a year earlier	Y		N	95 08.02

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure Objective/ Subjective Description	Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. m.m/yyyy added/updated
Date policy implemented	Report type* and publisher				Type of analysis						
Location	Funding source indicated										
<b>Studies conducted by organisations or consultants with links to the tobacco industry around the time of the study</b>											
Lilley & DeFranco, 1996 [51]  1995, April New York City, New York	Smoke-free restaurants  AR – Report by In Context Inc, for the Empire State Restaurant and Tavern Association  <b>No Funding Source Stated</b>	STF, EC  Evidence from tobacco industry docs reveal that authors collaborated with Philip Morris in developing methodology [114]. Subsequent work by authors was funded by PM [50] The <i>New York Times</i> reported that the Tobacco Institute funneled \$443,072 in lobbying money through the Empire State Restaurant and Tavern Association to wage its 1995 clean indoor air preemption campaign.[115]	O  Number of restaurant jobs from Jan 1993 to Mar 96	N	N	N	2,779 restaurant jobs lost or 4% of restaurant job base	Y	They attribute job losses to policies but their data shows that losses came before policy implementation. Data for period immediately prior to introduction of policy was not reported. Other researchers have queried quality of Dun and Bradstreet lists to select retailers	N	26  10/01
Masotti & Creticos [46]  1990 San Luis Obispo, California	Smoke-free eating and drinking establishments  UR – Northwestern University  <b>No Funding Source Stated</b>	EC-weak; UK  Masotti subsequently received hospitality from Philip Morris [116] [117]	O  Taxable sales receipts 1989 to 1990	N	N  Comparison of quarterly figures	N	Decline in sales for eating and drinking establishments in last two quarters. Changes in tax receipts for apparel and general merchandise were less than those of eating and drinking establishments	Y	When several years of data were analysed and appropriate controls were used no negative economic impact is revealed [12]. Part 2 of this study used a subjective measure which showed no adverse economic impact	N	27  10/01
<b>Studies funded by tobacco companies or industry groups supported by the tobacco industry</b>											

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure		Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. mm/yy added/updated	
Date policy implemented	Report type* and publisher		Objective/ Subjective	Description									
Location	Funding source indicated				Type of analysis								
Applied Economics 1996 [48]  1996, June Mesa, Arizona	Smoke-free work places and public places  GP – Report prepared by Applied Economics for Finance Department, City of Mesa.  <b>Funded by a Philip Morris Accommodation Program grant</b>	TF	O	Sales in restaurants, bowling alleys and pool halls, tobacco stores, hotel/motel, bars	N	N	N	Comparison of 2 months of sales figures between July/August 1995 and July/August 1996	Overall, adjusted sales for July and August 1996 ranged from 3% to 12% lower than the two-month period the year before, except for bars and tobacco stores.	Y	This analysis omitted 2/3 of the restaurants in Mesa. Including all of the restaurants revealed a increase of 2% [8]	N	28  10/01
Deloitte & Touche 2003 [49]  Various United States	Smoke-free restaurants and smoke-free dining areas  CR - Deloitte & Touche  <b>Funded by the National Restaurant Association</b>	TO  Evidence of R J Reynolds Tobacco Company, Philip Morris and the Tobacco Institute were working "in partnership" with the National Restaurant Association [118, 119]	O	Self reported sales and profits of restaurants	N	Y	Y	Regression analysis	Majority of specific ordinance types had negative effects but a few had positive effects.	Y	Note from authors that "estimates should be interpreted with caution"	N	104  12/03
Lilley & De Franco, 1999 [50]  1998, January California	Smoke-free restaurants and bars  CR – Report by In Context Inc  <b>Funded by Philip Morris Management Corporation</b>	TF	O	Number of bar jobs and bar businesses on 1 Jan 1997 and 1 Jan 1999	N	N	N		Jobs decreased by 9.7% and 12.7% on a per capita basis (from 1997, a year before ban). The number of bar businesses decreased by 7.4%.	Y	Comparing two points in time is invalid [1]. Several years of data are needed to establish baseline and to account for any random fluctuations	N	29  10/01



Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer codes †	Outcome Measure		Continuous data before and after policy intro?	Statistical analysis controlling for trend & fluctuation? §	Economic trends?	Findings	Conclusion of - ve Impact? ¶	Comments	Peer Reviewed? **	Record no. mm/yy added/updated
Date policy implemented	Report type* and publisher		Objective/ Subjective	Description								
Location	Funding source indicated											
Laventhol & Horwath, 1990 1987, March [47]  Beverly Hills, California	Smoke-free restaurants AR – Report for Restaurants for Sensible Voluntary Policy (RSVP), LA California <b>No Funding Source Stated</b>	TO RSVP was created for Philip Morris and the Tobacco Institute [120] Reynolds Tobacco Company has also supported RSVP [121]	O  Taxable sales receipts for restaurants	N	N	N	Sales declined by 6.7% in 1987.  Comparison of Beverley Hills figures from Apr, May, June in 1987 to same qtr in 1986	Y	The authors could have just as easily compared the 2 <sup>nd</sup> qtr of 1987, the 3 <sup>rd</sup> or 4 <sup>th</sup> qtrs of 1986 or 1 <sup>st</sup> qtr or 1987 where they would have found increases [1]	N	30  10/01	
Lilley & DeFranco, 1996 [45]  Massachusetts	Smoke-free restaurants AR – Report by In Context Inc, for the Massachusetts Restaurant Association <b>No Funding Source Stated</b>	TO, EC, STF Evidence from tobacco industry docs reveal that authors collaborated with Philip Morris in developing methodology [114]. Subsequent work by authors was funded by PM [50]. The RA has admitted that it has received funds from Philip Morris and RJ Reynolds Tobacco Co [119].	O  Number of restaurant jobs from 1993-1995	N	N	N	During the period, 14 communities enacted 100% smoking bans. Of those communities, 71% lost jobs and 27% gained jobs. The average job loss was 21%.	Y	Several of the towns enacted their smoke-free law after the study period [122]  Studies using taxable sales receipts in restaurants show no negative economic impact [5, 6]	N	31  10/01	

### Notes associated with these tables:

11 Report type (AR = report published by a hospitality industry of public health advocacy group; CR = Report published by a consultant or consultancy company; GP = Government publication; JA = article in a peer-reviewed journal; JL = letter in a peer-reviewed journal; ME = Media report, MR = Report produced by a market research company; UR = report produced by a University)

† Financial relationship with tobacco industry (NF = Funding source other than tobacco industry specified, TF= funded by the tobacco industry; TO = funded by organisations in receipt of financial support from the tobacco industry); EC = Funding source not disclosed and not discovered, but evidence of collaboration with the tobacco industry; PTF = previous work funded by tobacco company; STF = subsequent work funded by a tobacco company; UK = Unknown

‡ Objective v. Subjective measure (O = objective or actual data, S= subjective or survey data)

§ Statistical analysis to test significance and control for trend and fluctuation in the data (Y = Yes, N = No)

|| Control for economic trends (Y = Yes, adequate control or adjustment for economic trend; N = No control or inadequate control or adjustment for economic trends)

¶ -ve Impact- Negative Impact found N = No (desired result), Y = Yes (i.e. an adverse effect). N/a = data presented, but no conclusion drawn.

\*\* Peer Reviewed? (Y = Yes, N = No)

# Attachment Table 2 Subjective studies

Listed alphabetically, commencing with those funded by sources other than the tobacco industry

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure Objective/ Subjective ‡	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion -ve of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yy added/updated
Date policy implemented	Report type* and Publisher		Description		Type of analysis						
Location	Funding source indicated										
<b>Studies funded from sources other than the tobacco industry</b>											
Allen & Markham, 2001 [52]	Smoke-free licensed premises	NF	S	P	N	N	88% of proprietors believed the introduction of smoke-free policy would have a detrimental effect on their business. 10% believed it may initially have a negative effect but no significant effect over time. 2% thought it would have a positive effect.	N		N	32
2002, Jan (review)	AR – Report by Australian Council on Smoking and Health		Proprietor opinions of effect on business				Of the patrons, 72% said there would be no change in patronage, 20% would go more often and 8% less often				11.01
Western Australia	ACOSH		Patron predictions of attendance rates								
August & Brooks 2000 [53]	Smoke-free bars	NF	S	R	N	N	>90% of patrons either go more often or have not changed frequency.	N		N	33
2000, July	GP – California Department of Health Services		Patron estimates of change in frequency of visiting bars				Increase in approval among patrons from 59% in 1998 to 72% in 2000				10.01
California	CDHS grant		Patron approval of smoke-free bars policy								
Biener & Fitzgerald 1999 [54]	Smoke-free bars and restaurants	NF	S	P	N/a	N	46% of non-smokers reported avoiding smoky places. 31% had avoided restaurants, 22% bars, 14% gambling places, 14% entertainment places, 2% concerts or arenas.	N		Y	34
1996, August	<i>JA – Journal of Public Health Management Practice</i>		Reported avoidance of going to a public place								10.01
Massachusetts	Health Protection Fund, Massachusetts Department of Health										

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion of -ve Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡		Type of analysis						
Location	Funding source indicated		Description								
Biener & Siegel 1997 [55]	Smoke-free restaurants and bars <i>JA – American Journal of Public Health</i> Health Protection Fund, Massachusetts Department of Health	NF	S  Community estimates of likelihood of patronizing	P	Y  Chi-square	N	61% predicted no change in their use of restaurants, 30% predicted increased use, 8% decreased use. 69% predicted no change in patronage of bars, 20% predicted increased use and 11% decreased use.	N	Results indicate the likelihood of an increase in overall patronage of bars and restaurants.	Y	35  10.01
Corsun et al 1996 [56]	Smoke-free indoor dining area in restaurants with more than 35 indoor seats. Smoking permitted in separate bar areas of restaurants <i>JA – Cornell Hotel and Restaurant Administration Quarterly</i> Cornell University's Center for Hospitality Research	NF	S  Community estimates of frequency and time spent dining out, purchasing take-out food and patronising bars, spending patterns	R	N	N	24% of smokers are patronizing stand alone bars more frequently, purchasing take out food (28%) and dining outside of NYC more frequently (16%). Smokers are dining out less and eating faster, non-smokers are dining out more, balancing out any negative impact. Despite high individual spending as a group smokers account for 2.5 times less overall restaurant revenue than non-smokers.	N	Evans of National Smokers Alliance (NSA) claims this study is invalid. Authors argue that what have been identified as errors flaws and biases are findings that do not support the NSA's position.	Y	36  10.01
Cremieux & Oullette 2001 [69]	Separate ventilated smoking areas in all restaurants except bars. Smoking bans if required changes considered too expensive <i>JA – Tobacco Control</i> Ministere de la Santer et des Services Sociaux of Quebec	NF	S  Proprietors' perceived and actual costs of smoking regulation.  Proprietor estimates of revenue expectations	R/P	N  For revenue expectations chi-square to test for difference in proportion between samples for any policy vs. no policy	N	Annualised non- recurrent costs of compliance with law were less than 0.15% of annual revenues or 3% of profits. The anticipated building costs by non-compliant firms were 2.7 times higher than that actually incurred by those already in compliance. Responses varied significantly regarding potential impact on revenues according to their current smoking policy. 80% of proprietors with some form of tobacco regulation in place did not anticipate a decrease in revenues. None of the restaurants in compliance expected decreased revenues.	N	The expectations of non-compliant firms are likely to be overstated.	Y	37  10.01

Author and Year Published Date policy implemented Location	Type of policy examined (as described in study) Report type* and Publisher Funding source indicated	Nature of relationship with tobacco industry - refer	Outcome Measure Objective/ Subjective ‡ Description	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? § Type of analysis	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Decima Research 2001 [58] 2001, Sept Ottawa, Canada	Smoke-free bars MR – Decima Research Inc Independently funded (K. Neuman, email, 8 Nov 2001)	NF PTF Did a job for Imperial Tobacco in 1988 – see below.	S Community estimates of patronage	R	N	N	Most (70%) residents say they are going to these establishments about as often as they had before, while the remainder are evenly split between those now going out less often (14%) and those going out more (13%)	N		N	38 10.01
Decima Research Inc 2002 [57] 2001, Sept Ottawa, Canada	Smoking prohibited in enclosed smoke-free public places MR- Decima Research Inc Independently funded (K. Neuman, email, 27 August 2002)	NF PTF Did a job for Imperial Tobacco in 1988 – see below.	S Community estimates of patronage	R	N	N	Overall, only 8 percent of area residents specifically identify the smoking by-law as a reason why they are spending less time in Ottawa restaurants and bars, compared with 7 percent who say this is a reason why they are visiting such establishments more often.	N		N	96 08.02

Author and Year Published Date policy implemented Location	Type of policy examined (as described in study) Report type* and Publisher Funding source indicated	Nature of relationship with tobacco industry - refer	Outcome Measure Objective/ Subjective ‡ Description	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? § Type of analysis	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Dresser et al, 1999 [37] 1998, July Corvallis, Oregon	Smoke-free bars GP – Report by Pacific Research Inst for the Oregon Health Division Measure 44 (Oregon Tobacco Control Program)	NF	S  Restaurateurs estimates of revenue  Community estimates of patronage	R	N	N	Majority of respondents reported no losses of customers or revenues. About 70% of all residents reported continuing to frequent the same bars after the ordinance.	N	Smokers who transferred their patronage to bars outside Corvallis have been offset by non-smokers	N	7  10.01  See also record 7 in Table 1
Douglas Community Health Improvement Project, 2001 [80]  Douglas County, Colorado	Smoke-free restaurants AR – Report by the Douglas Community Health Improvement Project (CHIP) CHIP	NF	S  Reported effects of being smokefree	R	N	N	Of the 15 restaurants who were smokefree 47% noticed no effect of being smokefree, 33% said a better environment and 20% indicated “other”.	N		N	39  12.01
Edwards, 2000 [70]  Nth East England, UK	Smoke-free areas in pubs, restaurants, cafes, hotels, cinemas and theatres AR – Report by the Newcastle University Department of Epidemiology and Public Health for North East Against Tobacco NEAT	NF	S  Proprietors opinions of impact on business	R	N	N	25% of businesses reported a boost in trade, majority a neutral effect. In pubs 58% reported an increase in trade.	N		N	40  10.01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡		Type of analysis						
Location	Funding source indicated		Description								
Field Research Corporation, 1997 [60]	Smoke-free bars GP – Report by Field Research Corporation for California Department of Health Services CDHS	NF	S  Community intended choices of smoke-free bars, time spent in bars and patronage	P	N	N	77% would either prefer smoke-free bars or not be affected. 59% would not be affected by overall amount of time spent in bars, 27% would stay longer. 65% say patronage would not be affected, 22% are more likely to visit bars.	N		N	41  10.01
Field Research Corporation, 1998[59]	Smoke-free bars GP – Report by Field Research Corporation for California Department of Health Services CDHS	NF	S  Community reports of bar patronage	P	N	N	85% of bar patrons reported the new law would not affect patronage or they would be more likely to go to a smoke-free bar.	N		N	42  10.01
Hodges & Maskill, 2001 [81]	Smoke-free bars and restaurants AR – Report to ASH, Smokefree Coalition and ATAK ASH, Smokefree Coalition and ATAK	NF	S  Estimated overseas visitor numbers	P	N	N	Most visitors come from countries where male and female smoking rates are quite similar to, or only slightly higher than NZ. This suggests that NZ's inbound tourist market is dominated by non-smokers, most of whom are likely to support smoking bans or restrictions in restaurants and bars	N		N	43  12.01
Huron County Health Unit 1999 [71]	Smoke-free restaurants AR- Huron County Health Unit Funded by Huron County Health Unit	NF	S  Restaurateur reports of effect on business	R	N	N	Compared to restaurants that allow smoking in the restaurant, restaurateurs that do not allow smoking in the restaurant are 2.61 times more likely to report an increase in business. Compared to restaurants without a separately enclosed smoking section, restaurants that do have a separately enclosed smoking section or that are 100% smoke-free are 3.15 times more likely to report an increase in business.	N		N	85  02.02

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡		Type of analysis						
Location	Funding source indicated		Description								
Hyland & Cummings 1999 [68]	Smoke-free indoor dining area in restaurants with more than 35 indoor seats. Smoking permitted in separate bar areas of restaurants <i>JA – Journal of Public Health Management Practice</i> Robert Wood Johnson Foundation grant	NF	S	R	Y	Y	The presence of a smoke-free policy or lack of bar area was not associated with reports of decreased revenue.	N		Y	44  10.01
1995 April 10 New York City, New York			Proprietor estimate of sales changes		Bi-variate association between being under jurisdiction of the smoke-free restaurant law and reported business decreases examined using Chi-square. Logistic regression to control for independent factors related to report of lost business.						
Hyland & Cummings 1999 [61]	Smoke-free restaurants <i>JA – Journal of Public Health Management Practice</i> Robert Wood Johnson Foundation grant	NF	S	R	Y	N	78% of consumers reported dining out about the same, 14% dined out less frequently and 7% dined out more frequently. Higher income and typically dining at casual or fine dining places were each associated with a decreased likelihood of reporting any negative outcome.	N		Y	45  10.01
1995, April 10 New York City, New York			Community reports of dining out behaviour		Logistic Regression models to identify variables associated with less dining out behaviour						



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Jones et al, 1999 [72] 1991 South Australia	Voluntary Code of Practice to provide at least a third of their restaurant as smokefree <i>JA Tobacco Control</i> South Australian Health Commission	NF	S Proprietor reports of effect of policy on business	PR	Y Chi Square tests	N	There was a mismatch between expected consequences and the actual effects on business. Most restaurants with some provision for non-smokers (84%) or a total ban (78%) reported no effect on business or a gain in business. Losses reported were 6% and 11% respectively. Of those who had no provision, 33% believed it would have no effect or a gain and 47% thought it would lead to a loss.	N		Y	46 12.01
Lam et al, 1995 [62] Hong Kong	Smoke-free restaurants UR – Report by Department of Community Medicine, University of HK Health Services Research Committee	NF	S Community intentions to patronise more or less often	P	N	N	70% would choose a restaurant with a no-smoking area. 23% would go more often to restaurants with no-smoking area. If choice was available 65% would choose smoke-free restaurants when with children	N		N	47 10.01
Markham & Tong, 2001 [73] 1999 Western Australia	Enclosed areas of restaurants and cafes to be smoke-free. Smoking allowed in alfresco areas AR – Report done on behalf of the Australian Council on Smoking and Health ACOSH	NF	S Proprietors estimates of impact on business	R	N	N	64% of owners stated the regulations had a positive impact on business, 8% considered it to be negative and 28% observed no change.	N		N	48 10.01

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Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡	Prospective or Retrospective study?		Economic trends?					
Location	Funding source indicated		Description		Type of analysis						
McGhee et al, 2002[63]	Smoke-free areas in restaurants, cafes, bars and karaokes	NF	S	P	N	N	66% would not change their visiting rate to HK, 30% would come more often and 4% would make fewer visits and <1% would make no visits. The number who would not be affected by smoke-free policies in restaurants was similar to that in cafes 55 % - 58%, with 36%-39% saying they would visit more often and 5-6% less often. Weighted average change in spending in catering venues for all visitors is an increase of 19% with a range of 12% up to 25%.	N		N	91
Hong Kong	UR – Health Services Research Group, Department of Community Medicine, University of HK Health and Welfare Bureau of the Government of the Hong Kong SAR		Tourist reports of impact of visiting rate								06.02
Miller & Kriven, 2002[64]	Smoke-free enclosed indoor restaurants and cafes	NF	S	R	N	N	The number who reported going out for coffee less often (2.7%) was outweighed by respondents who started going out for coffee more often (4.1%). 6.3% started dining out whereas they wouldn't have bothered before compared to 1.2% who stopped eating at restaurants completely. Overall over 90% said the ban had made no difference	N		N	93
1999	AR- Tobacco Control Research and Evaluation Unit		Community reports of changes to dining out practices								06.02
South Australia	Department of Human Services										
Miller & Kriven, 2002[65]	Smoke-free bar and gaming venues	NF	S	P	N	N	Most said the ban would make 'no difference' (72% for bars; 93% for gaming areas) and more said they would go out more often (20% bars; 4% gaming) then said they would go less often (8% bars; 3% gaming).	N		N	94
South Australia	AR- Tobacco Control Research and Evaluation Unit Department of Human Services		Community predictions of changes to patronage								06.02

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Parry et al , 2001 [74]  1999 Staffordshire, UK	Smoke-free areas in pubs <i>LT- Tobacco Control</i>  Staffordshire Smoke-free Alliance	NF	S  Sales at each pub and income before the intervention from landlords	R	N	N	Monthly sales for 6 pubs do not indicate adverse effects. One pub showed a 10% increase on a similar period to last year.	N		N	49  11.01
Sciacca & Eckram 1993 [75]  1989, June Flagstaff, Arizona	Restaurants required to post signs reflecting one of the following policies (a) no smoking permitted in any area (b) smoking permitted only in designated areas (c) smoking permitted in all areas  <i>JA – Journal of Community Health</i>  Arizona Department of Health Services	NF	S  Proprietor opinion on effect of smoke-free policy on business	R	N	N	None of the restaurant respondents felt it had affected their business.	N		Y	50  10.01
Sciacca, 1996 [76]  1993, June Flagstaff, Arizona	Smoke-free restaurants  <i>JA – Journal of Community Health</i>  Center for Prevention and Health Promotion, Arizona Dept of Health Services	NF	S  Proprietor estimate of sales changes	R	N	N	15% believe ordinance has decreased business, 68% believe that it has increased or had no effect on business.	N	Actual sales data from Sciacca and Ratliff indicate no negative impact [27].	Y	51  10.01

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Shapiro, 2001[66] 2001, June South Africa	Separate smoking and non-smoking areas, the latter not exceeding 25% of floor space <i>ME – Business Day</i> Funded by ACNielsen	NF	S Community reports of predicted eating out frequency	P	N	N	Just over half said the legislation would not alter their eating out habits, 23% said they would eat out less often and 24% said more often.	N		N	86 02.02
Stanwick et al, 1988 [77] 1983, Sept Winnipeg, Manitoba, Canada	Separate non-smoking sections in restaurants <i>JA – Canadian Journal of Public Health</i> Manitoba Interagency Council on Smoking and Health and Manitoba Jobs fund	NF	S Proprietor estimates of sales changes in restaurants and retail shops	R	Y Chi-square tests	N	Less than 2% of merchants felt the bylaw had an adverse effect on their business, 96% indicated no effect.	N		Y	52 10.01
Styring, 2001[28] 1999 Fort Wayne, Indiana	Smoke-free restaurants CR- Hudson Institute Smokefree Indiana and the Centers for Disease Control	NF	S Customer estimates of patronage	R	N	N	68.9% said it made no difference to whether they would visit a restaurant, 16.4% said the ban made it less likely and 14.7% said it made no difference. More likely and less likely roughly cancel each other out and majority do not care either way.	N	Results are consistent with the first part of the report, examining objective tax data where no impact in sales was found	N	90 06.02

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Location	Funding source indicated		Description								
The Conference Board of Canada 1996 [78]	Smoke-free restaurants CR – Report by the Conference Board of Canada Canadian Tourism Research Institute and the Custom Economic Services Group	NF, PTF  The Conference Board of Canada received a \$7,000 grant from Brown and Williamson in 1991 [123]	S  Cost/Benefit analysis based on -Gross and net sales before and after restaurant became smoke-free -reasons for change in sales -Construction costs related to the conversion -Maintenance and cleaning costs prior to the conversion -Productivity changes -Change in market share -Customer and employee satisfaction -Marketing and training	R	N	N	80% had a successful conversion. 74% reported no adverse effect on sales. Those reporting sales declines indicated other benefits such as increased employee and customer satisfaction, attracting a new customer base, resulting in them being pleased overall.	N	Limitation of this cost benefit analysis is ETS restrictions have a time dimension, many of the benefits come later.	N	53  10.01
Wakefield et al, 1999 [67]	Smoke-free restaurants <i>JA – Preventive Medicine</i> South Australian Smoking and Health Project and the SA department of Human Services	NF	S  Patrons predictions of frequency of dining out	P	Y  Chi Square	N	Overall 82% thought the ban would make no difference to their likelihood of dining out, 14% would be more likely to dine out and 4% would be less likely.	N		Y	54  11.01

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Location	Funding source indicated		Description		Type of analysis						
Yorkshire ASH 2001[79]	Smoke-free restaurants and bars AR – Report by Yorkshire Ash Yorkshire Ash	NF	S	R	N	N	Almost 2/3 (65%) of respondents thought trade had increased as a result of the no-smoking policy, 29% thought trade had increased ‘a lot’. Only 5% thought trade had decreased ‘a little’, none thought it had decreased by ‘a lot’. Eighteen out of 28 pubs (64%) thought trade had increased as a result of providing smoke-free areas. None thought it had decreased.	N		N	55 12.01
<b>Studies for which funding source is unknown</b>											
Economists Advisory Group Ltd, 1998 [82]	Smoke-free restaurants AR – Report by Economists Advisory Group Ltd for the Restaurant Association of Great Britain <b>No Funding Source Stated</b>	UK	S	P	N	N	1% thought turnover would increase by up to 20%, 39% believed there would be no change, 30% thought there would be a decrease of up to 20%, 24% thought there would be a decrease by more than 20% and 6% didn’t know.	Y	The questionnaire was sent to all 922 RAGB members and 351 responded, giving a response rate of 38%.	N	56 12.01
Pubco, 2001 [83]	Smoke-free areas in bars and pubs AR – Report done on behalf of the Pub and Bar Coalition of Ontario No funding source stated.	UK	S	R	N	N	On average sales down 22%. 77 employees have been laid off from 54 establishments	Y		N	57 11.01

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The Publican, [84] England, UK	Smoke-free bars ME – Quantum Business Media <b>No Funding Source Stated</b>	UK  The Publican Newspaper supports the Atmosphere Improves Results (AIR) Initiative [124]. Market Report carries advertising. Survey questions are designed by an editorial board	S  Proprietor estimates of loss of trade	P	N	N	On average pubs would lose around 41% of their custom if they were forced to ban smokers	Y		N	58  12.01

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<b>Studies conducted by organisations with some links to the tobacco industry at the time of the study</b>											
CCG Consulting Group, 1996 [85]	Smoke-free restaurants and bars	EC – weak UK	S	P	N	N	Annual revenues predicted to fall by between 8.8% and 12.2% . Closures of 660 to 915 establishments. Total employment impacts of average 8850 jobs. Decrease in annual purchases from other industries between \$85m and \$115m.	Y		N	59
Toronto, Ontario, Canada	AR – report by CCG Consulting group for the Hotel and Restaurant Employees Union, Ontario Hotel and Motel Association, Ontario Restaurant Association  The Hotel and Restaurant Employees Union, Ontario Hotel and Motel Association, Ontario Restaurant Association	CCG has done work for the Lower Mainland Hospitality Industry Group see entry below. The Canadian Tobacco Manufacturers Council has admitted providing around \$800,000 in 2000 to the Courtesy of Choice Program which hospitality industry groups may access for support and funds.[125] The Lower Mainland Group has since provided strategic advice to other hospitality groups [126]	Patron estimates of frequency of visits and spending levels		Ratios based on population, patronage frequency, spending levels  Aggregate expenditure						12.01



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Charlton Research Co, 1994 [86] ? 1993 Los Angeles, California	Smoke-free restaurants AR - Report by Charlton Research Group for the Southern California Business Association <b>No Funding Source Stated</b>	PTF, EC  Evidence of authors doing previous work for Philip Morris and collaborating in survey design [127]  The SCBA has ties with organisations known to work with the tobacco industry [128].	S  Proprietors opinions of impact on business	R	N	N	50% said smoke-free law has had an impact, of those 94% say it has decreased the amount of business. Average decrease is 24%.	Y		N	60  10.01
Masotti & Creticos [46] 1990 San Luis Obispo, California	Smoke-free eating and drinking establishments UR - Northwestern University <b>No Funding Source Stated</b>	STH  Masotti subsequently received hospitality from Philip Morris [116, 117]	S  Proprietors opinions of effect on business	R	N	N	Interviews did not reveal discernible effects stemming from the smoke-free policy	N ... but	Part 1 of the study compared taxable sales data. Overall the authors conclude a negative effect.	N	27  10.01  See also record no 27 in Table 1

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Location	Funding source indicated		Description								
<b>Studies funded by tobacco companies or industry groups supported by the tobacco industry</b>											
Advantage Marketing Information, 1997 [95]	Smoke-free restaurants AR - Conducted by Advantage Marketing International for Rhode Island Hospitality & Tourism Association <b>Funded by Philip Morris Accommodation Program Grant</b>	TF	S  Restaurant, bowling alley and hotel/motel proprietors estimates of impact on business, employee lay offs	P	N	N	More than 50% believed sales would decline. Of those, over half estimated a sales decline of over 20%. 47% believed layoffs would occur and 39% believed layoffs would not occur. 39.6% of mid-scale restaurant owners predicted that their restaurant revenue would "decrease a lot," 28.6% of upscale restaurant owners predicted the same and 16.9% of hotel/motel owners predicted this as well.	Y		N	61  10.01
Applied Economics, 1996 [96]	Smoke-free work places and public places GP - Report by Applied Economics, for Finance Department, City of Mesa. <b>Funded by Philip Morris Accommodation Program Grant</b>	TF	S  Proprietor estimates of % change in sales, time of day of change in sales, estimates of employment impacts, predictions of sales impacts by suppliers	R	N	N	All but one business reported declines in sales. Restaurants generally down 25-35%, bowling alleys down 10-20%, pool halls down 30-40% hotel bar business down 40-50% for bars frequented by locals. Drop off in happy hour and late night crowd. People had been laid off and report declines in tips. Decline in sales by food and beverage suppliers.	Y	Only businesses that complained about the ordinance were included in the survey, yielding a heavily biased sample [8]  Appendices missing with the survey and respondent details.  Actual percentages or number of participants unclear	N	62  10.01
Auspoll –pm 2000 [87]	Smoke-free restaurants. Smoke-free eating areas in pubs and clubs MR - Report by Auspoll <b>Funded by Philip Morris Australia</b>	TF	S  Community estimates of likelihood of patronizing	P	N	N	93% of respondents would be much more likely, more likely or it would make no difference in attending family restaurants This figure was 91% for licensed restaurants, 89% for hotel bars, 90% for hotel bistros, 89% for nightclubs, 91% for cafes, 91% for gaming clubs, 94% takeaway food shops	n/a	Author indicates caution advised in assuming any particular economic impact. Further research is necessary.	N	63  10.01

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CCG Consulting Group, 1995 [97]  Vancouver, British Columbia, Canada	Smoke-free restaurants and bars  AR - report by CCG Consulting group for the Lower Mainland Hospitality Industry Group  Lower Mainland Hospitality Industry Group	TO  A tobacco industry organiser traveled to the province to help establish the group. The Canadian Tobacco Manufacturers have provided the group with ongoing strategic advice. [129] The Lower Mainland Group has since provided strategic advice to other hospitality groups [126]	S  Patron predictions of frequency of visits used to calculate annual spending, employment impact, impact on purchases	P	N	N	As the average intensity of response to a ban is four times greater among smokers than non-smokers (who would spend a smaller amount), the net overall reduction in annual sales revenue would be \$104 million or \$69 million under two different sets of response assumptions. These declines, applied to 1991 census labour force data, and to 1990 Input-Output Model employment ratios, translate into four estimates of job losses in a range from a low of 1,937 to a high of 3,505, with a mean average of 2,733. Expansion of the hospitality sector in the interim period to 1995 would increase this number to close to 3,300.	Y		N	64  12.01
Chamberlain Research Consultants, 1998 [98]  Wisconsin	Smoke-free restaurants  AR - Conducted by Chamberlain Research Team for the Wisconsin Restaurant Association  <b>Funded by Philip Morris Accommodation Grant Program</b>	TF	S  Proprietor prediction of impact of smoke-free policy on business, employee lay offs	P	N	N	63% said businesses would decrease if ban enacted, 72% said would decline by over 20%. 64% of restaurants would lay off employees, 40% of hotels/motels	Y		N	65  10.01

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Decima Research, 1988 [88] Canada	Smoke-free public places MR - Report by Decima Research Inc <b>Funded by Imperial Tobacco Ltd</b>	TF	S  Community response when faced with having to compromise in the workplace or in public areas	P	N	N	Smokers did not consider switching jobs or patronizing a more receptive restaurateur as alternative actions.	N/a		N	66  10.01
Dunham and Marlow, 2000 [99] US	Separate non-smoking sections in restaurants  <i>JA – Contemporary Economic Policy</i>  John Dunham is described on the report Manager of Fiscal Issues, <b>Philip Morris Management Group</b>	TF	S  Proprietor estimates of sales changes.  Estimate of the probability that an owner with a given set of attributes predicts that smoke-free policies lower revenues	P	Y  Chi square.  Logit model – a qualitative choicemodel estimates the probability that an owner with a given set of attributes predicts that smoke-free policies lower revenues.	Y	6% of restaurant owners expect higher revenues, 39% expect lower revenues and 51% predict no change. Owners in smoking law states do not differ significantly from those in no law states. 2% of bar owners expect higher revenues, 83% lower revenues and 13% no change. Higher shares of non-smoking seating lower the probability that owners expect adverse revenue effects, chain members less likely to expect revenues to reductions, older firms more likely to expect revenue falls, bar owners more likely to expect revenues to fall than restaurant owners.	Y	The authors predict 38% of establishments will experience lower revenues, however aggregate revenue data based on sales taxes shows no such effect. Of the 32 states the authors claim restricted smoking in 1996, only 5 had specific requirements for the size of the nonsmoking section, and some preempt local ordinances. These errors in the assessment of state laws render their data meaningless. [130]	Y	67  10.01

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KPMG, 2001[103]  Hong Kong	Smoke-free restaurants bars and cafes AR – Report by KPMG for the HK Catering Industry Association Funded by HK Catering Industry Association	TF The president of HK Catering Association, Tommy Cheung, admitted on a television interview that the tobacco industry provided this money [131]	S Customer predictions of change in patronage and spending	P	N	N	Receipts would fall by 10.6% in restaurants, bars, cafes and hotel food and beverage outlets	Y		N	89  06.02
KPMG Peat Marwick , 1998[104]  1998, January  California	Smoke-free restaurants AR - Report by KPMG for the American Beverage Institute <b>Funded by a Philip Morris Accommodation Program Grant</b>	TF	S Proprietor estimates of sales changes, tips/gratuities, patronage, customer complaints	R	N	N	7% report business has increased, 59% report a decrease. Average decrease in sales was 26%. 59% indicated a loss in gratuities, 3% report an increase in weekday customers, 58% report a decrease, with an average decrease of 33%. 8% reported an increase in weekend customers while 51% report a decrease, with an average decrease of 28%. 65% indicate a loss of regular customers. 50% indicated an increase in customer complaints.	Y		N	68  10.01

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Marlow, 1998 [105] United States	Smoke-free restaurants UR - Department of Economics, California Polytechnic State Uni <b>Study conducted for Philip Morris Management Corporation</b>	TF	S Proprietor estimates of expected revenue effects, expected effects on employment	P	N Extrapolation of predicted outcomes	N	82% of owners of bars and taverns predict revenues to fall, 2% predict a rise. Losses of 9% of restaurants jobs and 44% of bar & tavern workers. 44% of restaurants predict a lower overall revenues	Y	The analysis is based on a survey conducted in 1996 for the National Licensed Beverage Association, a major tobacco industry ally. Such surveys almost always show that people predict ill effects; the actual data on what happens has never confirmed these predictions.	N	69 10.01
Marlow, 1999 [91] 1999, Sept Maine	Smoke-free restaurants and restaurant bars UR - Californian Polytechnic State Uni <b>Report funded by Philip Morris Management Group</b>	TF	S Community predicted and reported estimates of patronage, time spent dining, purchasing of take-out food. Restaurateur predicted effects on revenues, wages and salaries, tips number of employees	P/R	N	N	80% of smokers have not lowered visits to restaurants, whilst 40% of smokers have. More than 50% of smokers spent less time dining per visit, while 22% of non-smokers increased time dining. Smokers purchased on average 45% more take-out food. Same number of venues reported gains and losses in revenue. Revenue gains averaged 8%, losses averaged 20%. 30% of bars report losses, 12% report gains. 12% of restaurant bars report lower wages, 6% report increases. 9% of restaurant bars report lower no. of employees, 4% reported higher. 13% of restaurants and 25% of restaurant bars report lower tips, 5% of restaurants and 6% of restaurant bars report higher tips	Y	Authors fail to mention that because there are only about 25% smokers, the drop in smokers visits and time spent in restaurants is offset by the number of non-smokers that have shown an increase.  The restaurant and bar revenue, employment, wage and tips figures are not supported by any official figures.	N	70 10.01

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Martin Associates, 1999 [94] Phoenix, Arizona	Smoke-free airport terminal concessions (businesses) CR - Martin Associates <b>Funded by Philip Morris Accommodation Grants Program</b>	TF	S Amount spent on food by smokers v. non-smokers, alcohol spending, time and amount spent in smoking v non-smoking venues	P	N Cross tabulations and averages	N	Smokers spent more on food, alcohol, for business travelers smokers spend more time in a session, on average total food and beverage consumption is \$11.00 compared to \$10.90 in a non-smoking facility.	Y		N	71 10.01
Mason-Dixon Market Research, 1996 [106] Washington, Maryland	Policy not stated AR - Report for the Restaurant Association of Metropolitan Washington. <b>Funded by Philip Morris USA</b>	TF	Proprietor estimates of impact on business	R	N	N	36% said their business had decreased, 4% said increased, 60% said it had no effect. 34% think they are losing customers to nearby states without restrictions	Y		N	72 10.01
Penn & Schoen Associates Inc, 1995[107] April 10, 1995 New York City	Smoke-free restaurants AR - New York Restaurant and Tavern Association <b>Funded by Philip Morris USA</b>	TF [132]	Proprietor estimates of impact on business	R	N	N	63% say new smoking regulations are hurting their business, 8% say rules are helping and 27% say there has been no effect	Y		N	102 07.03

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Price Waterhouse LLP, 1993 [108] San Diego, California	Smoke-free workplaces. AR - Report by Price Waterhouse sponsored by the San Diego Tavern and Restaurant Association <b>Funded by Philip Morris Accommodation Program Grant</b>	TF	S Proprietor and managers of estimates of effect on sales, potential impact on sales, jobs, compensation, business closings, sales tax and income tax	P	N	N	For eating and drinking establishments, 34% of those surveyed expect that a smoking ban would cause a decrease in sales; 55% expected no change in sales; and 6% thought sales might increase. For Hotels and other lodging places 54% of expected a decrease in sales; 45% t expected no change and 1.3% thought sales might increase. Of those who would expect a sales decline, the average expected decrease was 25%. This expected 25% decrease was then converted to \$ figures.	Y	These predicted impacts have not been substantiated by any study using objective data	N	73 10.01
Price Waterhouse LLP, 1995 [109] 1995, April New York City	Smoke-free restaurants AR - Report by Price Waterhouse for New York Restaurant and Tavern Association <b>Funded by Philip Morris Accommodation Program Grant</b>	TF	S Proprietor estimates of change in sales	R	N	N	41% said sales receipts were lower, 9% higher, 34% same. Of those reporting falls, 83% said they were more than 5% lower, and 52% said they were more than 15% lower	Y	Surveys conducted a month or less after the policy implemented. Studies based on objective data from New York City show no economic impact	N	74 10.01
Roper Starch, 1996 [110] United States	Proposed federal smoking ban AR - Report by Roper Starch for the National Licensed Beverage Association (NLBA). <b>Funded by Philip Morris Accommodation Program Grant.</b>	TF	S Proprietor and manager estimates of effect on patronage, revenues, employment impact	P	N	N	58% predict smoking customers would come less often, 195 predict non-smokers would come more often. 50% predict smokers would spend less money, 9% said non-smokers would spend more. 39% expect lower revenues, 51% expect no change, 22% expect revenue loss of at least 11%. 66% expect no layoffs of employees; 24% expect at least one layoff.	Y		N	75 10.01



Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡		Type of analysis						
Location	Funding source indicated		Description								
Sollars and Ingram, 1999 [93]  1998, September 30 Boston, Massachusetts	Smoke-free restaurants but smoking allowed in bar areas of restaurants  AR - Report sponsored by the International Society of Restaurant Association Executives and  <b>funded by Philip Morris Accommodation Program Grant</b>	TF	S  Community estimates of patronising restaurants and bars, estimates of patronising restaurants and bars outside the city of Boston, estimates of frequency of purchasing takeaway food, estimates of patronising smoke-free and smoking permitted restaurants, estimate of time spent dining, estimate of average size of restaurant bill.  Proprietor estimates of expected and actual dollars spent making changes to bar facilities.  Proprietor estimates of changes in total wages, number of people employed, Proprietor estimates of amount of gratuities received.	P	N  Change in demand = % of sample spending money x  sample population x av. annual expenditure x  average % change	N	Estimates \$40million lost restaurant sales, \$2million bar sales. Smoke-free restaurants should experience an increase of \$23.6 million. In smoking permitted restaurants sales revenue expected to drop by \$36million.  An average of \$1558.33 spent on making changes to their facilities. In restaurant bars there was an estimated 14% drop in liquor sales, 6% decrease in wages paid to employees, average decrease in employment of 3 people per restaurant bar and tipping decreased by 15%. In restaurants, an estimated decrease in restaurant revenue of 5%. 22 % of total estimated decrease in employment attributable to the smokers ban and estimated decreased in tipping of 10%.	Y		N	76  10.01

Author and Year Published Date policy implemented Location	Type of policy examined (as described in study) Report type* and Publisher Funding source indicated	Nature of relationship with tobacco industry - refer	Outcome Measure Objective/ Subjective ‡ Description	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? § Type of analysis	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
The Craig Group Inc, 1998[111] West Virginia	Smoke-free restaurants and taverns AR - The Craig Group Inc for the Club Association of W. Virginia an affiliate of the NLBA <b>Funded by Philip Morris Accommodation Grant</b>	TF	S Proprietors opinions of future impacts on business	P	N	N	59% believe smoking customers would spend less money, more than 30% thought it would make no difference and less than 2% thought attendance would increase	Y		N	77 10.01
EMRS 2001[100] September 2001 Tasmania, Australia	Smoke-free licensed premises including where food is served MR – Enterprise Marketing and Research Services Australian Hotels Association	TO The AHA website lists Philip Morris and British American Tobacco (BAT) as sponsors [133]. Both Philip Morris and BAT provided funding to assist in compilation of information used by the AHA to oppose the legislation [134].	Proprietors opinions of effect on business	R	N	N	54% believed the smoke-free policy had an effect on business. 31% report an increase in sales from their bottle-shops compared with the same period last year, 17% say sales have fallen, 13% report no change. 49% reported falling sales, 20% reported rising sales, 28% said no change. 48% report a decrease in customers, 21% report an increase and 21% say no change. The majority of the 38% who changed their staff have reduced employment	Y	Included as events that also affected hoteliers' business in September were the collapse of Ansett Airlines (71%), the attack on the World Trade Centre (34%) and the meningococcal scare (24%)	N	84 03.02

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡								
Location	Funding source indicated		Description		Type of analysis						
The Eppstein Group, 1997 [135]	100% smoke-free indoor public places	TF	S	P	N	N	24% said business would decrease a lot, 28% said it would decrease somewhat, 54% said business would decrease by 20% or more., 56% would have to lay off employees.	Y		N	78
Texas	AR - The Eppstein Group, Sponsored by Texas Restaurant Association <b>funded by Philip Morris Accommodation Program Grant</b>		Restaurant, bowling alley and hotel/ motel proprietors' predictions of impact on business, employee lay offs								10.01
Fabrizio, McLaughlin and Associates, 1995[89]	Smoke-free restaurants	TO	S	P	N	N	Nearly two-thirds of these adult smokers (64.0%) state that they would dine out less often if smoking were banned at restaurants and taverns in their community. More than eight in ten of those smokers (82.6%) who currently only dine in restaurants where smoking is allowed say they would dine out less frequently. Among those who say they would dine out less often, they claim their spending would be cut by g 75% (Mean = 75.12%). 33.0% state that they would stop dining out altogether.	Y		N	79
United States	AR – Report by Fabrizio, McLaughlin and Associates, for the National Smokers Alliance <b>No Funding Source Stated</b>	Documents from Philip Morris reveal a letter from the president of the NSA to the legal dept of PM in 1994 with its budget and operating plans [136]. PM were receiving weekly meeting reports from NSA[137]	Smokers predictions of frequency of dining out, change in spending								12.01

Author and Year Published Date policy implemented Location	Type of policy examined (as described in study) Report type* and Publisher Funding source indicated	Nature of relationship with tobacco industry - refer	Outcome Measure Objective/ Subjective ‡ Description	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? § Type of analysis	Economic trends?	Findings	Conclusion of Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Fabrizio, McLaughlin and Associates, 1996 [101] 1995, April New York City	Smoke-free restaurants AR – Report by Fabrizio, McLaughlin and Associates, for the National Smokers Alliance <b>No Funding Source Stated</b>	TO Documents from Philip Morris reveal a letter from the president of the NSA to the legal dept of PM in 1994 with its budget and its operating plans [136] PM were receiving weekly meeting reports from NSA[137]	S Restaurateurs estimates of effect on sales, employee lay offs.	R	N	N	Of the operators in the current survey who have experienced a decrease in sales the average revenue loss was 19.9%. This represents an increase from the 16.3% mean in the Sept 1995 survey. Only 4.7% of restaurateurs stated that their sales had increased since the smoking ban went into effect. Among these restaurateurs, the average revenue increase was 11.2%. Among the restaurateurs whose sales have declined, 45.8% state that they have been forced to lay off employees This represents a slight increase over the 42.4% in the Sept 1995 survey.	Y		N	80 12.01
Gambie, 1991 [102] 1991 Bellflower, California	Smoke-free restaurants AR - Paper has been used by the California Restaurant and Business Alliance. <b>No Funding Source Stated</b>	TO The PR firm, the Dolphin Group, was paid by Philip Morris and reported to the Tobacco Institute. CRBA is operated by the Dolphin Group[138, 139]	S Owners' and managers' opinions of effect on business	R	N	N	Average decline in customer volume 31%. Average decline for restaurants serving alcohol 34%	Y	Non-random survey with 33 responses. Many of the opposing restaurateurs worked with CBRA to oppose ordinance. Findings were presented to the Bellflower City Council by a representative from RSVP [140]	N	81 10.01

Author and Year Published	Type of policy examined (as described in study)	Nature of relationship with tobacco industry - refer	Outcome Measure	Prospective or Retrospective study?	Statistical analysis to test for significance of change or difference? §	Economic trends?	Findings	Conclusion of -ve Impact? ¶	Comments	Peer Reviewed? **	Record no./mm/yyyy added/updated
Date policy implemented	Report type* and Publisher		Objective/ Subjective ‡		Type of analysis						
Location	Funding source indicated		Description								
KPMG Barents Group LLC, 1997[90]  Spain	Smoke-free Hotels, restaurants and cafes  CR- Barents Group  Spanish Federation of Restaurants Cafes and Bars	TO  Spanish Federation of Restaurants Cafes and Bars signed a proposed program of joint action with Philip Morris The agreement states 10 million pesetas were to be paid in 1995[141].	S  Patrons predictions of dining out and spending	P	N	N	Loss of sales of 7% in restaurant sector, direct revenue loss expected to be 154, 000 million pesetas.	Y		N	97  09.02
National Restaurant Association 1993 [92]  United States	Smoke-free restaurants  AR - National Restaurant Association  <b>No Funding Source Stated</b>	TO  Evidence of R J Reynolds Tobacco Company, Philip Morris and the Tobacco Institute were working "in partnership" with the National Restaurant Association [118, 119]	S  Community reports of predicted eating out frequency,	P	N	N	73% said a ban would have no impact on frequency of dining out, 16% said they would eat out less often & 10% said more often.	Y		N	82  10.01

### Notes associated with these tables:

\* Report type (AR = report published by a hospitality industry or public health advocacy group; CR = Report published by a consultant or consultancy company; GP = Government publication; JA = article in a peer-reviewed journal; JL = letter in a peer-reviewed journal; ME = Media report, MR = Report produced by a market research company; UR = report produced by a University)  
Financial relationship with tobacco industry (NF = Funding source other than tobacco industry specified, TF= funded by the tobacco industry; TO = funded by organisations in receipt of financial support from the tobacco industry); EC = Funding source not disclosed and not discovered, but evidence of collaboration with the tobacco industry; PTF = previous work funded by tobacco company; STF = subsequent work funded by a tobacco company; UK = Unknown; ‡ Objective v. Subjective measure (O = objective or actual data, S= subjective or survey data) Prospective study – assessing patron or proprietor predictions = P; Retrospective studies – assessing patron or proprietor estimates of levels or increases = R; § Statistical analysis to test significance and control for trend and fluctuation in the data (Y = Yes, N = No) ; || Control for economic trends (Y = Yes, adequate control or adjustment for economic trend; N = No control or inadequate control or adjustment for economic trends) ; ¶ -ve Impact- Negative Impact found N = No (desired result), Y = Yes (i.e. an adverse effect). n/a = data presented, but no conclusion drawn.

\*\* Peer Reviewed? (Y = Yes, N = No)

1. A number of studies relevant to the issue of the economic impact of smoke-free policies in the hospitality industry were examined but not included in the tabulations. Studies by Reeder [142], Ross et al [143] and the Health Sponsorship Council [144] examining opinions of restaurateurs and hoteliers about the likely impact of policies were excluded because these were not attempting to quantify the likely impact of bans, but merely to scope the extent of concerns and misconceptions among proprietors.

A study by Chapman et al [145] was excluded because, while staff and proprietors about the perceived impact of policies in the first week of operation, their perceptions were collected and interpreted as a measure of the smoothness of implementation rather than as an indicator of the likely economic impact of the policy.

Numerous studies have assessed public opinions about smoke-free policies. These have showed very high levels of support for such measures, increasing over time and following introduction of policies. These were excluded except where the study included a question asking specifically whether people would attend venues more or less frequently were such policies to be introduced.

Several media releases were located that included estimates of likely or actual changes in sales or employment levels. In each case, attempts were made to locate reports on which such releases were based but, in no case was further information obtained. For instance, the Hospitality Association of New Zealand refused to provide a copy of a survey of members, results of which had been reported in the media.

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### References

1. Siegel M. Economic impact of 100% smoke-free restaurant ordinances. In: Smoking and restaurants: a guide for policy makers. Berkeley: UC Berkeley/UCSF Preventative Medicine Residency Program; American Heart Association, California Affiliate; Alameda County Health Care Services Agency, Tobacco Control Program.; 1992.
2. Alberta Tobacco Control Centre. The economic impact of smoke-free restaurant bylaws; 1999.
3. Dyer C. Confidential tobacco documents enter public domain. *British Medical Journal* 1998;316(7139):1186.
4. Malone RE, Balbach ED. Tobacco industry documents: treasure trove or quagmire? [see comments]. *Tobacco Control* 2000;9(3):334-8.
5. Bartosch W, Pope G. Preliminary analysis of the economic impact of Brooklines smoking ban. Massachusetts: Health Economics Research Inc; 1995.
6. Bartosch W, Pope G. The economic effect of smoke-free restaurant policies on restaurant businesses in Massachusetts. *Journal of Public Health Management Practices* 1999;5(1):53-62.
7. Bartosch W, Pope G. The effect of smoking restrictions on restaurant business in Massachusetts, 1992-1998. *Tobacco Control* 2002;11(Suppl II):ii38-42.
8. Bialous S, Glantz S. Tobacco Control in Arizona. 1997 Accessed 8 August 2001; [www.library.ucsf.edu/tobacco/az](http://www.library.ucsf.edu/tobacco/az)
9. Dresser L. Clearing the Air. Wisconsin: Tobacco-Free Wisconsin Coalition; 1999.
10. Ferrence R, Luk R, Gmel G. The economic impact of a smoke-free bylaw on restaurant and bar sales in Ottawa, Canada: Ontario Tobacco Research Unit; 2003.
11. Glantz S, Charlesworth A. Tourism and hotel revenues before and after passage of smoke-free restaurant ordinances. *Journal of the American Medical Association* 1999;281(20):1911-1918.
12. Glantz S, Smith L. The effect of ordinances requiring smoke-free restaurants on restaurant sales. *American Journal of Public Health* 1994;84(7):1081-1085.
13. Glantz S, Smith L. The effect of ordinances requiring smoke-free restaurants and bars on revenues: A follow up. *American Journal of Public Health* 1997;87(10):1687-1693.
14. Glantz S. Effect of smokefree bar law on bar revenues in California. *Tobacco Control* 2000;9(1):111-2.
15. Glantz S, Wilson-Loots R. No association of smoke-free ordinances with profits from bingo and charitable games in Massachusetts. *Tob Control* 2003;12:411-413.
16. Goldstein A, Sobel R. Environmental tobacco smoke regulations have not hurt restaurant sales in North Carolina. *North Carolina Medical Journal* 1998;59(5):284-287.
17. Hayslett J, Huang P. Impact of clean indoor air ordinances on restaurant revenues in four Texas cities: Bureau of Disease, Injury and Tobacco Prevention. Texas Department of Health.; 2000.
18. Huang P. Impact of Smoking Ban on Restaurant and Bar Revenues - El Paso, Texas, 2002. *Morbidity and Mortality Weekly Report* 2004;53(07):150-152.

19. Huang P, Tobias S, Kohout S, Harris M, Satterwhite D, Simpson D, et al. Assessment of the impact of a 100% smoke-free ordinances on restaurant sales - West Lake Hills, Texas, 1992-1994. *Morbidity and Mortality Weekly Report* 1995;44(19):370-372.
20. Hyland A, Cummings K, Nauenberg E. Analysis of taxable sales receipts: was New York City's Smoke-free Air Act bad for business? *Journal of Public Health Management Practices* 1999;5(1):14-21.
21. Hyland A. Before and After Smoke-free Regulations in New Taxable Sales from Eating and Drinking Places in New York State. New York: Roswell Park Cancer Institute; 2002 June.
22. Hyland A, Puli V, Cummings KM, Sciandra R. New York's smoke-free regulations: effects on employment and sales in the hospitality industry. *Cornell Hotel and Restaurant Administration Quarterly* 2003.
23. Maroney N, Sherwood D, Stubblebine W. The impact of tobacco control ordinances on restaurant revenues in California. Claremont, California: The Claremont Institute for Economic Policy Studies; 1994.
24. Moseley F, Schmidt K. The Economic Impact of Minot's Smoke-free Restaurant Ordinance: Minot State University; 2003.
25. Pacific Analytics Inc. The economic impacts of the proposed amendment to the ETS regulation. 2001 Accessed 3 August 2001; <http://www.worksafebc.com/priority/smoke/pdfs/ecoimpact.pdf>
26. Pope G, Bartosch W. Effect of Local Smokefree restaurant policies on restaurant revenue in Massachusetts: Center for Health Economics Research; 1997 April.
27. Sciacca J, Ratliff M. Prohibiting smoking in restaurants: Effects on restaurant sales. *American Journal of Health Promotion* 1998;12(3):176-184.
28. Styling W. A study of the Fort Wayne (IN) Restaurant smoking ban: has it impacted the restaurant business? Indianapolis: Hudson Institute; 2001.
29. Taylor Consulting Group. The San Luis Obispo smoking ordinance: A study of the economic impacts of San Luis Obispo restaurants and bars. San Luis Obispo, California; 1993.
30. Wakefield M, Siahpush M, Scollo M, Lal A, Hyland A, McCaul K, et al. The effect of a smoke-free law on monthly restaurant retail turnover in South Australia. *Aust NZ J Public Health* 2002;26(4):375-382.
31. California State Board of Equalization. Report; 1998 October 13.
32. City of Boulder Colorado. Tax receipt data; 1996.
33. Fletcher J. An analysis of sales tax receipts from restaurants with bars and free standing bars in Chico, California 1995-1997: California Department of Health Services, Tobacco Control Section; 1998.
34. New York City Department of Finance. The State of smoke-free New York City: a one-year review: New York City Department of Finance, New York City Department of Health and Mental Hygiene, New York City Department of Small Business Services, New York City Department of Economic Development Corporation; 2004 March.
35. Bourns B, Malcomson A. Economic impact analysis of the smoke-free by laws on the hospitality industry in Ottawa: KPMG LLP; 2002 Nov.
36. Lal A, Siahpush M, Scollo M. The economic impact of smoke-free restaurants and cafes in Victoria. *Aust N Z J Public Health* 2003;27(5):557-558.
37. Dresser J, Boles S, Lichtenstein E, Strycker L. Multiple impacts of a bar smoking prohibition ordinance in Corvallis, Oregon: Pacific Research Institute; 1999.
38. Hyland A, Vena C, Cummings K, Lubin A. The Effect of the Clean Air Act of Erie County, New York on Restaurant Employment. *Journal of Public Health Management Practice* 2000;6(6):76-85.
39. Bourns B, Malcomson A. Economic impact analysis of the non-smoking bylaw on the hospitality industry in Ottawa: KPMG; 2001.
40. Hild C, Larson E, Weiss L, Fligel M, Sandberg K, Smith S. Review of Municipality of Anchorage Chapter 16.65 - Prohibition of smoking in public places: Institute for Circumpolar Health Studies; 2001 October.
41. Hyland A, Cummings K. Restaurant employment before and after the New York City Smoke-free Air Act. *Journal of Public Health Management Practice* 1999;5(1):22-27.
42. Hyland A, Tuk J. Restaurant employment boom in New York City. *Tobacco Control* 2001;10:199-200.
43. New York City Department of Health and Mental Hygiene. Initial effects of New York City smoking ordinance; 2003 23 July.
44. Pubco. Official Figures from Ontario Brewers Confirm Disastrous Effects of smoking Ban. 2002 Accessed August 26 2002; <http://www.smokeinottawa.com/html/index.html>
45. Lilley W, DeFranco L. Massachusetts restaurant smoking ban 23 cities/towns: impact on restaurant jobs 1993-1995. 1996 Accessed 13 September 2001; <http://www.pmoptions.com/images/MassRestaurant.pdf>
46. Masotti L, Creticos P. The effects of a ban on smoking in public places in San Luis Obispo California; 1991.
47. Laventhol & Horwath. Preliminary analysis of the impact of the proposed Los Angeles ban on smoking in restaurants. Los Angeles; 1990.
48. Applied Economics. Economic impact of the City of Mesa smoke-free ordinance: working paper 2. 1996 Accessed 9 August 2001; <http://www.pmoptions.com/images/EcononmicImpactMesa2.pdf>
49. Deloitte & Touche LLP. The Impact of non-smoking ordinances on restaurant financial performance; 2003 October.

50. Lilley W, DeFranco L. The impact of Smoking Restrictions on the Bar and Tavern Industry in California. Washington: InContext Inc; 1999 October 26.
51. Lilley W, DeFranco L. Restaurant jobs in New York City, 1993 through first quarter 1996, and the restaurant smoking ban. 1996 Accessed 13 September 2001; <http://www.pmoptions.com/images/RestaurantJobs.pdf>
52. Allen K, Markham V. Public opinions and attitudes towards creating smokefree bars in Western Australia: ACOSH; 2001 November.
53. August K, Brooks L. Support for Smoke-Free Bars Grows Stronger in California: California Department of Health Services; 2000.
54. Biener L, Fitzgerald G. Smoky Bars and Restaurants: who avoids them and why. *Journal of Public Health Management Practice* 1999;5(1):74-78.
55. Biener L, Siegel M. Behavior intentions of the public after bans in restaurants and bars. *American Journal of Public Health* 1997;87(12):2042-2044.
56. Corsun D, Young C, Enz C. Should NYC's restaurateurs lighten up? Effects of the city's Smoke-free Air Act. *Cornell Hotel and Restaurant Administration Quarterly* 1996;37(2):25-33.
57. Decima Research Inc. Public Support Grows for City's Smoking By-law. 2002 Accessed 26 August 2002; <http://www.decima.ca/research/WhatsNew/index.asp?ID=57>
58. Decima Research. Ottawa residents back smoking ban by two to one. 2001 Accessed 19 October 2001; <http://www.decima.ca/research/WhatsNew/011017.asp>
59. Field Research Corporation. A survey of California bar patrons about smoking policies and smoke-free bars: California Department of Health Services; 1998 March.
60. Field Research Corporation. A survey of California adults age 21 or older about smoking policies and smoke-free bars. California: California Department of Health Services; 1997 July.
61. Hyland A, Cummings K. Consumer response to the New York City smoke-free air act. *Journal of Management Practice* 1999;5(1):28-36.
62. Lam T, Chung S, Tam E, Y H, Hedley A. Public Opinion on Smoke-free restaurants. Hong Kong: Department of Community Medicine, The University of Hong Kong; 1995 October.
63. Mcghee S, Hedley A, Lam T. Does the Government's proposal to create smoke-free catering facilities in restaurants, cafes, bars and karaokes influence the intentions of tourists to visit Hong Kong and to patronise catering venues. Hong Kong: Health Services Research Group, Department of Community Medicine, University of Hong Kong; 2002 March.
64. Miller C, Kriven S. Smoke-free dining in South Australia: Surveys of community attitudes and practices after 4 and 18 months. In: *Tobacco Control Research and Evaluation Report 1998-2001*. Adelaide: Tobacco Control Research Evaluation Unit; 2002.
65. Miller C, Kriven S. Community support for smoking bans in bar and gaming venues in South Australia. In: *Tobacco Control Research and Evaluation Report 1998-2001*. Adelaide: Tobacco Control Research Evaluation Unit; 2002.
66. Shapiro T. Butt of the law hits restaurants. *Business Day* 2001 15 August.
67. Wakefield M, Roberts L, Miller C. Perceptions of the effect of an impending restaurant smoking ban on dining-out experience. *Preventive Medicine* 1999;29:53-56.
68. Hyland A, Cummings K. Restaurateur reports of the economic impact of the New York City Smoke-free Air Act. *Journal of Public Health Management Practices* 1999;5(1):37-42.
69. Cremieux P, Oullette P. Actual and perceived impacts of tobacco regulation on restaurants and firms. *Tobacco Control* 2001;10:33-37.
70. Edwards R. New Study: 76% of the North East hospitality trade back smoke free areas & over 90% of publicans recommend other pubs try one. 2000 Accessed 8 August 2001; <http://www.ash.org.uk/html/press/000720.html>
71. Huron County Health Unit. Huron County Health Unit restaurant survey; 1999 June.
72. Jones K, Wakefield M, Turnball D. Attitudes and experiences of restaurateurs regarding smoking bans in Adelaide, South Australia. *Tobacco Control* 1999;8(1):62-66.
73. Markham V, Tong R. Reactions and attitudes to health (smoking in enclosed places) regulations 1999. 2001 Accessed 3 August 2001; [http://acosh.org/library\\_fr\\_set.htm](http://acosh.org/library_fr_set.htm)
74. Parry J, Temperton H, Flanagan T, Gerhardt L. An evaluation of the introduction of "non-smoking" areas on trade and customer satisfaction in 11 public houses in Staffordshire. *Tobacco Control* 2001;10(2):199-200.
75. Sciacca J, Eckram M. Effects of a city ordinance regulating smoking in restaurants and retail stores. *Journal of Community Health* 1993;18(3):175-182.
76. Sciacca J. A mandatory smoking ban in restaurants: concerns versus experiences. *Journal of Community Health* 1996;21(2):133-150.
77. Stanwick R, Thomson M, Swerhone P, Stevenson L, Fish D. The response of Winnipeg retail shops and restaurants to a bylaw regulating smoking in public places. *Canadian Journal of Public Health* 1988;79:226-230.
78. The Conference Board of Canada. The economics of smoke-free restaurants. Toronto; 1996.
79. Yorkshire Ash. Popularity and impact on trade of smoke-free accommodation in the hospitality trade in Yorkshire; 2001.
80. Douglas County Community Health Improvement Project. Douglas County Business Smoking Survey; 2001 June.
81. Hodges I, Maskill C. Assessing the Potential Impact of Restaurant and Bar smoking Bans on Visitors to New Zealand. Auckland: Healthsearch; 2001 18 January.
82. Economists Advisory Group Ltd. The potential economic impact of a smoking ban in restaurants: The Restaurant Association; 1998 September.
83. Pubco. September Pubco survey confirms severe economic impact, job losses in its member bars and pubs. 2001 Accessed 28 November 2001; <http://www.pubcoalition.com/html/>



84. The Publican Newspaper. Reading the smoke signals. Market Report 2001: Smoking 2001;Sect. 22.
85. CCG Consulting Group. The Food Services and Hospitality Sector and a metro Toronto smoking ban. 1996 Accessed 3 December 2001; <http://193.78.190.200/evhosp/restaur/restaur.htm>
86. Charlton Research Group. Pacific Dining Car Restaurant and Southern California Business Association Survey. San Francisco, CA; 1994.
87. Auspoll. Philip Morris Public Opinion Survey; 2000 January.
88. Decima Research. Focus Group Report on Project Visa for Imperial Tobacco. 1988 Accessed 12 February 2002; <http://www.library.ucsf.edu/tobacco/batco/html/1900/1950/otherpages/allpages.html>
89. Fabrizio McLaughlin and Associates Inc. Impact of smoking bans on smokers dining out patterns derived from national survey of adults smokers. 1995 Accessed 3 December 2001; <http://www.forces.org/evidence/evid/bans.htm>
90. KPMG Barents Group LLC. The expected economic impact on Spain of a ban in smoking in restaurants. Washington; 1997 April.
91. Marlow M. An economic analysis of the Maine smoking ban: evidence from patrons and owners of businesses: California Polytechnic State University; 1999.
92. National Restaurant Association. Smoking in restaurants a consumer attitude survey. Washington DC; 1993.
93. Sollars D, Ingram J. Economic impact of the restaurant smoking ban in the city of Boston, Massachusetts; 1999 May 5.
94. Martin Associates. Analysis of passenger expenditure profiles at Phoenix Sky Harbour International Airport in-concession survey. 1999 Accessed 13 September 2001; <http://www.pmoptions.com/images/PHOENIX.pdf>
95. Advantage Marketing Information. Rhode Islander's attitudes towards smoking in restaurants and hotels. 1997 Accessed 13 September 2001; <http://www.pmoptions.com/images/RhodeIsland.pdf>
96. Applied Economics. Economic impact of the City of Mesa smoke-free ordinance: working paper 1. 1996 Accessed 8 August 2001; <http://www.pmoptions.com/images/EconomicImpactMesa1.pdf>
97. CCG Consulting Group Limited. The hospitality sector and a Vancouver smoking ban. 1995 Accessed 3 December 2001; <http://193.78.190.200/evhosp/vancrest/vancrest.htm>
98. Chamberlain Research Consultants. Smoking Issues in Wisconsin. 1998 Accessed 13 September 2001; <http://www.pmoptions.com/images/Wisconsin.pdf>
99. Dunham J, Marlow M. Smoking laws and their differential effects on restaurants, bars and taverns. Contemporary Economic Policy 2000;18(3):326-333.
100. Enterprise Marketing and Research Services. The effects of recent events on the Tasmanian hotel industry; 2001 November.
101. Fabrizio McLaughlin and Associates Inc. Survey of New York City Restaurateurs. 1996 Accessed 3 December 2001; <http://193.78.190.200/evhosp/fabnysrv.htm>
102. Gambia P. Economic Impacts of Smoking ban in Bellflower California: California Business and Restaurant Alliance (CBRA); 1991.
103. KPMG. Proposed smoking ban: impacts on Hong Kong hospitality businesses: Hong Kong Catering Industry Association; 2001 September.
104. KPMG Peat Marwick LLP. The impact of California's smoking ban on bars, taverns and night clubs: A survey of owners and managers. Washington DC; 1998.
105. Marlow M. The economic effect of smoking laws on bars and taverns. 1998 Accessed December 2001; [http://www.pmoptions.com/DisplayArticle.asp?topic\\_id=82](http://www.pmoptions.com/DisplayArticle.asp?topic_id=82)
106. Mason-Dixon Market Research. Maryland smoking regulation survey. 1996 Accessed 9 August 2001; <http://www.pmoptions.com/images/Maryland.pdf>
107. Penn & Schoen Associates Inc. Survey of restaurant owners and managers about NYC smoking regulations; 1995 July.
108. Price Waterhouse. Potential Effects of a smoking ban in the State of California. 1993 Accessed 9 August 2001; <http://www.pmoptions.com/images/PotentialEconomicEffects.pdf>
109. Price Waterhouse LLP. New York City restaurant survey. 1995 Accessed August 8 2001; <http://www.pmoptions.com/images/NewYork.pdf>
110. Roper Starch. National Survey of Restaurants and Bars/Taverns: Smoking Policy and Regulations. 1996 Accessed 9 August 2001; <http://www.pmoptions.com/images/NationalSurvey.pdf>
111. The Craig Group Inc. West Virginia restaurants and taverns fear smoking bans would hurt business; 1998.
112. The Eppstein Group. Texas Restaurant Association Poll; 1998.
113. Mueksch O. Smoking ban impact on restaurants. Accessed 3 December 2001; <http://www.geocities.com/CapitolHill/Senate/3649/impctban.html>
114. Slavin J. Weekly Direct Report. In: Philip Morris; 1996. p. 2045458609/8611.
115. Levy C. Lobby Admits to Higher Spending in Smoking-Law Fight. New York Times 1998 12 December.
116. Luther J. Economists: Restaurant Study Seriously Flawed. In: Philip Morris; 1992. p. TCAL0405022.
117. Philip Morris. Expense Statement. In; 1994. p. 2043986820.
118. Meyne R. Outline of remarks given at Las Vegas International Restaurant, Hotel and Gaming Show Awards Luncheon. In: R J Reynolds Tobacco Company; 1994. p. 2026329019/9020.
119. Ritch WA, Begay ME. Strange bedfellows: the history of collaboration between the Massachusetts Restaurant Association and the tobacco industry. American Journal of Public Health 2001;91(4):598-603.

120. Samuels B, Glantz S. Tobacco control activities and the tobacco industry's response in Californian communities 1990-1991. In. San Francisco: Institute for Health Policy Studies, School of Medicine, UCLA; 1991.
121. McAdam B. Update on California short and mid-range plan. In: R J Reynolds Tobacco Company; 1991. p. 507607813.
122. Americans for Nonsmokers Rights. Economic Impact of Indoor Air Policies. Berkeley, California; 2000.
123. Brown and Williamson Tobacco Corporation. General and Administrative Expenses. 1991;June 6, 1991:Bates no.: 680710652-680710720. URL: <http://www.bw.aalatg.com/public.asp>.
124. The Publican Newspaper. Don't Delay - sign up today. 2001 22 November.
125. CBC. Courtesy of Choice Transcript. 2001 Accessed 6 December 2001; to <http://airspace.bc.ca/courtesyofchoicetranscript.html>
126. Laudan D, Prouse D. There is a proposed smoking ban in my municipality...how do I stop it? In: RJ Reynolds Tobacco Company; 1996. p. 515245770-5802.
127. Charlton Research Company. Number 414 Restaurant Managers/owners survey. In: Philip Morris; 1993. p. 2046750547/0511.
128. Americans Nonsmokers Rights Foundation. Who's pulling the strings at the Southern Californian Business Association. CAMPFires 1996 Fall:1.
129. Cunningham R. Smoke and Mirrors. Ottawa: International Development Research Centre; 1996.
130. Glantz S. The Dunham and Marlow "Studies" on Smokefree Restaurant Laws. More Tobacco Industry Hot Air on Smokefree Restaurants. 2000 Accessed 8 August 2001; [http://www.no-smoke.org/dunham\\_marlow.html](http://www.no-smoke.org/dunham_marlow.html)
131. Cheung T. Pearl Report. In: TVB; 2001.
132. Penn & Schoen Associates Inc. Research plan for Philip Morris accommodation program. In: Philip Morris; 1994. p. 2024047093/7115.
133. Australian Hotel Association (Tasmanian Branch). Suppliers Listing. 2002 Accessed 1 April 2002; <http://www.australianhotels.asn.au/supplier.cgi?parentID=105049&title=Equipment>
134. Edwards C. Public Health Amendment (Smoke-free areas) Bill 2001 (No. 13). 2001 Accessed 13 March 2002; <http://www.parliament.tas.gov.au:8000/ISYSquery/IRL1C90.tmp/1/doc>
135. The Eppstein Group. 1997 Statewide Hospitality Industry Benchmark Poll. 1997 Accessed 13 September 2001; <http://www.pmoptions.com/images/Texas.pdf>
136. Humber T. [Letter to Claire Purcell Legal Assistant Philip Morris]. In: National Smokers Alliance; 1994. p. 2046984452/4464.
137. National Smokers Alliance. Weekly Report. In; 1993. p. 2023203027/3032.
138. Glantz S, Balbach E. Tobacco War: Inside the California Battles. 2000 Accessed 17 November 2001; <http://escholarship.cdlib.org/ucpress/tobacco-war.xml>
139. Philip Morris. 1994 California Plan. In; 1994. p. 2022816070/6080.
140. Americans for Nonsmokers Rights. Economic impact studies circulated by the tobacco industry. Berkeley, California; 2000.
141. Arefitio J. Spanish federation of restaurants, cafes and bars. In. Philip Morris; 1994. p. 2048549560-62.
142. Reeder A. Environmental tobacco smoke: views from Dunedin hospitality industry on prohibition of smoking in licensed premises. The New Zealand Medical Journal 2000;113(1122):476-9.
143. Ross M, De Beer M. Awareness, knowledge and perceptions of Restaurateurs about proposed smoking restrictions in Johannesburg restaurants. Journal of the Royal Society of Health 1993;113(1):8-11.
144. Health Sponsorship Council. Cafe Magazine survey of New Zealand restaurants/cafes; 2000.
145. Chapman S, Borland R, Lal A. Has the ban on smoking in New South Wales restaurants worked? A comparison of restaurants in Sydney and Melbourne. The Medical Journal of Australia 2001;174(10):512.