

Final Report

The Economic Impact of the 2003 Florida Clean Indoor Air Act

Frank J. Chaloupka, Ph.D.

and

John A. Tauras, Ph.D.

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I. Introduction

In November 2002, more than 70 percent of Florida's citizens voted to amend the Florida Clean Indoor Air Act (FCIAA) and prohibit smoking in most enclosed indoor workplaces. The amended FCIAA prohibits smoking in all restaurants, bars that derive more than 10% of their gross revenue from food sales, bars that have an open connection to a restaurant, hotel lobbies, and other indoor workplaces. Workplaces such as stand-alone bars, restaurants' outdoor patios, and hotel rooms designated as smoking rooms are exempted from the amended FCIAA. Moreover, local governments within Florida are preempted from further limiting smoking. Full implementation of the amended FCIAA took effect on July 1, 2003.

Florida joined an ever growing number of countries, states, and cities around the world that protect workers and patrons from the deleterious effects of secondhand smoke. According to the Americans for Nonsmokers' Rights Foundation (ANRF), as of July 1, 2011, a total of 35 states and the District of Columbia have laws in effect that require 100 percent smoke-free workplaces and/or restaurants and/or bars (23 of these states have laws in effect that require 100 percent smoke-free workplaces, restaurants, and bars) (ANRF, 2011a). Moreover, according to ANRF, 949 municipalities have a 100 percent smoke-free air provision in effect at the local level in workplaces and/or restaurants and/or bars (468 municipalities require workplaces, restaurants, and bars to be 100 percent smoke-free). ANRF estimates that as of July 1, 2011, 74.7 percent, 62.8 percent, and 63.9 percent of the total US population is covered by a state or local policy making restaurants, workplaces, and bars, respectively smoke-free (ANRF, 2011b).

While the prevalence of states and municipalities with smoke-free policies continues to increase, tobacco companies or others acting with support of the tobacco industry, continue to maintain that these policies will lead to reductions in the sales in establishments covered by

policies (United States Department of Health and Human Services (USDHHD), 2006). However, the consensus from numerous peer-reviewed studies on the impact of smoke-free policies on restaurant and/or drinking establishment revenues is that these policies have no negative effect on sales, with many studies finding that smoke-free policies have a small, statistically significant positive impact on sales. Similar conclusions are reached when looking at the impact of smoke-free policies on other indicators of economic activity, including employment and business openings/closings. For a comprehensive review of these studies see the 2006 Surgeon General's report (USDHHS, 2006), and the International Agency for Research on Cancer's Handbook on the effectiveness of smoke free policies (IARC, 2009). Indeed, the 2009 systematic review by IARC of the extensive research on this issue concluded, assigning its highest classification for the quality and consistency of evidence, that smoke-free air legislation does not have an adverse economic impact on the hospitality industry (including restaurants, drinking establishments/bars, hotels, and tourism).

This report examines the impact of the FCIAA on taxable sales in restaurants, hotels and motels, and amusement tickets. Our approach consists of univariate trend analyses, multivariate time series regression analyses, and cross-sectional time series regression analyses. The results from this study are consistent with existing, peer reviewed and other studies for other jurisdictions. Specifically, we find that after controlling for confounding factors, the FCIAA had no negative impact on overall sales in restaurants, hotels and motels, and amusement tickets in either Florida or Orange County, Florida.

II. Florida and Orange County Data and Univariate Analyses

From the Florida Department of Revenue we obtained monthly taxable sales in restaurants, hotels and motels, amusement tickets, and total taxable sales for both Orange County

and the entire state of Florida from January 2002 through May 2011. An examination of taxable sales immediately before and after the smoking prohibition indicates that the FCIAA had no negative impact on restaurant, hotels/motel, and amusement ticket taxable sales in Florida and in Orange County, FL. For the state of Florida, when comparing the last two quarters in 2003 (post ban) with the same periods in 2002 (pre ban) the taxable sales in restaurants, hotels/motels, and amusement tickets increased by 9.71 percent, 7.08 percent, and 9.53 percent, respectively. After adjusting for inflation, a comparison of the last two quarters in 2003 (post ban) with the same periods in 2002 (pre ban) for the state of Florida, the taxable sales in restaurants, hotels/motels, and amusement tickets increased by 7.50 percent, 4.92 percent, and 7.33 percent, respectively. For Orange County, FL, when comparing the last two quarters in 2003 (post ban) with the same periods in 2002 (pre ban) the taxable sales in restaurants, hotels/motels, and amusement tickets increased by 13.35 percent, 6.91 percent, and 7.46 percent, respectively. After adjusting for inflation, a comparison of the last two quarters in 2003 (post ban) with the same periods in 2002 (pre ban) for Orange County, the taxable sales in restaurants, hotels/motels, and amusement tickets increased by 11.07 percent, 4.76 percent, and 5.29 percent, respectively. Moreover, when comparing total taxable sales in the state of Florida in the last two quarters in 2003 (post ban) with the same periods in 2002 (pre ban) the total taxable sales increased by 7.13 percent on a nominal basis and 4.99 percent on an inflation adjusted basis. Similarly, when comparing total taxable sales in Orange County Florida in the last two quarters in 2003 (post ban) with the same periods in 2002 (pre ban) the total taxable sales increased by 8.19 percent on a nominal basis and 6.01 percent on an inflation adjusted basis.

Longer term graphical trend analyses of real and nominal quarterly taxable sales in restaurants, hotels/motels, amusement ticket sales, and total taxable sales are presented in

Figures 1 through 4 for the state of Florida and figures 5 through 8 for Orange county. The longer term graphical analyses also points to no negative economic effect (and likely positive economic effects) of FCIAA on taxable sales in restaurants, hotels/motels, and amusement tickets in Florida and in Orange County.

While the graphical data on taxable sales are strongly suggestive of a positive effect of the FCIAA on taxable sales in restaurants, hotels/motels, and amusement tickets, these figures could be confounded by other factors that are not accounted for such as overall growth trends or overall economic activity. Therefore, it is important to control for other factors thought likely to influence restaurant, hotels/motels, and amusement ticket sales in an attempt to isolate the influence of the FCIAA.

Figure 1

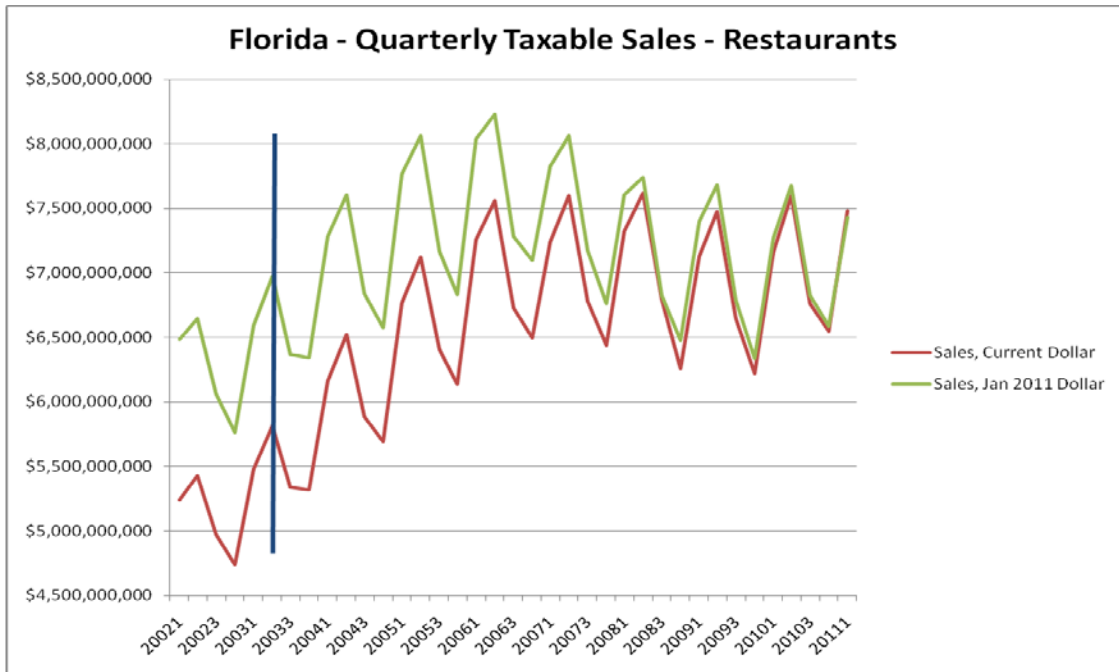


Figure 2

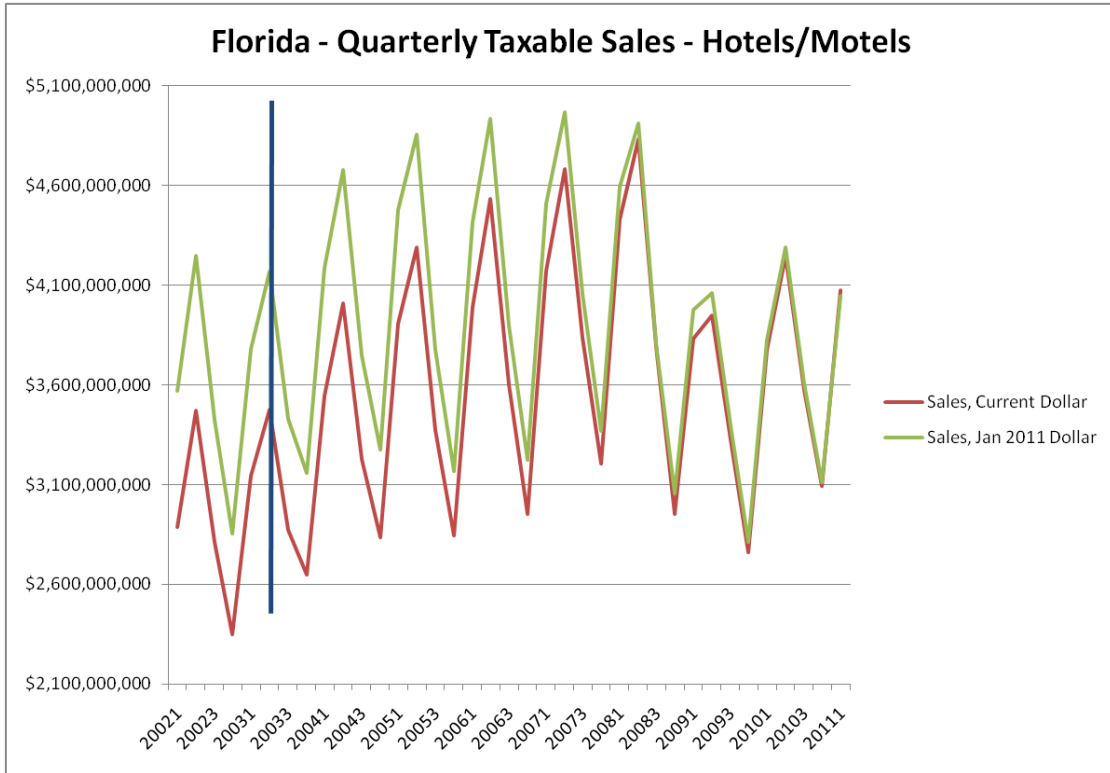


Figure 3

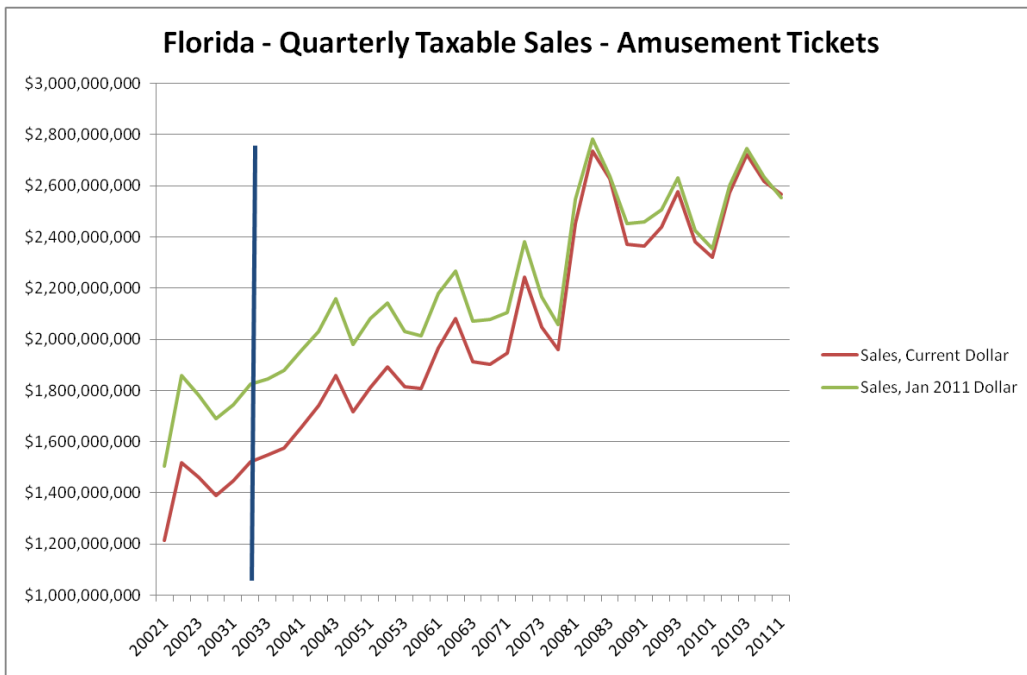


Figure 4

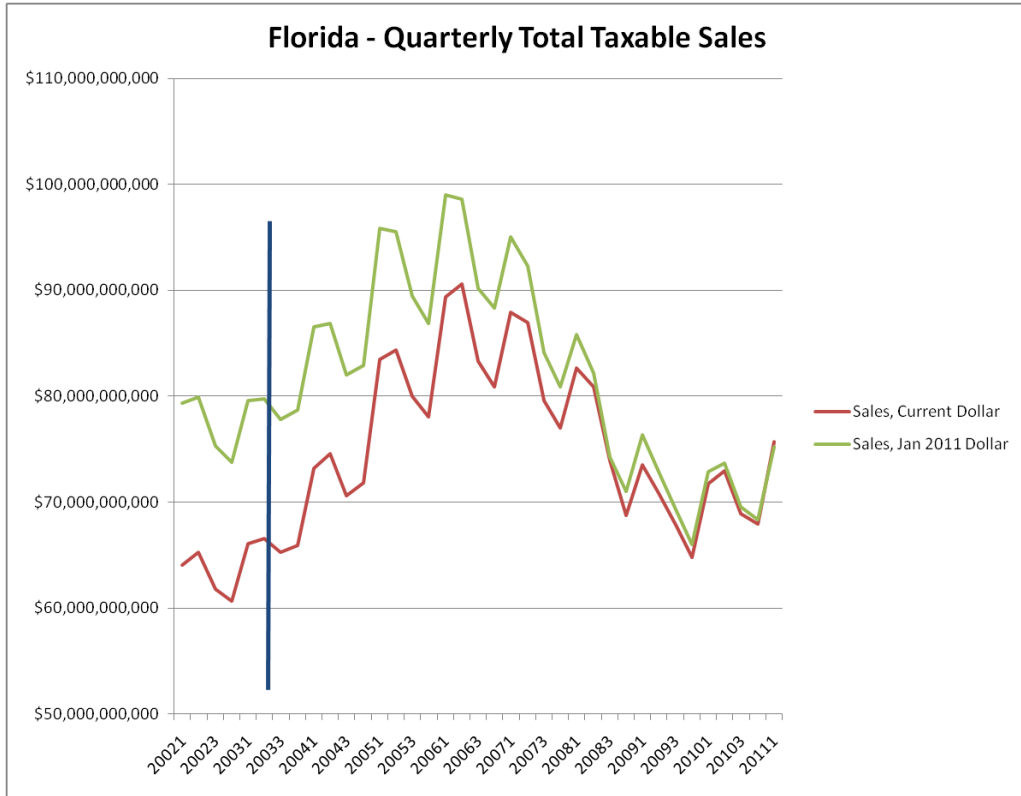


Figure 5

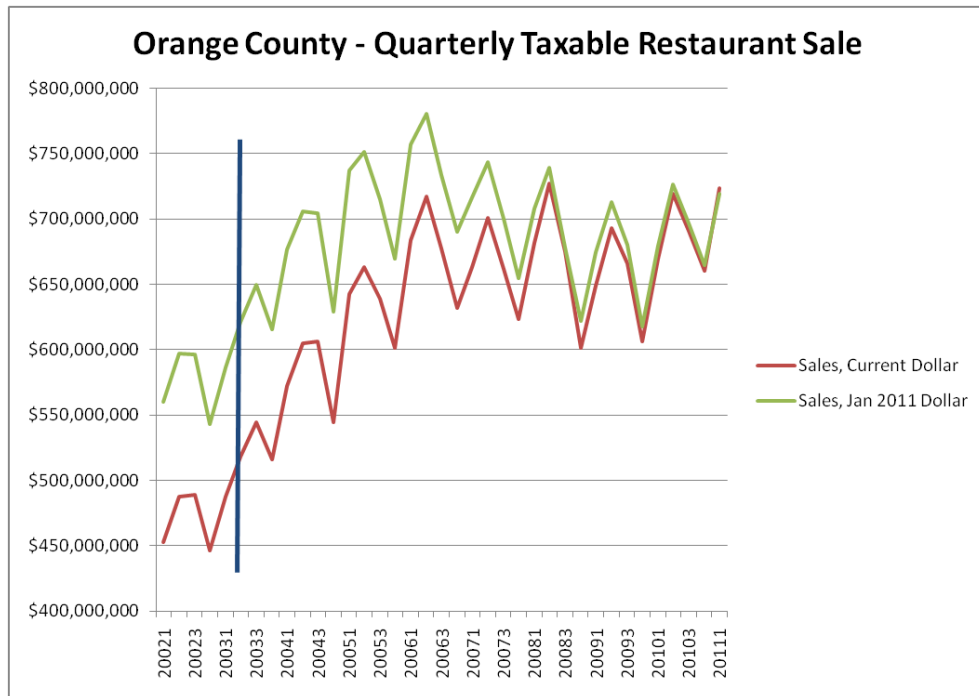


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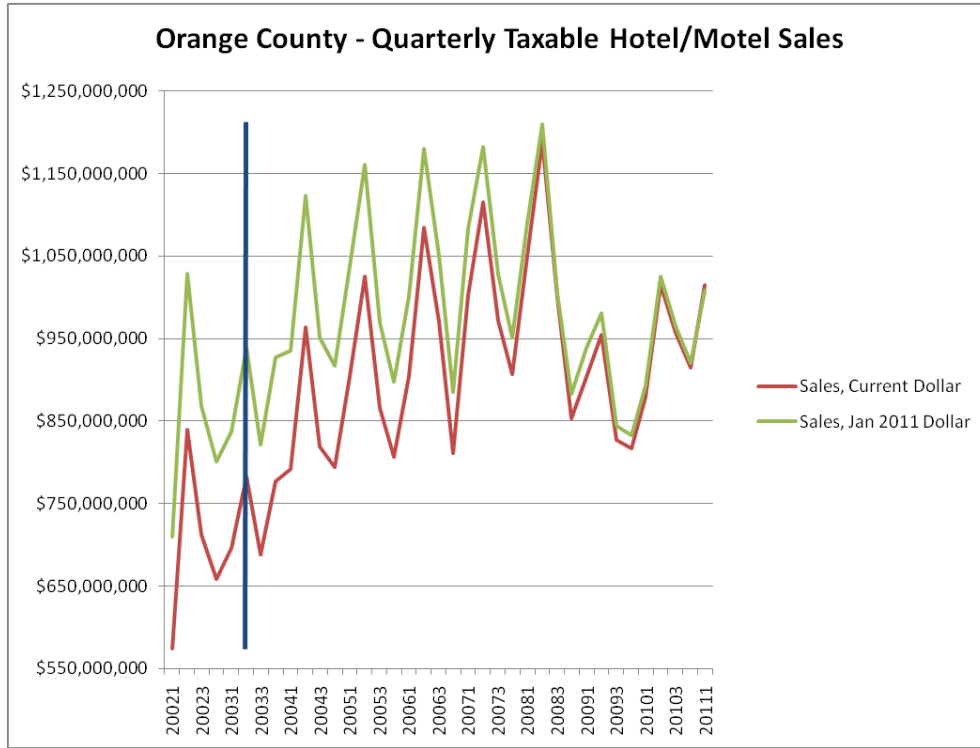


Figure 7

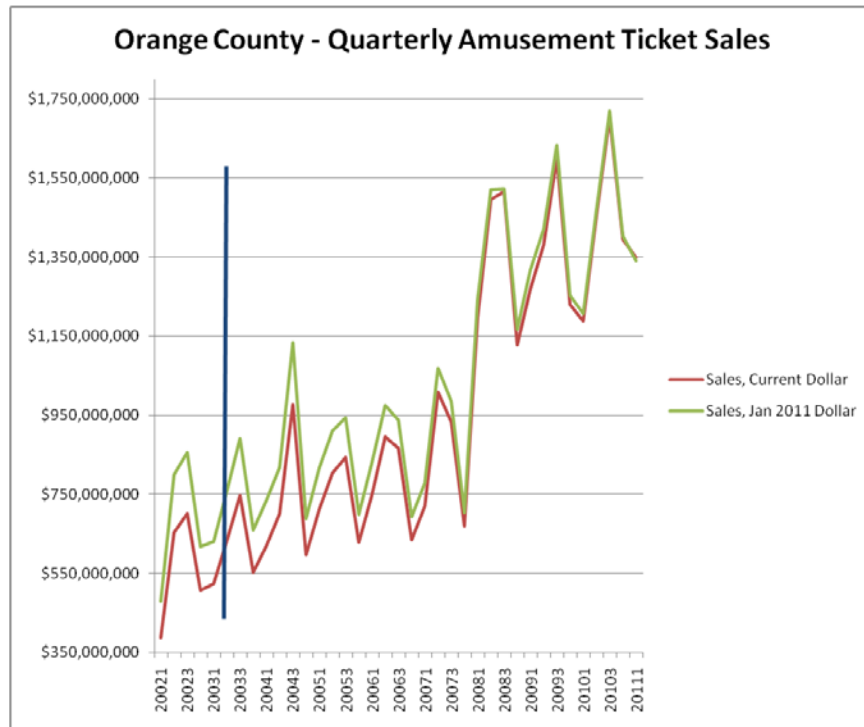
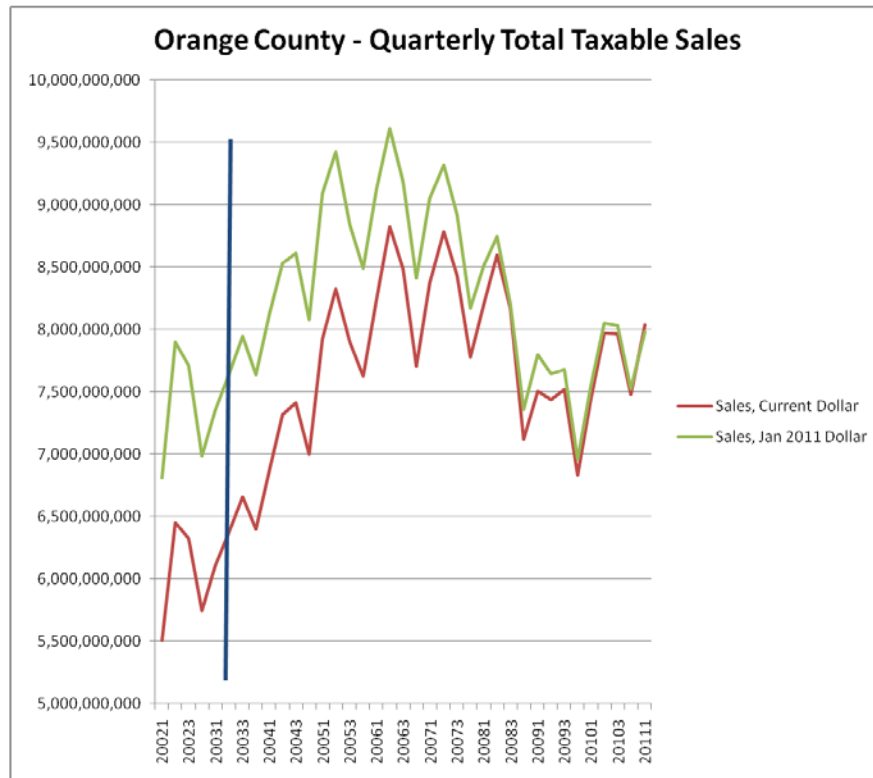


Figure 8



Multivariate Time Series Analyses - Florida and Orange County

We first employ fixed-effects time series regression techniques in the analyses. These fixed effects control for year-specific and month-specific determinants of restaurant, hotel/motel, and amusement ticket taxable sales. The fixed effects approach amounts to including a dichotomous indicator for each year (less one), and each month (less one) as explanatory variables in the models. This assumes that the differences in taxable sales over time and in different months of the year (i.e. seasonality) not captured by the other covariates included in the model, can be fully captured by the year and monthly fixed effects. Specifically, we estimate the following time series multivariate equation for restaurant sales:

$$Y_t = X_t B + FCIAA_t \lambda + unemp_t \alpha + y_t + m_t + e_t . \quad (1)$$

Y_t represents the inflation adjusted total taxable sales in restaurants in Florida in year/month t . X_t is the total taxable sales in the state excluding restaurants in year/month t , a variable intended to capture overall economic activity in the state in year/month t . FCIAA is a dichotomous indicator that captures the existence of the prohibition on smoking in restaurants and takes on a value of 1 for all months after June 2003 and takes on a value of zero for all months before July 2003. Unemp is the unemployment rate in the state of Florida in year/month t . Finally, y are year fixed effects, m are the monthly fixed effects, and e is the idiosyncratic error term. Identical equations are estimated for hotel/motel and amusement ticket taxable sales, except X_t is the total taxable sales in the state excluding hotels/motels and amusement tickets in year/month t in the hotel/motel and amusement ticket equations, respectively. The parameters are estimated by ordinary least squares regression techniques. Three additional time series equations (comparable to those described above for Florida as a whole) are estimated for Orange County.

Time Series Results

Table 1 contains the results from the three models that were estimated for the state of Florida. Model one contains the results from the restaurant taxable sales equation. Model two contains the results from the hotel/motel taxable sales equation. Model three contains the results from the amusement ticket taxable sales equation. The models estimated in Table 2 are identical to those estimated in Table 1, however the models estimated in Table 2 correspond to taxable sales equations in Orange County, Florida.

The results from the multivariate time-series equations indicate that the Florida Clean Indoor Air Act has had a positive and significant impact on inflation adjusted taxable restaurant

sales in both the state of Florida and in Orange County and has had a statistically insignificant impact on inflation adjusted taxable sales in hotels/motels and in taxable amusement ticket sales in both the state of Florida and in Orange County. These findings are consistent with the aforementioned graphical univariate trend analyses and are consistent with the ever growing body of research that finds no negative impact of smoking bans on the hospitality industry.

Total taxable sales excluding restaurant taxable sales, a variable designed to capture overall economic activity, was found to have a positive and significant impact on restaurant taxable sales in both Florida and in Orange County, as expected. This implies that restaurant revenues increase during times of general economic prosperity and decline with downturns in the economy. We found similar positive and significant findings for overall economic activity in the hotel/motel and amusement ticket taxable sales equations.

Seasonality plays an important role in restaurant, hotel/motel, and amusement ticket sales. That is, holding other factors constant, restaurant sales in the state of Florida are significantly larger in the months of February, March, April, May, and June than in January. There are no statistically significant differences in restaurant taxable sales between January and July, August, September, November, or December in the state of Florida. Restaurant sales in the state of Florida are significantly lower in the month of October than in January. With respect to Orange County, holding other factors constant, restaurant sales are significantly larger in the months of April, May, and August than in January. There are no statistically significant differences in restaurant taxable sales between January and February, March, June, July, September, or November. Restaurant sales in Orange County are significantly lower in the months of October and December than in January. Similarly, seasonality patterns can be found for hotel/motel taxable sales. Holding other factors constant, hotel/motel sales in both the state

of Florida and in Orange County are significantly larger in every other month than in January. The only exception is the month of October when compared to January for the state of Florida as a whole in which case there was no statistically significant difference in hotel/motel taxable sales. Finally, seasonality patterns can be found for amusement ticket sales. Holding other factors constant, in the state of Florida amusement ticket sales are significantly larger in April and July than in January. With respect to Orange County, amusement ticket sales are significantly larger in April, May, July, August, and September than in January.

Taxable restaurant sales were found to be larger in 2004 through 2011 than in 2002 for the state of Florida as a whole, whereas, taxable restaurant sales were found to be larger in 2005, 2006, 2008, 2009, 2010, and 2011 than in 2002 for Orange County. Hotel/motel sales were found to be larger in 2008 through 2011 than in 2002 for the state of Florida as a whole, whereas, no differences at conventional significance levels¹ were detected over time in hotel/motel sales in Orange County. Finally, amusement ticket sales were found to be larger in 2004 and 2007 through 2011 than in 2002 for the state of Florida as a whole, and were found to be larger in 2008 through 2011 than in 2002 for Orange County.

Table 1

Inflation Adjusted Taxable Sales Equations – Florida

	Restaurants	Hotels/Motels	Amusement Tickets
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¹ Based on 5 percent significance level of a two-tailed test.

FCIAA	6.7e+07 (2.82)	2.2e+07 (0.64)	-7.7e+06 (-0.25)
Total Taxable Sales Minus Restaurant Sales	0.04 (6.63)		
Total Taxable Sales Minus Hotel/Motel Sales		0.04 (4.22)	
Total Taxable Sales Minus Amusement Ticket Sales			0.02 (2.48)
Unemployment Rate	-1.4e+07 (-1.71)	-2.0e+07 (-1.67)	-3.1e+06 (-0.29)
February	1.4e+08 (3.99)	4.5e+08 (8.26)	-2.4e+07 (-0.52)
March	2.3e+08 (6.63)	7.4e+08 (13.81)	-2.0e+07 (-0.48)
April	3.8e+08 (19.22)	8.1e+08 (26.01)	1.3e+08 (5.23)
May	2.2e+08 (7.26)	5.4e+08 (11.38)	7.4e+07 (1.90)
June	1.0e+08 (3.02)	3.4e+08 (6.67)	-4.9e+07 (-1.15)
July	2.9e+07 (0.92)	3.6e+08 (7.33)	8.4e+07 (2.03)
August	7.1e+07 (1.89)	4.2e+08 (7.32)	9.0e+07 (1.84)
September	-5.8e+07 (-1.49)	1.8e+08 (3.04)	3.9e+07 (0.77)
October	-1.5e+08 (-3.85)	2.9e+05 (0.00)	2.9e+07 (0.56)
November	5.2e+06 (0.13)	2.4e+08 (3.99)	5.3e+07 (1.04)
December	-2.9e+07 (-0.84)	2.0e+08 (3.86)	6.6e+07 (1.46)
2003	5.1e+07 (2.83)	-3.9e+06 (-0.15)	3.0e+07 (1.29)
2004	1.1e+08 (4.34)	2.2e+07 (0.59)	6.9e+07 (2.05)
2005	1.4e+08 (4.76)	-4.7e+07 (-1.09)	3.4e+07 (0.89)
2006	1.8e+08 (5.65)	-6.5e+07 (-1.40)	4.8e+07 (1.17)
2007	1.9e+08 (7.06)	5.6e+07 (1.41)	9.6e+07 (2.72)
2008	2.4e+08 (8.70)	1.7e+08 (4.17)	3.1e+08 (8.42)
2009	3.5e+08 (7.55)	1.5e+08 (2.21)	3.3e+08 (5.42)

2010	3.9e+08 (6.95)	2.3e+08 (2.84)	3.6e+08 (5.00)
2011	4.3e+08 (7.52)	2.8e+08 (3.40)	4.0e+08 (5.41)
Observations	113.00	113.00	113.00

Note. All equations also include an intercept. Asymptotic t ratios are in parentheses. The critical values for the t ratios are 2.58 (2.33), 1.96 (1.64), and 1.64 (1.28) at the 1%, 5%, and 10% significance levels, respectively, based on a 2-tailed (1-tailed) test.

Table 2

Inflation Adjusted Taxable Sales Equations – Orange County

	Restaurants	Hotels/Motels	Amusement Tickets
FCIAA	1.5e+07 (3.91)	-2.7e+06 (-0.20)	-2.2e+07 (-0.82)
Total Taxable Sales Minus Restaurant Sales	0.03 (4.95)		
Total Taxable Sales Minus Hotel/Motel Sales		0.17 (6.48)	
Total Taxable Sales Minus Amusement Ticket Sales			0.18 (3.22)
Unemployment Rate	-1.8e+06 (-1.43)	-2.7e+06 (-0.62)	8.3e+05 (0.10)
February	2.4e+06 (0.60)	1.3e+08 (8.08)	-3.0e+06 (-0.11)
March	2.1e+06 (0.54)	1.5e+08 (9.72)	4.9e+06 (0.18)
April	1.6e+07 (5.71)	1.5e+08 (15.44)	6.4e+07 (3.55)
May	8.6e+06 (2.80)	1.3e+08 (10.75)	8.8e+07 (3.92)
June	1.1e+06 (0.31)	1.1e+08 (8.03)	2.0e+07 (0.82)
July	-1.8e+05 (-0.06)	1.1e+08 (10.04)	1.2e+08 (5.67)
August	8.4e+06 (2.63)	9.2e+07 (7.60)	1.3e+08 (5.20)
September	-5.9e+06 (-1.67)	5.5e+07 (4.26)	7.3e+07 (2.78)
October	-1.8e+07 (-4.20)	5.7e+07 (3.41)	3.7e+06 (0.12)
November	4.4e+05 (0.12)	1.3e+08 (8.75)	3.4e+07 (1.26)
December	-1.1e+07 (-3.11)	1.1e+08 (7.40)	3.3e+07 (1.26)
2003	3.5e+06 (1.15)	-4.9e+06 (-0.47)	1.3e+07 (0.64)
2004	7.7e+06 (1.72)	-6.0e+06 (-0.39)	2.7e+07 (0.91)
2005	1.3e+07 (2.64)	-3.1e+07 (-1.83)	-1.0e+07 (-0.31)
2006	1.8e+07 (3.61)	-3.4e+07 (-1.94)	-1.0e+07 (-0.31)

2007	8.9e+06 (1.88)	-7.5e+06 (-0.46)	1.2e+07 (0.39)
2008	1.4e+07 (3.09)	3.0e+07 (1.93)	2.4e+08 (7.84)
2009	2.4e+07 (3.15)	2.4e+07 (0.89)	2.9e+08 (5.79)
2010	3.1e+07 (3.34)	3.2e+07 (1.01)	2.9e+08 (4.95)
2011	3.8e+07 (4.15)	4.8e+07 (1.54)	3.0e+08 (5.31)
Observations	113.00	113.00	113.00

Note. All equations also include an intercept. Asymptotic t ratios are in parentheses. The critical values for the t ratios are 2.58 (2.33), 1.96 (1.64), and 1.64 (1.28) at the 1%, 5%, and 10% significance levels, respectively, based on a 2-tailed (1-tailed) test.

Multivariate State-Level Cross-Sectional Time Series Analyses

A ban on smoking in all drinking establishments was not part of the Florida Clean Indoor Air Act. Currently, Florida drinking establishments that derive less than 10 percent of their gross revenues from food sales, that do not have an open connection to a restaurant, hotel lobbies, or other indoor workplaces are exempt from the state law. Moreover, Florida state law preempts local governments from enacting more comprehensive smoke-free policies that would apply to these establishments. We employ a state-level cross-sectional time-series approach to reevaluate the impact of restaurant smoking bans on taxable restaurant sales and to provide new estimates on the impact of drinking establishment smoking bans on drinking establishment taxable sales. The assessment of drinking establishment bans will be particularly interesting to Florida policymakers contemplating the enactment of a smoking ban in drinking establishments or the removal of preemption.

We requested taxable sales data from the Departments of Revenue from each state in the South Atlantic Division of the United States as defined by the United States Census Bureau. We were able to collect taxable sales data on restaurants and drinking establishments on a quarterly basis for the states of Florida and North Carolina for the periods first quarter 2002 through first quarter 2011 and for Virginia for the periods first quarter 2002 through second quarter 2005. Other states in the division stated that they could not provide the data or refused to provide the data. Specifically, Delaware does not have a sales tax, only a gross receipts tax (GRT) – the Department of Revenue stated that they could not provide reliable sales figures because the first \$1,000,000 is exempt from tax and there is no GRT on alcohol. Georgia could not separate taxable sales in eating establishment from drinking establishments. Maryland could provide sales tax revenue data for 2010 and 2011 for bars and restaurants that serve alcohol combined

and restaurants that do not serve alcohol. The differential tax rate for food and alcohol in Maryland in conjunction with the inability to separate restaurants from pure drinking establishments made it impossible to derive quality taxable sales data for Maryland. South Carolina simply refused to provide taxable sales data – even a Freedom of Information Request was turned down. Finally, West Virginia could only provide taxable sales data for July 2008 through June 2011 due to their conversion to to a new tax system.

Similar to our pure time-series models above, we employ fixed-effects regression techniques in these analyses as well. These fixed effects control for state-specific, year-specific, and quarter-specific determinants of restaurant and drinking establishment taxable sales. The fixed effects approach amounts to including a dichotomous indicator for each state (less one), each year (less one), and each quarter (less one) as explanatory variables in the models. This assumes that the differences in taxable sales between states, over time, and in different quarters of the year (i.e. seasonality) not captured by the other covariates included in the model, can be fully captured by the state, year, and quarter fixed effects.

Table 3 contains the multi-state taxable sales equations. Model 1 contains the results from the restaurant taxable sales equation for Florida, North Carolina, and Virginia for the time period quarter 1, 2002 through quarter 2, 2005. In addition to the state, year, and quarter fixed effects, model 1 also contains the quarterly state unemployment rate, the total taxable sales in the state excluding restaurants in each quarter, a variable intended to capture overall economic activity in the state, and a quarterly restaurant smoking ban variable. The restaurant smoking ban variable is a dichotomous indicator equal to one if the state has a law that bans smoking in restaurants in any given quarter, and is equal to zero otherwise. Model 2 is identical to model 1, however, model 2 contains the results from the restaurant taxable sales equation for Florida and

North Carolina for the time period quarter 1, 2002 through quarter 1, 2011. Finally, Model 3 contains the results from the drinking establishment taxable sales equation for Florida and North Carolina for the time period quarter 1, 2002 through quarter 1, 2011. Since none of the 3 states had a ban on smoking in bars during the time period quarter 1, 2002 through quarter 2, 2005, a drinking establishment taxable sales equations using all 3 states during the earlier period only is not feasible. In addition to the state, year, and quarter fixed effects, model 3 also contains the quarterly state unemployment rate, the total taxable sales in the state excluding drinking establishment sales in each quarter, a variable intended to capture overall economic activity in the state, and a quarterly drinking establishment smoking ban variable. The drinking establishment smoking ban variable is a dichotomous indicator equal to one if the state has a law that bans smoking in drinking establishments in any given quarter, and is equal to zero otherwise, capturing the impact of the North Carolina ban on smoking in bars implemented in January 2010.

Cross-Sectional Time Series Results

The results indicate that restaurant smoking bans have a statistically insignificant effect on taxable restaurant sales in both equations that were estimated. Moreover smoking bans in drinking establishments are found to have a positive and statistically significant effect on taxable drinking establishment sales.

Total taxable sales excluding restaurant taxable sales, a variable designed to capture overall economic activity, was found to have a positive and significant impact on restaurant taxable sales, as expected. This implies that restaurant revenues increase during times of general economic prosperity and decline with downturns in the economy. We found a similar positive

impact of total taxable sales excluding drinking establishment sales on drinking establishment sales, however the relationship is not significant at conventional levels.

Higher unemployment levels are found to be inversely related to restaurant and drinking establishment taxable sales, however the relationship is not significantly different from zero in Model 1.

Taxable sales in restaurants and drinking establishments are significantly larger in Florida than they are in North Carolina, whereas taxable sales in restaurants are significantly smaller in North Carolina than they are in Virginia during the time period quarter 1, 2002 through quarter 2, 2005.

Seasonality plays an important role in restaurant and drinking establishment taxable sales. That is, holding other factors constant, restaurant sales are significantly larger in the second quarter than the first quarter and they are smaller in the fourth quarter than in the first quarter. There are no statistically significant differences in restaurant taxable sales between the first and third quarters of the year. Holding other factors constant, drinking establishment sales are significantly smaller in the third and fourth quarters than the first quarter.

Finally, holding other factors constant, restaurant taxable sales were generally higher in years 2003 through 2011 than in year 2002, whereas, drinking establishment taxable sales tended to be lower in years 2003 through 2008 than in 2002.

Table 3

Inflation Adjusted Taxable Sales Equations

	Taxable Sales Restaurants		Taxable Sales Drinking Establishments
	FL, NC, VA (2002Q1-2005Q2)	FL, NC (2002Q1-2011Q1)	FL, NC (2002Q1-2011Q1)
Restaurant Smoking Ban	-9.2e+07 (-0.98)	-1.8e+08 (-1.61)	
Drinking Establishment Smoking ban			6.8e+07 (2.32)
Total Taxable Sales Minus Restaurant Sales	0.08 (8.62)	0.04 (8.35)	
Total Taxable Sales Minus Drinking Establishment Sales			0.00 (1.36)
Unemployment Rate	-1.4e+08 (-1.27)	-9.7e+07 (-2.32)	-2.8e+07 (-3.27)
Florida	-3.2e+08 (-0.54)	2.2e+09 (9.93)	5.0e+08 (12.39)
North Carolina	-1.0e+09 (-2.77)		
Quarter 2	1.2e+08 (2.07)	2.2e+08 (3.21)	7.6e+06 (0.63)
Quarter 3	-5.8e+06 (-0.08)	-1.8e+07 (-0.24)	-3.4e+07 (-2.74)
Quarter 4	-2.2e+08 (-2.39)	-1.9e+08 (-2.63)	-4.2e+07 (-3.38)
2003	1.6e+08 (2.61)	2.6e+08 (2.44)	-2.9e+07 (-1.56)
2004	1.3e+08 (1.27)	4.2e+08 (3.54)	-4.4e+07 (-2.18)
2005	5.7e+07 (0.40)	5.3e+08 (4.24)	-4.7e+07 (-2.09)
2006		7.1e+08 (5.15)	-6.5e+07 (-2.56)
2007		8.2e+08 (6.09)	-6.8e+07 (-2.84)
2008		1.0e+09 (8.09)	-3.1e+07 (-1.63)
2009		1.6e+09 (6.99)	7.3e+07 (1.83)
2010		1.8e+09 (6.22)	3.6e+07 (0.68)

2011		1.8e+09 (5.95)	1.8e+07 (0.33)
Observations	42.00	74.00	74.00

Note. All equations also include an intercept. Asymptotic t ratios are in parentheses. The critical values for the t ratios are 2.58 (2.33), 1.96 (1.64), and 1.64 (1.28) at the 1%, 5%, and 10% significance levels, respectively, based on a 2-tailed (1-tailed) test.

Conclusions

Opponents of smoke-free air policies claim that the enactment of these policies has a significant negative impact on sales in the hospitality industry. Using multivariate time series regression techniques and consistent with the weight of the evidence from the large existing literature on the economic impact of smoke-free policies in other jurisdictions, our study concludes that the Florida Clean Indoor Air Act had no negative effects on restaurant, hotel, and amusement ticket sales in the state of Florida. These findings clearly counter tobacco industry and hospitality sector claims that smoke-free policies have a negative economic impact on the hospitality industry. Moreover, using cross sectional time series econometric techniques, we find no significant effects of restaurant smoking bans on restaurant sales, however, we find a positive effect of a ban on smoking in drinking establishments on taxable drinking establishment sales. These findings indicate that extending the Florida Clean Indoor Air Act to all bars would add to the public health benefits of the existing policy by protecting bar workers and patrons from the harmful effects of exposure to tobacco smoke while having no negative, and more likely a small positive, economic impact.

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