

DATA BRIEFS



HealthierAirForAll.org
#SmokeFreeNOLA

A 100% SMOKE-FREE POLICY IN NEW ORLEANS WOULD NOT NEGATIVELY AFFECT TOURISM

Lessons Learned from
a Survey of Jazz Fest Attendees
DECEMBER 2012

INTRODUCTION

Louisiana's \$9.5 billion tourism industry is an essential part of the state's economy, representing more than \$214.8 million in local taxes and employment for 1 out of every 12 residents.

New Orleans accounts for 60% of the state's revenue from tourism. Annual festivals such as Mardi Gras and Jazz Fest largely contribute to this revenue stream.

Business owners expressed concern that the Louisiana **Smoke-Free Air Act (SFAA)** passed in 2007 would negatively impact tourism in Louisiana.

This analysis addresses these concerns by analyzing data collected from surveys of out-of-state tourists at Jazz Fest 2012.

METHODOLOGY

Surveys were conducted at Jazz Fest in New Orleans from April 27, 2012 to April 29, 2012.

Healthier Air for All employees were based at three locations around the Jazz Fest entrances and intercepted every fifth person that passed.

Only out-of-state tourists were asked to complete the full survey, which included questions about their perceptions of smoke-free policies and their attitudes toward smoke-free legislation in Louisiana and at home.

THE SAMPLE

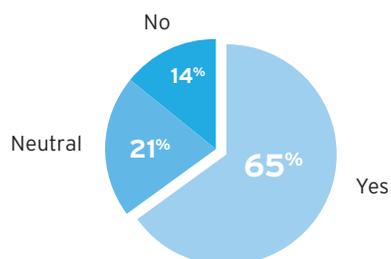
404 out-of-state tourists were approached at Jazz Fest to complete the survey. Approximately 70% agreed to participate.

91% of the sample reported the intention to visit a bar or club while in New Orleans, making the sample a reliable representation of tourists likely to be impacted by expansion of the SFAA to include bars, nightclubs, and casinos.

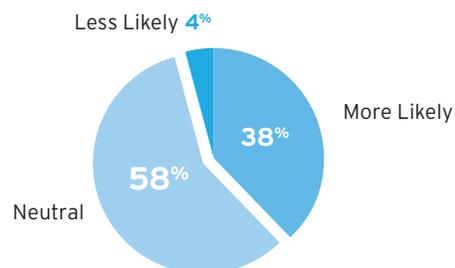
The sample accurately reflected national smoking rates: 74% never smoked, 8% smoked every day and 18% smoked occasionally.

RESULTS

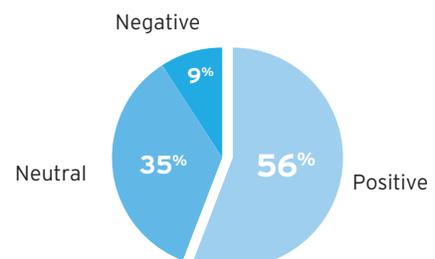
Would you be in **favor** of a smoke-free policy for bars & gaming facilities in New Orleans?



Would a smoke-free policy for bars & facilities make you more or less likely to **visit** New Orleans?



How would a smoke-free policy for gaming facilities & casinos affect the **image** of Louisiana?



CONCLUSIONS

Survey results indicate that implementing a smoke-free policy in bars, nightclubs, and casinos would not have a negative effect on tourism in New Orleans.

The majority of tourists (65%) support a smoke-free policy in New Orleans. Moreover, the majority of smokers in the sample (68%) supported a smoke-free policy in New Orleans (data not shown).

SMOKE-FREE POLICIES DO NOT HAVE A NEGATIVE EFFECT ON BUSINESS

DECEMBER 2012

Act 815, The Louisiana Smoke-Free Air Act (SFAA) prohibited smoking in all public places, except for bars and gaming facilities. Act 815 went into effect January 2007.

INTRODUCTION

Policymakers and business owners must consider the impact of state and local laws on tourism, one of Louisiana's largest industries. During the 2006 state legislative session, lawmakers debated a bill that would restrict smoking in all public places.

Supporters of comprehensive smoke-free legislation argued that a comprehensive policy would improve health outcomes at little economic cost, stressing that exposure to secondhand smoke was dangerous for employees and patrons of these venues.

Critics of comprehensive smoke-free legislation argued that smoking restrictions would financially harm businesses that rely on tourists, stressing that smoke-free policies would negatively impact revenues and employment rates of venues popular with tourists.

In January 2007, this bill was implemented as The Louisiana Smoke-Free Air Act (SFAA). Legislators attempted to balance the health and economic concerns by restricting smoking in all workplaces and restaurants, except bars, nightclubs & gaming facilities.

METHODOLOGY

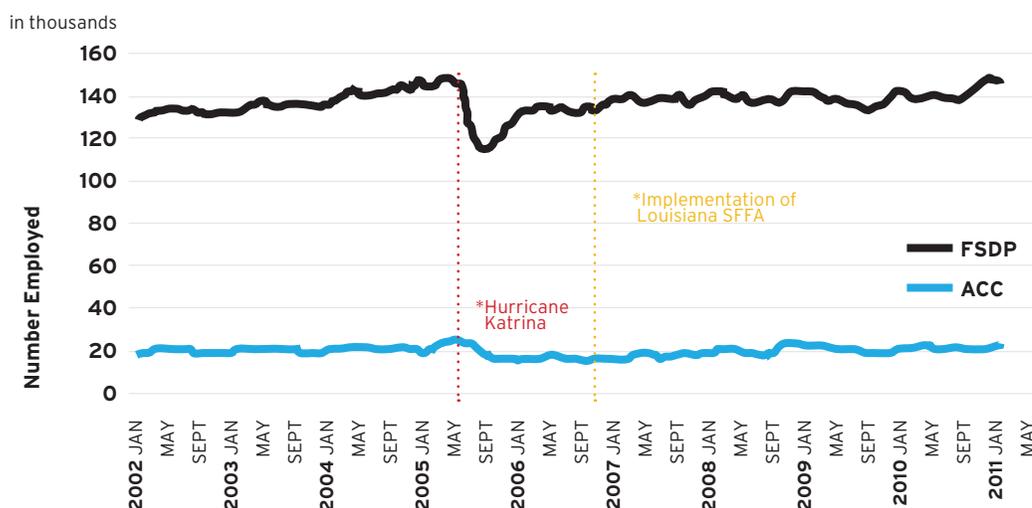
To evaluate the impact of the SFAA on Louisiana's hospitality industry, this study assessed data specific to the two most financially valuable sectors of the state's tourism industry: **Accommodation (ACC) & Food Service and Drinking Places (FSDP).**

The main source of data in this analysis was monthly employment figures (based on quarterly tax returns from all employers covered by unemployment insurance) from the Louisiana Department of Labor and the US Bureau of Labor Statistics.

A time-series ARIMA model was used to analyze the state-level policy while controlling for secular trends.

RESULTS

FSDP and ACC Employment in Louisiana, 2002-2011



CONCLUSIONS

The Louisiana Smoke-Free Air Act had no **significant impact** on employment rates in the ACC and FSDP industries, at both the state and Orleans Parish level (Orleans parish data not shown).

When considered alongside previous literature investigating the relationship between smoke-free ordinances and employment rates in other geographic areas, this study suggests that expanding the reach of the SFAA into bars and nightclubs will have no impact on employment in these venues.

AIR QUALITY IN ALEXANDRIA BARS SIGNIFICANTLY IMPROVED AFTER THE ENACTMENT OF 100% SMOKE-FREE ORDINANCE

JANUARY 2013

INTRODUCTION

This evaluation assessed the impact of environmental tobacco smoke on indoor air quality in Alexandria, Louisiana.

To assess indoor air quality, indoor air pollution levels in 17 smoking bars and gaming facilities in Alexandria were measured before the local smoke-free ordinance was implemented on January 1, 2012. This data was then compared with the air pollution levels in 12 of the same 17 bars and gaming facilities after the smoke-free ordinance.

METHODOLOGY

Secondhand tobacco smoke is comprised of an abundance of very small particles, often measured as particulate matter less than 2.5 microns in size or $PM_{2.5}$. This evaluation took real-time measurements of $PM_{2.5}$ using a direct reading instrument.

Pre-ordinance air monitoring of 17 sites was conducted in January, February, and December 2011.

Post-ordinance air monitoring of 12 sites was conducted on January 6, 2012 (less than one week after enactment of the ordinance).

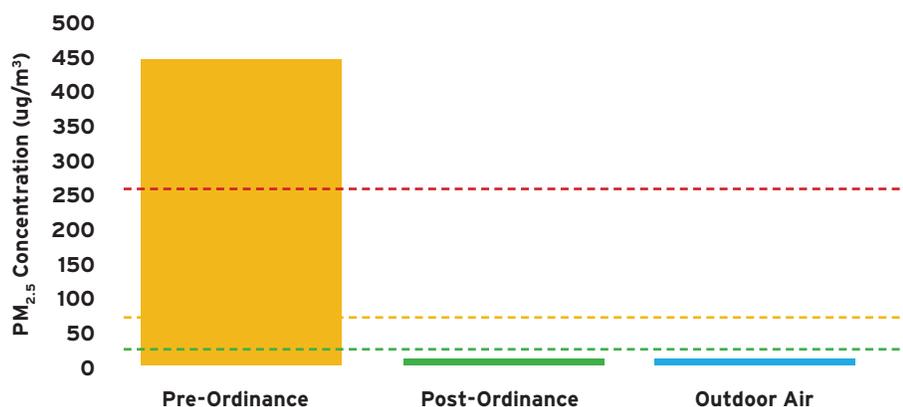
RESULTS

Pre-ordinance: On average, the sample of 17 Alexandria smoking bars and gaming facilities assessed before the ordinance went into effect had **hazardous** air quality ($PM_{2.5} = 444.5 \text{ ug/m}^3$), according to U.S. Environmental Protection Agency (USEPA) standards. The health effects associated with this level of exposure include:

- Significant aggravation of heart or lung disease and premature mortality among the elderly and individuals with cardiopulmonary disease.

- Serious risk of respiratory effects within the general population.

Post-ordinance: On average, the sample of 12 bars and gaming facilities after the ordinance went into effect had good air quality ($PM_{2.5} = 12.3 \text{ ug/m}^3$), which was comparable to the quality of outdoor air (10.3 ug/m^3).



CONCLUSIONS

After the ordinance went into effect, bars and gaming facilities surveyed had an average of 97% reduction in $PM_{2.5}$ levels, and indoor air in bars and gaming facilities was **36 times cleaner** post-ordinance.

This evaluation demonstrates that implementing local smoke-free ordinances in other Louisiana cities may have a similar and beneficial effect on indoor air quality levels of bars and gaming facilities.

ACCORDING TO EPA STANDARDS, AIR QUALITY IN NEW ORLEANS SMOKY BARS AND CASINOS IS HAZARDOUS

MARCH - MAY, 2011

INTRODUCTION

In order to protect employee health the Louisiana Legislature passed The Smoke-Free Air Act (Act 815) in 2006 which went into effect on January 1, 2007.

Act 815 prohibits smoking in most workplaces and public spaces, but bars and casinos are exempt from compliance.

This studies aim was to measure secondhand concentration levels in bars and casinos where smoking is still permitted along with a comparison group of smoke-free venues in New Orleans, Louisiana.

METHODS

The most commonly used environmental markers of secondhand exposure are fine particulate matter (particulate matter <2.5 um, PM_{2.5}) and gas phase nicotine.

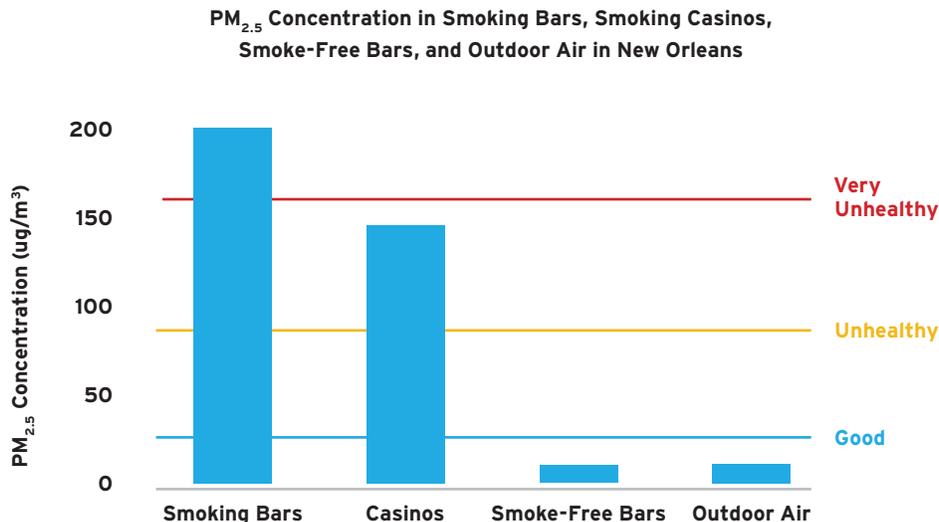
Direct-reading TSI SidePak AM510 aerosol monitors were used to measure PM_{2.5} in a hybrid random/convenience sample of smoking bars, non-smoking bars, and casinos in New Orleans, Louisiana between March and May, 2011.

PM_{2.5} was measured in each venue for a minimum of 30 minutes, and monitored and recorded the number and frequency of active smokers during each monitoring period.

RESULTS

The average PM_{2.5} concentration in smoking bars (n=32), casinos (n=6), and smoke-free bars (n=11) was 201.7 ug/m³, 147.5 ug/m³ and 8.6 ug/m³, respectively.

For comparison, the average ambient (outdoor air) PM_{2.5} concentration measured by the nearest air quality monitoring station over the duration of the study was 9.3 ug/m³.



CONCLUSIONS

In this sample of New Orleans smoking bars PM_{2.5} concentration levels were 24 times higher than in smoke-free bars.

The air quality in smoke-free bars was similar to outdoor levels. There are no occupational exposure standards for secondhand, but a useful tool to contextualize secondhand concentration levels is to use the U.S. Environmental Protection Agency's Air Quality Index for ambient PM_{2.5}.

Using these categories, 68% of the sampled of New Orleans smoking venues had unhealthy air quality levels or worse.

If bars and casinos were made smoke-free, the health risk to employees exposed to secondhand would be significantly reduced.

Play It SAFE: Smoke-Free Air for Everybody

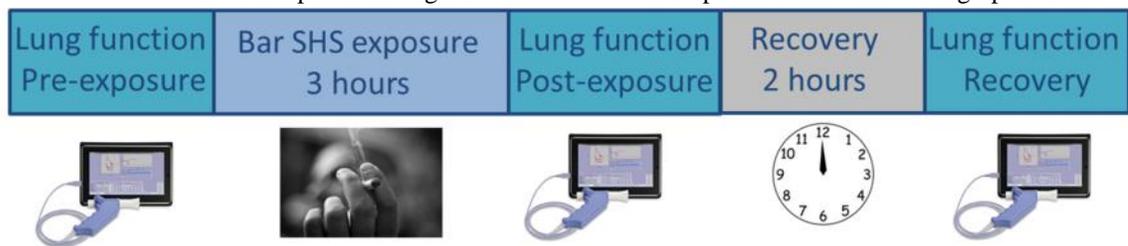
February 2014

Introduction

- The long term health effects of second hand smoke (SHS) are well known. Less information, however, is available on short term or *acute exposure* to SHS.
- The available literature suggests several biological effects of acute exposure to SHS including respiratory damage, heightened immune response and blood vessel dysfunction. Brief exposure to SHS generates vascular inflammation, a heightened immune response, alters nitric oxide modulation and initiates remodeling of the airway.
- These alterations of lung function may occur after only 1 hour of SHS exposure, and resemble the physiological changes that are seen among smokers.

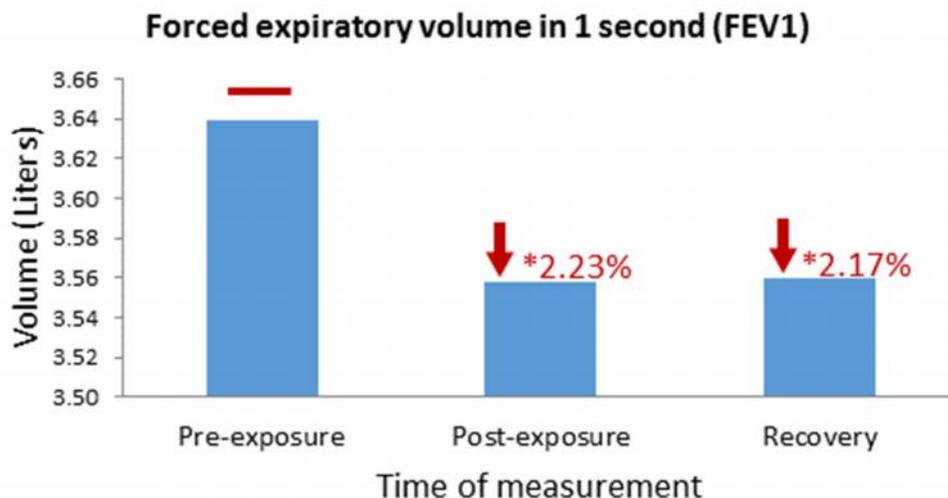
Methodology

- The Play It SAFE study was conducted in January and February 2014 as an observational study using particulate matter devices to quantify individual environmental tobacco smoke (ETS) exposure.
- 96 young (21-35 years olds), healthy, non-smoking adults were exposed to ETS for 3 hours in a typical New Orleans bar environment where indoor smoking was permitted.
- Spirometry measurements, including forced vital capacity (FVC), forced expiratory volume in 1 second (FEV1), and peak expiratory flow (PEF), were taken at three different points during a 6-hour data collection protocol outlined in the graphic below



Results

- Repeated-measures analysis of variance (RM-ANOVA) examined the effect of exposure timepoint on FVC, FEV1, and PEF. PPM and gender were included as time-invariant covariates and their interactions with timepoint were examined.
- FVC, FEV1, and PEF were all significantly reduced during measurement at post-exposure and recovery, compared to the pre-exposure baseline. There were no significant interactions with gender or PPM exposure.



*Percent decrease from pre-exposure measurement. Post-hoc pairwise comparison, $p < .001$

Discussion

- The current exclusion of bars under the Louisiana Smoke-Free Air ordinance translates into repeated short-term exposure to ETS and the subsequent health consequences for all bar patrons.
- Three hours of exposure to SHS in a bar can lead to a significant decrease in lung function in healthy, non-smoking young adults, with no improvement even 2 hours after removal from exposure to SHS.
- Policies aimed at banning cigarette smoking in bars and restaurants are important for limiting the negative health effects of SHS on patrons and employees.

Smoking and Secondhand Smoke Exposure During Pregnancy

December 2014

Smoking¹

- Smoking before and during pregnancy is the single most preventable cause of illness and death among mothers and infants in the United States.
 - Women who smoke before pregnancy are more likely to experience delayed conception and infertility.
 - Smoking during pregnancy increases the likelihood of potentially life threatening complications such as abruption placenta, placenta previa and premature rupture of membranes.

Secondhand Smoke

- Pregnant women who are exposed to secondhand smoke are 20% more to give birth to a low-birth weight baby compared to women who are not exposed to secondhand smoke during pregnancy.¹
- Pregnant women exposed to secondhand smoke are 2.3 times more likely to have a preterm birth.²
- 15% of all births in Louisiana are preterm births, second highest in the US (national average 11.5%).³
 - Preterm births by ethnicity:
 - White: 12.6%
 - Black: 19.7%

Louisiana Pregnancy Risk Assessment for Monitoring System⁴

- Fourteen percent (14%) of women reported smoking during the last 3 months of pregnancy.
- When asked, “About how many hours a day, on average, is your new baby in the same room with someone who is smoking?”, participating mothers reported the following:

Infant Secondhand Smoke Exposure (Hours/Day)	Percent of Respondents Agreeing
3 +	2.6%
1-2	5.7%
None	91.8%

* Percents column exceeds 100% due to rounding.

Conclusion

- Secondhand smoke during pregnancy is associated with preterm birth and low birth weight.
- These complications can have serious complications for both mother and child and are expensive to treat and manage.
- The Surgeon General has concluded that the only way to protect against the dangers of tobacco smoke is to live in and visit only 100% smoke-free environments.

References

- ¹ CDC. 2007. Preventing smoking and exposure to secondhand smoke before, during, and after pregnancy. Available at: <http://www.cdc.gov/nccdphp/publications/factsheets/prevention/pdf/smoking.pdf>
- ² Ashford KB, Hahn E, Hall L, Rayens MK, Noland M, Ferguson JE. 2010. The effects of prenatal secondhand smoke exposure on preterm birth and neonatal outcomes. Journal of Obstetrics Gynecology Neonatal Nursing, 39(5): 525-535.
- ³ March of Dimes. 2014. March of Dimes Report Card. Available at: <http://www.marchofdimes.org/materials/premature-birth-report-card-louisiana.pdf>
- ⁴ Louisiana Department of Health and Hospitals, Office of Public Health, Bureau of Family Health. 2009. Louisiana Pregnancy Risk Assessment for Monitoring System: 2009 Surveillance Report. Available at: http://www.dhh.louisiana.gov/assets/oph/Center-PHCH/Center-PH/maternal/2009SurveillanceReport_LaPRAMS.pdf.

