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Reactions to Smoke-free Policies and Messaging Strategies in Support and Opposition: A Comparison of Southerners and Non-Southerners in the US

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Abstract

Objectives—We explored differences in support for smoke-free policies among Southerners versus non-Southerners within a quota-based non-probability sample of adults in the United States.

Methods—In 2013, a cross-sectional online survey was conducted among 2501 adults assessing tobacco use, reactions to personal and public smoke-free policies, and persuasiveness of various message frames regarding smoke-free bar/restaurant policies.

Results—Southerners were no different from non-Southerners in support for most public and private smoke-free policies. The most effective pro-policy messages regarded hospitality, health, and individual rights/responsibilities; the most persuasive anti-policy messages involved individual rights/responsibilities. Compared to non-Southerners, Southerners rated pro-policy messages involving economic impact, religion/morality, and hospitality as more persuasive.

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Human Subjects Approval Statement
All procedures were approved by Emory University's Institutional Review Board.

Conflict of Interest Disclosure Statement
The authors declare no conflicts of interest.

Conclusions—Factors other than public opinion accounting for lagging policy adoption must be explored.

Keywords

tobacco control; secondhand smoke exposure; health communication

States in the southeastern United States (US) are among those with the highest prevalence of tobacco use. Whereas the national aver-age for smoking prevalence is 19.0%, the average in this region is 22.0%, with prevalence as high as 26.5% in Kentucky.[1] Unfortunately, states in the southeastern US also have among the highest proportions of their populations living at or below the federal poverty level; greater inequalities between the highest and lowest income groups; a larger proportion of the state population comprised of persons with less than a high school education; and greater racial and ethnic diversity than other regions of the US.[2] Lower income individuals, those without a college education, and racial and ethnic minorities are more likely to be targeted by tobacco marketing and to use tobacco products than other populations,[3] making tobacco use prevention a particular challenge in southeastern states.

A major factor contributing to this health disparity may be lagging tobacco control policies in the southeastern US.[4] Comprehensive smoke-free indoor air laws ban smoking of tobacco products in all indoor areas in worksites, restaurants, bars, and hotels, and do not allow for separately ventilated areas. Research strongly supports the effectiveness of public, smokefree policies for increasing cessation attempts among current smokers and reducing exposure to secondhand smoke (SHS), tobacco use prevalence, the initiation of tobacco use among young people, tobacco-related morbidity and mortality, and healthcare costs.[5] In addition, despite common concern about the impact of such policies on businesses including bars and restaurants,[6] evidence suggests that smoke-free policies do not have an adverse economic impact on businesses and may have a positive impact in some contexts.[5] Because of the importance of these policies, 28 states and the District of Columbia have passed comprehensive smoke-free laws.[7] The region of the US least likely to have adopted public smoke-free policies is the southeastern US.[4]

One contributing factor to the lagging policy adoption in the southeastern US may be the fact that this region is home to 6 of the top 10 tobacco growing states in the nation (ie, North Carolina, Kentucky, Virginia, Tennessee, South Carolina, and Georgia, respectively).[8] However, the role of tobacco farming in the US economy and in the so-called tobacco states' economies has been decreasing in the last few decades,[9] largely due to US cigarette companies using more foreign tobacco for domestic consumption and reducing cigarette exports because it is more cost-effective to cultivate tobacco outside the US.[10] Regardless, congressional lawmakers from tobacco-growing states are less likely to vote in favor of tobacco control legislation, and as a result, this region lags behind other US regions in the adoption of a range of tobacco control policies, including smoke-free policies.[11]

On a related note, the home remains a significant venue for SHS exposure,[12] with 52% of US smokers and 19% of nonsmokers allowing smoking inside their home.[13] Despite strong support for smoke-free public policies among US adults in general,[14,15] research

documenting support for policy implementation in personal living areas and practices around enforcing smoke-free policies in private settings is limited.[16] The implementation and enforcement of smoke-free homes may indicate that a person is more likely to support smokefree public places. This might be particularly the case in areas that are lagging in such policy implementation, such as the southeastern US.

Media coverage and advocacy efforts to promote support for and opposition to tobacco control policies have used a range of arguments related to the impact of such policies on health, economic issues, youth prevention, individual rights, and morality.[17-22] Given that many of the settings most impacted by comprehensive smoke-free policies, such as bars and restaurants, are part of the hospitality industry, another possible messaging strategy both in support for or opposition to smoke-free public policies may be the value placed on hospitality itself. Although research has assessed public discourse about smoke-free policies, limited research has examined the persuasiveness of different messaging strategies to support or oppose smoke-free policies.

Future messaging strategies could target values that are more prevalent in the southeastern US. For example, the 2013 Nielsen data on US households documented that southeastern households contain a greater proportion of individuals who value individual rights, are married with children, attend religious services, and value hospitality.[23] As such, messages that appeal to ideals of youth prevention, individual rights and responsibilities, religion and morality, or hospitality might be particularly effective in the southeastern states of the US.

Given the aforementioned literature, we used a national panel survey to examine differences between Southerners and non-Southerners in relation to: (1) adoption and enforcement of smoke-free policies in personal settings; (2) perceptions and reactions toward public smoke-free policies; (3) participant characteristics related to greater receptivity to such policies; and (4) reported persuasiveness of messaging strategies related to smoke-free policies in bars and restaurants.

METHODS

Design

The current study is an analysis of a cross-sectional survey conducted by an online panel survey company, GMI (Global Market Insite, Inc.), during a 3-week period (June 20, 2013 to July 9, 2013). GMI's US panel is approximately 65% female, 50% with an annual income below $46,000, and with racial/ethnic diversity representative of national statistics (ie, about 75% white and 12% black). Eligible participants were individuals living in the US, English-speaking, and 18-65 years old.

Our primary aim was to examine reactions to tobacco control policies in the southeastern US (where tobacco control is lagging) compared to other regions. We used a group-targeted sampling quota approach to ensure that we had sufficient representation of individuals who used a combustible tobacco product (ie, cigarettes, cigars, pipes) in the past year (capped at 40%), racial/ethnic minorities (capped at 40%), and those residing in the southeastern states (ie, Alabama, Florida, Georgia, Kentucky, North Carolina, Mississippi, South Carolina,

Tennessee), as defined by the US Department of Health and Human Services (capped at 30%). Although not a probability-selected sampling approach, the sampling plan was chosen to address our main research questions regarding reactions to tobacco control policies with sufficient representation among these key populations. If our findings with this relatively low-cost non-probability sampling design are statistically significant, more expensive probability-based sampling may be justified in subsequent research.

Participants were recruited for the study using daily e-mail invitations sent to GMI panelists directing them to the study and targeted email invitations to panelists known to meet some of the study criteria. Once panelists entered the study survey, they were presented with the informed consent page; those who consented were directed to screening questions to assess eligibility. If the quota for a particular subgroup was filled, panelists with those characteristics were no longer recruited. Participants were compensated with points that could be exchanged for items or gift cards within GMI's system.

Participants

Overall, 5429 participants began the eligibility screening portion of the survey for this study, 1248 did not meet the study criteria (ie, were ineligible), 1182 were ineligible because of full quotas, 252 discontinued at some point before completing the eligibility screening portion of the survey, 243 were eligible but discontinued the survey, and 3 participants' responses were removed from the data by the survey company during their quality check process ensuring that no participant completed the survey more than once. This protocol resulted in a final study sample size of 2501. This final sample had complete data given the nature of the online survey infrastructure requiring answers to each question before moving on to the next. Of the 2501, 36.7% (N = 918) were current (past 30-day) smokers, 31.6% (N = 791) were racial/ethnic minorities, and 26.7% (N = 669) were Southerners due to quota sampling.

Measures

Sociodemographic characteristics—We assessed age, sex, race/ethnicity, education, household income, relationship status, number of people in the home, and number of children in the home.

Political and social characteristics—Participants were categorized as Southerners (ie, those in the southern state region defined by the US Department of Health and Human Services) versus other. We also asked participants if they voted in the last presidential election and in the last election that was not the presidential election, their political identity (conservative, moderate, independent, liberal, not political), their political party (strong Republican, not so strong Republican, Independent but leaning Republican, Independent, Independent but leaning Democrat, Not so strong Democrat, Strong Democrat, Other), and their perception of the Tea Party (strongly support to strongly oppose). Participants also were asked about their religious preference (which was collapsed as Christian and Other based on frequencies) and how frequently they attended church or a religious service.

Tobacco use—We also assessed past 30-day use of cigarettes, electronic cigarettes, hookah, any cigar product, and any smokeless tobacco use using measures from the Centers for Disease Control and Prevention's National Adult Tobacco Survey.[24]

Private smoke-free policies—All participants were asked: "Which statement best describes the rules about smoking inside your home? Do not include decks, garages, or porches: Smoking is not allowed anywhere inside my home; Smoking is allowed in some places or at some times; or Smoking is allowed anywhere inside the home" and "Which statement best describes the rules about smoking inside your car? Smoking is not allowed anywhere inside my car; Smoking is allowed in my car sometimes; Smoking is allowed in my car; or I don't own a car." [24]

To assess exceptions to any rules, we asked: "Do you allow people to smoke in your home: When the weather is bad? When it is dark outside? When there is a party or celebration inside the home? When a special guest is visiting? Other exceptions?" Response options were no, yes, or not applicable. Participants also were asked: "In what room or rooms does smoking sometimes occur? (Check all that apply.) Family/living room; Kitchen; Bathroom(s); Adult bedroom; Child bedroom; and Other. Finally, we asked participants to indicate whether they would allow people to smoke the following products in their homes: cigarettes; cigars, little cigars, or cigarillos; electronic cigarettes; hookah; or marijuana.

Reactions to public smoke-free policies—To assess reactions to smoke-free policies, we asked: "In the US, states have a wide range of policies related to public smoke-free policies. Which of the following do you think is accurate about your state? My state is in the top 5 states with the strictest smokefree policies; My state is in the top 15 states with the strictest smoke-free policies, but not in the top 5; My state is in the middle 20 states in relation to strict smoke-free policies; My state is in the bottom 15 states in smoke-free policies, but not in the lowest 5; My state is in the bottom 5 states with the least strict smoke-free policies; or Don't know." We also asked: "For each of the following places, indicate how you feel about a policy prohibiting smoking in that kind of place" in reference to the places listed in Table 2. Response options were strongly favor, somewhat favor, neutral, somewhat oppose, strongly oppose, or don't know. In Table 3, we collapsed responses as somewhat oppose or strongly oppose versus other responses. To create an index score estimating receptivity to public smoke-free policies, we assigned the following values and computed an average score: *strongly favor* = 5, *somewhat favor* = 4, *neutral/ don't know* = 3, *somewhat oppose* = 2, and *strongly oppose* = 1.

Reaction to messages related to smoke-free policies in bars and restaurants —We also asked participants to rate the extent to which they perceived messaging strategies both in support of and in opposition to smoke-free policies in bars and restaurants to be persuasive on a scale of 1 = *not at all persuasive* to 9 = *extremely persuasive*. The messages were framed around the issues of health, youth prevention, economic impact, individual rights/responsibility, morality/religion, and hospitality. Most messages in this study were adapted from prior literature,[20-22] but some, particularly related to more novel messaging around hospitality and religion/morality, were newly created and reviewed by an expert

panel. The messages are displayed in Table 4; those newly developed for this study are noted.

Data Analysis

Participant characteristics, smoking and smoking policy related factors, and reactions to messaging were summarized using descriptive statistics. Bivariate analyses (ie, t-tests, ANOVAS, chi-square tests, and correlations) were then conducted to examine differences between Southerners and non-Southerners in relation to participant characteristics, the implementation and enforcement of smoke-free policies in personal settings, their perceptions and reactions toward public smoke-free policies, and responses to messaging strategies related to smoke-free policies in bars and restaurants. We also conducted a multivariate regression model examining factors (sociodemographic measures, political/social characteristics, and tobacco use characteristics listed in Table 1) associated with receptivity to public smoke-free policies. We used backwards stepwise entry of the correlates of interest. The regression model results are noted in the text but not displayed in tables. Because of the quota-based design of the study, no effort at weighting the sample was made. All statistical modeling was conducted using SPSS 21.0 (IBM, Armonk, NY), and alpha was set at .05.

RESULTS

Participant Characteristics

As reported in Table 1, this sample was 43.03 (SD=14.38) years old on average, 51.2% female, 68.4% white, 17.4% black, 57.7% married or living with a partner, and 36.7% current smokers. Southeastern US state residents were more likely to: be black ($p < .001$); earn lower incomes ($p = .001$); be married or living with a partner ($p = .007$); identify as politically conservative or not political ($p = .003$); identify as Christian ($p < .001$); and report attending religious services more frequently ($p < .001$). Southerners were less likely to be current cigarette users ($p = .010$).

Personal Smoke-free Policies

Table 2 presents bivariate analyses indicating that Southerners were marginally more likely to have smoke-free home policies ($p = .079$) and car policies ($p = .050$). Given the lower smoking prevalence among Southerners compared to non-Southerners in this sample, we explored these phenomena, controlling for age, sex, race/ethnicity, education level, relationship status, children living in the home, and cigarette smoking, and we found that being a Southerner or non-Southerner was not independently associated with having a smoke-free home or car (results not shown in tables but available on request).

Southerners (versus non-Southerners) were less likely to make exceptions to home smoking rules when it was dark ($p = .026$), when there was a party or celebration ($p = .005$), when a special guest was visiting ($p = .045$), in the kitchen ($p = .005$), in a child's bedroom ($p = .045$), in relation to hookah byproducts ($p = .013$), and in relation to marijuana smoke ($p = .028$).

Reactions to Public Smoke-free Policies

Table 3 presents results regarding differences between Southerners and those from the rest of the country in relation to their attitudes toward smoke-free public policies. Southerners were more likely to report that their state was in the bottom 20 in terms of public smoke-free policy implementation ($p < .001$). They were not significantly different in their opposition to smoke-free policies in most public settings and were less oppositional to these policies in bars ($p = .003$) and bowling alleys ($p = .030$). The multivariate regression model (not shown in tables) indicated that independent correlates of greater receptivity to public smoke-free policies included younger age (coefficient = −.01, 95% confidence interval [CI] −.01, −.001, $p = .015$), being female (coefficient = .17, CI .09, .26, $p < .001$), higher education level (coefficient = .13, CI .07, .19, $p < .001$), being more liberal (coefficient = −.02, CI −.04, −.01, $p = .050$), opposing the Tea Party (coefficient = .06, CI .03, .10, $p < .001$), attending church more frequently (coefficient = .07, CI .03, .10, $p < .001$), and being a nonsmoker (coefficient = −.88, CI −.99, −.79, $p < .001$); political party affiliation and being a Southerner were not associated.

Persuasiveness of Messaging Regarding Smoke-free Bars and Restaurants

In terms of messaging strategies in support of smoke-free bar and restaurant policies (Table 4), Southerners versus others reported that 4 were more persuasive: “Tobacco costs our society far more than it contributes to our economy” (economic; $p = .008$); “On average, nonsmoking restaurants have a 16% higher resale value” (economic; $p = .009$); “Some of the most vulnerable individuals in the US, such as the elderly and babies, are also the most affected by secondhand smoke. It is our Christian duty to protect these individuals” (religion/morality; $p = .030$); and “Ensuring that everyone has clean air to breathe is respectful and reflects good manners” (hospitality; $p = .022$). The most effective messages were: “Ensuring that everyone has clean air to breathe is respectful and reflects good manners” (hospitality), “Exposure to secondhand smoke causes serious health problems, including cancer and heart disease. It can also increase ear infections, asthma symptoms, and other health problems among children” (health), and “Everyone has the right to breathe clean air in public places, including bars and clubs” (individual rights/responsibilities). The least effective was “Maintaining clean air in public places is a testament to God” (religion/morality).

There were no differences between Southerners and others regarding the reported persuasiveness of any of the messaging strategies in opposition to smoke-free bar and restaurant policies. The most effective messages were: “Business owners, and not the government, should decide whether to permit smoking in their business” (individual rights/responsibilities) and “Customers are not forced to sit in restaurants and bars that allow smoking. If restaurant or bar patrons want to avoid smoking, they should go somewhere that already prohibits it” (individual rights/responsibilities). The least effective was “Being tolerant and accepting of smokers and loving your neighbor is a testament to God” (religion/morality).

DISCUSSION

These results indicate that Southerners are somewhat aware that their states of residence lag behind other states in the adoption of public smoke-free policies. Nevertheless, Southerners are similar to persons in other regions with regard to implementing smoke-free policies in personal settings and level of support for public smoke-free policies. Those most supportive of public smoke-free policies were younger, female, more educated, more liberal, more engaged in religion, and nonsmokers, as documented in prior literature.[15,25,26] It is important to note that political party affiliation and being a Southerner were not associated with support. Moreover, there are generally few differences between Southerners and non-Southerners with regard to reporting that differently framed messages to promote smoke-free policies are persuasive; in fact, certain messages leveraging economic arguments and appeals to morality/religion and hospitality were viewed as more persuasive among Southerners.

Given these findings, it is important to consider why tobacco control policies, specifically comprehensive smoke-free policies, are not largely adopted on the state level in southern states. Many possible explanations exist. One might be that constituents are less engaged with their lawmakers, which is critical in advancing tobacco control legislation.[27] This is particularly important given the importance of lobbying for influencing public policy, whether the influence comes from the public health community or the tobacco industry.[28]Another explanation may stem from policymakers' misconceptions about the negative health impacts of SHS or the economic and public health benefits of smoke-free policies.[6,29] These misconceptions can be addressed easily. Regarding the former, the literature is clear on the health impact of SHS and health benefits of smoke-free policies.[30] Furthermore, the vast majority of the published literature indicates the neutral or positive impact of such policies on businesses,[5] with the limited research indicating a negative impact of smoke-free policies on the economy being produced by the tobacco industry.[31] In one southeastern state, this false argument captured as much media attention as the proven argument that comprehensive smoke-free policies either increase or have no effect on business revenues.[6,31] Finally, policymakers' decisions may be influenced more by their own personal attitudes and interests than their constituents' opinions.[32,33] These interests may be influenced by the fact that tobacco has played a significant role in the economy and culture of these states historically, despite the declining economic role of tobacco in this region.[9]

Other important findings include the messaging strategies that might be most effective with this population. The messaging strategies in support of smoke-free bar and restaurant policies that were most effective overall were those focused on the rights of individuals to breathe smoke-free air, the negative health impact of SHS, and importance of smoke-free policies in being hospitable. Southerners were more impacted than non-Southerners by this latter message, which is in line with our hypotheses given the presumed value of "Southern hospitality."[23] Southerners versus non-Southerners also reported greater impact of messages focused on the economic impact of tobacco and smoke-free policies in their communities, which might reflect that this information is novel to them, particularly within the context of states with historically tobacco-driven economies.[34] They also reported greater impact of the

message regarding the moral/religious obligation to protect populations vulnerable to SHS, which aligns with our expectations given the specific characterization of individuals in this region being more likely to be religious.[23]

The most effective messages in opposition involved arguments regarding individual rights and responsibilities, particularly the rights of business owners to regulate whether smoking is allowed in their businesses and the responsibility of individuals to decide which establishments they frequent knowing the policies at those establishments. Strong arguments in response to these messaging strategies may be needed to change public opinion. However, ideological arguments may not be best suited for promoting smoke-free policies. During a period of smoke-free policy adoption and implementation across local jurisdictions in one southeastern state, ideological arguments for and against these policies were equally present in media coverage.[6] In general, the least effective strategies both in support of and in opposition to smoke-free policies involved religious appeals.

Limitations

This quota-based sample was drawn from a consumer panel population that may not represent the general US adult population. In addition, our restricted, quota-based sampling to obtain a high representation of racial/ethnic minorities, recent tobacco users, and those from southeastern US states, further limits the generalizability of these findings, though was of value in feasibly addressing the research questions of interest. Estimates obtained with our data could be biased due to several factors, such as unmeasured variables associated with differential participation in the survey or differential participation by region of the country. For example, the panel includes more women and individuals from a slightly lower socioeconomic status than the national census estimates.[2] Additionally, our sample of Southerners had lower cigarette use rates than expected, which also may have resulted from oversampling racial/ethnic minorities, particularly Blacks who have lower cigarette use prevalence.[1] This lower than expected level of smoking may have produced biases favorable toward tobacco control policies. Nevertheless, the quota-based sampling design enabled us to capture sufficient variation for factors (eg, racial/ethnic minorities, recent tobacco users) that were paramount for the research questions posed in this study. Another limitation is the response rate for this study, which may imply some response bias; however, previous online research has yielded much lower response rates (29%-32%) for the general US population.[35] Finally, the cross-sectional nature of this study and the self-reported assessments limit the extent to which we can make causal attributions or account for bias. As such, our results must be interpreted with caution.

Conclusions

Southerners are aware that their states are lagging in the adoption of public smoke-free policies, are in support of adopting such policies, and are implementing smoke-free policies in personal settings as frequently as individuals in other regions. Messaging strategies related to individual rights and responsibilities, economic impact, and health are particularly important in garnering support for smoke-free policies. Most importantly, it is important to note that this study suggests that factors other than public opinion are causes of lagging adoption of comprehensive smoke-free policies in the South. Thus, addressing critical

factors such as lack of constituent engagement with policymakers and policymakers' misconceptions about the health or economic impact of such policies is critical.

IMPLICATIONS FOR HEALTH BEHAVIOR OR POLICY

Current findings have important implications for research and practice. Research should examine the processes that impede the adoption of comprehensive smoke-free policies in the southeastern US. Relatedly, determining ways in which community engagement and coalition building can be fostered are critical in advancing smoke-free policy legislation.[28] Research is also needed to examine actual impact of these messaging statements beyond self-report of persuasiveness. For public health practitioners, our findings suggest that Southerners are aware that their states are lagging in the adoption of public smoke-free policies and, even controlling for smoking status, have similar support for smoke-free policies in their home and in public settings as those residing elsewhere in the US. Moreover, these findings highlighted several strategies for garnering support; in particular, tobacco control advocates focusing on smoke-free policies should focus their messaging efforts on the positive health impact of smoke-free policies, their reflection of good manners, the protection of vulnerable populations through implementing these policies, and the positive economic impact of smoke-free policies, as these messages were deemed effective overall, particularly in the southeastern US. Messages refuting the most effective oppositional messages regarding the rights of bar or restaurant owners are needed. Collectively, these findings provide a foundation to inform the activities of public health practitioners to further the agenda of public smoke-free policy adoption.

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Table 1

Participant Characteristics and Bivariate Analyses Examining Differences Between Southerners and Non-Southerners Sampled (N = 2501)

Variable	All N = 2501 N (%) or M (SD)	Southerners N = 669 N (%) or M (SD)	Non-Southerners N = 1832 N (%) or M (SD)	p
Sociodemographics				
Age (SD)	43.03 (14.38)	42.28 (14.49)	43.30 (14.34)	.115
Sex (%)				.137
Male	1221 (48.8)	314 (46.9)	907 (49.5)	
Female	1280 (51.2)	355 (53.1)	925 (50.5)	
Race (%)				<.001
White	1710 (68.4)	451 (67.4)	1259 (68.7)	
Black	436 (17.4)	144 (21.5)	292 (15.9)	
Other	355 (14.2)	74 (11.1)	281 (15.3)	
Education (%)				.859
≤High school	561 (22.4)	153 (22.9)	408 (22.3)	
Some college	1025 (41.0)	277 (41.4)	748 (40.8)	
≥Bachelor's degree	915 (36.6)	239 (35.7)	676 (36.9)	
Household Income (%)				.001
<$25,000	605 (24.2)	172 (25.7)	433 (23.6)	
$25,000 to <$50,000	733 (29.3)	226 (33.8)	507 (27.7)	
$50,000 to <$75,000	812 (32.5)	202 (30.2)	610 (33.3)	
$75,000 or more	351 (14.0)	69 (10.3)	282 (15.4)	
Employment Status (%)				.131
Employed full-time	978 (39.1)	243 (36.3)	735 (40.1)	
Employed part-time	415 (16.6)	108 (16.1)	307 (16.8)	
Other	1108 (44.3)	318 (47.5)	790 (43.1)	
Relationship Status (%)				.007
Married or living with a partner	1442 (57.7)	415 (62.0)	1027 (56.1)	
Other	1059 (42.3)	254 (38.0)	805 (43.9)	
Number People in Home (SD)	2.75 (1.56)	2.81 (1.43)	2.73 (1.61)	.263
Children in the Home (%)	851 (34.0)	241 (36.0)	610 (33.3)	.203
Political and Social Factors (%)				
Voted in the Last Presidential Election	1732 (69.3)	437 (65.3)	1295 (70.7)	.010
Voted in the Last Election that was not Presidential	1390 (55.6)	359 (53.7)	1031 (56.3)	.244

Variable	All N = 2501 N (%) or M (SD)	Southerners N = 669 N (%) or M (SD)	Non-Southerners N = 1832 N (%) or M (SD)	p
Political Identity				.003
Conservative	510 (20.4)	155 (23.2)	355 (19.4)	
Moderate	523 (20.9)	121 (18.1)	402 (21.9)	
Independent	567 (22.7)	130 (19.4)	437 (23.9)	
Liberal	430 (17.2)	115 (17.2)	315 (17.2)	
Not political	471 (18.8)	148 (22.1)	323 (17.6)	
Political Party				.266
Strong Republican	224 (9.0)	66 (9.9)	158 (8.6)	
Not so strong Republican	229 (9.2)	61 (9.1)	168 (9.2)	
Independent but lean Republican	243 (9.7)	75 (11.2)	168 (9.2)	
Independent	508 (20.3)	123 (18.4)	385 (21.0)	
Independent but lean Democrat	303 (12.1)	73 (10.9)	230 (12.6)	
Not so strong Democrat	322 (12.9)	78 (11.7)	244 (13.3)	
Strong Democrat	417 (16.7)	115 (17.2)	302 (16.5)	
Other	255 (10.2)	78 (11.7)	177 (9.7)	
View of the Tea Party				.722
Strongly support	201 (8.0)	51 (7.6)	150 (8.2)	
Moderately support	425 (17.0)	118 (17.6)	307 (16.8)	
Moderately oppose	218 (8.7)	58 (8.7)	160 (8.7)	
Strongly oppose	566 (22.6)	140 (20.9)	426 (23.3)	
Don’t know enough to say	1091 (43.6)	302 (45.1)	789 (43.1)	
Religion				<.001
Christianity	1594 (63.7)	471 (70.4)	1123 (61.3)	
Other	907 (36.3)	198 (29.6)	709 (38.7)	
Frequency of Attendance at Religious Service				<.001
Never	1061 (42.4)	236 (35.3)	825 (45.0)	
On holidays	406 (16.2)	100 (14.9)	306 (16.7)	
Once a month or so	417 (16.7)	130 (19.4)	287 (15.7)	
Once a week or more	617 (24.7)	203 (30.3)	414 (22.6)	
Past 30 Day Use (%)				
Cigarettes	918 (36.7)	218 (32.6)	700 (38.2)	.010
Electronic cigarettes	191 (7.6)	48 (7.2)	143 (7.8)	.599
Hookah	88 (3.5)	20 (3.0)	68 (3.7)	.386
Any cigar product	305 (12.2)	11 (1.6)	23 (1.3)	.457
Any smokeless tobacco	139 (5.6)	37 (5.5)	102 (5.6)	.971

Table 2

Smoke-free Policies and Exceptions in Personal Settings among Southerners and Non-Southerners Sampled (N = 2501)

Variable	All N (%)	Southerners N (%)	Non-Southerners N (%)	p
Rules about Smoking Inside Your Home				.079
Smoking is not allowed anywhere inside your home	1779 (71.1)	497 (74.3)	1282 (70.0)	
Smoking is allowed in some places or at some times	374 (15.0)	94 (14.1)	280 (15.3)	
Smoking is allowed anywhere inside the home	348 (13.9)	78 (11.7)	270 (14.7)	
Rules about Smoking Inside Your Car				.050
Smoking is not allowed anywhere inside your car	1526 (61.0)	435 (65.0)	1091 (59.6)	
Smoking is allowed in my car some times	330 (13.2)	86 (12.9)	244 (13.3)	
Smoking is allowed in my car	426 (17.0)	94 (14.1)	332 (18.1)	
I don't own a car	219 (8.8)	54 (8.1)	165 (9.0)	
Do You Allow People to Smoke in Your Home?[a]				
When the weather is bad?	539 (21.6)	131 (19.6)	408 (22.3)	.292
When it is dark outside?	496 (19.8)	111 (16.6)	385 (21.0)	.026
When there is a party or celebration inside the home?	505 (20.2)	110 (16.4)	395 (21.6)	.005
When a special guest is visiting?	187 (7.5)	48 (7.2)	139 (7.6)	.045
Other exceptions?	88 (3.5)	15 (2.2)	73 (4.0)	.019
In What Room or Rooms Does Smoking Sometimes Occur?				
Family/living room	468 (18.7)	115 (17.2)	353 (19.3)	.238
Kitchen	370 (14.8)	77 (11.5)	293 (16.0)	.005
Bathroom(s)	326 (13.0)	74 (11.1)	252 (13.8)	.076
Adult bedroom	354 (14.2)	80 (12.0)	274 (15.0)	.057
Child bedroom	54 (2.2)	8 (1.2)	46 (2.5)	.045
Other	106 (4.2)	31 (4.6)	75 (4.1)	.553
Allow People to Smoke the Following Products in Your Home[b]				
Cigarettes	613 (24.5)	148 (22.1)	465 (25.4)	.131
Cigars, little cigars, or cigarillos	410 (16.4)	99 (14.8)	311 (17.0)	.205
Electronic cigarettes	845 (33.8)	207 (30.9)	638 (34.8)	.176
Hookah	286 (11.4)	59 (8.8)	227 (12.4)	.013
Marijuana	316 (12.6)	68 (10.2)	248 (13.5)	.028

Note.

[a] **= Yes versus no or n/a.**

[b] **= Allows versus no or don't know/not sure.**

Table 3

Attitudes toward Public Smoke-free Policies among Southerners and Non-Southerners Sampled (N = 2501)

Variable	All N (%)	Southerners N (%)	Non-Southerners N (%)	p
Perception of Public Smoke-free Policies in Your State vs. Other States				<.001
My state is in the top 5 states with the strictest smoke-free policies.	431 (17.2)	54 (8.1)	377 (20.6)	
My state is in the top 15 states with the strictest smoke-free policies, but not in the top 5.	435 (17.4)	94 (14.1)	341 (18.6)	
My state is in the middle 20 states in relation to strict smoke-free policies.	364 (14.6)	122 (18.2)	242 (13.2)	
My state is in the bottom 15 states in smoke-free policies, but not in the lowest 5.	103 (4.1)	50 (67.5)	53 (2.9)	
My state is in the bottom 5 states with the least strict smoke-free policies.	58 (2.3)	28 (4.2)	30 (1.6)	
Don't know	1110 (44.4)	321 (48.0)	789 (43.1)	
Attitude Toward Policy Prohibiting Smoking in:[a]				
Restaurants	380 (15.2)	102 (15.2)	278 (15.2)	.397
Offices	322 (12.9)	81 (12.1)	241 (13.2)	.095
Bars	760 (30.4)	192 (28.7)	568 (31.0)	.003
Areas within 25 feet of an entrance to a public building	516 (20.6)	147 (22.0)	369 (20.1)	.322
Outdoor seating areas of bars and restaurants	764 (30.5)	201 (30.0)	563 (30.7)	.169
Bowling alleys	456 (18.2)	116 (17.3)	340 (18.6)	.030
Tribal casinos	596 (23.8)	147 (22.0)	449 (24.5)	.115
Non-tribal casinos	593 (23.7)	149 (22.3)	444 (24.2)	.231
Outdoor common areas of apartment complexes	750 (30.0)	190 (28.4)	560 (30.6)	.178
Indoor common areas of apartment complexes like hallways, lobbies, and stairwells	394 (15.8)	112 (16.7)	282 (15.4)	.154
Outdoor common areas of townhome or condo complexes	708 (28.3)	179 (26.8)	529 (28.9)	.133
Indoor common areas of townhome/condo complexes like hallways, lobbies, and stairwells	395 (15.8)	109 (16.3)	286 (15.6)	.327
Within individual apartment units within a complex	657 (26.3)	167 (25.0)	490 (26.7)	.107
Outdoor events like concerts, sporting events, and festivals	729 (29.1)	191 (28.6)	538 (29.4)	.347
Public parks, playgrounds, and beaches	714 (28.5)	188 (28.1)	526 (28.7)	.292
Indoor all college or university buildings	395 (15.8)	97 (14.5)	298 (16.3)	.179
All outdoor areas on college or university campuses	709 (28.3)	177 (26.5)	532 (29.0)	.198
Bus stops	697 (27.9)	175 (26.2)	522 (28.5)	.215
Private vehicles when children under age 18 are present	517 (20.7)	137 (20.5)	380 (20.7)	.296
	M (SD)	**M (SD)**	**M (SD)**	**p**
Receptivity to Public Smoke-free Policy Index scores (SD)[b]	3.58 (1.17)	3.59 (1.15)	3.58 (1.18)	.921

Note.

[a] **= Response options were strongly favor, somewhat favor, neutral, somewhat oppose, strongly oppose, or don't know. Responses were collapsed as somewhat/strongly oppose versus other responses.**

[b] **= The receptivity to public smoke-free policy index calculated by assigning the following values and computing an average score: strongly favor = 5, somewhat favor = 4, neutral/don't know = 3, somewhat oppose = 2, and strongly oppose = 1.**

Table 4

Persuasiveness of Messaging for and against Smoke-free Public Policies in Bars and Restaurants among Southerners and Non-Southerners Sampled (N = 2501)

Supportive	Message	All M (SD)	Southerners M (SD)	Non-Southerners M (SD)	p
Health	Exposure to secondhand smoke causes serious health problems, including cancer and heart disease. It can also increase ear infections, asthma symptoms, and other health problems among children.	6.71 (2.25)	6.69 (2.31)	6.71 (2.23)	.893
	Medical research in a number of communities has shown a reduction in heart attack rates after the implementation of smoke-free laws – a finding confirmed by the Institute of Medicine.	6.25 (2.22)	6.05 (2.30)	6.32 (2.19)	.111
Youth	It is important that your family can breathe smoke-free air wherever they go.	6.63 (2.41)	6.52 (2.47)	6.68 (2.38)	.374
	Allowing smoking in public places and exposing pregnant women and children to secondhand smoke sends the message that we do not care about children.	5.68 (2.65)	5.58 (2.66)	5.73 (2.65)	.476
	Young people in communities with comprehensive smoke-free policies have decreased risk of smoking initiation.	5.27 (2.42)	5.23 (2.42)	5.28 (2.42)	.798
Economic	Tobacco costs our society far more than it contributes to our economy.	5.87 (2.64)	6.28 (2.52)	5.73 (2.66)	.008
	On average, nonsmoking restaurants have a 16 percent higher resale value.	5.46 (2.39)	5.82 (2.40)	5.33 (2.38)	.009
	There is ample evidence that comprehensive smoke-free policies reduce absenteeism and improve productivity of employees.	5.30 (2.51)	5.48 (2.40)	5.24 (2.55)	.216
	Smoke-free laws do not have a negative impact on business. In fact, some places have seen a slight positive impact as people go out to restaurants and bars more often.	5.22 (2.55)	5.44 (2.54)	5.15 (2.55)	.153
Rights	Everyone has the right to breathe clean air in public places, including bars and clubs.	6.68 (2.44)	6.68 (2.48)	6.68 (2.42)	.993
	Customers and hospitality workers, like wait staff and bartenders, should be protected from secondhand smoke.	6.51 (2.40)	6.41 (2.47)	6.55 (2.37)	.424
	Restaurant and bar workers are least able to afford the illnesses brought on by secondhand smoke and shouldn't have to trade their health for a paycheck.	6.04 (2.62)	5.95 (2.63)	6.08 (2.62)	.540
Religion	Some of the most vulnerable individuals in the US, such as the elderly and babies, are also the most affected by secondhand smoke. It is our Christian duty to protect these individuals.	4.93 (2.87)	5.30 (2.87)	4.80 (2.86)	.030
	[a]Maintaining clean air in public places is a testament to God.	4.20 (2.94)	4.49 (2.93)	4.10 (2.94)	.094
Hospitality	[a]Ensuring that everyone has clean air to breathe is respectful and reflects good manners.	6.79 (2.24)	7.09 (2.18)	6.68 (2.26)	.022
Opposed	**Message**	**M (SD)**	**M (SD)**	**M (SD)**	**p**

Supportive	Message	All M (SD)	Southerners M (SD)	Non-Southerners M (SD)	p
Health	We can accommodate both smokers and nonsmokers in restaurants and bars with common sense steps, like separate sections for smokers and better ventilation	4.46 (2.71)	4.27 (2.70)	4.53 (2.71)	.255
Youth	Bars and clubs are places where people traditionally smoke. Children are not present, and adults should be able to drink and smoke in these places.	4.57 (2.84)	4.70 (2.77)	4.52 (2.86)	.414
Economic	Smoking bans cause businesses to close, costing jobs and jeopardizing the livelihood of people.	3.89 (2.65)	3.69 (2.57)	3.95 (2.68)	.209
Rights	Business owners, and not the government, should decide whether to permit smoking in their business.	5.22 (2.89)	5.24 (2.77)	5.22 (2.94)	.926
	Customers are not forced to sit in restaurants and bars that allow smoking. If restaurant or bar patrons want to avoid smoking, they should go somewhere that already prohibits it.	4.80 (2.84)	4.72 (2.885)	4.83 (2.83)	.595
	The government banning smoking in indoor public places violates the right of citizens to engage in legal activities.	4.43 (2.88)	4.38 (2.83)	4.45 (2.91)	.726
	People who work in bars and restaurants choose to work where they do. They can simply find another job if the smoke bothers them.	4.30 (2.84)	4.34 (2.87)	4.29 (2.83)	.809
Religion	[a]Being tolerant and accepting of smokers and loving your neighbor is a testament to God.	3.31 (2.59)	3.28 (2.64)	3.32 (2.58)	.845
Hospitality	[a]Ensuring that we don't make smokers uncomfortable with excessive smoking restrictions is respectful and reflects good manners.	4.24 (2.66)	4.19 (2.73)	4.26 (2.64)	.739

Note.

On a scale of 1 = not at all persuasive to 9 = extremely persuasive.

[a] **= Indicates messages newly developed for this study.**