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Reactions to Cigarette Taxes and Related Messaging: Is the South Different?

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Abstract

Objectives—Given the lag in tobacco control policies in the southeastern US, we examined differences in reactions to tobacco taxes and related messaging among Southeasterners vs. non-Southeasterners.

Methods—In 2013, a cross-sectional online survey using quota-based sampling was conducted assessing tobacco use, attitudes/knowledge regarding tobacco taxation, and reactions to related messaging (health, youth prevention, economic impact, individual rights/responsibility, morality/religion, hospitality).

Results—Of 2501 participants, 36.7% were past 30-day smokers; 26.7% were Southeasterners. Compared to others, Southeasterners more likely believed that their state was in the bottom 20

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Human Subjects Approval Statement

The Emory University Institutional Review Board approved this study.

Conflict of Interest Disclosure Statement

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states in tobacco taxes ($p < .001$) and less likely reported that their taxes were too high ($p < .001$). Regression analysis indicated that correlates of opposition to increased taxes included being older, having less education, being an infrequent church-attender, and being a current smoker (p 's $< .001$); being a Southerner was not associated. Compared to others, Southerners were more likely to find pro-tobacco tax messages related to prevention and hospitality as more persuasive ($p < .05$) and anti-tobacco tax messaging related to the unfairness of tobacco taxes to smokers ($p = .050$) less persuasive.

Conclusions—Given that Southerners are receptive to increased taxation, other factors must contribute to lagging policy and must be addressed.

Keywords

tobacco control; public health policy; tobacco taxation; health disparities; health communication

The average state cigarette tax is \$1.53 per pack in the United States (US).¹ However, the southeastern states are among those states having the lowest cigarette excise taxes. In the southeastern states, particularly those in Region 4 as defined by the US Department of Health and Human Services (ie, Alabama, Florida, Georgia, Kentucky, North Carolina, Mississippi, South Carolina, Tennessee), cigarette taxes range from \$.37 in Georgia to \$1.34 in Florida, with the remainder being below \$.70 (the average being \$.65 in these states).¹ Increasing the unit price of tobacco, usually accomplished by federal, state, or local public policies applying excise taxes on tobacco, is an evidence-based strategy to reduce purchase and consumption of tobacco, particularly among those most vulnerable to tobacco use.² Increased tobacco prices increase the number of tobacco users who quit and reduce the prevalence of tobacco use, the initiation of tobacco use among young people, the total amount of tobacco consumed, tobacco-related morbidity and mortality, and healthcare costs.^{3,4}

As data indicate, states in the southeastern US are among those with the highest prevalence of tobacco use. Whereas the national average smoking prevalence is 19.0%, the average in this region is 22.0%, with prevalence as high as 26.5% in Kentucky.⁵ Unfortunately, the southeastern states also have among the highest proportions of their populations living at or below the federal poverty level, greater differences 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.⁶ 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,⁴ making tobacco use prevention a particular challenge in the southeastern states.

Adding to the challenges in this region, the southeastern US has a strong history of reliance on agriculture as an economic driver and historically has produced larger amounts of tobacco than other areas of the US. In particular, North Carolina, Kentucky, Virginia, Tennessee, South Carolina, and Georgia have produced more tobacco than other US states.⁷ However, the role of tobacco farming in the US economy and in the so-called tobacco states' economies has been shrinking rapidly for some time⁸ as US cigarette companies are

using more foreign tobacco in manufacturing.⁹ The decreasing economic dependence upon growing tobacco in the South may create new opportunities for raising tobacco excise taxes.

Lawmakers are concerned with the needs and perceptions of the electorate, as well as interest groups and contributors to their campaigns.¹⁰ Political acceptability of proposed legislation, including proposals to increase tobacco taxes, is measured by public opinion and response to various policy arguments in favor or against policy proposals.¹⁰ Relatedly, research indicates that responses to anti-tobacco industry media campaigns¹¹ and coverage of tobacco policies¹² are similar in tobacco-producing states compared to other states. Arguments from stakeholders in support of or in opposition to tobacco control policies, such as increased excise taxes on cigarettes, are often focused around several major themes and ideals – health, economic impact, youth prevention, individual rights, and morality.¹³⁻¹⁵ The ways that messages are framed can affect public support for policy.¹⁶ As such, it is important to understand which tobacco-related messaging strategies are the most persuasive within any population, particularly vulnerable populations like those residing in the southeastern US.

Southeasterners have documented differences in political and social opinions. The 2013 Nielsen PRIZM data regarding households in the US document that the southeastern US has a greater proportion of individuals who might value individual rights, are married with children, attend religious services, or value hospitality (ie, engage with or entertain neighbors and guests).¹⁷ Thus, we hypothesized that appealing to the ideals of youth prevention, individual rights and responsibilities, religion and morality, or hospitality might be particularly effective messaging strategies targeting southeastern states.

Given the aforementioned literature, we used a national panel survey to examine: (1) differences between Southeasterners and non-Southeasterners in relation to participant characteristics and their attitudes/knowledge regarding tobacco taxation; (2) participant sociodemographic, political, and smoking behavior characteristics in relation to overall support for increased tobacco taxation; and (3) differences between Southeasterners and non-Southeasterners in relation to perceived persuasiveness of messaging strategies about increased cigarette excise taxation.

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, specifically those in Region 4 as defined by the US Department of Health and Human Services (ie, Alabama, Florida, Georgia, Kentucky, North Carolina, Mississippi, South Carolina, Tennessee; 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 of significance, 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 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 participants, 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 southeastern 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 characteristics—We assessed past 30-day use of cigarettes, electronic cigarettes, hookah, any cigar product, and any smokeless tobacco use. Among current cigarette smokers, we assessed days smoked in the past month, cigarettes per day (CPD), readiness to quit in the next month, and number of past year quit attempts.¹⁸

Attitudes/knowledge regarding tobacco taxes—To assess these phenomena, newly developed measures were used. Our research team drafted these questions, which were then reviewed by our expert panel of tobacco researchers, tobacco control advocates, and a sample of community members. They were then revised and reviewed again. Participants were asked: In the US, states have a wide range of excise taxes on cigarettes. Which of the following do you think is accurate about your state? My state is in the top 5 states with the highest cigarette taxes; My state is in the top 15 states with the highest cigarette taxes, but not in the top 5; My state is in the middle 20 states in relation to cigarette taxes; My state is in the bottom 15 states in cigarette taxes, but not in the lowest 5; My state is in the bottom 5 states with the lowest cigarette taxes; or *Don't know*. They also were asked: Do you think the cigarette excise tax in your state is too high, about the right amount, or too low? In addition: they were asked: Which of the following accurately describes your attitude toward an increase in your state's tobacco tax? *Strongly favor an increase; Favor an increase; No opinion; Against an increase; Strongly against an increase*. Moreover, they were asked: I believe that all tobacco products should be taxed, rather than just cigarettes – *Strongly agree; Somewhat agree; Neutral; Somewhat disagree; or Strongly disagree*. To examine their knowledge regarding taxation of alternative tobacco products, participants were asked: Alternative tobacco products such as cigars and chew are taxed at the same rate as cigarettes: *True; False; or Don't know*.

Reaction to messages related to cigarette taxation—We also asked participants to rate the extent to which they perceived messaging strategies both supporting and opposing tobacco taxation 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 literature¹³⁻¹⁵ however, some, particularly related to more novel messaging around hospitality and religion, were created anew and reviewed by our expert panel. The messages are displayed in Table 3; those newly developed for this study are noted. To reduce respondent burden, participants were randomized to view all messages within 2 frames (eg, health) in support and 2 frames in opposition and indicate the persuasiveness each of those viewed.

Analyses

Participant characteristics, attitudes/knowledge regarding tobacco taxation, 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, their attitudes/knowledge regarding tobacco taxation, and messaging strategies related to cigarette excise taxation. We also examined participant characteristics in relation to overall receptivity to increased tobacco taxation. Subsequently, we conducted a multivariate regression model examining factors associated with receptivity to increased tobacco taxation among all participants and among current (past 30-day) cigarette smokers, respectively. We used backwards stepwise entry of the correlates of interest, which included sociodemographics, political interests, religious activity, and tobacco use. The regression model results are noted in the text but not displayed in tables. All statistics were conducted using SPSS 21.0 (IBM, Armonk, NY), and alpha was set at .05.

RESULTS

Participant Characteristics

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 (Table 1). Southerners compared to non-Southerners were more likely to be black ($p < .001$), have lower incomes ($p = .001$), be married or living with a partner ($p = .007$), to identify as politically conservative or not political ($p = .003$), to identify as Christian ($p < .001$), report attending religious services more frequently ($p < .001$), and were less likely to be current cigarette users ($p = .010$).

Attitudes Toward Tobacco Taxation

Table 2 presents data indicating that Southerners compared to non-Southerners were more likely to believe that their state was in the bottom 20 states in terms of tobacco taxation ($p < .001$) and were less likely to report that their tobacco taxes were too high ($p < .001$). There were no significant differences between Southerners versus others regarding their attitude toward a cigarette excise tax increase ($M = 2.78$, $SD = 1.38$ vs $M = 2.88$, $SD = 1.42$, $p = ns$, with 1 = *Strongly favor* to 5 = *Strongly against*). Whereas self-identification of being liberal or moderate versus conservative was associated with greater support for a tobacco tax increase ($p < .001$), neither political party affiliation nor support for the Tea Party were related to opposition of tobacco tax increases (not shown in tables).

The multivariate regression analysis indicating correlates of opposition to an increase in a cigarette tax among all participants (not shown in tables) included being older (Coefficient = .01, 95% Confidence Interval [CI] .01, .02, $p < .001$), lower education level (Coefficient = $-.25$, 95% CI $-.31$, $-.18$, $p < .001$), attending church less frequently (Coefficient = $-.10$, 95% CI $-.14$, $-.06$, $p < .001$), and being a current smoker (Coefficient = 1.33, CI 1.22, 1.43, $p < .001$); conservatism, party affiliation, and being a Southerner were not significantly associated. The multivariate regression indicating correlates of opposition to an increasing cigarette taxes among current smokers (not shown in tables) included being older (Coefficient = .02, 95% CI .01, .02, $p < .001$), being less educated (Coefficient = $-.18$, 95% CI $-.29$, $-.07$, $p = .001$), less frequent church attendance (Coefficient = $-.10$, 95% CI $-.17$, $-.033$, $p = .004$), more days smoked in the past month (Coefficient = .03, 95% CI .02, .04, $p < .001$), greater cigarettes smoked per day (Coefficient = .01, 95% CI .01, .02, $p = .012$), not

intending to quit smoking in the next month (Coefficient = $-.27$, 95% CI $-.50, -.04$, $p = .021$), and not having made a quit attempt in the past year (Coefficient = $-.23$, 95% CI $-.38, -.08$, $p = .003$).

Reactions to Messaging Strategies

Compared to persons from other regions, Southerners perceived 3 messages in support of tobacco tax increases to be more persuasive; these messages had youth prevention and hospitality frames (Table 3). The most effective messages were related to youth tobacco use prevention and individual rights/responsibilities. The least effective messages were framed by religion/morality and hospitality. Regarding messages in opposition, Southerners perceived one message, framed by religion/morality, to be less persuasive. The most effective messages in opposition were related to economic concerns and health. The least effective was framed by religion/morality.

DISCUSSION

This study presents critical information indicating that Southerners understand their states' low tobacco taxes, do not believe their tobacco taxes are too high, and are not distinctly opposed to increased tobacco taxes. In addition, whereas bivariate analysis showed that identifying as conservative (versus liberal or moderate) was associated with greater opposition to tobacco tax increases, neither political affiliation nor being a Southern state resident was associated with attitudes regarding tobacco tax increases. Moreover, compared to others, Southerners reported the persuasiveness of various messages in supporting and opposing increased tobacco taxes to be similar, with some exceptions in which they reported messages in support to be more persuasive.

Given these findings, factors other than constituent beliefs must be explored to explain the differences in policy outcomes. First, it has been documented that congressional lawmakers from tobacco-growing states are less likely to vote in favor of tobacco control legislation, resulting in low tobacco taxes.¹⁹ This may reflect a number of factors, including misperceptions that constituents oppose tobacco taxes or are apathetic about them or are concerned about lost revenue due to the tax being a significant income producer.²⁰ Thus, tobacco control advocates must engage with community members to promote such legislation and must inform policymakers about the research indicating that the economic impact is not substantive.²¹ Alternatively, legislators may have misconceptions regarding the economic impact of tobacco taxes.²²⁻²⁴ The decreased likelihood of supporting tobacco control legislation in these regions also could reflect the fact that the personal values and attitudes of legislators are major determinants of voting decisions.²⁵ In one study, Oklahoma legislators reported that personal beliefs accounted for 63% of all voting decisions.²⁶ Specific to tobacco control policies, Kansas lawmakers cited personal values as the primary influence when they voted on a cigarette tax increase. Other research has found that legislators who own tobacco allotments are less likely to favor a wide range of tobacco control laws.²⁷ They also are less likely to support farm diversification and agricultural infrastructure measures to reduce the state's dependence on tobacco.²⁷ Relatedly, the political clout of the tobacco growers and manufacturers in this region may impact

legislative decisions.²⁰ Moreover, lobbying, from both the public health side and the tobacco industry, plays a key role.^{20,22}

Our multivariate findings also highlight specific subgroups of the population that may be less likely to support an increase in tobacco tax increases. Prior research²⁸ demonstrated that those who were older and those less educated were more resistant to increased tobacco taxes. Additionally, those that attend church less frequently were more opposed to increase cigarette taxes, which has not been previously documented. Of particular note, overall, smokers were less receptive to cigarette tax increases, and those who smoke more and were less likely to have made a recent quit attempt or be ready to quit were less receptive to a cigarette tax increase. These findings resonate with other findings that indicated that smokers more motivated to quit were more likely to support smoke-free laws.²⁹

In regard to messaging, we found that youth prevention messaging strategies were the most persuasive messages to gain support for a tobacco tax, particularly among Southerners. In a study of media coverage of tobacco tax initiatives in South Carolina, youth prevention messages were second most common, suggesting that this kind of message captures media attention.³⁰ Another effective messaging strategy in support of increased tobacco taxes centered on individual rights and responsibilities associated with not paying for others' bad habits; however, these messages are not widely leveraged in media coverage.³⁰ Whereas the least effective message on average was associated with hospitality, Southerners perceived this message as more persuasive than those residing elsewhere. These findings align with our hypotheses that Southerners, who are more likely to have children and value hospitality,¹⁷ would be differentially impacted by messages related to youth and hospitality.

The most effective messages in opposition focused on economics (politicians should be working within their existing budget) and health (increasing cigarette taxes will not decrease smoking prevalence). Advocates can combat these 2 messages. First, policymakers must justify increased cigarette taxes by delineating appropriate and specific allocations for these funds to garner support for increased tobacco taxes.²⁰ Indeed, the primary difference in media coverage during failed compared to successful tax initiative years in South Carolina concerned the confusion over how this revenue stream would be spent.³⁰ Second, a plethora of data exists to refute the contention that taxes do not decrease smoking.^{3,4} Data from similar or relevant settings (eg, southern states with recent advances in tobacco taxation) as opposed to data from elsewhere might be more compelling to policymakers.

This study has implications for research and practice. In research, a greater understanding of the processes that impede tobacco control efforts in the southern US is needed. Moreover, determining ways in which community engagement and coalition building can be fostered are critical in advancing the agenda of tobacco control.²² In practice, the data from this study suggest that Southerners are aware that their tobacco taxes are low and are not distinctly opposed to tobacco tax increases, with average sentiment among Southerners and those in other parts of the US slightly favoring an increase. Despite the concern that our sample had fewer cigarette smokers in the southern region than expected,⁵ we noted that controlling for smoking status, study participants from this region were similarly receptive

to increased tobacco taxes. Furthermore, these findings highlighted several strategies for garnering support; in particular, tobacco control advocates should focus their messaging efforts on youth tobacco use prevention, particularly in the southeastern US, and also target the ideals of individual rights and responsibilities. Additionally, although messaging strategies related to hospitality were not particularly effective in general, some were more effective among Southeasterners, indicating that there might be some opportunities to appeal to this “southern” value. We also identified key arguments refuting persuasive messaging strategies in opposition to tobacco tax increases. Taken together, this study provides a foundation to support public health practitioners influencing constituents and policymakers.

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; however, this sampling scheme was of value in feasibly addressing the research questions of interest. Of particular note, our sample of Southeasterners had lower cigarette use rates than expected, which also may have resulted from quota sampling of racial/ethnic minorities, particularly Blacks who have lower cigarette use prevalence.⁵ This may have biased this sample subpopulation to be more favorable toward tobacco taxes. 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 concern was the categorization of USDHHS Region 4 states as “southeastern states.” Arguably, states such as Virginia and Louisiana that have low cigarette taxes (\$.30, \$.36, respectively) could have been included in this category. We ran the analyses including these states in our category of Southeasterners, and the results were similar. Thus, for simplicity, we presented our findings including only the Region 4 states categorized as the southeastern region. Also, the cross-sectional nature of this study and the self-reported assessments limit our ability to make causal attributions or account for bias. As such, our results must be interpreted with caution.

Conclusions

Southeasterners are aware that tobacco taxes are low in this region and are not distinctly opposed to tobacco tax increases. This information should be shared with policymakers. Furthermore, messaging strategies focused on youth tobacco use prevention, individual rights and responsibilities, and hospitality appear particularly effective among Southeasterners. These findings should be used to support public health and tobacco control advocates in their efforts to promote tobacco taxes in southeastern states.

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References

1. American Lung Association. State of Tobacco Control, 2014. American Lung Association; Chicago, IL: 2014.
2. Centers for Disease Control and Prevention. The Guide to Community Preventive Services. 2012. Available at: <http://www.thecommunityguide.org/index.html>. June 25, 2015
3. Institute of Medicine. Ending the Tobacco Problem: A Blueprint for the Nation. The National Academies Press; Washington, DC: 2007.
4. US Department of Health and Human Services (USDHHS). The Health Consequences of Smoking —50 Years of Progress: A Report of the Surgeon General. USDHHS, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Atlanta, GA: 2014.
5. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Prevalence and Trends Data, 2013. US Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Atlanta, GA: 2013.
6. U.S. Census Bureau. Population: Estimates and Projections by Age, Sex, Race/Ethnicity. U.S. Census Bureau; Washington, DC: 2010.
7. US Department of Agriculture (USDA). 2012 Census of Agriculture. USDA; Washington, DC: 2014.
8. Campaign for Tobacco-Free Kids. The Shrinking Role of Tobacco Farming & Tobacco Product Manufacturing in the United States' Economy. Campaign for Tobacco-Free Kids; Washington, DC: 2014.
9. Campaign for Tobacco-Free Kids. The Big Cigarette Companies (Not Smoking Declines) Are Hurting American Tobacco Farmers. Campaign for Tobacco-Free Kids; Washington, DC: 2014.
10. Kingdon, JW. Agendas, Alternatives, and Public Policies. 2nd ed.. Harper Collins; New York, NY: 1995.
11. Thrasher JF, Niederdeppe J, Farrelly MC, et al. The impact of anti-tobacco industry prevention messages in tobacco producing regions: evidence from the US truth campaign. *Tob Control*. 2004; 13(3):283–288. [PubMed: 15333885]
12. Long M, Slater MD, Lysengen L. US news media coverage of tobacco control issues. *Tob Control*. 2006; 15(5):367–372. [PubMed: 16998170]
13. Marketing Strategies Inc, The Mellman Group Inc. Tobacco Taxes: Overview of Public Opinion and Effective Messages. Marketing Strategies Inc.; The Mellman Group Inc; Myrtle Beach, SC: Washington, DC: 2002.
14. Robert Wood Johnson Foundation, The Mellman Group Inc.. Smoke-free Laws: Overview of Public Opinion and Effective Messages. Robert Wood Johnson Foundation; The Mellman Group Inc; Princeton, NJ: Washington, DC: 2011.
15. The Mellman Group Inc.. Using the Tobacco Settlement for Prevention: Overview of Public Opinion and Effective Messages. The Mellman Group Inc; Washington, DC: 2006.
16. Jones E, Kreuter M, Pritchett S, et al. State health policy makers: what's the message and who's listening? *Health Promot Pract*. 2006; 7(3):280–286. [PubMed: 16940021]
17. The Nielsen Company. PRIZM Household Distribution. Madison, WI: 2013. The Nielsen Company. Available at: http://www.claritas.com/samples/sitereports/prizm_household_13.pdf. [June 25, 2015]
18. Centers for Disease Control and Prevention (CDC). National Adult Tobacco Survey, 2009-2010. CDC; Atlanta, GA: 2011.
19. Moore S, Wolfe SM, Lindes D, Douglas CE. Epidemiology of failed tobacco control legislation. *JAMA*. 1994; 272(15):1171–1175. [PubMed: 7933346]

20. Berg CJ, Solomon M, Barkley A, et al. Tobacco taxes in the southeastern U.S. states: views from former legislators. *Health Behav Policy Rev.* 2015; 2(5):333–342. DOI <http://dx.doi.org/10.14485/HBPR.2.5.1>. [PubMed: 26236755]
21. Huang J, Chaloupka FJ. The economic impact of state cigarette taxes and smoke-free air policies on convenience stores. *Tob Control.* 2013; 22(2):91–96. [PubMed: 22045805]
22. Schmidt AM, Ranney LM, Goldstein AO. Communicating program outcomes to encourage policymaker support for evidence-based state tobacco control. *Int J Environ Res Public Health.* 2014; 11(12):12562–12574. [PubMed: 25485977]
23. Flynn BS, Goldstein AO, Solomon LJ, et al. Predictors of state legislators' intentions to vote for cigarette tax increases. *Prev Med.* 1998; 27(2):157–165. [PubMed: 9578987]
24. Miller, P.; Jewell, M. *Political Parties and Primaries in Kentucky.* University of Kentucky Press; Lexington, KY: 1990.
25. Holmes T. Self-interest, altruism, and health-risk reduction: an economic analysis of voting behavior. *Land Economics.* 1990; 66:140–149.
26. Songer D, Dillon S, Kite D. The influence of issues on choice of voting cues utilized by state legislators. *Western Political Quarterly.* 1986; 39:118–125.
27. Hahn EJ, Toumey CP, Rayens MK, McCoy CA. Kentucky legislators' views on tobacco policy. *Am J Prev Med.* 1999; 16(2):81–88. [PubMed: 10343882]
28. Hamilton WL, Biener L, Rodger CN. Who supports tobacco excise taxes? Factors associated with towns' and individuals' support in Massachusetts. *J Public Health Manag Pract.* 2005; 11(4):333–340. [PubMed: 15958933]
29. Nagelhout GE, Zhuang YL, Gamst A, Zhu SH. Do smokers support smoke-free laws to help themselves quit smoking? Findings from a longitudinal study. *Tob Control.* 2015; 24(3):233–237. [PubMed: 24415730]
30. Thrasher JF, Kim SH, Rose I, et al. Print media coverage around failed and successful tobacco tax initiatives: the South Carolina experience. *Am J Health Promot.* 2014; 29(1):29–36. [PubMed: 24555442]

Table 1

Participant Characteristics and Bivariate Analyses Examining Differences between Southeasterners versus Others in the Sample, N = 2501

Variable	All N = 2501 N (%) or M (SD)	Southeasterners N = 669 N (%) or M (SD)	Others N = 1832 N (%) or M (SD)	p
<i>Sociodemographics</i>				
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 of 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
<i>Political and Social Factors (%)</i>				
Voted in last presidential election	1732 (69.3)	437 (65.3)	1295 (70.7)	.010
Voted in last election that was not presidential	1390 (55.6)	359 (53.7)	1031 (56.3)	.244
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)	

Variable	All N = 2501 N (%) or M (SD)	Southeasterners N = 669 N (%) or M (SD)	Others N = 1832 N (%) or M (SD)	p
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	34 (1.4)	11 (1.6)	23 (1.3)	.457
Any smokeless tobacco	139 (5.6)	37 (5.5)	102 (5.6)	.971
Among Current Cigarette Smokers^a				
Number of days smoked, past 30 (SD)	22.50 (10.92)	21.93 (11.17)	22.68 (10.85)	.374
Cigarettes smoked per day (SD)	11.24 (9.16)	11.29 (9.19)	11.23 (9.15)	.934
Ready to quit in the next 30 days (%)	129 (14.1)	33 (15.1)	96 (13.7)	.334
Quit attempt in the past year (%)	439 (47.8)	100 (45.9)	339 (51.6)	.280

Note.

^a Among current (past 30 day) cigarette smokers.

Table 2

Bivariate Analyses Examining Differences between Southerners versus Others in the Sample in Relation to Knowledge and Attitudes about Tobacco Taxes, N = 2501

Variable	All N = 2501 N (%)	Southerners N = 669 N (%)	Others N = 1832 N (%)	p
Attitudes/Knowledge Regarding Tobacco Taxation				
Perception of cigarette excise tax in your state vs. others				<.001
My state's in top 5 states with highest cigarette taxes.	502 (20.1)	55 (8.2)	447 (24.4)	
My state's in top 15 with highest taxes, but not in top 5.	367 (14.7)	87 (13.0)	280 (15.3)	
My state's in middle 20 states in relation to taxes.	285 (11.4)	96 (14.3)	189 (10.3)	
My state's in bottom 15 in taxes, but not in lowest 5.	103 (4.1)	44 (6.6)	59 (3.2)	
My state's in bottom 5 with lowest cigarette taxes.	88 (3.5)	45 (6.7)	43 (2.3)	
Don't know	1156 (46.2)	342 (51.1)	814 (44.4)	
Perception of cigarette excise tax in your state				<.001
Too high	697 (27.9)	140 (20.9)	557 (30.4)	
About right	413 (16.5)	111 (16.6)	302 (16.5)	
Too low	411 (16.4)	115 (17.2)	296 (16.2)	
No opinion	390 (15.6)	105 (15.7)	285 (15.6)	
Don't know	590 (23.6)	198 (29.6)	392 (21.4)	
Attitude toward an increase in your state's tobacco tax				.138
Favor an increase	971 (38.8)	262 (39.2)	709 (38.7)	
No opinion	789 (31.5)	227 (33.9)	562 (30.7)	
Against an increase	741 (29.6)	180 (26.9)	561 (30.6)	
I believe that all tobacco products should be taxed, rather than just cigarettes				.975
Disagree	289 (11.6)	76 (11.4)	213 (11.6)	
Neutral	570 (22.8)	154 (23.0)	416 (22.7)	
Agree	1642 (65.7)	439 (65.6)	1203 (65.7)	
Alternative tobacco products such as cigars and chew are taxed at the same rate as cigarettes				.538
True	677 (27.1)	192 (28.7)	485 (26.5)	
False	619 (24.8)	161 (24.1)	458 (25.0)	
Don't know	1205 (48.2)	316 (47.2)	889 (48.5)	

Table 3

Persuasiveness of Messaging for and against Increased Cigarette Excise Taxes Comparing Southerners versus Others in the Sample

Supportive	Message	All M (SD)	Southerners M (SD)	Others M (SD)	p
Health	Smoking has declined in every state where tobacco taxes have been increased.	4.83 (2.33)	4.78 (2.30)	4.85 (2.34)	.702
Youth	Even a slight decline in youth smoking rates makes a tobacco tax increase worthwhile. In fact, for every 3 kids who are don't start smoking as a result of higher tobacco taxes, there is one less smoking death in the future.	6.06 (2.41)	6.36 (2.35)	5.95 (2.43)	.034
	Excise taxes are the most reliable way to reduce tobacco use by young people. A 4-6% decrease in use has been documented for every 10% increase in price.	5.46 (2.44)	5.76 (2.51)	5.35 (2.41)	.036
	Raising taxes will reduce smoking rates, keeping our families and our children healthy.	5.20 (2.60)	5.32 (2.77)	5.16 (2.55)	.449
Economic	A tobacco tax is fair because it taxes voluntary behavior that costs the population money in healthcare costs. Those who don't want to pay the increased tax can quit smoking.	5.64 (2.73)	5.80 (2.75)	5.58 (2.72)	.300
	A tobacco tax increase would provide millions of dollars in additional revenue that can be used to help balance the state budget without having to make drastic funding cuts in education and health care.	5.26 (2.64)	5.40 (2.66)	5.21 (2.64)	.368
Rights	I should not have to pay for someone else's bad habits. Smokers should have to pay higher taxes on cigarettes, since smokers cost us so much in health care costs.	5.71 (2.76)	5.61 (2.78)	5.74 (2.75)	.541
	Increasing taxes on cigarettes will reduce smoking rates among your loved ones and create revenue for programs that are important to you.	4.82 (2.63)	4.64 (2.66)	4.88 (2.62)	.237
Religion	It is our responsibility to God to ensure the safety of our youth and the greater community. Increasing cigarette taxes protects our youth and community. ^a	4.51 (2.85)	4.68 (2.78)	4.46 (2.87)	.331
Hospitality	Higher cigarette taxes may attract people to visit or move to our state because they will see that we care about health and about our youth. ^a	4.59 (2.67)	4.89 (2.90)	4.48 (2.57)	.049

Opposed	Message	All M (SD)	Southerners M (SD)	Others M (SD)	p
Health	People aren't going to stop smoking because the price of cigarettes has gone up. They can get cigarettes cheaper across state borders or on the Internet.	5.80 (2.39)	5.61 (2.37)	5.87 (2.39)	.153
Youth	Raising tobacco taxes will not reduce youth smoking because kids often get cigarettes from friends or relatives.	5.60 (2.54)	5.76 (2.60)	5.55 (2.52)	.289
	Raising tobacco taxes will not reduce youth smoking because kids will always find enough money to buy a pack of cigarettes.	5.44 (2.62)	5.40 (2.75)	5.46 (2.58)	.778
Economic	Instead of raising cigarette taxes to solve state budget problems, politicians should be looking for ways to live within our means, like cutting spending.	5.81 (2.64)	5.73 (2.76)	5.84 (2.59)	.593
Rights	The government should not be in the business of passing tax increases to control behavior it doesn't like.	5.50 (2.75)	5.60 (2.72)	5.47 (2.76)	.552
	A tobacco tax increase is unfair to smokers because it forces one small group of people to pay for government programs we all use.	4.94 (2.85)	4.92 (2.86)	4.95 (2.85)	.871
	Not increasing cigarette taxes may attract people to visit or move here because they will see that our state is committed to living within our means without increasing taxes.	4.52 (2.57)	4.36 (2.55)	4.58 (2.57)	.290

Opposed	Message	All M (SD)	Southeasterners M (SD)	Others M (SD)	p
Religion	A tobacco tax increase is unfair to poor people – they should be able to afford cigarettes if they wish to, just as those who are wealthier.	4.15 (2.82)	3.82 (2.72)	4.26 (2.85)	.050
	It is our responsibility to God to ensure that all citizens share responsibility for our community. Increasing cigarette taxes puts undue burden on one segment of the population - smokers. ^a	3.95 (2.78)	3.92 (2.75)	3.96 (2.798)	.855
Hospitality	Keeping cigarette taxes low may attract people to visit or move to our state because they will see that we care about everyone and do not believe in penalizing individuals who choose to smoke. ^a	4.07 (2.75)	3.98 (2.80)	4.10 (2.73)	.588

Note.

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

^aIndicates messages newly developed for this study.

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