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Exposure to Secondhand Smoke and Attitudes Toward Smoke-Free Workplaces Among Employed U.S. Adults: Findings From the National Adult Tobacco Survey

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Abstract

Introduction—This study assessed the prevalence and correlates of secondhand smoke (SHS) exposure and attitudes toward smoke-free workplaces among employed U.S. adults.

Methods—Data came from the 2009–2010 National Adult Tobacco Survey, a landline and cellular telephone survey of adults aged ≥18 years in the United States and the District of Columbia. National and state estimates of past 7-day workplace SHS exposure and attitudes toward indoor and outdoor smoke-free workplaces were assessed among employed adults. National estimates were calculated by sex, age, race/ethnicity, education, annual household income, sexual orientation, U.S. region, and smoking status.

Results—Among employed adults who did not smoke cigarettes, 20.4% reported past 7-day SHS exposure at their workplace (state range: 12.4% [Maine] to 30.8% [Nevada]). Nationally, prevalence of exposure was higher among males, those aged 18–44 years, non-Hispanic Blacks, Hispanics, and non-Hispanic American Indians/Alaska natives compared to non-Hispanic Whites, those with less education and income, those in the western United States, and those with no smoke-free workplace policy. Among all employed adults, 83.8% and 23.2% believed smoking should never be allowed in indoor and outdoor areas of workplaces, respectively.

Conclusions—One-fifth of employed U.S. adult nonsmokers are exposed to SHS in the workplace, and disparities in exposure exist across states and subpopulations. Most employed adults believe indoor areas of workplaces should be smoke free, and nearly one-quarter believe outdoor areas should be smoke free. Efforts to protect employees from SHS exposure and to educate the public about the dangers of SHS and benefits of smoke-free workplaces could be beneficial.

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DECLARATION OF INTERESTS

None declared.

INTRODUCTION

Secondhand smoke (SHS) is a mixture of the smoke produced by the burning end of a tobacco product and the smoke exhaled by the user (U.S. Department of Health and Human Services [DHHS], 2006). Among nonsmoking adults, exposure to SHS causes heart disease and lung cancer (DHHS, 2006, 2010). In 2006, the U.S. Surgeon General concluded that there is no risk-free level of SHS and that eliminating smoking in indoor spaces is the only effective way to fully protect nonsmokers from the adverse effects of SHS exposure (DHHS, 2006).

The workplace represents an important setting for the implementation of evidence-based strategies to reduce SHS exposure (Centers for Disease Control and Prevention [CDC], 2007). Many adults spend the majority of their day in the workplace and the prevalence of tobacco use among workers is comparable to that of the general adult population (CDC, 2011a; DHHS, 2006). In the United States, considerable progress has been made in increasing the number of statewide comprehensive smoke-free laws that prohibit tobacco smoking in all indoor areas of public places and worksites, including restaurants and bars. As of December 2013, 26 U.S. states and the District of Columbia (DC) have enacted comprehensive smoke-free laws (CDC, 2013). In addition, nearly 600 municipalities had local level comprehensive smoke-free policies in effect as of this date (Americans for Nonsmokers' Rights Foundation [ANRF], 2013a). The implementation of such laws has been shown to reduce SHS exposure and the incidence of certain adverse health events among both nonsmoking hospitality workers and the general public (CDC, 2013; DHHS, 2006). Research also indicates that smoke-free laws can help facilitate smoking cessation and the adoption of voluntary smoke-free homes rules (Cheng, Glantz, & Lightwood, 2011; DHHS, 2006; Hopkins et al., 2010; International Agency for Research on Cancer [IARC], 2009).

Studies of the general adult population indicate that more than one-third of U.S. adults are exposed to SHS in some indoor or outdoor area (CDC, 2010), and that four-fifths believe smoking should not be allowed in indoor areas of workplaces (King, Dube, & Tynan, 2013). However, the prevalence and characteristics of U.S. workers exposed to SHS in the workplace, and their attitudes toward indoor and outdoor smoke-free workplaces, is uncertain. Therefore, we analyzed data from the 2009–2010 National Adult Tobacco Survey (NATS) to determine national and state estimates of the prevalence and sociodemographic characteristics of past 7-day SHS exposure and attitudes toward indoor and outdoor smoke-free workplaces among employed U.S. adults.

METHODS

Sample

The 2009–2010 NATS is a stratified, national telephone survey of noninstitutionalized adults aged ≥18 years residing in the 50 U.S. states and DC (King, Dube, & Tynan, 2012). The sample was designed to yield data representative at both national and state levels. Each state was divided into separate strata by telephone type (landline and cellular). For the landline component, each state was allocated an equal target sample size (n = 1,863). For the

cellular component, each state was allocated a sample size in proportion to its population, yielding a combined national target of n = 6,300. States were offered an opportunity to increase their samples. Louisiana, New Jersey, and Oklahoma added to their landline and cellular target sample, while Delaware, Georgia, Iowa, North Dakota, Pennsylvania, South Carolina, and Virginia added to their landline target sample.

Respondent selection varied by phone type. For landline numbers, one adult was randomly selected from each eligible household. For cellular numbers, adults were selected if a cellular phone was the only method by which they could be reached by telephone at home. In total, 118,581 NATS interviews were completed (n = 110,634 landline; n = 7,947 cellular) from October 2009 to February 2010. The National Council of American Survey and Research Organizations response rate, which is defined as the number of completed interviews divided by the number of eligible respondents in the sample, was 37.6% (landline = 40.4%, cellular = 24.9%) (Council of American Survey Research Organizations, 1997). The national cooperation rate, which is defined as the number of completed interviews divided by the number of eligible respondents who were successfully reached by an interviewer, was 62.3% (landline = 61.9%, cellular = 68.7%). State response rates ranged from 28.2% (New Jersey) to 49.3% (Vermont) (median: 37.9%); cooperation rates ranged from 52.9% (Louisiana) to 72.4% (Vermont) (median: 62.9%).

Measures

Employment Status—Employment status was determined by the question, “Are you currently working for pay or are you self-employed, either part-time or full-time”? Respondents who answered “yes” were classified as employed.

SHS Exposure—Exposure to SHS in the workplace was determined by the question, “Now I’m going to ask you about smoke you might have breathed at work because someone else was smoking, either indoors or outdoors. During the past 7 days, on how many days did you breathe the smoke at your workplace from someone other than you who was smoking tobacco”? Response options ranged between “0” and “7.” Respondents who answered “1–7” were classified as exposed to SHS in the workplace.

Attitudes Toward Smoke-Free Workplaces: Attitudes toward smoke-free workplaces were determined by the questions, “At workplaces, do you think smoking [indoors/outdoors] should be always allowed, allowed only at some times or in some places, or never allowed”? Respondents who answered “never allowed” to each question were classified as believing that smoking should not be allowed in each respective area.

Current Indoor Smoke-Free Workplace Policy: The presence of an indoor smoke-free workplace policy was determined by the question, “At your workplace, is smoking in indoor areas always allowed, allowed only at some times or in some places, or never allowed”? Respondents who answered “never allowed” were classified as having an indoor smoke-free workplace policy.

Smoking Status—Smoking status was determined using the questions, “Have you smoked at least 100 cigarettes in your entire life?” and “Do you now smoke cigarettes every

day, some days, or not at all?" Respondents who reported smoking ≥100 cigarettes in their lifetime and now smoking cigarettes "every day" or "some days" were classified as current smokers. Respondents who reported smoking ≥100 cigarettes in their lifetime and now smoking cigarettes "not at all" were classified as former smokers. Respondents who reported not smoking ≥100 cigarettes in their lifetime were classified as never-smokers. Due to the known adverse health effects of SHS exposure on non-smokers (DHHS, 2006), analyses pertaining to SHS exposure were restricted to former and never-smokers only; these two categories were combined into a single "nonsmoker" category. In contrast, analyses pertaining to attitudes toward smoke-free workplaces included three separate categories for smoking status: current, former, and never-smokers.

Respondent Characteristics—Respondent characteristics included: sex (male or female), age (18–24, 25–44, 45–64, or ≥65 years), race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, non-Hispanic Asian, non-Hispanic native Hawaiian/Pacific Islander, non-Hispanic American Indian/Alaska Native, non-Hispanic multiple races, non-Hispanic other race), education (0–12 years [no diploma], graduate equivalency degree, high school graduate, some college [no degree], associate degree, undergraduate degree, graduate degree), annual household income (<$20,000, $20,000–$49,999, $50,000–$99,999, ≥ $100,000, unspecified), sexual orientation (heterosexual/straight, lesbian/gay/ bisexual/ transgender [LGBT], unspecified), U.S. Census Region (Northeast, Midwest, South, West), and current cigarette smoking status (current, former, never). Unspecified responses comprised 11.9% and 5.5% of the total responses for annual household income and sexual orientation, respectively.

Data Analysis

Data were analyzed using SAS-Callable SUDAAN 10 (RTI International) and weighted to adjust for the differential probability of selection and response. Final weights were also poststratified by state using known population distributions (sex, age, race/ethnicity, marital status, education, and telephone type) from the American Community Survey (U.S. Census Bureau, 2011). For states with a small number of cellular respondents, the use of both landline and cellular data resulted in a large unequal weighting effect. Therefore, national and state estimates were calculated differently. For national estimates, both landline and cellular sample members were included. For state estimates, cellular respondents were only included for states with a cellular sample of at least 200 (California, Florida, Georgia, Illinois, Louisiana, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, and Texas). National estimates were calculated overall and by sex, age, race/ethnicity, education, income, sexual orientation, and smoking status. Due to limited sample size, only overall estimates were calculated at the state level. Differences between estimates were conservatively considered statistically significant if 95% CIs did not overlap. Additionally, chi-squared tests were used to assess statistical differences between subgroups ($p < .05$). Estimates with a relative *SE* ≥40% were not reported.

RESULTS

SHS Exposure

Among employed adult nonsmokers, 20.4% reported exposure to SHS at their workplace in the past 7 days (Table 1). Prevalence of SHS exposure was significantly lower among those with an indoor smoke-free workplace policy (16.4%) than among those with no policy (51.3%). By sex, prevalence of SHS exposure was significantly higher among males (23.8%) than females (16.7%). When compared to all other subgroups within each respective characteristic, prevalence of SHS exposure was significantly lower among those ≥65 years old (10.4%), with an undergraduate (15.8%) or graduate (11.9%) degree, and with annual household income ≥$100,000 (14.8%). By race/ ethnicity, prevalence of SHS exposure was significantly higher among non-Hispanic Blacks (25.6%), Hispanics (29.2%), and non-Hispanic American Indians/Alaska Natives (29.5%) than among non-Hispanic Whites (17.7%). No significant difference was observed between heterosexual/straight (20.2%) and LGBT (25.7%) respondents. By U.S. region, the prevalence of SHS exposure was significantly higher in the West (23.3%) than the Northeast (19.3%) and Midwest (17.1%). By state, this prevalence ranged from 12.4% in Maine to 30.8% in Nevada (Table 2).

Attitudes Toward Indoor Smoke-Free Workplaces

Among all employed adults, 83.8% believed smoking should never be allowed in indoor areas of workplaces (Table 3). The prevalence of those who believed smoking should never be allowed in indoor areas was significantly lower among males (79.6%) than females (88.7%) and among those aged 18–24 years (79.7%) than any other age group. By race/ ethnicity, the prevalence of those who believed smoking should never be allowed in indoor areas was significantly lower among non-Hispanic Whites (82.2%) than non-Hispanic Blacks (86.6%), Hispanics (88.5%), and non-Hispanic Asians (94.0%). Prevalence generally increased with increasing education and income. No significant difference was observed between heterosexual/straight (83.8%) and LGBT (78.9%) respondents. By smoking status, the prevalence of those who believed smoking should never be allowed in indoor areas was significantly higher among never-smokers (90.1%) than both former (83.6%) and current (63.7%) smokers. By U.S. region, the prevalence of those who believe smoking should never be allowed in indoor areas was significantly higher among those in the West (88.3%) and Northeast (86.2%) than the South (83.0%) and Midwest (78.6%). By state, this prevalence ranged from 70.2% in Kentucky to 92.2% in Florida (Table 2).

The prevalence of those who believe smoking should never be allowed in indoor areas was significantly lower among those who reported being exposed to SHS in the workplace in the past 7 days (85.3%) compared to those who reported no exposure (89.2%) (Table 3). When compared to those not exposed to SHS in the workplace in the past 7 days, the prevalence among exposed respondents was lower for males, those aged 25 or more years, non-Hispanic Whites and non-Hispanic Asians, heterosexual/straight individuals, and those with an Associate degree, annual household income of $20,000–$49,999, or who live in the Midwest or South.

Attitudes Toward Outdoor Smoke-Free Workplaces

Among all employed adults, 23.2% believed smoking should never be allowed in outdoor areas of workplaces (Table 4). The prevalence of those who believed smoking should never be allowed in outdoor areas was significantly lower among males (18.4%) than females (28.8%) and significantly higher among those aged ≥65 years (29.5%) than any other age group. By race/ethnicity, the prevalence of those who believed smoking should never be allowed in outdoor areas was significantly lower among non-Hispanic Whites (20.3%) than non-Hispanic Blacks (30.4%), Hispanics (30.8%), and non-Hispanic Asians (32.6%). By education, this prevalence was significantly higher among those with a graduate degree (31.4%) than any other education group. The prevalence of those who believed smoking should never be allowed in outdoor areas was significantly higher among those with annual household income of <$20,000 (26.8%) and ≥$100,000 (26.2%) compared to $20,000–$49,999 (21.3%) and $50,000–$99,999 (21.3%). No significant difference was observed between heterosexual/ straight (22.9%) and LGBT (19.6%) respondents. By smoking status, the prevalence of those who believed smoking should never be allowed in outdoor areas was significantly higher among never-smokers (30.3%) than both former (18.5%) and current (5.8%) smokers. By U.S. region, the prevalence of those who believe smoking should never be allowed in outdoor areas was significantly higher in the West (25.9%) than the South (22.3%) and Midwest (21.8%). By state, this prevalence ranged from 14.9% in Kentucky to 29.9% in Arizona and California (Table 2).

The prevalence of those who believe smoking should never be allowed in outdoor areas was significantly lower among those who reported being exposed to SHS in the workplace in the past 7 days (21.7%) compared to those who reported no exposure (28.7%) (Table 4). When compared to those not exposed to SHS in the workplace in the past 7 days, the prevalence among exposed respondents was lower for both males and females, all age groups, non-Hispanic Whites and Hispanics, heterosexual/straight individuals, and those with some college education, an Associate degree, or an undergraduate degree, annual household income of $20,000 or more, or who live in the Midwest, South, or West.

DISCUSSION

To our knowledge, this study is the first to provide both national and state representative estimates of past 7-day SHS exposure and attitudes toward indoor and outdoor smoke-free workplaces among employed U.S. adults. The findings reveal that more than four-fifths of employed adults believe indoor areas should be smoke free and nearly one-quarter believe outdoor areas should be smoke free. However, approximately one-fifth of employed U.S. adult nonsmokers are still exposed to SHS in the workplace, and disparities in exposure exist across states and subpopulations. These findings underscore opportunities for continued efforts to educate the public about the dangers of SHS and to expand protections from SHS in the workplace, particularly among states and subpopulations with the greatest burden of exposure.

The prevalence of workplace SHS exposure in the present study was markedly lower among workers who reported having an indoor smoke-free workplace policy compared to those who reported not having such a policy. This finding is consistent with the extensive body of

scientific research showing that the adoption and enforcement of comprehensive smoke-free policies that prohibit smoking in all indoor areas of workplaces and public places, including bars and restaurants, is the most effective way to fully protect workers and the general public from the adverse health effects of SHS exposure in these environments (DHHS, 2006; IARC, 2009). With adequate planning and education, such policies are relatively easy to implement and achieve high levels of compliance at minimal expense (DHHS, 2006; IARC, 2009; World Health Organization [WHO], 2009). In addition to reducing self-reported and objectively measured SHS exposure among the general population of nonsmokers (Akhtar, D. B. Currie, C. E. Currie, & Haw, 2007; Fong et al., 2006; Haw & Gruer, 2007), comprehensive smoke-free policies are associated with reductions in self-reported respiratory symptoms and improved lung function among nonsmoking hospitality workers, declines in hospitalizations and emergency room visits for heart attacks and asthma in the general population, and do not have an adverse economic impact on the hospitality industry (DHHS, 2006, 2014; Goodman, Haw, Kabir, & Clancy, 2009; IARC, 2009; Institute of Medicine [IOM], 2009; Mackay, Haw, Ayres, Fischbacher, & Pell, 2010; Millett, Lee, Laverty, Glantz, & Majeed, 2013; Tan & Glantz, 2012). The adoption of comprehensive smoke-free policies can also help facilitate smoking cessation and the adoption of voluntary smoke-free home rules (Cheng et al., 2011; DHHS, 2006; Hopkins et al., 2010; IARC, 2009).

Based on evidence of the cost-effectiveness, feasibility, and popularity of smoke-free laws, the WHO recommends several key measures for protecting workers and the public from SHS exposure (WHO, 2009). These measures include enacting laws requiring all workplaces and public places to be 100% smoke free. In the United States, notable progress has occurred over the past decade in enacting comprehensive smoke-free policies (CDC, 2011b). In 2002, Delaware became the first state to implement a comprehensive smoke-free policy, and as of December 2013, 26 states and DC had instituted such laws (CDC, 2013). Comprehensive smoke-free policies have also been instituted in nearly 600 localities, and approximately 49% of the U.S. population (149.7 million individuals) was covered by a state or local comprehensive smoke-free policy as of January 2, 2014 (ANRF, 2013a,b). However, gaps in smoke-free law coverage, especially in the southern United States and in states with laws that preempt local smoking restrictions, are contributing to disparities in SHS protections (CDC, 2012a).

This study found disparities in SHS exposure and attitudes toward smoke-free workplaces across states and sub-populations. For example, SHS exposure was higher among men, younger individuals, those with less education and less income, non-Hispanic Blacks, Hispanics, and multiracial non-Hispanics. Previous studies have found that male, younger, blue collar, service, and non-Hispanic Black individuals are less likely to be covered by a strong smoke-free policy and more likely to be exposed to SHS at work (Arheart et al., 2008; Gerlach, Shopland, Hartman, Gibson, & Pechacek, 1997; Gonzalez, Sanders-Jackson, Song, Cheng, & Glantz, 2013; Shopland, Anderson, Burns, & Gerlach, 2004). In the present study, attitudes toward smoke-free workplaces were more favorable among females, older individuals, those with more education and income, non-Hispanic Blacks, Hispanics, and non-Hispanic Asians. These findings are generally similar to variations in exposure and attitudes toward smoke-free environments in the general population (CDC, 2008, 2010;

King, Dube, & Tynan, 2013) and may be the result of multiple factors, including lower smoking rates among some of these groups, cultural factors related to the social disapproval of smoking, or differences in receptivity toward tobacco-related health messages and understanding of the hazards of SHS exposure (CDC, 2011b; Siahpush, McNeill, Hammond, & Fong, 2006). Differences were also observed across states and U.S. regions, with more favorable attitudes in states with long-standing smoke-free laws and lower adult smoking rates, such as California and New York (CDC, 2011b, 2012b). Additionally, more favorable attitudes were observed among those who reported not being exposed to SHS in the workplace in the past 7 days compared to those who were exposed. These findings are consistent with studies showing increased favorability for smoke-free environments following policy implementation (Fong et al., 2006; Tang et al., 2003) and higher levels of favorability among nonsmokers than smokers (Osypuk & Acevedo-Garcia, 2010).

A higher proportion of workers believed smoking should never be allowed in indoor areas of workplaces compared to outdoor areas, irrespective of state or subpopulation. Nonetheless, nearly one-quarter of workers believed smoking should never be allowed in outdoor areas of workplaces, which is consistent with previous assessments of population-level attitudes toward smoke-free outdoor areas (Thomson, Wilson, & Edwards, 2009). Research suggests that outdoor SHS exposure can exceed acceptable air quality standards (Licht, Hyland, Travers, & Chapman, 2013), and smoking restrictions are increasingly being adopted in outdoor areas, including health care facilities, transport settings, universities, parks, beaches, and within specified distances from building entryways (ANRF, 2013c; Thomson et al., 2009).

Strengths of the study include the use of nationally and state representative data, as well as the inclusion of a cellular phone sample for national and some state estimates. However, the study is subject to at least four limitations. First, cellular telephone respondents were excluded from state-specific analyses for states with less than 200 cellular phone respondents, which limits the generalizability of the results to this sub-population in those states. However, cellular respondents were included in all national estimates, as well as state-specific estimates for 12 states with sufficient sample size. Moreover, a secondary analysis of data at the national level, as well as the twelve states for which there was sufficient sample to include cellular estimates, found no significant difference between the landline-only sample and the combined landline and cellular sample for any of the assessed indicators. Second, the NATS sampling frame did not include institutionalized populations and persons in the military; therefore, the findings are not generalizable to these subpopulations. Third, both the limited recall period of 7 days and the use of a self-reported survey could have resulted in an underestimation of true SHS exposure (Max, Sung, & Shi, 2009). Finally, the response rate was 37.6% and state-specific response rates ranged from 28.2% to 49.3%. Lower response rates can increase the potential for bias; however, estimates of tobacco use and SHS exposure from NATS are comparable to those from other population-level surveys with higher response rates (King et al., 2012; King, Dube, & Homa, 2013).

CONCLUSIONS

Findings from the 2009–2010 NATS indicate that most employed U.S. adults believe indoor areas of workplaces should be smoke free and nearly one-quarter of employed U.S. adults believe outdoor areas of workplaces should be smoke free. Nonetheless, approximately one-fifth of employed U.S. adult nonsmokers are exposed to SHS in the workplace and disparities in exposure exist across states and subpopulations. Since the implementation of 100% smoke-free policies is the only effective way to fully eliminate exposure to SHS in indoor environments, efforts to protect employees from SHS exposure and to educate the public about the dangers of SHS and benefits of smoke-free workplaces could be beneficial.

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Table 1

Percentage of Employed Nonsmoking Adults Who Reported Being Exposed to Secondhand Smoke at Their Workplace During the Past 7 Days, by Workplace Smoke-Free Policy Status and Selected Characteristics: National Adult Tobacco Survey, 2009–2010[a]

	Indoor smoke-free workplace policy[b] (*n* = 49,071)		No indoor smoke-free workplace policy[b] (*n* = 2,916)		Overall (*n* = 56,429)	
Characteristic	**%**	**95% CI**	**%**	**95% CI**	**%**	**95% CI**
Sex						
Male	18.3	17.1–19.6	52.6	47.7–57.4[c]	23.8	22.5–25.1
Female	14.7	13.8–15.6[d]	49.1	43.5–54.8[c]	16.7	15.8–17.7[d]
Age (years)						
18–24	22.5	19.7–25.5	48.0	37.0–59.3[c]	26.8	24.1–29.6
25–44	18.5	17.3–19.7[d]	57.5	51.8–63.0[c]	23.4	22.0–24.8
45–64	13.3	12.3–14.4[d]	45.5	40.4–50.6[c]	16.2	15.2–17.2[d]
≥65	7.6	5.8–9.9[d]	40.4	30.7–50.8[c]	10.4	8.6–12.7[d]
Race/ethnicity						
White, non-Hispanic	14.2	13.5–14.9	49.3	45.4–53.2[c]	17.7	17.0–18.4
Black, non-Hispanic	21.6	19.1–24.4[d]	48.0	37.5–58.6[c]	25.6	23.0–28.3[d]
Hispanic	23.5	20.2–27.2[d]	56.4	43.5–68.4[c]	29.2	25.5–33.1[d]
Asian, non-Hispanic	17.4	13.3–22.5	73.7	50.3–88.5[c]	20.1	15.6–25.6
NH/PI, non-Hispanic	17.9	10.4–29.0	e		22.8	14.7–33.6
AI/AN, non-Hispanic	22.2	13.8–33.7	67.1	44.4–83.9[c]	29.5	20.6–40.3[d]
Multiracial, non-Hispanic	24.8	16.3–35.7[d]	59.1	34.6–79.8	25.5	18.0–34.8
Other, non-Hispanic	17.8	9.8–30.0	e		23.9	15.3–35.5
Education						
0–12 years (no diploma)	24.3	19.2–30.3	54.4	39.8–68.2[c]	31.9	26.7–37.7
GED	23.6	15.7–33.9	54.1	30.9–75.7	28.8	21.5–37.3
High school graduate	18.3	16.5–20.2	49.9	43.7–56.0[c]	24.2	22.4–26.0[d]
Some college (no degree)	18.8	17.0–20.7	52.2	43.6–60.8[c]	22.0	20.2–23.9[d]
Associate degree	17.7	16.0–19.6	58.0	49.4–66.2[c]	21.0	19.3–22.8[d]

Characteristic	Indoor smoke-free workplace policy[b] (*n* = 49,071) %	95% CI	No indoor smoke-free workplace policy[b] (*n* = 2,916) %	95% CI	Overall (*n* = 56,429) %	95% CI
Undergraduate degree	13.8	12.8–15.0[d]	46.3	39.1–53.7[c]	15.8	14.7–16.9[d]
Graduate degree	10.9	9.9–12.0[d]	41.8	32.8–51.3[c]	11.9	10.9–13.0[d]
Income (annual household)						
<$20,000	21.2	16.9–26.1	48.7	31.7–66.0[c]	24.2	20.2–28.7
$20,000-$49,999	20.1	18.5–21.9	59.5	53.1–65.6[c]	25.9	24.2–27.7
$50,000-$99,999	15.7	14.6–16.8[d]	45.0	39.5–50.6[c]	19.6	18.3–21.1
≥$100,0000	13.2	12.0–14.4[d]	46.6	38.7–54.8[c]	14.8	13.6–16.1[d]
Unspecified	15.3	12.6–18.5	50.7	39.3–62.1[c]	18.9	16.2–22.0
Sexual orientation						
Heterosexual/straight	16.2	15.4–16.9	51.5	47.7–55.3[c]	20.2	19.4–21.1
LGBT	22.7	17.5–28.9[d]	49.8	27.3–72.3	25.7	20.4–31.7
Unspecified	17.4	13.0–22.8	49.0	33.2–65.0[c]	20.8	16.6–25.6
U.S. Census Region[f]						
Northeast	16.7	15.2–18.2	43.3	33.9–53.1[c]	19.3	17.8–20.8
Midwest	13.0	11.9–14.2[d]	49.3	43.2–55.5[c]	17.1	15.9–18.3
South	17.0	15.8–18.3	51.9	46.1–57.6[c]	21.2	19.9–22.4
West	18.6	16.7–20.6	60.3	51.0–68.9[c]	23.3	21.1–25.7[d]
Total	16.4	15.7–17.2	51.3	47.6–55.0[c]	20.4	19.6–21.2

Note. All estimates presented in the table were calculated among both landline and cellular telephone respondents combined.

CI = confidence interval; NH/PI = native Hawaiian or Pacific Islander; AI/AN = American Indian or Alaska native; GED = graduate equivalency degree; LGBT = lesbian, gay, bisexual, or transgender.

[a] Respondents were considered nonsmokers if they reported not smoking ≥100 cigarettes in their lifetime or smoking ≥100 cigarettes in their lifetime and now smoking "not at all." Respondents were considered exposed if they reported breathing tobacco smoke from someone else who was smoking in the workplace in the past 7 days.

[b] Respondents were considered to have an indoor smoke-free workplace policy if they reported smoking was "never allowed" at their workplace. Respondents who reported smoking was "allowed only at some times or in some places" or "always allowed" were not considered to have a policy.

[c] Significantly different ($p < .05$) than corresponding estimate for "Indoor Smoke-Free Workplace Policy."

[d] Significantly different ($p < .05$) than referent group (male; 18–24; White, non-Hispanic, 0–12 years [no diploma]; <$20,000; heterosexual straight; northeast) within the same column.

[e] Estimate not presented due to relative standard error ≥40%.

[f] Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Table 2

Percentage of Employed Nonsmoking Adults Who Reported Being Exposed to Secondhand Smoke at Their Workplace During the Past 7 Days and Percentage of U.S. Adults Who Believe Smoking Should Not Be Allowed in Indoor and Outdoor Areas of Workplaces, by State: National Adult Tobacco Survey, 2009–2010[a]

	Employed adult nonsmokers			All employed adults				
		Exposed to secondhand smoke in workplace (past 7 days)[a]			Believe indoor smoking should not be allowed in workplaces[b]		Believe outdoor smoking should not be allowed in workplaces[b]	
State	*n*	%	95% CI	*n*	%	95% CI	%	95% CI
Northeast								
Connecticut	1,022	17.0	14.0–20.5	1,127	88.4	84.6–91.4	27.7	23.7–32.0
Maine	978	12.4	9.6–16.0	1,120	86.5	83.4–89.0	22.1	19.3–25.3
Massachusetts	981	16.4	12.9–20.7	1,084	87.7	82.9–91.3	20.5	17.1–24.3
New Hampshire	1,073	17.1	13.8–21.0	1,192	90.5	88.1–92.4	22.0	18.8–25.4
New Jersey[c]	2,120	21.7	19.1–24.7	2,441	88.2	85.9–90.2	24.9	22.4–27.6
New York[c]	1,140	21.9	18.6–25.6	1,316	86.6	83.2–89.4	25.0	21.8–28.4
Pennsylvania[c]	1,600	16.5	14.2–19.0	1,873	82.7	80.3–84.9	20.5	18.4–22.7
Rhode Island	983	15.9	12.7–19.7	1,127	89.1	86.0–91.5	24.0	20.7–27.5
Vermont	1,146	13.8	11.0–17.2	1,285	87.1	83.8–89.9	24.1	21.0–27.5
Midwest								
Illinois[c]	1,073	16.7	13.7–20.1	1,212	82.7	79.3–85.6	24.9	21.7–28.5
Indiana	858	18.9	15.3–23.1	995	74.4	70.1–78.2	22.3	18.9–26.2
Iowa	1,025	14.5	11.5–18.1	1,162	80.7	77.0–83.9	24.6	21.4–28.1
Kansas	986	20.2	16.0–25.2	1,113	79.3	75.1–83.0	22.8	19.4–26.6
Michigan	787	18.8	14.5–23.9	890	75.4	70.7–79.6	19.7	16.6–23.2
Minnesota	939	14.9	11.5–19.0	1,055	83.4	79.3–86.7	23.2	19.9–27.0
Missouri	876	18.8	15.6–22.6	1,007	72.5	68.0–76.5	19.0	16.2–22.2
Nebraska	960	14.5	11.2–18.6	1,102	78.5	73.8–82.6	23.9	20.6–27.4
North Dakota	1,207	15.6	12.0–20.1	1,399	80.5	76.6–83.9	21.1	18.5–24.0
Ohio[c]	987	15.6	12.9–18.7	1,185	77.6	74.4–80.5	18.3	15.8–21.1
South Dakota	1,109	14.2	11.4–17.5	1,267	83.0	79.9–85.8	24.4	20.8–28.4

	Employed adult nonsmokers			All employed adults				
		Exposed to secondhand smoke in workplace (past 7 days)[a]			Believe indoor smoking should not be allowed in workplaces[b]		Believe outdoor smoking should not be allowed in workplaces[b]	
State	***n***	**%**	**95% CI**	***n***	**%**	**95% CI**	**%**	**95% CI**
Wisconsin	913	12.9	9.8–16.8	1,033	81.1	77.6–84.2	24.0	20.5–28.0
South								
Alabama	757	20.5	16.4–25.4	903	77.4	72.4–81.7	20.6	17.0–24.7
Arkansas	1,103	12.7	9.5–16.9	1,319	82.0	78.7–85.0	22.2	19.2–25.2
Delaware	910	18.6	14.7–23.2	1,058	86.9	83.3–89.8	21.9	18.6–25.5
District of Columbia	1,072	15.5	11.5–20.5	1,196	89.5	86.5–92.0	24.0	20.1–28.5
Florida[c]	953	23.9	20.4–27.8	1,119	92.2	90.2–93.9	27.1	23.5–30.9
Georgia[c]	2,168	18.7	15.9–21.9	2,494	84.9	82.4–87.1	25.2	22.6–28.1
Kentucky	732	26.0	20.3–32.6	889	70.2	64.5–75.2	14.9	11.6–18.8
Louisiana[c]	2,608	26.6	23.7–29.6	3,183	80.6	78.0–82.9	21.5	19.4–23.8
Maryland	1,037	19.0	15.1–23.6	1,152	86.1	81.0–90.0	22.2	18.9–25.8
Mississippi	685	21.6	17.0–26.9	803	79.7	74.9–83.8	22.7	19.2–26.6
North Carolina[c]	981	23.9	20.0–28.3	1,126	81.3	77.5–84.5	20.8	17.9–24.1
Oklahoma[c]	1,524	23.3	20.6–26.3	1,898	78.7	76.2–81.0	20.4	18.4–22.5
South Carolina	1,972	21.2	18.2–24.5	2,334	79.9	76.6–82.9	23.4	21.0–26.1
Tennessee	791	18.5	14.6–23.2	911	82.8	78.9–86.0	23.5	19.4–28.2
Texas[c]	1,135	20.4	17.1–24.2	1,342	80.9	77.4–83.9	20.4	17.9–23.3
Virginia	1,159	20.7	17.1–24.9	1,306	79.6	75.7–83.0	21.5	18.6–24.8
West Virginia	724	21.2	16.9–26.3	869	74.5	69.9–78.6	19.9	16.7–23.7
West								
Alaska	1,062	18.9	15.5–22.8	1,232	81.5	77.9–84.7	17.7	14.9–20.9
Arizona	759	17.9	13.7–23.0	855	88.2	84.1–91.4	29.9	23.6–37.1
California[c]	1,322	26.0	22.1–30.3	1,511	91.1	88.8–92.9	29.9	26.4–33.6
Colorado	950	20.6	16.4–25.4	1,060	82.4	78.2–85.9	18.8	15.9–22.0
Hawaii	904	21.6	17.4–26.5	1,020	87.3	83.0–90.6	24.0	20.2–28.2
Idaho	853	19.5	15.5–24.2	953	85.7	82.3–88.6	21.9	18.6–25.5
Montana	944	15.2	11.8–19.3	1,061	80.0	75.8–83.6	21.9	18.7–25.5

	Employed adult nonsmokers			All employed adults				
		Exposed to secondhand smoke in workplace (past 7 days)[a]			Believe indoor smoking should not be allowed in workplaces[b]		Believe outdoor smoking should not be allowed in workplaces[b]	
State	*n*	%	95% CI	*n*	%	95% CI	%	95% CI
Nevada	791	30.8	25.9–36.1	954	76.1	71.7–79.9	18.0	14.8–21.8
New Mexico	816	15.2	11.0–20.7	924	88.3	84.3–91.3	23.8	19.2–29.2
Oregon	887	16.7	13.4–20.6	991	86.6	83.3–89.4	19.1	15.9–22.8
Utah	1,108	19.2	15.7–23.2	1,178	87.1	83.3–90.1	25.5	21.8–29.5
Washington	884	20.2	16.2–24.8	1,007	86.5	83.2–89.2	23.4	19.8–27.4
Wyoming	895	15.6	12.4–19.3	1,039	76.5	71.6–80.7	21.4	18.2–25.1

[a] Respondents were considered nonsmokers if they reported not smoking ≥100 cigarettes in their lifetime or smoking ≥100 cigarettes in their lifetime and now smoking “not at all.” Respondents were considered exposed if they reported breathing tobacco smoke from someone else who was smoking in the workplace in the past 7 days.

[b] Respondents who reported “not at all” to the questions, “At workplaces, do you think smoking [indoors/outdoors] should be always allowed, allowed only at some times or in some places, or never allowed”?

[c] Estimates for these states were calculated among both landline and cellular telephone respondents combined (n = 12). Estimates for all other states were calculated among landline respondents only.

Table 3

Percentage of Employed U.S. Adults Who Believe Smoking Should Not Be Allowed in Indoor Areas of Workplaces, by Exposure to Secondhand Smoke in the Workplace During the Past 7 Days and Selected Characteristics: National Adult Tobacco Survey, 2009–2010[a]

	Exposed to SHS in the workplace during past 7 days (nonsmokers only)[b] (*n* = 8,318)		Not exposed to SHS in the workplaces during past 7 days (nonsmokers only)[b] (*n* = 47,592)		All respondents (nonsmokers and smokers) (*n* = 65,148)	
Characteristic	**%**	**95% CI**	**%**	**95% CI**	**%**	**95% CI**
Sex						
Male	81.5	79.1–83.8	85.6	84.6–86.6[c]	79.6	78.6–80.5
Female	91.0	89.1–92.6[d]	92.6	92.0–93.2[c,d]	88.7	88.0–89.3[d]
Age (years)						
18–24	84.4	79.1–88.6	86.7	83.4–89.5	79.7	77.2–82.0
25–44	86.3	83.9–88.3	89.9	89.0–90.7[c]	84.3	83.3–85.2[d]
45–64	84.1	81.2–86.6	88.9	88.2–89.6[c]	84.1	83.3–84.9[d]
≥65	77.2	63.4–86.9	90.7	88.7–92.3[c]	86.7	84.3–88.8[d]
Race/ethnicity						
White, non-Hispanic	82.8	80.8–84.7	88.3	87.8–88.9[c]	82.2	81.5–82.8
Black, non-Hispanic	87.7	82.8–91.3	90.8	88.1–92.9	86.6	84.5–88.5[d]
Hispanic	90.9	85.8–94.3[d]	91.5	88.9–93.5[d]	88.5	86.1–90.5[d]
Asian, non-Hispanic	87.9	75.9–94.4	96.9	94.9–98.2[c,d]	94.0	91.0–96.0[d]
NH/PI, non-Hispanic	92.0	77.4–97.5	92.5	84.1–96.6	87.5	78.9–92.9
AI/AN, non-Hispanic	81.6	64.4–91.6	89.2	83.8–93.0	77.5	71.6–82.4
Multiracial, non-Hispanic	83.6	68.7–92.2	83.6	75.2–89.5	77.8	71.2–83.3
Other, non-Hispanic	84.3	53.3–96.2	88.8	79.9–94.1	85.6	77.6–91.0
Education						
0–12 years (no diploma)	82.0	73.7–88.1	88.0	84.1–91.0	76.8	73.4–79.9
GED	69.0	53.8–81.0	83.3	76.6–88.5	68.4	62.6–73.7
High school graduate	80.4	76.6–83.7	85.4	83.6–87.0[c]	79.3	77.8–80.7
Some college (no degree)	88.2	84.6–91.0	87.9	86.3–89.4	82.9	81.4–84.3[d]

Characteristic	Exposed to SHS in the workplace during past 7 days (nonsmokers only)[b] (*n* = 8,318)		Not exposed to SHS in the workplaces during past 7 days (nonsmokers only)[b] (*n* = 47,592)		All respondents (nonsmokers and smokers) (*n* = 65,148)	
	%	95% CI	%	95% CI	%	95% CI
Associate degree	87.1	84.0–89.7	90.9	89.8–91.8[c]	86.0	84.8–87.1[d]
Undergraduate degree	89.8	87.7–91.7	91.0	90.2–91.8	89.2	88.4–90.0[d]
Graduate degree	91.4	87.4–94.3	92.1	91.2–92.8[d]	90.9	90.0–91.7[d]
Income (annual household)						
<$20,000	82.7	73.5–89.1	88.9	84.6–92.1	80.0	76.8–82.8
$20,000-$49,999	83.1	79.9–85.8	88.5	87.3–89.7[c]	80.4	79.1–81.6
$50,000-$99,999	85.9	83.0–88.4	88.3	87.2–89.3	84.1	83.0–85.1[d]
≥$1,000,000	88.4	84.6–91.3	91.2	90.2–92.0	88.8	87.8–89.7[d]
Unspecified	88.4	83.5–92.0	89.0	87.0–90.7	85.1	83.1–86.9[d]
Sexual orientation						
Heterosexual/straight	85.2	83.4–86.8	89.1	88.5–89.7[c]	83.8	83.1–84.4
LGBT	81.0	67.4–89.8	88.8	83.7–92.5	78.9	73.8–83.3
Unspecified	91.5	86.2–94.8	90.5	87.8–92.6	87.9	85.5–90.0[d]
Current cigarette smoking						
Never smoker	NA		NA		90.1	89.4–90.7
Former smoker	NA		NA		83.6	82.4–84.7[d]
Current smoker	NA		NA		63.7	61.7–65.6[d]
U.S. census region[e]						
Northeast	88.4	85.3–90.9	89.8	88.1–91.2	86.2	84.8–87.5
Midwest	80.9	77.5–83.8[d]	86.3	85.2–87.4[c,d]	78.6	77.3–79.8[d]
South	83.7	80.7–86.3	89.1	88.1–90.0[c]	83.0	81.9–84.0[d]
West	88.4	84.5–91.4	91.7	90.6–92.7	88.3	87.1–89.5
Total	85.3	83.7–86.8	89.2	88.6–89.7[c]	83.8	83.2–84.4

Note. All estimates presented in the table were calculated among both landline and cellular telephone respondents combined.

CI = confidence interval; NH/PI = native Hawaiian or Pacific Islander; AI/AN = American Indian or Alaska native; GED = graduate equivalency degree; LGBT = lesbian, gay, bisexual, or transgender; NA = not applicable.

[a] Respondents who reported “not at all” to the questions, “At workplaces, do you think smoking indoors should be always allowed, allowed only at some times or in some places, or never allowed”?

[b] Respondents were considered nonsmokers if they reported not smoking ≥100 cigarettes in their lifetime or smoking ≥100 cigarettes in their lifetime and now smoking “not at all.” Respondents were considered exposed if they reported breathing tobacco smoke from someone else who was smoking in the workplace in the past 7 days.

[c] Significantly different than corresponding value for “Exposed to SHS in the Workplace in Past 7 Days” ($p < .05$).

[d] Significantly different ($p < .05$) than referent group (male; 18–24; White, non-Hispanic, 0–12 years [no diploma]; <$20,000; heterosexual straight; northeast) within the same column.

[e] Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Table 4

Percentage of Employed U.S. Adults Who Believe Smoking Should Not Be Allowed in Outdoor Areas of Workplaces, by Exposure to Secondhand Smoke in the Workplace During the Past 7 Days and Selected Characteristics: National Adult Tobacco Survey, 2009–2010[a]

	Exposed to SHS in the workplace during past 7 days (nonsmokers only)[b] (*n* = 8,326)		Not exposed to SHS in the workplaces during past 7 days (nonsmokers only)[b] (*n* = 47,487)		All respondents (nonsmokers and smokers) (*n* = 65,120)	
Characteristic	**%**	**95% CI**	**%**	**95% CI**	**%**	**95% CI**
Sex						
Male	17.0	14.9–19.3	23.4	22.1–24.7[c]	18.4	17.4–19.4
Female	28.9	26.1–31.9[d]	33.8	32.6–35.0[c,d]	28.8	27.8–29.8[d]
Age (years)						
18–24	17.5	13.4–22.7	26.1	23.0–29.5[c]	19.9	17.7–22.3
25–44	21.4	19.0–24.1	29.1	27.5–30.6[c]	22.6	21.5–23.8
45–64	23.6	20.5–26.9	28.2	27.0–29.3[c]	23.8	22.9–24.8[d]
≥65	20.0	14.0–27.7	31.7	28.5–35.0[c]	29.5	26.2–33.1[d]
Race/ethnicity						
White, non-Hispanic	18.3	16.7–20.1	25.5	24.7–26.3[c]	20.3	19.7–20.9
Black, non-Hispanic	31.2	25.7–37.2[d]	37.6	34.3–41.0[d]	30.4	28.0–33.0[d]
Hispanic	25.9	20.2–32.5[d]	38.6	34.5–42.8[c,d]	30.8	27.8–34.0[d]
Asian, non-Hispanic	23.8	14.0–37.4	35.9	27.7–44.9[d]	32.6	26.0–40.0[d]
NH/PI, non-Hispanic	e		30.2	16.2–49.2	21.3	12.5–34.0
AI/AN, non-Hispanic	e		23.9	16.5–33.2	15.0	10.9–20.3
Multiracial, non-Hispanic	15.0	6.8–30.0	21.6	15.9–28.7	15.9	12.0–20.9
Other, non-Hispanic	36.5	17.5–61.0	22.3	14.0–33.6	25.5	17.7–35.4
Education						
0–12 years (no diploma)	23.6	16.7–32.3	34.1	28.4–40.3	22.6	19.2–26.4
GED	17.7	7.0–38.0	23.7	16.2–33.5	15.5	10.8–21.8
High school graduate	21.2	17.7–25.1	26.2	24.0–28.5[d]	20.4	18.9–22.0
Some college (no degree)	17.1	14.0–20.7	24.8	22.8–26.9[c,d]	19.3	17.8–20.8

Characteristic	Exposed to SHS in the workplace during past 7 days (nonsmokers only)[b] (*n* = 8,326)		Not exposed to SHS in the workplaces during past 7 days (nonsmokers only)[b] (*n* = 47,487)		All respondents (nonsmokers and smokers) (*n* = 65,120)	
	%	95% CI	%	95% CI	%	95% CI
Associate degree	22.3	18.5–26.7	29.4	27.3–31.6[c]	23.6	22.0–25.3
Undergraduate degree	21.1	18.2–24.3	27.8	26.5–29.3[c]	25.0	23.8–26.2
Graduate degree	28.6	24.4–33.2	33.3	31.8–34.8	31.4	30.0–32.8[d]
Income (annual household)						
<$20,000	28.3	20.3–38.1	36.3	30.4–42.5	26.8	23.0–31.1
$20,000–$49,999	20.6	17.7–23.9	28.8	26.7–31.1[c]	21.3	19.9–22.8[d]
$50,000–$99,999	18.9	16.2–22.0	26.0	24.8–27.3[c,d]	21.3	20.3–22.3[d]
≥$1,000,000	23.2	19.9–26.8	29.3	27.8–30.7[c]	26.2	25.0–27.5
Unspecified	28.0	20.6–36.9	33.6	30.4–37.0	27.7	25.1–30.5
Sexual orientation						
Heterosexual/straight	21.0	19.2–22.9	28.4	27.5–29.3[c]	22.9	22.2–23.7
LGBT	23.3	14.1–36.0	26.6	20.8–33.5	19.6	15.7–24.2
Unspecified	30.1	20.7–41.6	34.8	29.5–40.5[d]	31.1	26.8–35.7[d]
Current cigarette smoking						
Never smoker	NA		NA		30.3	29.3–31.3
Former smoker	NA		NA		18.5	17.3–19.8[d]
Current smoker	NA		NA		5.8	4.8–7.2[d]
U.S. census region[f]						
Northeast	26.0	21.8–30.6	26.9	25.2–28.7	23.5	22.1–24.9
Midwest	20.6	17.3–24.2	27.4	26.0–28.9[c]	21.8	20.7–23.0
South	19.9	17.5–22.7	28.5	27.1–29.9[c]	22.3	21.2–23.4
West	21.9	18.1–26.4	31.7	29.2–34.3[c,d]	25.9	24.0–28.0
Total	21.7	20.0–23.6	28.7	27.8–29.6[c]	23.2	22.5–23.9

Note. All estimates presented in the table were calculated among both landline and cellular telephone respondents combined. CI =confidence interval; NH/PI = native Hawaiian or Pacific Islander; AI/AN = American Indian or Alaska native; GED = graduate equivalency degree; LGBT = lesbian, gay, bisexual, or transgender; NA = not applicable.

[a]Respondents who reported “not at all” to the questions, “At workplaces, do you think smoking outdoors should be always allowed, allowed only at some times or in some places, or never allowed”?

[b] Respondents were considered nonsmokers if they reported not smoking ≥100 cigarettes in their lifetime or smoking ≥100 cigarettes in their lifetime and now smoking "not at all." Respondents were considered exposed if they reported breathing tobacco smoke from someone else who was smoking in the workplace in the past 7 days.

[c] Significantly different than corresponding value for "Exposed to SHS in the Workplace in Past 7 Days" ($p < .05$).

[d] Significantly different ($p < .05$) than referent group (male; 18–24; White, non-Hispanic, 0–12 years [no diploma]; <$20,000; heterosexual straight; northeast) within the same column.

[e] Estimate not presented due to relative *SE* ≥40%.

[f] Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.