# Restrictions on Smoking in the Workplace

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**OVERVIEW** One of the most dramatic social changes over the past 30 years has been the change in attitudes about public smoking and the resultant governmental restrictions on where smoking is allowed. Beginning in 1970, with then Surgeon General Jesse Steinfeld's warning that environmental tobacco smoke (ETS) exposure was likely to cause problems for nonsmokers (Steinfeld, 1972), concern about ETS exposure led to 25 years of scientific inquiry. This inquiry culminated in a series of comprehensive reviews con cluding that ETS exposure is a cause of cancer, heart disease, respiratory ill ness, and a host of other problems (U.S.DHEW, 1972, 1977, 1979; U.S.DHHS, 1982 & 1986; NRC, 1986; U.S.EPA, 1992; Cal/EPA, 1997).

Early reaction to this evidence included efforts to provide separate sec tions for smokers and nonsmokers in restaurants and workplaces (NCI, 1993). But with accumulating evidence that ETS exposure was a cause of cancer and other serious diseases, complete bans on smoking in workplaces and public places became more common. In 1986, only 3 percent of work ers nationally reported working in a smoke-free workplace (Gerlach, 1997). By the 1992/93 Current Population Survey (CPS), the fraction of indoor workers reporting a smoke-free workplace had risen to 46.7 percent. Table 3-1 presents data from the 1995/96 CPS and demonstrates that the fraction of workers covered by a 100 percent smoking ban in the workplace has risen to 64.3 percent, including more than half (54.1 percent) of all current smokers.

Males and those who were between ages 18 and 24 were less likely to work in a smoke-free workplace, as were Hispanic and Native American indoor workers (Table 3-1). The likelihood of working in a smoke-free envi ronment increases dramatically with increasing level of education and fami ly income. The fraction of workers who work in a smoke-free workplace varies across states, from a high of 84 percent in Utah and Maryland to a low of 40 percent in Nevada, but only three states (Nevada, Arkansas, and Kentucky) have less than 50 percent of their employees working in smoke-free areas.

The increasing proportion of indoor workers who are employed in smoke-free workplaces has a direct health benefit for nonsmokers due to the decreased exposure to ETS. However, restrictions on where smokers can smoke may also influence the behavior of smokers outside of the work-place. Smokers may quit smoking altogether when a policy restricting smoking in the workplace is implemented (as opposed to refraining from their habit only at work). They may reduce the number of cigarettes that

Table 3-1

**Nation: Extent of Official Smoking Policy in the Workplace for Self-Respondent Adults Age 18 and Older, 1995/96 Current Population Survey**

| | Level of Workplace Smoking Policy | | | | | | | | | | Population | Sample |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Smoke Free | | Strong | | Moderate | | Weak | | None | | Size | Size |
| Nation | % | CI | % | CI | % | CI | % | CI | % | CI | (N) | (n) |
| **Total** | 64.26 | 0.37 | 11.21 | 0.25 | 9.15 | 0.22 | 1.25 | 0.09 | 14.13 | 0.27 | 84,811,586 | 80,661 |
| **Smoking Status** | | | | | | | | | | | | |
| Never | 67.65 | 0.48 | 10.58 | 0.32 | 7.83 | 0.28 | 1.01 | 0.10 | 12.92 | 0.35 | 48,086,591 | 44,818 |
| Current | 54.10 | 0.80 | 13.27 | 0.54 | 12.25 | 0.52 | 1.80 | 0.21 | 18.59 | 0.62 | 20,135,755 | 19,379 |
| Former | 66.73 | 0.83 | 10.55 | 0.54 | 9.21 | 0.51 | 1.29 | 0.20 | 12.22 | 0.58 | 16,589,240 | 16,464 |
| **Gender** | | | | | | | | | | | | |
| Male | 58.67 | 0.56 | 12.04 | 0.37 | 11.38 | 0.36 | 1.80 | 0.15 | 16.11 | 0.42 | 40,089,095 | 33,103 |
| Female | 69.26 | 0.49 | 10.47 | 0.33 | 7.15 | 0.28 | 0.76 | 0.09 | 12.36 | 0.35 | 44,722,491 | 47,558 |
| **Age (Years)** | | | | | | | | | | | | |
| 18–24 | 55.92 | 1.03 | 13.21 | 0.70 | 9.67 | 0.61 | 1.05 | 0.21 | 20.15 | 0.83 | 12,050,968 | 8,640 |
| 25–44 | 64.61 | 0.50 | 11.39 | 0.33 | 9.33 | 0.30 | 1.33 | 0.12 | 13.34 | 0.36 | 47,056,921 | 45,350 |
| 45–64 | 67.77 | 0.69 | 10.07 | 0.44 | 8.69 | 0.41 | 1.22 | 0.16 | 12.25 | 0.48 | 23,906,035 | 24,670 |
| 65+ | 64.12 | 2.57 | 8.35 | 1.48 | 6.91 | 1.36 | 1.07 | 0.55 | 19.55 | 2.12 | 1,797,662 | 2,001 |
| **Race/Ethnicity** | | | | | | | | | | | | |
| Non-Hispanic White | 64.45 | 0.43 | 11.13 | 0.28 | 9.13 | 0.26 | 1.27 | 0.10 | 14.03 | 0.31 | 63,934,697 | 65,231 |
| Hispanic | 61.13 | 1.76 | 10.78 | 1.12 | 9.48 | 1.06 | 1.23 | 0.40 | 17.39 | 1.37 | 7,318,120 | 5,153 |
| African-American | 64.59 | 1.11 | 12.96 | 0.78 | 9.45 | 0.68 | 1.23 | 0.26 | 11.76 | 0.75 | 9,737,977 | 7,135 |
| Asian/Pacific Island | 67.72 | 1.89 | 8.70 | 1.14 | 7.62 | 1.07 | 1.07 | 0.42 | 14.89 | 1.44 | 3,218,613 | 2,461 |
| Native American | 57.65 | 4.62 | 10.33 | 2.85 | 10.70 | 2.89 | 1.48 | 1.13 | 19.84 | 3.73 | 602,179 | 681 |
| **Education (Years)** | | | | | | | | | | | | |
| <12 Years | 46.29 | 1.37 | 15.41 | 0.99 | 12.17 | 0.90 | 1.60 | 0.34 | 24.53 | 1.18 | 6,836,863 | 5,800 |
| 12 Years | 55.81 | 0.68 | 13.19 | 0.47 | 11.15 | 0.43 | 1.75 | 0.18 | 18.11 | 0.53 | 27,250,901 | 26,273 |
| 13–15 Years | 65.88 | 0.67 | 10.89 | 0.44 | 9.00 | 0.41 | 1.17 | 0.15 | 13.06 | 0.48 | 25,668,947 | 24,387 |
| 16+ Years | 76.68 | 0.61 | 8.24 | 0.39 | 6.30 | 0.35 | 0.71 | 0.12 | 8.07 | 0.39 | 25,054,875 | 24,201 |

Table 3-1 (continued)

| Nation (continued) | Level of Workplace Smoking Policy | | | | | | | | | | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Smoke Free | | Strong | | Moderate | | Weak | | None | | | |
| | % | CI | % | CI | % | CI | % | CI | % | CI | | |
| **Household Income (Dollars)** | | | | | | | | | | | | |
| < 10,000 | 51.97 | 1.63 | 13.24 | 1.11 | 10.87 | 1.02 | 1.31 | 0.37 | 22.60 | 1.37 | 4,823,326 | 4,340 |
| 10,000–19,999 | 54.78 | 1.14 | 13.67 | 0.78 | 10.49 | 0.70 | 1.44 | 0.27 | 19.62 | 0.91 | 9,862,918 | 9,163 |
| 20,000–29,999 | 59.56 | 0.99 | 12.42 | 0.66 | 9.53 | 0.59 | 1.58 | 0.25 | 16.92 | 0.76 | 12,674,069 | 12,132 |
| 30,000–49,999 | 63.87 | 0.73 | 11.82 | 0.49 | 9.63 | 0.45 | 1.27 | 0.17 | 13.41 | 0.52 | 22,523,682 | 22,058 |
| 50,000–74,999 | 69.31 | 0.80 | 10.08 | 0.52 | 8.63 | 0.49 | 1.15 | 0.18 | 10.83 | 0.54 | 17,084,119 | 16,512 |
| 75,000 + | 75.13 | 0.87 | 8.15 | 0.55 | 7.09 | 0.52 | 0.97 | 0.20 | 8.66 | 0.57 | 12,735,217 | 11,675 |
| Unknown | 63.45 | 1.53 | 10.29 | 0.96 | 8.74 | 0.90 | 1.05 | 0.32 | 16.47 | 1.18 | 5,108,254 | 4,781 |
| **State*** | | | | | | | | | | | | |
| Utah | 84.21 | 2.21 | 4.31 | 1.23 | 3.17 | 1.06 | 0.42 | 0.39 | 7.88 | 1.63 | 631,295 | 1,193 |
| Maryland | 84.09 | 2.26 | 5.75 | 1.44 | 5.09 | 1.35 | 0.36 | 0.37 | 4.72 | 1.31 | 1,893,937 | 1,038 |
| Vermont | 79.22 | 2.72 | 5.65 | 1.55 | 6.51 | 1.65 | 0.59 | 0.51 | 8.03 | 1.82 | 206,509 | 947 |
| California | 76.88 | 1.12 | 6.82 | 0.67 | 4.98 | 0.58 | 0.70 | 0.22 | 10.61 | 0.82 | 9,258,735 | 5,376 |
| District of Columbia | 74.92 | 3.05 | 8.64 | 1.98 | 7.24 | 1.82 | 0.78 | 0.62 | 8.42 | 1.95 | 186,943 | 846 |
| Washington | 73.78 | 3.03 | 8.09 | 1.88 | 6.78 | 1.73 | 1.01 | 0.69 | 10.34 | 2.10 | 1,694,612 | 972 |
| Maine | 73.53 | 3.07 | 7.92 | 1.88 | 10.07 | 2.09 | 0.85 | 0.64 | 7.64 | 1.85 | 383,712 | 874 |
| New Hampshire | 73.51 | 3.08 | 9.67 | 2.06 | 5.34 | 1.57 | 1.37 | 0.81 | 10.10 | 2.10 | 391,078 | 845 |
| Colorado | 72.01 | 2.80 | 9.58 | 1.83 | 6.33 | 1.52 | 0.45 | 0.42 | 11.64 | 2.00 | 1,313,603 | 1,312 |
| Massachusetts | 71.56 | 1.82 | 8.38 | 1.12 | 7.67 | 1.07 | 0.58 | 0.31 | 11.82 | 1.30 | 2,117,572 | 2,340 |
| Idaho | 71.11 | 2.93 | 5.95 | 1.53 | 8.89 | 1.84 | 0.80 | 0.58 | 13.25 | 2.19 | 344,273 | 1,102 |
| Rhode Island | 70.92 | 3.12 | 7.92 | 1.86 | 6.46 | 1.69 | 1.07 | 0.71 | 13.63 | 2.36 | 326,789 | 786 |
| Alaska | 69.92 | 2.97 | 7.81 | 1.74 | 8.90 | 1.85 | 1.02 | 0.65 | 12.35 | 2.13 | 183,542 | 801 |
| New Jersey | 68.51 | 1.71 | 8.44 | 1.02 | 8.23 | 1.01 | 1.04 | 0.37 | 13.77 | 1.27 | 2,707,634 | 2,741 |
| Minnesota | 68.18 | 2.82 | 11.01 | 1.89 | 8.59 | 1.70 | 0.62 | 0.48 | 11.59 | 1.94 | 1,714,920 | 1,440 |
| Connecticut | 67.78 | 3.20 | 10.76 | 2.12 | 8.57 | 1.91 | 0.66 | 0.56 | 12.23 | 2.24 | 1,122,583 | 825 |
| Oregon | 67.46 | 3.17 | 11.94 | 2.19 | 9.14 | 1.95 | 0.62 | 0.53 | 10.84 | 2.10 | 1,001,932 | 965 |
| Delaware | 67.33 | 3.18 | 8.68 | 1.91 | 8.46 | 1.89 | 0.89 | 0.64 | 14.64 | 2.40 | 234,877 | 826 |
| Florida | 66.79 | 1.58 | 9.12 | 0.97 | 8.07 | 0.92 | 0.76 | 0.29 | 15.26 | 1.21 | 4,181,997 | 3,177 |
| Arizona | 66.13 | 3.01 | 8.73 | 1.80 | 9.03 | 1.82 | 0.84 | 0.58 | 15.26 | 2.29 | 1,284,546 | 1,174 |

Table 3-1 (continued)

| State* | Level of Workplace Smoking Policy: Smoke Free % | Smoke Free CI | Strong % | Strong CI | Moderate % | Moderate CI | Weak % | Weak CI | None % | None CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| New Mexico | 65.73 | 3.33 | 10.29 | 2.13 | 9.59 | 2.06 | 0.86 | 0.65 | 13.54 | 2.40 | 418,678 | 913 |
| Texas | 65.56 | 1.60 | 10.43 | 1.03 | 8.26 | 0.93 | 1.48 | 0.41 | 14.26 | 1.18 | 5,815,729 | 3,643 |
| New York | 65.14 | 1.33 | 9.35 | 0.81 | 10.09 | 0.84 | 0.96 | 0.27 | 14.45 | 0.98 | 5,521,615 | 4,578 |
| Nebraska | 63.90 | 2.92 | 9.70 | 1.80 | 10.46 | 1.86 | 0.81 | 0.54 | 15.13 | 2.18 | 571,872 | 1,276 |
| Kansas | 63.53 | 3.09 | 9.76 | 1.90 | 11.00 | 2.01 | 1.54 | 0.79 | 14.17 | 2.24 | 862,573 | 1,218 |
| Virginia | 63.09 | 2.82 | 12.74 | 1.95 | 9.37 | 1.71 | 1.22 | 0.64 | 13.59 | 2.01 | 2,297,995 | 1,408 |
| South Dakota | 62.68 | 3.04 | 10.73 | 1.94 | 9.56 | 1.85 | 0.83 | 0.57 | 16.20 | 2.32 | 221,591 | 1,220 |
| Iowa | 62.55 | 3.06 | 12.27 | 2.07 | 8.86 | 1.79 | 1.20 | 0.69 | 15.12 | 2.26 | 967,618 | 1,208 |
| Wisconsin | 62.24 | 2.87 | 12.34 | 1.94 | 9.49 | 1.73 | 0.90 | 0.56 | 15.03 | 2.11 | 1,972,344 | 1,521 |
| Hawaii | 61.89 | 3.50 | 15.34 | 2.60 | 12.34 | 2.37 | 1.04 | 0.73 | 9.39 | 2.10 | 346,498 | 640 |
| Wyoming | 61.47 | 3.55 | 7.95 | 1.98 | 10.99 | 2.28 | 1.01 | 0.73 | 18.59 | 2.84 | 135,107 | 1,009 |
| Illinois | 61.26 | 1.71 | 13.59 | 1.20 | 10.57 | 1.08 | 1.47 | 0.42 | 13.11 | 1.19 | 4,047,530 | 3,523 |
| North Dakota | 61.22 | 3.32 | 7.10 | 1.75 | 8.86 | 1.94 | 1.36 | 0.79 | 21.46 | 2.80 | 188,307 | 1,119 |
| Pennsylvania | 60.38 | 1.72 | 12.34 | 1.16 | 11.07 | 1.10 | 1.35 | 0.41 | 14.85 | 1.25 | 3,835,329 | 3,640 |
| West Virginia | 59.82 | 3.45 | 12.95 | 2.36 | 11.35 | 2.23 | 1.31 | 0.80 | 14.57 | 2.48 | 457,077 | 925 |
| South Carolina | 59.15 | 3.08 | 16.08 | 2.30 | 9.74 | 1.86 | 1.09 | 0.65 | 13.93 | 2.17 | 1,257,513 | 922 |
| Montana | 58.90 | 3.44 | 9.54 | 2.06 | 8.59 | 1.96 | 1.63 | 0.89 | 21.34 | 2.87 | 231,352 | 1,029 |
| Missouri | 58.90 | 3.04 | 15.15 | 2.22 | 10.85 | 1.92 | 1.24 | 0.69 | 13.86 | 2.14 | 1,911,829 | 1,178 |
| Oklahoma | 58.46 | 3.21 | 10.90 | 2.03 | 12.78 | 2.17 | 1.55 | 0.80 | 16.31 | 2.41 | 982,605 | 1,248 |
| Ohio | 57.07 | 1.75 | 13.79 | 1.22 | 10.57 | 1.09 | 2.15 | 0.51 | 16.41 | 1.31 | 3,838,168 | 3,526 |
| Georgia | 57.07 | 2.81 | 15.22 | 2.04 | 10.37 | 1.73 | 0.85 | 0.52 | 16.49 | 2.11 | 2,492,669 | 1,401 |
| Louisiana | 56.89 | 3.35 | 10.77 | 2.10 | 10.54 | 2.08 | 1.57 | 0.84 | 20.24 | 2.72 | 1,191,607 | 844 |
| Alabama | 55.73 | 3.31 | 14.44 | 2.34 | 12.86 | 2.23 | 1.69 | 0.86 | 15.27 | 2.40 | 1,285,003 | 1,057 |
| North Carolina | 55.15 | 2.08 | 15.57 | 1.51 | 12.16 | 1.36 | 1.73 | 0.54 | 15.38 | 1.51 | 2,449,839 | 2,779 |
| Mississippi | 54.92 | 3.32 | 11.26 | 2.11 | 7.89 | 1.80 | 1.40 | 0.78 | 24.52 | 2.87 | 796,440 | 905 |

Table 3-1 (continued)

| State* | Level of Workplace Smoking Policy | | | | | | | | | | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Smoke Free | | Strong | | Moderate | | Weak | | None | | | |
| | % | CI | % | CI | % | CI | % | CI | % | CI | | |
| Tennessee | 54.08 | 3.10 | 16.02 | 2.28 | 9.50 | 1.83 | 2.05 | 0.88 | 18.36 | 2.41 | 1,738,759 | 999 |
| Michigan | 53.67 | 1.81 | 14.16 | 1.27 | 12.55 | 1.20 | 2.37 | 0.55 | 17.24 | 1.37 | 3,276,689 | 3,294 |
| Indiana | 51.44 | 3.05 | 15.89 | 2.23 | 11.45 | 1.94 | 2.86 | 1.02 | 18.36 | 2.36 | 2,064,806 | 1,182 |
| Kentucky | 49.69 | 3.33 | 16.54 | 2.47 | 10.59 | 2.05 | 2.05 | 0.94 | 21.12 | 2.72 | 1,138,267 | 928 |
| Arkansas | 48.47 | 3.25 | 18.05 | 2.50 | 12.34 | 2.14 | 2.63 | 1.04 | 18.52 | 2.53 | 791,438 | 1,046 |
| Nevada | 40.91 | 3.12 | 21.04 | 2.59 | 17.63 | 2.42 | 4.11 | 1.26 | 16.31 | 2.34 | 523,649 | 902 |

** Listed in descending order of smoke-free status.*
*Note: CI = 95% confidence interval.*
*Source: 1995/96 Current Population Survey.*

they smoke per day or may shift from smoking daily to smoking occasional ly, and smokers who work in smoke-free evvironments may make more quit attempts or may be more successful in those quit attempts. Improvement in cessation may be an indirect benefit of the current trend toward smoke-free workplaces.

## CHANGES IN SMOKING BEHAVIOR WITH IMPLEMENTATION OF SMOKING RESTRICTIONS

Brownson *et al.* (1997) recently reviewed much of the existing evidence on policies to reduce ETS exposure, and this chapter will update that evidence and add analyses conducted using data from the Current Population Surveys (CPS) and the California Tobacco Surveys (CTS). Changes in workplace smoking rules are often highly visible and are sometimes among the most contested shifts in workplace norms. Employers commonly make substantial efforts to inform and involve their workers as part of the introduction of these changes, and cessation assistance is fre quently made available to smoking workers at the time that the changes in workplace rules are implemented. When the smoking behaviors of workers are followed before and after the implementation of workplace restrictions, many, but not all, studies have demonstrated a fall in smoking prevalence and increased cessation rates (Brownson *et al.*, 1997). Many of the workplaces examined have been in health care settings (Table 3-2), but similar observations are evident in other settings as well (Table 3-3). These experi ences would suggest that the implementation of smoking restrictions in the workplace can trigger smoking cessation attempts among the smokers who work there, particularly if cessation assistance is a prominent part of the implementation process.

A similar picture emerges for changes in the number of cigarettes smoked per day following the implementation of restrictions on smoking in the workplace (Tables 3-2 and 3-3). Modest declines in the number of ciga rettes smoked per day are evident following implementation of workplace smoking restrictions in most of the locations where it has been examined.

### Effects of Working in Smoke-free Workplaces on Smoking Behavior

Changes in smoking behavior are to be expected when there is a change in workplace restrictions on smoking due to the accompanying shift in workplace norms and the provision of cessation assistance. However, it is reasonable to expect that there may be longer term effects on smoking behavior as well. Smokers may smoke fewer cigarettes per day if smoking is prohibited in work loca tions, smokers may make more attempts to quit due to a shift in the social norms about smoking, and smokers who do attempt to quit may be more successful because they are less likely to relapse in workplaces that do not allow smoking.

### Number of Cigarettes Smoked per Day

Multiple studies presented in Tables 3-2 and 3-3 observed reductions in number of cigarettes smoked per day that persisted for 12-18 months following implementation of a change in smok ing policy. One study found a decline after 6 months, with a return to prior levels of consumption after 18 months (Hudzinski and Sirois, 1994). Emont *et al.* (1992) demonstrated a nonsignificant, but suggestive, relationship between level of smoking restriction from state clean-indoor-air laws and number of cigarettes smoked per day using data from the 1989 CPS.

Table 3-2
**Impact of Smoke-Free Worksites on Cigarette Consumption and Prevalence: Health Care Worksites**

| Author | Location | Change in Consumption | Change in Prevalence |
|---|---|---|---|
| Andrews, 1983 | Hospital | NA | –8.5% at 20-month follow-up |
| Rosenstock, 1986 | HMO | –2.0 cigarettes/day at 4-month follow-up | No significant change |
| Biener, 1989 | Hospital | –3.9 cigarettes/day at work at 12-month follow-up | No significant change |
| Becker, 1989 | Children's hospital | No change at 6-month follow-up | –1.2% at 6-month follow-up |
| Hudzinski, 1990 | Hospital | 25% of smokers no longer smoked at work at 12-month follow-up | NA |
| Mullooly, 1990 | HMO | -1.4 cigarettes/day at work<br>No effect on total daily consumption | No change |
| CDC, 1990 | Psychiatric hospital | –3.5 cigarettes/day at work at 13-month follow-up;<br>–1.8 cigarettes/day over 24 hours | –4.0% at 13-month follow-up |
| Stillman, 1990 | Hospital | –3.3 cigarettes/day at 6-month follow-up | –5.5% at 6-month follow-up |
| Baile, 1991 | Hospital | 40% of smokers reduced consumption at 4-month follow-up | –1.5 % at 4-month follow-up |
| Stave, 1991 | Medical center | –4.5 cigarettes/day at 9-month follow-up | 22.5% of smokers quit at 9-month follow-up |
| Daughton, 1992 | Hospital | –3.1 cigarettes/day at work at 12-month follow-up | No increase in quit rate |
| Goldstein, 1992 | Hospital | 57% of smokers reported cutting down | 9% of smokers stated that they quit because of the ban |
| Offard, 1992 | Hospital | NA | –2.9% at 30-month follow-up |
| Hudzinski, 1994 | Hospital | Smokers made significant reductions in cigarettes/day at 6 months but returned to prior levels at 18 months | NA |
| Longo, 1996 | Representative sample of hospital employees | –1.1 cigarettes/day | Quit ratio different between intervention and comparison 13% at 60 months |

Table 3-3
**Impact of Smoke-Free Worksites on Cigarette Consumption and Prevalence: Other Worksites**

| Author | Location/ Study Population | Change in Consumption | Change in Prevalence |
|---|---|---|---|
| Petersen, 1988 | Insurance co. | –5.6 cigarettes/day at follow-up | –1.6% at 12-month follow-up |
| Scott, 1989 | Insurance co. | 22.5% of smokers decreased consumption at 7-month follow-up | –5.1% at 7-month follow-up |
| Gottlieb, 1990 | Government agency | –12% reduction in consumption of 15 or more cigarettes/day | –3.4% at 6 months |
| Borland, 1990 | Public service | –7.9 cigarettes/day in smokers of 25 or more cigarettes/day at 6-month follow-up | –1.0% at 6-month follow-up |
| Sorensen, 1991 | Telephone co. | NA | 21% of smokers quit at 20-month follow-up |
| Borland, 1991 | Telecommunications co. | –3.5 cigarettes/day at 18-month follow-up | –3.1% at 18-month follow-up |
| Brenner, 1992 | National random sample | –1.8 cigarettes/day in men, –1.4 cigarettes/day in women | Quit ratio of 30% |
| Wakefield, 1992 | Representative sample | –5 cigarettes/day on work days vs leisure days | NA |
| Phillip Morris, 1992 | Cohort of 22,500-28,000 employed smokers in companies Product Opinion Lab database followed between 1987 and 1991 | -11% cigarettes/day | Quitting rates:<br>Total database 1.00<br>No restrictions 0.75<br>Designated 0.92<br>Smoke-free 1.84* |
| Woodruff, 1993 | CA Population Survey | 296 packs per year in smoke-free worksites vs 341 packs per year with no restrictions | Prevalence was 13.7% in smoke-free worksites vs 20.6% with no restrictions |
| Jeffery, 1994 | Diverse workplaces | –1.2 cigarettes/ day | –2% at 24-months follow-up |
| Brenner, 1994 | Cross-section of Telecommunications co. | 20.5 cigarettes/day without restrictions to 13.2 cigarettes/day with ban | Prevalence lower in workplaces with restrictions |

Table 3-3 (continued)

| Author | Location/ Study Population | Change in Consumption | Change in Prevalence |
|---|---|---|---|
| Etter, 1999 | University Students and staff | Total cigarettes/day increased in intervention group from 11.4 to 11.7 (p 0.06) and in comparison group from 11.4 to 12.0 (p 0.002) | Increased among intervention group 24.7 % to 25.1 % (p 1.0) |
| | | Cigarettes/day in university buildings increased from 5.5 to 5.7 among intervention group (p 0.14), but decreased from 5.5 to 5. 0 among comparison group (p 0.11) | Decreased among comparison group 27.2 % to 26.7 % (p 0.80) |

**According to this document, the quit rate is based only on those smokers who returned questionnaires and should therefore be considered understated.*

Analyses of data from a 5-year longitudinal follow-up of 8,271 employed adult smokers conducted as a part of the COMMIT trial exam ined the change in number of cigarettes smoked per day as reported by the same individuals in two surveys conducted 5 years apart (Glasgow *et al.*, 1997). Using multiple linear regression techniques, they demonstrated a sta tistically significant greater reduction in number of cigarettes smoked per day over the 5-year period among those who worked in workplaces where smoking was restricted to designated areas (OR = -1.17), and an even greater reduction for those who worked in workplaces where smoking was banned (OR = -2.78).

An internal tobacco industry study (Heironimus, 1992) of the effects of restrictions on smoking in the workplace using a tracking database of smok ers demonstrated that smokers who work in smoke-free environments con sumed 11-15 percent fewer cigarettes per day compared to smokers who work where there are no restrictions. Lesser restrictions, such as allowing smoking only in designated sections, had little effect on consumption.

Table 3-4 presents analyses of the 1992/93 and 1995/96 CPS for those who were daily cigarette smokers 1 year prior to the survey, currently smoked some days or every day, were age 25-64, and worked in an indoor environment. When smokers who worked in smoke-free workplaces are compared to those with lesser or no restrictions, there is a statistically sig nificant ($p < 0.001$) shift in the categorical distribution of cigarettes smoked per day toward smoking fewer cigarettes per day.

The CPS did not ask a question on the number of cigarettes smoked per day 1 year prior to the survey, and therefore these analyses are limited to examination of the cross-sectional distribution of current number of ciga rettes smoked per day in relation to workplace restrictions on smoking. As a result, the analyses in Table 3-4 cannot identify whether the difference in number of cigarettes smoked per day by smokers working under different workplace smoking restrictions is due to a reduction in number of cigarettes smoked per day produced by the workplace restriction or due to workplace restrictions being more difficult to implement where there are greater num bers of heavy smokers.

The 1990 and 1996 California Tobacco Surveys (CTS) recorded the num ber of cigarettes smoked per day both at the time of the survey and for 1 year prior to the survey. Table 3-5 compares the current number of ciga rettes smoked per day by those current cigarette smokers who work indoors with that reported for 1 year prior to the survey, and the results are strati fied by the level of workplace restrictions on smoking. In the 1990 CTS, smokers who worked in workplaces with no restrictions on smoking were more likely to report smoking 25 or more cigarettes per day both at the time of the survey and for 12 months prior to the survey than were workers employed in workplaces where there were at least some restrictions. Workers who smoked 25 or more cigarettes per day 1 year prior to the sur vey were also significantly more likely to report reducing the number of cig arettes that they currently smoked if they worked in areas where smoking was banned than if they worked in areas where there were no restrictions.

Table 3-4
**Percentage of Current Smokers who Smoke Various Numbers of Cigarettes per Day among Indoor Workers with Different Levels of Restriction on Smoking in the Workplace**

| Cigarettes Smoked per Day | Level of Workplace Smoking Restrictions | | | | |
|---|---|---|---|---|---|
| | ***Work Area*:** ***Public Area*:** | **Ban** **Ban** | **Ban** **No Ban** | **Restricted** **Ban** | **Restricted** **Restricted** | **No** **Restrictions** |
| **1992/93 CPS*** | | | | | |
| Occasional Smoking | | 3.91 | 2.85 | 3.40 | 2.15 | 2.25 |
| 1–4 | | 2.95 | 1.97 | 2.16 | 0.49 | 1.76 |
| 5–14 | | 28.20 | 21.49 | 18.11 | 16.16 | 17.84 |
| 15–24 | | 48.75 | 53.21 | 48.37 | 40.66 | 48.75 |
| 25+ | | 16.19 | 20.48 | 27.96 | 40.53 | 29.41 |
| **1995/96 CPS**** | | | | | |
| Occasional Smoking | | 3.34 | 2.48 | 2.04 | 3.11 | 2.13 |
| 1–4 | | 2.47 | 1.39 | 1.88 | 0.63 | 2.37 |
| 5–14 | | 27.58 | 19.71 | 17.16 | 15.14 | 17.72 |
| 15–24 | | 50.20 | 51.49 | 50.97 | 40.67 | 48.14 |
| 25+ | | 16.41 | 24.93 | 27.95 | 40.45 | 29.64 |

** 1992/93 CPS. Chi-Square = 453.3; degrees of freedom = 16; probability < 0.001; N = 14,787; chi-square based on weighted sample normalized to sample size.*
***1995/96 CPS. Chi-square* = 386.8; degrees of freedom = 16; probability < 0.001; N = 12,669; chi-square based on weighted sample normalized to sample size.*
*Note: Current smokers were also daily smokers 1 year prior to the survey and between ages 25 and 64 years.*

We also used these CTS data to develop a logistic regression model of the effect of working in a workplace where smoking was restricted on the likelihood of current daily smokers having reduced the number of cigarettes they reported smoking per day during the period between 12 months prior to the survey and the time of the survey. Co-variates controlled for in the analyses were gender, age, race/ethnicity, education level, family income level, and number of cigarettes smoked per day 1 year prior to the survey. Current daily smokers who worked in areas where there were some smoking restrictions were more likely to have reduced the number of cigarettes smoked per day when compared to smokers who worked in areas where there were no restrictions (OR = 1.44, 95% CI = 1.06-1.96). The effect for current daily smokers working in areas where smoking was banned was even more robust (OR = 1.54, 95% CI = 1.10-2.16). Data for the 1996 CTS are also presented in Table 3-5, but the small number of smokers who work in areas that are not smoke-free (state law requires smoke-free workplaces in California) makes meaningful comparison difficult; however, there appears to be a similar trend in the 1996 CTS. These data suggest that the trend toward a reduction in number of cigarettes smoked per day among workers who work where smoking is restricted demonstrated for the CPS data is due to the effect of the smoking restrictions on smoking behavior, rather than being due to smoking restrictions being easier to implement in workplaces where there are fewer heavy smokers.

These data taken as a whole suggest that a smoke-free workplace policy results in a reduction in the number of cigarettes smoked per day by con tinuing smokers.

Table 3-5

**Indoor Workers: Change in Reported Number of Cigarettes Smoked per Day from 1 Year Prior to the Survey to Time of the Survey by Current Daily Smokers, Ages 25–64, Who Smoked Daily 1 Year Ago—1990 and 1996 California Tobacco Surveys**

| Level of Smoking Ban | | Cigs. Smoked Daily 1 Year before Survey | # Cigarettes Smoked per Day at Time of Survey: 25+ % | 25+ CI | 15–24 % | 15–24 CI | 5–14 % | 5–14 CI | 1–4 % | 1–4 CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1996 CTS | None | Total | 29.73 | 3.94 | 45.40 | 3.72 | 20.33 | 4.04 | 4.54 | 2.78 | 533,544 | 1,104 |
| | | 25+ | 88.30 | 3.05 | 8.56 | 2.76 | 2.76 | 2.05 | 0.38 | 0.62 | 163,554 | 369 |
| | | 15–24 | 4.36 | 2.00 | 90.88 | 2.69 | 4.62 | 1.92 | 0.14 | 0.28 | 239,644 | 517 |
| | | 5–14 | 3.33 | 4.48 | 9.02 | 3.67 | 79.39 | 7.60 | 8.27 | 6.73 | 112,651 | 201 |
| | | 1–4 | . | . | 1.44 | 3.19 | . | . | . | . | 17,695 | 17 |
| | Some | Total | 24.09 | 3.08 | 49.86 | 3.51 | 22.93 | 2.89 | 3.12 | 1.37 | 507,500 | 1,124 |
| | | 25+ | 73.76 | 6.18 | 18.81 | 5.48 | 6.98 | 5.08 | 0.45 | 0.57 | 155,672 | 345 |
| | | 15–24 | 3.07 | 1.83 | 88.78 | 3.17 | 7.58 | 2.52 | 0.57 | 0.67 | 241,848 | 553 |
| | | 5–14 | . | . | 8.54 | 3.79 | 90.00 | 3.83 | 1.46 | 2.22 | 96,295 | 204 |
| | | 1–4 | . | . | 6.02 | 12.37 | 3.86 | 8.10 | . | . | 13,685 | 22 |
| | All | Total | 19.66 | 3.16 | 46.20 | 4.61 | 31.26 | 5.25 | 2.88 | 1.97 | 397,712 | 986 |
| | | 25+ | 76.31 | 6.20 | 18.04 | 5.85 | 5.39 | 3.13 | 0.26 | 0.50 | 91,684 | 251 |
| | | 15–24 | 4.01 | 2.98 | 85.85 | 5.98 | 9.84 | 4.56 | 0.30 | 0.48 | 190,605 | 494 |
| | | 5–14 | 0.26 | 0.52 | 2.66 | 2.36 | 95.98 | 2.98 | 1.09 | 1.33 | 104,350 | 219 |
| | | 1–4 | 2.75 | 6.01 | 7.13 | 15.43 | 4.31 | 9.32 | . | . | 11,073 | 22 |

Table 3-5 (continued)

| Level of Smoking Ban | | Cigs. Smoked Daily 1 Year before Survey | # Cigarettes Smoked per Day at Time of Survey: 25+ % | 25+ CI | 15–24 % | 15–24 CI | 5–14 % | 5–14 CI | 1–4 % | 1–4 CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1996 CTS | None | Total | 29.60 | 7.25 | 41.21 | 7.38 | 27.41 | 7.96 | 1.79 | 2.76 | 84,289 | 173 |
| | | 25+ | 84.88 | 12.31 | 13.89 | 12.15 | 1.23 | 2.45 | . | . | 27,575 | 61 |
| | | 15–24 | 4.67 | 4.41 | 85.50 | 8.82 | 9.83 | 8.19 | . | . | 33,034 | 72 |
| | | 5–14 | . | . | 12.00 | 15.67 | 88.00 | 15.67 | . | . | 22,176 | 38 |
| | | 1–4 | . | . | . | . | . | . | . | . | 1,505 | 2 |
| | Some | Total | 20.30 | 6.60 | 39.56 | 9.63 | 36.36 | 10.60 | 3.78 | 4.43 | 69,664 | 144 |
| | | 25+ | . | . | . | . | . | . | . | . | 15,616 | 37 |
| | | 15–24 | 4.18 | 5.06 | 75.49 | 12.84 | 16.09 | 11.59 | 4.25 | 8.42 | 31,231 | 70 |
| | | 5–14 | . | . | 5.80 | 6.80 | 94.20 | 6.80 | . | . | 20,851 | 34 |
| | | 1–4 | . | . | . | . | . | . | . | . | 1,967 | 3 |
| | All | Total | 15.76 | 2.12 | 44.37 | 2.92 | 35.65 | 2.91 | 4.21 | 0.97 | 1,041,596 | 2,343 |
| | | 25+ | 78.74 | 4.54 | 16.70 | 4.10 | 4.22 | 1.84 | 0.34 | 0.67 | 194,965 | 434 |
| | | 15–24 | 1.88 | 0.77 | 84.88 | 2.48 | 12.69 | 2.31 | 0.56 | 0.45 | 486,926 | 1,165 |
| | | 5–14 | 0.28 | 0.39 | 4.92 | 1.63 | 92.30 | 2.18 | 2.50 | 1.37 | 319,701 | 665 |
| | | 1–4 | 1.46 | 2.89 | 1.55 | 1.99 | 15.65 | 16.73 | 81.34 | 16.50 | 40,003 | 79 |

*Note: CI = 95% confidence interval; "." = insufficent data.*
*Source: 1990 and 1996 California Tobacco Surveys.*

Table 3-6
**Current Smoking Status among Indoor Workers with Different Levels of Restriction on Smoking in the Workplace, Age 18+**

| | Workplace Restrictions | Percentage of Smokers | | | |
|---|---|---|---|---|---|
| | | Daily | Occasional | Former | Never |
| CTS 1996 | 100% Smoking Ban | 12.21 | 5.23 | 22.09 | 58.47 |
| | Some Restrictions | 14.76 | 5.68 | 23.61 | 54.09 |
| | No Restrictions | 23.62 | 7.45 | 21.73 | 45.53 |
| CPS 1992/93 | 100% Smoking Ban | 15.33 | 4.50 | 21.91 | 58.26 |
| | Some Restrictions | 23.70 | 4.99 | 20.03 | 51.29 |
| | No Restrictions | 25.85 | 4.99 | 19.10 | 50.06 |
| CPS 1995/96 | 100% Smoking Ban | 15.97 | 4.02 | 20.31 | 59.70 |
| | Some Restrictions | 25.17 | 4.83 | 19.05 | 50.95 |
| | No Restrictions | 26.43 | 4.80 | 16.91 | 51.86 |

*Source: 1996 California Tobacco Survey; 1992/93 and 1995/96 Current Population Surveys.*

**CESSATION** Cross-sectional data from California and the CPS demonstrate that the prevalence of smoking is substantially lower among workers who are employed in smoke-free workplaces. However, the difference in current smoking prevalence across workplaces with different levels of smoking restrictions is largely due to a higher prevalence of never smokers rather than former smokers in those workplaces with greater restrictions (Table 3-6). This would suggest that the difference in smoking prevalence may be due to smokers moving to workplaces where smoking was allowed or greater ease in successfully implementing smoke-free workplaces in sites where there are fewer smokers rather than an effect of smoking restrictions on cessation.

The effect of smoking restrictions on cessation has been examined directly, however, and an effect of restrictions on cessation has been demonstrated. Data from a 5-year longitudinal follow-up of 8,271 employed adult smokers conducted as a part of the COMMIT trial examined cessation attempts and cessation success reported by the same individuals in two sur veys conducted 5 years apart (Glasgow *et al.*, 1997). Using multiple logistic regression techniques, they demonstrated a statistically significant 25 percent greater likelihood of making a cessation attempt over the 5-year period among those who worked in workplaces where smoking was banned, and workers in these workplaces had a 25 percent greater rate of having successfully quit during the 5-year period as well.

Emont *et al.* (1992) demonstrated a statistically significant relationship between the level of state clean-indoor-air laws and a higher fraction of ever smokers who were former smokers (quit ratio) using data from the 1989 CPS. An internal tobacco industry study (Heironimus, 1992) of a tracking database of smokers suggested that smokers in a smoke-free workplace quit at a rate that is 84 percent higher than smokers who work in locations where smoking is allowed. Lower levels of smoking restriction had much less effect on cessation.

Tables 3-7 and 3-8 present the results of multivariate logistic regression analyses of several measures of cessation (see Chapter 2) by level of workplace restriction of smoking for the 1992/93 CPS (Table 3-7) and the 1995/96 CPS (Table 3-8). The cessation measures are estimated for all those who were daily smokers 1 year prior to the survey, worked indoors, and were between ages 25 and 64 at the time of the survey. The results are controlled for age, gender, race/ethnicity, education and income levels, and number of cigarettes smoked per day. A term is also added to the regression that represents the average level of workplace restriction for the state in which the individual lives. This term is used to control for the influences of general environmental restrictions on smoking and of different social norms about smoking present in the environment. The intent is to remove these influences from an analysis of the effect of the specific level of restric tion present in the workplace where the individual is employed. The preva lence of each cessation measure by level of workplace restriction and by demographic characteristics of the population is included in Tables 3-9 and 3-10.

The 1992/93 CPS (Table 3-7) shows no relationship between working in a smoke-free environment and either making a cessation attempt or becom ing an occasional smoker; however, there is a significant relationship between working in a smoke-free area and becoming a former smoker (OR = 1.18) or having been quit for 3 or more months (OR = 1.39). There is also a smaller, but statistically significant, effect of the average level of workplace smoking restriction present in the state on being a former smoker of 3+ months' duration, suggesting that there may be an effect of environmental norms about smoking as well as a direct effect of the level of restriction where the smoker works.

The 1995/96 CPS (Table 3-8) analyses show similar results, with the addition of small effects of a smoke-free workplace on cessation attempts and any cessation change. Similar effects are also noted for the average level of workplace restriction in the state as a measure of the general environ mental norms on smoking restrictions.

These data suggest that there is an effect of restricting smoking in the workplace on smoking cessation, with a small increase in the number of cessation attempts when a 100-percent ban on smoking is present in the workplace. The effect is not evident for lower levels of workplace restric tion. There is no effect of smoking restrictions in the workplace on becom ing an occasional smoker, but there is a modest effect of the average level of workplace restriction for the state on becoming an occasional smoker. This result suggests that the general environmental norms may be more impor tant for becoming an occasional smoker, and that the effect of individual experience with workplace restrictions is on cessation. The principal effect of restricting smoking in the workplace appears to be an increase in the suc cess rate of those smokers who are attempting to quit. The modest effect on cessation attempts, with a much larger effect on 3+ month cessation suc cess, suggests that the effect of a smoke-free workplace may be to prevent

Table 3-7

**Multivariate Logistic Regression Analyses of Measures of Cessation by Level of Workplace Restriction for Those who were Current Daily Smokers 1 Year prior to the Survey and who Worked Indoors, Age 25–64 Years, 1992/93 Current Population Survey**

| | Cessation Activity | | Cessation Attempt | | Occasional | | Former (any length) | | Former, 3+ Months | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI |
| **Worksite Level of Ban** | | | | | | | | | | |
| Lesser Restrictions | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Total Work Ban | 1.02 | (0.95 - 1.09) | 1.01 | (0.94 - 1.09) | 1.07 | (0.88 - 1.29) | 1.18 | (1.04 - 1.33) | 1.39 | (1.20 - 1.62) |
| **State % Total Ban*** | | | | | | | | | | |
| Same Ban Level | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| State Ban +5% | 1.02 | (1.00 - 1.03) | 1.01 | (0.99 - 1.03) | 1.05 | (0.99 - 1.10) | 1.02 | (0.99 - 1.06) | 1.06 | (1.01 - 1.10) |
| **Gender** | | | | | | | | | | |
| Male | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Female | 1.00 | (0.94 - 1.07) | 0.98 | (0.92 - 1.05) | 1.35 | (1.11 - 1.63) | 1.05 | (0.93 - 1.19) | 1.16 | (1.00 - 1.34) |
| **Age (Years)** | | | | | | | | | | |
| 25–44 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | | |
| 45–64 | 0.80 | (0.74 - 0.85) | 0.80 | (0.75 - 0.86) | 0.76 | (0.61 - 0.94) | 1.02 | (0.90 - 1.16) | 1.01 | (0.86 - 1.18) |
| **Race/Ethnicity** | | | | | | | | | | |
| Non-Hispanic White | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Hispanic | 0.82 | (0.69 - 0.96) | 0.79 | (0.67 - 0.94) | 1.24 | (0.81 - 1.90) | 1.03 | (0.76 - 1.38) | 1.09 | (0.76 - 1.57) |
| African-American | 1.17 | (1.05 - 1.31) | 1.16 | (1.03 - 1.30) | 1.22 | (0.91 - 1.63) | 0.87 | (0.70 - 1.08) | 1.07 | (0.83 - 1.39) |
| Other | 0.84 | (0.68 - 1.03) | 0.84 | (0.68 - 1.04) | 0.91 | (0.52 - 1.60) | 0.73 | (0.49 - 1.10) | 0.76 | (0.46 - 1.25) |
| **Education (Years)** | | | | | | | | | | |
| < 12 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 12 | 1.36 | (1.21 - 1.52) | 1.33 | (1.18 - 1.49) | 1.74 | (1.14 - 2.64) | 1.57 | (1.24 - 1.99) | 1.32 | (0.99 - 1.75) |
| 13–15 | 1.64 | (1.46 - 1.85) | 1.59 | (1.40 - 1.79) | 2.36 | (1.54 - 3.61) | 1.70 | (1.33 - 2.17) | 1.48 | (1.10 - 1.98) |
| 16+ | 1.68 | (1.46 - 1.92) | 1.58 | (1.38 - 1.82) | 3.07 | (1.95 - 4.82) | 2.17 | (1.67 - 2.82) | 1.77 | (1.29 - 2.43) |

Table 3-7 (continued)

| | Cessation Activity | | Cessation Attempt | | Occasional | | Former (any length) | | Former, 3+ Months | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI |
| **Income (Dollars)** | | | | | | | | | | |
| <10,000 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 10,000–19,999 | 1.10 | (0.95 - 1.27) | 1.10 | (0.95 - 1.28) | 0.95 | (0.61 - 1.48) | 1.45 | (1.05 - 2.00) | 1.36 | (0.91 - 2.02) |
| 20,000–29,999 | 1.35 | (1.17 - 1.56) | 1.34 | (1.16 - 1.56) | 1.29 | (0.84 - 1.97) | 1.51 | (1.10 - 2.08) | 1.63 | (1.10 - 2.40) |
| 30,000–49,999 | 1.46 | (1.27 - 1.67) | 1.47 | (1.27 - 1.69) | 1.14 | (0.75 - 1.73) | 1.94 | (1.44 - 2.63) | 1.89 | (1.30 - 2.75) |
| 50,000–74,999 | 1.52 | (1.31 - 1.76) | 1.52 | (1.30 - 1.77) | 1.36 | (0.87 - 2.10) | 1.97 | (1.44 - 2.71) | 2.10 | (1.42 - 3.11) |
| 75,000+ | 1.82 | (1.51 - 2.18) | 1.81 | (1.50 - 2.19) | 1.45 | (0.87 - 2.43) | 2.06 | (1.44 - 2.95) | 2.38 | (1.54 - 3.68) |
| **Cigarettes Smoked per Day** | | | | | | | | | | |
| 1–4 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 5–14 | 0.85 | (0.69 - 1.04) | 0.84 | (0.68 - 1.04) | 1.01 | (0.62 - 1.65) | 0.51 | (0.38 - 0.70) | 0.51 | (0.35 - 0.76) |
| 15–24 | 0.55 | (0.45 - 0.67) | 0.56 | (0.45 - 0.69) | 0.59 | (0.36 - 0.96) | 0.48 | (0.35 - 0.64) | 0.55 | (0.38 - 0.80) |
| 25+ | 0.47 | (0.38 - 0.58) | 0.48 | (0.38 - 0.59) | 0.54 | (0.32 - 0.92) | 0.69 | (0.51 - 0.95) | 0.86 | (0.59 - 1.27) |

**Effect of a 5% difference between states of the average ban level for the state.*
*Source: 1992/93 Current Population Survey.*

Table 3-8

**Multivariate Logistic Regression Analyses of Measures of Cessation by Level of Workplace Restriction for Those who were Current Daily Smokers 1 Year prior to the Survey and who Worked Indoors, Age 25–64 Years, 1995/96 Current Population Survey**

| | Cessation Activity | | Cessation Attempt | | Occasional | | Former (any length) | | Former, 3+ Months | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI |
| **Worksite Level of Ban** | | | | | | | | | | |
| Lesser Restrictions | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Total Work Ban | 1.09 | (1.01 - 1.18) | 1.09 | (1.00 - 1.18) | 1.13 | (0.90 - 1.42) | 1.21 | (1.04 - 1.42) | 1.34 | (1.10 - 1.63) |
| **State % Total Ban*** | | | | | | | | | | |
| Same Ban Level | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| State Ban +5% | 1.04 | (1.02 - 1.06) | 1.04 | (1.02 - 1.06) | 1.06 | (1.01 - 1.12) | 1.04 | (1.01 - 1.08) | 1.03 | (0.99 - 1.08) |
| **Gender** | | | | | | | | | | |
| Male | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Female | 0.90 | (0.83 - 0.97) | 0.89 | (0.82 - 0.96) | 1.11 | (0.89 - 1.39) | 0.82 | (0.70 - 0.96) | 0.77 | (0.64 - 0.93) |
| **Age (Years)** | | | | | | | | | | |
| 25–44 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 45–64 | 0.85 | (0.78 - 0.92) | 0.85 | (0.78 - 0.92) | 0.91 | (0.72 - 1.15) | 0.81 | (0.69 - 0.95) | 0.88 | (0.72 - 1.07) |
| **Race/Ethnicity** | | | | | | | | | | |
| Non-Hispanic White | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Hispanic | 0.80 | (0.67 - 0.96) | 0.78 | (0.65 - 0.94) | 1.08 | (0.70 - 1.66) | 0.75 | (0.51 - 1.10) | 0.88 | (0.56 - 1.38) |
| African-American | 1.05 | (0.92 - 1.19) | 1.07 | (0.94 - 1.21) | 0.85 | (0.59 - 1.22) | 0.75 | (0.56 - 1.00) | 0.77 | (0.54 - 1.10) |
| Other | 1.13 | (0.92 - 1.38) | 1.16 | (0.94 - 1.42) | 0.80 | (0.45 - 1.42) | 1.04 | (0.71 - 1.52) | 1.16 | (0.73 - 1.82) |
| **Education (Years)** | | | | | | | | | | |
| < 12 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 12 | 1.17 | (1.02 - 1.33) | 1.17 | (1.02 - 1.33) | 1.03 | (0.69 - 1.54) | 1.00 | (0.75 - 1.32) | 1.11 | (0.78 - 1.58) |
| 13–15 | 1.40 | (1.23 - 1.61) | 1.36 | (1.19 - 1.57) | 1.69 | (1.13 - 2.52) | 1.31 | (0.98 - 1.75) | 1.30 | (0.90 - 1.86) |
| 16+ | 1.33 | (1.14 - 1.56) | 1.30 | (1.11 - 1.53) | 1.53 | (0.97 - 2.41) | 1.47 | (1.07 - 2.01) | 1.56 | (1.06 - 2.31) |

Table 3-8 (continued)

| | Cessation Activity | | Cessation Attempt | | Occasional | | Former (any length) | | Former, 3+ Months | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI | Odds Ratio | 95% CI |
| **Income (Dollars)** | | | | | | | | | | |
| <10,000 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 10,000–19,999 | 0.87 | (0.74 - 1.04) | 0.90 | (0.75 - 1.07) | 0.69 | (0.43 - 1.11) | 1.00 | (0.68 - 1.48) | 1.00 | (0.62 - 1.61) |
| 20,000–29,999 | 0.85 | (0.72 - 1.00) | 0.86 | (0.73 - 1.02) | 0.75 | (0.47 - 1.18) | 0.99 | (0.68 - 1.44) | 0.96 | (0.60 - 1.53) |
| 30,000–49,999 | 0.99 | (0.85 - 1.16) | 1.00 | (0.85 - 1.18) | 0.87 | (0.57 - 1.33) | 1.31 | (0.92 - 1.88) | 1.27 | (0.82 - 1.97) |
| 50,000–74,999 | 1.01 | (0.85 - 1.20) | 1.02 | (0.86 - 1.22) | 0.84 | (0.53 - 1.33) | 1.38 | (0.95 - 2.01) | 1.21 | (0.76 - 1.92) |
| 75,000+ | 1.03 | (0.85 - 1.25) | 1.06 | (0.87 - 1.29) | 0.74 | (0.43 - 1.26) | 1.82 | (1.22 - 2.71) | 1.85 | (1.14 - 3.00) |
| **Cigarettes smoked per day** | | | | | | | | | | |
| 1–4 | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| 5–14 | 0.76 | (0.61 - 0.96) | 0.89 | (0.70 - 1.14) | 0.35 | (0.24 - 0.52) | 0.74 | (0.49 - 1.12) | 0.68 | (0.42 - 1.11) |
| 15–24 | 0.50 | (0.40 - 0.62) | 0.60 | (0.47 - 0.76) | 0.19 | (0.13 - 0.28) | 0.55 | (0.37 - 0.83) | 0.51 | (0.31 - 0.82) |
| 25+ | 0.36 | (0.28 - 0.45) | 0.43 | (0.34 - 0.55) | 0.13 | (0.08 - 0.21) | 0.70 | (0.46 - 1.08) | 0.68 | (0.41 - 1.12) |

**Effect of a 5% difference between states of the average ban level for the state.*
*Source: 1995/96 Current Population Survey.*

relapse after a cessation attempt rather than to increase the number of smokers who try to quit. It may well be that if you cannot smoke at work, it is more difficult to relapse at work.

**SUMMARY** There has been a dramatic increase in the fraction of the working population protected by total bans on smoking in the workplace, increasing from 3 percent in 1986 to 64 percent in 1996. These restrictions have two effects on smokers as they are implemented. They increase the rate at which smokers attempt to quit, and they reduce the number of cigarettes smoked per day. Once restrictions on smoking in the workplace have been successfully implemented, they continue to have the effect of reducing the num ber of cigarettes smoked per day, and they increase the success rate of smok ers who are attempting to quit. There may also be a small effect of increas ing the frequency with which smokers attempt to quit.

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**THE FOLLOWING PAGES CONTAIN**

**TABLES 3-9 AND 3-10**

Table 3-9

**Nation: Current Smoking Status among Indoor Worker Self-respondent Adults Who Were Daily Smokers 1 Year Ago, Age 25 and Older, 1992/93 Current Population Survey**

| | Current Smoking Status | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Daily Smokers No Quit Attempts | | Daily Smokers w/Quit Attempts | | Occasional Smokers | | Former Smokers <3 Months | | Former Smokers 3+ Months | | Population Size | Sample Size |
| Nation | % | CI | % | CI | % | CI | % | CI | % | CI | (N) | (n) |
| **Total** | 61.29 | 0.93 | 27.96 | 0.86 | 2.88 | 0.32 | 2.84 | 0.32 | 5.04 | 0.42 | 12,575,808 | 16,041 |
| **Workplace Smoking Rules, listed as: Work Area Level [Public Areas Level]** | | | | | | | | | | | | |
| Ban [Ban] | 58.93 | 1.54 | 28.62 | 1.42 | 3.50 | 0.58 | 2.63 | 0.50 | 6.33 | 0.76 | 4,661,981 | 5,916 |
| Ban [No Ban] | 63.48 | 2.04 | 27.01 | 1.89 | 2.61 | 0.68 | 2.82 | 0.70 | 4.08 | 0.84 | 2,537,189 | 3,303 |
| Restrict [Ban] | 58.66 | 2.22 | 31.06 | 2.09 | 3.12 | 0.78 | 2.92 | 0.76 | 4.24 | 0.91 | 2,250,384 | 2,832 |
| Restrict [Restrict] | 62.33 | 6.03 | 27.24 | 5.54 | 1.97 | 1.73 | 2.37 | 1.89 | 6.09 | 2.97 | 295,478 | 388 |
| No Restricions | 65.19 | 1.91 | 25.32 | 1.75 | 2.03 | 0.57 | 3.16 | 0.70 | 4.30 | 0.82 | 2,830,777 | 3,602 |
| **Age (Years)** | | | | | | | | | | | | |
| 25–44 | 59.66 | 1.12 | 29.58 | 1.04 | 3.12 | 0.40 | 2.78 | 0.38 | 4.86 | 0.49 | 8,733,235 | 11,023 |
| 45–64 | 64.99 | 1.65 | 24.27 | 1.48 | 2.34 | 0.52 | 2.96 | 0.58 | 5.44 | 0.78 | 3,842,573 | 5,018 |
| **Race/Ethnicity** | | | | | | | | | | | | |
| Non-Hispanic White | 61.76 | 1.02 | 27.37 | 0.93 | 2.76 | 0.34 | 2.99 | 0.36 | 5.13 | 0.46 | 10,463,533 | 13,965 |
| Hispanic | 64.58 | 5.86 | 24.74 | 5.29 | 3.21 | 2.16 | 2.65 | 1.97 | 4.83 | 2.62 | 565,382 | 492 |
| African-American | 55.52 | 3.08 | 34.31 | 2.95 | 3.71 | 1.17 | 1.84 | 0.83 | 4.63 | 1.30 | 1,216,283 | 1,145 |
| Other | 62.01 | 5.78 | 28.70 | 5.38 | 3.17 | 2.08 | 2.04 | 1.68 | 4.08 | 2.36 | 330,610 | 439 |
| **Education (Years)** | | | | | | | | | | | | |
| <12 | 71.82 | 2.46 | 22.26 | 2.28 | 1.38 | 0.64 | 1.36 | 0.63 | 3.19 | 0.96 | 1,526,453 | 1,883 |
| 12 | 62.98 | 1.37 | 27.14 | 1.26 | 2.38 | 0.43 | 2.88 | 0.47 | 4.61 | 0.59 | 5,691,190 | 7,428 |
| 13–15 | 57.22 | 1.78 | 31.02 | 1.67 | 3.50 | 0.66 | 2.78 | 0.59 | 5.48 | 0.82 | 3,527,323 | 4,522 |
| 16+ | 55.07 | 2.49 | 29.34 | 2.28 | 4.51 | 1.04 | 4.04 | 0.98 | 7.03 | 1.28 | 1,830,843 | 2,208 |
| **Cigarettes Smoked per Day** | | | | | | | | | | | | |
| 1–4 | 49.66 | 5.97 | 32.67 | 5.60 | 4.77 | 2.54 | 4.80 | 2.55 | 8.10 | 3.26 | 321,024 | 360 |
| 5–14 | 52.61 | 1.97 | 35.41 | 1.88 | 4.46 | 0.81 | 3.06 | 0.68 | 4.46 | 0.81 | 2,948,752 | 3,594 |
| 15–24 | 63.13 | 1.30 | 27.46 | 1.20 | 2.46 | 0.42 | 2.46 | 0.42 | 4.49 | 0.56 | 6,321,567 | 8,258 |
| 25+ | 67.20 | 1.84 | 21.14 | 1.60 | 2.02 | 0.55 | 3.21 | 0.69 | 6.43 | 0.96 | 2,984,466 | 3,829 |

Table 3-9 (continued)

| Nation | Current Smoking Status: Daily Smokers No Quit Attempts % | CI | Daily Smokers w/Quit Attempts % | CI | Occasional Smokers % | CI | Former Smokers <3 Months % | CI | Former Smokers 3+ Months % | CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Household Income (Dollars)** | | | | | | | | | | | | |
| <10,000 | 68.94 | 3.21 | 24.62 | 2.99 | 2.25 | 1.03 | 1.50 | 0.84 | 2.69 | 1.12 | 949,892 | 1,214 |
| 10,000–19,999 | 66.52 | 2.11 | 25.08 | 1.94 | 2.17 | 0.65 | 2.54 | 0.70 | 3.69 | 0.84 | 2,284,478 | 2,978 |
| 20,000–29,999 | 61.64 | 2.07 | 28.43 | 1.92 | 3.15 | 0.74 | 2.19 | 0.62 | 4.59 | 0.89 | 2,523,179 | 3,285 |
| 30,000–49,999 | 59.51 | 1.67 | 28.80 | 1.54 | 2.75 | 0.56 | 3.49 | 0.62 | 5.45 | 0.77 | 3,962,812 | 5,061 |
| 50,000–74,999 | 58.06 | 2.31 | 28.86 | 2.12 | 3.52 | 0.86 | 3.22 | 0.83 | 6.34 | 1.14 | 2,087,777 | 2,577 |
| 75,000 + | 53.06 | 3.85 | 32.28 | 3.61 | 3.87 | 1.49 | 3.06 | 1.33 | 7.74 | 2.06 | 767,670 | 926 |
| **States** | | | | | | | | | | | | |
| Alabama | 62.08 | 8.67 | 29.47 | 8.15 | 1.39 | 2.10 | 2.80 | 2.95 | 4.25 | 3.61 | 193,329 | 203 |
| Alaska | 64.03 | 7.61 | 28.50 | 7.15 | 3.02 | 2.71 | 0.94 | 1.53 | 3.51 | 2.92 | 27,314 | 206 |
| Arizona | 61.78 | 8.16 | 26.63 | 7.42 | 3.83 | 3.22 | 1.65 | 2.14 | 6.11 | 4.02 | 170,232 | 147 |
| Arkansas | 69.30 | 7.46 | 21.05 | 6.59 | 1.75 | 2.12 | 3.74 | 3.07 | 4.17 | 3.23 | 136,381 | 240 |
| California | 58.20 | 3.84 | 27.20 | 3.46 | 3.07 | 1.34 | 2.64 | 1.25 | 8.89 | 2.21 | 945,027 | 705 |
| Colorado | 61.06 | 8.53 | 24.42 | 7.51 | 4.75 | 3.72 | 2.28 | 2.61 | 7.49 | 4.60 | 169,028 | 190 |
| Connecticut | 60.82 | 8.15 | 27.31 | 7.44 | 0.41 | 1.07 | 5.01 | 3.64 | 6.45 | 4.10 | 191,794 | 181 |
| District of Columbia | 61.62 | 10.91 | 26.06 | 9.84 | 5.06 | 4.92 | 1.85 | 3.02 | 5.40 | 5.07 | 20,919 | 87 |
| Delaware | 71.31 | 7.32 | 18.37 | 6.26 | 2.61 | 2.58 | 2.22 | 2.38 | 5.50 | 3.69 | 40,213 | 141 |
| Florida | 63.44 | 3.84 | 28.55 | 3.60 | 2.33 | 1.20 | 1.70 | 1.03 | 3.98 | 1.56 | 639,167 | 646 |
| Georgia | 57.51 | 7.82 | 32.29 | 7.39 | 2.39 | 2.42 | 3.82 | 3.03 | 3.98 | 3.09 | 347,525 | 177 |
| Hawaii | 61.77 | 9.54 | 30.56 | 9.04 | 3.61 | 3.66 | 1.59 | 2.45 | 2.48 | 3.05 | 40,394 | 102 |
| Idaho | 60.25 | 8.08 | 27.00 | 7.33 | 4.48 | 3.42 | 2.01 | 2.32 | 6.25 | 4.00 | 47,008 | 200 |
| Illinois | 61.09 | 3.96 | 27.96 | 3.65 | 3.12 | 1.41 | 3.21 | 1.43 | 4.61 | 1.70 | 658,778 | 710 |
| Indiana | 65.78 | 7.08 | 24.36 | 6.40 | 0.83 | 1.35 | 4.76 | 3.18 | 4.27 | 3.02 | 353,669 | 240 |
| Iowa | 60.72 | 7.47 | 28.79 | 6.92 | 3.02 | 2.62 | 2.98 | 2.60 | 4.49 | 3.17 | 158,397 | 284 |
| Kansas | 71.98 | 6.46 | 19.20 | 5.67 | 1.66 | 1.84 | 2.41 | 2.20 | 4.75 | 3.06 | 152,500 | 288 |
| Kentucky | 71.39 | 7.02 | 21.24 | 6.35 | 2.01 | 2.18 | 2.49 | 2.42 | 2.87 | 2.59 | 218,011 | 218 |
| Louisiana | 64.51 | 9.22 | 27.72 | 8.62 | 2.05 | 2.73 | 1.01 | 1.93 | 4.72 | 4.08 | 167,709 | 138 |
| Maine | 64.20 | 6.94 | 28.29 | 6.52 | 2.67 | 2.33 | 1.75 | 1.90 | 3.09 | 2.51 | 80,702 | 225 |

Table 3-9 (continued)

| State | Current Smoking Status: Daily Smokers No Quit Attempts % | CI | Daily Smokers w/Quit Attempts % | CI | Occasional Smokers % | CI | Former Smokers <3 Months % | CI | Former Smokers 3+ Months % | CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maryland | 55.26 | 7.94 | 29.91 | 7.31 | 6.85 | 4.03 | 4.94 | 3.46 | 3.04 | 2.74 | 270,841 | 169 |
| Massachusetts | 55.21 | 4.14 | 31.99 | 3.89 | 2.75 | 1.36 | 4.06 | 1.64 | 5.99 | 1.98 | 316,111 | 602 |
| Michigan | 56.46 | 3.80 | 33.61 | 3.62 | 2.03 | 1.08 | 2.28 | 1.14 | 5.62 | 1.77 | 583,695 | 833 |
| Minnesota | 58.82 | 7.42 | 28.63 | 6.81 | 5.56 | 3.46 | 1.82 | 2.02 | 5.17 | 3.34 | 271,791 | 253 |
| Mississippi | 62.00 | 8.90 | 29.48 | 8.36 | 1.57 | 2.28 | 2.17 | 2.67 | 4.78 | 3.91 | 112,968 | 208 |
| Missouri | 62.41 | 7.55 | 25.98 | 6.84 | 3.61 | 2.91 | 3.62 | 2.91 | 4.38 | 3.19 | 304,815 | 242 |
| Montana | 70.42 | 8.07 | 18.30 | 6.83 | 2.95 | 2.99 | 3.46 | 3.23 | 4.87 | 3.81 | 36,596 | 221 |
| North Carolina | 67.05 | 3.45 | 24.37 | 3.15 | 2.57 | 1.16 | 3.03 | 1.26 | 2.99 | 1.25 | 416,294 | 812 |
| North Dakota | 58.18 | 8.48 | 31.22 | 7.96 | 5.40 | 3.88 | 2.97 | 2.92 | 2.24 | 2.54 | 27,882 | 211 |
| Nebraska | 58.13 | 7.94 | 33.21 | 7.58 | 1.21 | 1.76 | 2.10 | 2.31 | 5.35 | 3.62 | 74,191 | 232 |
| Nevada | 65.35 | 6.63 | 28.40 | 6.28 | 0.44 | 0.93 | 1.43 | 1.66 | 4.37 | 2.85 | 87,270 | 241 |
| New Hampshire | 63.68 | 8.32 | 24.06 | 7.40 | 4.09 | 3.43 | 2.95 | 2.93 | 5.21 | 3.85 | 61,072 | 135 |
| New Jersey | 60.71 | 4.29 | 28.26 | 3.96 | 2.05 | 1.25 | 2.38 | 1.34 | 6.61 | 2.18 | 349,012 | 545 |
| New Mexico | 67.94 | 8.72 | 23.31 | 7.90 | 2.90 | 3.14 | 1.33 | 2.14 | 4.52 | 3.88 | 57,657 | 139 |
| New York | 58.99 | 3.39 | 28.14 | 3.10 | 3.09 | 1.19 | 4.41 | 1.41 | 5.38 | 1.55 | 772,360 | 886 |
| Ohio | 61.82 | 3.64 | 27.69 | 3.35 | 2.91 | 1.26 | 1.90 | 1.02 | 5.67 | 1.73 | 669,072 | 870 |
| Oklahoma | 59.04 | 7.74 | 28.19 | 7.08 | 1.74 | 2.06 | 4.30 | 3.19 | 6.72 | 3.94 | 173,599 | 223 |
| Oregon | 61.03 | 8.92 | 30.72 | 8.44 | 3.28 | 3.26 | 1.53 | 2.25 | 3.43 | 3.33 | 133,926 | 166 |
| Pennsylvania | 59.35 | 3.99 | 29.93 | 3.72 | 2.90 | 1.36 | 2.16 | 1.18 | 5.66 | 1.87 | 618,303 | 739 |
| Rhode Island | 61.29 | 8.51 | 25.34 | 7.60 | 3.21 | 3.08 | 3.46 | 3.19 | 6.70 | 4.37 | 50,910 | 143 |
| South Carolina | 65.95 | 6.61 | 23.90 | 5.95 | 2.99 | 2.38 | 3.16 | 2.44 | 3.99 | 2.73 | 209,182 | 256 |
| South Dakota | 61.87 | 7.59 | 25.41 | 6.80 | 3.91 | 3.03 | 1.96 | 2.16 | 6.85 | 3.95 | 33,751 | 257 |
| Tennessee | 60.83 | 7.35 | 30.99 | 6.96 | 2.11 | 2.16 | 3.76 | 2.86 | 2.31 | 2.26 | 280,697 | 241 |
| Texas | 61.75 | 4.50 | 29.49 | 4.22 | 3.02 | 1.59 | 2.27 | 1.38 | 3.46 | 1.69 | 762,515 | 637 |
| Utah | 69.01 | 8.77 | 22.25 | 7.89 | 3.37 | 3.42 | 0.95 | 1.84 | 4.42 | 3.90 | 59,725 | 134 |

Table 3-9 (continued)

| State | Current Smoking Status: Daily Smokers No Quit Attempts % | CI | Daily Smokers w/Quit Attempts % | CI | Occasional Smokers % | CI | Former Smokers <3 Months % | CI | Former Smokers 3+ Months % | CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vermont | 59.75 | 7.62 | 28.89 | 7.04 | 3.26 | 2.76 | 2.79 | 2.56 | 5.30 | 3.48 | 37,915 | 177 |
| Virginia | 62.94 | 6.57 | 27.19 | 6.05 | 2.36 | 2.06 | 3.17 | 2.38 | 4.34 | 2.77 | 371,310 | 268 |
| Washington | 56.37 | 8.16 | 29.79 | 7.52 | 3.83 | 3.16 | 3.12 | 2.86 | 6.88 | 4.16 | 246,885 | 176 |
| West Virginia | 73.80 | 7.45 | 19.33 | 6.69 | 2.79 | 2.79 | 0.84 | 1.54 | 3.23 | 3.00 | 93,929 | 210 |
| Wisconsin | 60.18 | 6.90 | 27.64 | 6.30 | 5.87 | 3.31 | 2.35 | 2.14 | 3.96 | 2.75 | 310,824 | 338 |
| Wyoming | 58.11 | 9.42 | 31.58 | 8.87 | 2.85 | 3.18 | 3.13 | 3.32 | 4.33 | 3.88 | 22,609 | 149 |

*Note: CI = 95% confidence interval.*
**Source: 1992/93 Current Population Survey.*

Table 3-10

**Nation: Current Smoking Status among Indoor Worker Self-respondent Adults who were Daily Smokers 1 Year Ago, Age 25 and Older, 1995/96 Current Population Survey**

| | Current Smoking Status | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Daily Smokers No Quit Attempts | | Daily Smokers w/Quit Attempts | | Occasional Smokers | | Former Smokers <3 Months | | Former Smokers 3+ Months | | Population Size | Sample Size |
| Nation | % | CI | % | CI | % | CI | % | CI | % | CI | (N) | (n) |
| **Total** | 67.5 | 0.9 | 24.2 | 0.8 | 2.7 | 0.3 | 2.0 | 0.3 | 3.6 | 0.4 | 13,184,031 | 13,422 |
| **Workplace Smoking Rules, listed as: Work Area Level [Public Areas Level]** | | | | | | | | | | | | |
| Ban [Ban] | 65.3 | 1.3 | 25.2 | 1.2 | 3.1 | 0.5 | 2.1 | 0.4 | 4.2 | 0.5 | 7,200,542 | 7,392 |
| Ban [No Ban] | 70.8 | 2.4 | 22.7 | 2.2 | 2.4 | 0.8 | 1.6 | 0.7 | 2.6 | 0.8 | 1,786,388 | 1,779 |
| Restrict [Ban] | 68.0 | 2.6 | 24.1 | 2.4 | 1.9 | 0.8 | 2.6 | 0.9 | 3.4 | 1.0 | 1,679,520 | 1,720 |
| Restrict [Restrict] | 67.6 | 6.8 | 25.5 | 6.3 | 3.0 | 2.5 | 1.6 | 1.8 | 2.3 | 2.2 | 245,711 | 239 |
| No Restrictions | 71.5 | 2.1 | 22.0 | 2.0 | 2.0 | 0.7 | 1.6 | 0.6 | 2.9 | 0.8 | 2,271,869 | 2,292 |
| **Age (Years)** | | | | | | | | | | | | |
| 25–44 | 66.1 | 1.1 | 25.2 | 1.0 | 2.8 | 0.4 | 2.2 | 0.4 | 3.7 | 0.5 | 8,884,812 | 8,931 |
| 45–64 | 70.4 | 1.6 | 22.0 | 1.4 | 2.4 | 0.5 | 1.7 | 0.4 | 3.5 | 0.6 | 4,299,219 | 4,491 |
| **Race/Ethnicity** | | | | | | | | | | | | |
| Non-Hispanic White | 68.2 | 1.0 | 23.4 | 0.9 | 2.6 | 0.3 | 2.1 | 0.3 | 3.7 | 0.4 | 10,839,373 | 11,541 |
| Hispanic | 68.1 | 5.7 | 23.5 | 5.2 | 3.8 | 2.3 | 1.3 | 1.4 | 3.3 | 2.2 | 641,866 | 494 |
| African-American | 63.6 | 3.1 | 29.2 | 2.9 | 2.9 | 1.1 | 1.5 | 0.8 | 2.8 | 1.1 | 1,277,602 | 983 |
| Other | 60.5 | 5.4 | 29.9 | 5.1 | 2.5 | 1.7 | 2.1 | 1.6 | 5.0 | 2.4 | 425,189 | 404 |
| **Education (Years)** | | | | | | | | | | | | |
| <12 | 73.4 | 2.6 | 20.5 | 2.3 | 1.9 | 0.8 | 1.6 | 0.7 | 2.6 | 0.9 | 1,537,128 | 1,473 |
| 12 | 69.7 | 1.4 | 23.7 | 1.3 | 2.0 | 0.4 | 1.5 | 0.4 | 3.1 | 0.5 | 5,816,058 | 6,014 |
| 13–15 | 63.9 | 1.7 | 26.0 | 1.6 | 3.6 | 0.7 | 2.5 | 0.6 | 3.9 | 0.7 | 3,959,563 | 4,074 |
| 16+ | 63.6 | 2.5 | 24.8 | 2.3 | 3.4 | 1.0 | 2.7 | 0.9 | 5.4 | 1.2 | 1,871,281 | 1,861 |
| **Cigarettes Smoked per Day** | | | | | | | | | | | | |
| 1–4 | 52.7 | 6.2 | 28.4 | 5.6 | 10.9 | 3.9 | 2.4 | 1.9 | 5.6 | 2.8 | 336,446 | 318 |
| 5–14 | 58.4 | 2.0 | 31.0 | 1.8 | 4.1 | 0.8 | 2.3 | 0.6 | 4.1 | 0.8 | 3,229,042 | 3,248 |
| 15–24 | 68.9 | 1.3 | 24.0 | 1.2 | 2.1 | 0.4 | 1.8 | 0.4 | 3.1 | 0.5 | 6,689,405 | 6,885 |
| 25+ | 76.1 | 1.8 | 16.6 | 1.6 | 1.4 | 0.5 | 2.0 | 0.6 | 4.0 | 0.8 | 2,929,138 | 2,971 |

Table 3-10 (continued)

| Nation | Current Smoking Status: Daily Smokers No Quit Attempts % | CI | Daily Smokers w/Quit Attempts % | CI | Occasional Smokers % | CI | Former Smokers <3 Months % | CI | Former Smokers 3+ Months % | CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Household Income (Dollars)** | | | | | | | | | | | | |
| <10,000 | 67.0 | 3.6 | 25.9 | 3.3 | 3.0 | 1.3 | 1.4 | 0.9 | 2.7 | 1.2 | 890,140 | 922 |
| 10,000–19,999 | 69.7 | 2.3 | 23.8 | 2.1 | 2.3 | 0.7 | 1.5 | 0.6 | 2.8 | 0.8 | 2,035,953 | 2,100 |
| 20,000–29,999 | 70.2 | 2.0 | 22.9 | 1.9 | 2.5 | 0.7 | 1.6 | 0.6 | 2.8 | 0.7 | 2,563,182 | 2,637 |
| 30,000–49,999 | 66.9 | 1.7 | 24.4 | 1.5 | 2.8 | 0.6 | 2.1 | 0.5 | 3.9 | 0.7 | 4,117,727 | 4,253 |
| 50,000–74,999 | 65.5 | 2.2 | 25.0 | 2.0 | 3.0 | 0.8 | 2.7 | 0.7 | 3.8 | 0.9 | 2,394,938 | 2,394 |
| 75,000 + | 64.5 | 3.2 | 23.9 | 2.8 | 2.7 | 1.1 | 2.7 | 1.1 | 6.2 | 1.6 | 1,182,091 | 1,116 |
| **State** | | | | | | | | | | | | |
| Alabama | 67.4 | 8.3 | 28.3 | 8.0 | 1.8 | 2.3 | 1.2 | 1.9 | 1.3 | 2.0 | 182,677 | 161 |
| Alaska | 63.0 | 7.6 | 30.4 | 7.2 | 2.1 | 2.3 | 0.6 | 1.2 | 3.9 | 3.0 | 31,231 | 138 |
| Arizona | 63.0 | 7.8 | 25.9 | 7.1 | 2.9 | 2.7 | 5.6 | 3.7 | 2.7 | 2.6 | 197,215 | 197 |
| Arkansas | 75.2 | 6.4 | 20.2 | 5.9 | 1.9 | 2.0 | . | . | 2.7 | 2.4 | 153,177 | 207 |
| California | 62.4 | 4.0 | 26.4 | 3.6 | 4.0 | 1.6 | 2.4 | 1.3 | 4.9 | 1.8 | 964,676 | 589 |
| Colorado | 61.7 | 7.8 | 25.4 | 7.0 | 3.2 | 2.8 | 4.1 | 3.2 | 5.7 | 3.7 | 198,247 | 206 |
| Connecticut | 67.4 | 8.9 | 27.2 | 8.5 | 1.6 | 2.4 | 1.1 | 2.0 | 2.7 | 3.1 | 144,552 | 108 |
| District of Columbia | 67.1 | 10.2 | 27.6 | 9.7 | 3.0 | 3.7 | 1.2 | 2.4 | 1.0 | 2.2 | 19,597 | 87 |
| Delaware | 70.0 | 7.5 | 18.8 | 6.4 | 4.4 | 3.3 | 3.5 | 3.0 | 3.3 | 2.9 | 40,305 | 149 |
| Florida | 68.4 | 3.9 | 23.3 | 3.5 | 2.4 | 1.3 | 2.0 | 1.2 | 3.9 | 1.6 | 672,955 | 539 |
| Georgia | 73.6 | 6.7 | 21.2 | 6.2 | . | . | 3.0 | 2.6 | 2.2 | 2.2 | 348,989 | 212 |
| Hawaii | 68.7 | 9.2 | 21.2 | 8.1 | 2.6 | 3.2 | 3.9 | 3.9 | 3.6 | 3.7 | 45,482 | 86 |
| Idaho | 64.9 | 8.1 | 22.2 | 7.1 | 5.0 | 3.7 | 2.5 | 2.6 | 5.4 | 3.8 | 50,023 | 165 |
| Illinois | 68.6 | 4.1 | 23.5 | 3.7 | 2.8 | 1.4 | 1.8 | 1.2 | 3.4 | 1.6 | 648,422 | 601 |
| Indiana | 75.3 | 5.9 | 19.4 | 5.4 | . | . | 0.8 | 1.3 | 4.4 | 2.8 | 405,977 | 248 |
| Iowa | 70.4 | 6.9 | 20.7 | 6.1 | 3.5 | 2.8 | 1.4 | 1.8 | 3.9 | 2.9 | 168,848 | 221 |
| Kansas | 75.6 | 6.5 | 18.5 | 5.9 | 1.8 | 2.0 | 1.5 | 1.9 | 2.5 | 2.4 | 154,920 | 228 |
| Kentucky | 69.2 | 7.0 | 25.5 | 6.6 | 1.3 | 1.7 | 1.1 | 1.6 | 2.9 | 2.5 | 222,143 | 197 |
| Louisiana | 77.1 | 7.3 | 14.1 | 6.0 | 2.0 | 2.4 | 2.0 | 2.4 | 4.8 | 3.7 | 182,864 | 136 |
| Maine | 66.7 | 7.7 | 27.5 | 7.3 | 0.8 | 1.4 | 1.6 | 2.0 | 3.5 | 3.0 | 69,418 | 163 |

Table 3-10 (continued)

| State | Current Smoking Status: Daily Smokers No Quit Attempts % | CI | Daily Smokers w/Quit Attempts % | CI | Occasional Smokers % | CI | Former Smokers <3 Months % | CI | Former Smokers 3+ Months % | CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maryland | 62.4 | 8.2 | 27.3 | 7.5 | 4.9 | 3.7 | 1.6 | 2.1 | 3.7 | 3.2 | 253,032 | 146 |
| Massachusetts | 55.9 | 5.3 | 32.7 | 5.0 | 3.2 | 1.9 | 3.2 | 1.9 | 5.0 | 2.3 | 302,728 | 350 |
| Michigan | 62.6 | 4.0 | 29.4 | 3.8 | 2.3 | 1.2 | 2.1 | 1.2 | 3.7 | 1.6 | 622,882 | 649 |
| Minnesota | 63.4 | 7.3 | 24.7 | 6.5 | 5.1 | 3.3 | 3.6 | 2.8 | 3.1 | 2.6 | 274,423 | 243 |
| Mississippi | 65.0 | 8.0 | 27.3 | 7.5 | 1.1 | 1.8 | 3.2 | 2.9 | 3.3 | 3.0 | 126,519 | 151 |
| Missouri | 66.0 | 6.7 | 24.9 | 6.1 | 3.7 | 2.7 | 1.0 | 1.4 | 4.3 | 2.9 | 361,678 | 234 |
| Montana | 67.4 | 8.0 | 27.1 | 7.5 | 2.4 | 2.6 | 0.5 | 1.1 | 2.6 | 2.7 | 39,296 | 183 |
| North Carolina | 70.7 | 4.6 | 21.1 | 4.1 | 2.6 | 1.6 | 2.7 | 1.6 | 2.9 | 1.7 | 426,357 | 507 |
| North Dakota | 74.2 | 7.3 | 20.4 | 6.8 | 1.3 | 1.9 | 3.1 | 2.9 | 1.0 | 1.7 | 31,021 | 195 |
| Nebraska | 70.7 | 7.2 | 21.8 | 6.6 | 2.2 | 2.3 | 3.5 | 2.9 | 1.8 | 2.1 | 83,923 | 195 |
| Nevada | 67.0 | 7.0 | 25.6 | 6.5 | 3.9 | 2.9 | 1.1 | 1.6 | 2.4 | 2.3 | 95,940 | 171 |
| New Hampshire | 58.8 | 8.0 | 31.0 | 7.5 | 3.3 | 2.9 | 2.9 | 2.7 | 4.0 | 3.2 | 72,494 | 166 |
| New Jersey | 69.2 | 4.5 | 21.5 | 4.0 | 1.3 | 1.1 | 4.0 | 1.9 | 4.1 | 1.9 | 380,038 | 395 |
| New Mexico | 64.7 | 8.4 | 24.8 | 7.6 | 4.5 | 3.6 | 2.4 | 2.7 | 3.6 | 3.2 | 67,139 | 154 |
| New York | 64.5 | 3.7 | 25.8 | 3.3 | 3.1 | 1.3 | 1.6 | 1.0 | 5.0 | 1.7 | 742,585 | 644 |
| Ohio | 73.4 | 3.6 | 19.4 | 3.3 | 2.7 | 1.3 | 1.9 | 1.1 | 2.6 | 1.3 | 707,330 | 681 |
| Oklahoma | 68.5 | 7.0 | 24.8 | 6.5 | 4.1 | 3.0 | 1.8 | 2.0 | 0.8 | 1.3 | 181,739 | 238 |
| Oregon | 72.8 | 7.9 | 20.3 | 7.1 | 2.0 | 2.5 | . | . | 4.9 | 3.8 | 146,569 | 151 |
| Pennsylvania | 66.7 | 4.0 | 24.5 | 3.6 | 3.4 | 1.5 | 0.7 | 0.7 | 4.7 | 1.8 | 669,981 | 658 |
| Rhode Island | 61.5 | 7.9 | 31.2 | 7.5 | 1.6 | 2.0 | 2.3 | 2.4 | 3.4 | 2.9 | 59,114 | 145 |
| South Carolina | 77.0 | 6.1 | 17.2 | 5.4 | 2.1 | 2.1 | 1.7 | 1.8 | 2.1 | 2.0 | 237,363 | 182 |
| South Dakota | 62.1 | 7.5 | 26.3 | 6.8 | 5.1 | 3.4 | 2.6 | 2.5 | 3.9 | 3.0 | 36,583 | 210 |
| Tennessee | 72.5 | 6.4 | 21.0 | 5.8 | 2.7 | 2.3 | 1.0 | 1.4 | 2.9 | 2.4 | 327,339 | 204 |
| Texas | 67.3 | 4.1 | 25.7 | 3.9 | 2.6 | 1.4 | 1.8 | 1.2 | 2.6 | 1.4 | 847,183 | 556 |
| Utah | 68.3 | 9.1 | 21.2 | 8.0 | 5.9 | 4.6 | 1.4 | 2.3 | 3.2 | 3.4 | 60,579 | 120 |

Table 3-10 (continued)

| State | Current Smoking Status: Daily Smokers No Quit Attempts % | CI | Daily Smokers w/Quit Attempts % | CI | Occasional Smokers % | CI | Former Smokers <3 Months % | CI | Former Smokers 3+ Months % | CI | Population Size (N) | Sample Size (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vermont | 65.8 | 7.5 | 27.2 | 7.1 | 1.4 | 1.9 | 1.4 | 1.9 | 4.2 | 3.2 | 36,771 | 176 |
| Virginia | 69.5 | 6.8 | 22.8 | 6.2 | 1.6 | 1.8 | 2.5 | 2.3 | 3.7 | 2.8 | 362,169 | 241 |
| Washington | 59.2 | 8.8 | 30.6 | 8.3 | 1.4 | 2.1 | 3.8 | 3.4 | 5.0 | 3.9 | 248,779 | 152 |
| West Virginia | 70.8 | 7.4 | 21.9 | 6.8 | 3.3 | 2.9 | 1.1 | 1.7 | 2.9 | 2.7 | 84,774 | 185 |
| Wisconsin | 65.5 | 6.5 | 26.7 | 6.0 | 3.6 | 2.6 | 1.0 | 1.3 | 3.3 | 2.4 | 370,648 | 299 |
| Wyoming | 71.2 | 7.6 | 21.0 | 6.9 | 1.9 | 2.3 | 1.0 | 1.7 | 4.8 | 3.6 | 25,339 | 203 |

*Note: CI = 95% confidence interval; ". " = insufficient data.*
**Source: 1995/96 Current Population Survey.*

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