

Section I:

**The Role of Public Policy
Change in Tobacco Control.
Current State of the Science**

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THE PROBLEM

CLEAN INDOOR AIR

Tobacco smoke contains carcinogens, toxins, and irritants that cause disease risks proportionate to the intensity and duration of exposure. Exposure of nonsmokers to tobacco smoke in the general environment—particularly enclosed indoor environments—results in irritation and annoyance, causes lung cancer and heart disease in adults, and causes asthma, bronchitis, pneumonia, and chronic ear problems in children.

Concerns about environmental tobacco smoke (ETS) exposure were first raised by Surgeon General Jesse Steinfeld. In January 1971, the Surgeon General suggested that even low-dose exposure to a carcinogen as powerful as tobacco smoke was a potential public health risk for nonsmokers (Steinfeld, 1972). After more than 20 years of scientific inquiry, Dr. Steinfeld's warning has been extensively validated and documented, and there is no longer any doubt that exposure to ETS is a cause of death and disease among nonsmokers.

Early efforts to restrict exposure of nonsmokers to ETS were driven by the irritation and annoyance created by exposure to cigarette smoke. However, by the 1970s it was increasingly clear that ETS exposure also placed vulnerable individuals at increased risk. Infants and children of smoking parents were shown to be at increased risk of respiratory problems, and individuals with pre-existing heart and lung disease had functional impairment following exposure to ETS (U.S. DHEW, 1975 & 1979).

In the early 1980s, a concern was raised that ETS exposure could also cause serious illness in otherwise healthy adults. In 1981, three independent epidemiological studies on lung cancer in nonsmoking wives who lived with smoking husbands were published (Garfinkle, 1981; Hirayama, 1981; Trichopoulos *et al.*, 1981). Two of the studies observed an increased risk for lung cancers and demonstrated an increased risk with increased levels of smoking by the husband. In 1982, when Dr. C. Everett Koop issued his first report as U.S. Surgeon General (U.S. DHHS, 1982), an assessment of the then available scientific evidence on ETS was included. While the report did not find the evidence sufficiently compelling to conclude that a causal connection existed, it warned that involuntary smoking could indeed pose a carcinogenic risk to the nonsmoker and that individuals should avoid exposure to ambient tobacco smoke to the greatest extent possible (U.S. DHHS, 1982).

By 1986—the year Dr. Koop issued his report, *The Health Consequences of Involuntary Smoking*—the number of studies of ETS exposure and lung cancer had risen to 13. Any genuine controversy over whether ETS could cause disease in nonsmokers ended in 1986 with the publication of a review by the National Research Council (NRC, 1986) and the Surgeon General's

report on the health consequences of involuntary smoking (U.S. DHHS, 1986). The Surgeon General's report concluded the following:

"Involuntary smoking is a cause of disease, including lung cancer, in healthy nonsmokers.

The children of parents who smoke compared with the children of nonsmoking parents have an increased frequency of respiratory infections, increased respiratory symptoms, and slightly smaller rates of increase in lung function as the lung matures.

The simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, the exposure of nonsmokers to environmental tobacco smoke."

These two reports contributed to a surge in efforts to protect nonsmokers from the health effects of ETS through legislative and policy changes, and by far the most significant trend was toward the passage of local clean indoor air ordinances. By the fall of 1989, 397 ordinances limiting smoking in workplaces, restaurants, or other places had been enacted (Pertschuk and Shopland, 1989).

With the growing recognition that tobacco smoke poses a significant health threat to individuals other than the smoker, Congress and federal health and regulatory agencies were increasingly asked to take action to protect the public. The General Services Administration issued new rules protecting workers and visitors in all federal buildings, and in 1988 Congress banned smoking on all domestic airline flights with a duration of 6 hours or less, resulting in virtually smoke-free air travel for all but a fraction of 1 percent of all flights within the United States.

As the evidence linking ETS to adverse outcomes in nonsmokers increased, many businesses and employee groups began implementing smoking restrictions at their work sites. The Administrative Management Society Foundation, which has conducted a small, annual smoking policy survey since 1980, found that the number of companies with smoking policies increased from 16 percent in 1980 to 60 percent in 1988. By 1988, a quarter of the companies responding reported smoke-free facilities (Administrative Management Society, 1989; Gerlach *et al.*, 1997).

1992 Report of the U.S. Environmental Protection Agency

ETS and Lung Cancer

One of the more significant actions by a federal agency occurred in 1990, when the U.S. Environmental Protection Agency (EPA) began a formal risk assessment to determine whether ETS meets the Carcinogen Risk Assessment guidelines for classifying a compound as carcinogenic. By the time the EPA issued its draft report, *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders* in May 1992, findings from 26 case-control and 4 prospective cohort studies from 8 different countries comprised the available scientific evidence on ETS and lung cancer. All 4 cohort studies and 20 of the 26 case-control studies observed an elevated risk for lung cancer in never-smokers exposed to ETS (NCI, 1993b).

Many of these studies also showed a dose-response effect; that is, the greater the level of exposure, the greater the lung cancer risk. The overwhelming weight of the evidence permitted the EPA to conclude that ETS belongs in the category of compounds classified as Group A (known human) carcinogens, a category reserved for only the most toxic of compounds regulated by the EPA, such as radon, asbestos, and benzene (NCI, 1993b).

ETS and Children In addition to lung cancer, the EPA report examined the issue of ETS and respiratory diseases and disorders in children and concluded that ETS exposure was causally associated with (1) increased risk of lower respiratory tract infections such as bronchitis and pneumonia; (2) increased prevalence of middle-ear effusion; (3) a small but statistically significant reduction in lung function; and (4) decreased rate of lung growth (NCI, 1993b).

The report further estimated that ETS contributes to between 150,000 and 300,000 lower respiratory infections annually among infants less than 18 months of age, resulting in between 7,000 and 15,000 hospitalizations annually. Of equal importance, the EPA estimates that ETS is causally related to additional episodes and increased severity of pre-existing asthma in children and that it exacerbates symptoms in approximately 20 percent of the estimated 2 to 5 million asthmatic children annually. The EPA report leaves open the question of whether ETS is directly related to asthma incidence in children who have not previously exhibited the disease, terming the evidence "suggestive but not conclusive" (NCI, 1993b). Nonetheless, ETS from parents who smoke half a pack or more daily may contribute to up to 26,000 new cases of asthma annually.

In a 1998 ruling, which the EPA is appealing, North Carolina District Court Judge William L. Osteen vacated the EPA's classification of ETS as a known human carcinogen but did not invalidate any of the EPA's findings regarding the role of ETS in respiratory problems among children.

ETS and Coronary Heart Disease In early 1991, researchers at the University of California at San Francisco reviewed the existing studies on ETS and coronary heart disease (CHD) (Glantz and Parmley, 1991). After an examination of 13 epidemiological studies, the investigators concluded that ETS was causally associated with CHD in nonsmokers and that such exposure may be responsible for 10 times more deaths annually than those attributable to ETS-induced lung cancer. A meta-analysis of 19 studies available by 1997 (Law *et al.*, 1997) estimated a 23 percent increased risk of ischemic heart disease as a direct effect of a nonsmoker's ETS exposure from living with a spouse who smokes. More recently He *et al.* (1999) found almost identical results in their meta-analysis of 18 epidemiological (10 cohort and 8 case-control) studies that met pre-stated inclusion criteria. These investigators found an overall, statistically significant ($p < 0.001$) relative risk (RR) of 1.25 for coronary heart disease (CHD) among nonsmokers exposed to ETS. In the analysis, ETS was consistently associated with an increased risk of CHD in cohort studies (RR = 1.21), in case-control studies (RR = 1.51), in men (RR = 1.22), in women (RR = 1.24), in those exposed at home (RR = 1.17),

and those exposed at work (RR = 1.11). A significant dose-response relationship was identified for nonsmokers exposed to less than 20 cigarettes per day (RR = 1.23) compared to those exposed to 20 or greater per day (RR = 1.31). When the analysis was confined to the 10 studies that adjusted for other important heart disease risk factors, such as age, sex, blood pressure, body weight, and serum cholesterol, the overall relative risk was 1.26 ($p < 0.001$).

The California Environmental Protection Agency Report In September of 1997, the California Environmental Protection Agency released a comprehensive review of the total range of health effects associated with ETS; the report concluded that

“The epidemiological data, from prospective and case-control studies conducted in diverse populations, in males and females and in western and eastern countries, are supportive of a causal association between ETS exposure from spousal smoking and coronary heart disease (CHD) mortality in nonsmokers.”

The 1997 California EPA report also reviewed other health risks associated with smoking and concluded that ETS exposure was causally or suggestively associated with the diseases listed in Table 1.

The Australian National Health and Medical Research Council also reviewed the evidence on the health effects of passive smoking in 1997 and concluded, “The scientific evidence shows that passive smoking causes lower respiratory tract illness in children and lung cancer in adults and contributes to the symptoms of asthma in children. Passive smoking may also cause coronary heart disease in adults” (NHMRC, 1997). A similar review of all smoking related illness was conducted by the British Independent Scientific Committee on Smoking and Health (ISCOSH) in 1998, and the section on ETS exposure stated that ETS exposure is a cause of lung cancer, ischemic heart disease, serious respiratory illness and asthmatic attacks in children, sudden infant death syndrome, and middle ear disease in children (ISCOSH, 1998).

Multiple reviews conducted by medical and governmental organizations over the last 12 years leave no doubt that environmental tobacco smoke causes disease in nonsmokers and is particularly dangerous for children. Regulation of smoking in indoor environments clearly stands on a strong foundation of scientific support.

YOUTH TOBACCO USE Tobacco use trends among youth continue to be a problem in the United States. According to a study conducted by the Centers for Disease Control (CDC), 70.2 percent of all high school students had used some form of tobacco in their lifetime and 42.7 percent reported they were currently using it at the time of the survey in 1997 (CDC, 1998).

Cigarettes Nearly 90 percent of all current adult smokers began smoking as children or adolescents (U.S. DHHS, 1994). Each day in the United States, approximately 6,000 youth try smoking for the first time and 3,000 become regular smokers (CDC, 1998a). Of these new smokers, between one-third

Table 1
Health Effects Associated with Exposure to Environmental Tobacco Smoke (From California EPA Report)

Effects Causally Associated with ETS Exposure

Developmental Effects

Fetal Growth: Low birthweight or small for gestational age
Sudden Infant Death Syndrome (SIDS)

Respiratory Effects

Acute lower respiratory tract infections in children
(*e.g.*, bronchitis and pneumonia)
Asthma induction and exacerbation in children
Chronic respiratory symptoms in children
Eye and nasal irritation in adults
Middle ear infections in children

Carcinogenic Effects

Lung Cancer
Nasal Sinus Cancer

Cardiovascular Effects

Heart disease mortality
Acute and chronic coronary heart disease morbidity

Effects with Suggestive Evidence of a Causal Association with ETS Exposure

Developmental Effects

Spontaneous abortion
Adverse impact on cognition and behavior

Respiratory Effects

Exacerbation of cystic fibrosis
Decreased pulmonary function

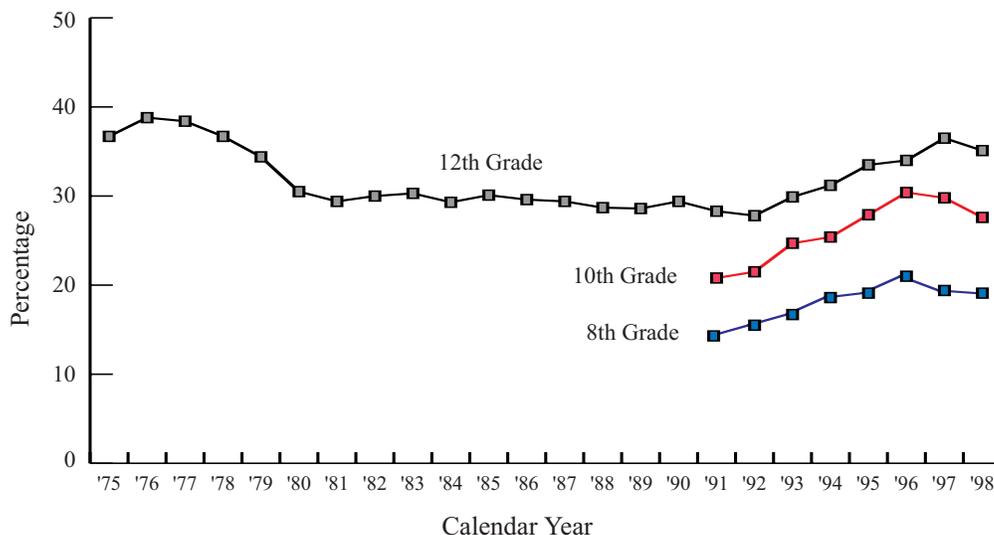
Carcinogenic Effects

Cervical cancer

(CDC, 1996b) and one-half (Thun *et al.*, 1995 & 1997) will die prematurely because of their smoking unless they quit.

The smoking rate among high school seniors decreased 11 percent from 1977 to 1991, but the rate increased each year from 1991 to 1997 before dipping again slightly in 1998. Despite an intense focus on youth access regulations during the 1990s, the daily smoking rate rose from 18.5 percent in 1991 to 22.4 percent in 1998 among high school seniors

Figure 1
Trends in 30-day Prevalence of Cigarette Smoking for Eighth, Tenth,
and Twelfth Graders



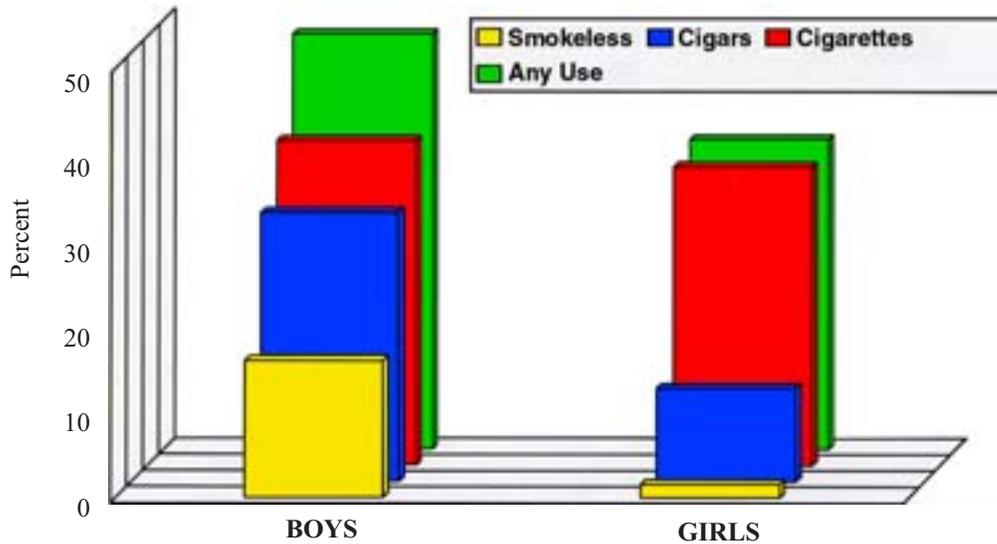
Source: *The Monitoring the Future Study, The University of Michigan*

(Johnston, 1998). Smoking experimentation by younger students increased even more sharply. Over the same 7-year interval (1991-1998), the proportion of students reporting having smoked within 30 days of being surveyed rose by nearly 50 percent among 8th and 10th grade students (Figure 1; Johnston, 1998). Moreover, teen smoking rose in virtually every demographic group: urban and rural, males and females, all socioeconomic levels, those bound for college and those not, and among those in all major racial/ethnic groups.

The earlier a child begins to use tobacco, the less likely that he or she will be able to quit, and children are beginning to smoke at younger ages than ever before (Johnston, 1996). Young smokers often underestimate the harmful effects of their tobacco use and do not recognize that they quickly move from experimentation to addiction. In a National Institute on Drug Abuse study, 95 percent of daily smokers in high school predicted they would not be smoking 5 years hence, yet 75 percent were still smoking in follow-up studies 7 to 9 years later (Johnston *et al.*, 1987).

Smokeless Tobacco An increasingly severe problem is the use of smokeless tobacco (*i.e.*, moist snuff and chewing tobacco), especially among white male adolescents and young adults. By 1996, almost one in five male high school students in the United States reported smokeless tobacco use (CDC, 1996a; U.S. DHHS, 1998b). Local surveys typically reveal that 40 to 60 percent of

Figure 2
Prevalence of Current Tobacco Use* Among 9-12th Grade Students, by Type of Product and Gender—United States 1997



*Current Use = any use in one or more of the 30 days preceding the study
 Source: CDC, 1998b

young males have tried smokeless tobacco (Boyd *et al.*, 1987). First experimentation often occurs between ages 10 and 12 (Boyd and Glover, 1989).

The health risks of smokeless tobacco use include oral cancer and various other diseases of the mouth, gums, and throat (NCI, 1992). A Swedish study has suggested that smokeless tobacco use also increases the risk of heart disease and stroke (Bolinder *et al.*, 1994).

Cigars

Since 1993, cigar use has also risen dramatically, both in the general population and among youth (NCI, 1998). Between 1993 and 1998, cigar consumption in the United States increased by more than 50 percent, with consumption of large cigars increasing by more than 70 percent. A review of the health effects of cigar use published by the National Cancer Institute in 1998 concluded that cigars are associated with an increased mortality risk for a number of cancer sites, including cancer of the oral cavity, larynx, esophagus, and lung. It also concluded that regular cigar smokers are at an increased risk for coronary heart disease and chronic obstructive lung disease, especially if they inhale (NCI, 1998). A national survey conducted by the Robert Wood Johnson Foundation found that 37 percent of male adolescents and 16 percent of female adolescents had smoked at least one cigar in the past year (CDC, 1997). In the 1997 CDC study, 31.2 percent of male high school students and 10.8 percent of female high school students reported smoking cigars on one or more of the 30 days preceding the survey (Figure 2; CDC, 1998b).

ADVERTISING AND PROMOTION Between 1970 and 1994, adult smoking dropped nearly 32 percent, a decline that posed a significant economic challenge to the tobacco industry. However, during the same period, expenditures for the advertisement and promotion of cigarettes increased more than 1,500 percent. The Federal Trade Commission (FTC) reports that in 1997, the major cigarette manufacturers reported an increase of \$522 million in advertising and promotional spending over the previous year (FTC, 1999). Total advertising and promotional expenses for the industry now exceed \$5.6 billion, an increase of 11 percent over 1996. While spending has remained slightly below the \$6.0 billion level reported in 1993, it has increased annually since 1987, except for the 1-year period between 1993 and 1994 when it declined. Though denied by tobacco industry representatives, evidence is overwhelming that much of their advertising is targeted at the youth market (Evans, 1995; Pierce *et al.*, 1991; U.S. DHHS, 1994). Clearly, the marketing strategies are working. Approximately 6,000 minors begin experimenting with cigarettes each day (U.S. DHHS, 1994).

Numerous studies have demonstrated the link between advertising and youth smoking initiation (U.S. DHHS, 1994). Tobacco marketing relies heavily on image advertising, a technique that is particularly effective with adolescents because of their heightened sensitivity to identity issues (IOM, 1994). Adolescents, in numbers disproportionate to those of adults, buy the most advertised brands of cigarettes (CDC, 1994). There is also evidence that restrictions on tobacco advertising and promotion can reduce youth smoking rates (Smee, 1993).

No one escapes the marketing efforts of the tobacco companies, but specific promotions and advertising campaigns aim at distinct market segments. In addition to youth, tobacco companies have designed campaigns to attract women (O'Keefe and Pollay, 1996), specific racial/ethnic groups (Moore *et al.*, 1996; Robinson *et al.*, 1992), blue-collar workers (Davis, 1987), and the gay/lesbian community (Goebel, 1994).

Advertising aimed at girls and young women typically links images of tall, thin, elegant, and attractive young women with cigarettes, particularly "slim" cigarettes. The result has been a significant uptake in smoking by teenage girls (O'Keefe and Pollay, 1996; Pierce *et al.*, 1994). This approach continues a half-century of cigarette marketing aimed at women, an approach that continues to take advantage of changing social roles (Brandt, 1996). The advertising, however, not only affects the consumer directly, it affects many groups indirectly as well. Girls and women, for example, are affected by the fact that the women's magazines that carry advertisements for tobacco products are less likely to carry articles that address the harmful effects of smoking (Warner *et al.*, 1992).

Surveys conducted in cities throughout the United States indicate that communities with large minority populations have many more tobacco and alcohol billboards than neighboring communities with fewer minority residents. In Baltimore, Maryland, for example, a survey revealed that 20 percent of the billboards in predominantly White communities advertised tobacco or alcohol, whereas 76 percent of the billboards in predominantly

African American neighborhoods advertised these products (Quinn, 1990). A study of tobacco advertising in Massachusetts found that the proportion of retail storefront advertising dedicated to tobacco advertising was greater in high-minority communities than in low-minority communities (MA TCP, 1998). The differences are especially pronounced when the communities surveyed are of differing socioeconomic status. Lower income communities have been shown to have a greater number of tobacco and alcohol ads than nearby, more affluent communities.

Advertising aimed at disadvantaged minority youth tends to emphasize such themes as glamour, sex, rebelliousness, social mobility, success, and escape. These themes, which have broad youth appeal in general, play especially to the social needs of disadvantaged youth (Robinson *et al.*, 1992). Moreover, many smaller minority-owned media—as well as business, civic, and cultural organizations within minority communities—are highly dependent on tobacco-industry revenue. As a result, many minority-owned magazines and newspapers are less likely to carry stories on the health effects of smoking or ETS (Tuckson, 1989), and many local minority leaders are reluctant to challenge the tobacco industry's influence in their communities (Robinson *et al.*, 1992). Strategies for dealing with tobacco influences in these communities need to take into account their specific economic, social, and cultural dynamics.

Lesbians and gays also face tobacco targeting. Wishing to avoid controversy that may alienate their more conservative customers, marketing to the gay community is often subtle or hidden in layers of meaning (Goebel, 1994). Ads often feature dual-level messages that can be understood in one way by heterosexuals, but in a different way by gay readers. A recent example is a Virginia Slims ad that features a heterosexual couple walking down a path with the woman glancing backward over her shoulder where another woman is walking. The caption: "If you always follow the straight and narrow, you'll never know what's around the corner."

BACKGROUND

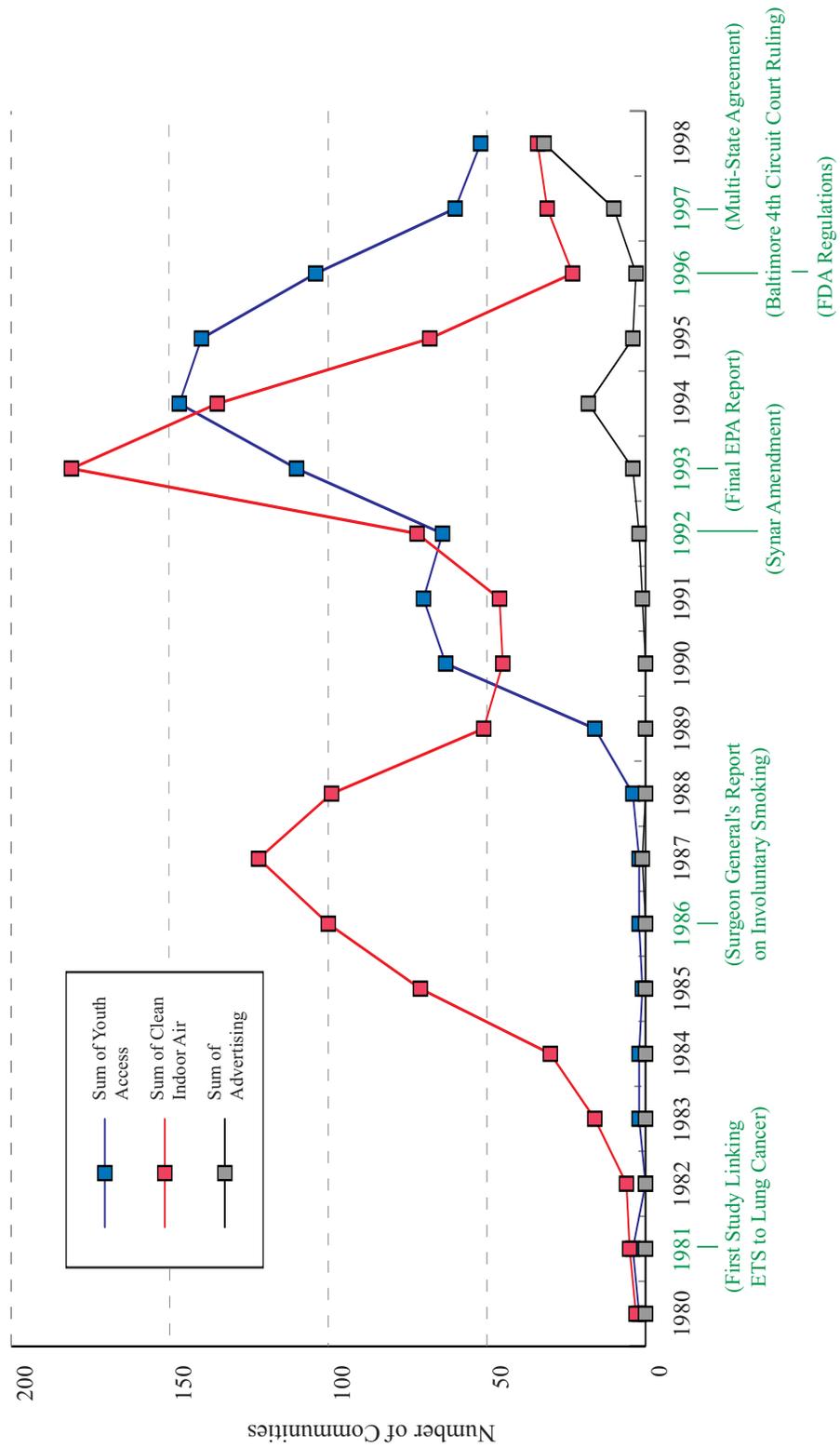
HISTORY OF LOCAL TOBACCO CONTROL ORDINANCES The first local tobacco control ordinances were promoted by nonsmokers' rights activists who objected to breathing secondhand smoke (NCI, 1991). For many years, local tobacco control ordinances focused almost exclusively on clean indoor air; ordinances restricting youth access to tobacco and tobacco advertising and promotion were not passed in significant numbers until the 1990s. Until the late 1980s, local tobacco control ordinance development was largely a grass roots affair championed by local and state nonsmokers' rights groups, in some instances in partnership with local health departments or local voluntary health association units such as the American Cancer Society, American Heart Association, and American Lung Association (Bierer and Rigotti, 1992; Hanauer *et al.*, 1986; U.S. DHHS 1989).

The public health community began to get involved in policy development in the mid- to late 1980s, reflecting a philosophical shift from approaches that addressed individual behavior to more comprehensive approaches designed to change the environment and social norms (IOM, 1988). State tobacco excise tax programs passed by voters in California [Prop 99, 1988] and Massachusetts [Question One, 1992] encouraged and supported local policy development in their respective states. In 1991, the National Cancer Institute launched its 17-state American Stop Smoking Intervention Study (ASSIST) demonstration project; the framework of ASSIST emphasizes the importance of policy interventions to tobacco control (NCI, 1991). The Initiatives to Mobilize for the Prevention And Control of Tobacco Use (IMPACT) program, started by the Office on Smoking and Health in 1993, also endorses policy development as integral to the success of any tobacco control program.

The results of this change in focus, and the dramatically increased infrastructure and resources for tobacco control in the 1990s, have been mixed with regards to local ordinance development. Both California and Massachusetts experienced a virtual explosion in the number of local ordinances enacted following implementation of their respective dedicated state tobacco tax programs in the early 1990s. Several ASSIST states—most notably Minnesota, New Jersey, North Carolina (before preemption was adopted), and West Virginia—also experienced a marked increase in the rate of local ordinance enactment. Nonetheless, since the mid-1990s, the overall rate of local ordinance enactment has fallen off (Figure 3).

Advantages of Local Ordinance Development Local jurisdictions have been the innovators of and testing grounds for the development of effective tobacco control policies. The local level is where the strongest and most comprehensive tobacco control policies are enacted, and is where the greatest progress has been made (NCI, 1991; Samuels and Glantz, 1991;

Figure 3
Local Ordinance Provisions Enacted Per Year: Youth Access / Clean Indoor Air / Advertising Restrictions



Rigotti and Pashos, 1991). Local tobacco control ordinances enjoy the following advantages over federal and state legislation:

Ease of Enactment—Local legislation remains far easier to pass than state or federal tobacco control legislation (Moore *et al.*, 1994; Siegel *et al.*, 1997). Local elected officials are highly responsive and are more directly accountable to their constituents (Skolnik, 1995). In addition, the tobacco industry's influence and ability to control a legislative agenda is more powerful at the state and federal level than it is at the local level. Tobacco executives concede that their industry is relatively ineffective in preventing passage of strong tobacco control measures at the local level as compared to the state or federal levels (Flinn, 1991; Pertman, 1994; Pritchard, 1986).

A notable exception occurred in Maryland where, in 1995, the Maryland Occupational Safety and Health (MOSH) advisory board proposed sweeping new workplace smoking rules covering virtually all indoor workers in the state, including those working in bars and restaurants. A tobacco-industry-backed legal challenge successfully delayed implementation of the proposed MOSH regulation, and the Maryland state legislature quickly passed a state-wide law eliminating smoking for the vast majority of workers. However, the state law was not as stringent as the original MOSH proposal, as it exempted large segments of the hospitality industry. While the law eliminated smoking in restaurants without bars, those with bars could allow smoking and restrict it to the bar portion of the restaurant. Bars themselves were completely excluded from the legislation. Nonetheless, as a result of the 1995 Maryland state law, the percentage of indoor workers in Maryland employed in a smoke-free environment increased from 53 percent in 1993 to just over 84 percent in 1996—one of the highest rates of coverage in the nation.

Higher Level of Public Health Protections—Local ordinances are almost always stronger and more comprehensive than their corresponding state laws (U.S. DHHS, 1989; Siegel *et al.*, 1997). More than 110 local smoke-free ordinances had been passed in the United States before the first state law with smoke-free provisions was passed in Vermont in 1993.

Enforcement and Compliance—Local enforcement agencies are more accessible and are more likely to energetically enforce a law, compared to the often distant enforcement agencies for state or federal laws. City and county laws levy fines that go entirely to their own jurisdictions, whereas state fines may only share a percentage with the city or county. Research has also shown that employers' awareness of and support for local workplace ordinances tends to be high as well (Rigotti *et al.*, 1992 & 1994).

Community Education—Local ordinance development puts in motion an educational process of letters to the editor, press coverage, town hall meetings, and public hearings. Even if an ordinance fails to pass, the community will have been educated and informed on a variety of tobacco issues (Jacobson and Wasserman, 1997; Siegel *et al.*, 1997). More than one community has reported an increase in the number of voluntary smoke-free restaurant policies, even though a proposed ordinance has failed to pass

(e.g., La Crosse, WI; Oakland, CA). It is precisely this type of change in attitudes, knowledge, and social norms surrounding tobacco use that is the ultimate goal of tobacco control efforts to reduce death and disease caused by tobacco (U.S. DHHS, 1989; NCI, 1991).

Despite these advantages, some tobacco control advocates prefer state-level tobacco control laws, arguing that it is generally simpler and quicker to provide state-wide coverage than to enact protections one community at a time. However, by focusing on local ordinance development, two states—California and Massachusetts—have achieved public health protections for a significant proportion of their population in a relatively short period of time. There was an explosion of local smoke-free workplace ordinances in California beginning in 1990, and by 1993 nearly two-thirds (64.6 percent) of all indoor workers in California reported a smoke-free workplace (Patten *et al.*, 1995b). By early 1996 (and before Boston adopted a smoke-free ordinance in 1998), nearly 50 percent of the population in Massachusetts lived in communities covered by some kind of local restaurant ordinance (MA DOH, 1996).

HISTORY OF CLEAN INDOOR AIR LEGISLATION

The earliest laws restricting tobacco use (both local and state) were adopted as fire-safety measures and would not be considered tobacco control laws by today's standards (U.S. DHHS, 1989; Jacobson and Wasserman, 1997). The first modern tobacco control laws designed with the purpose of protecting nonsmokers from secondhand smoke appeared in the early 1970s (U.S. DHHS, 1986). In 1975, Minnesota became the first state to pass a comprehensive state Clean Indoor Air Act restricting smoking in public places, restaurants, and public and private workplaces. While the earliest clean indoor air laws were passed largely at the state level, progress began shifting to the local level by the early 1980s (NCI, 1991; Bierer and Rigotti, 1992). In 1977, Berkeley, California enacted the first modern local tobacco control ordinance limiting smoking in restaurants and other public places. Similar ordinances continued to pass during the late 1970s and early 1980s. These early ordinances typically restricted, but did not eliminate, smoking in public places, workplaces, and restaurants.

The 1986 Surgeon General's report on the health consequences of involuntary smoking greatly accelerated the passage of early tobacco control ordinances. By 1988, nearly 400 local ordinances had been enacted to restrict smoking throughout the United States (Pertschuk and Shopland, 1989).

In 1990, the Environmental Protection Agency released its draft *Risk Assessment on Environmental Tobacco Smoke (ETS)*, classifying ETS as a Group A carcinogen. Following this report, jurisdictions increasingly moved to adopt ordinances eliminating smoking in indoor environments, rather than restricting smoking to specified areas. In 1990, Lodi, California introduced an ordinance completely eliminating smoking in restaurants. Other cities and counties soon followed suit. Smoke-free ordinances either eliminate smoking in enclosed areas, or restrict it to enclosed rooms that are separately ventilated and directly exhausted to the outside to prevent the recirculation of ETS into smoke-free areas.

In keeping with the ever-growing body of evidence implicating ETS as a serious health hazard, the adoption of more restrictive clean indoor air ordinances has increased over time. For example, in 1984, there were no local ordinances completely eliminating smoking in restaurants or workplaces. In 1987, only one ordinance banned smoking in restaurants, while none did so in workplaces. In contrast, by December of 1998, 227 ordinances completely eliminated smoking in restaurants, 209 in workplaces, and of these, 155 eliminated smoking in both. Although the majority of these smoke-free ordinances have passed in California and Massachusetts, smoke-free ordinances have also been passed by local jurisdictions in Arizona, Colorado, Georgia, Maine, Maryland, Michigan, New Mexico, New York, Oregon, Texas, and West Virginia.

Studies in both workplace and restaurant settings confirm that only those policies that require establishments to be 100 percent smoke-free (as opposed to requiring only partial restrictions) adequately protect nonsmokers from exposure to ETS (Patten *et al.*, 1995b; Brauer and Mannetje, 1998).

Despite continued high levels of support for restrictions on smoking in enclosed places, local clean indoor air ordinance development has fallen off sharply, following a record 180 new local clean indoor air ordinances adopted in 1993 (Figure 3).

Effects of Clean Indoor Air Ordinances The effects of clean indoor air ordinances are apparent in a variety of ways. With the passage of clean indoor air ordinances, the general health of the community improves and social norms about tobacco use change, all with no undue economic impact on the local business community.

Public Health Benefits—First and foremost, clean indoor air ordinances provide protection against exposure to environmental tobacco smoke (ETS), a known human carcinogen. The presence of a strong workplace ordinance significantly reduces nonsmokers' reported exposure to ETS in their workplace (Pierce *et al.*, 1994a). Between 1990 and 1993, the percentage of California workers reporting smoke-free workplaces increased from 35 to 64.6 percent (Patten *et al.*, 1995b). This increase was a direct result of local smoke-free ordinance development in California, where over 100 smoke-free workplace ordinances were enacted (MacDonald and Glantz, 1997). This trend has continued beyond 1993; data from the 1995/96 Current Population Survey show that 76 percent of California workers were employed in smoke-free environments by that time.

The health benefits gained through the implementation of clean indoor air policies are significant. A recent study of San Francisco bar employees found demonstrable improvements in their health status after California began implementing AB13, a statewide ban on smoking in bars and restaurants (Eisner *et al.*, 1998). Fifty-nine percent of bartenders reporting respiratory problems before the restrictions were implemented reported a reduction in symptoms 4 to 8 weeks after the ban took effect.

Not only do smoke-free policies protect against exposure to ETS, they also have a secondary benefit of decreasing smoking prevalence and con-

sumption. Studies of workplaces in California found that individuals in smoke-free workplaces had a lower smoking prevalence, and that continuing smokers in smoke-free workplaces had a lower consumption rate than individuals working where smoking was permitted (Woodruff *et al.*, 1993; Patten *et al.*, 1995a). Clean indoor air policies also offer promising results in reducing youth tobacco consumption rates (Wasserman *et al.*, 1991; Ohsfeldt *et al.*, 1998).

Studies conducted by the tobacco industry go even farther in their assessment of the impact of smoke-free workplace policies on the smoking behavior and consumption patterns of smokers. For example, in 1987 Philip Morris began tracking between 22,581 and 28,003 smokers from its Product Opinion Lab (POL) database in order to estimate the impact of workplace restrictions on industry sales (Philip Morris, Inc., 1992a). Major findings from this previously secret industry report are revealing:

“Total prohibition of smoking in the workplace strongly effects [sic] industry volume. Smokers facing these restrictions consume 11%-15% less than average and quit at a rate that is 84% higher than average.

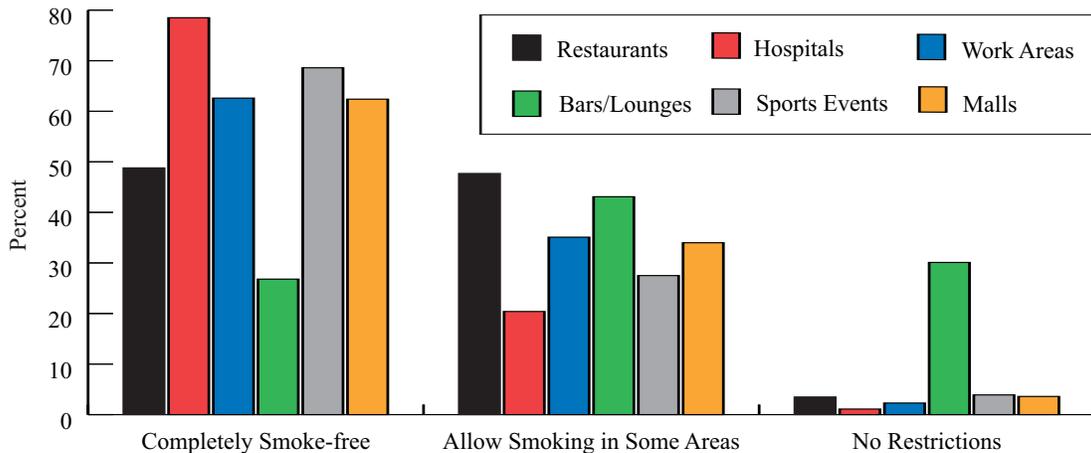
Milder workplace restrictions, such as smoking only in designated areas, have much less impact on quitting rates and very little effect on consumption.”

Impact on Social Norms—For the past decade, major opinion polls have consistently shown that the public supports policies designed to reduce their ETS exposure in enclosed public places and workplaces (U.S. DHHS, 1986 & 1989; NCI, 1991; IOM, 1994). In fact, public support for smoking restrictions has consistently been ahead of enacted legislation (NCI, 1991), evidence that the tobacco industry’s well-funded opposition to smoking restrictions has had the desired effect on lawmakers.

Data from NCI’s Tobacco Use Supplement to the Current Population Survey clearly demonstrate the level of public support for restricting smoking in settings open to the public. The fraction of the adult population who think most public facilities should be smoke-free increased between 1993 and 1996, while the fraction who think smoking should be allowed in all areas remained extremely small, the only exception being bars and cocktail lounges. The data for 1996 are shown in Figure 4; more detailed information can be found in Section III, Table 8.

Economic Impact—The economic impact of smoke-free restaurant ordinances has been a subject of intense debate. The tobacco industry claims that smoke-free restaurant ordinances will lead to a marked decrease in business, usually of 20 to 30 percent. To date, however, all credible scientific studies of smoke-free restaurant ordinances have found no evidence of a negative economic impact. In fact, some studies, notably Hyland *et al.* (1999), found that taxable sales from eating and drinking establishments in New York City were up 2.1 percent compared with sales 2 years before the city’s smoke-free law took effect. In the rest of the state, in contrast, taxable sales from eating and drinking establishments declined 3.8 percent.

Figure 4
Public Support for Smoking Restrictions in Various Public Places—United States



Since 1993, numerous economic impact reports have been published indicating no negative impact on restaurant sales due to smoke-free ordinances (Bartosch and Pope, 1999; Hyland *et al.*, 1999; Goldstein and Sobel, 1998; Sciacca and Ratliff, 1998; Glantz and Smith, 1997; Cummings, 1997; CDC, 1995; Glantz and Smith, 1994; Maroney *et al.*, 1994). These studies have examined the impact of ordinances by reviewing sales tax data to determine the economic impact of smoke-free ordinances on businesses throughout the United States, including Arizona, California, Massachusetts, New York, North Carolina, and Texas. The claim that smoke-free restaurant ordinances are particularly harmful to communities dependent on tourism was recently examined and refuted in a study of tourism-related revenues in six cities and three states (Glantz and Charlesworth, 1999).

The tobacco industry has sponsored a score of economic impact surveys alleging severe losses of revenues as a result of smoke-free ordinances (KPMG, 1998; InContext, 1996; Price Waterhouse, 1993; Laventhol and Horwath, 1990). These analyses, which have been aggressively disseminated to elected officials and businesses, tend to rely on business owners' perceptions of the impact of smoke-free ordinances or predictions of future impact, or they look at a limited, non-random selection of data. This methodology is inherently subjective and does not accurately reflect the real impact of smoke-free restaurant ordinances on sales.

For example, pro-tobacco front groups surveyed restaurants in Beverly Hills, California, asking owners what they thought they had lost in sales, without substantiating claims by checking sales tax revenues. The survey's finding of a 30 percent perceived loss in business was used widely by the Tobacco Institute to oppose local ordinances in other jurisdictions

(Consumer Reports, May 1994). Figure 5 shows an ad typical of those run by the Tobacco Institute. But contrary to tobacco industry claims of a 30 percent reduction in sales, UCSF researchers found no such decline during the period the ordinance was in effect and found no increase in sales following its repeal 4 months later (Glantz and Smith, 1994). In fact, the actual impact of the Beverly Hills ordinance was a 2.4 percent gain in revenue during the time the smoke-free provisions were in effect (Figure 6).

There are several key components to review when evaluating an economic impact study. First, it should always rely on objective data such as sales tax receipts, which are an unbiased, accurate measure of revenue loss or gain. Studies should also include information about sales for several years before and after the implementation of a smoke-free ordinance to help identify underlying trends in sales each year. It is also important to look at comparisons—e.g. to compare restaurant sales with total retail sales or to restaurant sales in comparable cities. These comparisons help to identify general economic trends and do not look at the impact of an ordinance in a vacuum.

Impact on Tobacco Industry Sales—The tobacco industry has expressed considerable public concern over the claimed negative impacts of tobacco

Figure 5
Tobacco Institute Advertisement

What if they passed a law that took away 30% of your business?

What happens if your state legislature or city council bans smoking in restaurants?

You'll lose business. Maybe as much as 30 percent of your business, according to restaurant owners who have experienced such bans. Before a smoking ban was repealed in Beverly Hills, restaurants were expecting to lose a total of \$12 million in 1987 as a result. Here's the real news, though. In a recent Gallup poll almost 20 percent of the U.S. population said they would not visit

a restaurant that prohibits smoking. Can you risk closing your doors to 20 percent of your customers?

The Tobacco Institute can help you make sure this never happens. Write us and we'll send you information on how other restaurant groups have fought smoking bans. We'll help you develop ways to accommodate all your customers—smokers and non-smokers alike. And we'll help you ensure that your voice is heard when government takes up the issue.

The Tobacco Institute
1875 I Street Northwest
Washington, DC 20008

control regulations on other businesses and on the restaurant industry in particular. However, internal industry documents show that their real concerns lie with the regulations' effects on their own profit margins. A workplace smoking policy study conducted by Philip Morris, Inc. (1992a—the same study cited on page 24) clearly demonstrates that smoking restrictions represent both short- and long-term threats to the industry's bottom line. Two conclusions contained in that document are particularly noteworthy:

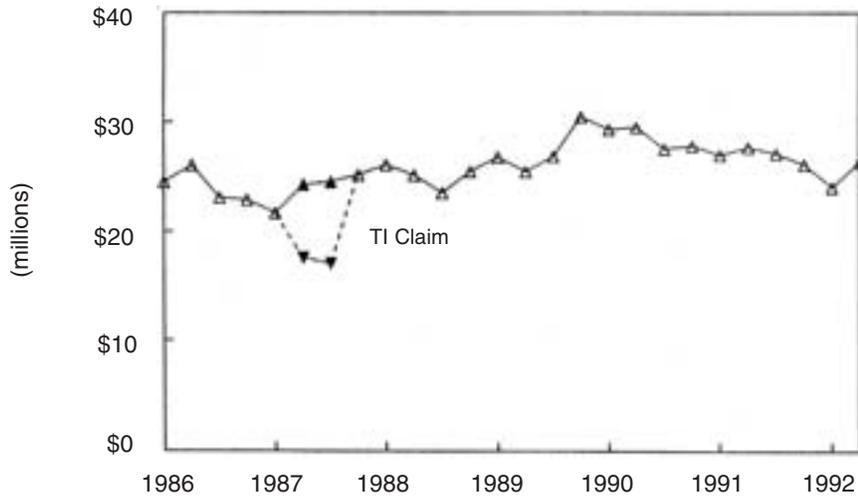
"From 1989 to 1991, the industry lost an estimated incremental 1.7% (9.5 billion units) due to increasing workplace restrictions. If these trends continue, the industry will lose an additional 1.3% to 1.9% (8.4 to 11.4 billion units) from 1991 to 1996.

If smoking were banned in all workplaces, the industry's average consumption would decline 8.7%-10.1% from 1991 levels and the quitting rate would increase 74%."

Yet another Philip Morris report found that smokers were facing more and more restrictive policies in the workplace and noted "that smokers who face 'designated areas' type restrictions are four times more likely to face

Figure 6

The 100% Smoke-free Restaurant Ordinance in Force in Beverly Hills did not Reduce Sales by 30% (Dashed Line with “TI [Tobacco Industry] Claim”), as the Tobacco Industry had Suggested; Rather, it had No Significant Effect on Sales



Note: Period of smoke-free ordinance is indicated by the solid triangles.
 Source: Glantz and Smith, 1994.

total prohibition the following year as those facing no restrictions” (Philip Morris, Inc., 1992b). Clearly the trend of smoke-free workplaces has major ramifications for the economic viability of the tobacco industry.

Implementation and Enforcement Local clean indoor air laws are considered to be largely self-enforcing, that is, enforcement is not activated unless and until a complaint is made. Studies of local clean indoor ordinances in Massachusetts found that the workplace smoking restrictions were generally popular with business owners (Rigotti *et al.*, 1992 & 1994). A 3-year study of workplaces in California found that compliance with smoke-free policies was nearly 90 percent (Patten *et al.*, 1995a & b). In addition to the enforcement activities of receiving and responding to complaints, compliance is improved when implementation includes ongoing efforts to educate and inform business owners about the requirements of the ordinance (Rigotti *et al.*, 1992 & 1994; Pierce *et al.*, 1994a).

Workplace Smoking Policy Trends During the past decade, the prevalence of voluntary workplace smoking policies has increased, as has the restrictiveness of those policies (U.S. DHHS, 1989; Gerlach *et al.*, 1997). However, this trend is not evenly distributed. Larger employers are more likely to adopt a smoking policy than smaller employers (fewer than 100 employees), and workplaces in the manufacturing and processing industries are less likely to have a smoking policy (BNA, 1991; U.S. DHHS, 1989; Fielding and

Piserchia, 1989). The presence of a local clean indoor air ordinance greatly increases the probability that a workplace will adopt a workplace smoking policy (Pierce *et al.*, 1994a; Rigotti *et al.*, 1992 & 1994).

In a 1997 report of national workplace smoking policies based on the 1992/93 CPS Tobacco Use Supplement, 86.1 percent of indoor workers reported that their workplace had an official policy that restricted smoking in some way (Gerlach *et al.*, 1997). Almost half (46 percent) reported their workplace was smoke-free, which the authors defined as having an official policy that did not permit smoking in either the common or public areas of their workplace (*e.g.*, cafeteria or restrooms), or in work areas. There were significant differences based on gender, age, ethnicity, smoking status, and occupation of the worker. The prevalence of smoke-free policies was much lower among younger, less skilled and/or educated workers, and among those employed in the service, hospitality, and blue-collar industries. More women than men reported smoke-free policies; African Americans reported working for employers who had established a policy, but were less likely than Whites and Asian/Pacific Islanders to work under a smoke-free policy. Current smokers were also less likely than former and never-smokers to report that their workplace had a smoking policy.

Table 3 in Section III presents data from the Current Population Survey showing that the percentage of the national indoor workforce now covered by a smoke-free policy has increased significantly between 1992/93 and 1995/96. That increase is only the most recent step in a trend that has been going on for more than 10 years. Only 3 percent of workers reported being employed in a smoke-free environment in 1986 (Gerlach *et al.*, 1997). CPS data show that by 1992/93, just under 47 percent of workers were covered by such a policy, and by 1995/96, that percentage had increased to 64 percent—nearly two-thirds of all indoor workers. The 1995/96 figure represents a 37 percent increase in only 3 years. These positive trends reflect actions imposed by state and local jurisdictions through legislative requirements (including regulations) as well as independent actions taken by employers out of concerns for the health of their employees.

Geographic Variation in Coverage—Considerable geographic variation exists in the prevalence of workers covered by a smoke-free worksite policy, and the fraction of workers covered by such policies has increased between 1992/93 and 1995/96. In 1992/93, only 18 states reported that 50 percent or more of their indoor workforce was covered by a smoke-free policy, but by 1995/96 only three states—Arkansas, Kentucky, and Nevada—were reporting rates below 50 percent. No state reported a rate of 70 percent or higher coverage in 1992/93, but 13 now report having reached that level. Table 2 presents each state's rate of smoke-free coverage for workers in 1992/93 compared to its 1995/96 rate and lists the relative change between the two time periods. Table 4 in Section III presents additional information, including differences by strength of policy and by smoking status of respondent for each state and for the District of Columbia.

In terms of absolute coverage, the five states with the highest percentage of workers covered by a smoke-free policy by 1996 were Utah (83.7 percent), Maryland (83.2 percent), Vermont (78.9 percent), California (76.1

Table 2

Percentage of Indoor Workers Covered by a Smoke-free* Workplace Policy in 1993 and 1996 by State, and Relative Change (Percent) Between the Two Time Periods, Based on Current Population Survey—1992/93 and 1995/96

State	% of workers covered in 1993	% of workers covered in 1996	Relative change %
Alabama	39.0	55.4	42.0
Alaska	58.7	69.9	19.0
Arizona	56.8	65.1	14.5
Arkansas	32.5	48.0	47.6
California	58.4	76.1	30.2
Colorado	53.5	71.5	33.7
Connecticut	48.3	67.3	39.4
Delaware	50.3	66.0	31.2
District of Columbia	51.9	74.7	43.9
Florida	53.6	66.5	24.1
Georgia	47.4	56.7	19.8
Hawaii	47.1	61.3	30.0
Idaho	59.5	70.9	19.1
Illinois	40.0	60.8	52.0
Indiana	35.1	51.3	46.1
Iowa	45.1	62.2	38.0
Kansas	49.4	63.2	27.8
Kentucky	28.6	49.3	72.2
Louisiana	39.3	56.6	43.9
Maine	55.7	73.4	31.7
Maryland	52.9	83.2	57.2
Massachusetts	48.7	71.1	45.8
Michigan	39.6	53.1	34.3
Minnesota	54.5	67.9	24.5
Mississippi	40.3	54.2	34.5
Missouri	39.1	58.5	49.7
Montana	43.7	58.8	34.6
Nebraska	44.4	63.6	43.3
Nevada	33.8	40.5	19.8
New Hampshire	53.3	72.9	36.7
New Jersey	46.3	68.0	46.7
New Mexico	55.3	65.5	18.5
New York	42.7	64.6	51.1
North Carolina	31.0	54.7	76.5
North Dakota	47.5	61.0	28.4

*Smoke-free = smoking not permitted in public and common areas of the worksite or in work areas. Data based on CPS Tobacco Use Supplement conducted in September 1992, January 1993, and May 1993; September 1995, January 1996, and May 1996.

Table 2 (continued)

State	% of workers covered in 1993	% of workers covered in 1996	Relative change %
Ohio	37.9	56.6	49.5
Oklahoma	41.5	58.0	39.6
Oregon	59.9	66.9	11.6
Pennsylvania	42.2	59.9	42.0
Rhode Island	44.9	69.6	55.1
South Carolina	37.7	58.8	55.9
South Dakota	43.8	62.3	42.4
Tennessee	36.2	53.5	47.8
Texas	51.2	64.8	26.7
Utah	65.4	83.7	28.0
Vermont	58.7	78.9	34.4
Virginia	43.8	62.6	43.0
West Virginia	38.6	58.9	52.6
Washington	68.3	73.2	7.2
Wisconsin	43.8	62.0	41.7
Wyoming	48.4	61.2	26.6

*Smoke-free = smoking not permitted in public and common areas of the worksite or in work areas. Data based on CPS Tobacco Use Supplement conducted in September 1992, January 1993, and May 1993; September 1995, January 1996, and May 1996.

percent), and the District of Columbia (74.7 percent). The five lowest were Nevada (40.5 percent), Arkansas (48.0 percent), Kentucky (49.3 percent), Indiana (51.3 percent), and Michigan (53.1 percent).

The states that experienced the greatest rate of change in the percentage of workers employed in smoke-free worksites between 1993 and 1996 were North Carolina (+76.5 percent) and Kentucky (+72.2 percent); no other state experienced a relative increase of 60 percent or higher. Nonetheless, both North Carolina and Kentucky are still significantly below the national mean in terms of worker protection from ETS.

Restaurant Workers—Unfortunately, not all occupational groups have benefited equally from implementation of smoke-free workplace policies. Food service workers rank last among the Census Bureau’s list of major occupational groups in terms of worksite smoking policy coverage (Figure 7a and 7b). Furthermore, it appears that the gap between food service workers and all other workers is widening. While the majority of smoke-free restaurant policies are adopted under the rubric of protecting patrons, the fact that restaurants and bars serve as workplaces for millions of workers often goes unmentioned. Not only do food service workers enjoy fewer protections against ETS, they are also exposed to higher levels of ETS compared with other indoor workers. Siegel (1993) found that food service workers were exposed to levels of ETS in restaurants that were up to 2 times higher than those found in offices; ETS levels in bars were between 3.9 and 6 times

Figure 7a
Differences in Smoke-free Workplace Policy Coverage: Food Service Workers Compared to All Other Workers—CPS 1995/96

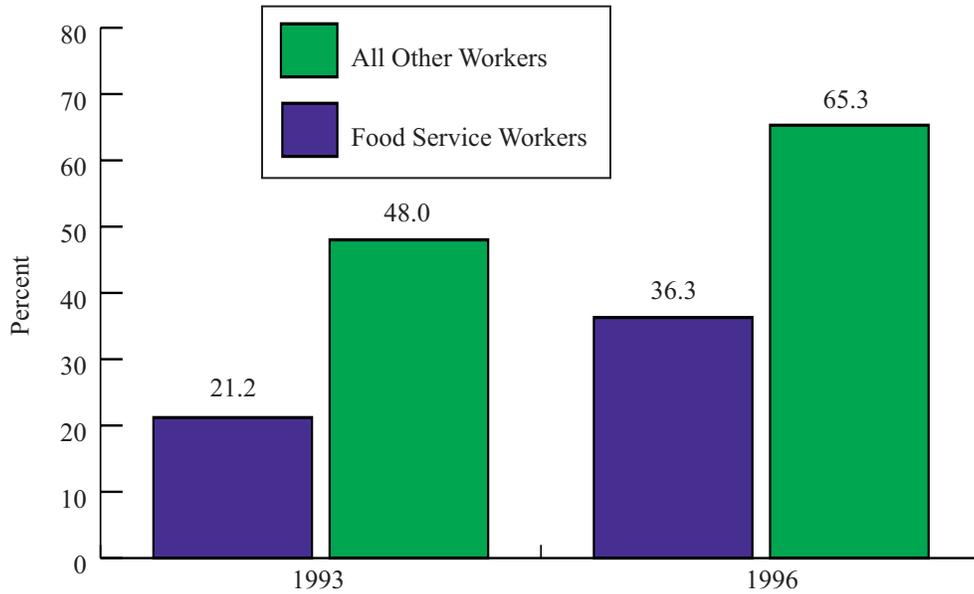
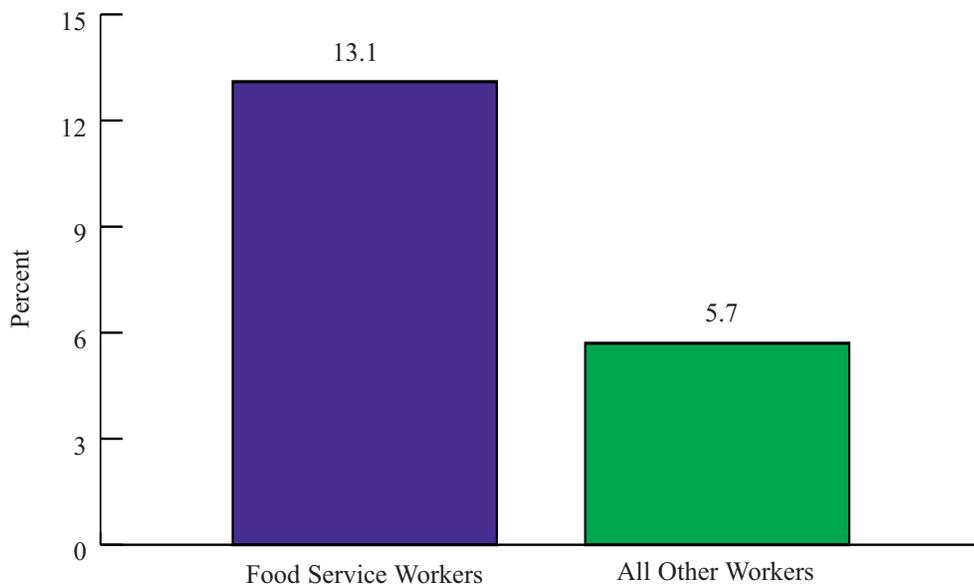


Figure 7b
Among Workers Reporting No Smoking is Allowed in Their Work Area, Percent Reporting that Someone has Smoked in Their Work Area in the Past 2 Weeks—CPS 1995/96



higher than those in offices. Even when workers report that their employer prohibits smoking in the employee work areas, significantly more food service workers than other workers report non-compliance with the policy (Figure 7a and 7b).

Federal Regulation: The Occupational Safety and Health Administration In 1994, the Occupational Safety and Health Administration (OSHA) began the process of promulgating a workplace smoking standard. The agency held public hearings in 1994 and 1995 and is currently reviewing testimony and finalizing a workplace smoking standard. The current proposed rule would require employers to either eliminate workplace smoking entirely or restrict it to designated smoking areas that are either outdoors or fully enclosed and separately ventilated, with the air directly exhausted to the outside.

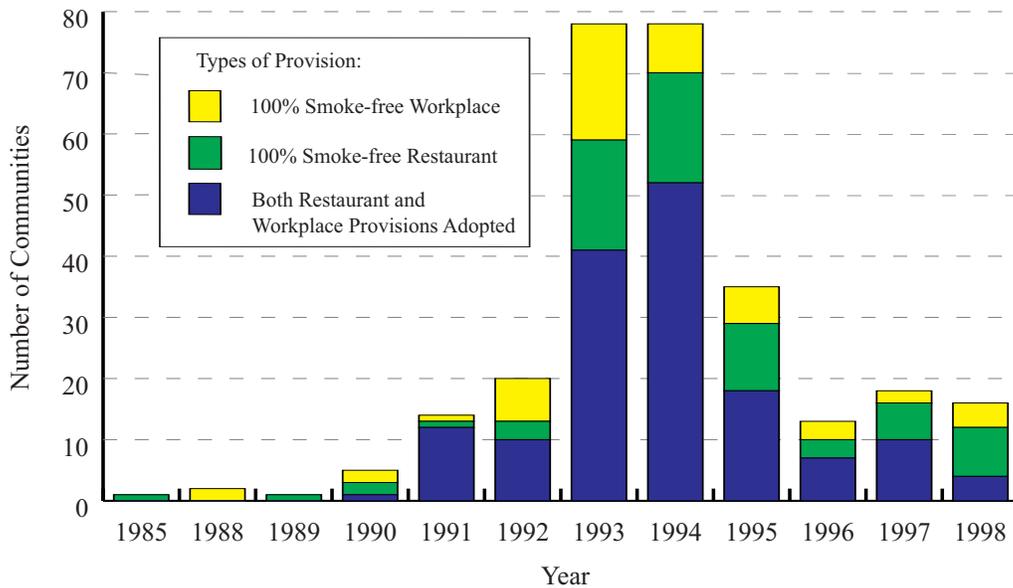
If adopted, OSHA workplace smoking regulations may preempt many state and local workplace smoking ordinances. In 1992, the U.S. Supreme Court ruled that the federal Occupational Safety and Health Act preempted an Illinois law that made specific requirements of employees at hazardous waste sites, stating that the law overlapped with OSHA's standards (Glantz, 1997; 29 CFR 1910.120). It is likely that a similar ruling would be made regarding local and state smoke-free workplace laws should OSHA promulgate a standard regulating smoking in the workplace. Glantz (1997) raises several issues that require further study, including whether or not a single national standard would be enforced locally; whether there are mechanisms that would eliminate preemption of local and state workplace smoking control ordinances from the OSHA rule; and whether the rule could be designed to overrule existing statewide legislation that preempts local clean indoor ordinance development.

The tobacco industry has, on occasion, informed local jurisdictions that they are preempted from enacting local workplace smoking ordinances under current OSHA regulations. However, this assertion has been rejected by OSHA staff (Capreol, 1993; Frodyma, 1998).

Findings: Clean Indoor Air Ordinances There are 846 local clean indoor air ordinances listed in this publication, covering a total population of 88 million (see Section II, Summary Table 1). Two of the most common areas protected by clean indoor air provisions are workplaces and restaurants. Figure 8 shows the number of communities adopting 100 percent smoke-free workplace and/or restaurant provisions during the period of 1985 to 1998.

Workplace Restrictions—An unanticipated consequence of the earliest smoke-free workplace ordinances was the congregation of smokers immediately outside smoke-free buildings. Workers—particularly those in lobby areas or near first-floor windows—began complaining of secondhand smoke re-entering the building through open doors and windows. To address this problem, many smoke-free ordinances now include provisions banning smoking within a minimum distance from smoke-free buildings to prevent re-circulation of ETS back into the smoke-free building. Federally, the National Institutes of Health revised their smoking policy in March of 1999, banning smoking in and around specific outdoor areas such as building

Figure 8
Number of Communities Adopting Ordinances with Major Smoke-free Provisions



entrances and exits, air intake ducts, loading docks, covered parking garages, and designated courtyards. However, the policy still permits smoking in most other outdoor areas.

Some jurisdictions have expanded outdoor smoking restrictions beyond workplace settings, adopting provisions making outdoor lines and waiting areas smoke-free (*e.g.*, Davis, CA), making outdoor public park and recreation areas smoke-free (*e.g.*, Bellaire, TX; North Providence, RI), or establishing smoke-free seating in outdoor sports venues (*e.g.*, Nassau County, NY; Northampton, MA). These outdoor restrictions make the most sense when they are part of a natural progression of ordinance development, making enclosed venues smoke-free before addressing outside venues (Carol and Hobart, 1998).

A total of 642 local ordinances limit smoking in workplaces. The ordinances range from simple requirements that workplaces adopt written smoking policies to 181 ordinances that require the total elimination of smoking in the workplace (see Section II, Chart 2).

Restaurant Restrictions—The most recent trend in clean indoor air ordinance development is to extend smoking restrictions to bars. San Luis Obispo, California, was the first to restrict smoking in bars, including free-standing bars, in 1990. Currently, 35 local jurisdictions and the state of California have laws that eliminate smoking in all bars (free-standing and those in restaurants). Another 17 cities have ordinances that prohibit smoking only in restaurant/bar combinations. This growing trend to protect bar

workers is supported by research demonstrating that bar and restaurant workers have the least protection from ETS in the workplace and are exposed to a higher concentration of ETS than employees in other workplaces (Siegel, 1993).

A total of 753 local ordinances limit smoking in restaurants. These range from laws that merely require restaurants to set aside a nonsmoking section of unspecified size to 227 ordinances that completely eliminate smoking in restaurants (see Section II, Chart 1).

HISTORY OF YOUTH ACCESS LEGISLATION By the early part of the twentieth century, a number of states had adopted laws making it illegal for underage youth to use tobacco products. These laws were adopted on moral rather than public health grounds, and were largely unenforced. In fact, by the mid-1960s, a number of states rescinded their youth-oriented tobacco laws (Jacobson and Wasserman, 1997). At the local level, as early as the 1940s, jurisdictions had adopted ordinances requiring tobacco retailers to obtain a license; however, the intent of these ordinances was to generate revenues, not to regulate youth access to tobacco. In 1989, the Surgeon General's report concluded that there were fewer laws restricting youth access to tobacco products on the books than had been the case in the previous quarter century (U.S. DHHS, 1989).

In the late 1980s, the public health community began to discuss youth access to tobacco as part of a tobacco control policy agenda (IOM, 1994). This focus was intensified by a 1990 Office of the Inspector General (OIG) report, which found that despite youth access laws in 44 states, active enforcement was non-existent in all instances (OIG, 1990). In 1990, the U.S. Department of Health and Human Services (DHHS) developed and distributed a Model Sale of Tobacco Products to Minors Control Act for state and local jurisdictions. Two years later, Congress adopted the so-called "Synar Amendment," requiring all states to adopt laws prohibiting the sale and distribution of tobacco products to minors, to enforce such laws, and to provide annual reports to DHHS as to their compliance.

DHHS's recommended youth access provisions include a tobacco retailer licensing structure, a graduated system of penalties and suspensions, an emphasis on civil (rather than criminal) penalties, a legal age of sale set at 19, minimum-age-of-sale warning signs at points of sale, a designated state enforcement agency supplemented by local efforts, and a ban on tobacco vending machines. Several of these provisions would be reiterated in the Food and Drug Administration's (FDA) proposed tobacco regulations, issued in 1996.

Although the early youth access legislation was passed mainly at the state level, followed in the early 1990s by intensive federal activity, youth access policy development moved relatively quickly to the local level. In 1989, the U.S. Surgeon General's report noted that a handful of local jurisdictions had banned the practice of distributing free tobacco products, stating as their purpose the reduction of youth access to tobacco (U.S. DHHS,

1989). By September of 1992, the ANR Foundation's database of local ordinances included records for 161 communities with ordinances containing at least one provision designed to reduce youth access to tobacco products (NCI, 1993a).

Local ordinances include and go beyond the DHHS recommendations. The most common of these ordinances ban or limit the placement of cigarette vending machines. Others include bans on self-service displays, distribution of free tobacco products and/or single cigarette sales, and a number of state or local laws are also being enacted that criminalize youth for possession and/or use of tobacco products. Finally, an increasing number of ordinances include provisions for licensing tobacco retailers.

Following enactment of the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act in 1992, local youth access ordinance enactment escalated, quickly replacing clean indoor air as the chief subject of legislation at the local level. Beginning in 1994, the number of local youth access laws being enacted exceeded the number of clean indoor air laws being enacted in every year (see Figure 3).

Despite major efforts at the federal, state, and local levels to curtail access to tobacco products by minors, there is no compelling evidence that minors experience any significant difficulty in obtaining tobacco products, nor that teen tobacco consumption has declined as a result. In fact, the opposite appears to be the case. Tobacco use among youth remained relatively stable from 1980 to 1992, a year that marked the beginning of significant increases in local activity around youth access and an increase in youth smoking rates (Johnston, 1998).

Youth Access and Youth Smoking The effort to restrict youth access to cigarettes and other tobacco products stems from a desire to reduce tobacco use by minors. Youth access is itself a global term encompassing such diverse strategies as merchant education campaigns, signage, required ID checks, bans on self-service displays, the elimination of vending machines, and other strategies designed to make it more difficult for youth to obtain tobacco products. Of these strategies, most resources have been devoted to lowering the rate of illegal sale of tobacco products by merchants.

To date, there is little experimental evidence demonstrating that higher rates of merchant compliance with age-of-sale laws will result in significant reduction of youth smoking rates. Early support was offered by Jason *et al.* (1991) and DiFranza *et al.* (1992), who found decreases in self-reported cigarette use following enforcement of age-of-sale laws. Both studies, however, used non-random samples with no control group. Studies with more rigorous methodologies have failed to replicate these findings and have found no consistent relationship between the presence of, or the enforcement of, youth access laws and smoking patterns among youth (Chaloupka and Grossman, 1996; Hinds, 1992; Rigotti *et al.*, 1997). In one study widely cited as supporting the efficacy of youth access ordinances (Forster *et al.*, 1998), youth smoking rates increased less substantially in "intervention" communities where youth access laws were passed than in "control" communities where no youth access legislation was enacted. However, since

there was no statistical difference in the rates of illegal tobacco sales to minors between the intervention and control communities either before or after the intervention, it is likely that the observed differences in youth smoking behavior resulted from unmeasured factors (such as changing community norms in response to increased community action) rather than the presence of the youth access laws.

One reason that youth access legislation may be ineffective in curbing youth smoking is that only 38.7 percent of current smokers under the age of 18 purchase their cigarettes in stores (CDC, 1996a). Even when strong enforcement of local youth access laws improved merchant compliance and decreased illegal tobacco sales to minors, adolescents' perceived access to tobacco was not altered (Rigotti *et al.*, 1997). Numerous social sources of cigarettes are available to youth who seek to obtain them, including older friends, family members, and strangers who will purchase them if given the money. While attempts to convince social sources not to provide cigarettes to minors may have modest impact, given the widely available nature of tobacco to adult consumers, it is probable that even in the best of circumstances, minors who seek tobacco can easily find channels of supply.

Glantz (1996) questions the whole focus on youth access, noting that it unintentionally reinforces the "forbidden fruit" theme of tobacco advertising and that strategies that target all citizens, youth and adults alike, may prove more effective. Wasserman *et al.* (1991), for example, found that clean indoor air laws had a strong deterrent effect on teen smoking, a finding supported by Chaloupka and Grossman (1996). Traditionally, youth are among the least protected by clean indoor air regulation (Gerlach *et al.*, 1997). However, when they and the adults around them are not allowed to smoke at work or in other public venues, smoking may have less appeal.

The Synar Amendment A provision of the 1992 Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act (known as the "Synar Amendment") requires states to: (a) adopt laws prohibiting the sale and distribution of tobacco products to minors under age 18, (b) implement enforcement programs, and (c) provide annual reports to DHHS demonstrating that they have complied. If they fail to comply, states risk losing block grants for substance abuse prevention and treatment programs.

The effects of the Synar regulations on tobacco control are complex. After Synar was passed, tobacco industry lobbyists succeeded in getting Congress to leave final implementation of the amendment up to state legislatures (Weisskopf, 1993). Moreover, the time lag between original passage and the release of accompanying regulations by DHHS in 1993 provided ample opportunity for tobacco industry lobbyists to press both national and state legislators for measures favorable to the industry (IOM, 1994). Most importantly, the tobacco industry and its allies used the Synar Amendment to push for passage of relatively weak state laws that were preemptive, foreclosing the opportunity of local jurisdictions to enact more stringent local ordinances (Weisskopf, 1993; Feder, 1996; Siegel *et al.*, 1997).

According to the *1998 Report to Congress on Synar Implementation* submitted by the Substance Abuse and Mental Health Services Administration,

all states were in compliance with the Synar Regulation as of fiscal year 1997. The median noncompliance rate of sales to minors as reported by the states was 40 percent, down from rates of 60 to 90 percent in pre-1997 studies. All states reported that they expected to achieve a maximum illegal sales rate of 20 percent or less by fiscal year 2003 (U.S. DHHS, 1998b).

The Food and Drug Administration Rule On August 23, 1996, the Food and Drug Administration (FDA) asserted its authority to regulate nicotine as an addictive drug and cigarettes as drug delivery devices. It issued its final rule designed to reduce youth tobacco use by 50 percent in 7 years. The regulations were to be implemented in three phases. The first phase, which began 6 months after the rule's publication, requires retailers to check the photo ID of anyone under 27 and not to sell tobacco products to anyone under age 18. The second phase, which was to go into effect on August 23, 1997, contains a number of youth access provisions—most notably bans on free samples and single cigarette sales—and includes the elimination of vending machines and self-service displays, except in adult-only venues.

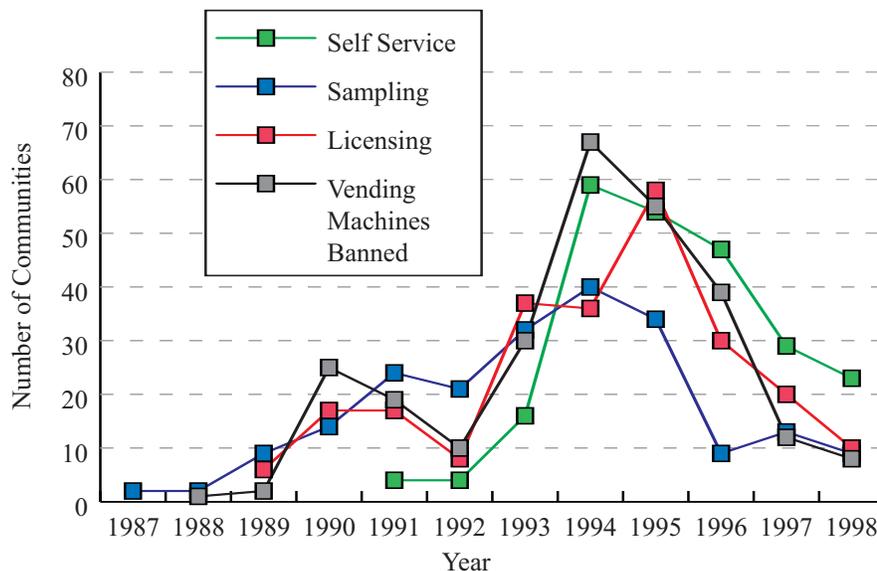
Additionally, a number of advertising restrictions were to be implemented, including a ban on outdoor advertising within 1,000 feet of schools and a ban on all color and graphics in print advertising. The final phase, originally intended to take effect 2 years after publication of the rule, would have prohibited brand-name sponsorship of sporting, cultural, and entertainment events.

The FDA rule was immediately challenged by the tobacco industry and its allies on a number of legal grounds. On April 25, 1997, the Federal District Court in Greensboro, North Carolina upheld the FDA's jurisdiction over nicotine-containing products. The court also upheld all restrictions involving youth access and labeling, but it invalidated on statutory grounds the FDA's restrictions on advertising and promotion of tobacco products. Significantly, the judge did not rule that the FDA's advertising and promotions restrictions violated the First Amendment, only that the FDA charter did not give it sufficient authority. The Court allowed the proof-of-age requirements, which were already operative, to remain in force. However, though upholding the other youth access restrictions, the Court delayed their implementation pending appeals. Both sides of the dispute appealed those aspects of the District Court ruling that went against them.

On August 14, 1998, a three-member panel of the Fourth Circuit Court of Appeals reversed the District Court's decision, striking down all of the FDA's 1996 regulations. The following month, the government petitioned the Court for a rehearing by either the three-member panel or by the entire Fourth Circuit Court. Although the Court denied the government's petition, the Department of Justice appealed the Fourth Circuit Court's ruling to the Supreme Court on January 21, 1999; the Supreme Court has agreed to hear the case.

One issue of considerable concern to the tobacco control community is FDA preemption. Because case law requires FDA regulations to be preemptive, whatever regulations are eventually implemented will preempt stricter state and local laws. Preemption will apply to all issues addressed by

Figure 9
Number of Communities Passing Major Youth Access Provisions by Year



the FDA regulations, such as age, identification, vending machines, self-service displays, and advertising—assuming the regulations are upheld. However, in its regulations, the FDA has established a procedure whereby state and local jurisdictions can appeal for exemption from preemption if their legislation is stronger than the FDA regulation and will result in a benefit to the public.

Enforcement Studies on interventions to reduce illegal youth access to tobacco show that a major predictor of success in reducing sales to minors is active local enforcement of laws prohibiting the sale of tobacco to minors (Jacobson and Wasserman, 1997). Civil penalties are preferable to criminal penalties, as youth access to tobacco is often a low priority for police and the court system (Feighery *et al.*, 1991; IOM, 1994). Civil offenses are generally handled administratively, and many local jurisdictions designate the health department or the city manager as the enforcement agency. Rather than being found guilty by a court of law, an offender may pay a fine or lose his or her license to sell tobacco products.

Findings: There are 764 local ordinances containing one or more youth access provisions listed in the monograph (see Section II, Summary Table 2). Figure 9 shows the trends in the passage of various types of local youth access legislation from 1987 through 1998.

Tobacco Vending Machine Ordinances—Vending machines account for a relatively small percentage of total tobacco sales, but they account for 16 percent of sales to minors (OIG, 1990). Those sales are frequently to the youngest customers (U.S. DHHS, 1994). Young children, often too intimi-

dated to attempt over-the-counter purchases, have no such barrier when facing a vending machine.

Currently, a number of vending machine ordinances institute partial bans that permit either (a) vending machines with locking devices, or (b) the placement of machines in bars and other facilities from which minors are excluded by law. The effectiveness of partial bans, however, is limited (Forster *et al.*, 1992; IOM, 1994; U.S. DHHS, 1994). The state of Utah and the City of Seattle, Washington, for example, both passed legislation requiring locking devices, only to find them ineffective. Both states have gone on to pass more restrictive ordinances.

To date, 263 cities and counties have passed ordinances that completely ban tobacco vending machines (see Section II, Chart 4). If the courts uphold the FDA regulations, all vending machines in areas accessible to youth will be banned. Exceptions will be made only for vending machines in adult-only venues that are placed at least 25 feet from any entrance.

Tobacco Self-Service Displays—Tobacco companies spend over \$1 billion per year in subsidies to retailers to ensure that tobacco products are openly displayed and within easy reach of customers (Working Group AG, 1994). Self-service displays in which tobacco products are featured prominently near checkout counters are an important source of tobacco products for minors. It is less intimidating to pick up a pack of cigarettes from a self-service display than to request one from a clerk. Self-service displays are also a source of tobacco via shoplifting (IOM, 1994), a fact that the tobacco companies exploit to their benefit (Cooper, 1999). R.J. Reynolds distributed a document called *Pilferage in Perspective* to convince retailers that theft is no reason to abandon self-service displays, since slotting fees more than make up for loss due to pilferage (R.J. Reynolds, *n.d.*).

Two hundred thirty-three (233) local jurisdictions have passed bans on self-service displays. If the courts uphold the FDA regulations, all self-service displays will be prohibited except in adult-only venues.

Tobacco Sampling Bans—Both cigarette and chewing tobacco manufacturers distribute free product samples as part of their advertising and promotional activities. Typically, distribution of free samples is conducted in locations where young people congregate: music concerts, county fairs, athletic events, and motor sports races (Davis and Jason, 1988).

Although most states prohibit the distribution of free samples to underage youth, there is significant evidence that such laws are poorly enforced (Davis and Jason, 1988). A survey of elementary and high school students found that 20 percent of high school students and 4 percent of elementary students reported receiving free samples, and approximately half of elementary and high school students reported having seen children and adolescents receive free samples (Davis and Jason, 1988).

A total of 208 cities and counties have passed ordinances prohibiting the distribution of free tobacco product samples or coupons for free samples (see Section II, Chart 4). These ordinances typically eliminate free sampling completely, or at minimum, do so on public property, such as sidewalks

and fairgrounds. If the courts uphold the FDA regulations, the distribution of free samples of cigarettes or smokeless tobacco will be prohibited.

Single Cigarette Sales—Merchants sometimes remove cigarettes from their package and sell them individually. This is a violation of the federal prohibition on selling tobacco products without the required warning label, but it is a practice that is widespread nonetheless. In a study of convenience stores in a Southern California community, 49 percent of the stores sold single cigarettes, and most were sold to minors (Klonoff *et al.*, 1994). This practice may mitigate the negative influence of increases in cigarette prices on the purchasing habits of youth (IOM, 1994).

One hundred twenty-one (121) local jurisdictions have enacted ordinances that prohibit single cigarette sales to youth. If the FDA regulations are allowed to go into effect, they will prohibit the sale of cigarettes in anything less than packs of twenty.

Licensing Tobacco Retailers—Requiring a license to sell tobacco products provides localities with a mechanism to enforce merchants' compliance with laws prohibiting tobacco sales to minors. Merchants more carefully monitor tobacco sales to minors when such sales jeopardize their license to sell tobacco to adults. One city—Woodridge, Illinois—has carefully monitored its licensing ordinance and has found it extremely effective in reducing tobacco sales to minors, particularly over-the-counter sales (Jason *et al.*, 1991).

Only those ordinances that actually provide a mechanism for revoking or suspending a tobacco license for selling to minors are included in the present document; 252 local jurisdictions have enacted such licensing ordinances (see Section II, Chart 4).

Youth Possession Laws—A growing trend is to pass or begin enforcing laws that penalize youth for the purchase, possession, and/or use of tobacco. Such laws have a long history, dating back to the early part of the century (Cismoski, 1994). They are supported by some law enforcement agencies, in part because they can be used for other law enforcement goals. The tobacco industry has also supported the enactment and enforcement of youth possession laws (Pasternak, 1997; Wolfson and Hourigan, 1997). The Institute of Medicine opposes imposing legal penalties on youth who obtain tobacco products and recommends that existing penalties be repealed (IOM, 1994).

To date, there are no well-designed studies suggesting that penalizing youth for purchase, possession, or use of tobacco has any deterrent effect on either the initiation of tobacco use or the consumption of tobacco products. In fact, some tobacco control experts suggest that such laws are either ineffective or counterproductive (Carol, 1992; Cismoski, 1994; Jacobson and Wasserman, 1997). Concerns that youth penalties shift the responsibility from adults to under-age youth have been validated; where youth possession laws are enacted, enforcement targeting the adult merchants who sell to youth typically declines (Forster *et al.*, 1996; Wolfson and Hourigan, 1997).

There are 156 local jurisdictions that have enacted ordinances allowing for the citation of youth for one or more of the following: purchase, possession, or use of tobacco. In contrast, the FDA's regulations do not include penalties for any of the above activities.

HISTORY OF ADVERTISING AND PROMOTION LEGISLATION The preemption clause of the Federal Cigarette Labeling and Advertising Act (FCLAA) prevents states and localities from regulating or prohibiting cigarette advertising based on health-related reasons. In 1973, Utah enacted a ban on most forms of tobacco advertising, including billboards; however, the tobacco industry never filed a legal challenge of Utah's law. In general, however, the FCLAA preemption clause, coupled with First Amendment concerns, has had a dampening effect on local ordinance development in this area.

The first local advertising ordinance, which banned tobacco advertising on public transit, was adopted in 1987 by Amherst, Massachusetts. This ground-breaking effort was not duplicated until the early 1990s, when a handful of jurisdictions began passing restrictions on tobacco advertising, again focusing on public transit. The tobacco industry did not legally challenge these early advertising ordinances, perhaps because they only covered tobacco advertising on public and quasi-public systems.

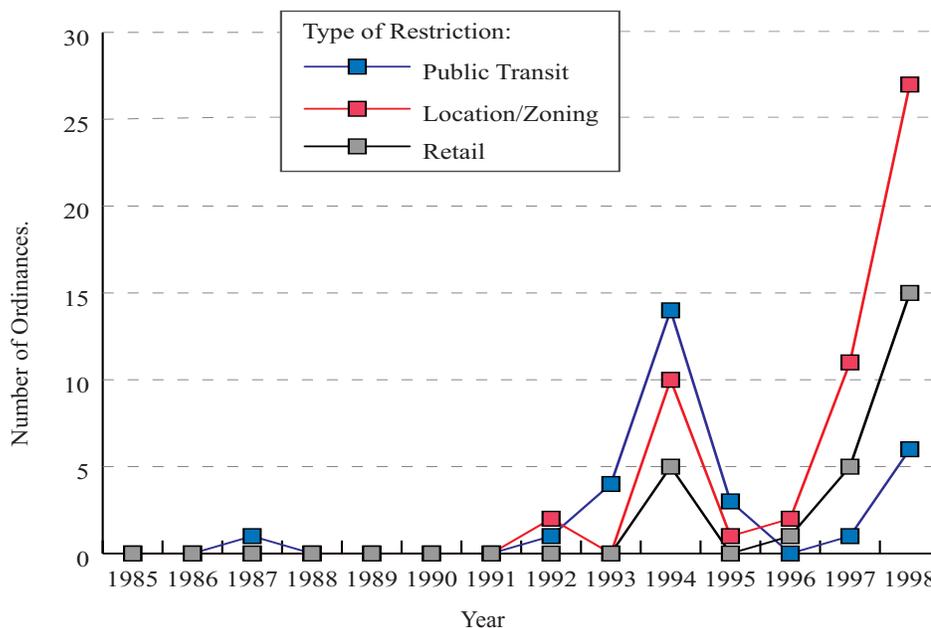
Then, in 1994, a number of communities adopted broader restrictions on tobacco advertising, either by prohibiting placement of outdoor tobacco advertisements near youth-oriented venues (*e.g.*, schools and playgrounds) or by allowing outdoor tobacco advertisements only in locations zoned for non-residential uses (*e.g.*, industrial and commercial zones). Although the bulk of these ordinances were passed in Massachusetts (Canton, Holyoke, Dudley, Holliston, and Attleboro to name a few), the industry—apparently wanting a high-profile target—filed a legal challenge to an advertising ordinance adopted by the city of Baltimore, Maryland.

As intended, the lawsuit against Baltimore's ordinance had a chilling effect on further advertising ordinance development. However, following a Fourth Circuit Court of Appeals ruling upholding the ordinance in 1996, an immediate increase in local advertising ordinance enactment occurred (see Figure 10).

The Food and Drug Administration's proposed regulations, released in 1996, further stimulated interest in tobacco advertising issues. Although the industry's legal challenge to the advertising provisions remains unresolved, if implemented, the FDA regulations will ban outdoor advertising within 1,000 feet of schools and will ban all color and graphics from print advertising, as well as prohibiting brand-name sponsorship of sporting, cultural, or entertainment events.

The recent multi-state Master Settlement Agreement (MSA) settling the state Attorneys General Medicaid lawsuits against the tobacco industry includes a series of advertising restrictions. However, there are significant

Figure 10
Number of Ordinances Containing Advertising Restrictions by Year



exceptions in the agreement that will allow a number of tobacco ads to remain in place. It is too early to determine the level of compliance with the settlement provisions, or the ban’s effect on local advertising ordinance development. Nor is it known whether the agreement will have any effect on national advertising and promotional expenditures.

The major cigarette manufacturers spent \$5.66 billion on all forms of cigarette advertising and promotion in 1997, the last year for which data are available—an increase of nearly 11 percent over the previous year’s spending. Detailed data for 14 separate categories of advertising and promotional expenditure by the tobacco industry for calendar years 1996 and 1997 are presented in Table 3.

Legal Issues The effort to regulate tobacco advertising and promotion through local ordinances requires careful attention to potential legal obstacles, most notably potential preemption by the Federal Cigarette Labeling and Advertising Act (FCLAA), and challenge under the Constitutional protection of free speech.

FCLAA Preemption—In 1965, with passage of the Federal Cigarette Labeling and Advertising Act, Congress required cigarettes to carry health warning labels. In addition to providing the tobacco industry with significant protections against lawsuits brought by smokers, the FCLAA also restricted state and local authority to regulate tobacco advertising with the

Table 3
Domestic Cigarette Advertising and Promotion Expenditures—1996 & 1997
(Thousands of Dollars)

Type of Advertising	1996	% total 1996	1997	% total 1997	Relative Change %
Newspapers	\$ 14,067	0.3	\$ 16,980	0.3	+ 20.7
Magazines	\$ 243,046	4.8	\$ 236,950	4.2	- 2.5
Outdoor	\$ 292,261	5.7	\$ 295,334	5.2	+ 1.1
Transit	\$ 28,865	0.6	\$ 26,407	0.5	- 8.5
Point of Sale	\$ 252,619	4.9	\$ 305,360	5.4	+ 20.9
Promotional Allowances	\$ 2,150,838	42.1	\$ 2,438,468	43.1	+ 13.4
Sampling Distribution	\$ 15,945	0.3	\$ 22,065	0.4	+ 38.4
Speciality Item Distribution	\$ 544,345	10.7	\$ 512,602	9.6	- 5.8
Public Entertainment	\$ 171,177	3.4	\$ 195,203	3.4	+ 14.0
Direct Mail	\$ 38,703	0.8	\$ 37,310	0.7	- 3.6
Endorsements/Testimonials*	-----		-----		
Coupons and Retail Value Added	\$ 1,308,708	25.6	\$ 1,522,913	26.9	+ 16.4
Internet	\$ 432	0.0	\$ 215	0.0	- 50.2
All Others	\$ 46,696	0.9	\$ 50,207	1.0	+ 7.5
Totals	\$ 5,107,700	100.0	\$ 5,660,014	100.0	+ 10.8

*In 1989 the FTC required cigarette companies to declare whether any money or form of compensation had been paid to have any cigarette brand names or products appear in any motion picture or TV shows. This practice has been reported as unfunded since 1989.

Source: Federal Trade Commission, 1999

following preemption clause: “No requirement or prohibition based on smoking and health shall be imposed under State law with respect to the advertising or promotion of any cigarettes the packages of which are labeled in conformity with the provisions of this chapter” (Section 5 of the Cigarette Act, 15 USC § 1334).

This clause is not all encompassing, however; it does allow for laws that regulate tobacco advertising based on issues other than the relationship between smoking and health. Several court cases have interpreted the scope of preemption under FCLAA.

In 1992, New York City adopted an ordinance requiring that one anti-smoking ad be run for every four tobacco ads run on city cabs. In a legal challenge to the ordinance (*Vango Media v. City of New York*), the court ruled that the city’s ordinance was preempted by FCLAA. The declarations section of the ordinance stated that the ordinance’s purpose was to reduce economic costs to taxpayers, referring to health care benefits and lost productivity caused by smoking. In addition, other parts of the ordinance made reference to the health risks of smoking.

In 1994, the city of Baltimore, Maryland adopted an ordinance restricting tobacco and alcohol billboards in residential areas, making exceptions for ads in stores, on commercial and public vehicles, in stadiums, on billboards by highways, and in certain industrially and commercially zoned neighborhoods. The stated purpose of Baltimore’s ordinance is

to reduce illegal sales to minors by reducing their exposure to advertising that encourages the use of products they cannot legally purchase. It is thus a law-enforcement issue, avoiding potential preemption under the FCLAA's prohibition against health-based legislation.

The tobacco industry challenged the ordinance, but the Fourth Circuit Court of Appeals held that the Baltimore ordinance was not preempted by FCLAA because it did not relate to the content of advertising but rather to billboard location, and that it attacked a "particularly large and attention-attracting medium while not unnecessarily interfering with local businesses" (*Penn Advertising v. City of Baltimore*, U.S. Court of Appeals, Fourth District, 1995).

Also in 1994, Preston, Minnesota adopted an ordinance prohibiting point of sale tobacco advertising in stores, allowing only "tombstone" advertising of price and tar/nicotine information. This ordinance failed to withstand a legal challenge (*Citgo One Stop v. City of Preston*, U.S. District Court, Third Division, 1995). The court distinguished Preston's ordinance from the Baltimore ruling in two ways. First, the Baltimore ordinance was designed only to reduce underage tobacco use. Preston, on the other hand, made mention of health risks. Second, the Baltimore ordinance regulated location but did not address content of tobacco ads, whereas the Preston ordinance regulated content of tobacco ads.

First Amendment Issues—The U.S. Constitution provides for freedom of speech, but not all forms of speech are protected and some forms of speech are offered only limited protection. One type of speech afforded limited protection is commercial speech, defined as speech that does no more than propose a commercial transaction. The Supreme Court has prescribed the four-part *Central Hudson test* to determine whether a particular restriction on commercial speech is constitutional (*Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n*, 447 U.S. 557, 1980). Accordingly, (1) the restriction must deal with speech that is protected (that is, it must concern a lawful activity and not be fraudulent or misleading); (2) there must be a substantial government interest in regulating it; (3) the restriction itself must directly advance the government interest; and (4) the regulation must not be more extensive than necessary to serve that interest; this last point does not require the restriction to be the "least restrictive alternative," only that it be carefully tailored to its goals. Tobacco advertising ordinances can meet the *Central Hudson test*, but to do so they need to identify the governmental interest involved, provide evidence that the restriction will advance that interest, and demonstrate that the restriction is sufficiently narrow in scope and is targeted to meet its objective.

The first part of the *Central Hudson test* requires identifying the government interest involved. An advertising ordinance based on protecting public health, however, risks preemption by the Federal Cigarette Labeling and Advertising Act (FCLAA). State and local governments can regulate tobacco advertising, but the regulations must further a state interest that is different from "smoking and health."

Multi-State Master Settlement Agreement—In November of 1998, the State Attorneys General signed a multi-state Master Settlement Agreement (MSA) settling the state Medicaid lawsuits against the tobacco industry. As of April 22, 1999, all tobacco billboards exceeding 14 square feet in area were to be removed. The MSA also provides for the elimination of signs and placards that are outdoors or on the surface of a window facing outward. But there are significant exceptions—ads outside a tobacco manufacturing facility; ads that are less than 14 square feet in area and are either outside a tobacco retail store or inside the store on a window facing outward; ads inside a tobacco retail store; ads outside an adult-only facility promoting a tobacco company sponsored event within 14 days of the event; and billboards advertising the brand name sponsored event at the site of the event for 100 days.

Findings: There are 68 local ordinances containing restrictions on
Advertising Restrictions tobacco advertising, covering a population of 28 million (see Section II, Summary Table 3).

Location Restrictions—In 1997, the tobacco industry spent \$295.3 million on outdoor advertising (FTC, 1999).

Some communities, such as Fort Worth, TX and Warren, MI, ban outdoor tobacco advertising (*e.g.*, billboards, free-standing signs, banners, etc.) in designated areas (*e.g.*, within 1,000 feet of schools and other youth-oriented venues). Some communities have set the minimum distance so that it becomes a *de facto* ban on outdoor tobacco advertising (*e.g.*, within 2 miles of any school or playground). Others, such as Oakland, CA and Cleveland, OH, allow outdoor tobacco advertising only within certain designated zones (*e.g.*, areas zoned for industrial uses, areas facing interstate highways). A handful of communities, such as Seymour, CT and Dudley, MA, have eliminated outdoor tobacco advertising in all areas.

Advertising tactics used by the tobacco industry make it clear how important location restrictions are to a successful tobacco control program. A series of 1991 R. J. Reynolds memos outlines a plan of “having outdoor suppliers locate near middle/junior high school locations.” Staff were sent into communities to ensure that the company had not missed any near-school placements, and suppliers were not to be paid for locations too far away from schools (Harris, 1991a & b).

Through calendar year 1998, 47 communities have adopted ordinances that restrict or eliminate tobacco advertising by location or zone.

Public Transit Restrictions—Both transportation shelters and the vehicles themselves have been a popular advertising venue for tobacco products. In 1997, the tobacco industry spent \$26.4 million on transit advertising (FTC, 1999). Children and the poor—traditional tobacco industry target groups—comprise 60 to 70 percent of the ridership in cities with populations under one million (APTA, 1999).

Bans on public transit tobacco advertising have not been challenged in court, perhaps because transportation systems are usually public or quasi-public entities, and policies restricting advertising on them are not treated

as broad regulations on advertisements in the private sector (Pertschuk and Siegel-Morse, 1994).

Twenty-eight (28) communities have adopted ordinances that ban tobacco advertising on public transit. In addition, a number of transit systems have adopted their own resolutions or policies banning tobacco advertising. These policies are not captured in the ANR Foundation's database, which includes only local ordinances adopted by city or county jurisdictions.

Retail Stores Restrictions—The tobacco industry spent over \$2.74 billion in 1997 on retailer-based point-of-sale advertising and promotional allowances to encourage retailers to stock and promote their products (FTC, 1999). Studies of tobacco advertising patterns in both California and Massachusetts documented that stores located within 1,000 feet of schools have a higher average number of cigarette ads and promotions than do stores outside the 1,000 foot radius (CA DHS, 1996; MA TCP, 1998). Furthermore, the California study found that stores close to schools are more likely to place tobacco ads near candy displays and at child's-eye level.

Twenty-five (25) communities have adopted restrictions on tobacco advertising in retail stores. The majority of these ordinances restrict "publicly visible" tobacco advertising (in the form of signs, banners, etc.) on storefronts and windows that are visible from the street. Some, like Pierce County, WA, extend retailer restrictions to all stores, while others, like St. Louis, MO, affect only those stores within a specified distance of schools and other youth-oriented venues. Other communities, like Deptford, NJ, prohibit tobacco advertising placement at child's-eye level.

Exemptions for Tombstone Advertising—Tombstone advertising is generic, black-and-white text-only advertising that provides information on price and availability. Twenty-two (22) communities with restrictions on tobacco advertising have allowed exemptions for tombstone advertising.

TOBACCO INDUSTRY RESPONSE Not surprisingly, the tobacco industry has fought aggressively against local tobacco control ordinances (Samuels and Glantz, 1990 & 1991; Advocacy Institute, 1995; Aguinaga and Glantz, 1995; Ellis *et al.*, 1996). In the early 1990s, the industry became increasingly concerned with local ordinance activity and developed a sophisticated national strategy to defeat local ordinance development (Malmgren, 1992).

In 1978, a secret public opinion survey conducted on behalf of the Tobacco Institute concluded the following:

"What the smoker does to himself may be his business, but what the smoker does to the nonsmoker is quite a different matter. This (the nonsmokers' rights movement) we see as the most dangerous development to the viability of the tobacco industry that has yet occurred" (The Roper Organization, 1978).

An internal Philip Morris document uncovered during the Minnesota Medicaid case reiterates the industry's concerns about smoke-free ordinances:

"Financial impact of smoking bans will be tremendous. Three to five fewer cigarettes per day per smoker will reduce annual manufacturers profits a billion dollars plus per year" (Philip Morris, Inc., 1993).

The Attorneys General Medicaid lawsuits against the tobacco industry have resulted in the availability of millions of pages of internal industry documents. These documents have provided a wealth of information confirming the tobacco industry's long-held antipathy to local ordinance development and have outlined its strategies to thwart such development. These strategies include discrediting legitimate scientific research, forming smokers' rights and business front groups, promoting ineffective prevention or policy programs as alternatives to legislation, filing legal challenges against local ordinances, and promoting state and federal legislation to preempt local tobacco control ordinances.

An internal memo from Philip Morris, Inc. outlines the tobacco company's strategy to oppose local ordinances in California during the height of local ordinance enactment in that state (Merlo, 1994), a strategy that has since been used in other states. The strategy included filing a legal challenge as "co-plaintiff along with local business people" against San Francisco's smoke-free workplace ordinance; introduction of "smoking accommodation" ordinances to "confound the antis" and forestall smoke-free ordinance development in other jurisdictions; and the introduction by "three independent business and/or association members" of a statewide initiative to preempt smoke-free ordinances.

Discrediting Research The tobacco industry has a long history of disputing the links between smoking and disease. A *Wall Street Journal* article described the tobacco industry's activities as "the longest-running misinformation campaign in U.S. business history" (Freedman and Cohen, 1993).

The industry's campaign to discredit the scientific evidence implicating ETS as a cause of disease in nonsmokers began years before the groundbreaking 1986 Surgeon General's Report on involuntary smoking. In 1978, a Roper Organization report for the Tobacco Institute made the following recommendation: "The strategic and long run antidote to the passive smoking issue is, as we see it, developing and publicizing clear-cut, credible, medical evidence that passive smoking is not harmful to the nonsmokers' health" (The Roper Organization, 1978).

The industry vigorously attacked both the 1990 draft and the 1993 final *Environmental Protection Agency (EPA) Risk Assessment* report. The industry began by challenging the report's finding that ETS was a Group A carcinogen during the public comment period. The majority of submissions (71 percent) received by the EPA claiming the conclusions to be invalid were from individuals affiliated with the tobacco industry (Bero and Glantz, 1993). Following the release of the EPA's completed report, six tobacco-related organizations filed a lawsuit against the EPA in federal court asking the

court to “declare that the EPA’s classification of ETS is wrong as a matter of law and science.”

On July 17, 1998, North Carolina District Court Judge William L. Osteen vacated the EPA’s classification of ETS as a known human (Group A) carcinogen (*Flue-Cured Tobacco Cooperative v. EPA*, U.S. District Ct., LEXIS 10986, 1998). He did not, however, invalidate the EPA’s extensive findings regarding secondhand smoke and respiratory disorders other than lung cancer. The EPA will appeal Judge Osteen’s ruling.

In 1995, the tobacco industry began disseminating a study by the Congressional Research Service (CRS), claiming that the study refutes the EPA report (Perske, 1996; Chwat, 1995). However, the CRS study does not dispute the EPA’s finding that secondhand smoke is a known human carcinogen, and one of the study’s authors has stated that the study was being misinterpreted or selectively referred to out of context by clean indoor air opponents (Jalsevac, 1996).

Tobacco industry sponsored research disputing the health effects of ETS often relies on non-peer-reviewed literature and typically focuses on individual studies, while ignoring the full body of scientific evidence (Bero and Glantz, 1993). In addition, newly released documents from the Minnesota Medicaid trial show that the tobacco industry paid scientists up to \$10,000 to draft letters critical of the EPA’s 1993 ETS report. The letter writing campaign was organized by the Tobacco Institute and two of the industry’s law firms—Covington & Burling and Shook, Hardy & Bacon. In the majority of cases, the letter writers did not reveal that they had been paid by the tobacco industry for their services (Hanners, 1998b), nor did they reveal that the attorneys from both law firms often reviewed and approved all text prior to publication.

The tobacco industry and its allies have also attacked individual scientists engaged in tobacco-related research. In 1997, the Philip Morris-funded National Smokers’ Alliance sponsored a lawsuit against University of California researcher Stanton A. Glantz, 3 years after the release of his study in the *American Journal of Public Health* on the economic impact of smoke-free restaurant ordinances. The lawsuit was eventually dismissed with prejudice from a California court (*Californians for Scientific Integrity v. University of California*, 1997).

Smokers’ Rights and Business Front Groups A 1982 study conducted for the Tobacco Institute found that “overt industry opposition to proposed non-smokers’ rights legislation actually increased support for the legislation” (Samuels and Glantz, 1991). As one Tobacco Institute lobbyist noted, “I’ve learned from experience that as soon as I’m identified as a representative of the Tobacco Institute, I lose all credibility so I try to work behind the scenes whenever I can” (Stumbo, 1986). In response, the tobacco industry has sought out intermediary groups to carry its message (Merlo, 1993), funding smokers’ rights and business front groups to oppose tobacco control ordinance development.

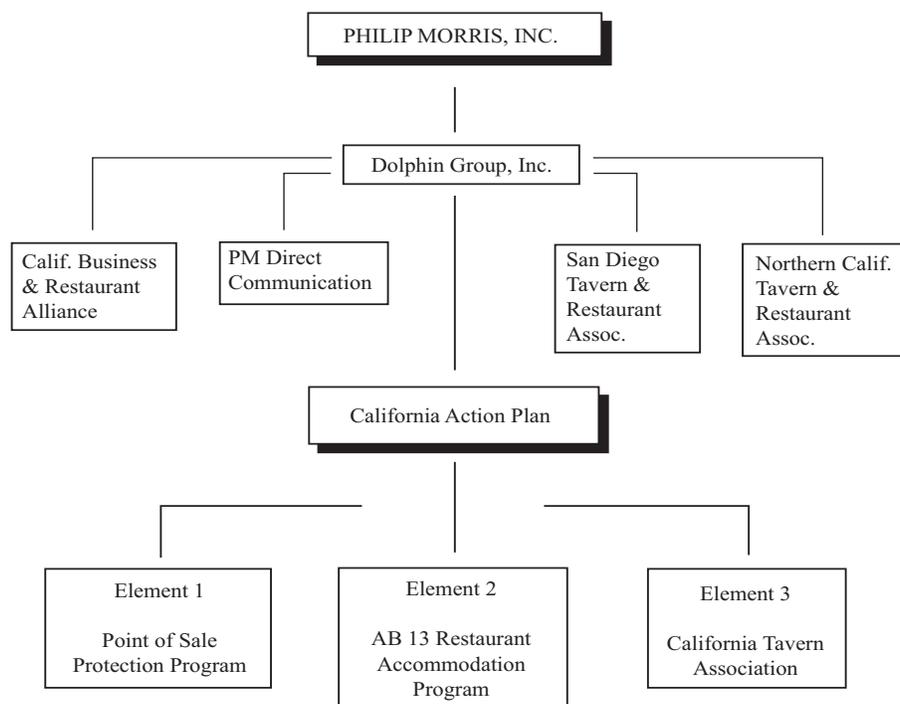
The tobacco industry generally hires professional public affairs and political consulting firms to conceal their involvement in local ordinance campaigns (Brass, 1993; Ferris, 1991; Samuels and Glantz, 1991; Traynor *et al.*, 1993). Firms hired by the industry create other organizations that have the appearance of independent business groups, using neutral names such as Restaurants for a Sound Voluntary Policy (RSVP) or the California Business and Restaurant Alliance (CBRA) (McAdam, 1991). Following the release of internal documents in the Minnesota Medicaid lawsuit, the Tobacco Institute was forced to acknowledge previously unreported funding that it had provided to the Empire State Restaurant and Tavern Association, an ostensibly independent trade association that had opposed local smoke-free ordinances and promoted a state preemption bill in New York state (Levy, 1998).

In other cases, the industry identifies existing organizations that are willing to accept industry support to oppose local ordinances. Internal documents outline the industry's strategy to use groups like the California Grocers Association and the Mexican American Grocers Association to "pre-empt future groundswell of severe local level point-of-sale restrictions, protect PM point-of-sale retain/marketing strategies, visibility and promotion." The action plan outlines how the industry would work within targeted cities and counties and shows their intention to expand their association relations to include the "Korean Grocers Association, Northern California Grocers Association, local Chambers of Commerce and other organizations" (Philip Morris, Inc., [1994]; Tansey, 1998).

In addition to business front groups, the tobacco industry also supports smokers' rights groups (McAdam, 1991; Malmgren, 1992; Stone, 1996), which generally attempt to portray themselves as independent grass-roots organizations (Figure 11). The most active such group is the National Smokers Alliance (NSA), launched in 1993 with over \$7 million in seed money from Philip Morris (Levin, 1998). Internal industry documents show that the NSA was formed for Philip Morris by the public relations firm Burson-Marsteller, which also helped create the Tobacco Institute (Philip Morris, Inc., *n.d.* & 1994a; Burson-Marsteller, [1986]). Although the NSA promotes itself as a member-supported, grass-roots organization (Rosen, 1996; Harrold, 1998; Bell, 1998), Internal Revenue Service documents show that in 1996, when total receipts were over \$9 million, the NSA collected just under \$74,000 in membership dues (Levin, 1998).

Tobacco industry representatives have instructed smokers' rights groups to conceal any industry support they receive (Samuels and Glantz, 1991; ANR Foundation, 1999). Even when smokers' rights groups don't receive direct financial support from the tobacco industry, they often receive in-kind support in the form of access to public relations and political consultants, tobacco company mailing lists, and other materials (brochures, reports, tee-shirts, stickers, etc.) (Dunsmore, 1995; Ferris, 1991; Samuels and Glantz, 1991).

Figure 11
Organizational Chart of Philip Morris, Inc. Front Groups in California



Source: [n.a.] "California action plan", Philip Morris (PM) Web Site: <http://www.philipmorris.com>, [1994].

Smokers' rights and business front groups undertake a number of activities in their efforts to undermine local clean indoor air efforts, including monitoring of ordinance campaigns (Traynor *et al.*, 1993), meetings with local businesses to generate opposition to a proposed law (Napoles, 1992; Ferris, 1991; Brass, 1993), ghost-writing letters from businesses claiming negative economic impact as a result of ordinances (Mazzocco, 1992; Howard, 1992; Jacobs, 1992), and organizing referendum campaigns against enacted ordinances (Traynor *et al.*, 1993).

Promoting Ineffective Alternatives *Clean Indoor Air*—R. J. Reynolds, Philip Morris, and the Tobacco Institute have all developed their own "clean indoor air" programs and materials. These programs, often labeled *Accommodation* or *Red Light - Green Light*, typically restrict smoking in public places to designated smoking areas, then require businesses to post signs. The industry, often working through its business allies, promotes these alternative "clean indoor air" proposals to forestall the passage and implementation of clean indoor air ordinances (Merlo, 1994). An internal document summarizes the tobacco industry's position that "Accommodation is a better alternative to more legislation" (Philip Morris, Inc., 1994b).

The first “accommodation program” was introduced in 1987 in Pittsburgh, Pennsylvania as part of Philip Morris’ strategy to derail the city’s ordinance restricting smoking in restaurants (Samuels *et al.*, 1992). Since then, these types of proposals have been introduced to forestall proposed clean indoor air ordinances in communities throughout the country, from Montrose, CO to Niagara County, NY; Spokane, WA; and Monongalia County, WV.

Youth Access and Youth Prevention—The tobacco industry has actively promoted its own youth access and youth prevention materials. Philip Morris, R.J. Reynolds, and the Tobacco Institute each sponsor programs with the stated purpose of encouraging merchant compliance with laws prohibiting the sale of tobacco to minors. Under various names, these programs involve the distribution of such things as window stickers, signs, training materials, calendars indicating the birth date required for legal tobacco sales, and other educational enhancements. Though often released with great fanfare, these programs have been demonstrated to be ineffective in curtailing youth’s ability to purchase tobacco (DiFranza *et al.*, 1996).

The tobacco industry has also developed educational materials for use by youth, parents, and schools. Under such headings as *Helping Youth Say No* and *Right Decisions, Right Now*, the programs are ostensibly designed to discourage tobacco use among teens. The materials are offered free of charge, and many financially strapped school districts utilize them. Key themes running throughout the program are that peer pressure is a major cause of teen smoking and that smoking is an adult decision. The peer pressure thesis is not only an oversimplification of research, but contains the false subtext that smoking is the norm among teens. The theme about smoking as an adult choice plays into the “forbidden fruit” motif common to tobacco advertising (DiFranza and McAfee, 1992).

Recently released tobacco industry documents suggest that the real motives behind the industry’s youth access and youth prevention programs are to deflect political pressure, avoid government regulation, and promote a positive corporate image (Hanners, 1998a). For example, an internal Philip Morris document reveals how that company used its relationship with the California Grocer’s Association to promote weak point of sale advertising restrictions in an effort to prevent a “future groundswell of severe local level point of sale restrictions” (Philip Morris, [1994]).

Legal Challenges To forestall pending ordinances, or repeal enacted ones, the tobacco industry and its business allies often threaten legal action (Merlo, 1994; Fogel, 1994). Although these threats are generally not followed through, and if filed, lose more often than not, the industry knows that such lawsuits can have a chilling effect on other jurisdictions, many of which will postpone ordinance development until any legal challenges are resolved. In 1994, Puyallup, Washington repealed the state’s first local smoke-free restaurant ordinance following a legal challenge filed by local restaurant owners supported financially by R.J. Reynolds. Although city officials believed the court would have upheld the ordinance, they did not

have the financial resources to match the industry's "bottomless pockets" (Suttle, 1994). To date, no other Washington state local jurisdiction has enacted a smoke-free ordinance of any type.

Constitutional Challenges—With a few limited exceptions, recent legal challenges against clean indoor air and youth access ordinances have failed. This includes challenges brought under the Equal Protection Clause and the Due Process Clause of the U.S. Constitution. Ordinances are most susceptible to these types of legal challenges when they don't take adequate steps to achieve their purpose of protecting nonsmokers from ETS. In *Alford v. City of Newport News* (1979), a weak local law in Virginia restricting smoking in restaurants was invalidated on the grounds that it failed to achieve its express purpose of protecting nonsmokers.

Regulatory Authority Challenges—Local tobacco control regulations adopted by local regulatory agencies, such as health boards and commissions, are somewhat more vulnerable to legal challenges. Although regulations adopted by health departments and boards of health in the states of Massachusetts, West Virginia, and New York have been upheld, the authority of these agencies to adopt smoking restrictions varies from state to state.

Preemption Challenges—Having had relatively little success filing constitutional challenges, the industry more frequently has filed legal challenges claiming preemption under state law. In Corvallis, Oregon and Marquette, Michigan, tobacco industry allies filed suits against the first smoke-free restaurant ordinances in each respective state. In each case, the state restaurant association argued that state law preempted stronger local ordinances. Oregon courts upheld the local ordinance in Corvallis (*Oregon Restaurant Association v. City of Corvallis*, Oregon Circuit Court Case No. 97-10260), but a lower Michigan court overturned Marquette's ordinance (*Michigan Restaurant Association v. City of Marquette*, Michigan Court of Appeals Docket No. 217232, Circuit Court Case No. 98-35362).

In several states, vending machine companies—often with financial support from the tobacco industry—have sued communities over vending machine ordinances under preemption claims (Levin, 1991). The bulk of these lawsuits have failed; however, some suits claiming preemption of vending machine restrictions under state tax law have been upheld (Tapscott, 1993).

Enactment of Preemptive Legislation The tobacco industry has found its opposition to local ordinance enactment relatively ineffective when compared to its power at the state and federal levels, and it considers local ordinances a significant threat (Malmgren, 1992). In 1986, a tobacco executive was quoted in the *U.S. Tobacco and Candy Journal* as saying, "Our record in defeating state smoking restrictions has been reasonably good. Unfortunately our record with respect to local measures...has been somewhat less encouraging...Over time, we can lose the battle over smoking restrictions just as decisively in bits and pieces—at the local level—as with state or federal measures" (Pritchard, 1986).

In the mid-1980s, faced with an increasing amount of local legislative activity and recognizing its relative vulnerability at the local level, the tobacco industry found an effective antidote to local tobacco control ordinances: preemption.

Preemptive legislation is defined as legislation that includes a provision preventing local jurisdictions from enacting laws more stringent than, or at a variance with, what the state (or federal) law mandates (CDC, 1999b). There are two broad categories of preemption—explicit (or express) preemption, in which preemptive language is expressly written into the law, and implicit preemption, which is implied rather than explicitly stated in the law. Implicit preemption occurs when Congress or a state legislature adopts comprehensive regulations on a subject that are later interpreted by the courts to “occupy the field” being regulated and therefore preclude inconsistent local (or state) regulation.

In 1985, the tobacco industry supported the passage of the first preemptive state tobacco control law in Florida; the law not only precluded future local clean indoor air laws, it also wiped out a handful of clean indoor air ordinances already enacted by local jurisdictions in the state. The tobacco industry quickly recognized that preemption was the most effective measure for countering local tobacco control ordinances, and the promotion of preemptive legislation at the state and federal level has now become the tobacco industry’s chief strategy for eradicating local tobacco control ordinances (Skolnick, 1995; Ellis *et al.*, 1996). In 1989, the Tobacco Institute identified preemption of local smoking and youth access restrictions as its “proactive” legislative goal for the 1990 legislative session (Malmgren, 1989).

Numerous internal industry documents released as part of the state Attorneys General Medicaid lawsuits confirm the industry’s commitment to enacting preemption (Tobacco Institute, 1989; Malmgren, 1989; Donoho and Morris, 1993; Malmgren, 1993). In 1994, the tobacco industry spent at least \$18.9 million in California to qualify and promote a state-wide ballot measure, Proposition 188, which would have repealed all local tobacco control ordinances in the state, and wiped out local authority to enact new ordinances (Siegel *et al.*, 1997).

In consultation with two senior California state legislators, tobacco executives developed a ‘sheep in wolves clothing’ preemption strategy spelled out in a 1991 Smokeless Tobacco Council memo: tobacco-friendly legislators introduce “a Comprehensive Tobacco Control Act along the lines of the alcohol model attempt[ing] to make the Tobacco Control Act as close as possible in “appearance” to the concepts that the anti-tobacco groups were fostering. The concept behind the bill was to be that the tobacco companies appeared to be against the bill” (Kerrigan, 1991). To achieve preemption, the tobacco industry has influenced legitimate anti-tobacco bills to insert preemption language (Feder, 1996) and hidden its activity behind legitimate trade associations that publicly sponsor and promote preemption bills with the support of their tobacco industry allies (Siegel *et al.*, 1997; Zimmerman, 1996).

Figures 12a & 12b show how effective a strategy preemption has been for the tobacco industry. In 1989, the Surgeon General's report noted three states with preemption legislation on the books (U.S. DHHS, 1989); by 1991, the number had increased to seven (NCI, 1991). By 1998, a total of 30 states had some form of preemption in tobacco control—14 preempt some or all clean indoor air ordinances, 22 preempt some or all youth access ordinances, and 17 preempt some or all tobacco advertising and promotion ordinances (ALA, 1998; CDC, 1999a & b).

In some states, preemption is narrow in its coverage; Massachusetts, for instance, preempts local ordinances restricting the sale of cigarette papers. In others, such as Oklahoma, preemption eliminates local jurisdiction over all aspects of tobacco control, from smoking regulations, to youth access measures to advertising and promotion restrictions (See Appendix to Section II). Of all the states with preemption, only Maine has successfully organized to overturn preemption in a state law, repealing in 1997 a provision preempting enactment of ordinances restricting tobacco displays.

Regardless of how they are worded, laws that preempt the ability of local jurisdictions to pass tobacco control ordinances have a wide range of negative effects on tobacco control efforts in general. These negative effects include:

Elimination of local policy development—the level where tobacco industry opposition is least effective (Siegel *et al.*, 1997; Ellis *et al.*, 1996; Conlisk *et al.*, 1995);

Establishment of weak statewide public health standards which cannot be strengthened at the local level (Siegel *et al.*, 1997; Conlisk *et al.*, 1995); and

Division of tobacco control coalitions (Siegel *et al.*, 1997; Jacobson *et al.*, 1993).

In light of these effects, the major public health organizations have adopted formal positions opposing preemption in tobacco control legislation. These organizations include the three leading voluntary health agencies (the American Cancer Society, the American Heart Association, and the American Lung Association); the American Public Health Association; the Association of State and Territorial Health Officials; the Institute of Medicine; and the American Medical Association. The U.S. Department of Health and Human Services, *Healthy People 2000 Objectives, Midcourse Review, 1995* calls for states to repeal laws which preempt stronger local clean indoor air laws (U.S. DHHS, 1996).

Since 1996, the number of preemption bills enacted by state legislatures has fallen off somewhat (CDC, 1999a)(Figures 12a & 12b). This was the year an inter-agency team calling itself the "Preemption Strike-force" was formed; members included the Americans for Nonsmokers' Rights, the American Lung Association, the American Cancer Society, the American Heart Association, and the Campaign for Tobacco-Free Kids. This *ad hoc*

Figure 12a

Cumulative Number of Local Tobacco-Control Ordinances Preempted by State Laws by Year Preemptive Law Became Effective—United States, 1982-1998

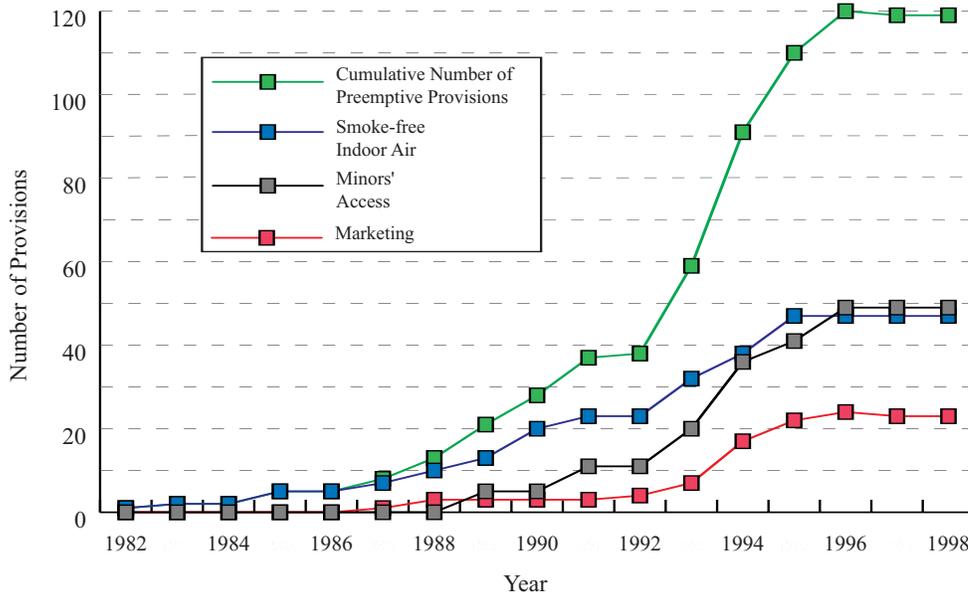
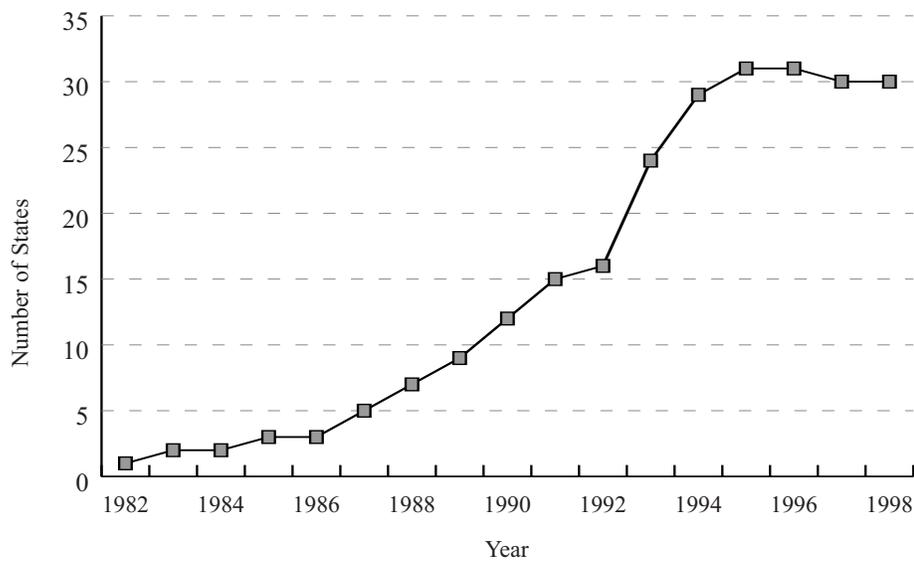


Figure 12b

Cumulative Number of States with Preemptive Clauses—United States, 1982-1998



Source: Both figures above are from CDC, 1999a

coalition provides technical assistance and support to state coalitions on how to prevent enactment of preemption legislation. Nonetheless, by the end of 1998, more than half of all states (30 states) have preemption provisions in their tobacco control laws. Six states have passed preemptive laws since 1995.

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