

methodology and design, particularly in their measurement of the extent of subjects' exposure to environmental tobacco smoke, but these flaws do not invalidate the studies. Even the best of such studies have not achieved the methodological precision of studies of direct smoking and lung cancer. Still, because so many people are currently exposed to environmental tobacco smoke, even a small increase in the risk of lung cancer from passive smoking would be important. Despite the uncertainties in the evidence, the data are sufficient to warrant serious concern.

WORKPLACE SMOKING POLICIES

Smoking Policies for the Federal Workplace

Three agencies are responsible for administering smoking policies in 90 percent of all Federal office space: the General Services Administration (GSA), the Department of Defense (DoD), and the Postal Service. In addition, the Veterans Administration (VA) develops smoking regulations for 172 VA medical centers and 225 clinics.

This staff paper comes at a time of much activity related to Federal smoking policies. In the first four months of 1986, both DoD and the VA medical centers modified their smoking policies, while GSA was in the midst of policy revision. OTA did not attempt to evaluate the effectiveness of these policies, and the extent to which they are implemented varies from office to office. Federal employees work in a variety of settings, but policies that affect Federal office workers are focused on in this staff paper.

GENERAL SERVICES ADMINISTRATION REGULATIONS

GSA develops regulations for the buildings it manages in its role as administrator of Federal property. In 1983, GSA administered 34 percent of all Federal office space (U.S. GSA,

1984). GSA's smoking regulations are the largest single source of workplace smoking policies for civilian Federal employees.

History of GSA Regulations

GSA's Public Buildings Service, responsible for the operation and maintenance of many Federal office buildings, first issued smoking regulations in 1973 after reports from the Surgeon General on the dangers of smoking and after receiving requests from nonsmokers that smoking in Federal buildings be restricted or prohibited (U.S. GSA, undated). The first regulations prohibited smoking in certain common areas, such as conference rooms, auditoriums, and elevators. They also required nonsmoking areas in GSA cafeterias and limited smoking in certain medical care facilities. They encouraged, but did not require, nonsmoking areas in open office spaces (U.S. GSA, 1973). In 1976, after resistance from Federal agencies, GSA permitted smoking in conference rooms if, in the opinion of the local building manager, the room was "properly ventilated" (U.S. GSA, undated; U.S. GSA, 1976). At the urging of the Department of Health, Education, and Welfare (DHEW) and the Office on Smoking and Health, GSA strengthened its regulations in 1979. Current GSA regulations are described below.

At the time of this paper, GSA is in the late stages of proposing more restrictive regulations, which will be printed for comment in the *Federal Register*. A final regulation will be issued based on comments received (Dutton, 1986).

Content of GSA Regulations

The intent of GSA's current workplace smoking regulations is to provide a "reasonably smoke-free environment in certain areas" of GSA-administered buildings. The regulations cite a need to control smoking in some areas "because smoke in a confined area may be irritating and annoying to nonsmokers and may create a potential hazard to those suffering from heart

and respiratory diseases or allergies” (44 FR 22464). In all buildings administered by GSA, smoking is prohibited in auditoriums, conference rooms, classrooms, and elevators unless excepted by the agency head. The regulations also require nonsmoking areas, designated by signs and determined by the building manager, in building cafeterias.

Smoking in open office areas, where smoke may drift into a nonsmoker’s work area, is often a point of contention. GSA’s regulations are less strict in open office areas than in areas such as conference rooms, although the regulations suggest that creating nonsmoking open office areas should be “thoroughly investigated” provided that “(1) efficiency of work units will not be impaired, (2) additional space will not be required, and (3) costly alterations to the space or procurement of additional office equipment will not be necessary” (41 CFR part 101-20). Workers in an office “may unanimously declare that office as a ‘no-smoking’ area.” However, because the decision must be unanimous, smokers retain the right to reject a no-smoking policy in the work area.

Implementation of GSA Regulations

While agencies with buildings administered by GSA are required to comply with GSA workplace smoking regulations, the agencies, not GSA, are responsible for the implementation and enforcement of the regulations. There exist, therefore, a variety of conditions in Federal workplaces based on the minimum requirements established by GSA. The regulations state that “nothing in these regulations precludes an agency from adopting more stringent rules in space assigned to them,” and some agencies, although certainly not a majority, have adopted more stringent policies. The Agency for International Development (AID), for example, chose to limit smoking in the workplace in August of 1985 after a poll showed that 90 percent of its employees favored restrictions (U.S. AID, 1985). AID’s current policy stipulates that shared work areas will be nonsmoking unless unanimously declared smoking by employees in the area.

This policy makes nonsmoking the norm, compared with GSA's regulations in which smoking work areas are the norm. AID officials reported few problems implementing the policy (Alli, 1986; Cahn, 1986).

A complete listing of policy variations under GSA's regulations is beyond the scope of this staff paper, but there are other notable examples of agencies that have adopted stricter policies. The Indian Health Service (IHS), an agency of the U.S. Public Health Service, has announced its intention to ban smoking from its health and administrative facilities. Since late 1983, the Keams Canyon IHS hospital in Arizona has been smoke free. One hundred sixty-five of 180 major IHS facilities have banned smoking, and another ten facilities have pledged to ban smoking by September 1986 (Fairbanks, 1986). However, in Oklahoma, a grievance has been filed by an IHS employee charging that the ban in that facility was declared without consulting the labor union. Should the grievance be upheld, IHS management will have to negotiate with the union in that facility. Region X of the Department of Health and Human Services (HHS) in Seattle banned smoking in September of 1984 after surveying employee attitudes and consulting with its two labor unions (USDHHS, 1985a; McDonald, 1986).

DEPARTMENT OF DEFENSE POLICIES

The Department of Defense (DoD) is the largest employer in the Federal workforce, employing more than 1 million civilian workers (34 percent of the Federal civilian workforce) and over 2 million military personnel on active duty. DoD manages 31 percent of all Federal office space (U.S. GSA, 1984).

History of DoD Smoking Policies

The Office of the Assistant Secretary of Defense for Force, Management, and Personnel developed DoD's first workplace smoking policy in 1977. Recently, the policy has been

modified and incorporated into a more general health directive. The original policy prohibited smoking in certain portions of all DoD buildings, including auditoriums, conference rooms, and classrooms. It also required the establishment of nonsmoking areas in eating facilities “wherever practicable.” Smoking was permitted in shared work areas “only if ventilation is adequate to remove smoke from a work area and provide an environment that is healthful” (U.S. DoD, 1977). DoD defined “adequate ventilation” as at least “10 cubic feet of fresh air per minute per person.”² In theory, this meant that if a nonsmoker were to formally complain about smoke in his or her work area, an industrial hygienist would be called in to take measurements, the results of which might lead to a nonsmoking policy for the area. DoD’s original workplace smoking policy was superseded by a more general health directive on health promotion signed by the Secretary of Defense on March 11, 1986.

Content of DoD Smoking Policies

The workplace smoking policies established in DoD’s recent health directive are somewhat more stringent than the policies implemented in 1977, although the changes do not appear to be large. Smoking is prohibited in auditoriums, conference rooms, and classrooms, just as it was in 1977, and in the new directive, nonsmoking areas are required in all eating facilities rather than just “wherever practicable.” The new directive also states that “smoking shall not be permitted in common work areas shared by smokers and nonsmokers unless adequate space is available for nonsmokers and ventilation is adequate to provide them a healthy environment” (U.S. DoD, 1986a), although “healthy environment” is not defined in the policy. The new directive also places more emphasis on smoking cessation programs than the 1977 policy. After a recent controversy over the sale of cigarettes at reduced prices in military

²While this ventilation rate is greater than the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) guidelines for offices without smoking, it is only half of the current guideline for offices with smoking.

exchanges and commissaries, the Secretary of Defense announced DoD's intention to carry out "an intense anti-smoking campaign" in the military, rather than increase cigarette prices (U.S. DoD, 1986 b). Reduced cigarette prices were seen as part of commissary privileges, which allow military personnel to buy goods at reduced prices.

Implementation of DoD Policies

Major divisions within DoD include the Office of the Secretary of Defense, the Military Departments of the Army, Navy (which includes the Marine Corps), and Air Force, and the twelve Defense Agencies (e.g., the Defense Intelligence Agency and the Defense Mapping Agency). Each division is required to implement the health promotion directive, which includes policies on smoking in the workplace. Each of the divisions, therefore, drafts its own set of policies based on the requirements of the directive (Gunnels, 1986). Implementation of the policies may be stronger than the requirements set by the directive. For instance, after consulting with its labor unions, the Madigan Army Medical Center in Tacoma, Washington banned smoking from its facilities.

POSTAL SERVICE POLICIES

The U.S. Postal Service, an independent establishment of the Executive branch, employs over 700,000 workers and administers 25 percent of all Federal office space (U.S. GSA, 1984). The Postal Service is divided into five regional areas within the United States, and among these areas there are nearly 40,000 branch offices and stations.

History of Postal Service Smoking Policies

Unlike many other Federal agencies, the Postal Service has a long history of workplace smoking policies. In contrast to the policies adopted by GSA in 1973 and DoD in 1977, the

Postal Service policies were issued because of the flammable nature of the mail rather than for health concerns. This consideration has been the primary impetus for smoking policies in the Postal Service, and it has been only recently that the health of nonsmoking employees has been considered a factor in determining workplace smoking policies (Hermann, 1986).

Content of Postal Service Regulations

Today the flammable nature of the mail is still the main focus of Postal Service workroom smoking policies. The regulations state that "smoking areas must be clearly designated" and that "employees must not smoke, under any circumstances, while receiving mail from the public, around belt conveyor tunnels, collecting mail from letter boxes, loading or unloading mail, distributing mail into pouches and sacks, or hanging, working, or closing pouches or sacks on racks" (U.S. Postal Service, 1983).

These limitations apply particularly to postal workroom areas; in contrast, office smoking policies are not clearly delineated, varying from office to office (Hermann, 1986). Postal regulations state that "smoking on duty is a privilege, not a right, and must not be indulged in to the detriment of the Postal Service or an employee's work, nor at the risk or discomfort of nonsmoking employees" (U.S. Postal Service, 1983). While this reflects consideration to nonsmokers, it does not establish procedures to be followed in carrying out a policy. The Postal Service headquarters in Washington has issued a smoking policy for its immediate office; smoking there is prohibited if a nonsmoker objects (U.S. Postal Service, 1984). However, this policy is presented to other offices as an example only and does not require other offices to establish similar policies.

Implementation of Postal Service Smoking Policies

To a much greater extent than other Federal agencies, Postal Service employment

policies are governed by the process of collective bargaining. The Office of Safety and Health within the Postal Service has a contractual obligation to provide notice to unions and, if requested, meet with them while making policies which relate to working conditions (Jones, 1986). If a new policy were to be agreed upon, it would be printed and distributed through the *Postal Bulletin* to the five regional offices and nearly 40,000 branch offices across the country.

VETERANS ADMINISTRATION POLICIES

Two sets of policies form the basis of most Veterans Administration (VA) workplace smoking restrictions. The Department of Medicine and Surgery (DM&S) employs 190,000 (82 percent) of the VA's employees and administers the VA's hospitals, clinics, and nursing homes. GSA administers most of the remainder of VA buildings. GSA regulations are discussed above; this section focuses on the policies set by DM&S within the VA.

History of Veterans Administration (DM&S) Policies

The first DM&S smoking policy was written in 1978, and since then it has been revised four times. The first policy prohibited smoking in certain places, such as patient interview areas, examination areas, and conference rooms. It also stated that, "where space accommodations permit," smoking and nonsmoking sections should be established in areas including waiting areas, dining rooms, patient day rooms, and patient rooms (U.S. VA, 1978). The first three policy revisions included mostly minor changes which gradually broadened the policy (U.S. VA, 1981, 1982, 1984). The most recent revision, approved in March of 1986, includes extensive changes.

Content of Veterans Administration (DM&S) Policies

The new DM&S policy states that "near each medical center entrance there will be a sign

stating ‘No smoking allowed in this medical center except in designated areas’” (U.S. VA, 1986). Most often, specific dayrooms will be designated as smoking areas (Mather, 1986). The policy also allows smoking and nonsmoking sections in waiting areas and dining rooms, and “adequate ventilation and/or smoke eaters [mechanical devices designed to reduce smoke levels] must be provided in all designated smoking areas.” Whereas patients were allowed to smoke in rooms when space allowed and the physician approved under previous policies, under the new policy, patients with physician approval “will be escorted to a designated smoking area when necessary. Those patients whose smoking would, in the judgement of an appropriate health professional, pose a risk to themselves or others, will be allowed to smoke under strict supervision only.” The policy also calls for educational programs on the hazards of smoking and smoking cessation clinics.

Implementation of Veterans Administration (DM&S) Policies

The policy, dated March 5, 1986, has not yet been fully implemented. VA medical centers are encouraged to designate a “smoking control officer with responsibility for implementing the smoking policy at that facility.” In addition, people who smoke within a nonsmoking area may be subject to a fine of up to \$50, although voluntary compliance through a notification system is encouraged.

State and Local Workplace Smoking Laws

An increasing number of State and local government laws have restricted smoking in the workplace, particularly since 1983. Since that time, seven State laws and more than 70 community ordinances have regulated smoking in either the public or private sectors in addition to five other States which already had such a law. OTA compiled a list of State laws regulating workplace smoking and examined a few sample local ordinances.

STATE WORKPLACE SMOKING LAWS

Minnesota was the first State to regulate smoking in the workplace with the passage of its Clean Indoor Air Act of 1975. Utah followed in 1976, Montana and Nebraska in 1979, and since 1981, nine other States have passed laws regulating smoking in the workplace. The Rhode Island Legislature recently passed a bill restricting smoking in the workplace which will be presented to the Governor; in other States, including Colorado, Maryland, and Virginia, such legislation has been proposed and defeated.

OTA contacted State health officials responsible for implementing State workplace smoking laws and compiled a table of States with such laws and components of the laws (see Table 2). The table includes the year the law was enacted, which in some cases was the year before the law was actually implemented.

State laws restrict workplace smoking in different ways; some simply require each workplace to post the policy, many others restrict smoking to designated areas only. Common to many of the laws is an explicit intention to protect the health and comfort of nonsmokers. The twelve States with workplace smoking laws have adopted one or more of the following components.

Components of State Workplace Smoking Laws

Restricting smoking at State and local workplaces. Laws in Alaska, New Hampshire, New Mexico, and Wisconsin restrict smoking at State and local workplaces only; laws in the eight other States that restrict smoking in the workplace apply to both public and private workplaces. The intent of laws in the first four States is to regulate smoking in "public places," which are defined from State to State to include places such as libraries and museums as well as State workplaces. Each of the four laws restricts smoking to designated areas in the workplace.

Table 2: State Laws Regulating Smoking in the Workplace^{a, b}

State	Year Enacted	Written Smoking Policy Required	Smoking only in Designated Areas	Signs Required	Nonsmokers Prevail in Disputes	No Discrimination Against Nonsmokers	Penalties
Alaska ^c	1984		X	smoking no smoking			smokers \$10-50 employers \$20-300
Connecticut	1983	X					
Florida	1985	X	X	NO NG			smokers up to \$500
Maine	1985	X	X			X	employers up to \$100
Minnesota	1975		X	smoking no smoking			smokers--petty misdemeanor employers--injunction
Montana ^d	1979			smoking and/or no smoking			employers--misdemeanor, \$25
Nebraska	1979		X	smoking no smoking			smokers--misdemeanor
Hampshire ^{e, e}	1981		X	no smoking			smokers--violation employers--injunction
New Jersey ^f	1985	X		smoking no smoking			smokers \$10-25
New Mexico ^{c, e}	1985	X		no smoking	X		smokers--infraction, up to \$299 employers--misdemeanor
Utah	1976 ^g		X	smoking no smoking	X		employers \$25
Wisconsin ^c	1984		X	smoking			

^aOTA's list drawn from lists by the American Lung Association and Office on Smoking and Health. Some States were excluded from OTA's list because State health officials reported that their smoking law did not apply to workplaces. These States were: Arkansas, California, Hawaii, Iowa, Nevada, North Dakota, Ohio, Oregon, and Washington.
^bAt the time this was compiled, the Rhode Island Legislature had passed a law requiring all employers to develop a policy which included nonsmoking areas. The Governor had not yet acted on the legislation.
^cState and local workplaces only.
^dIn State offices with 7 or more employees, smoking and nonsmoking areas must be designated.
^eSmoking and nonsmoking areas must be segregated; if not possible, then smoking must be prohibited.
^fNonsmoking areas must be designated.
^gAmended in 1986, penalties for smokers reduced from misdemeanor.

Source: Office of Technology Assessment

In Alaska, after some confusion over a provision requiring “reasonable accommodations” for the needs of smokers and nonsmokers, a State Labor/Management Committee developed guidelines for establishing smoking and nonsmoking areas in State buildings (Ballantine, 1986).

Requiring a written policy. Laws passed in Connecticut, Florida, Maine, New Jersey, and New Mexico (State and local workplaces only) all require that employers establish a written smoking policy. Connecticut requires only that “each employer shall establish and post written rules governing smoking and nonsmoking in that portion of any business facility for which he is responsible.” The law, which applies only to businesses with 50 or more employees in a “structurally enclosed location,” does not specify the policy’s content; an employer may choose to allow smoking throughout the workplace. New Jersey’s law, passed in late 1985, also specifies that businesses with 50 or more employees must establish a written policy; however, New Jersey’s law also requires that employers designate nonsmoking areas. The laws in Florida and Maine are the most explicit of the five States which require employers to develop policies. In Florida, the policy “shall take into consideration the proportion of smokers and nonsmokers” and prohibit smoking except in designated areas. In Maine also, the policy “shall prohibit smoking except in designated smoking areas.”

Limiting smoking to designated areas. Restricting smoking to designated areas is a provision common to most State laws regulating smoking in the workplace. Eight of the twelve States with workplace smoking laws have such a provision (see Table 2). Minnesota’s law was the first among States to limit smoking in the workplace, stating that “no person shall smoke in a public place or at a public meeting except in designated smoking areas.” Several States, including Utah, Nebraska, and Florida followed Minnesota’s example, using language from Minnesota’s law to restrict smoking to designated areas. Each of these States defines “public place” to include places of work; this definition is important because other States, such as

Oregon, also restrict smoking in public places, however Oregon does not include the workplace in its definition of a “public place.”

One issue raised by the language of the State laws is the definition of “designated area” for smoking. In each of the eight States, designation of smoking areas is left up to the person in charge of the public place within the boundaries established by the intent of the laws. Although laws in New Mexico (State and local workplaces only) and Utah are the only ones to specifically state that nonsmokers’ preferences prevail over smokers’ preferences, each of the above laws was written with the intention of providing a healthful work environment. Shared work areas may thereby be discouraged from being designated smoking; however, in some cases an employer may technically be in compliance with the law but in conflict with its intent by designating a shared work space as a smoking area. (Richards, 1986). In Maine, the State health department considers the intent of the law as well as its technical specifications if legal action against an employer is required (Maloney, 1986).

Other guidelines and constraints influence the designation of smoking areas. Negotiations with labor through collective bargaining may be required. Also, all laws except those in Alaska and Maine state that “existing physical barriers and ventilation systems” should be used to separate smoking and nonsmoking areas, eliminating a mandate for costly alterations. Laws in Minnesota, Utah, and Nebraska, explicitly mention that offices occupied solely by a smoker or group of smokers may be designated as smoking areas; all the other State laws implicitly allow this.

Requiring signs to be posted. Ten States require that signs designating smoking and/or nonsmoking areas must be posted in the workplace. Alaska (State and local workplaces only), Minnesota, Nebraska, New Jersey, and Utah all require signs designating smoking and nonsmoking areas. Florida and Wisconsin (State and local workplaces only) require that signs be posted in smoking areas, while laws in New Hampshire and New Mexico require signs only in

nonsmoking areas in State and local workplaces. Montana's law, one of the least restrictive State laws regulating workplace smoking, requires only that a smoking or no-smoking sign be posted, depending on the policy set by the employer. Many of the laws specify a minimum size for the signs; in Minnesota, signs "shall be in printed letters of not less than 1.5 inches (3.8 centimeters) in height," unless used on a table or seat.

Giving preference to nonsmokers in resolving conflicts. In State and local offices in New Mexico occupied by smokers and nonsmokers, the employer must provide a smoke-free work area to accommodate any employee who requests one as long as costly modifications are not required. And Utah's law, which limits smoking to designated areas, requires employers to comply by:

"allowing an employee who has a defined, individual work area in the workplace to designate his immediate work area as a "no smoking" area and to post it with appropriate signs. With regard to this subsection, the employer shall give precedence to the rights of a nonsmoking employee when attempting to reach agreements between the preferences of smoking and nonsmoking employees."

Although Minnesota's law does not have a clause explicitly giving preference to nonsmokers, State health officials interpret the law's intent and its sections on designation of smoking areas as giving precedence to nonsmokers' concerns (Thompson, 1986).

Prohibiting action against nonsmokers who complain about smoking. Two State laws explicitly prohibit taking action against nonsmokers because they complain about smoking. In Utah, an employer is not allowed to "discriminate against an employee who expresses concern about smoke pollution in the place of employment which is detrimental to his health or comfort." And in Maine, "it is unlawful for any employer to discharge, discipline or otherwise discriminate against any of its employees because that employee has assisted in the supervision or enforcement of this section."

Enforcement of State Laws

States have various provisions for enforcement of laws regulating workplace smoking, but in general, the laws tend to be self-enforcing (Shopland, 1985; Kahn, 1983). In nearly all States, the State health department or its local subdivision is responsible for enforcement of the law. Some States, such as Connecticut and New Jersey, essentially have no provisions for enforcement or penalties, while others, Utah and Florida in particular, may assess fines up to \$299 and \$500 for violation of the law, although in practice such high fines have never been assessed. In seven of the twelve States a smoker can be cited for a non-criminal violation or charged for a misdemeanor if found smoking in a nonsmoking area. Also in seven of the States an employer who fails to implement provisions of the law may also be held responsible, either through fines, a court injunction, or misdemeanor conviction.

In telephone conversations with State employees responsible for implementing the laws, OTA found that most of their effort was spent during the phase-in period when employers were uncertain about compliance standards. States which have had workplace smoking policies for a few years reported few enforcement problems. Utah's law has been in effect since 1976, and the State official responsible for enforcement estimated that in recent years about 6 employers had been fined from \$25 to \$50 (Marx, 1986).

LOCAL WORKPLACE SMOKING ORDINANCES

More than 70 communities in California have passed ordinances regulating smoking in the workplace (Americans for Nonsmokers' Rights, 1986). California has been by far the most active State, but communities in other States, including New York, Ohio, and Colorado have also passed workplace smoking ordinances. Local workplace smoking ordinances are a recent and rapidly-developing phenomenon; nearly all have been written since 1983, and in the first

two months of 1986, Nassau county in New York adopted and New York City's Mayor Koch proposed workplace smoking ordinances.

City Ordinances

The most active State in passing workplace smoking ordinances at the city level has been California. After nonsmokers' legislation was defeated twice at the State level, groups such as the Californians for Non-smokers Rights shifted their emphasis to ordinances at the local level (Shopland,1985).

In 1983, 13 California cities passed nonsmoking ordinances, including San Francisco and Palo Alto (American Lung Association, 1985a). In San Francisco, each employer must establish an office smoking policy. San Francisco's workplace smoking ordinance states that "if an employer allows employees to smoke in the workplace, then this ordinance requires (1) that the employer make accommodations for the preferences of both nonsmoking and smoking employees, and (2) if a satisfactory accommodation to all affected nonsmoking employees cannot be reached, that the employer prohibit smoking in the office workplace" (San Francisco Ordinance 298-83, in American Lung Association, 1985a). The ordinance does not apply to enclosed offices occupied solely by smokers, State or Federal government buildings, or homes that serve as workplaces. The ordinance is enforced with a fine of up to \$500 for any employer who fails to comply, however few problems with enforcement have been reported (Schuh, 1984).

Palo Alto's ordinance, passed in 1983 after San Francisco's ordinance, goes a step further by allowing a worker to declare his or her work area nonsmoking. According to the ordinance, "any employee in the office workplace shall be given the right to designate his or her immediate area as a nonsmoking area and to post it with appropriate signs or sign." The ordinance goes on to state that "in any dispute arising under the smoking policy, the rights of the nonsmoker shall

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be given precedence” (Palo Alto Ordinance 3476, in American Lung Association, 1985a). As with San Francisco ordinance, Palo Alto’s ordinance does not apply to enclosed offices occupied solely by smokers, to State or Federal office buildings, or to private homes which serve as a workplace. Violation of the ordinance is an infraction of city code; fines range from \$50 to \$250.

As of March 1, 1986, 67 cities and towns and 7 counties in California have ordinances regulating smoking in the workplace (Americans for Nonsmokers’ Rights, 1986). Across the State, 44 percent of the population falls under the jurisdiction of a local workplace smoking ordinance. For some companies with statewide offices, complying with the variety of ordinances in different cities has been something of a problem; the Pacific Telesis company in California developed a flexible corporate smoking policy in response to the situation (USDHHS, 1985a).

County Ordinances

In 1984, Suffolk County in New York State adopted a workplace smoking ordinance for offices of 50 or more employees, similar in many ways to Palo Alto’s city ordinance. According to the Suffolk ordinance, “any employee in the office workplace shall be given the right to designate his or her immediate area as a nonsmoking area and to post it with an appropriate sign or signs” (American Lung Association, 1985a). However, unlike Palo Alto’s ordinance, it adds that “in any dispute arising under the smoking policy, the rights of the nonsmoker shall be governed by the rule of reason and the economic practicability of action by the employer.” The ordinance also prohibits smoking in many areas where both smokers and nonsmokers might be present, including conference rooms, auditoriums, restrooms, and elevators. The maximum fine for violation of the ordinance is \$25.

Nassau County, a neighbor to Suffolk County in New York, passed a smoking ordinance in January 1986 which limits smoking in the workplace to designated areas. Cited as “among the toughest in the country” (May, 1986), the ordinance bans smoking in many public places including hospitals, movie theaters, and stores and prohibits smoking in specific areas of the workplace, such as cafeterias, conference rooms, restrooms, and work areas. The ordinance states, however, that “an employer may designate a separate portion or portions of the work area, employees’ lounge, and cafeteria, for smoking.” Designating open work areas as smoking areas is discouraged by the County Board of Health if it conflicts with the intent of the ordinance, “to provide [county] residents protection from exposure to tobacco smoke” (Niebling, 1986). The ordinance is enforced by fines up to \$500; two full-time administrators are currently assigned to administering the ordinance as it is phased in.

Workplace Smoking Policies in the Private Sector

Private sector smoking policies have shifted emphasis and increased in number in the last four to five years. In that time, nonsmokers’ rights groups pressed for increased restriction of smoking in the workplace. Workplace smoking policies today are more likely to be based on consideration of the health and comfort of nonsmokers than policies four or five years ago, which tended to emphasize the protection of products and equipment and the prevention of fires and explosions.

Employer decisions to implement smoking policies are undoubtedly motivated by a number of factors, including concern for employee health and the costs of ill health, compliance with State and local laws, and a desire to reduce potential sources of conflict between employees. Employers may also wish to reduce their potential liability from lawsuits, and worker’s compensation, unemployment benefits and disability benefit claims by passively exposed nonsmokers (see American Lung Association, 1985b; Cliff, 1984; Jauvtis, 1983; Ashe

and Vaughan, 1985). However, the extent of this potential liability is currently unclear and is probably only a subsidiary motivation.

Smoking Policy Surveys

Survey data indicate that in 1980 most existing workplace policies were written with the intent to protect products and equipment in the workplace (Bennett, 1980), to accommodate customers and clients (Thomas, 1980), or to restrict smoking in blue collar work areas for reasons of workers' safety (National Interagency Council on Smoking and Health, 1980 b). Examples of these types of policies include smoking restrictions in food processing industries and bank lobbies and restrictions imposed to prevent fires and explosions.

Recent surveys of workplace smoking policies have been conducted by the Office of Disease Prevention and Health Promotion (ODPHP) (USDHHS, 1986) in the Department of Health and Human Services and by a California consulting firm funded by the Tobacco Institute (Human Resources Policy Corporation, 1985). The ODPHP survey data are preliminary and will be released in final form in July 1986. The survey polled over 1,600 worksites with 50 or more employees nationwide on health promotion activities in the workplace, with a response rate of approximately 85 percent. The survey differs from previous surveys in that the sample consists of actual worksites defined by location, as opposed to central company offices. The survey conducted for the Tobacco Institute polled 1,100 large companies and had a rather low response rate of 40 percent. The companies chosen for the Tobacco Institute survey were drawn from the *Fortune 1000* service and industrial companies and *Inc.* magazine's 100 fastest growing companies.

Both surveys, though based on very different samples of workplaces, produced similar estimates of the prevalence of workplace smoking policies. The ODPHP survey found that 36

percent of worksites with 750 or more employees had smoking policies, while the Tobacco Institute survey found that 32 percent of large corporations surveyed had a smoking policy.

One conclusion drawn in the Tobacco Institute study, that "workplace smoking policies are not a trend among major companies," does not appear to be supported by their data. The survey indicates that 9 percent of the companies with smoking policies had developed them in the year before the survey, and 20 percent in the previous five years. These data should be interpreted cautiously, however, as nearly 60 percent of those responding did not know how long the policy had been in effect.

Preliminary results from ODPHP survey indicate that nonsmokers' concerns and regulations requiring smoking policies have become primary reasons for workplace smoking policies (USDHHS, 1986). Results suggest that 27 percent of all worksites with 50 or more employees have some form of smoking policy, and that the primary purpose of 40 percent of these policies was to "protect nonsmokers." Another 40 percent were written to "comply with regulations," and thirteen percent of the policies were written to "protect equipment." The primary purpose for seven percent of the policies was "to protect high risk employees," such as asbestos workers.

Private Sector Smoking Restrictions

Private sector businesses demonstrate a variety of approaches for accommodating nonsmokers' concerns. Although this report focuses on policies, it should be mentioned that many private sector businesses also use smoking cessation programs and incentives to help employees quit smoking in conjunction with the policies. The most widely used cessation programs according to preliminary results from the ODPHP survey are self-help program materials to be used on the smoker's own time. These include information packets and videotapes from sources such as the American Lung Association. Some businesses offer

financial incentives such as bonuses for smoking abstinence (see the 1985 Surgeon General's report (USDHHS, 1985b) for a review of cessation programs and incentives).

It is not always possible to neatly categorize the motives and expectations behind specific private sector policies. Private sector workplace smoking policies range from policies concerned primarily with occupational safety and product purity to a growing number of policies concerned with nonsmokers' health and comfort. Some industries, such as health and insurance industries, are especially inclined to restrict smoking for health reasons. The airline industry is required by Federal regulations establish smoking and nonsmoking sections in all large aircraft and to prohibit smoking on aircraft with less than 30 seats (14 CFR part 252).

OTA focuses in this section on the workplaces that have developed a workplace smoking policy. Data indicate that the majority of businesses do not have a policy; however, the increasing number of State and local laws regulating smoking as well as the greater awareness of nonsmokers' concerns reflected in the ODPHP survey (USDHHS, 1986) suggest that the number of workplace smoking policies is increasing. OTA is unaware of businesses that have chosen to rescind a policy after accepting one.

Restricting smoking in certain areas. Smoking is often banned in specific areas outside the actual work area. These policies ban smoking in areas such as meeting and conference rooms, auditoriums, elevators, bathrooms, and hallways. Although survey information is not available on the prevalence of this type of policy, it appears to be the most common type (USDHHS, 1985a). Often State laws or local ordinances prohibit smoking in areas such as elevators; in 1984, 40 States and the District of Columbia prohibited smoking in certain public areas (USDHHS, undated). Some companies have used this type of policy as a first step in creating a more comprehensive workplace smoking policy. The Boeing Company in Seattle currently designates nonsmoking areas, but has announced its intent to ban smoking entirely (USDHHS, 1985a; Sifferman, 1986).

Surveys in 1980 indicate that 54 percent of large Massachusetts businesses had work areas where smoking was prohibited because of potential damage to products or equipment (Bennett, 1980), and smoking is often restricted in blue collar work areas because of safety reasons (National Interagency Council on Smoking and Health, 1980 b). Businesses where contact with clients is frequent often restrict smoking in lobbies and other client contact areas. A 1980 survey of 500 members of the Administrative Management Society found that 46 percent of those who responded prohibited smoking in areas where employees came into contact with customers and clients, making it the most common policy among that service- and client-oriented group of businesses (Thomas, 1980). The policies did not restrict smoking in common work areas, rather they prohibited it in areas where clients would be present, such as at bank teller windows. Therefore, these policies apply only to employees who normally work with clients.

Modifying the work environment. Although not so much an explicit policy or restriction as a more general means of accommodating smokers and nonsmokers, modifying the work environment is a step taken by many employers. Modifications range from posting signs to separating work areas and improving ventilation. Sometimes workplace modification is a step taken before more explicit policies are developed. In 1979, the Control Data Corporation in Minneapolis separated work areas into smoking and nonsmoking sections and designed ventilation systems to blow smoke away from nonsmokers; in 1984, Control Data banned cigarette smoking except in designated areas (Business Week, 1982; USDHHS, 1985a). One factor limiting the extent of workplace modification is cost; Minnesota's state law, for instance, requires only that "existing physical barriers and ventilation systems" be used in separating smoking and nonsmoking areas, rather than requiring new structures.

Banning smoking except in designated areas. Some businesses have prohibited smoking in the workplace except in designated areas. Five States currently have laws requiring private

sector employers to restrict smoking to designated areas (see Table 2). The Control Data Corporation in Minnesota, which has such a law, prohibits smoking in all areas except in private offices, sections of cafeterias and conference rooms, and certain refreshment rooms (Andrew, 1986). MSI Insurance, also in Minnesota, limits smoking to part of the cafeteria (USDHHS, 1985a). Some State health officials OTA contacted had received complaints from nonsmokers in businesses where smoke from designated areas drifted into the work area (Richards, 1986; Maloney, 1986).

Banning smoking throughout the workplace. Recently a small number of companies have banned smoking entirely from the workplace. Pacific Northwest Bell based in Seattle banned smoking in October 1985, a policy recommended by an employee committee after two years of review. The company had also conducted a survey of employees which indicated that most employees wanted a policy regulating smoking in work areas (Mozmette, 1986). The Provident Indemnity Life Insurance Company in Norristown, Pennsylvania banned smoking on company property in the fall of 1983. The company reached that stage in steps, first by limiting smoking to the lunchroom during a certain time period, and then by altering its job application so that applicants would be aware that smokers must abide by the policy and pay for insurance at a greater rate than nonsmokers (USDHHS, 1985a). The CIGNA Health Plan of Arizona, a Health Maintenance Organization centered in Phoenix, banned smoking in April, 1985, after a resolution to make hospitals smoke free passed at a meeting of the Arizona Medical Association (Larson, 1986).

These bans seem to have been implemented smoothly, but an employer may have problems declaring a total ban if the employer declares the ban unilaterally when labor negotiations are required. In an arbitration case in California, an employer's ban was declared unreasonable by an arbitrator because it did not cite sufficient reasons for the ban and the ban had been declared unilaterally by management (Jauvtis, 1983).