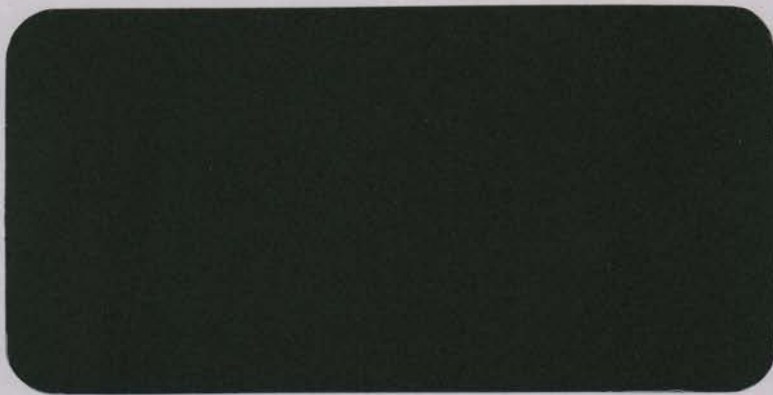


file teen  
smoking



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**MATHEMATICA**  
Policy Research, Inc.

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**ROBERT WOOD JOHNSON FOUNDATION  
YOUTH ACCESS SURVEY:  
RESULTS OF A NATIONAL HOUSEHOLD SURVEY  
TO ASSESS PUBLIC ATTITUDES ABOUT POLICY  
ALTERNATIVES FOR LIMITING MINOR'S  
ACCESS TO TOBACCO PRODUCTS**

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## EXECUTIVE SUMMARY

The primary purpose of the survey is to assess public opinion about policy alternatives to curb minors' access to tobacco products and to restrict various types of advertising and promotions that may encourage them to use tobacco. Although other surveys have obtained public opinion about selected minors' access and advertising issues from state or regional samples, this survey is unique in its focus on national opinion concerning a broad range of policies designed to limit minors' access to tobacco products. In addition, the survey obtained public views on selected proposals to assist smokers attempting to quit and to regulate the nicotine content of tobacco products.

The survey was conducted by computer-assisted telephone interview with 2,345 persons 18 and older from October 5 to November 3, 1994, and interviews were conducted in English or Spanish. The survey sample was selected using random digit dialing methods, and African-Americans (n=486), Hispanics (n=402), and California residents (n=465) were oversampled. The survey results were weighted to adjust for differences in sampling and response rates. The margin of sampling error (95 percent confidence interval) for estimates made for the total sample is approximately plus or minus 2.5 percent, and is somewhat higher for subgroups.

Findings by issue area are summarized below:

***Broadly Based Support.*** Support for several policies designed to limit minors' access to tobacco products is broadly based. Given the political shift in the last election, it is noteworthy that support for these policies cuts across age, sex, ethnicity, ideology, party, and region. Measures receiving broadly-based support include banning or restricting vending machines, verifying identification of youthful customers, banning self-service displays, and banning coupon promotions featuring items appealing to youth or offering free cigarettes by mail, sale of single cigarettes, and distribution of free cigarettes.

***Youth Access Policies.*** Although the sale of tobacco products to minors is illegal, the public recognizes that it is relatively easy for minors to purchase cigarettes and other tobacco products and will support specific policies that limit minors' access to those products. Sixty-eight percent of adults believe that it is very or somewhat easy for minors to buy cigarettes and other tobacco products in their communities. More importantly, young adults (18 to 24 years of age) who may have a more realistic perception of this problem, are much more likely (81 percent) to believe that it is easy for minors to buy tobacco products.

Assuming that the public believes that the objective of these policies is to reduce minors' access to tobacco products, rather than to limit the rights of adults to purchase tobacco products, there is broadly-based support for a ban on all cigarette vending machines (74 percent), on vending machines accessible to minors (91 percent), on self-service displays (78 percent), and a requirement to verify the identification of anyone appearing to be under age before selling cigarettes or tobacco products (94 percent). However, the public was less likely to support increasing age limits to 19 or 21 for tobacco purchases (50 and 49 percent, respectively) and limiting tobacco sales to certain types of retailers (46 percent).

***Tobacco Advertising and Promotions.*** The public is more likely to support bans on tobacco promotions than advertising. From 70 to 88 percent support bans on coupon promotions featuring items appealing to kids or offering free cigarettes, sales of single cigarettes, and distribution of free cigarettes on public streets. Support varied more for prohibiting tobacco companies from paying to show their products in movies and videos (60 percent) and from sponsoring sports or entertainment events where

their brand names are featured (55 percent), with males and young adults being least supportive. Overall, 59 percent of all adults supported a ban on billboard advertising and 51 percent a ban on advertising through newspapers and magazines. However, restrictions on advertising appear to be polarizing, with males and young adults, in particular, demonstrating weaker support for these policies.

We also assessed public views on the impact of limited advertising restrictions (tombstone advertising and plain packaging) on minors. Tombstone advertisements would limit the tobacco company's message to text, with pictures and cartoons prohibited. Plain packaging of cigarettes and smokeless tobacco products would mean that the package would include only the brand name and warning label in black letters against a white background. Most adults (73 percent) believe that tombstone advertising would make smoking less appealing to minors, but only about half (47 percent) believe that plain packaging would reduce the appeal of cigarettes to this group. Tobacco users, in particular, were skeptical about the impact of plain packaging on young smokers' purchasing decisions.

***Proposals to Regulate Tobacco Products and Assist with Smoking Cessation.*** The overwhelming majority (92 percent) of the public, including current smokers who do not plan to quit (85 percent), believe that nicotine is addicting. Nearly all (93 percent) support requiring tobacco companies to list additives on package labels and most (71 percent) also support extending government regulation of nicotine products, such as patches and gum, to cigarettes. The public also would support policies requiring tobacco companies to reduce the amount of nicotine in cigarettes (79 percent) and insurance companies to cover the cost of programs to quit smoking (65 percent). Support for these proposals crosses ideology and party.

***Differences in Level of Support by Population Characteristics.*** Although support for many measures to curb minors' access to tobacco products is broadly based, we observed that women, older adults, African-Americans and Hispanics were more supportive of most policies. Among political groups, conservative democrats consistently demonstrated greater support for tobacco control measures than other groups. Adults who believe they have lost family members or friends to tobacco related diseases, a group representing 44 percent of the population, were more supportive of policies designed to limit access to minors. Like many other surveys on public attitudes toward tobacco control policies, we observed that non-users were more supportive than users. However, current tobacco users who indicated they plan to quit in the next six months expressed levels of support for youth access policies that were more similar to non-users than users who do not plan to quit.

## I. INTRODUCTION

The primary purpose of the survey is to assess public opinion about policy alternatives to curb minors' access to tobacco products and to restrict various types of advertising and promotions that may encourage them to use tobacco. Although other surveys (discussed below) have obtained the public's views about selected minors' access and advertising issues from state or regional samples, this survey is unique in its focus on national opinion concerning a broad range of access and advertising issues. In addition, the survey obtained public assessments of selected proposals to assist smokers attempting to quit and to regulate the nicotine content of tobacco products. The survey was conducted by computer-assisted telephone interview with 2,345 persons 18 and older from October 5 to November 3, 1994, and interviews were conducted in English or Spanish. The survey sample was selected using list-assisted random digit dialing methods, and African-Americans (n=486), and Hispanics (n=402) were oversampled. California residents (n=465) also were oversampled to obtain separate estimates for a state in which tobacco control policies have received considerable attention in recent years. The survey results were weighted to adjust for differences in sampling and response rates.

In the remainder of this chapter, we describe the background for the survey, instrument design, and sample characteristics. Chapter II describes responses to policy alternatives to limit minors' access and to restrict tobacco advertising and promotions, and Chapter III describes the public's views of proposals to regulate the nicotine content of tobacco products and to assist smokers who want to quit. Our conclusions are summarized in Chapter IV. The sample design, procedures for constructing weights and estimating sampling errors, and tables showing confidence intervals and minimum differences required for comparisons between subgroups, are included in Appendix A; English and Spanish versions of the questionnaire are included in Appendix B; tables showing responses to each question by demographic, socioeconomic, political, and tobacco use characteristics are included in Appendix C. In general, the responses of California residents were similar to those of the rest of the country; the few issues where Californians had different views are summarized in Appendix D.

## A. BACKGROUND

Few people begin smoking as adults; 89 percent of adults who have ever smoked daily began smoking by age 18, and the average age when they first tried a cigarette was 14.6. Seventy-one percent of them became daily smokers by age 18 (CDC 1994, 1991 National Household Surveys on Drug Abuse, p. 65). Similar results have been provided by surveys of adolescents. The average teen smoker starts smoking at age 13 and becomes a daily smoker by age 14.5 (Teenage Attitudes and Practices Survey II, 1993, unpublished data.). It has been estimated that over 500 million packs of cigarettes are consumed by minors, and that at least half are sold illegally to the minors (Cummings 1994, pp. 300-302).

Although all states prohibit the sale of tobacco to minors, few states enforce their access laws; the secretary of health and human services estimates that three-fourths of the approximately one million outlets sell tobacco to minors (Lynch and Bonnie 1994, p. 201). Surveys of youth and industry studies have supported these assessments. The University of Michigan's Monitoring the Future Study found that 75 percent of eighth graders and 89 percent of tenth graders reported that cigarettes would be fairly or very easy to get (Johnston, 1994). A 1990 survey of ninth grade students, conducted as part of the National Cancer Institutes's COMMIT trial showed that two-thirds of current smokers buy their own cigarettes (Cummings 1992). A survey conducted by the vending machine industry also reported that 72 percent of teenage smokers purchased their own cigarettes (Response Research 1989). Trials designed to measure the prevalence of retail tobacco sales to minors have supported survey findings. In thirteen studies of over-the-counter sales, the weighted average of the percentage of minors able to purchase tobacco was 67 percent (range from 32 to 87 percent) (CDC, p. 249).

Research on the relationship between advertising and other promotions and tobacco use by minors was reviewed by the Institute of Medicine's (IOM) Committee on Preventing Nicotine Addiction in Children and Youths (Lynch and Bonnie, Chapter 4). The Committee cites three recent trends that have increased attention by public health officials to this issue, including (1) initial use at ever younger ages,

(2) increased use of smokeless products, and (3) a reduction in the rate at which smoking prevalence by youths has been decreasing.

They also reviewed studies indicating that legal restrictions on advertising and promotional activities have reduced smoking prevalence, with the strongest evidence based on a study commissioned by the government of New Zealand to assess trends in 33 countries between 1970 and 1986. The study focused mainly on adult consumption, but also noted that, "In countries where advertising has been totally banned or severely restricted, the percentage of young people who smoke has decreased more rapidly than in countries where tobacco promotion has been less restricted." (New Zealand 1989).

In the United States, many state and local governments and government agencies have enacted legislation to restrict certain forms of cigarette advertising (Bierig, et al., 1994). For example, some communities are banning cigarette billboards in sports facilities in order to keep cigarette ads from young sports fans. Other communities have banned cigarette advertisements throughout their mass transit systems.

The tobacco industry has denied that advertising and promotion causally affect the decisions of young people to begin smoking, and the Committee acknowledged that it is not feasible to conduct case control studies in an environment free of tobacco marketing to determine the independent causal effect of advertising and promotion on tobacco consumption. However, they argue that "... the preponderance of evidence suggests that features of advertising and promotion tend to encourage youths to smoke and that this is sufficient basis for action." (Lynch and Bonnie, pp. 130-131).

A number of surveys have assessed public support for various legislative actions to prevent or limit minors' access to tobacco products and to ban or restrict advertising and promotions. Several of these have been reviewed by the surgeon general and are summarized in Tables I.1 and I.2 (CDC, pp. 212-214). Most people do not believe that laws prohibiting the sale of tobacco to minors are adequately

TABLE I.1  
PUBLIC OPINION ABOUT DIFFERENT LEGISLATIVE ACTIONS TO PREVENT  
MINORS' ACCESS TO TOBACCO, UNITED STATES, 1987-1991

| Source and Year of Survey                                                                | Description of Survey                                                                                                                                                  | Questions or Statements                                                                            | Responses                                                 |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| University of Minnesota 1987<br>(Forster et al. 1991)                                    | Telephone survey of a random sample of adults (aged 18-74 years) in seven communities in Minnesota (N=821)                                                             | Do you favor or oppose suspending a retailer's tobacco license for sale to minors?                 | 75% favored suspending the license                        |
|                                                                                          |                                                                                                                                                                        | Do you favor or oppose eliminating all cigarette vending machines?                                 | 57% favored eliminating the machines                      |
|                                                                                          |                                                                                                                                                                        | Do you favor or oppose eliminating cigarette vending machines where teenagers gather?              | 80% favored eliminating the machines                      |
| American Cancer Society 1989<br>(Marcus et al., in press)                                | Telephone survey of a random sample of adults (aged $\geq 18$ years) in four states: Arizona (N = 294), Pennsylvania (N = 291), Texas (N = 303), and Michigan (N = 98) | Do you think there should be laws to ban the sale of cigarettes through vending machines?          | Support for a ban across the four states sampled: 60%-68% |
| National Cancer Institute 1989 (Centers for Disease Control 1991b)                       | Telephone survey of a random sample of 300 to 400 adults (aged 25-64 years) in each of 10 U.S. COMMIT* intervention communities                                        | Tobacco products should be as strictly controlled as alcohol products.                             | Agreement across the 10 communities sampled: 51%-75%      |
|                                                                                          |                                                                                                                                                                        | Merchants who sell tobacco to minors should be fined.                                              | 77%-93%                                                   |
|                                                                                          |                                                                                                                                                                        | Cigarette vending machines should be eliminated in places where teens gather.                      | 76%-89%                                                   |
| California Department of Health Services (California Department of Health Services 1991) | Telephone survey of a random sample of adults (aged $\geq 18$ years) in California (N = 6,600)                                                                         | Do you think cigarette vending machines that are accessible to minors should be allowed or banned? | 82% favored a ban (74% smokers; 87% nonsmokers)           |

\* COMMIT = Community Intervention Trial for Smoking Cessation.

Source: CDC (1994) Table 2, p. 214.



TABLE 1.2

PUBLIC OPINION ABOUT RESTRICTING OR BANNING DIFFERENT TYPES OF TOBACCO  
ADVERTISING AND PROMOTIONS, UNITED STATES, 1987-1991

| Source and Year of Survey                                                                        | Description of Survey                                                                                                                                                  | Questions or Statements                                                                                                       | Responses                                            |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| University of Minnesota 1987<br>(Forster et al. 1991)                                            | Telephone survey of a random sample of adults (aged 18-74 years) in seven communities in Minnesota (N=821)                                                             | Do you favor or oppose prohibiting tobacco signs and billboards?                                                              | 73% favored a prohibition                            |
|                                                                                                  |                                                                                                                                                                        | Do you favor or oppose prohibiting tobacco advertising in magazines and newspapers?                                           | 70% favored prohibition                              |
| American Cancer Society 1989<br>(Marcus et al., in press)                                        | Telephone survey of a random sample of adults (aged $\geq 18$ years) in four states: Arizona (N = 294), Pennsylvania (N = 291), Texas (N = 303), and Michigan (N = 98) | Advertising of cigarettes should be banned in newspapers, magazines, and outdoor posters or billboards.                       | Agreement across the four states sampled: 61%-69%    |
|                                                                                                  |                                                                                                                                                                        | Tobacco companies should be prohibited from distributing free tobacco samples on public property or through the mail.         | 73%-81%                                              |
|                                                                                                  |                                                                                                                                                                        | Tobacco companies should be prohibited from sponsoring sports events or advertising their products at these events.           | 49%-59%                                              |
| National Cancer Institute 1989 (Centers for Disease Control 1991b)                               | Telephone survey of random sample of 300 to 400 adults (aged 25-64 years) in each of 10 U.S. COMMIT* intervention communities                                          | Tobacco companies should not be allowed to sponsor sporting and cultural events.                                              | Agreement across the 10 communities sampled: 31%-56% |
| California Department of Health Services 1990<br>(California Department of Health Services 1991) | Telephone survey of a random sample of adults (aged $\geq 18$ years) in California (N = 6,600)                                                                         | Do you think advertising of tobacco products on outdoor billboards should be allowed or banned?                               | 54% favored a ban (42% smokers; 62% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think advertising of tobacco products through newspapers and magazines should be allowed or banned?                    | 49% favored a ban (38% smokers; 57% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think sponsorship of sporting or cultural events by tobacco companies should be allowed or banned?                     | 52% favored a ban (39% smokers; 61% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think that distribution of free cigarettes and tobacco products on public property should be allowed or banned?        | 75% favored a ban (62% smokers; 84% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think that distribution of free tobacco samples or coupons to obtain free samples by mail should be allowed or banned? | 67% favored a ban (52% smokers; 78% nonsmokers)      |

\* COMMIT = Community Intervention Trial for Smoking Cessation.

Source: CDC (1994) Table 2, p. 214.



enforced and majorities of both non-smokers and smokers have supported stronger measures to limit youth access to tobacco products. Some surveys have assessed public support for specific measures to limit youth access, such as licensing retailers, penalizing merchants who sell to minors, and eliminating or restricting the location of vending machines. Strong majorities have favored suspending retailers' licenses for sales to minors, and several surveys have shown support for controlling tobacco as strictly as alcohol products. There has also been support for banning the sale of cigarettes through vending machines (57 to 68 percent in the University of Minnesota and American Cancer Society surveys cited in Table I.1). Moreover, support increases (76 to 89 percent) for vending machine bans in areas that are accessible to minors.

Several surveys have also assessed support for limiting specific types of tobacco advertising and promotions (see Table I.2). There has been strong support for banning the distribution of free cigarettes and tobacco products on public property or by mail (75 and 67 percent, respectively in a large California Department of Health Survey and 73 to 81 percent in an American Cancer Society Survey, cited in I.2). Support for prohibiting tobacco advertising in newspapers, magazines, and billboards and prohibiting sponsorship of sporting and cultural events by tobacco companies is more variable across surveys.

## **B. INSTRUMENT DESIGN**

The surveys described above included selected questions assessing public support for actions intended to curb youth access to tobacco products; however, the main focus of these surveys was on broader tobacco control issues and they were based on state or community samples. The Robert Wood Johnson Foundation's (RWJF) Youth Access Survey is different in that its scope is national and its primary focus is on a broad range of policy alternatives intended to limit minors' access to tobacco products and to prohibit or reduce the effect of advertising and promotional campaigns.

The survey topics and questions were developed by RWJF and Mathematica Policy Research, Inc. (MPR), pretested with 20 respondents, and modified as a result of the pretest before being fielded. We reviewed questions used in the surveys cited above and the first five state surveys conducted for the

RWJF SmokeLess States program (results not yet published). We developed new questions for issues that had not previously been included on surveys and revised wording of existing questions, where necessary, to clearly indicate to respondents that the objective of these policies was to reduce youth access to tobacco products or to make tobacco products less appealing to youth, rather than to limit the rights of adults to purchase tobacco products.

For example, many surveys have asked whether or not vending machines should be banned. However, before asking the question itself, we indicated that the objective of this ban was to reduce youth access.

- *Next, I am going to ask for your opinion about several proposals intended to make it more difficult for kids to get cigarettes.* Do you think the sale of cigarettes in vending machines should be allowed or banned? (a2) [IF NO, WE ALSO ASKED] Do you think vending machines which are accessible to kids should be allowed or banned? (a3)

We also incorporated research results into questions. For example, we cited research that has demonstrated that most smokers begin as adolescents before asking opinions on increasing legal age limits.

- *Research has shown that most adult smokers begin smoking before they are 21.* Do you think that restricting the sale of cigarettes to people 21 and older will help reduce the number of kids under 21 who begin smoking? (a8a)

Similarly, before asking opinions on advertising and promotional restrictions, we indicated that the purpose of these proposals was to restrict the use of methods that may encourage youth to smoke.

- Cigarette companies currently use many different advertising and promotion methods. I am going to ask for your opinion concerning several proposals designed to restrict promotions or advertisements that *may encourage kids to smoke.* (a9)

Questions on public support for banning specific promotions or restricting advertising methods also mentioned the objective of limiting youth access to cigarettes and other tobacco products (see questions a11, a13, a14, a15, and a18).

The policy alternatives included in the survey are summarized below; the full text of questions is included in Appendix B.

#### *Youth Access<sup>1</sup>*

- Ease of access (a1)
- Ban or restrict location of cigarette vending machines (a2-3)
- Verification of youthful customers IDs by retailers (a4)
- Ban self-service displays (a5)
- Limit cigarette sales to selected retail outlets (a6)
- Increase legal age of purchase to 19 or 21 (a8a and a8b)

#### *Advertising*

- Ban billboard advertising (a9)
- Ban newspaper advertising (a10)
- Support for tombstone advertising (a11)
- Support for plain packaging (a13)

#### *Promotions*

- Prohibit coupons in cigarette packs (a14)
- Prohibit coupon promotions to obtain free cigarettes (a15)
- Prohibit sale of single cigarettes (a16)
- Prohibit distribution of free cigarettes on public streets (a17)
- Prohibit tobacco companies from paying to display their products in movies or videos (a19)
- Prohibit tobacco companies from sponsoring sporting or entertainment events where their brand names are featured (a18)

---

<sup>1</sup>We did not include questions on methods for enforcing compliance by retailers. This issue is complex and there was insufficient time to develop appropriate questions to adequately assess it in a national survey.

### *Nicotine and Smoking Cessation Policies*

- Perception of nicotine addiction (a29)
- Awareness of nicotine manipulation (a30-a30a)
- Require tobacco companies to gradually reduce the amount of nicotine in cigarettes (a32a)
- Require insurance companies to cover the cost of programs to quit smoking (a32b)
- Require tobacco companies to list additives on package labels (a34a)
- Government should regulate cigarettes, since it regulates other products containing nicotine (a34b)

### **C. SAMPLE CHARACTERISTICS**

The characteristics of the survey sample are shown in Table I.3. The survey included questions on demographic characteristics (age, sex, ethnicity, and whether there are any children in the household), socioeconomic background (education, occupation, and income), political characteristics (ideology, party, and political activity), tobacco use, and the perception of having lost a family member or close friend to tobacco related diseases. Region was determined by mapping telephone exchanges into census regions.

Conventional categories were used for most characteristics. For tobacco use, we differentiated among persons living in tobacco-free households, non-tobacco users living in households in which other household members use tobacco, current tobacco users who indicated they plan to quit within the next six months, and current users who do not plan to quit within the next six months. We chose this categorization for two reasons. First, current users who plan to quit are a key group for questions on smoking cessation issues and may have different views from other tobacco users on other questions. Second, it was not obvious whether the views of non-tobacco users who are living with tobacco users would conform with other tobacco users, non-tobacco users, or fall between the two groups. Tobacco use was defined to include persons who currently smoke cigarettes every day or some days or currently use pipes, cigars, chewing tobacco, or snuff on a regular basis.

TABLE I.3  
SAMPLE CHARACTERISTICS<sup>a</sup>

| Characteristics                   | Percent |
|-----------------------------------|---------|
| <b>Sex</b>                        |         |
| Male                              | 47.8    |
| Female                            | 52.2    |
| <b>Age</b>                        |         |
| 18-24                             | 12.6    |
| 25-34                             | 22.4    |
| 35-54                             | 37.5    |
| 55 and older                      | 27.4    |
| <b>Ethnicity</b>                  |         |
| White Non-Hispanic                | 77.3    |
| African American Non-Hispanic     | 11.0    |
| Hispanic                          | 8.4     |
| Other                             | 3.2     |
| Not Ascertained                   | 0.1     |
| <b>Region</b>                     |         |
| Northeast                         | 19.1    |
| Midwest                           | 24.1    |
| South                             | 37.1    |
| West                              | 19.7    |
| <b>Have Children in Household</b> |         |
| Yes                               | 43.7    |
| No                                | 56.2    |
| Not Ascertained                   | 0.1     |
| <b>Education</b>                  |         |
| High School or Less               | 54.5    |
| Some College                      | 24.5    |
| College Graduate or Higher        | 20.7    |
| Not Ascertained                   | 0.2     |

TABLE I.3 (continued)

| Characteristics                                   | Percent |
|---------------------------------------------------|---------|
| <b>Occupation</b>                                 |         |
| Professional                                      | 23.5    |
| Clerical                                          | 14.7    |
| Blue Collar                                       | 24.7    |
| Not in Labor Force                                | 35.6    |
| Not Ascertained                                   | 1.4     |
| <b>Income</b>                                     |         |
| Less than \$20,000                                | 21.1    |
| \$20,000 to less than \$50,000                    | 46.5    |
| \$50,000 or More                                  | 21.1    |
| Not Ascertained                                   | 11.4    |
| <b>Ideology</b>                                   |         |
| Liberal                                           | 19.4    |
| Moderate                                          | 31.9    |
| Conservative                                      | 39.6    |
| Not Ascertained                                   | 9.1     |
| <b>Party Affiliation</b>                          |         |
| Democrat                                          | 36.3    |
| Independent                                       | 28.1    |
| Republican                                        | 28.2    |
| Not Ascertained                                   | 7.4     |
| <b>Ideology and Party Affiliation<sup>b</sup></b> |         |
| Liberal Democrat                                  | 9.7     |
| Liberal Independent                               | 6.3     |
| Liberal Republican                                | 2.8     |
| Moderate Democrat                                 | 12.7    |
| Moderate Independent                              | 11.7    |
| Moderate Republican                               | 5.8     |
| Conservative Democrat                             | 10.6    |
| Conservative Independent                          | 8.5     |
| Conservative Republican                           | 18.4    |
| Not Ascertained                                   | 13.5    |

TABLE I.3 (continued)

| Characteristics                                                       | Percent |
|-----------------------------------------------------------------------|---------|
| <b>Political Activities</b>                                           |         |
| Candidate or Worked on Campaign                                       | 10.6    |
| Contributed Money or Wrote Letters to Politicians                     | 27.1    |
| Voted                                                                 | 39.9    |
| None of the Above/Not Known                                           | 22.4    |
| <b>Tobacco Use</b>                                                    |         |
| Current User, Plans to Quit in 6 Months                               | 11.3    |
| Current User, No Plans to Quit in 6 Months                            | 15.5    |
| Non-User; Other Household Member is a User                            | 13.3    |
| Non-User; No Tobacco Users in Household                               | 59.9    |
| <b>Lost Family Member or Close Friend to Tobacco-Related Diseases</b> |         |
| Yes                                                                   | 44.3    |
| No                                                                    | 53.3    |
| Not Ascertained                                                       | 2.3     |

<sup>a</sup>All distributions are weighted; weighting procedures are described in Appendix A.

<sup>b</sup>For tables interacting ideology and party affiliation, we combined independents and republicans, both because of small subgroup sample sizes and because republicans and independents had similar distributions, after controlling for ideology. However, Appendix C shows separate distributions for each political group defined by ideology and party.



We also asked respondents whether they have ever lost a family member or close friend to diseases caused by smoking. While this question is clearly based on perception, it is not unlikely that perceived loss of a loved one may affect views on tobacco control policies.<sup>2</sup>

In subsequent sections, we highlight important patterns for major subgroups, defined by selected demographic and political characteristics and tobacco use. In general, we did not discuss patterns by socioeconomic measures (income, occupation, and education). These characteristics are highly correlated with each other and with demographic characteristics, and we did not perform multivariate analyses on these data to attempt to isolate their relationships to youth access policies.<sup>3</sup> An exception is questions on awareness of the nicotine spiking issue, where responses were strongly related to education. A full set of tables crosstabulating each question by these characteristics is included in Appendix C.

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<sup>2</sup>As will be shown below, respondents who indicated that they have lost family or friends to tobacco-related diseases were more likely to support policies designed to curb youth access to tobacco products than other respondents. We did not investigate the demographic characteristics of this group, but will do so in the future.

<sup>3</sup>In subsequent papers, we expect to use multivariate methods to analyze differences in support for policies to reduce tobacco use by subgroups of the population.



## II. YOUTH ACCESS, ADVERTISING AND PROMOTIONS

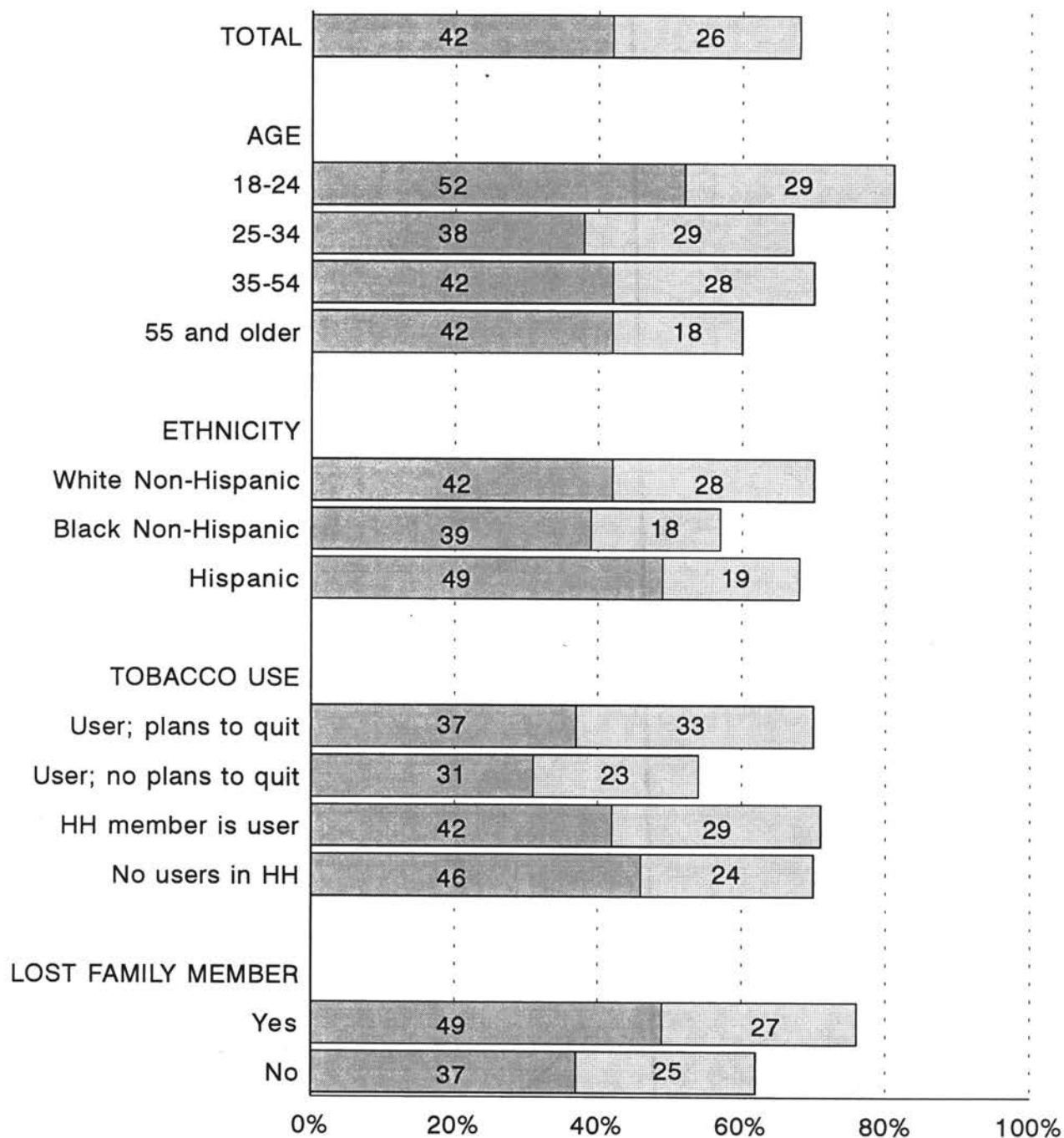
### A. YOUTH ACCESS TO TOBACCO PRODUCTS

Most adults believe that it is relatively easy for minors' to obtain cigarettes. Overall, 68 percent of the public believe that it is very or somewhat easy for minors to purchase cigarettes or other tobacco products in their communities (Table II.1). More importantly, young adults (18 to 24 years of age), who may have a more realistic perception of this problem, are much more likely to believe that it is easy for minors to buy tobacco products. Eighty-one percent believe that it is very or somewhat easy to obtain tobacco products, compared with 67 percent for those 25 to 34, 70 percent of those 35 to 54, and 60 percent for those 55 and older. Young adults also are more likely to believe that it is *very* easy to obtain tobacco products than are older respondents (52 percent compared with 38 to 42 percent for other age groups).

African-American respondents were somewhat less likely to believe that tobacco products were very or somewhat easy to buy in their communities (57 percent versus 68 percent for Hispanics and 70 percent for white non-Hispanic respondents).

Tobacco use and having lost a family member or close friend to diseases caused by smoking were related to perceptions of youth access. Current tobacco users who do not plan to quit in the next six months were considerably less likely to believe that minors can easily obtain cigarettes in their communities (54 percent), compared with non-users and users who plan to quit (about 70 percent for each group). Adults who indicated they have lost friends or relatives to tobacco related diseases also are more likely to believe that minors have easy access to tobacco products than those who have not experienced a personal loss (76 versus 62 percent). Persons who have experienced personal losses have particularly strong beliefs about this issue, as 49 percent indicated they believe it is very easy for minors to buy cigarettes and other tobacco products in their communities (compared with 37 percent for those who indicated they did not lose anyone to tobacco-related diseases).

TABLE II.1  
EASE OF ACCESS<sup>a</sup>  
(Percent)



■ Very Easy    □ Somewhat Easy

<sup>a</sup> In your opinion, how easy is it for kids to buy cigarettes and other tobacco products in your community -- very easy, somewhat easy, somewhat difficult, or very difficult?

We assessed public support for five proposals designed to limit access to tobacco products:

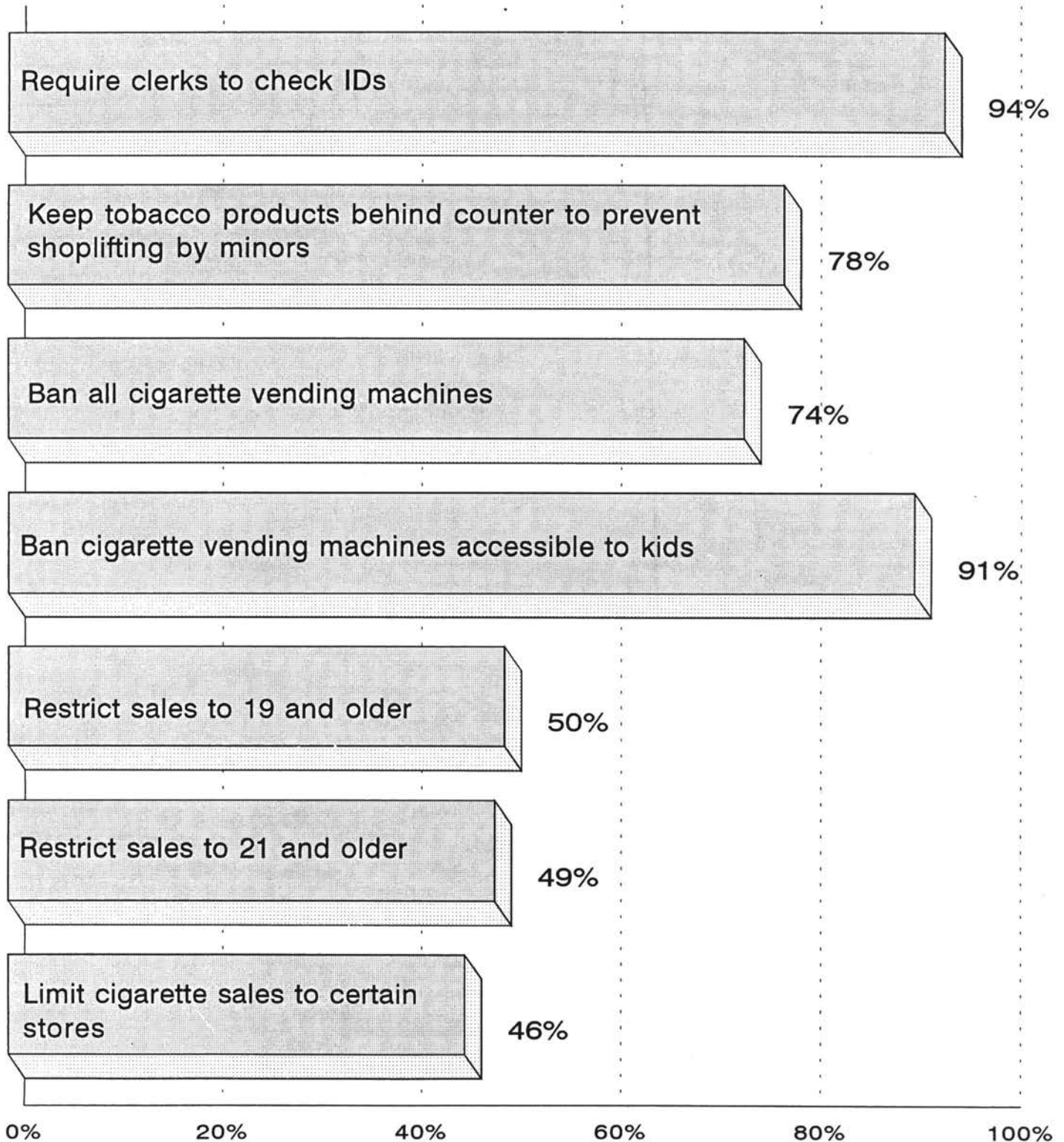
- Banning or restricting cigarette vending machines (a2-3)
- Verifying the identification of young customers by retailers (a4)
- Banning self-service displays (a5)
- Limiting cigarette sales to selected retail outlets (a6)
- Increasing the legal age of purchase to 19 or 21 (a8a and a8b)

The public showed strong support for restricting cigarette vending machines (74 percent supporting a total ban and 91 percent a ban on vending machines "which are accessible to kids," banning self-service displays (78 percent), and requiring retailers to verify the identification of young customers (94 percent), but weaker support for increasing the legal age of purchase to age 19 or 21 (50 percent and 49 percent, respectively), or limiting licensing to selected outlets (46 percent) (see Table II.2). The strong support for vending machine restrictions mirrors the findings of an American Cancer Society survey, in which 73 percent of voters reported that they would favor banning cigarette vending machines because of concern with children's easy access to the machines (Marttila and Kiley 1993). Other surveys also have shown that the public supports restrictions or bans on cigarette vending machines (see Table I.1 above). Moreover, many areas of the country have imposed at least some limitations on cigarette vending machines; a recent report by the Office of the Inspector General states that restrictions have been adopted by 21 states, Washington D.C., and 170 local communities (Office of the Inspector General, 1992).

Self-service displays allow customers to help themselves to cigarettes and other tobacco products and present them to a clerk for purchase. Several studies have shown that these displays invite shoplifting by underage customers. For example, a 1992 survey of 7,891 ninth grade students in Erie County, New York showed 44 percent of daily smokers reported having shoplifted cigarettes (Roswell Park 1993). We assessed support for actions to ban self-service displays by asking respondents which of the following statements they agreed with:

TABLE II.2

# PUBLIC OPINION ABOUT POLICIES TO LIMIT MINOR'S ACCESS TO TOBACCO PRODUCTS



- Retailers have the right to display tobacco products wherever they want. OR
- Retailers should keep all tobacco products behind the counter to prevent shoplifting by minors.

Seventy-eight percent indicated support for a ban on self-service displays by selecting the second option.

Nearly everyone (94 percent) favored requiring clerks to check the identification of anyone appearing to be under age before selling them cigarettes or smokeless tobacco. However, the key issue here is enforcement. The Office of the Inspector General (1992) found that state and local officials generally do not enforce laws intended to restrict sales of tobacco products to minors. The IOM Committee on Preventing Nicotine Addiction in Children and Adults recommended monitoring violations of youth access legislation by using 16 and 17-year olds, who are representative of the ethnic makeup of their communities, to conduct random purchase attempts (Lynch and Bonnie, p. 222). We did not test public response to this approach in this survey, but recommend that it be tested in states considering this type of enforcement mechanism.

Support for increasing age limits for tobacco purchases was weaker. After informing respondents that, "Research has shown that most adult smokers begin smoking before they are 21," we asked, "Do you think that restricting the sale of cigarettes to people 21 and older would help reduce the number of kids under 21 who begin smoking?" A follow-up question asked, "Do you think that restricting the sale of cigarettes to people 19 and older will help reduce the number of kids in high school who begin smoking?" For both proposals, support was about equally divided between those who agreed and those who did not.

In its recently published report on youth access issues, the IOM Committee recommended against increasing the minimum age for purchase above 18 (Lynch and Bonnie, p. 224). The Committee argued that the main argument for an age higher than 18 is to minimize use by 16 and 17 year olds. However, they believed that this argument is not strong enough to overcome the presumptive case for an 18-year old minimum age for purchase of tobacco products. They also pointed out that a higher age limit would



be ignored by many retailers, undermining compliance with the youth access ban. The response to these proposals suggests that the public also is not strongly supportive of an increase in the minimum age for purchase.

Support for limiting cigarette sales to specific types of retail outlets also was limited (46 percent). The question was phrased in general terms, "Do you favor or oppose allowing the sale of cigarettes only in certain stores, just as is done with alcohol?" to provide an assessment of overall national support. An alternative approach, which may be used in community or state-based surveys, might focus on specific restrictions, such as tobacco-free zones near schools or bans on pharmacy sales. The IOM Committee argued that tobacco-free zones near schools would reinforce educational efforts directed toward students and bans on pharmacy sales would support the message that tobacco use is incompatible with health (Lynch and Bonnie, pp. 224-225).

Support for policies to limit youth access to tobacco products is broadly based (Table II.3). Given the political shift in the last election, it is noteworthy that strong support for banning or restricting cigarette vending machines, verifying identification of youthful customers, and banning self-service displays was demonstrated across all political groups and regions of the country. Although men and women were both strongly supportive of all three measures, women consistently showed higher levels of support for banning cigarette vending machines and self-service displays. Support from women on these two issues was 11 to 12 percentage points greater than from men. Hispanics (on both issues), and African Americans (on self-service displays), were more supportive of these proposals than white non-Hispanics. Nevertheless, about three-fourths of white non-Hispanics supported both proposals.

Tobacco users, who do not plan on quitting in the next six months, were less supportive of a vending machine ban (52 percent) than users who plan to quit or non-users (70 to 80 percent). Since current tobacco users would be adversely affected by a cigarette vending machine ban, this result is hardly



TABLE II.3  
PUBLIC SUPPORT FOR POLICIES TO LIMIT MINORS' ACCESS TO TOBACCO  
BY SELECTED CHARACTERISTICS  
(Percent)

|                                                                                                                     | Sex <sup>a</sup> |      |        | Age <sup>b</sup> |       |       |     | Ethnicity <sup>c</sup>    |                           |          |
|---------------------------------------------------------------------------------------------------------------------|------------------|------|--------|------------------|-------|-------|-----|---------------------------|---------------------------|----------|
|                                                                                                                     | Total            | Male | Female | 18-24            | 25-34 | 35-54 | 55+ | White<br>Non-<br>Hispanic | Black<br>Non-<br>Hispanic | Hispanic |
| Ban the sale of cigarettes in vending machines (a2)                                                                 | 74               | 68   | 79     | 73               | 75    | 73    | 74  | 73                        | 75                        | 85       |
| Ban vending machines which are accessible to kids (a3) <sup>a</sup>                                                 | 91               | 88   | 94     | 92               | 95    | 91    | 88  | 91                        | 94                        | 93       |
| Require clerks to check IDs of anyone appearing to be under age before selling cigarettes or smokeless tobacco (a4) | 94               | 93   | 94     | 95               | 96    | 94    | 91  | 94                        | 92                        | 93       |
| Retailers should keep tobacco products behind the counter to prevent shoplifting by minors (a5)                     | 78               | 71   | 83     | 78               | 78    | 77    | 77  | 76                        | 83                        | 89       |
| Favor allowing sale of cigarettes only in certain stores, just as is done with alcohol (a6)                         | 46               | 39   | 53     | 53               | 45    | 46    | 45  | 43                        | 47                        | 73       |
| Restrict sale of cigarettes to 21 and older (a8a)                                                                   | 49               | 47   | 50     | 43               | 51    | 50    | 47  | 44                        | 61                        | 65       |
| Restrict sale of cigarettes to 19 and older (a8b)                                                                   | 50               | 49   | 51     | 44               | 53    | 51    | 50  | 47                        | 57                        | 67       |

NOTE: Respondents who supported a total ban on vending machines were skipped over the question on banning vending machines accessible to youth. In this table, we have assumed that respondents supporting a total ban also would support a partial ban.

<sup>a</sup> Differences significant ( $\alpha = .05$ , 2 tail) for a2, a3, a5, a6.

<sup>b</sup> Differences between 18-24 and other age groups significant ( $\alpha = .10$ ) for a6; differences between 18-24 and 25-34 significant ( $\alpha = .10$ ) for a8a and a8b.

<sup>c</sup> Differences between white non-Hispanics and Hispanics significant ( $\alpha = .05$ ) for a2, a5, a6, a8a, a8b; between black non-Hispanics and Hispanics ( $\alpha = .05$ ) for a2, a5, a6, a8b; between white non-Hispanics and black non-Hispanics ( $\alpha = .05$ ), a8a, a8b.

TABLE II.3 (continued)

|                                                                                                                     | Region <sup>d</sup> |         |       |      | Tobacco Use <sup>e</sup>    |                       |     |                              |                               |     | Lost Family Member <sup>f</sup> |    |
|---------------------------------------------------------------------------------------------------------------------|---------------------|---------|-------|------|-----------------------------|-----------------------|-----|------------------------------|-------------------------------|-----|---------------------------------|----|
|                                                                                                                     | Northeast           | Midwest | South | West | User                        |                       |     | Non-User                     |                               |     | Yes                             | No |
|                                                                                                                     |                     |         |       |      | Plans to Quit in Six Months | Does Not Plan to Quit | All | Other HH Member Uses Tobacco | No Tobacco Users in Household | All |                                 |    |
| Ban the sale of cigarettes in vending machines (a2)                                                                 | 75                  | 72      | 75    | 73   | 70                          | 52                    | 60  | 73                           | 80                            | 79  | 80                              | 70 |
| Ban vending machines which are accessible to kids (a3)*                                                             | 93                  | 93      | 92    | 88   | 90                          | 79                    | 84  | 94                           | 94                            | 94  | 95                              | 89 |
| Require clerks to check IDs of anyone appearing to be under age before selling cigarettes or smokeless tobacco (a4) | 92                  | 95      | 94    | 94   | 95                          | 91                    | 93  | 93                           | 94                            | 94  | 96                              | 92 |
| Retailers should keep tobacco products behind the counter to prevent shoplifting by minors (a5)                     | 77                  | 77      | 78    | 78   | 73                          | 69                    | 71  | 83                           | 79                            | 80  | 80                              | 75 |
| Favor allowing sale of cigarettes only in certain stores, just as is done with alcohol (a6)                         | 51                  | 41      | 47    | 48   | 30                          | 24                    | 26  | 49                           | 55                            | 54  | 53                              | 41 |
| Restrict sale of cigarettes to 21 and older (a8a)                                                                   | 50                  | 45      | 50    | 50   | 47                          | 28                    | 36  | 47                           | 55                            | 53  | 53                              | 45 |
| Restrict sale of cigarettes to 19 and older (a8b)                                                                   | 49                  | 49      | 51    | 51   | 47                          | 33                    | 39  | 45                           | 56                            | 54  | 52                              | 48 |

<sup>d</sup> Difference between midwest and northeast significant ( $\alpha = .05$ ) for a6; differences between midwest and south and west, respectively, significant ( $\alpha = .10$ ) for a6.

<sup>e</sup> Differences between users who plan to quit and those who don't significant ( $\alpha = .05$ ) for a2, a3, a8a; differences significant ( $\alpha = .10$ ) for a4; differences between two non-user groups significant ( $\alpha = .05$ ) for a2, a8b ( $\alpha = .10$ ) for a8b; differences between all users and all non-users significant ( $\alpha = .05$ ) for a2, a3, a5, a6, a8a, a8b.

<sup>f</sup> Differences significant ( $\alpha = .05$ ) for all questions except a8b.

TABLE II.3 (continued)

|                                                                                                                     | Ideology <sup>a</sup> |          |              | Party Affiliation <sup>b</sup> |     |      | Ideology and Party Affiliation <sup>i</sup> |              |           |              |               |              |
|---------------------------------------------------------------------------------------------------------------------|-----------------------|----------|--------------|--------------------------------|-----|------|---------------------------------------------|--------------|-----------|--------------|---------------|--------------|
|                                                                                                                     |                       |          |              |                                |     |      | Liberals                                    |              | Moderates |              | Conservatives |              |
|                                                                                                                     | Liberal               | Moderate | Conservative | Dem                            | Rep | Ind. | Dem                                         | Rep/<br>Ind. | Dem       | Rep/<br>Ind. | Dem           | Rep/<br>Ind. |
| Ban the sale of cigarettes in vending machines (a2)                                                                 | 75                    | 72       | 76           | 76                             | 74  | 71   | 76                                          | 73           | 75        | 69           | 81            | 75           |
| Ban vending machines which are accessible to kids (a3) <sup>a</sup>                                                 | 93                    | 91       | 92           | 92                             | 91  | 92   | 91                                          | 94           | 92        | 90           | 93            | 92           |
| Require clerks to check IDs of anyone appearing to be under age before selling cigarettes or smokeless tobacco (a4) | 97                    | 95       | 93           | 95                             | 94  | 94   | 97                                          | 97           | 96        | 95           | 94            | 93           |
| Retailers should keep tobacco products behind the counter to prevent shoplifting by minors (a5)                     | 75                    | 75       | 79           | 79                             | 75  | 78   | 78                                          | 73           | 77        | 73           | 81            | 78           |
| Favor allowing sale of cigarettes only in certain stores, just as is done with alcohol (a6)                         | 47                    | 46       | 47           | 51                             | 43  | 45   | 53                                          | 42           | 48        | 44           | 54            | 44           |
| Restrict sale of cigarettes to 21 and older (a8a)                                                                   | 44                    | 47       | 53           | 52                             | 50  | 43   | 47                                          | 40           | 51        | 46           | 58            | 50           |
| Restrict sale of cigarettes to 19 and older (a8b)                                                                   | 43                    | 52       | 53           | 53                             | 52  | 45   | 44                                          | 42           | 55        | 50           | 59            | 51           |

<sup>a</sup> Differences between all liberals and all conservatives significant ( $\alpha = .05$ ) for a8a and a8b and between moderates and conservatives for a8a.

<sup>b</sup> Differences between democrats and independents significant ( $\alpha = .05$ ) for a8a and a8b, and between democrats and republicans significant ( $\alpha = .05$ ) for a6. Differences between democrats and independents significant ( $\alpha = .10$ ) for a6.

<sup>i</sup> Differences between liberal democrats and liberal rep/ind. significant ( $\alpha = .05$ ) for a6; between conservative democrats and conservative rep/ind. significant ( $\alpha = .05$ ) for a6 and ( $\alpha = .10$ ) for a8a and a8b.

surprising. However, even tobacco users who do not intend to quit in the next six months are supportive of a ban on vending machines which are accessible to kids (79 percent). Both tobacco users planning to quit (73 percent) and those not planning to quit (69 percent) were supportive of banning self-service displays.

The ambivalence of the public toward increasing the legal age of purchase was also broadly based, with the notable exceptions of African Americans, Hispanics, and conservative democrats. Sixty-five percent of Hispanics and 61 percent of African Americans, compared with only 44 percent of white non-Hispanics, agreed that the legal age should be increased to 21. Similarly, 58 percent of conservative democrats also supported increasing the age of purchase to 21, compared with 50 percent of republican and independent conservatives, and less than 50 percent of liberals and moderates, regardless of party.

Hispanics also were strongly in favor of allowing the sale of cigarettes only in certain stores, just as is done with alcohol (73 percent), compared with less than half of African Americans and white non-Hispanics. No other subgroup of the population was strongly supportive of this measure.

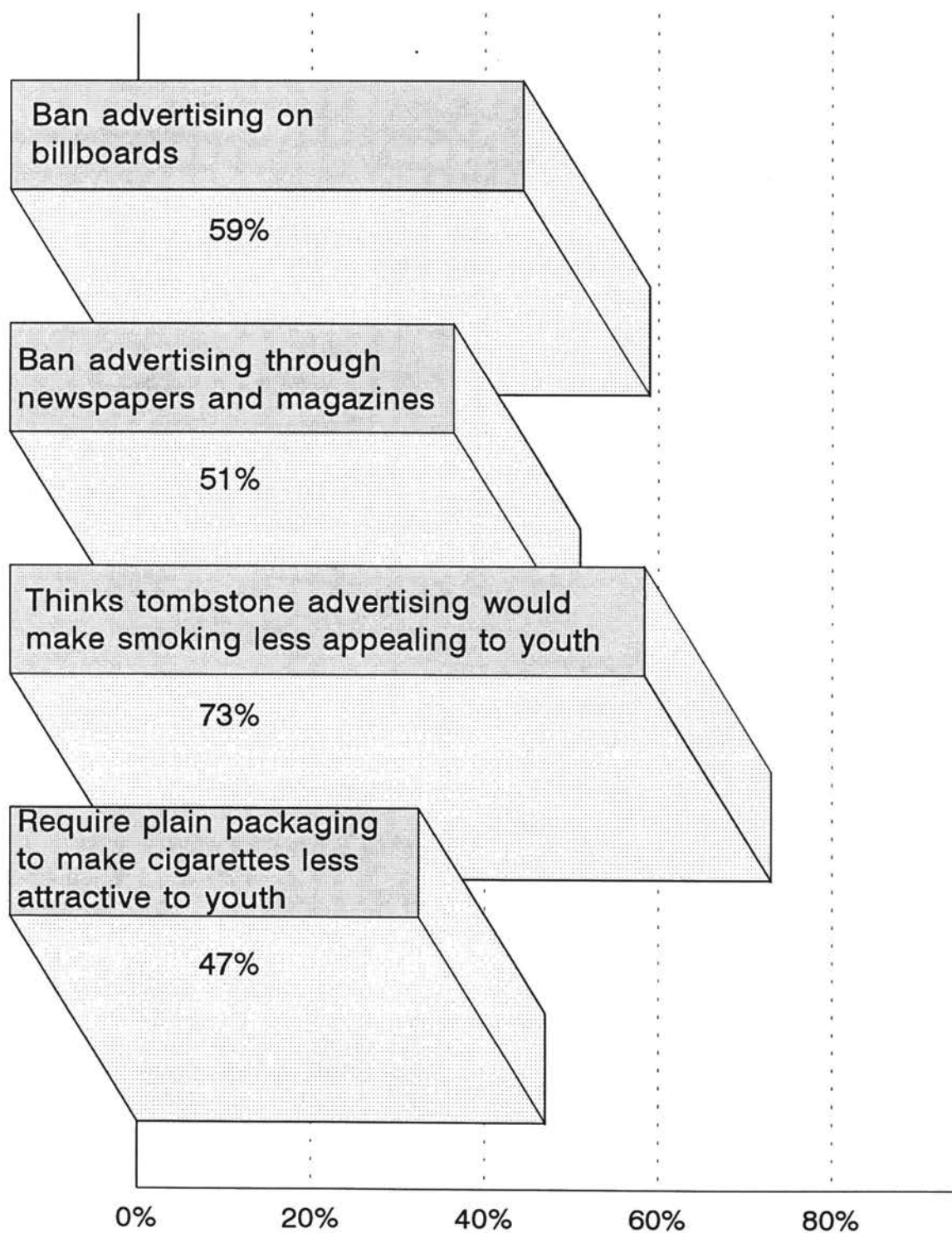
## **B. RESTRICTING OR BANNING VARIOUS TYPES OF TOBACCO ADVERTISING**

The public is ambivalent about a total ban on tobacco advertising--59 percent supporting a ban on billboard advertising and 51 percent a ban on advertising in newspapers and magazines (see Table II.4). We also asked respondents whether they believed limited advertising restrictions--tombstone advertising and plain packaging--would reduce the appeal of cigarette advertising to minors. These questions are shown below:

- Assuming that tobacco advertising is not banned, do you think limiting tobacco advertisements to words only, with pictures and cartoons prohibited, would make smoking less appealing to kids?
- Plain packaging of cigarettes and smokeless products would mean that the package would include only the brand name and warning label in black letters against a white background. To make cigarettes appear less attractive to kids, should tobacco companies be required to use plain packaging for their products or should plain packaging not be required?

TABLE II.4

PUBLIC OPINION ABOUT RESTRICTING  
OR BANNING VARIOUS TYPES OF ADVERTISING



Approximately three-fourths of the public (73 percent) indicated that they believed tombstone advertising would reduce the appeal of cigarette advertisements. However, less than half (47 percent) believed that requiring plain packaging would make cigarettes less attractive to kids. This suggests that a majority of the public agrees with researchers and public health officials who have maintained that minors are sensitive to image advertising (Lynch and Bonnie 1994 and CDC 1994). Tombstone advertising would prohibit the use of visual appeals embodied in many cigarette advertisements. However, less than half the public believes that modifying cigarette packaging itself would affect youthful behavior.

The demographic differences described above for youth access issues are also reflected in responses to advertising proposals (Table II.5). Women are more likely than men to support a total ban on billboard advertising (66 versus 52 percent) and newspaper or magazine advertising (57 versus 45 percent). Similarly, Hispanics and African Americans are also more likely than white non-Hispanics to support both proposals. Sixty-nine percent of Hispanics support a ban on billboard advertising and 62 percent a ban on newspaper and magazine advertising. Support for these two proposals among African Americans is 62 and 57 percent, respectively, and is 57 and 49 percent, respectively, among white non-Hispanics. Adults who have lost a family member to tobacco-related diseases are far more likely to support these proposals than those who have not (by 15 percentage points for banning billboard advertising and 15 percentage points for banning magazine and newspaper advertising). Support also increases with age, with those 55 and older demonstrating the strongest support for both restrictions (71 percent for the billboard advertising ban and 63 percent for the newspaper and magazine advertising ban).

Support for both measures lags in the midwest compared with other regions. Fifty-four percent of mid-westerners supported a billboard advertising ban, compared with 58 percent in the south, 62 percent in the northeast, and 64 percent in the west. Similarly, only 47 percent of mid-westerners supported a newspaper advertising ban, whereas, 52 to 54 percent of adults in other regions supported such a ban.

TABLE II.5  
PUBLIC SUPPORT FOR RESTRICTING OR BANNING VARIOUS TYPES OF ADVERTISING  
BY SELECTED CHARACTERISTICS  
(Percent)

|                                                                                    | Total | Sex <sup>a</sup> |        | Age <sup>b</sup> |       |       |     | Ethnicity <sup>c</sup>    |                           |          |
|------------------------------------------------------------------------------------|-------|------------------|--------|------------------|-------|-------|-----|---------------------------|---------------------------|----------|
|                                                                                    |       | Male             | Female | 18-24            | 25-34 | 35-54 | 55+ | White<br>Non-<br>Hispanic | Black<br>Non-<br>Hispanic | Hispanic |
| Ban advertising on billboards (a9)                                                 | 59    | 52               | 66     | 46               | 50    | 60    | 71  | 57                        | 62                        | 69       |
| Ban advertising through<br>newspapers or magazines (a10)                           | 51    | 45               | 57     | 41               | 41    | 53    | 63  | 49                        | 57                        | 62       |
| Thinks tombstone advertising<br>would make smoking less<br>appealing to kids (a11) | 73    | 69               | 77     | 72               | 75    | 74    | 71  | 73                        | 72                        | 75       |
| Require plain packaging to make<br>cigarettes less attractive to kids<br>(a13)     | 47    | 42               | 51     | 48               | 45    | 47    | 48  | 45                        | 48                        | 62       |

<sup>a</sup> Differences significant ( $\alpha = .05$ ) for all questions.

<sup>b</sup> Differences between 18-24 and 35-54, and 55+, respectively, and between 25-34 and 35-54, and 55+, respectively, significant ( $\alpha = .05$ ) for a9 and a10.

<sup>c</sup> Differences between white non-Hispanics and Hispanics significant ( $\alpha = .05$ ) for a9, a10, and 13 and between black non-Hispanics and Hispanics for a9, and a13. Differences between white and black non-Hispanics significant ( $\alpha = .05$ ) for a10 and ( $\alpha = .10$ ) for a9. Difference between black non-Hispanics and Hispanics significant ( $\alpha = .10$ ) for a10.

TABLE II.5 (continued)

|                                                                              | Region <sup>d</sup> |         |       |      | Tobacco Use <sup>e</sup>    |                       |     |                              |                               |     | Lost Family Member <sup>f</sup> |    |
|------------------------------------------------------------------------------|---------------------|---------|-------|------|-----------------------------|-----------------------|-----|------------------------------|-------------------------------|-----|---------------------------------|----|
|                                                                              | Northeast           | Midwest | South | West | User                        |                       |     | Non-User                     |                               |     | Yes                             | No |
|                                                                              |                     |         |       |      | Plans to Quit in Six Months | Does Not Plan to Quit | All | Other HH Member Uses Tobacco | No Tobacco Users in Household | All |                                 |    |
| Ban advertising on billboards (a9)                                           | 62                  | 54      | 58    | 64   | 52                          | 34                    | 42  | 62                           | 66                            | 65  | 67                              | 52 |
| Ban advertising through newspapers or magazines (a10)                        | 53                  | 47      | 53    | 54   | 48                          | 27                    | 36  | 57                           | 57                            | 57  | 60                              | 45 |
| Thinks tombstone advertising would make smoking less appealing to kids (a11) | 78                  | 68      | 73    | 75   | 68                          | 58                    | 62  | 75                           | 78                            | 77  | 78                              | 69 |
| Require plain packaging to make cigarettes less attractive to kids (a13)     | 48                  | 43      | 50    | 46   | 41                          | 33                    | 36  | 44                           | 52                            | 51  | 54                              | 41 |

<sup>d</sup> Differences between midwest and northeast and west, respectively, significant ( $\alpha = .10$ ) for a9 and a11. Difference between northeast and west significant ( $\alpha = .10$ ) for a10. Difference between south and west significant ( $\alpha = .10$ ) for a9. Difference between midwest and south significant ( $\alpha = .10$ ) for a13.

<sup>e</sup> Differences between users who plan to quit and users who do not plan to quit significant ( $\alpha = .05$ ) for a9, a10, and a11 and significant ( $\alpha = .10$ ) for a13. Differences between two groups of non-users significant ( $\alpha = .10$ ) for a13. Differences between all users and all non-users significant ( $\alpha = .05$ ) for all variables.

<sup>f</sup> All differences significant ( $\alpha = .05$ ).



TABLE II.5 (continued)

|                                                                              | Ideology <sup>a</sup> |          |              | Party Affiliation <sup>b</sup> |     |      | Ideology and Party Affiliation <sup>i</sup> |              |           |              |               |              |
|------------------------------------------------------------------------------|-----------------------|----------|--------------|--------------------------------|-----|------|---------------------------------------------|--------------|-----------|--------------|---------------|--------------|
|                                                                              |                       |          |              |                                |     |      | Liberals                                    |              | Moderates |              | Conservatives |              |
|                                                                              | Liberal               | Moderate | Conservative | Dem                            | Rep | Ind. | Dem                                         | Rep/<br>Ind. | Dem       | Rep/<br>Ind. | Dem           | Rep/<br>Ind. |
| Ban advertising on billboards (a9)                                           | 53                    | 57       | 64           | 66                             | 54  | 54   | 63                                          | 43           | 64        | 50           | 70            | 61           |
| Ban advertising through newspapers or magazines (a10)                        | 49                    | 48       | 55           | 57                             | 49  | 46   | 56                                          | 43           | 52        | 44           | 63            | 52           |
| Thinks tombstone advertising would make smoking less appealing to kids (a11) | 72                    | 71       | 78           | 74                             | 77  | 69   | 74                                          | 71           | 74        | 69           | 79            | 77           |
| Require plain packaging to make cigarettes less attractive to kids (a13)     | 46                    | 44       | 49           | 49                             | 41  | 50   | 48                                          | 45           | 46        | 42           | 52            | 48           |

<sup>a</sup> Differences between liberals and conservatives significant ( $\alpha = .05$ ) for a9 and ( $\alpha = .10$ ) for a10 and a11 and between moderates and conservatives ( $\alpha = .05$ ) for a9, a10, and a11.

<sup>b</sup> Differences between democrats and republicans significant ( $\alpha = .05$ ) for a9, a10, and a13. Differences between democrats and independents significant ( $\alpha = .05$ ) for a9 and a10 and significant ( $\alpha = .10$ ) for a11. Differences between republicans and independents significant ( $\alpha = .05$ ) for a11 and a13.

<sup>i</sup> Differences between liberal democrats and liberal rep/ind. significant ( $\alpha = .05$ ) for a9 and a10, between moderate democrats and rep/ind. significant ( $\alpha = .05$ ) for a9 and ( $\alpha = .10$ ) for a10 and differences between conservative democrats and rep/ind. significant ( $\alpha = .05$ ) for a9 and a10.

Not surprisingly, support for banning cigarette advertising is greater among non-users than users; sixty-five percent of non-users support a ban on billboard advertising and 57 percent a ban in newspapers and magazines. (Differences between non-users living in tobacco free households and non-users living with tobacco users were not significant.) Tobacco users who do not plan to quit are least likely to support banning tobacco advertising on billboards (34 percent) or through newspapers or magazines (27 percent). Tobacco users who plan to quit are about evenly split on these issues--52 percent supporting a billboard advertising ban and 48 percent a newspaper and magazine ban.

As with other regulatory measures, conservative democrats show the strongest support of any political group for bans on billboard advertising (70 percent) and newspaper advertising (63 percent). Liberal democrats (63 percent), moderate democrats (64 percent), and conservative republicans (61 percent) also demonstrated support for a ban on billboard advertising, with moderate republicans and independents (50 percent), and liberal republicans and independents (43 percent) showing less support. With the exception of conservative democrats (63 percent), other political groups were divided on support for a ban on newspaper advertising (support ranging from 43 to 56 percent). The lack of clear patterns among political groups (other than conservative democrats) for banning tobacco advertising on billboards and in newspapers suggests that other factors may be more highly correlated with views on tobacco advertising bans.

Perceptions of the effect of tombstone advertising and plain packaging on the appeal of smoking to youth are fairly consistent across demographic and political groups. The perceptions of tobacco users are particularly interesting since they are experienced in responding to tobacco advertising messages. Most (62 percent) believe that tombstone advertising would make smoking less appealing to youth, but relatively few (36 percent) think that plain packaging would have the same effect.

### **C. BANNING VARIOUS TYPES OF TOBACCO PROMOTIONS**

Over the past twenty years, the tobacco industry's distribution of marketing resources has shifted from advertising to promotions, with about 83 percent of 1991 expenditures devoted to non-advertising

promotional activities (Lynch and Bonnie 1994, pp. 108-109). We assessed public support for banning several promotions appealing to youth. These included:

- Coupons included in cigarette packs that can be used to obtain promotional items appealing to kids, such as hats, tee shirts, jackets, or caps (a14)
- Coupon promotions that make it possible for anyone, regardless of age, to obtain free cigarettes by mail (a15)
- Sale of single cigarettes (a16)
- Distribution of free cigarettes on public streets (a17)
- Tobacco companies paying to display their products in movies or videos (a19)
- Tobacco companies sponsoring sporting or entertainment events where their brand names are featured (a18)

Support is strong for banning both coupon promotions, the sale of single cigarettes, and the distribution of free cigarettes on public streets (70 to 88 percent), but is weaker for prohibiting tobacco companies from promoting their products in movies or videos or sports and other entertainment events (60 and 55 percent, respectively) (see Table II.6).

Again, the pattern of support for promotional bans is similar to advertising bans (Table II.7). Support is broadly based for promotions unrelated to sports, entertainment, or media programming (a14-17), although the gender and age gaps continue, with women and older persons demonstrating greater support for these proposals. Except for coupon promotions within cigarette packs, where white non-Hispanics are less supportive than African-Americans, the gap between those two groups closed. Hispanics continue to be more supportive of promotional bans than non-Hispanics. Support for these promotional bans is strongest in the northeast, but is strong in other regions, as well. Tobacco users who do not plan to quit are less supportive of banning non-entertainment promotions; however, the only promotion for which a majority of tobacco users oppose a ban is coupons included in cigarette packs that can be used to obtain promotional items, a promotion from which current smokers may personally

TABLE II.6

PUBLIC OPINION ABOUT RESTRICTING  
OR BANNING VARIOUS TYPES OF PROMOTIONS

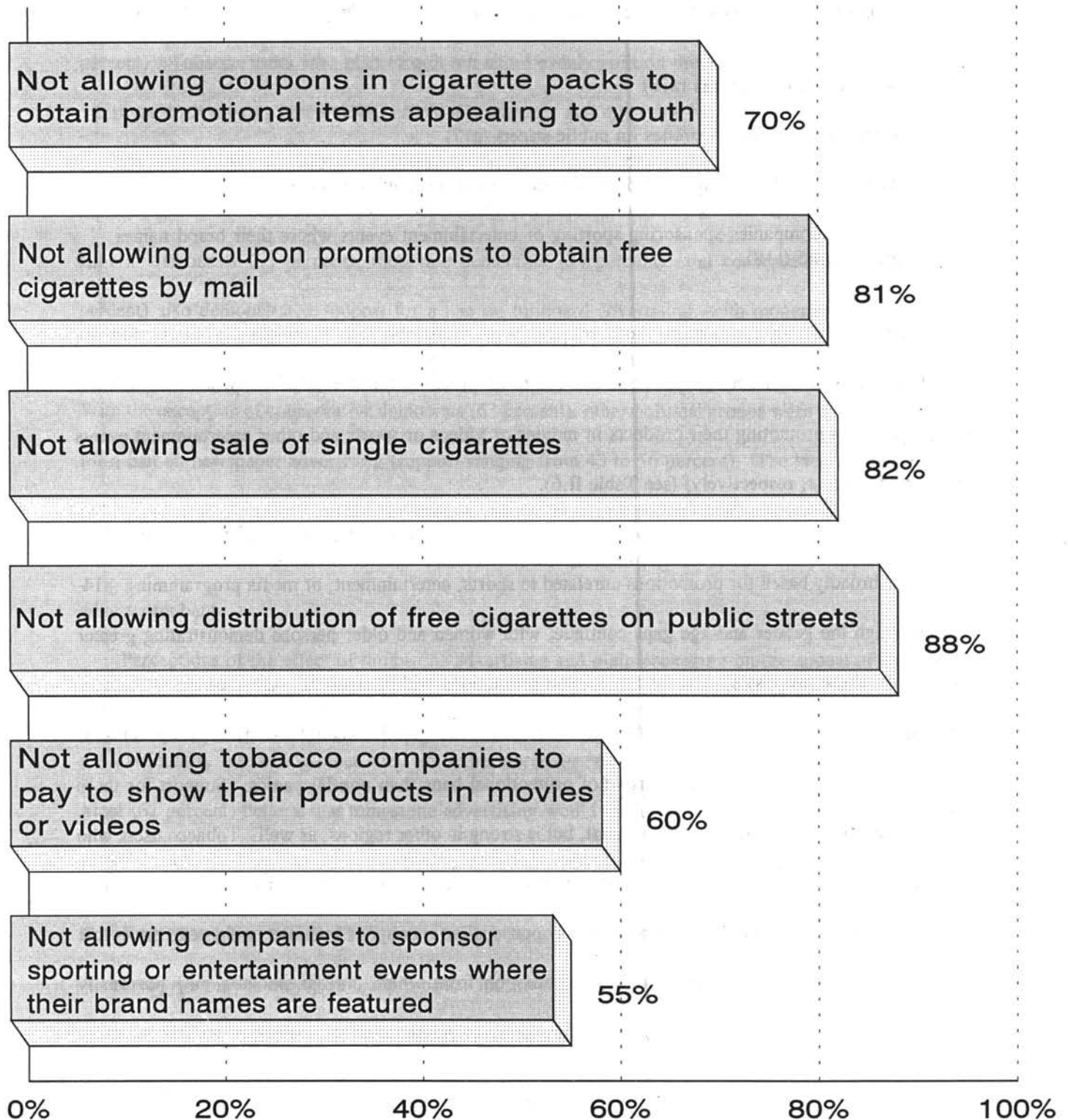


TABLE II.7  
PUBLIC SUPPORT FOR BANNING VARIOUS TYPES OF PROMOTIONS  
(Percent)

|                                                                                                                       | Sex <sup>a</sup> |      |        | Age <sup>b</sup> |       |       |     | Ethnicity <sup>c</sup>    |                           |          |
|-----------------------------------------------------------------------------------------------------------------------|------------------|------|--------|------------------|-------|-------|-----|---------------------------|---------------------------|----------|
|                                                                                                                       | Total            | Male | Female | 18-24            | 25-34 | 35-54 | 55+ | White<br>Non-<br>Hispanic | Black<br>Non-<br>Hispanic | Hispanic |
| Not allowing coupons in cigarette packs to obtain promotional items appealing to kids (a14)                           | 70               | 61   | 79     | 60               | 62    | 70    | 82  | 68                        | 77                        | 82       |
| Not allowing coupon promotions to obtain free cigarettes by mail (a15)                                                | 81               | 78   | 84     | 78               | 82    | 79    | 85  | 80                        | 80                        | 90       |
| Not allowing sale of single cigarettes (a16)                                                                          | 82               | 76   | 87     | 77               | 78    | 81    | 89  | 82                        | 82                        | 86       |
| Not allowing distribution of free cigarettes on public streets (a17)                                                  | 88               | 81   | 94     | 87               | 87    | 86    | 90  | 87                        | 87                        | 93       |
| Not allowing tobacco companies to pay to show their products in movies or videos (a19)                                | 60               | 53   | 67     | 46               | 55    | 61    | 71  | 60                        | 60                        | 69       |
| Not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are featured (a18) | 55               | 47   | 63     | 47               | 49    | 54    | 66  | 52                        | 65                        | 72       |

<sup>a</sup> All differences significant ( $\alpha = .05$ ).

<sup>b</sup> Differences between 18-24 and 55+, significant ( $\alpha = .05$ ) for a14, a16, a19, and a18, and ( $\alpha = .10$ ) for a15; differences between 25-34 and 55+, significant ( $\alpha = .05$ ) for a14, a19, and a18; differences between 35-54 and 55+ significant ( $\alpha = .05$ ) for a14, a15, a16, a19 and a18; differences between 18-24 and 25-34 significant ( $\alpha = .10$ ) for a19; differences between 35-54 and 55+ significant ( $\alpha = .05$ ) for all variables; ( $\alpha = .10$ ) for a17.

<sup>c</sup> Differences between white non-Hispanics and Hispanics and between black non-Hispanics and Hispanics significant ( $\alpha = .05$ ) for a14, a15, a17, a19, and a18 and significant ( $\alpha = .10$ ) for a16.

TABLE II.7 (continued)

|                                                                                                                       | Region <sup>d</sup> |         |       |      | Tobacco Use <sup>e</sup>    |                       |     |                              |                               |     | Lost Family Member <sup>f</sup> |    |
|-----------------------------------------------------------------------------------------------------------------------|---------------------|---------|-------|------|-----------------------------|-----------------------|-----|------------------------------|-------------------------------|-----|---------------------------------|----|
|                                                                                                                       | Northeast           | Midwest | South | West | User                        |                       |     | Non-User                     |                               |     | Yes                             | No |
|                                                                                                                       |                     |         |       |      | Plans to Quit in Six Months | Does Not Plan to Quit | All | Other HH Member Uses Tobacco | No Tobacco Users in Household | All |                                 |    |
| Not allowing coupons in cigarette packs to obtain promotional items appealing to kids (a14)                           | 75                  | 68      | 69    | 70   | 60                          | 42                    | 50  | 74                           | 78                            | 78  | 73                              | 68 |
| Not allowing coupon promotions to obtain free cigarettes by mail (a15)                                                | 82                  | 81      | 81    | 82   | 73                          | 56                    | 63  | 87                           | 88                            | 88  | 87                              | 77 |
| Not allowing sale of single cigarettes (a16)                                                                          | 88                  | 83      | 82    | 74   | 78                          | 71                    | 74  | 85                           | 85                            | 85  | 85                              | 79 |
| Not allowing distribution of free cigarettes on public streets (a17)                                                  | 88                  | 86      | 88    | 89   | 84                          | 72                    | 77  | 90                           | 92                            | 91  | 91                              | 85 |
| Not allowing tobacco companies to pay to show their products in movies or videos (a19)                                | 65                  | 61      | 57    | 60   | 53                          | 37                    | 44  | 64                           | 67                            | 66  | 67                              | 54 |
| Not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are featured (a18) | 56                  | 55      | 55    | 55   | 48                          | 28                    | 36  | 60                           | 63                            | 62  | 62                              | 49 |

<sup>d</sup> Differences between northeast and other regions significant ( $\alpha = .10$ ) for a14 and a16 and differences between northeast and south significant ( $\alpha = .10$ ) for a19. Differences between west and midwest and south, respectively, significant ( $\alpha = .05$ ) for a16.

<sup>e</sup> All differences except a16 between user planning to quit and user not planning to quit significant ( $\alpha = .05$ ); all differences between all users and all non-users significant ( $\alpha = .05$ ).

<sup>f</sup> All differences significant ( $\alpha = .05$ ).

TABLE II.7 (continued)

|                                                                                                                       | Ideology <sup>a</sup> |          |              | Party Affiliation <sup>b</sup> |     |      | Ideology and Party Affiliation <sup>c</sup> |              |           |              |               |              |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------|----------|--------------|--------------------------------|-----|------|---------------------------------------------|--------------|-----------|--------------|---------------|--------------|
|                                                                                                                       |                       |          |              |                                |     |      | Liberals                                    |              | Moderates |              | Conservatives |              |
|                                                                                                                       | Liberal               | Moderate | Conservative | Dem                            | Rep | Ind. | Dem                                         | Rep/<br>Ind. | Dem       | Rep/<br>Ind. | Dem           | Rep/<br>Ind. |
| Not allowing coupons in cigarette packs to obtain promotional items appealing to kids (a14)                           | 71                    | 68       | 72           | 75                             | 67  | 66   | 77                                          | 65           | 74        | 63           | 77            | 70           |
| Not allowing coupon promotions to obtain free cigarettes by mail (a15)                                                | 77                    | 81       | 84           | 84                             | 78  | 79   | 82                                          | 72           | 85        | 78           | 87            | 81           |
| Not allowing sale of single cigarettes (a16)                                                                          | 81                    | 79       | 84           | 83                             | 80  | 82   | 82                                          | 81           | 82        | 77           | 86            | 83           |
| Not allowing distribution of free cigarettes on public streets (a17)                                                  | 87                    | 87       | 89           | 89                             | 88  | 87   | 89                                          | 86           | 88        | 86           | 90            | 88           |
| Not allowing tobacco companies to pay to show their products in movies or videos (a19)                                | 58                    | 59       | 62           | 64                             | 58  | 57   | 62                                          | 56           | 63        | 54           | 63            | 61           |
| Not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are featured (a18) | 50                    | 52       | 60           | 63                             | 50  | 49   | 58                                          | 41           | 58        | 46           | 72            | 55           |

<sup>a</sup> Differences between liberals and conservatives significant ( $\alpha = .05$ ) for a15 and a18 and between moderates and conservatives for a18; difference between moderates and conservatives significant ( $\alpha = .10$ ) for a15.

<sup>b</sup> Differences between democrats and republicans and independents, respectively, significant ( $\alpha = .05$ ) for a14, a15, a19, and a18.

<sup>c</sup> Differences between liberal democrats and liberal rep/ind. significant ( $\alpha = .05$ ) for a14, a15, and a18; between moderate democrats and moderate rep/ind. significant ( $\alpha = .05$ ), for a14, a19, and a18 and significant ( $\alpha = .10$ ) for a15; differences between conservative democrats and conservatives rep/ind. significant ( $\alpha = .05$ ) for a18 and ( $\alpha = .10$ ) for a14 and a15.

benefit. Conservative democrats again are the political group that is most supportive of promotional bans, but support for these policies is strong across other political groups, as well.

Public support is more divided on the two proposals to ban tobacco companies from promoting their products in sports and entertainment events and in the media. Approximately two-thirds of women, but only about one-half of men support these proposals. Support for these proposals also increases with age. Less than half of 18 to 24 year olds support them, with support increasing steadily for each age group. Although we did not examine the combined relationship of age and sex to these proposals, it is not unlikely that young males are the most resistant to restrictions on tobacco company support for entertainment and sports events and product displays in movies and videos. Hispanic respondents again are more supportive of these proposals than non-Hispanics. Differences among political groups are smaller than among demographic groups, with conservative democrats again demonstrating greater support for restrictions, particularly for not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are shown (72 percent); no other political group, based on ideological and party affiliation, exceeded 58 percent support for this measure. Tobacco users who do not plan to quit are strongly opposed to both proposals.



### III. NICOTINE AND SMOKING CESSATION POLICIES

Although the primary focus of the survey is on public attitudes toward policies designed to reduce youth access to and the appeal of tobacco products, we also included questions on public perceptions of nicotine addiction and support for proposals to regulate nicotine content and to assist smokers who want to quit.

#### A. NICOTINE ADDICTION

The public overwhelmingly believes that nicotine in cigarettes is addicting (92 percent, see Table III.1). Not surprisingly, 92 percent of tobacco users who indicated they plan to quit in the next six months indicated that they thought nicotine was addicting; however, 85 percent of tobacco users who do not plan to quit in the next six months also share this belief.<sup>1</sup>

We assessed the public's knowledge of the government's hearings on nicotine manipulation and their beliefs about whether or not tobacco companies deliberately adjusted nicotine levels to keep smokers addicted. First, respondents were asked if they had seen or heard anything in the last six months about tobacco companies and the amount of nicotine in cigarettes (a30). If they had, we asked what they recalled reading or hearing in an open-ended question and coded the responses (a30a). Then respondents were asked if they believed that cigarette companies deliberately adjusted nicotine levels (a31).

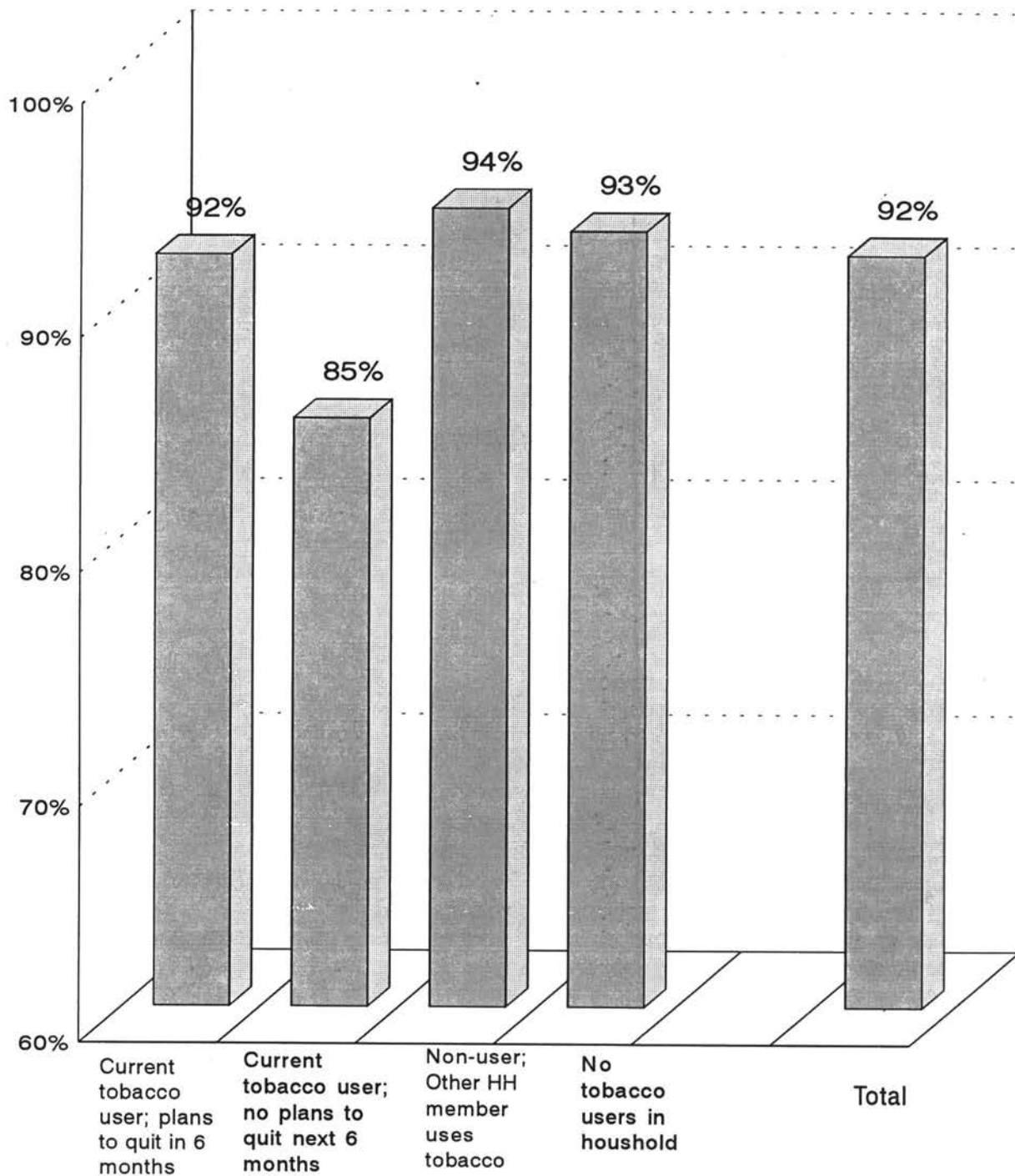
Public awareness of the nicotine manipulation issue is shown in Table III.2. Fifty-seven percent indicated that they were aware of the issue, with awareness varying by education--48 percent of those with a high school education or less, 60 percent of those with some college, and 76 percent of college graduates.

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<sup>1</sup>These results are consistent across demographic, political, and socioeconomic groups. Distributions for all groups are included in Appendix C, Tables 20.1, 20.2., and 20.3.

TABLE III.1

# PUBLIC'S BELIEFS ABOUT NICOTINE ADDICTION BY TOBACCO USE <sup>a</sup>



<sup>a</sup> Do you personally think nicotine in cigarettes is addicting or is it not addicting?

TABLE III.2

## AWARENESS OF THE NICOTINE MANIPULATION ISSUE BY EDUCATION AND TOBACCO USE

|                                                                                                                                           | Total | Education           |              |              | Tobacco Use                 |                                |                              |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------|--------------|--------------|-----------------------------|--------------------------------|------------------------------|-----------------------|
|                                                                                                                                           |       | High School or Less | Some College | College Grad | Current User, Plans to Quit | Current User, No Plans to Quit | Other HH Member Uses Tobacco | No Tobacco User in HH |
| Seen or heard anything in last six months about tobacco companies and amount of nicotine in cigarettes? (a30)                             |       |                     |              |              |                             |                                |                              |                       |
| Yes                                                                                                                                       | 57    | 48                  | 60           | 76           | 61                          | 58                             | 55                           | 56                    |
| No/Don't Know                                                                                                                             | 43    | 52                  | 40           | 24           | 39                          | 42                             | 45                           | 44                    |
| Total                                                                                                                                     | 100   | 100                 | 100          | 100          | 100                         | 100                            | 100                          | 100                   |
| IF YES: What did respondent recall reading or hearing about nicotine? (a30a)                                                              |       |                     |              |              |                             |                                |                              |                       |
| (1) Addictive or harmful                                                                                                                  | 24    | 27                  | 23           | 19           | 20                          | 19                             | 28                           | 25                    |
| (2) Tobacco companies spiking or manipulating amount of nicotine                                                                          | 28    | 24                  | 30           | 33           | 33                          | 34                             | 22                           | 27                    |
| (3) Addictive or harmful and manipulating amount of nicotine                                                                              | 18    | 18                  | 17           | 19           | 21                          | 18                             | 17                           | 18                    |
| (4) Tobacco companies or other groups deny manipulation; some companies reducing amount of nicotine; anti-tobacco groups distorting issue | 10    | 10                  | 10           | 9            | 7                           | 8                              | 13                           | 10                    |
| (5) Cites both government and tobacco industry positions on nicotine manipulation                                                         | 5     | 2                   | 7            | 9            | 4                           | 4                              | 3                            | 6                     |
| (6) Could not recall relevant details/Don't Know/Refusal                                                                                  | 15    | 19                  | 14           | 11           | 16                          | 18                             | 19                           | 14                    |
| Total                                                                                                                                     | 100   | 100                 | 100          | 100          | 100                         | 100                            | 100                          | 100                   |

About half of the sample indicating awareness of the issue cited nicotine manipulation--28 percent citing only nicotine manipulation, 18 percent mentioning nicotine manipulation and adding that nicotine is addictive or harmful, and 5 percent citing both the government's position on nicotine manipulation and the industry's response. Twenty-four percent recalled they heard that nicotine was addictive or harmful, but did not mention anything about nicotine manipulation. Ten percent said they recalled that tobacco companies or other groups denied manipulating nicotine, that some companies were reducing the amount of nicotine in tobacco, or that anti-tobacco groups were distorting the issue. Fifteen percent who said they were aware of the issue could not recall relevant details about it.

Awareness of the nicotine manipulation issue varied by only a few percentage points, with respect to tobacco use (see Table III.2). However, of those who were aware of the issue, tobacco users were somewhat more likely to cite nicotine manipulation by the tobacco industry in their responses (summation of categories 2, 3, and 5). Fifty-eight percent of tobacco users who plan to quit and 56 percent of those who do not mentioned nicotine manipulation, compared with 41 percent of non-users living with tobacco users and 51 percent of non-users in smoke-free households.

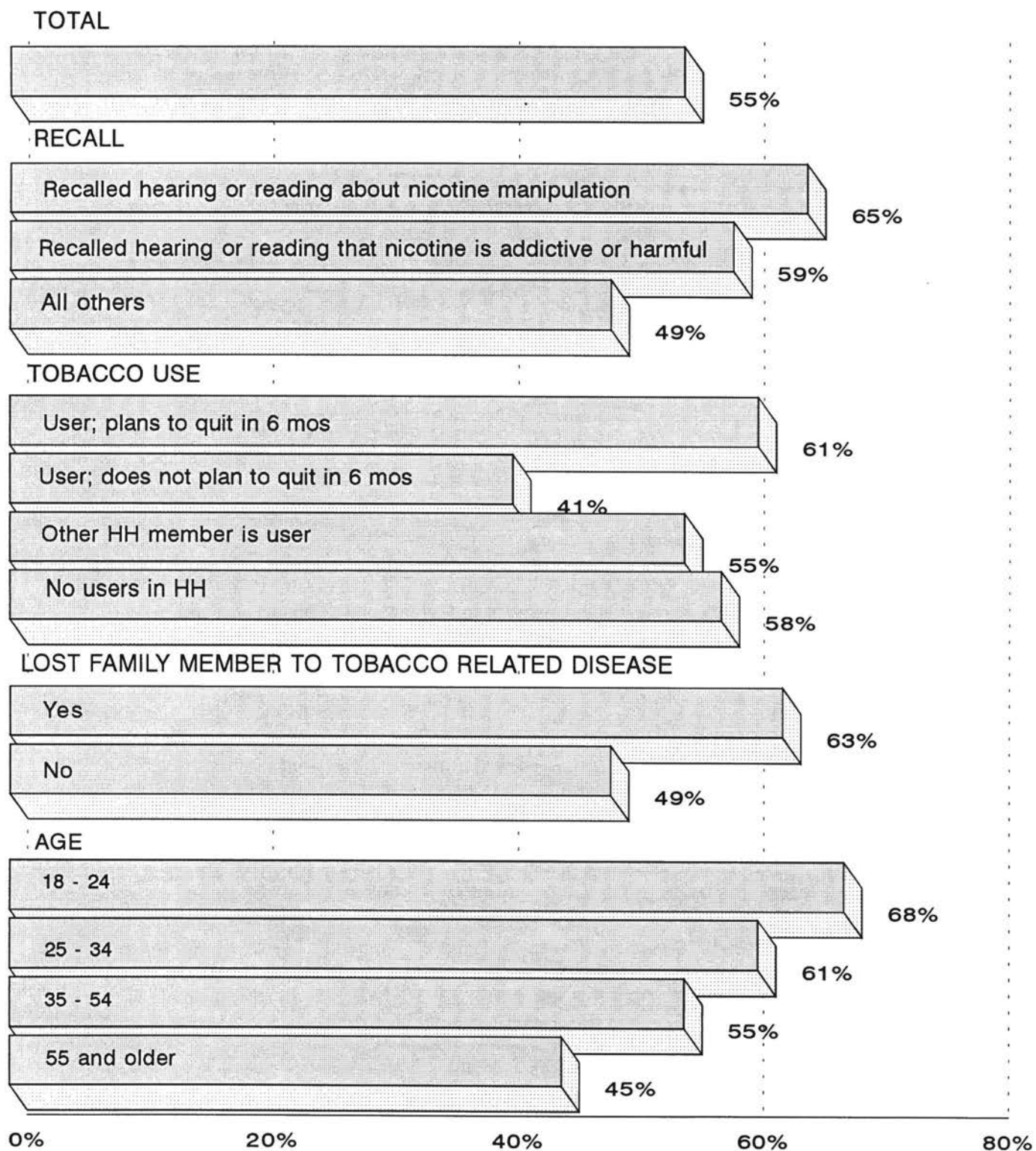
Over half of the public (55 percent) believe that the cigarette industry deliberately adjusts nicotine levels to keep smokers addicted to cigarettes; 27 percent does not; and 18 percent indicated they could not answer the question.<sup>2</sup> Those who recalled hearing about the issue were more likely to believe that tobacco companies manipulated nicotine levels (65 percent), compared with 59 percent who recalled that nicotine is harmful or addictive (but did not mention nicotine manipulation), and 49 percent who did not recall anything or did not cite nicotine manipulation (see Table III.3). Tobacco users planning to quit were more likely to believe that tobacco companies manipulate nicotine levels (61 percent) than current users not planning to quit (41 percent). A majority of non-tobacco users, whether living in smoke-free households (58 percent) or with tobacco users (55 percent) also believe that cigarette companies deliberately manipulated nicotine levels.

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<sup>2</sup>See Appendix C, Tables 23.1, 23.2, and 23.3 for a complete set of distributions for this question.

TABLE III.3

PERCENT BELIEVING THAT CIGARETTE COMPANIES  
MANIPULATE NICOTINE LEVELS BY SELECTED <sup>a</sup>  
CHARACTERISTICS



<sup>a</sup> Do you believe that cigarette companies deliberately adjust nicotine levels to keep smokers addicted or do you believe that cigarette companies don't deliberately do this?

Skepticism regarding the industry's position that it is not manipulating nicotine levels was inversely related to age; young adults (18 to 24) were most likely to believe that tobacco companies were deliberately adjusting nicotine levels (68 percent). Support for this belief declines with age, as fewer than half (45 percent) of persons 55 and older believe that tobacco companies are deliberately doing this.

## **B. PROPOSALS TO REGULATE NICOTINE CONTENT AND TO ASSIST SMOKERS WHO WANT TO QUIT**

### **1. Regulating Nicotine Content**

Respondents were asked whether or not they agreed with two proposals to regulate cigarettes and other tobacco products (Table III.4):

- Tobacco companies should be required to list the additives on package labels the way food and drug companies are required to list ingredients.
- Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes.

Support for both proposals was strong--93 percent agreeing with a requirement to list additives and 71 percent with a proposal to regulate cigarettes like other nicotine products. Support was also broadly based, cutting across political party and ideology for both proposals and (for the additives requirement) embracing current tobacco users, as well as non-users. Over 90 percent of each political group (defined by party and ideology) support the additive requirement and from two-thirds to three-fourths of each group support regulating cigarettes like other nicotine products. Tobacco users not planning to quit had mixed views on nicotine regulation, with half agreeing to the proposal and half disagreeing.<sup>3</sup>

### **2. Assisting with Smoking Cessation**

The survey included two proposals to assist smokers who want to quit:

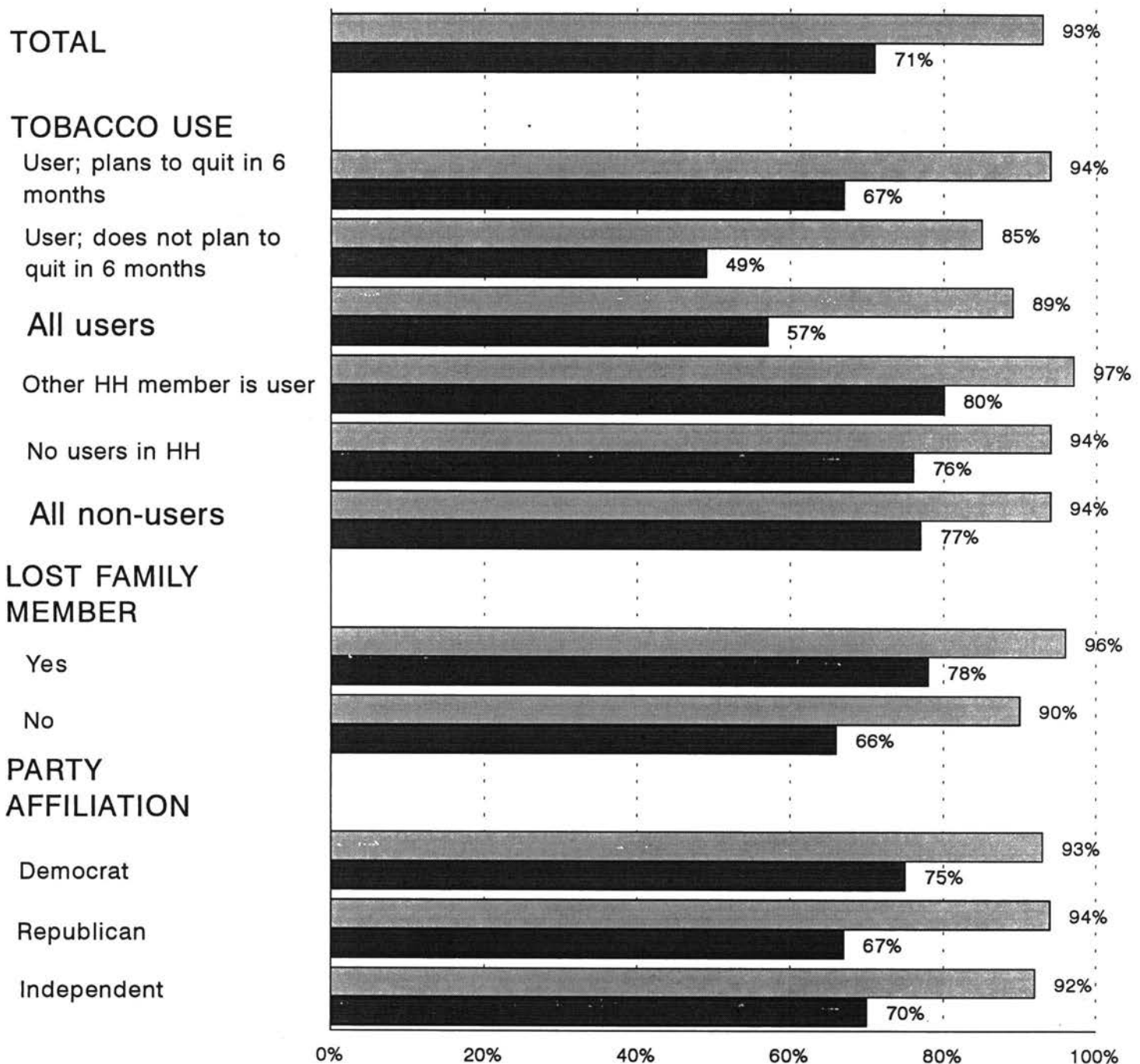
- Requiring tobacco companies to gradually reduce the amount of nicotine in cigarettes

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<sup>3</sup>Support was also consistent across demographic groups; see Appendix C, Tables 26.1, 26.2, and 26.3 for these distributions.



TABLE III.4  
PERCENT AGREEING WITH PROPOSALS  
TO REGULATE TOBACCO PRODUCTS



Tobacco companies should be required to list additives on package labels the way food and drug companies are required to list ingredients.

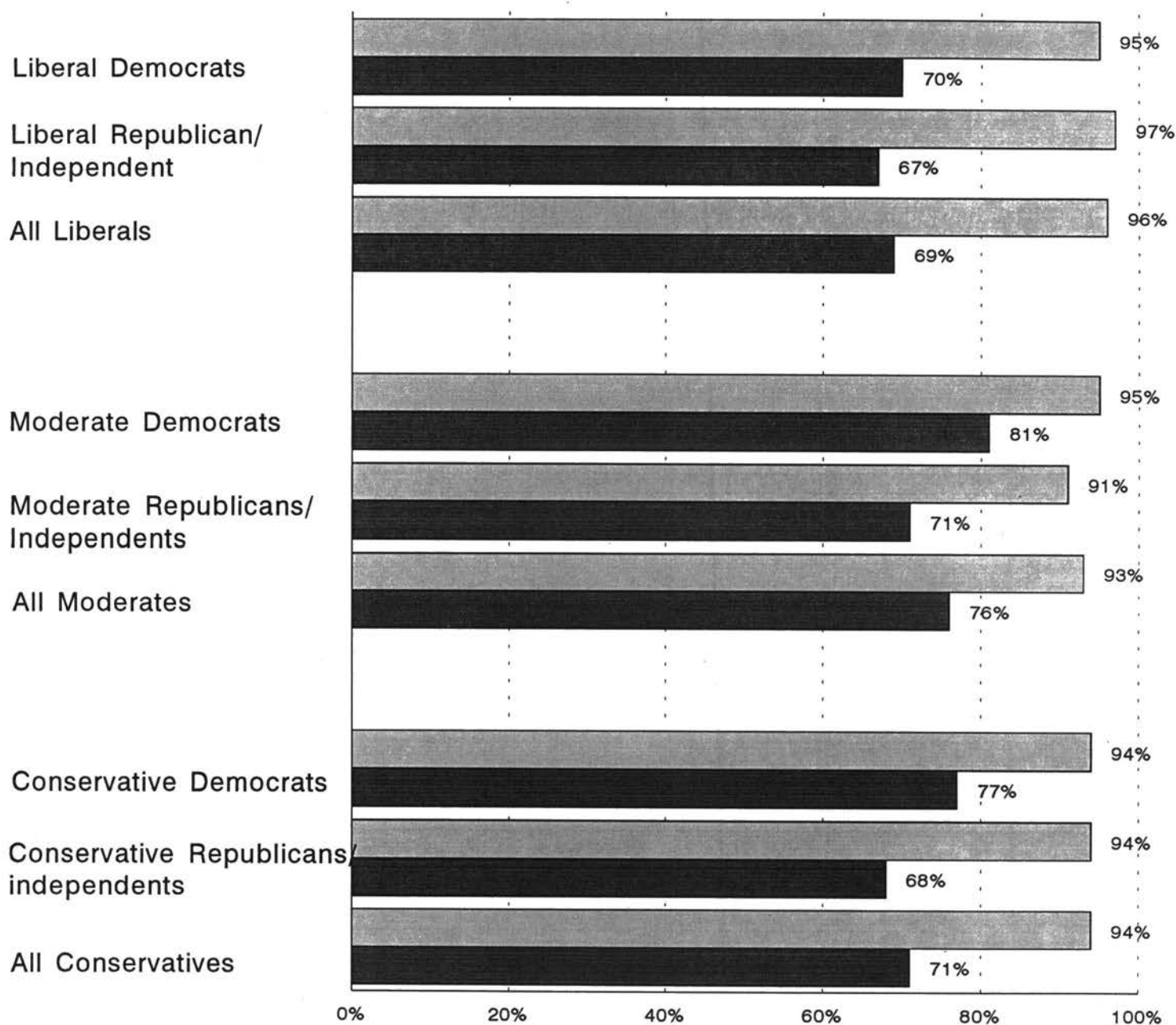


Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes too.

TABLE III.4

(Continued)

# PERCENT AGREEING WITH PROPOSALS TO REGULATE TOBACCO PRODUCTS



Tobacco companies should be required to list additives on package labels the way food and drug companies are required to list ingredients.



Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes too.



- Requiring insurance companies to cover the cost of programs to quit smoking

Again, support was strong and broadly based, as 79 percent supported the first proposal and 65 percent the second (Table III.5). As might be expected, current tobacco users who plan to quit in the next six months are very supportive of both proposals (81 and 73 percent). However, majorities of users who do not plan to quit and, to a slightly lesser extent, non-users, also favor these proposals. Persons who lost family members or friends to tobacco related diseases continue to show higher support for proposals to assist smokers who want to quit. Support also cuts across political party and ideological lines, with over three-fourths of each political group favoring a requirement that tobacco companies gradually reduce the amount of nicotine in cigarettes and somewhat smaller majorities of each group also supporting the insurance company requirement. However, conservative republicans and independents were slightly less likely to support a requirement that insurance companies cover the cost of smoking cessation programs (58 percent), compared with conservative democrats (68 percent), moderates (64 percent), or liberals (74 percent). Among moderates and liberals, differences by party were not significant.

**TABLE III.5**  
**PERCENT FAVORING PROPOSALS TO ASSIST**  
**WITH SMOKING CESSATION**

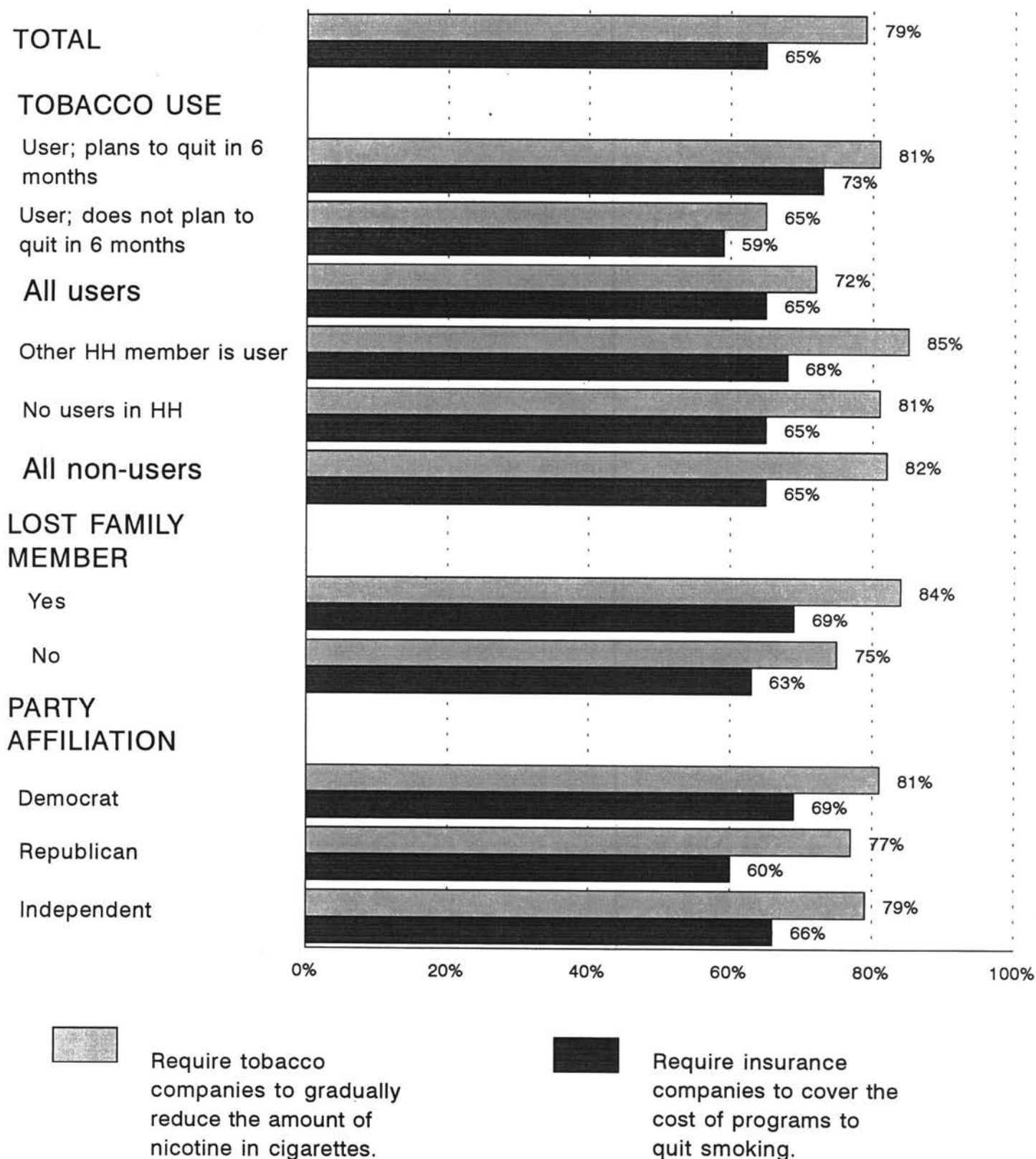
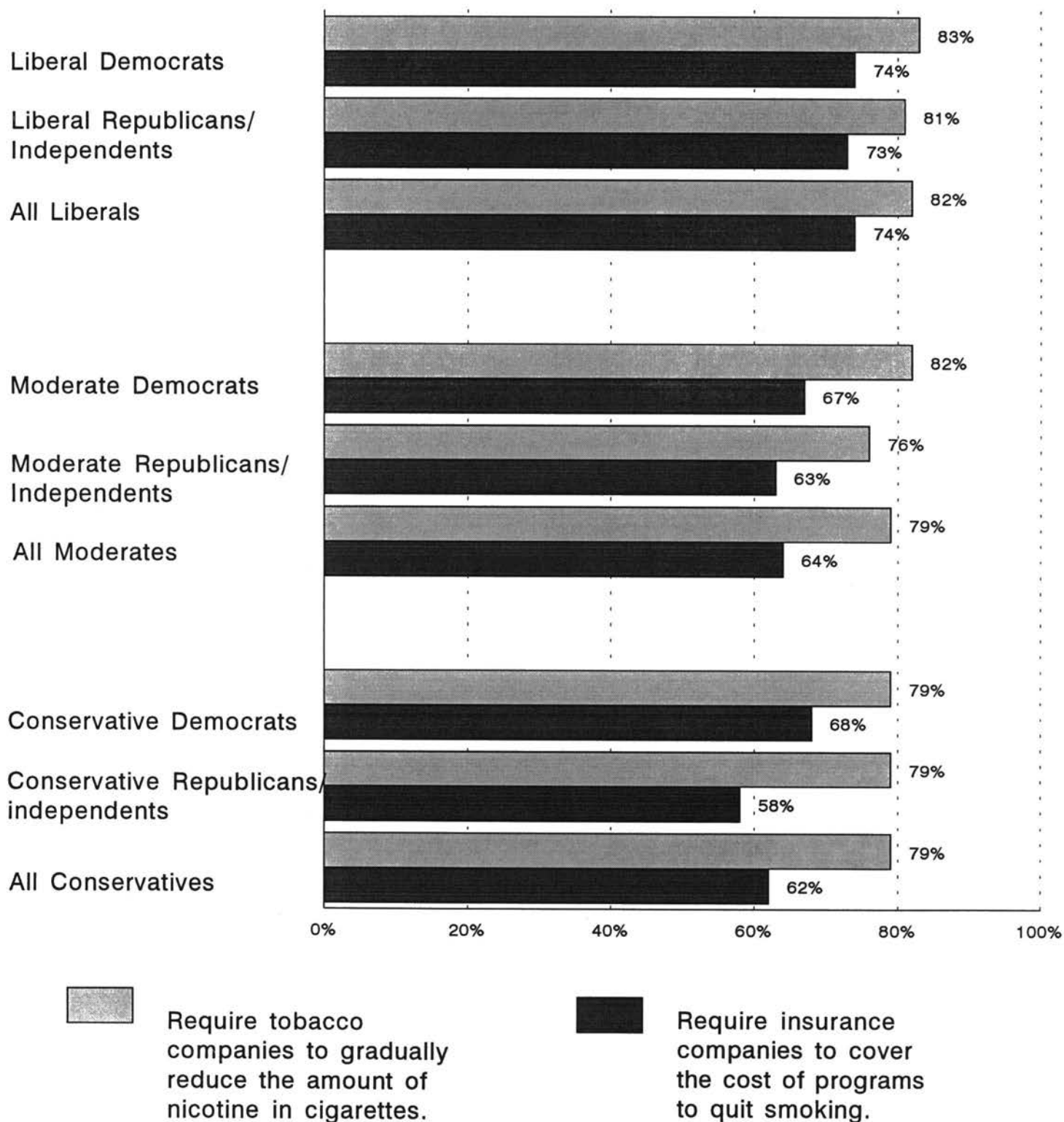


TABLE III.5

(Continued)

# PERCENT FAVORING PROPOSALS TO ASSIST WITH SMOKING CESSATION





#### IV. CONCLUSIONS

Although the sale of tobacco products to minors is illegal, the public recognizes that it is relatively easy for minors to purchase cigarettes and other tobacco products and will support specific policies that limit minors' access to these products. We observed broadly-based support for a ban on cigarette vending machines, self-service displays, and verification of youthful customers' identifications. However, we did not assess support for enforcement policies to ensure retailer compliance, an issue that is growing in importance in many states. The public was ambivalent about increasing age limits for tobacco purchases and limiting tobacco sales to certain types of retailers. We did not specify the types of retailers that should be restricted from selling tobacco products; future surveys on minors' access issues might assess support for creating tobacco-free zones near schools or bans on pharmacy sales.

The public is more likely to support bans on tobacco promotions than advertising, with strong majorities supporting bans on coupon promotions, sales of single cigarettes, and distribution of free cigarettes on public streets. Support was mixed for prohibiting tobacco companies from paying to show their products in movies and videos and from sponsoring sporting or entertainment events where their brand names are featured, with males and young adults being least supportive. Advertising bans on billboards and in newspapers and magazines appear to be polarizing, with males and young adults, in particular, demonstrating weaker support for these policies. Most of the public believe that tombstone advertising would make smoking less appealing to minors, but only about half believe that plain packaging would reduce the appeal of cigarettes to youth. Tobacco users, in particular, were skeptical about the impact of plain packaging on young smokers' purchasing decisions.

The overwhelming majority of tobacco users and non-users believe that nicotine is addicting, and support requiring tobacco companies to list additives on package labels. Most also support extending government regulation of nicotine products, such as patches and gum, to cigarettes. The public also would support policies requiring tobacco companies to reduce the amount of nicotine in cigarettes and insurance companies to cover the cost of programs to quit smoking. Support for these proposals crosses ideological and party lines.

Although support for many measures to curb minors' access to tobacco products is broadly based (receiving majority support across demographic and political groups, as well as region), we observed that women, older adults, African-Americans and Hispanics were more supportive of most policies. Among political groups, conservative democrats consistently demonstrated greater support for tobacco control measures than other groups. Adults who believe they have lost family members or friends to tobacco related diseases, a group representing 44 percent of the population, were more supportive of policies designed to limit access to youth. Like many other surveys on public attitudes toward tobacco control policies, we observed that non-users were more supportive than users. However, current tobacco users who indicated they plan to quit in the next six months expressed levels of support for youth access policies that were more similar to non-users than users who do not plan to quit.

## REFERENCES

- Bierig, Jack, Susan D. Weber, and T. Robert Scarborough. "Legal Analysis of Approaches to State and Local Regulation of Tobacco Advertising in the U.S." *Tobacco Control*, vol. 3, 1994, pp. 257-262.
- Brick, J. Michael, J. Waksberg, D. Kulp, and A. Starer. "Bias in List-Assisted Telephone Surveys." Paper presented at the American Association of Public Opinion Research, May 1994.
- Center for Disease Control and Prevention. *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. Washington, DC: U.S. Department of Health and Human Services, 1994.
- Cummings, K. Michael, Terry Pechacek, and Donald Shopland. "The Illegal Sale of Cigarettes to U.S. Minors: Estimates by State." *American Journal of Public Health*, vol. 84, no. 2, 1994, pp. 300-302.
- Cummings, K. Michael, Eva Sciandra, Terry F. Pechacek, Mario Orlandi, and William R. Lynn. For the COMMIT Research Group. "Where Teenagers Get Their Cigarettes: A Survey of the Purchasing Habits of 13-16 Year Olds in 12 U.S. Communities." *Tobacco Control*, vol. 1, 1992, pp. 264-267.
- Johnson, L., J. Bachman, and P. O'Malley. "Monitoring the Future Study." Press release, The University of Michigan, Ann Arbor, January 27, 1994.
- Lynch, Barbara S., and Richard J. Bonnie (ed). *Growing Up Tobacco Free*, Committee on Preventing Nicotine Addiction in Children and Youth, Division of Biobehavioral Sciences and Mental Disorders, Institute of Medicine, National Academy Press. Washington, DC, 1994.
- Marttila & Kiley, Inc. *Highlights from an American Cancer Society Survey of U.S. Voter Attitudes Toward Cigarette Smoking*. Boston: September 1993.
- New Zealand Toxic Substances Board. *Health or Tobacco: An End to Tobacco Advertising and Promotion*. Wellington, New Zealand: Department of Health, 1989, xxix.
- Office of the Inspector General. *Youth Access to Tobacco*. Department of Health and Human Services, OEI 02-92-00880, December 1992.
- Response Research, Inc. *Study of Teenage Cigarette Smoking and Purchasing Behavior*. For the National Automatic Merchandising Association. Chicago: June/July 1989.
- Roswell Park Cancer Institute. *Survey of Alcohol, Tobacco and Drug Use: Ninth Grade Students in Erie County, 1992*. Buffalo, NY: Roswell Park Cancer Institute, Department of Cancer Control and Epidemiology, 1993.
- Teenage Attitudes and Practices Survey II, Centers for Disease Control, National Center for Health Statistics, U.S. Department of Health and Human Services, 1993 (unpublished data).

## APPENDIX A

### SAMPLE DESIGN, WEIGHTING, AND ESTIMATION PROCEDURES

#### 1. Sample Design

The survey employed a single-stage list-assisted<sup>1</sup> random-digit-dialing (RDD) sample purchased from a commercial vendor, Genesys Sampling Systems. The sample frame was stratified to facilitate oversampling of African-Americans, Hispanics and residents of California. Below we describe the sample frame, stratification, sample allocation, and data collection methods.

**The Frame.** The sample frame includes a subset of all possible telephone numbers in the contiguous United States (and the District of Columbia). The vendor has divided all area code/exchange combinations<sup>2</sup> currently assigned for use by telephone companies into banks of 100 consecutive numbers.<sup>3</sup> Those banks with one or more published household numbers are retained in the frame; the remaining banks are not used because they contain so few household numbers that including them would increase survey costs with little gain in coverage.<sup>4</sup>

**Stratification.** We used stratification to allow efficient oversampling of African-Americans, Hispanics, and residents of California. In addition to a national probability sample of approximately 1,500 adults, we wished to obtain approximately 500 interviews with African-Americans, 400 with Hispanics and 400 interviews with residents of California. We estimated that a national sample of 1,500

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<sup>1</sup>A distinct advantage of list-assisted frames is the ability to use single-stage, unclustered sample designs. A recent paper recommending the use of list-assisted RDD sample designs for national surveys was given at the American Association of Public Opinion Research (Brick, 1994).

<sup>2</sup>Of a ten-digit telephone number, (XXX) YYY-ZZZZ, the first three (XXX) are the area code, and YYY defines the exchange, also called the central office code.

<sup>3</sup>For example, (609) 799-3500 to (609) 799-3599 would comprise a bank.

<sup>4</sup>While the omitted banks may contain up to 5 percent of household telephone numbers, the likelihood of reaching a household in these banks is so low (less than 2 percent) that it is inefficient to include them.



adults with no oversampling would yield only about 180 African-Americans, 120 Hispanics and 160 Californians.

The design employed ten strata: the first level of stratification was between California and the remainder of the contiguous United States; within each of these two major strata, we formed five substrata based on the expected yield of African-Americans and Hispanics. The ten substrata are depicted in Table A.1. Each area code/exchange combination was assigned to one of the ten substrata, based on data provided by the vendor.

**Sample Allocation and Respondent Selection.** We made two allocations of sample. The purpose of the allocation for the first phase of interviewing was to obtain approximately 1,500 interviews from a nationally representative equal probability sample of households, supplemented by additional interviews in California resulting in a total of 400 interviews in that state. We attempted interviews with all households having at least one member 18 years of age or older; however, no screening on race or ethnicity was done in the first phase. For the second phase, we allocated sample based on estimated prevalences of African-Americans and Hispanics, oversampling strata with higher prevalences. Our prevalence estimates were based on figures provided by Genesys Sampling Systems, adjusted for experiences in the first phase. During the second phase, we screened households,<sup>5</sup> and did not attempt interviews in households in which the screening respondent was not African-American or Hispanic.

Within each sampled household we selected one adult at random. We used an abbreviated within-household selection method for households with up to three adults and full enumeration for households with more than three adults. The abbreviated method randomly picked the older or younger adult for a two-person household, and the oldest, youngest or next oldest adult in households with three adults.

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<sup>5</sup>The screener included questions on smoking status, as an ice-breaker, ethnicity, and whether or not Hispanic.

TABLE A.1  
DEFINITIONS OF SAMPLING STRATA

| Strata <sup>a</sup> |            | Description of Area Code                                               |
|---------------------|------------|------------------------------------------------------------------------|
| Non-California      | California | Exchange/Combinations Included in Strata                               |
| 0                   | 5          | Expected prevalence of African-American households at least 60 percent |
| 1                   | 6          | Expected prevalence of African-American households 40-59 percent       |
| 2                   | 7          | Other exchanges, expected Hispanic prevalence at least 50 percent      |
| 3                   | 8          | Other exchanges, expected Hispanic prevalence 35-49 percent            |
| 4                   | 9          | Remaining exchanges                                                    |

<sup>a</sup>The numbering in the table is consistent with that on the data files.

**Data Collection Methods.** The survey was conducted by computer assisted telephone interview (CATI). The CATI system was used to control the release of telephone numbers to interviewers, automatically dial telephone numbers, control the timing of calls to sampled households, select eligible respondents, control the sequencing and presentation of survey questions in English or Spanish, and produce clean data files. The scheduling program insured that a minimum of 12 calls were made to contact a sampled telephone number. Calls were spaced at different times, based on optional calling patterns for a general population. Sampled households that refused were contacted again by highly experienced interviewers, who were trained to respond to reluctant respondents.

## 2. Weights and Design Effects

Analysis of the survey data should use sample weights. Use of unweighted data could result in biased estimates, because the design oversampled some groups, resulting in a sample that is not distributed in the same way as the population being studied. Differences in non-response by subgroups in the population further increased the differences between the population and sample distributions. Below we describe the steps used to calculate the weights, discuss the design effects of weighting, and evaluate the impact of weighting.

**Constructing the Weights.** The sample weights are the product of three adjustment factors that correct for disproportionate sampling and response rates: (1) the inverse of each respondent's probability of selection; (2) the inverse of the response rate for a case's response cell (3) a series of ratio adjustments to better estimates of population totals.<sup>6</sup>

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<sup>6</sup>Specifically, the weight is:

$$(1/P_{ih}) * (1/RR_c) * \text{RATIOADJ}$$

where:

$P_{ih}$  is the probability of the  $i$ th individual in the  $h$ th household in stratum  $s$ .

$RR_c$  is the response rate for cell  $c$ .

RATIOADJ is the ratio adjustment factor.

As discussed in the text,  $P_{ih}$  and RATIOADJ are themselves the products of multiple factors because sampling took place in stages, and the ratio adjustment was arrived at iteratively.

**Probability of Selection.** In calculating the probabilities of selection, we calculated three stages of selection: (1) selection of telephone numbers from the sample frame, (2) subsampling of numbers for actual calling; (3) selection of individuals within the household.<sup>7</sup> A respondent's probability of selection depended on the stratum to which his or her telephone number was assigned, the number of telephone numbers used by the household, whether he or she was African-American or Hispanic and the number of adults living in the household. The probabilities of selection for African-American and Hispanic households varied by substratum.<sup>8</sup> For households other than African-American and Hispanic households, probabilities of selection were greater in California than in other states, but were approximately equal across substrata.<sup>9</sup> Within households, individuals had a chance of selection that was inversely proportional to the number of adults living in the household.

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$$^7\text{Thus } P_{\text{ih}} = P1_s * P2_s * P(I)_h * np$$

where:

$P1_s$  and  $P2_s$  are the two stages of selecting the number within the stratum

$P(I)_h = 1/n_{\text{ah}}$  is the within household probability of an individual being selected.

$n_{\text{ah}}$  is the number of adults in household H.

$np$  is the number of telephones in the household.

<sup>8</sup>As discussed in the section on sample design, we oversampled strata with higher prevalences of African-American and Hispanic households. Thus, an African-American in a low-prevalence stratum would have a lower probability of selection than an African-American in a high-prevalence stratum.

<sup>9</sup>Respondents who were not African-American or Hispanic generally were selected only in the first phase when there was no oversampling, because we attempted to screen out persons who were not African-American or Hispanic during the second phase of sample release. However, seventeen persons were interviewed during the second phase who at the end of the interview identified themselves as non-Hispanic whites or Asians. In weighting, the probabilities of selection of these cases were computed as if they were African-American or Hispanic.

**Response Rate Adjustment.** We formed 12 cells for the response rate adjustment, based on stratum and racial/ethnic group. In California, we created one response rate cell for African-Americans and Hispanics and another cell for others, because most of the substrata had very few cases and we considered the stratum- specific response rates to be unreliable. Outside California we formed two cells (African-American, Hispanic/Other) per stratum. The response rate for a cell is defined as the ratio of the number of completed interviews to the estimated number of sampled households that are eligible.<sup>10</sup> As discussed above (A.4), the response rate adjustment is the inverse of the response rate.

**Ratio Adjustments.** To determine the need for further weighting adjustments, we computed a preliminary weight based on the probability of selection and response rate and compared the distribution of that sample to Census Bureau estimates of the study population. The preliminary weights did not fully correct for differences in sex, age, race, ethnicity, and education. We thus undertook a series of adjustments:

- First, by sex and whether Hispanic
- Second, by sex and race
- Third, by education

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<sup>10</sup>Specifically,

$$RR_c = \frac{n_c}{(n_c + e_c + ER_c(dk_c))}$$

where

- $n_c$  = the number of completed interviews in cell c
- $e_c$  = the number of non-completed eligible households (household with a member at least 18 years old) in cell c
- $ER$  =  $(n_c + e_c)/(n_c + e_c + ie_c)$
- $ie_c$  = the number of ineligible telephone numbers (non-residential and not-in-service)
- $dk_i$  = the number of cases where eligibility was not known

- Fourth, by age and sex

In each case, the adjustment was the ratio of the Census estimate of the population distribution to that of the sample, using weights derived in the previous iteration.<sup>11</sup>

**Design Effects and Sampling Errors.** Commonly used formulas for sampling error in most statistical software rely on simple random sampling assumptions. However, the oversampling used in this survey and the presence of differential response patterns require the use of sample weights, and the sampling error of a weighted sample is different from that of a simple random sample. Thus, the commonly used formulas will yield incorrect estimates of sampling error (standard errors, confidence intervals) for estimates and of levels of significance for tests of differences between groups of respondents.

The change in sampling error (usually an increase, but sometimes a decrease) relative to that expected from a simple random sample is called a design effect (DEFF).<sup>12</sup> We estimated design effects across subgroups for the study's main outcome variables.<sup>13</sup> We found that the design effect varied substantially, ranging from less than one for Blacks, Hispanics and residents of California to nearly two for the subgroup of respondents with a high school education or less. Tables A.2.A through A.2.F give 95 percent confidence intervals for percentages for several subgroups. Tables A.3 and A.4 give minimum differences required for observed differences in percentages to be considered statistically significant at the 5 and 10 percent levels.

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<sup>11</sup>For the first adjustment (ADJ1), we used for the sample estimate, the preliminary weight,  $(1/P_{ih}) \cdot (1/RR_c)$ . For the second adjustment (ADJ2) we used  $(1/P_{ih}) \cdot (1/RR_c) \cdot (ADJ1)$ , and 80 on.

$$^{12}DEFF = VAR_{design}/VAR_{SRS}$$

where:

$VAR_{design}$  is the (weighted) sample variance for the actual design.

$VAR_{SRS}$  is the sample variance estimated for a simple random sample of the same size.

<sup>13</sup>Estimates of design effects we computed using PROC CROSSTAB in SUDAAN, a software package developed by Research Triangle Institute.

**Net Effects of Weighting.** The use of unweighted data could lead to biased estimates. In addition, weights can introduce a design effect, or increase in sampling error relative to that of a simple random sample of the same size.

To check our hypothesis that weighting is needed for this survey, we examined several variables to determine: (1) whether a bias seemed to exist and (2) whether the use of weights increased the variance more than it decreased bias. Table A.5 shows the root mean error (RME)<sup>14</sup> and the estimated bias of using unweighted data for six key variables. All of the biases were relatively small, and one is almost negligible. However, the root mean errors are larger for the unweighted sample for five of the six variables, indicating that the weighting process is effective—it reduces bias more than it increases sampling error.

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<sup>14</sup>The Root Mean Error is the square root of the Mean Square Error (MSE), where the MSE is defined as (Sample Variance + Bias<sup>2</sup>). For the weighted estimate the RME is the standard error (the square root of the sample variance) because we assume the weighted estimate to be unbiased. For the unweighted estimate we assume no design effect on the sample variance, while for the weighted estimate we use weighted the standard errors, which incorporate any design effects.

Thus, for a percentage (p):

$$RME \text{ (Unweighted)} = \sqrt{\frac{p(100 - p)}{n - 1} + Bias^2}$$

$$RME \text{ (Weighted)} = \sqrt{\frac{p(100 - p) DEFF}{n - 1}}$$

where Bias = p(unweighted) - p(weighted)

TABLE A.2.A  
 HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES  
 (GROUP(S): COLLEGE GRADUATES)  
 ASSUMING DEFF = 1.0

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 6.9%                     |
| 300         | 3.4%                     | 4.5%                     | 5.2%                     | 5.6%                     | 5.7%                     |
| 400         | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%                     |
| 500         | 2.6%                     | 3.5%                     | 4.0%                     | 4.3%                     | 4.4%                     |
| 600         | 2.4%                     | 3.2%                     | 3.7%                     | 3.9%                     | 4.0%                     |
| 700         | 2.2%                     | 3.0%                     | 3.4%                     | 3.6%                     | 3.7%                     |
| 800         | 2.1%                     | 2.8%                     | 3.2%                     | 3.4%                     | 3.5%                     |
| 900         | 2.0%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 1000        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1100        | 1.8%                     | 2.4%                     | 2.7%                     | 2.9%                     | 3.0%                     |
| 1200        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.8%                     |
| 1300        | 1.6%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.7%                     |
| 1400        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 1500        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.5%                     |
| 1600        | 1.5%                     | 2.0%                     | 2.2%                     | 2.4%                     | 2.5%                     |
| 1700        | 1.4%                     | 1.9%                     | 2.2%                     | 2.3%                     | 2.4%                     |
| 1800        | 1.4%                     | 1.8%                     | 2.1%                     | 2.3%                     | 2.3%                     |
| 1900        | 1.3%                     | 1.8%                     | 2.1%                     | 2.2%                     | 2.2%                     |
| 2000        | 1.3%                     | 1.8%                     | 2.0%                     | 2.1%                     | 2.2%                     |
| 2100        | 1.3%                     | 1.7%                     | 2.0%                     | 2.1%                     | 2.1%                     |
| 2200        | 1.3%                     | 1.7%                     | 1.9%                     | 2.0%                     | 2.1%                     |
| 2300        | 1.2%                     | 1.6%                     | 1.9%                     | 2.0%                     | 2.0%                     |
| 2400        | 1.2%                     | 1.6%                     | 1.8%                     | 2.0%                     | 2.0%                     |



TABLE A.2.B

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): AFRICAN AMERICANS, HISPANICS, CALIFORNIA)

ASSUMING DEFF = 0.8

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 3.7%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.2%                     |
| 300         | 3.0%                     | 4.1%                     | 4.6%                     | 5.0%                     | 5.1%                     |
| 400         | 2.6%                     | 3.5%                     | 4.0%                     | 4.3%                     | 4.4%                     |
| 500         | 2.4%                     | 3.1%                     | 3.6%                     | 3.8%                     | 3.9%                     |
| 600         | 2.1%                     | 2.9%                     | 3.3%                     | 3.5%                     | 3.6%                     |
| 700         | 2.0%                     | 2.7%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 800         | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 900         | 1.8%                     | 2.3%                     | 2.7%                     | 2.9%                     | 2.9%                     |
| 1000        | 1.7%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.8%                     |
| 1100        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 1200        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.5%                     |
| 1300        | 1.5%                     | 1.9%                     | 2.2%                     | 2.4%                     | 2.4%                     |
| 1400        | 1.4%                     | 1.9%                     | 2.1%                     | 2.3%                     | 2.3%                     |
| 1500        | 1.4%                     | 1.8%                     | 2.1%                     | 2.2%                     | 2.3%                     |
| 1600        | 1.3%                     | 1.8%                     | 2.0%                     | 2.1%                     | 2.2%                     |
| 1700        | 1.3%                     | 1.7%                     | 1.9%                     | 2.1%                     | 2.1%                     |
| 1800        | 1.2%                     | 1.7%                     | 1.9%                     | 2.0%                     | 2.1%                     |
| 1900        | 1.2%                     | 1.6%                     | 1.8%                     | 2.0%                     | 2.0%                     |
| 2000        | 1.2%                     | 1.6%                     | 1.8%                     | 1.9%                     | 2.0%                     |
| 2100        | 1.1%                     | 1.5%                     | 1.8%                     | 1.9%                     | 1.9%                     |
| 2200        | 1.1%                     | 1.5%                     | 1.7%                     | 1.8%                     | 1.9%                     |
| 2300        | 1.1%                     | 1.5%                     | 1.7%                     | 1.8%                     | 1.8%                     |
| 2400        | 1.1%                     | 1.4%                     | 1.6%                     | 1.8%                     | 1.8%                     |

TABLE A.2.C

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): WOMEN, THOSE WITH SOME COLLEGE)

ASSUMING DEFF = 1.3

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 4.8%                     | 6.3%                     | 7.3%                     | 7.8%                     | 7.9%                     |
| 300         | 3.9%                     | 5.2%                     | 5.9%                     | 6.3%                     | 6.5%                     |
| 400         | 3.4%                     | 4.5%                     | 5.1%                     | 5.5%                     | 5.6%                     |
| 500         | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%                     |
| 600         | 2.7%                     | 3.7%                     | 4.2%                     | 4.5%                     | 4.6%                     |
| 700         | 2.5%                     | 3.4%                     | 3.9%                     | 4.1%                     | 4.2%                     |
| 800         | 2.4%                     | 3.2%                     | 3.6%                     | 3.9%                     | 4.0%                     |
| 900         | 2.2%                     | 3.0%                     | 3.4%                     | 3.7%                     | 3.7%                     |
| 1000        | 2.1%                     | 2.8%                     | 3.2%                     | 3.5%                     | 3.5%                     |
| 1100        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.4%                     |
| 1200        | 1.9%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.2%                     |
| 1300        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1400        | 1.8%                     | 2.4%                     | 2.7%                     | 2.9%                     | 3.0%                     |
| 1500        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.9%                     |
| 1600        | 1.7%                     | 2.2%                     | 2.6%                     | 2.7%                     | 2.8%                     |
| 1700        | 1.6%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.7%                     |
| 1800        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 1900        | 1.5%                     | 2.1%                     | 2.4%                     | 2.5%                     | 2.6%                     |
| 2000        | 1.5%                     | 2.0%                     | 2.3%                     | 2.4%                     | 2.5%                     |
| 2100        | 1.5%                     | 2.0%                     | 2.2%                     | 2.4%                     | 2.4%                     |
| 2200        | 1.4%                     | 1.9%                     | 2.2%                     | 2.3%                     | 2.4%                     |
| 2300        | 1.4%                     | 1.9%                     | 2.1%                     | 2.3%                     | 2.3%                     |
| 2400        | 1.4%                     | 1.8%                     | 2.1%                     | 2.2%                     | 2.3%                     |

TABLE A.2.D

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): TOTAL SAMPLE, INCOME \$50K AND UP, GROUPS NOT SPECIFIED)

ASSUMING DEFF = 1.5

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 5.1%                     | 6.8%                     | 7.8%                     | 8.3%                     | 8.5%                     |
| 300         | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 6.9%                     |
| 400         | 3.6%                     | 4.8%                     | 5.5%                     | 5.9%                     | 6.0%                     |
| 500         | 3.2%                     | 4.3%                     | 4.9%                     | 5.3%                     | 5.4%                     |
| 600         | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%                     |
| 700         | 2.7%                     | 3.6%                     | 4.2%                     | 4.4%                     | 4.5%                     |
| 800         | 2.5%                     | 3.4%                     | 3.9%                     | 4.2%                     | 4.2%                     |
| 900         | 2.4%                     | 3.2%                     | 3.7%                     | 3.9%                     | 4.0%                     |
| 1000        | 2.3%                     | 3.0%                     | 3.5%                     | 3.7%                     | 3.8%                     |
| 1100        | 2.2%                     | 2.9%                     | 3.3%                     | 3.5%                     | 3.6%                     |
| 1200        | 2.1%                     | 2.8%                     | 3.2%                     | 3.4%                     | 3.5%                     |
| 1300        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.3%                     |
| 1400        | 1.9%                     | 2.6%                     | 2.9%                     | 3.1%                     | 3.2%                     |
| 1500        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1600        | 1.8%                     | 2.4%                     | 2.8%                     | 2.9%                     | 3.0%                     |
| 1700        | 1.7%                     | 2.3%                     | 2.7%                     | 2.9%                     | 2.9%                     |
| 1800        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.8%                     |
| 1900        | 1.7%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.8%                     |
| 2000        | 1.6%                     | 2.1%                     | 2.5%                     | 2.6%                     | 2.7%                     |
| 2100        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 2200        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.6%                     |
| 2300        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.5%                     |
| 2400        | 1.5%                     | 2.0%                     | 2.2%                     | 2.4%                     | 2.5%                     |

TABLE A.2.E

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): MEN, WHITES, INCOME LESS THAN \$50K, NON-CALIFORNIA)

ASSUMING DEFF = 1.7

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 5.4%                     | 7.2%                     | 8.3%                     | 8.9%                     | 9.1%                     |
| 300         | 4.4%                     | 5.9%                     | 6.8%                     | 7.2%                     | 7.4%                     |
| 400         | 3.8%                     | 5.1%                     | 5.9%                     | 6.3%                     | 6.4%                     |
| 500         | 3.4%                     | 4.6%                     | 5.2%                     | 5.6%                     | 5.7%                     |
| 600         | 3.1%                     | 4.2%                     | 4.8%                     | 5.1%                     | 5.2%                     |
| 700         | 2.9%                     | 3.9%                     | 4.4%                     | 4.7%                     | 4.8%                     |
| 800         | 2.7%                     | 3.6%                     | 4.1%                     | 4.4%                     | 4.5%                     |
| 900         | 2.6%                     | 3.4%                     | 3.9%                     | 4.2%                     | 4.3%                     |
| 1000        | 2.4%                     | 3.2%                     | 3.7%                     | 4.0%                     | 4.0%                     |
| 1100        | 2.3%                     | 3.1%                     | 3.5%                     | 3.8%                     | 3.9%                     |
| 1200        | 2.2%                     | 3.0%                     | 3.4%                     | 3.6%                     | 3.7%                     |
| 1300        | 2.1%                     | 2.8%                     | 3.2%                     | 3.5%                     | 3.5%                     |
| 1400        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.4%                     |
| 1500        | 2.0%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 1600        | 1.9%                     | 2.6%                     | 2.9%                     | 3.1%                     | 3.2%                     |
| 1700        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1800        | 1.8%                     | 2.4%                     | 2.8%                     | 3.0%                     | 3.0%                     |
| 1900        | 1.8%                     | 2.3%                     | 2.7%                     | 2.9%                     | 2.9%                     |
| 2000        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.9%                     |
| 2100        | 1.7%                     | 2.2%                     | 2.6%                     | 2.7%                     | 2.8%                     |
| 2200        | 1.6%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.7%                     |
| 2300        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.7%                     |
| 2400        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |

TABLE A.2.F

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): THOSE WITH HIGH SCHOOL OR LESS)

ASSUMING DEFF = 2.0

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 5.9%                     | 7.9%                     | 9.0%                     | 9.6%                     | 9.8%                     |
| 300         | 4.8%                     | 6.4%                     | 7.3%                     | 7.9%                     | 8.0%                     |
| 400         | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 6.9%                     |
| 500         | 3.7%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.2%                     |
| 600         | 3.4%                     | 4.5%                     | 5.2%                     | 5.5%                     | 5.7%                     |
| 700         | 3.1%                     | 4.2%                     | 4.8%                     | 5.1%                     | 5.2%                     |
| 800         | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%                     |
| 900         | 2.8%                     | 3.7%                     | 4.2%                     | 4.5%                     | 4.6%                     |
| 1000        | 2.6%                     | 3.5%                     | 4.0%                     | 4.3%                     | 4.4%                     |
| 1100        | 2.5%                     | 3.3%                     | 3.8%                     | 4.1%                     | 4.2%                     |
| 1200        | 2.4%                     | 3.2%                     | 3.7%                     | 3.9%                     | 4.0%                     |
| 1300        | 2.3%                     | 3.1%                     | 3.5%                     | 3.8%                     | 3.8%                     |
| 1400        | 2.2%                     | 3.0%                     | 3.4%                     | 3.6%                     | 3.7%                     |
| 1500        | 2.1%                     | 2.9%                     | 3.3%                     | 3.5%                     | 3.6%                     |
| 1600        | 2.1%                     | 2.8%                     | 3.2%                     | 3.4%                     | 3.5%                     |
| 1700        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.4%                     |
| 1800        | 2.0%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 1900        | 1.9%                     | 2.5%                     | 2.9%                     | 3.1%                     | 3.2%                     |
| 2000        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 2100        | 1.8%                     | 2.4%                     | 2.8%                     | 3.0%                     | 3.0%                     |
| 2200        | 1.8%                     | 2.4%                     | 2.7%                     | 2.9%                     | 3.0%                     |
| 2300        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.9%                     |
| 2400        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.8%                     |

TABLE A.3  
MINIMUM DIFFERENCES REQUIRED FOR COMPARISONS  
BETWEEN GROUPS OF PERCENTAGES (P)  
WITH ALPHA = 0.05, 2 TAIL TEST

| Groups Being Compared |                             | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|-----------------------|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>SEX</b>            |                             |                          |                          |                          |                          |              |
| A1                    | Men, Women                  | 3.1%                     | 4.1%                     | 4.7%                     | 5.0%                     | 5.1%         |
| <b>AGE</b>            |                             |                          |                          |                          |                          |              |
| B1                    | 18-24, 25-34                | 5.5%                     | 7.3%                     | 8.3%                     | 8.9%                     | 9.1%         |
| B2                    | 18-24, 35-54                | 5.1%                     | 6.9%                     | 7.9%                     | 8.4%                     | 8.6%         |
| B3                    | 18-24, 55+                  | 5.6%                     | 7.5%                     | 8.6%                     | 9.2%                     | 9.4%         |
| B4                    | 25-34, 35-54                | 3.8%                     | 5.1%                     | 5.8%                     | 6.2%                     | 6.4%         |
| B5                    | 25-34, 55+                  | 4.4%                     | 5.9%                     | 6.8%                     | 7.2%                     | 7.4%         |
| B6                    | 35-54, 55+                  | 4.0%                     | 5.4%                     | 6.2%                     | 6.6%                     | 6.7%         |
| <b>ETHNICITY</b>      |                             |                          |                          |                          |                          |              |
| C1                    | White, Black                | 3.2%                     | 4.2%                     | 4.8%                     | 5.2%                     | 5.3%         |
| C2                    | White, Hispanic             | 3.4%                     | 4.5%                     | 5.1%                     | 5.5%                     | 5.6%         |
| C3                    | Black, Hispanic             | 3.5%                     | 4.7%                     | 5.4%                     | 5.8%                     | 5.9%         |
| <b>HAVE CHILDREN</b>  |                             |                          |                          |                          |                          |              |
| D1                    | Yes, No                     | 3.2%                     | 4.2%                     | 4.8%                     | 5.2%                     | 5.3%         |
| <b>EDUCATION</b>      |                             |                          |                          |                          |                          |              |
| E1                    | HS or Less, Some College    | 3.7%                     | 4.9%                     | 5.6%                     | 6.0%                     | 6.1%         |
| E2                    | HS or Less, College Grad.   | 3.5%                     | 4.6%                     | 5.3%                     | 5.7%                     | 5.8%         |
| E3                    | Some College, College Grad. | 3.5%                     | 4.7%                     | 5.3%                     | 5.7%                     | 5.8%         |
| <b>OCCUPATION</b>     |                             |                          |                          |                          |                          |              |
| F1                    | Professional, Clerical      | 4.7%                     | 6.3%                     | 7.2%                     | 7.7%                     | 7.9%         |
| F2                    | Professional, Blue Collar   | 4.3%                     | 5.8%                     | 6.6%                     | 7.0%                     | 7.2%         |
| F3                    | Professional, NLF           | 3.8%                     | 5.1%                     | 5.9%                     | 6.3%                     | 6.4%         |
| F4                    | Clerical, Blue Collar       | 4.9%                     | 6.6%                     | 7.5%                     | 8.0%                     | 8.2%         |
| F5                    | Clerical, NLF               | 4.5%                     | 6.0%                     | 6.9%                     | 7.4%                     | 7.5%         |
| F6                    | Blue Collar, NLF            | 4.1%                     | 5.5%                     | 6.2%                     | 6.7%                     | 6.8%         |
| <b>IDEOLOGY</b>       |                             |                          |                          |                          |                          |              |
| G1                    | Liberal, Moderate           | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 7.0%         |
| G2                    | Liberal, Conservative       | 4.1%                     | 5.4%                     | 6.2%                     | 6.6%                     | 6.8%         |
| G3                    | Moderate, Conservative      | 3.6%                     | 4.8%                     | 5.5%                     | 5.8%                     | 6.0%         |

TABLE A.3 (continued)

| Groups Being Compared        |                                  | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|------------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>POLITICAL AFFILIATION</b> |                                  |                          |                          |                          |                          |              |
| H1                           | Democrat, Rep. Or Ind.           | 3.8%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.3%         |
| H2                           | Republican, Independent          | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 7.0%         |
| <b>POLITICAL ACTIVITY</b>    |                                  |                          |                          |                          |                          |              |
| I1                           | Campaign, Contribute             | 5.2%                     | 6.9%                     | 8.0%                     | 8.5%                     | 8.7%         |
| I2                           | Campaign, Vote                   | 4.9%                     | 6.6%                     | 7.5%                     | 8.1%                     | 8.2%         |
| I3                           | Contribute, Vote                 | 3.8%                     | 5.0%                     | 5.8%                     | 6.1%                     | 6.3%         |
| <b>TOBACCO USE</b>           |                                  |                          |                          |                          |                          |              |
| J1                           | None in HH, Any Other Group      | 4.7%                     | 6.3%                     | 7.2%                     | 7.7%                     | 7.9%         |
| J2                           | Any Other Two Groups             | 6.1%                     | 8.2%                     | 9.4%                     | 10.0%                    | 10.2%        |
| J3                           | Smokers, Non-Smokers             | 3.5%                     | 4.7%                     | 5.3%                     | 5.7%                     | 5.8%         |
| <b>LOST FAMILY MEMBER</b>    |                                  |                          |                          |                          |                          |              |
| K1                           | Yes, No                          | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%         |
| <b>GEOGRAPHIC</b>            |                                  |                          |                          |                          |                          |              |
| L1                           | California, Rest of U.S.         | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%         |
| <b>REGION</b>                |                                  |                          |                          |                          |                          |              |
| M1                           | Northeast, Midwest               | 5.0%                     | 6.6%                     | 7.6%                     | 8.1%                     | 8.3%         |
| M2                           | Northeast, South                 | 4.5%                     | 6.0%                     | 6.9%                     | 7.4%                     | 7.5%         |
| M3                           | Northeast, West                  | 4.5%                     | 6.0%                     | 6.8%                     | 7.3%                     | 7.5%         |
| M4                           | Midwest, South                   | 4.3%                     | 5.7%                     | 6.5%                     | 7.0%                     | 7.1%         |
| M5                           | Midwest, West                    | 4.2%                     | 5.7%                     | 6.5%                     | 6.9%                     | 7.1%         |
| M6                           | South, West                      | 3.7%                     | 4.9%                     | 5.6%                     | 6.0%                     | 6.2%         |
| <b>IDEOLOGY BY PARTY</b>     |                                  |                          |                          |                          |                          |              |
| N1                           | Liberals: Democrats, Others      | 6.7%                     | 8.9%                     | 10.2%                    | 10.9%                    | 11.1%        |
| N2                           | Moderates: Democrats, Others     | 5.5%                     | 7.4%                     | 8.4%                     | 9.0%                     | 9.2%         |
| N3                           | Conservatives: Democrats, Others | 5.3%                     | 7.1%                     | 8.1%                     | 8.7%                     | 8.9%         |

TABLE A.4  
MINIMUM DIFFERENCES REQUIRED FOR COMPARISONS  
BETWEEN GROUPS OF PERCENTAGES (P)  
WITH ALPHA = 0.10, 2 TAIL TEST

| Groups Being Compared |                             | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|-----------------------|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>SEX</b>            |                             |                          |                          |                          |                          |              |
| A1                    | Men, Women                  | 2.6%                     | 3.4%                     | 3.9%                     | 4.2%                     | 4.3%         |
| <b>AGE</b>            |                             |                          |                          |                          |                          |              |
| B1                    | 18-24, 25-34                | 4.6%                     | 6.1%                     | 7.0%                     | 7.5%                     | 7.6%         |
| B2                    | 18-24, 35-54                | 4.3%                     | 5.8%                     | 6.6%                     | 7.1%                     | 7.2%         |
| B3                    | 18-24, 55+                  | 4.7%                     | 6.3%                     | 7.2%                     | 7.7%                     | 7.9%         |
| B4                    | 25-34, 35-54                | 3.2%                     | 4.3%                     | 4.9%                     | 5.2%                     | 5.3%         |
| B5                    | 25-34, 55+                  | 3.7%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.2%         |
| B6                    | 35-54, 55+                  | 3.4%                     | 4.5%                     | 5.2%                     | 5.5%                     | 5.6%         |
| <b>ETHNICITY</b>      |                             |                          |                          |                          |                          |              |
| C1                    | White, Black                | 2.7%                     | 3.6%                     | 4.1%                     | 4.4%                     | 4.4%         |
| C2                    | White, Hispanic             | 2.8%                     | 3.8%                     | 4.3%                     | 4.6%                     | 4.7%         |
| C3                    | Black, Hispanic             | 3.0%                     | 4.0%                     | 4.5%                     | 4.9%                     | 5.0%         |
| <b>HAVE CHILDREN</b>  |                             |                          |                          |                          |                          |              |
| D1                    | Yes, No                     | 2.7%                     | 3.6%                     | 4.1%                     | 4.3%                     | 4.4%         |
| <b>EDUCATION</b>      |                             |                          |                          |                          |                          |              |
| E1                    | HS or Less, Some College    | 3.1%                     | 4.1%                     | 4.7%                     | 5.0%                     | 5.1%         |
| E2                    | HS or Less, College Grad.   | 2.9%                     | 3.9%                     | 4.4%                     | 4.8%                     | 4.9%         |
| E3                    | Some College, College Grad. | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%         |
| <b>OCCUPATION</b>     |                             |                          |                          |                          |                          |              |
| F1                    | Professional, Clerical      | 4.0%                     | 5.3%                     | 6.0%                     | 6.5%                     | 6.6%         |
| F2                    | Professional, Blue Collar   | 3.6%                     | 4.8%                     | 5.5%                     | 5.9%                     | 6.0%         |
| F3                    | Professional, NLF           | 3.2%                     | 4.3%                     | 4.9%                     | 5.3%                     | 5.4%         |
| F4                    | Clerical, Blue Collar       | 4.1%                     | 5.5%                     | 6.3%                     | 6.7%                     | 6.9%         |
| F5                    | Clerical, NLF               | 3.8%                     | 5.0%                     | 5.8%                     | 6.2%                     | 6.3%         |
| F6                    | Blue Collar, NLF            | 3.4%                     | 4.6%                     | 5.2%                     | 5.6%                     | 5.7%         |
| <b>IDEOLOGY</b>       |                             |                          |                          |                          |                          |              |
| G1                    | Liberal, Moderate           | 3.5%                     | 4.7%                     | 5.4%                     | 5.7%                     | 5.8%         |
| G2                    | Liberal, Conservative       | 3.4%                     | 4.6%                     | 5.2%                     | 5.6%                     | 5.7%         |
| G3                    | Moderate, Conservative      | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%         |



TABLE A.4 (continued)

| Groups Being Compared            |                                     | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|----------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>POLITICAL<br/>AFFILIATION</b> |                                     |                          |                          |                          |                          |              |
| H1                               | Democrat, Rep. Or Ind.              | 3.2%                     | 4.2%                     | 4.8%                     | 5.1%                     | 5.3%         |
| H2                               | Republican, Independent             | 3.5%                     | 4.7%                     | 5.4%                     | 5.7%                     | 5.9%         |
| <b>POLITICAL<br/>ACTIVITY</b>    |                                     |                          |                          |                          |                          |              |
| I1                               | Campaign, Contribute                | 4.4%                     | 5.8%                     | 6.7%                     | 7.1%                     | 7.3%         |
| I2                               | Campaign, Vote                      | 4.1%                     | 5.5%                     | 6.3%                     | 6.8%                     | 6.9%         |
| I3                               | Contribute, Vote                    | 3.2%                     | 4.2%                     | 4.8%                     | 5.2%                     | 5.3%         |
| <b>TOBACCO USE</b>               |                                     |                          |                          |                          |                          |              |
| J1                               | None in HH, Any Other<br>Group      | 4.0%                     | 5.3%                     | 6.1%                     | 6.5%                     | 6.6%         |
| J2                               | Any Other Two Groups                | 5.2%                     | 6.9%                     | 7.9%                     | 8.4%                     | 8.6%         |
| J3                               | Smokers, Non-Smokers                | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%         |
| <b>LOST FAMILY<br/>MEMBER</b>    |                                     |                          |                          |                          |                          |              |
| K1                               | Yes, No                             | 2.5%                     | 3.4%                     | 3.9%                     | 4.1%                     | 4.2%         |
| <b>GEOGRAPHIC</b>                |                                     |                          |                          |                          |                          |              |
| L1                               | California, Rest of U.S.            | 2.5%                     | 3.4%                     | 3.9%                     | 4.1%                     | 4.2%         |
| <b>REGION</b>                    |                                     |                          |                          |                          |                          |              |
| M1                               | Northeast, Midwest                  | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 7.0%         |
| M2                               | Northeast, South                    | 3.8%                     | 5.0%                     | 5.8%                     | 6.2%                     | 6.3%         |
| M3                               | Northeast, West                     | 3.8%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.3%         |
| M4                               | Midwest, South                      | 3.6%                     | 4.8%                     | 5.5%                     | 5.9%                     | 6.0%         |
| M5                               | Midwest, West                       | 3.6%                     | 4.7%                     | 5.4%                     | 5.8%                     | 5.9%         |
| M6                               | South, West                         | 3.1%                     | 4.1%                     | 4.7%                     | 5.1%                     | 5.2%         |
| <b>IDEOLOGY BY<br/>PARTY</b>     |                                     |                          |                          |                          |                          |              |
| N1                               | Liberals: Democrats, Others         | 5.6%                     | 7.5%                     | 8.6%                     | 9.2%                     | 9.4%         |
| N2                               | Moderates: Democrats, Others        | 4.6%                     | 6.2%                     | 7.1%                     | 7.6%                     | 7.7%         |
| N3                               | Conservatives: Democrats,<br>Others | 4.5%                     | 5.9%                     | 6.8%                     | 7.3%                     | 7.4%         |

TABLE A.5  
ROOT MEAN ERROR (RME) FOR SELECTED VARIABLES (PERCENTAGES)

| Question | Variable                                                                | Unweighted<br>RME | Weighted<br>RME | Bias of Unweighted<br>Estimate |
|----------|-------------------------------------------------------------------------|-------------------|-----------------|--------------------------------|
| A2       | Sale of cigarettes in vending machines<br>should be allowed             | 1.80              | 1.11            | -1.56                          |
| A3       | Cigarette machines accessible to kids<br>should be allowed <sup>b</sup> | 1.34              | 2.33            | -0.20                          |
| A4       | Favor checking ID for cigarette sales                                   | 0.91              | 0.56            | -0.74                          |
| A5       | Retailers have right to display<br>tobacco products where they want     | 1.99              | 1.08            | -1.81                          |
| A9       | Allow billboard advertising                                             | 2.29              | 1.28            | -2.05                          |
| A10      | Allow newspaper advertising                                             | 1.64              | 1.30            | -1.27                          |

<sup>b</sup>Only those responding "allowed" to QA2 were asked QA3.

**APPENDIX B**  
**SURVEY INSTRUMENT**  
**(ENGLISH VERSION)**

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LIMITS TO ACCESS, ADVERTISING, AND PROMOTIONS

>thes< [allow 9]

>else< [allow 4]

>s< [allow 1]

>ss< [allow 1]

>a1< First, in your opinion, how easy is it for kids to buy cigarettes and other tobacco products in your community--very easy, somewhat easy, somewhat difficult, or very difficult?

<1> VERY EASY

<2> SOMEWHAT EASY

<3> SOMEWHAT DIFFICULT

<4> VERY DIFFICULT

<8> DON'T KNOW

<9> REFUSED

===>

>a2< Next, I am going to ask for your opinion about several proposals intended to make it more difficult for kids to get cigarettes.

Do you think the sale of cigarettes in vending machines should be allowed or banned?

<1> ALLOWED

<2> BANNED [goto a4]

<8> DON'T KNOW

<9> REFUSED

===>

>a3< Do you think cigarette vending machines which are accessible to kids should be allowed or banned?

<1> ALLOWED

<2> BANNED

<8> DON'T KNOW

<9> REFUSED

===>

>a4< Do you favor or oppose requiring store clerks to check the IDs of anyone appearing to be under age before selling them cigarettes or smokeless tobacco, just as they do with alcohol?

<1> FAVOR

<2> OPPOSE

<8> DON'T KNOW

<9> REFUSED

===>

>ta5< [if RAN2 eq <2> goto A5]

>a5< Which of the following statements do you agree with?

<1> Retailers have the right to display tobacco products  
wherever they want.

<2> Retailers should keep all tobacco products behind the  
counter to prevent shoplifting by minors.

<8> DON'T KNOW

<9> REFUSED

===>[goto a6]

>A5< Which of the following statements do you agree with?  
[equiv a5]

<2> Retailers should keep all tobacco products behind the  
counter to prevent shoplifting by minors.

<1> Retailers have the right to display tobacco products  
wherever they want.

<8> DON'T KNOW

<9> REFUSED

===>

>a6< Do you favor or oppose allowing the sale of cigarettes only  
in certain stores, just as is done with alcohol?

<1> FAVOR

<2> OPPOSE

<8> DON'T KNOW

<9> REFUSED

===>

>a8a< Research has shown that most adult smokers begin smoking before  
they are 21. Do you think that restricting the sale of cigarettes  
to people 21 and older will help reduce the number of kids under  
21 who begin smoking?

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

===>

>a8b< Do you think that restricting the sale of cigarettes to people 19 and older will help reduce the number of kids in high school who begin smoking?

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

===>

>a9< Cigarette companies currently use many different advertising and promotion methods. I am going to ask for your opinion concerning several proposals designed to restrict promotions or advertisements that may encourage kids to smoke.

Should advertising of tobacco products on billboards be allowed or banned?

<1> ALLOWED

<2> BANNED

<8> DON'T KNOW

<9> REFUSED

===>

>a10< Should advertising of tobacco products through newspapers and magazines be allowed or banned?

<1> ALLOWED

<2> BANNED

<8> DON'T KNOW

<9> REFUSED

===>

>a11< Assuming that tobacco advertising is not banned, do you think limiting tobacco ads to words only, with pictures and cartoons prohibited, would make smoking less appealing to kids?

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

===>

>a13< Plain packaging of cigarettes and smokeless products would

mean that the package would include only the brand name and warning label in black letters against a white background. To make cigarettes appear less attractive to kids, should tobacco companies be required to use plain packaging for their products or should plain packaging not be required?

<1> YES, REQUIRED  
<0> NO, NOT REQUIRED

<8> DON'T KNOW  
<9> REFUSED

===>

>a14< Should tobacco companies be allowed to include coupons in cigarette packs that can be used to obtain promotional items appealing to kids, such as hats, tee shirts, jackets, or caps, or should this not be allowed?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

===>

>a15< Coupon promotions make it possible for anyone, regardless of age, to obtain free cigarettes by mail. Should coupon promotions be allowed or not allowed?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

===>

>a16< Should the sale of single cigarettes be allowed or not?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

===>

>a17< Should the distribution of free cigarettes on public streets be allowed or not?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

==>

>a18< Cigarette advertising on television is illegal. However, cigarette brand names are often seen on TV sports or other entertainment events that kids watch. Should tobacco companies be allowed to sponsor sporting or entertainment events, where their brand names are featured, or not?

PROBE: Examples of these events are the Virginia Slims tennis tournament and the Marlboro Racing Team.

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

==>

>a19< Should tobacco companies be allowed to pay to show their products in movies or videos or not?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

==>

#### TOBACCO USE AND SMOKING CESSATION

>a20< The next few questions are about tobacco use.

Have you smoked at least 100 cigarettes in your entire life?

<1> YES [goto a21]  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

==> [goto a22]

>a21< Do you now smoke cigarettes every day, some days, or not at all?

<1> EVERY DAY



<2> SOME DAYS  
<3> NOT AT ALL

<8> DON'T KNOW  
<9> REFUSED

====>

>a22< Do you use pipes, cigars, chewing tobacco,  
or snuff on a regular basis?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>

>ta23< [store <> in else]  
[if a21 ge <1>] [if a21 le <2>] [store <else> in else] [endif] [endif]  
[if a22 eq <1>] [store <else> in else] [endif]

>a23< Does anyone [fill else] in your household smoke?

<1> YES  
<0> NO  
<7> NOT APPLICABLE/ONE PERSON HOUSEHOLD[goto ta26]

<8> DON'T KNOW  
<9> REFUSED

====>

>a24< Are there any children under the age of 18 currently  
living in your household?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>

>ta25< [if a23 eq <1>] [if a24 eq <1> goto a25] [endif]  
[goto ta26]  
IF Q.28 = 1 and Q. 29=1, ASK 30; ELSE GOTO A.31

>a25< Does any household member under the age of 18 smoke?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>

>ta26< [if a21 eq <1> goto a26]  
[if a21 eq <2> goto a26]  
[if a22 eq <1> goto a26]  
[goto a29]

>a26< Are you planning to quit smoking or using chewing tobacco or snuff  
in the next six months?

<1> YES[goto a29]  
<0> NO

<8> DON'T KNOW  
<9> REFUSED[goto a29]  
====>

>a27< How likely are you to quit smoking or using chewing tobacco or snuff  
in the next five years-- very likely, somewhat likely, somewhat  
unlikely, very unlikely?

<1> VERY LIKELY  
<2> SOMEWHAT LIKELY  
<3> SOMEWHAT UNLIKELY  
<4> VERY UNLIKELY

<8> DON'T KNOW  
<9> REFUSED  
====>

>a29< Do you personally think nicotine in cigarettes is addicting  
or is not addicting?

<1> YES, ADDICTING  
<0> NO, NOT ADDICTING

<8> DON'T KNOW  
<9> REFUSED

====>

#### NICOTINE AND SMOKING CESSATION POLICIES

>a30< Have you seen or heard anything in the last six months  
about tobacco companies and the amount of nicotine in cigarettes?

<1> YES [goto a30a]  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

===>[goto a31]

>a30a< What do you recall reading or hearing about nicotine?

TYPE <1> TO SPECIFY AND END WITH ///[specify]

<8> DON'T KNOW  
<9> REFUSED

===>

>a31< Do you believe that cigarette companies deliberately adjust nicotine levels to keep smokers addicted to cigarettes or do you believe that cigarette companies do not deliberately do this?

<1> DELIBERATELY ADJUST NICOTINE  
<2> DO NOT DELIBERATELY DO THIS

<8> DON'T KNOW  
<9> REFUSED

===>

>a32a< Now I am going to mention a couple of proposals to help people who want to quit smoking. Please tell me whether you favor or oppose each one of these proposals.

Requiring tobacco companies to gradually reduce the amount of nicotine in cigarettes.

PROBE: Which way are you leaning?

<1> FAVOR  
<2> OPPOSE

<8> DON'T KNOW  
<9> REFUSED

===>

>a32b< Requiring insurance companies to cover the cost of programs to quit smoking.

PROBE: Which way are you leaning?

<1> FAVOR  
<2> OPPOSE

<8> DON'T KNOW  
<9> REFUSED

====>

>a34< Next, I am going to read two arguments that have been made in [r]favor[n] of regulating cigarettes. Please tell me whether you agree or disagree with each statement.

TYPE <g> TO CONTINUE====>

>ta34< [if RAN2 eq <2> goto a34b]  
ROTATE

>a34a< Tobacco companies should be required to list additives on package labels the way food and drug companies are required to list ingredients.

<1> AGREE  
<2> DISAGREE

<8> DON'T KNOW  
<9> REFUSED

====>

>t34b< [if RAN2 eq <2> goto a40]

>a34b< Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes.

<1> AGREE  
<2> DISAGREE

<8> DON'T KNOW  
<9> REFUSED

====>

>t34c< [if RAN2 eq <2> goto a34a]

>a40< To the best of your knowledge, have you ever lost a family member or close friend to diseases caused by smoking?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>



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DEMOGRAPHICS

>e1< CODE SEX OF RESPONDENT WITHOUT ASKING UNLESS UNSURE

- <1> MALE
- <2> FEMALE

===>

>e3< Now some final questions for classification purposes. In which category does your age fall?

READ CATEGORIES

- <1> 18 to 24
- <2> 25 to 34
- <3> 35 to 44
- <4> 45 to 54
- <5> 55 to 64
- <6> 65 or older

- <8> DON'T KNOW
- <9> REFUSED

===>

>e4< What is the last grade or level of school you have completed?

INTERVIEWER: READ LIST

- <1> Less than high school (grades 1-11)
- <2> High school graduate (grade 12)
- <3> Some college (grades 13-15)
- <4> College graduate

- <8> DON'T KNOW
- <9> REFUSED

===>

>e5< Are you now married, not married but living with a partner, widowed, divorced, separated, or have you never been married?

INTERVIEWER: MARK RESPONSE WITH THE SMALLEST NUMBER THAT APPLIES

- <1> Married
- <2> Living with a partner
- <3> Widowed
- <4> Divorced/Annulled
- <5> Separated
- <6> Never married

- <8> DON'T KNOW

<9> REFUSED

===>

>e6< Which of the following categories [r]best[n] describes your present situation? Are you . . .

PROBE: REPEAT QUESTION EMPHASIZING "best"

<1> Retired

<2> A student (INCLUDES PERSONS WHO WORK TO PAY FOR SCHOOL)

<3> A homemaker (NOT EMPLOYED OUTSIDE THE HOME)

<4> Currently employed, or [goto e7]

<5> Currently unemployed, laid off, or looking for work? [goto e7]

<8> DON'T KNOW

<9> REFUSED

===> [goto e9]

>e7< Which of the following categories best describes your current or most recent job or occupation?

<1> Professional, administrative, or executive

<2> Clerical, administrative support, sales, or technical

<3> Crafts, trades, factory work, service, or labor

<8> DON'T KNOW/CANNOT BE CLASSIFIED

<9> REFUSED

===>

>e9< When it comes to most political issues, do you think of yourself as a liberal, a moderate, or a conservative?

<1> LIBERAL

<2> MODERATE

<3> CONSERVATIVE

<8> DON'T KNOW

<9> REFUSED

===>

>e10< And do you think of yourself as a Democrat, an Independent, or a Republican?

<1> DEMOCRAT

<2> INDEPENDENT

<3> REPUBLICAN

<4> OTHER (SPECIFY) [specify]

<8> DON'T KNOW

<9> REFUSED

====>

>e11< I will now read a list of political activities. Please tell me if you have done that particular activity at least once during the past two years.

Have you...

CODE ALL THAT APPLY.

[r] [fill e11a:1] [n] <1> voted, [goto e11a]  
[r] [fill e11b:1] [n] <2> written a letter to a politician, [goto e11b]  
[r] [fill e11c:1] [n] <3> contributed money to a candidate, [goto e11c]  
[r] [fill e11d:1] [n] <4> worked on a campaign such as stuffing letters or [goto e11d]  
putting up signs, or  
[r] [fill e11e:1] [n] <5> been a candidate for a political office? [goto e11e]

<n> NONE OF THE ABOVE/NO OTHER RESPONSE

<x> DELETE A RESPONSE [goto E11]

<8> DON'T KNOW

<9> REFUSED

====> [goto e12]

>e11a< [allow 1] [store <1> in e11a] [store <> in e11] [goto e11]  
>e11b< [allow 1] [store <2> in e11b] [store <> in e11] [goto e11]  
>e11c< [allow 1] [store <3> in e11c] [store <> in e11] [goto e11]  
>e11d< [allow 1] [store <4> in e11d] [store <> in e11] [goto e11]  
>e11e< [allow 1] [store <5> in e11e] [store <> in e11] [goto e11]

>E11< THIS SCREEN IS TO DELETE A RESPONSE.

[r] [fill e11a:1] [n] <1> voted, [goto e11A]  
[r] [fill e11b:1] [n] <2> written a letter to a politician, [goto e11B]  
[r] [fill e11c:1] [n] <3> contributed money to a candidate, [goto e11C]  
[r] [fill e11d:1] [n] <4> worked on a campaign such as stuffing letters or [goto e11D]  
putting up signs, or  
[r] [fill e11e:1] [n] <5> been a candidate for a political office? [goto e11E]

====>

>e11A< [store <> in e11a] [store <> in E11] [store <> in e11] [goto e11]  
>e11B< [store <> in e11b] [store <> in E11] [store <> in e11] [goto e11]  
>e11C< [store <> in e11c] [store <> in E11] [store <> in e11] [goto e11]  
>e11D< [store <> in e11d] [store <> in E11] [store <> in e11] [goto e11]  
>e11E< [store <> in e11e] [store <> in E11] [store <> in e11] [goto e11]

>e12< Including yourself, how many people live in your household?

<1>

<2-20>



<98> DON'T KNOW

<99> REFUSED

====>

>e14< Do you consider yourself to be of Hispanic origin, such as Mexican, Puerto Rican, Cuban, or other Spanish background?

NOTE: CODE WITHOUT ASKING IF KNOWN FOR BLACK/HISPANIC OVERSAMPLE

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

====>

>e15< Which of the following categories best describes your racial background? White, African American or Black, American Indian or Native American, Asian or Pacific Islander, or some other race?

NOTE: CODE WITHOUT ASKING IF KNOWN FOR BLACK/HISPANIC OVERSAMPLE

<1> WHITE

<2> AFRICAN AMERICAN OR BLACK

<3> AMERICAN INDIAN, NATIVE AMERICAN, ALASKA NATIVE (ALEUT/ESKIMO)

<4> ASIAN OR PACIFIC ISLANDER

<5> OTHER (SPECIFY) [specify]

<8> DON'T KNOW

<9> REFUSED

====>

>e16< For tabulation purposes only, please tell me which of the following income categories includes your total household income in 1993 before taxes--less than \$20,000, \$20,000 to \$30,000, \$30,000 to \$40,000, \$40,000 to \$50,000, or over \$50,000?

PROBE: The information you provide will be kept confidential and only be used in statistical summaries.

<1> LESS THAN \$20,000

<2> \$20,000 TO \$29,999

<3> \$30,000 TO \$39,999

<4> \$40,000 TO \$49,999

<5> OVER \$50,000?

<8> DON'T KNOW

<9> REFUSED

====>

```
>e19<  Finally, do you have any other phone numbers in your home in
      addition to ([fill AREA]) [fill PRFX:0] - [fill SUFX:0]?

      <1> YES
      <0> NO [goto e22]

      <8> DON'T KNOW [goto e22]
      <9> REFUSED [goto e22]

      ==>

>e20<  How many other telephone numbers are there in your home besides
      ([fill AREA]) [fill PRFX:0] - [fill SUFX:0]?

      PROBE:  Answers to these questions help us ensure that the survey
               accurately represents the people of your state.

      <1> ONE OTHER NUMBER
      <2> TWO OTHER NUMBERS
      <3> THREE OR MORE OTHER NUMBERS

      <8> DON'T KNOW
      <9> REFUSED

      ==>

>te20<  [if e20 eq <1>] [store <Is this> in thes] [store <> in s] [else]
        [store <Are these> in thes] [store <s> in s] [endif]

>e21<  [fill thes] other phone number[fill s] for . . .

      <1> Home use,
      <2> Business and home use, or
      <3> Business use only?

      <8> DON'T KNOW
      <9> REFUSED

      ==>

>e22<  During the past 12 months, was there any time when you did not
      have a working telephone in your household for two weeks or more?

      <1> YES [goto e23]
      <0> NO

      <8> DON'T KNOW
      <9> REFUSED

      ==> [goto end]

>e23<  For how many of the past 12 months did you not have a working
      telephone in your household?
```

```
<1-12>

<98> DON'T KNOW[goto e24]
<99> REFUSED

===>[goto end]

>e24<  We would like your best estimate of the length of time that your
        household was without a working telephone during the past 12 months.
        Was it...

        <1> less than a month,
        <2> one to six months, or..
        <3> more than six months?

        <8> DON'T KNOW
        <9> REFUSED

        ===>

>end<  [store <1> in CODE]
        [if RFSL ge <1> goto CAMT]
        [goto MOD7]
```

---

**MATHEMATICA**  
Policy Research, Inc.

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600 Maryland Avenue S.W., Suite 550  
Washington, DC 20024-2512  
(202) 484-9220



To: Melaine Veneer, Office of the First Lady  
 Fr: Christine Henan  
 401-863-2898  
 202-456-6244

file  
 tobacco &  
 kids  
 (teen  
 smoking)

It was nice talking with you, Melaine. I thought this was  
 right up HRC's alley.

**HE'S SWITCHED SIDES:** David Goerlitz, a former Winston cigarette model, talks to three teens at the conference: Julianne Barsoum, Heather Morris and Elizabeth Turillo, all with Rhode Island Youth Guidance of Pawtucket.

# 'R.J. Reynolds told me, ... get four thousand kids to smoke'

DAVE GOERLITZ, the former Winston Man

Goerlitz, who now works to stop kids from smoking, came to Providence for yesterday's RI ASSIST Third Annual Tobacco Control Conference.

By PAUL DAVIS  
 Journal-Bulletin Staff Writer

Dave Goerlitz has no doubt that tobacco companies target kids with their ads.

For seven years, Goerlitz, who calls himself The Winston Man, made hundreds of thousands of dollars posing in ads for Winston cigarettes, the bestselling cigarette brand after Marlboro.

The ads showed Goerlitz, a handsome New Jersey actor and model, climbing mountains, flying planes and having moments with other rugged men.

"R.J. Reynolds told me my job was get 4,000 kids to smoke. They told me I was a live version of a G.I. Joe action figure," Goerlitz said.

That message was repeated when Goerlitz — who smoked more than 100 packs of cigarettes a day — reportedly asked an R.J. Reynolds Co. executive why the company's officers didn't smoke.

"One guy said to me, 'We don't like that stuff. We just sell it,' although he didn't use the word 'stuff.'"

## ADVERTISING

Then he said to me, 'We reserve the right to smoke for the young, the poor, the black and the stupid.'"

Now, Goerlitz said, R.J. Reynolds is wooing young smokers with a new



icon: Joe Camel, a cartoon character who wears dark sunglasses and smokes.

An R.J. Reynolds official yesterday denied the company creates ads that encourage children to smoke. Goerlitz never talked to top officials about marketing, the company said.

Goerlitz spoke about cigarette advertising yesterday at Rhode Island Assist's Third Annual Tobacco Control Conference, a one-day seminar designed to help teachers, lawmakers and others curb smoking.

Yesterday's speakers included Patricia Nolan, director of the Rhode Island Department of Health, Atty. Gen. Jeffrey B. Pine and Sen. Thomas Izzo, D-Cranston.

According to the state's Project ASSIST, a third of Rhode Island's high school seniors smoke cigarettes.

The conference comes at a time when antismoking activists are putting pressure on cigarette companies and government officials to ban smoking. The Clinton administration is considering measures that would greatly reduce current cigarette advertising.

Peggy Carter, director of public relations for R.J. Reynolds, yesterday said that Goerlitz was "only a model"

**HE'S BEEN BANNED:** Knight-Ridder Inc., one of the nation's biggest newspaper publishers, has just banned "cartoon-like" tobacco ads. That's bad news for RJR's Joe Camel — seen above, on a New York City billboard.

Turn to TOBACCO, Page F-2

## STOCKS OF LOCAL INTEREST

NYSE

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## MEMORANDUM

To: The President and Hillary Clinton  
From: <sup>MP</sup> Mike Pertschuk and <sup>DC</sup> David Cohen, Advocacy Institute  
Date: July 7, 1995  
Re: Political benefits/costs from supporting/suppressing David Kessler's effort to protect children from tobacco marketing and advertising

\*\*\*\*\*

Others have made the arguments that Kessler's initiative is good law and good policy. Here, we make the argument that firm, out-front Presidential support for Kessler and FDA is very good politics.

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1) The Kessler/Clinton initiative builds on the foundation laid by your strong attack on the NRA/Republican/assault weapon unholy alliance:

- o The FDA initiative affirms your stand on the side of public health and safety; the prevention of drug abuse; defense of exploited children at risk; life.
- o You will again be seen to take a principled stand against the "merchants of death." (That's how *Newsweek* and others pair the gun and tobacco lobbies.)
- o As the tobacco lobby tries to strike back through its ties to the Republican Congress, media attention will be drawn to the strong monetary and personal ties between the tobacco lobby and the Republican leadership (and the Republican presidential candidates), a readily available but largely untold story just waiting for a salient issue to hang on. (See *Common Cause* cover story). A threatened veto of any Congressional action to tie Kessler's hands would further dramatize the unholy alliance on the Hill.
- o The media will be solidly on your and Kessler's side. National and local media coverage of the tobacco lobby has become increasingly skeptical and hostile, just as it has of the NRA. (See, e.g., *60 Minutes*' brutal story of Victor Crawford and his corrupt lobbying for the Tobacco Institute).

2) This issue is not framed as a liberal/big government grab. Kessler has done his substantive and political homework brilliantly. He has painstakingly built a legal and investigative scaffold. Each of his four pillars will resonate with the public: a) cigarette use is a pediatric disease - teenagers get hooked; no one takes up smoking as an adult (less than 10%); b) tobacco use is addictive; c) the companies deliberately manufacture and market smokeless tobacco and cigarettes as drug delivery devices, and d) Kessler has built an exhaustive investigative file demonstrating a consistent advertising and marketing strategy targeted at kids. The regulations he will propose are likewise targeted solely at protecting kids.

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Suite 400  
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Fax: 202 659-8484  
E mail: [AI0001@ADVINST.ORG](mailto:AI0001@ADVINST.ORG)

3) As Bill Buckley wrote, this is a case for FDA regulation that a conservative libertarian can support. Even Pat Robertson supports FDA regulation. And in the next two weeks, AP will carry the story of a letter from 50 conservative Republican scientists and doctors calling upon Gingrich to repudiate the unholy Republican alliance with the tobacco lobby. FDA is not seen as intrusive big government. Even a poll by the hostile Citizens for a Sound Economy, with skewed questions, shows broad support for FDA.

4) Poll data consistently shows broad (70-75%) support for regulations designed to protect kids from tobacco marketing. And this support reaches those voters most likely to have strayed from the Democrats. The enclosed poll taken for the Robert Wood Johnson Foundation shows that "conservative Democrats consistently demonstrated greater support for tobacco control measures than other groups."

5) This broad, non-ideological support was reflected even in the 1994 elections. Voters in conservative Arizona supported a major cigarette excise tax initiative. Californians defeated by 70%-30% a Philip Morris-funded ballot initiative to weaken California's strong smoke-free restaurant law - and that 70-30 ratio held in Orange County as much as in San Francisco.

6) There's a surprisingly strong tobacco control movement infrastructure ready to be mobilized once FDA action appears imminent. Through federal and state and foundation funding, there exists a well-organized network (more than 500 on-line) of trained public health advocates and community-based activists throughout the country ready to support the Clinton/FDA initiative in the media and through the mobilization of Cancer Society and other health volunteers and children's advocates. And there are Republicans as well as Democrats in Congress who will support you.

7) People care about this issue. The RWJ poll shows that 44% of those polled have lost family members or close friends to tobacco-caused disease - and they strongly support tobacco control policies.

8) In its announcement last week of an "Action Against Access" program, Philip Morris plainly sought to head off Presidential support for FDA. But what PM also did was to acknowledge the need for regulation to achieve the very ends Kessler is proposing (by promising to support tougher state laws).

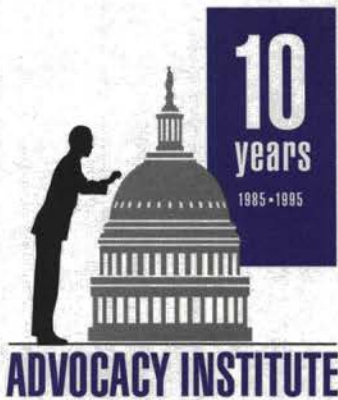
In contrast, stopping Kessler would have little political benefit in the tobacco south and a harsh negative fallout:

1) Nothing you do to stop Kessler will make tobacco-prone voters prefer you to any Republican. They sleep with the tobacco lobby. You have had the strongest, most forthright record on tobacco of any president in history. But most tobacco state voters are not tobacco voters. 75.4% of the southerners in the RWJ poll favored the banning of vending machines, 1.5% more than the national average. (Besides, you can say to tobacco state members, "Kessler is simply codifying much of what Philip Morris itself says is needed.")

2) Kessler cannot be stopped quietly. He has been publicly promising action for two years (on 60 Minutes and elsewhere). His announcement is eagerly awaited by the network of advocates who work on this issue and the health and science writers who follow it. Koop became a national hero; Kessler may be on his way. The question is: does he become a hero by defying a president who compromises on the issue, or by reflecting credit on a gutsy president who takes on the powerful tobacco lobby and breaks its alliances.

cc: Melanne Verveer





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4) Poll data consistently shows broad (70-75%) support for regulations designed to protect kids from tobacco marketing. And this support reaches those voters most likely to have strayed from the Democrats. The enclosed poll taken for the Robert Wood Johnson Foundation shows that "conservative Democrats consistently demonstrated greater support for tobacco control measures than other groups."

5) This broad, non-ideological support was reflected even in the 1994 elections. Voters in conservative Arizona supported a major cigarette excise tax initiative. Californians defeated by 70%-30% a Philip Morris-funded ballot initiative to weaken California's strong smoke-free restaurant law - and that 70-30 ratio held in Orange County as much as in San Francisco.

6) There's a surprisingly strong tobacco control movement infrastructure ready to be mobilized once FDA action appears imminent. Through federal and state and foundation funding, there exists a well-organized network (more than 500 on-line) of trained public health advocates and community-based activists throughout the country ready to support the Clinton/FDA initiative in the media and through the mobilization of Cancer Society and other health volunteers and children's advocates. And there are Republicans as well as Democrats in Congress who will support you.

7) People care about this issue. The RWJ poll shows that 44% of those polled have lost family members or close friends to tobacco-caused disease - and they strongly support tobacco control policies.

8) In its announcement last week of an "Action Against Access" program, Philip Morris plainly sought to head off Presidential support for FDA. But what PM also did was to acknowledge the need for regulation to achieve the very ends Kessler is proposing (by promising to support tougher state laws).

In contrast, stopping Kessler would have little political benefit in the tobacco south and a harsh negative fallout:

1) Nothing you do to stop Kessler will make tobacco-prone voters prefer you to any Republican. They sleep with the tobacco lobby. You have had the strongest, most forthright record on tobacco of any president in history. But most tobacco state voters are not tobacco voters. 75.4% of the southerners in the RWJ poll favored the banning of vending machines, 1.5% more than the national average. (Besides, you can say to tobacco state members, "Kessler is simply codifying much of what Philip Morris itself says is needed.")

2) Kessler cannot be stopped quietly. He has been publicly promising action for two years (on 60 Minutes and elsewhere). His announcement is eagerly awaited by the network of advocates who work on this issue and the health and science writers who follow it. Koop became a national hero; Kessler may be on his way. The question is: does he become a hero by defying a president who compromises on the issue, or by reflecting credit on a gutsy president who takes on the powerful tobacco lobby and breaks its alliances.

cc: Melanne Vermeer

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# FIGHT SMOKE WITH FIRE

## Why the White House Should Embrace Efforts to Stop the Tobacco Industry from Targeting Kids

By Michael Pertschuk

**S**ometime soon, on the basis of two years of exhaustive investigation and legal analysis, Food and Drug Administration Commissioner David Kessler is likely to make a formal finding that tobacco products, cigarettes, and smokeless tobacco are drug delivery devices within his agency's jurisdiction. He will likely find that tobacco companies target teenagers in their marketing strategies and deliberately manipulate nicotine levels in their products to create and sustain nicotine addiction. And, he will probably conclude, since 90 percent of smokers become addicted before the age of 21, nicotine addiction is a pediatric disease.

With that finding, Kessler is likely to consider the following initiatives:

- restrictions designed to limit youth access to tobacco (already in place but ineffective), such as barring the sale of cigarettes in unattended vending machines;
- limited restraints on advertising and promotion techniques, such as seductive images, that induce children to use tobacco;
- the inclusion of information about the addictive nature of nicotine or the other potentially harmful additives and constituents in tobacco products; and

- an educational program targeted at children.

When Kessler begins this campaign, the tobacco industry will try to rally the public with claims that federal bureaucrats are hell-bent to deny their right to smoke. But Kessler has said repeatedly that he has no such plan or desire. Instead, Kessler will most likely focus on measures that would prevent another generation of children from becoming hooked and that should affect adult smokers only tangentially.

Right now, tobacco lobbyists are already hard at work persuading White House political operatives that the president's hostility toward tobacco was a major cause of congressional Democrats' disastrous losses in the South and that only by publicly halting and repudiating Kessler do the Democrats have a prayer of reclaiming tobacco-state votes in 1996. This argument is disingenuous and self-serving, but, more to the point, it's wrong. In deciding whether or not to give Kessler vigorous support, President Clinton need not choose between virtue and expediency. Protecting children from tobacco is a winning issue.

Kessler's prospective measures are totally consistent with the president's principled support for health promotion and in particular antismoking efforts aimed at children. This president has been the most forthright in history in addressing the magnitude of the problem posed by tobacco use in the United States. He declared the White House smoke-free and proposed a 75-cent cigarette excise tax as a cornerstone of health care reform, while the Occupational Safety and Health Administration (OSHA) has instituted smoke-free-workplace rule initiatives. This principled, consistent stand has been popular among the relatively few who are aware of it. Standing tall against the industry's lobbying allows the president to demonstrate and publicize his constancy in pursuit of principle. Caving in to the tobacco lobby would reinforce public fears of a waffling president with no principled core.

President Clinton has framed much of his opposition to the new Republican majority as a



defense of children. Kessler's campaign to protect children from tobacco companies meshes with these themes nicely. Polling data also consistently show overwhelming public support for restricting children's access to tobacco. A Robert Wood Johnson poll, for example, shows 91 percent support for a ban on vending machines "which are accessible to kids." Seventy-three percent believe limiting advertisements to words—that is, to "tombstone" advertising, a peculiarly apt term in this case—would reduce their appeal.

Despite current antipathy to government regulation, the November 1994 elections confirmed public support for strong measures to discourage tobacco use. Defying general antitax sentiment, voters in conservative Arizona supported a major increase in the state's tobacco tax. An outspoken supporter of the Arizona tax referendum was none other than former Senator Barry Goldwater. While Californians were reelecting their Republican governor, they rejected, by 70 percent to 30 percent, an effort by the tobacco industry to weaken California's laws protecting nonsmokers. The margin was no smaller even in conservative Orange County.

Support for tobacco control measures is at least as strong, if not stronger, among the conservative middle class that Democrats lost in 1994. According to a December 1994 evaluation by Mathematica Policy Research of data collected for the Robert Wood Johnson Foundation, "conservative Democrats consistently demonstrated greater support for tobacco control measures than other groups."

Surprisingly, support for tobacco control cuts across geographic lines and is as strong in the tobacco-growing South as in other regions: 75.4 percent of the southerners in the Robert Wood Johnson poll favor banning cigarette vending machines, 1.5 percent more than the national average. Even Greensboro, North Carolina, the home of an RJR cigarette factory, adopted a strong smoke-free ordinance—and then defeated an industry-led recall initiative.

Support for tobacco control is as intense as it is broad. The Robert Wood Johnson poll reveals that 44 percent of the population believe they

have lost family members or close friends to tobacco-related diseases, and these people are markedly more supportive of policies designed to limit tobacco promotion to minors.

But if Clinton supports the FDA, isn't he vulnerable to attacks on big government? Not in this instance. The FDA is trusted, even popular. Of all the functions of the federal government, protection of health and safety enjoys the highest support, and the FDA is one agency that symbolizes that support. Even a poll commissioned by the right-wing Citizens for a Sound Economy, whose questions were designed to evoke chords of discontent with the FDA, could not shake the confidence that most people express in the agency. Two thirds of those polled held a favorable opinion of the FDA. Two years ago even Newt Gingrich acknowledged in a letter to the Coalition on Smoking OR Health that FDA regulation of cigarettes was a reasonable exercise of its responsibilities.

The tobacco industry, by contrast, is in chronically low repute. That ill repute rubs off on politicians who consort with it. Nothing more belies the new Republican congressional leadership's claim to speak for the people than its sordid ties to the tobacco lobby. The issue promises a great contrast between Clinton and his likely 1996 foes. Bob Dole and Phil Gramm are closely aligned with tobacco, and Pete Wilson's campaign manager is a former vice president for Philip Morris.

Although tobacco regulation is not at the top of the public agenda, battling Big Tobacco is unlikely to fade into obscurity. In March, CBS's *60 Minutes* presented a scathing profile of a former tobacco lobbyist, Victor Crawford, now afflicted with throat cancer, who calmly admitted lying for the money. Several print and TV investigative reporters and teams are preparing exposés of the close connections between the tobacco lobby and the new leaders of Congress (as well as the old). *Newsweek* already heralded the election results as the triumph of the "Merchants of Death"—tobacco, booze, and guns. Let the Republicans smoke, drink, and shoot themselves in the foot. □

# THE INHALERS



**They may not smoke tobacco products, but some in Congress are addicted to the industry's money.**

BY VICKI KEMPER

Lined up like so many naughty schoolboys sent to the principal's office for making spitballs, the seven suited tobacco executives stood at attention, raised their right hands and swore to tell the truth about cigarettes.

Later, while seated at a long table, the executives passed microphones back and forth and declared, one after the other, that, no, they did not believe nicotine was addictive. Asked to explain "how [they] could live with such a killing record on [their] consciences," the executives said they really weren't sure whether smoking causes disease and death.

For those who saw televised reports or newspaper pictures of the tobacco executives testifying before Congress last April, these images linger with unusual vividness. From the united front presented by the executives to the phalanx of cameras, the dueling props—an executive's unlit cigarette, the committee staff's strategically placed placard ("one American dies every 80 seconds from tobacco use")—and the blistering questions of some committee members, the hearing had all the elements of staged drama.

It also had all the makings of history. Never before had the nation's top tobacco titans appeared before Congress; never before had the industry's internal workings been so publicly exposed. Tobacco officials were accustomed to being lectured about the dangers of their products, but never before had they been held up to such public ridicule. And while the industry occasionally had to fight off smoking and advertising restrictions, never before had it faced the triple threat of one federal agency considering the regulation of tobacco products, another proposing a nationwide ban on smoking in the workplace and a president seeking a significant increase in tobacco taxes.

Watching, one could almost see the power shifting. As one "gotcha" hearing was followed by another, it looked as if the political tide might be turning against



the \$50 billion-a-year tobacco industry. The media added to the sense of anti-tobacco momentum, conducting their own investigations and producing breathless exposés. An ABC news magazine, touting its report on the industry's alleged manipulation of nicotine levels, proclaimed that its investigation "could change the tobacco industry forever."

But now, with Republicans in control of Congress, some who led the anti-tobacco charge fear that the congressional investigations and hearings, like the TV reports, added up to just so much media hype. "They took a huge [public relations] bath," a former congressional aide says of the tobacco companies, "and we didn't hurt them at all. Now they're sitting pretty."

But if the tobacco industry is "sitting pretty," it's largely because it has a multitude of supporters sitting in Congress. For all the congressional investigations, media reports, scientific findings and high-tech cameras that focused on the tobacco industry and its practices last year, left out of the picture were the congressmembers who take the industry's campaign contributions, travel on its all-expenses-paid trips and do its bidding. Tobacco remains largely unregulated 31 years, 50,000 studies and more than 10 million smoking-related deaths after the first Surgeon General's report certifying that smoking causes disease not only because of the fabled "power" of the tobacco lobby, but also because of the hundreds of lawmakers who've given it that power by taking its money and protecting its interests.

However menacing the House subcommittee on health and the environment may have appeared to the average observer, for example, the tobacco executives being interrogated at the April hearing knew their companies were in good standing with its members. Since 1985 their industry's political action committees (PACs) had poured more than half a million dollars into the campaign coffers of 18 of the subcommittee's 26 members.

And while the tobacco industry is strongest in certain key committees and among members who represent tobacco-growing states, it has friends throughout Congress and from all parts of the country. From 1989 to 1994, for example, 73 percent of senators accepted campaign contributions from the industry; in the last House election cycle 66 percent of House members took tobacco money. Since 1985 the industry has contributed

more than \$16.6 million to federal candidates, PACs and political party committees, and the industry's political giving has increased with every election cycle. In the past two years alone, the industry gave almost \$2 million in unlimited "soft money" contributions to Republican party committees. Philip Morris ranked second among all soft money givers to the Republicans, with \$691,547; RJR Nabisco's \$414,752 contribution ranked sixth. RJR also contributed \$107,650 in soft money to the Democrats.

"They're giving such large amounts of money it's hard to believe they don't expect something in return," says Rep. Henry Waxman (D-Calif.), who led the anti-tobacco inquisition in the last Congress.

In 1992, when Public Citizen and the Advocacy Institute documented soft money contributions by the industry, former Surgeon General C. Everett Koop expressed his disgust. "The support of politicians and political parties by those associated with tobacco interests is unconscionable," he said. "How can Americans believe political promises for health care reform when both parties seem to be associated with an industry that disseminates disease, disability and death?"

In addition to political contributions, well-connected lobbyists, junkets and other tools of influence, the industry benefits from the inner politics that govern the legislative system. Industry supporters generally delay or block tobacco-control bills from consideration; only a handful have ever reached the House or Senate floor. Anti-tobacco measures have also been killed by Senate filibusters, or the threat of them, and by closed-door conference committee negotiations.

"The public doesn't usually see that kind of activity," Waxman says. "They don't know that the tobacco interests were put ahead of the public interest." In a perverse twist on the concept of public accountability, insiders say, members ignore the public health aspects of the issue and the public opinion polls showing strong support for tobacco regulation because it's the tobacco industry—rather than the public—that rewards or punishes them for their performance on the issue.

"There is a political cost for challenging tobacco," says a former congressional



aide. "You're denied an easy source of [campaign] money." Industry opponents who've already sworn off tobacco money often pay an even higher price when the industry finances the campaigns of their challengers. More than anything else, observers say, campaign contributions from the tobacco industry buy silence and inaction. Says the former committee staffer:

"No one gets criticized for *not* doing something on tobacco."

As a result, the tobacco industry and its allies in Congress have overcome virtually all legislative efforts to control the country's No. 1 cause of death. Studies show that smoking kills more than 400,000 people a year—more than alcohol, drugs, violence, auto accidents and AIDS combined—and adds some \$68 billion to the nation's yearly health care tab, yet industry supporters held a health care reform proposal hostage last year until its key financing mechanism, a proposed increase on tobacco taxes, had been cut almost in half. Scientific evidence on nicotine's addictiveness continues to mount and recent studies confirm that secondhand tobacco smoke is carcinogenic, yet a bill that would have restricted smoking in public buildings was allowed to die in the House last year.

Key to changing this pattern, anti-tobacco lawmakers and activists agree, is accountability; public awareness and pressure must make support for the tobacco industry a political liability, they say. But that's a tall order, particularly in the new Congress. "Those who want to help the tobacco lobby—except for those relatively few members who come from tobacco-growing areas—want to do it without people knowing about it," Waxman says. But "legislators have a moral and public policy obligation to do everything we can to keep young people from starting [to smoke]," says Rep. Ron Wyden (D-Ore.). "We shouldn't be playing Russian roulette with kids."

Michael Pertschuk, a longtime anti-tobacco activist and co-director of the Advocacy Institute, has called for the "public shaming" of the industry's supporters. "They ought to ask themselves whether they would take money from the

*Vicki Kemper is editor.*

Medellin mafia," he says, "whether they would take it and what they would do for it. This is an industry which is in the same moral and ethical category as the drug cartel."

The new political order in Congress has empowered some of the industry's strongest supporters, but Pertschuk believes that while the tobacco industry may have "bought a little time in this

**"How can Americans believe political promises for health care reform when both parties seem to be associated with an industry that disseminates disease, disability and death?"**

election, time is not on their side." For all the interpretations of the recent elections, Wyden says, "I don't think very many voters went to the polls this November and said, 'I want to vote for policies that make it easier to get young people to start to smoke.' I think we're winning the public education fight."

### **Answered Prayers**

Winning the political fight in the 104th Congress, however, will be harder than ever, industry opponents acknowledge. "Republican control here has put the tobacco companies in the strongest position they've been in in decades," says Rep. Dick Durbin (D-Ill.), a leading tobacco opponent. Among the recent changes that favor the industry:

- Rep. Thomas Bliley (R-Va.), the new chair of the powerful House Commerce Committee, has received more in PAC contributions from the tobacco industry—\$111,476 since 1985—than any other congressman. Bliley declined comment for this article but has said publicly his committee will not investigate the industry or consider tobacco-control legislation.

- Henry Waxman, former chair of the health and environment subcommittee, was replaced by Rep. Michael Bilirakis (R-Fla.), a longtime tobacco supporter who's taken \$38,700 in PAC contributions from the industry since 1985.

- House Speaker Newt Gingrich (R-Ga.), who's been known to travel in an RJR Nabisco jet, has called FDA Commissioner David Kessler a "bully and a thug." Gingrich has received \$41,000 in campaign contributions from tobacco PACs since 1985, and RJR Nabisco has contributed at least \$50,000 to GOPAC, his secretive political committee, and \$5,000 to his controversial college course.

- While one key anti-tobacco lawmaker, Mike Synar (D-Okla.), lost his House seat, last-minute tobacco industry contributions to Republican party committees and candidates helped sweep several industry supporters into office. Pro-tobacco winners included Sen. Rick Santorum (R-Penn.), whose narrow defeat of health care advocate Harris Wofford was financed in part by \$29,500 from tobacco companies, and Sen. Mike DeWine (R-Ohio), whose campaign to replace retiring anti-tobacco Sen. Howard Metzenbaum was fueled by \$22,000 in industry money.

- Finally, Republicans want a six-month moratorium on new federal regulations, which could deep-six potential federal agency efforts to restrict smoking in the workplace and curb the sale of cigarettes to minors.

"I think the tobacco companies had their prayers answered," Durbin says of the Republicans' electoral sweep. Others, noting that the industry also fared well under the Democrats, acknowledge the difficulties but say they'll do their best to raise the political stakes on the issue. "If they're going to front for the tobacco industry," Waxman says of his subcommittee's new Republican leaders, "they are simply doing it because it's a special interest group that's given them lots of money. The public ought to view it that way."

### **"Money is No Object"**

Mike Pertschuk likes to say, "That the sale of cigarettes is legal is an accident of history," meaning that if cigarettes were introduced today the same health and safety regulations that outlawed products like asbestos and lead-based paint would keep them out of the marketplace. Scott Ballin, chair of the Coalition on Smoking OR Health says the industry "dodged a bullet" in 1964 when Congress responded to the Surgeon General's report with nothing more than a requirement that cigarette packages carry warning labels.

After that, Ballin says, the industry began developing a political strategy that

may now be the most sophisticated and comprehensive of any special-interest group. As a result, a list of all the tobacco-control laws passed by Congress would fit on a pack of cigarettes: It has knocked tobacco commercials off the airwaves, increased the excise tax, required stronger labels on cigarettes, and restricted and then prohibited smoking on commercial airline flights—all with the ultimate support of the tobacco industry. Tobacco has been exempted from comprehensive laws regulating consumer product safety, product packaging and hazardous and toxic substances, leading Ballin to charge that Congress has left tobacco "virtually free of regulation."

The biggest single reason for that, most industry opponents believe, is money. And while Pertschuk and others point to the solidarity and "single-minded focus of tobacco-state legislators" as another key factor in the industry's success, they, too, always come back to the money.

Since 1985 the political action committees (PACs) of 11 tobacco companies and the Tobacco Institute, the industry's lobbying arm, have contributed more than \$10.6 million to federal candidates and PACs. The industry's "hard money" contributions have increased with every election cycle, with its 1993-94 contributions of more than \$2.7 million more than double the amount it contributed in 1985-86. Philip Morris's PAC tops the list with more than \$3.4 million in contributions; R.J. Reynolds Tobacco gave more than \$3 million.

The tobacco companies—and their money—were also in evidence at the 1992 political party conventions. At the Democratic convention in New York, RJR Nabisco hosted a brunch for Sen. Wendell Ford (D-Ky.); U.S. Tobacco rented a museum ship in New York Harbor for a floating Democratic party; and Philip Morris sponsored a party for delegates on the top floor of the World Trade Center. At the Republicans' gathering in Houston, the RJR brunch honored Sen. Bob Dole (R-Kan.); UST flew in former President Ford for a high-powered breakfast; and Philip Morris fêted foreign broadcasters.

In addition to ensuring that their companies' PACs are generous political contributors, tobacco executives also make political contributions from their own pockets. An analysis of FEC records since 1989 shows that 15 tobacco executives have contributed \$162,700 to federal candidates, leadership PACs and party



committees in the past six years, along with \$169,840 to tobacco industry PACs.

But the industry's expenditure of political money goes far beyond campaign and soft money contributions. The Tobacco Institute and U.S. Tobacco were among the most frequent fliers of congressmembers to warm, sunny resort locations during the winters of 1992 and '93, according to a report by the Center for Public Integrity. Reps. Bliley (R-Va.), Jim Chapman (D-Texas) and Howard Coble (R-N.C.), along with Sen. John Breaux (D-La.), took the most tobacco-sponsored trips.

In the late 1980s, the tobacco industry was a top provider of another source of special-interest money for congressmembers. The tobacco industry paid members almost \$1.3 million in honoraria from 1986 to 1990, the year before such payments were banned. The Tobacco Institute led the pack, with \$537,676 in honoraria payments, and Philip Morris handed out \$282,500. Leading tobacco honoraria recipients were Sen. Mitch McConnell (R-Ky.), who took in \$38,000; Rep. Bliley, with \$31,500; Sen. Jesse Helms (R-N.C.), \$30,000; Rep. Charlie Rose, \$27,500; and Sen. Ford, \$21,000.

Honoraria "payments" were easy money for members; Dick Durbin remembers a "speech" he gave to the Tobacco Institute. Being new to Congress, Durbin says he "obviously didn't know how this process worked," and had spent a lot of time preparing his speech. Arriving at the group's Washington office, "I was shocked at what I found," Durbin recalls. "There was no audience. The audience consisted of the lobbyist who gave me the [honoraria] check."

The influence gained by the industry's money comes not only from the large amount it spends, but also from the wide

## Where the Action Is

For all the formidable power of the tobacco lobby at the national level, some 46 million American smokers are finding it harder and harder to light up in their own hometowns. And while congressional tobacco-control efforts usually go up in smoke, tobacco tax increases and smoking restrictions continue to make headway at the local and state level.

More than 600 cities, towns and counties restrict smoking in public places, some 200 localities have outlawed cigarette vending machines and more than 100 prohibit smoking in restaurants or workplaces. Tobacco giant Philip Morris recently lost a battle against tougher smoking restrictions in New York City, and even Greensboro, N.C.—in the heart of tobacco country—now restricts smoking in many public places.

The tobacco industry is tough to beat at any level. But recent anti-tobacco efforts prove that the industry's seemingly bottomless pockets cannot always buy victory. In Michigan last year the tobacco industry spent more than \$3 million to fight an increase in the state's cigarette excise tax. But voters approved a 50-cent-per-pack tax increase, giving Michigan the highest cigarette tax in the country at 75 cents a pack.

In November, Arizona voters approved an initiative raising that state's cigarette excise tax by 40 cents a pack; revenue from the new tax will finance health care for the poor as well as smoking prevention and education programs. Support from the state hospital association and a paid professional campaign staff contributed to the initiative's success. In Colorado, however, a similar initiative effort failed.

Some state governments are also waging legal battles against the industry. Mississippi started the ball rolling last May, when it sued 13 tobacco companies for more than \$2 billion it has spent on Medicaid to treat poor people with smoking-related illnesses. Florida and Minnesota have taken similar actions.

But nowhere in the United States are the industry's strengths and weaknesses more apparent than in California.

The November defeat of Proposition 188—the California Uniform Tobacco Control Act—is the latest feather in the cap of anti-tobacco activists, and a big feather it is. Philip Morris spent \$12.5 million on advertising and petitions to support the initiative, which would have replaced all local smoking restrictions, as well as a new state law that made California virtually smoke-free, with a much weaker statewide law.

But a well-funded campaign led by the California Wellness Foundation publicized Philip Morris's sponsorship of the initiative and advertised the views and identities of Prop. 188 opponents, who included the American Cancer Society and former U.S. Surgeon General C. Everett Koop. As a result, in what is likely the industry's most resounding defeat ever at the ballot box, almost 71 percent of California voters said "no" to Prop. 188.

This doesn't mean, however, that the public has won out over the tobacco industry in the country's most populous state. A recent study published in the *Journal of the American Medical Association* concludes that, by making boatloads of campaign contributions to state legislators, the industry has effectively undermined a previous tobacco-related initiative.

In 1988 California voters passed Proposition 99, which increased tobacco taxes by 25 cents and set aside 20 percent of new tax revenues for tobacco education and prevention programs. But state legislators have allocated only 14.1 percent of the new revenues to tobacco education activities. Why? The discrepancy could be related to the industry's skyrocketing campaign contributions; it contributed \$1.2 million to legislature candidates in the 1992 election—an increase of 333 percent over its 1986 contributions.

And in state capitals as well as in Washington, money is just one tool in a tobacco lobbyist's bag of tricks. To woo state legislators, Philip Morris has used honoraria in Arizona, hunting trips in Louisiana and Missouri, and race-track trips in Oklahoma.

— V.K.



range of groups and activities on which it spends it. "They subsidize everything," Durbin says. "There is not a single group on Capitol Hill that you won't find them involved in." Among the many Congress-related groups that receive tobacco industry funding are the Congressional Black Caucus Foundation, which received \$155,000 from tobacco companies in 1993; the Congressional Hispanic Caucus Institute; the Senate Employees' Child Care Center; and Rep. Tony Hall's (D-Ohio) hunger institute.

The industry also uses its money to buy the best help. One doesn't need a road map to see that tobacco road runs right through the nation's capital; just follow the short path that leads from one side of the street to the other. For former Rep. Robin Tallon (D-S.C.), for example, the \$40,100 in campaign contributions he got from the tobacco industry—plus another \$23,000 in honoraria—helped pave the way for his move to the Tobacco Institute, where he now works as a lobbyist.

Others who've made the switch from Capitol Hill to the tobacco lobby include former Rep. Ed Jenkins (D-Ga.), vice president of a consulting firm that represents Philip Morris; former Rep. James Stanton (D-Ohio), another Philip Morris lobbyist; Jeffrey Schlagenhauf, who left his post as a top aide to Rep. Bliley to become president of the Smokeless Tobacco Council; Robert Leonard, former chief counsel and staff director of the tobacco-taxing House Ways and Means Committee, who represents RJR Nabisco; and Thomas Ryan, former chief counsel to the House Energy and Commerce Committee, who represents Philip Morris.

In a truly unusual twist on the Capitol Hill-industry connection, some 100 members of Congress signed a letter to President Clinton in December recommending a newly retired colleague for the post of U.S. surgeon general. While surgeons general have been at the forefront of the battle against smoking for more than 30 years, former Rep. J. Roy Rowland (D-Ga.) would have been the nation's "first pro-tobacco" top doc, says a former congressional aide.

During six terms in Congress, Rowland took \$35,900 in PAC contributions and at least \$7,000 in honoraria from the industry. Rowland, a former family physician, voted against the smoking ban on short commercial airline flights in 1987, and when the health and environment subcommittee passed a bill last year to



## Tobacco's Top 10

Current members of Congress who've received the most in PAC contributions from the tobacco industry since 1985:

|                               |            |
|-------------------------------|------------|
| Rep. Tom Bliley (R-Va.)       | \$ 111,476 |
| Rep. Charlie Rose (D-N.C.)    | \$ 96,800  |
| Sen. Wendell Ford (D-Ky.)     | \$ 87,057  |
| Sen. Mitch McConnell (R-Ky.)  | \$ 69,750  |
| Rep. Rick Boucher (D-Va.)     | \$ 69,650  |
| Rep. Bill Hefner (D-N.C.)     | \$ 68,600  |
| Rep. L.F. Payne (D-Va.)       | \$ 68,149  |
| Sen. Jesse Helms (R-N.C.)     | \$ 64,500  |
| Sen. Ernest Hollings (D-S.C.) | \$ 64,371  |
| Rep. John Dingell (D-Mich.)   | \$ 59,500  |

restrict smoking in public buildings, it was over Rowland's objection.

While that industry-executive branch connection didn't materialize, several former White House aides have gone to work for the tobacco industry. They include top RJR Nabisco lobbyist M.B. Oglesby Jr., a top aide to Ronald Reagan, and former Bush aide Craig Fuller, now a senior vice president at Philip Morris.

"They're buying high-priced people," says the Coalition's Ballin. "heavy hitters. And money is no object." And as smoking- and tobacco-control efforts have moved to the FDA and the Labor Department's Occupational Safety and Health Administration (OSHA), so have the industry's headhunters. At least two former general counsels at the FDA are on retainer for the industry, Ballin says, and Philip Morris and RJR have each snagged a former OSHA head to try to stymie agency efforts to restrict smoking in the workplace.

### The Inhalers

When it comes to identifying the tobacco industry's key supporters in Congress, even the most ardent anti-tobacco activists make a distinction between members who represent tobacco states and everyone else. Philip Morris is the largest single employer in the district of top tobacco money recipient Tom Bliley, for example, and a spokesperson for Rep. Charlie Rose (D-N.C.), No. 2 on the tobacco tally with \$96,800 in contributions from the industry's PACs, insists that he is "not some shill of the cigarette companies" but instead works to "protect the [tobacco] farmers" in his district.

Last year 22 tobacco-state House members, led by Rose and Rep. L.F.

Payne (D-Va.), succeeded in drastically lowering a proposed increase in the tobacco excise tax, now 24 cents per pack of cigarettes. Studies have shown that a substantial increase in the tax could save as many as 1 million lives, yet tobacco-state members pitted tobacco taxes against, of all things, health care reform. Payne, whose vote was needed to get a health care package out of the Ways and Means Committee, said he would "do everything in [his] power to defeat a health care reform package which single[d] out tobacco."

By the time the horse-trading was over and votes were cast, Payne had managed to reduce President Clinton's proposed increase of 75 cents per pack to 45 cents a pack. In the Senate, Wendell Ford bragged to a hometown newspaper, "So I have been a player. I've been able to reduce the tax, and I intend to reduce it some more." In the end, the tax increase died along with health care reform.

Recent studies have found that nothing influences tobacco-issue voting more than tobacco-industry money. Although only four tobacco-state representatives sat on the House health and environment subcommittee last year, for example, 11 members voted against Waxman's bills to restrict smoking in public buildings. Together they had received \$362,421 from industry PACs since 1985, while the 14 members voting for the bills had taken \$96,950 in tobacco money. In other words, members voting against the bill had taken on average 4.75 times as much tobacco money as those voting for it. A study published in the *Journal of the American Medical Association* last year determined that House members receiving the most tobacco money were 14.4



times as likely to vote with the industry as members receiving the least: in the Senate the number was 42.2.

Democratic Reps. Edolphus Towns of Brooklyn and Charles Rangel of Harlem are also key supporters of the industry, even though smoking-related disease and death have ravaged their communities. Why? Calls to their offices were not returned, but FEC records show that Rangel has received \$46,450 from the industry since 1985, while Towns, a former chair of the Black Caucus, has taken \$44,180. Tobacco companies also fund arts groups and other charitable projects in their districts.

Some industry supporters are also striking political bargains with their colleagues. When tobacco-state members supported federal bailouts of New York City and Chrysler Corp. in the late 1970s, they won the favor of Rangel and outspoken House Minority Whip David Bonior (D-Mich.), who's taken \$50,100 from industry PACs since 1985.

Rep. John Dingell (D-Mich.), former chair of the House Energy and Commerce Committee, ranks tenth—\$59,500 since 1985—among tobacco-money recipients in the current Congress, and for years he has blocked tobacco-control legislation, sources say. While Dingell's colleagues declined to comment for the record, Waxman says Dingell was "cooperative" on his bill to restrict smoking in public buildings. Asked about Dingell's position on other tobacco-control measures, however, Waxman says only, "On this particular issue, at this particular time, he was helpful."

Since most of Dingell's anti-tobacco actions involve not doing something—scheduling a vote, for example—there is little record of them. But his fingerprints can be found on some tobacco-control measures: Last June the House Rules Committee killed an effort by Reps. Durbin, Synar and Wyden to fast-track legislation authorizing the FDA to regulate tobacco products. Rep. Anthony Beilenson (D-Calif.) told the *Los Angeles Times* the committee had submitted to pressure from Dingell.

In 1987 Dingell had tried to kill another Durbin-backed, Rules Committee end-run. After a proposal to ban smoking on all commercial flights had been rejected by a transportation subcommittee and the Appropriations Committee, Durbin co-sponsored an amendment to effectively ban smoking on commercial airline flights of two hours' duration or less.

Dingell protested, saying the Rules Committee had acted "in a very high-handed and arrogant fashion, to place on this floor ... a piece of legislation which has never been properly or fairly considered in a committee of proper jurisdiction." Dingell then voted against the amendment, which squeaked through the House and eventually became law.

More often than not, Dingell has allowed tobacco-related measures to die of neglect. The reason, says Dingell aide Dennis Fitzgibbons, is the "sloppy drafting of some measures." While conceding that Dingell "didn't get directly involved on a lot of these [tobacco] issues," Fitzgibbons says: "Why should we involve ourselves, make enemies, get tied up in this, not get to other things, when it's only going to go over and get killed in the Senate?"

Because, tobacco opponents say, 3,000 people—most of them teenagers—start smoking every day; because 70 percent of smokers say they want to quit but as many as 80 percent are physically addicted to cigarettes; and because one of every six deaths in this country is caused by smoking.

### **They'd Rather Fight Than Switch**

"What tobacco does to cause so much disease and death in this country makes it the No. 1 public health problem we have today," says Waxman. But with an advertising budget of more than \$4 billion a year, subsidized smokers' rights groups and many of the country's best lawyers, lobbyists and advertising agencies, the tobacco industry spreads a "freedom of choice" message. And when tobacco opponents say "regulation," the industry says "prohibition."

Philip Morris newsletters and petitions circulated by R.J. Reynolds warn smokers of "back-door prohibition" and tell them that FDA Commissioner Kessler is "seeking to end the sale of cigarettes in the country as we now know it..." Full-page newspaper ads feature a photograph of a police SWAT team surrounding a house while an officer barks through a megaphone. "Come out slowly, sir, with your cigarette above your head."

The tobacco lobby's four favorite freedoms, Pertschuk says, are "freedom of choice, freedom of assembly, freedom of speech [and] freedom of enterprise." It is just these freedoms that industry lobbyists emphasize when lobbying congressmembers; and it is just these freedoms that many congressmembers cite when

opposing smoking restrictions or the regulation of tobacco advertising directed at young people. Pertschuk responds that "tobacco control is also about freedom: freedom from commercial predation, freedom from addiction, freedom from the harm caused by involuntary air pollution."

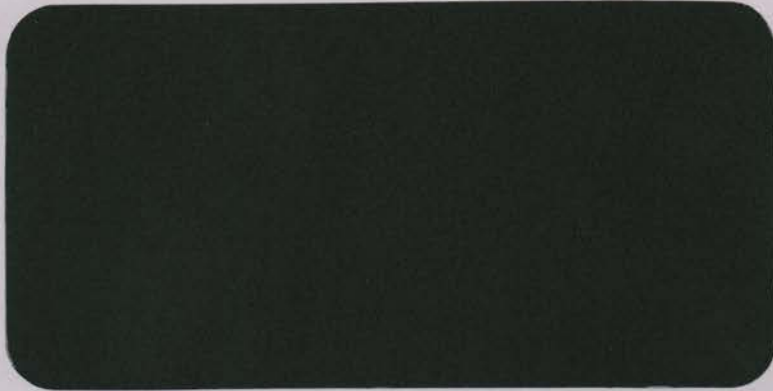
Anti-tobacco lawmakers say they will keep working to protect non-smokers from tobacco smoke and to keep young

**"The members are more desperate for money than they've ever been before because campaigns are more expensive than they've ever been.... Tobacco money is very attractive, even though you can get burned by touching it."**

people from starting to smoke. When it comes to legislative strategy, they speak in vague terms of guerrilla-like actions on the House floor. Republicans, meanwhile, have threatened to challenge the authority of the FDA and OSHA to regulate cigarettes and workplace smoking; if their challenges fail, the industry will take the issues to court, observers say.

Anti-tobacco activists say they'll continue working to smoke out industry supporters and hold them accountable. Support for tobacco must become "politically radioactive," Pertschuk says, adding that while it's already "becoming common to think twice [about taking tobacco money], it has not become common to say no.... On the other hand," he adds, "the members are more desperate for money than they've ever been before because campaigns are more expensive than they've ever been.... Tobacco money is very attractive, even though you can get burned by touching it."

For now, however, industry opponents in Congress are forced to fight not only the powerful tobacco lobby, but their many colleagues who take the money and look the other way. Lawmakers who've tried to convince other congressmembers to restrict tobacco advertising and smoking say the most difficult argument they encounter is the financial one. It seems that tobacco money, like smoking, is a hard habit to break. ♦



Teen Smoking

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**ROBERT WOOD JOHNSON FOUNDATION  
YOUTH ACCESS SURVEY:  
RESULTS OF A NATIONAL HOUSEHOLD SURVEY  
TO ASSESS PUBLIC ATTITUDES ABOUT POLICY  
ALTERNATIVES FOR LIMITING MINOR'S  
ACCESS TO TOBACCO PRODUCTS**

**December 1994**

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## EXECUTIVE SUMMARY

The primary purpose of the survey is to assess public opinion about policy alternatives to curb minors' access to tobacco products and to restrict various types of advertising and promotions that may encourage them to use tobacco. Although other surveys have obtained public opinion about selected minors' access and advertising issues from state or regional samples, this survey is unique in its focus on national opinion concerning a broad range of policies designed to limit minors' access to tobacco products. In addition, the survey obtained public views on selected proposals to assist smokers attempting to quit and to regulate the nicotine content of tobacco products.

The survey was conducted by computer-assisted telephone interview with 2,345 persons 18 and older from October 5 to November 3, 1994, and interviews were conducted in English or Spanish. The survey sample was selected using random digit dialing methods, and African-Americans (n=486), Hispanics (n=402), and California residents (n=465) were oversampled. The survey results were weighted to adjust for differences in sampling and response rates. The margin of sampling error (95 percent confidence interval) for estimates made for the total sample is approximately plus or minus 2.5 percent, and is somewhat higher for subgroups.

Findings by issue area are summarized below:

***Broadly Based Support.*** Support for several policies designed to limit minors' access to tobacco products is broadly based. Given the political shift in the last election, it is noteworthy that support for these policies cuts across age, sex, ethnicity, ideology, party, and region. Measures receiving broadly-based support include banning or restricting vending machines, verifying identification of youthful customers, banning self-service displays, and banning coupon promotions featuring items appealing to youth or offering free cigarettes by mail, sale of single cigarettes, and distribution of free cigarettes.

***Youth Access Policies.*** Although the sale of tobacco products to minors is illegal, the public recognizes that it is relatively easy for minors to purchase cigarettes and other tobacco products and will support specific policies that limit minors' access to those products. Sixty-eight percent of adults believe that it is very or somewhat easy for minors to buy cigarettes and other tobacco products in their communities. More importantly, young adults (18 to 24 years of age) who may have a more realistic perception of this problem, are much more likely (81 percent) to believe that it is easy for minors to buy tobacco products.

Assuming that the public believes that the objective of these policies is to reduce minors' access to tobacco products, rather than to limit the rights of adults to purchase tobacco products, there is broadly-based support for a ban on all cigarette vending machines (74 percent), on vending machines accessible to minors (91 percent), on self-service displays (78 percent), and a requirement to verify the identification of anyone appearing to be under age before selling cigarettes or tobacco products (94 percent). However, the public was less likely to support increasing age limits to 19 or 21 for tobacco purchases (50 and 49 percent, respectively) and limiting tobacco sales to certain types of retailers (46 percent).

***Tobacco Advertising and Promotions.*** The public is more likely to support bans on tobacco promotions than advertising. From 70 to 88 percent support bans on coupon promotions featuring items appealing to kids or offering free cigarettes, sales of single cigarettes, and distribution of free cigarettes on public streets. Support varied more for prohibiting tobacco companies from paying to show their products in movies and videos (60 percent) and from sponsoring sports or entertainment events where

their brand names are featured (55 percent), with males and young adults being least supportive. Overall, 59 percent of all adults supported a ban on billboard advertising and 51 percent a ban on advertising through newspapers and magazines. However, restrictions on advertising appear to be polarizing, with males and young adults, in particular, demonstrating weaker support for these policies.

We also assessed public views on the impact of limited advertising restrictions (tombstone advertising and plain packaging) on minors. Tombstone advertisements would limit the tobacco company's message to text, with pictures and cartoons prohibited. Plain packaging of cigarettes and smokeless tobacco products would mean that the package would include only the brand name and warning label in black letters against a white background. Most adults (73 percent) believe that tombstone advertising would make smoking less appealing to minors, but only about half (47 percent) believe that plain packaging would reduce the appeal of cigarettes to this group. Tobacco users, in particular, were skeptical about the impact of plain packaging on young smokers' purchasing decisions.

***Proposals to Regulate Tobacco Products and Assist with Smoking Cessation.*** The overwhelming majority (92 percent) of the public, including current smokers who do not plan to quit (85 percent), believe that nicotine is addicting. Nearly all (93 percent) support requiring tobacco companies to list additives on package labels and most (71 percent) also support extending government regulation of nicotine products, such as patches and gum, to cigarettes. The public also would support policies requiring tobacco companies to reduce the amount of nicotine in cigarettes (79 percent) and insurance companies to cover the cost of programs to quit smoking (65 percent). Support for these proposals crosses ideology and party.

***Differences in Level of Support by Population Characteristics.*** Although support for many measures to curb minors' access to tobacco products is broadly based, we observed that women, older adults, African-Americans and Hispanics were more supportive of most policies. Among political groups, conservative democrats consistently demonstrated greater support for tobacco control measures than other groups. Adults who believe they have lost family members or friends to tobacco related diseases, a group representing 44 percent of the population, were more supportive of policies designed to limit access to minors. Like many other surveys on public attitudes toward tobacco control policies, we observed that non-users were more supportive than users. However, current tobacco users who indicated they plan to quit in the next six months expressed levels of support for youth access policies that were more similar to non-users than users who do not plan to quit.

## I. INTRODUCTION

The primary purpose of the survey is to assess public opinion about policy alternatives to curb minors' access to tobacco products and to restrict various types of advertising and promotions that may encourage them to use tobacco. Although other surveys (discussed below) have obtained the public's views about selected minors' access and advertising issues from state or regional samples, this survey is unique in its focus on national opinion concerning a broad range of access and advertising issues. In addition, the survey obtained public assessments of selected proposals to assist smokers attempting to quit and to regulate the nicotine content of tobacco products. The survey was conducted by computer-assisted telephone interview with 2,345 persons 18 and older from October 5 to November 3, 1994, and interviews were conducted in English or Spanish. The survey sample was selected using list-assisted random digit dialing methods, and African-Americans (n=486), and Hispanics (n=402) were oversampled. California residents (n=465) also were oversampled to obtain separate estimates for a state in which tobacco control policies have received considerable attention in recent years. The survey results were weighted to adjust for differences in sampling and response rates.

In the remainder of this chapter, we describe the background for the survey, instrument design, and sample characteristics. Chapter II describes responses to policy alternatives to limit minors' access and to restrict tobacco advertising and promotions, and Chapter III describes the public's views of proposals to regulate the nicotine content of tobacco products and to assist smokers who want to quit. Our conclusions are summarized in Chapter IV. The sample design, procedures for constructing weights and estimating sampling errors, and tables showing confidence intervals and minimum differences required for comparisons between subgroups, are included in Appendix A; English and Spanish versions of the questionnaire are included in Appendix B; tables showing responses to each question by demographic, socioeconomic, political, and tobacco use characteristics are included in Appendix C. In general, the responses of California residents were similar to those of the rest of the country; the few issues where Californians had different views are summarized in Appendix D.

## A. BACKGROUND

Few people begin smoking as adults; 89 percent of adults who have ever smoked daily began smoking by age 18, and the average age when they first tried a cigarette was 14.6. Seventy-one percent of them became daily smokers by age 18 (CDC 1994, 1991 National Household Surveys on Drug Abuse, p. 65). Similar results have been provided by surveys of adolescents. The average teen smoker starts smoking at age 13 and becomes a daily smoker by age 14.5 (Teenage Attitudes and Practices Survey II, 1993, unpublished data.). It has been estimated that over 500 million packs of cigarettes are consumed by minors, and that at least half are sold illegally to the minors (Cummings 1994, pp. 300-302).

Although all states prohibit the sale of tobacco to minors, few states enforce their access laws; the secretary of health and human services estimates that three-fourths of the approximately one million outlets sell tobacco to minors (Lynch and Bonnie 1994, p. 201). Surveys of youth and industry studies have supported these assessments. The University of Michigan's Monitoring the Future Study found that 75 percent of eighth graders and 89 percent of tenth graders reported that cigarettes would be fairly or very easy to get (Johnston, 1994). A 1990 survey of ninth grade students, conducted as part of the National Cancer Institutes's COMMIT trial showed that two-thirds of current smokers buy their own cigarettes (Cummings 1992). A survey conducted by the vending machine industry also reported that 72 percent of teenage smokers purchased their own cigarettes (Response Research 1989). Trials designed to measure the prevalence of retail tobacco sales to minors have supported survey findings. In thirteen studies of over-the-counter sales, the weighted average of the percentage of minors able to purchase tobacco was 67 percent (range from 32 to 87 percent) (CDC, p. 249).

Research on the relationship between advertising and other promotions and tobacco use by minors was reviewed by the Institute of Medicine's (IOM) Committee on Preventing Nicotine Addiction in Children and Youths (Lynch and Bonnie, Chapter 4). The Committee cites three recent trends that have increased attention by public health officials to this issue, including (1) initial use at ever younger ages,

(2) increased use of smokeless products, and (3) a reduction in the rate at which smoking prevalence by youths has been decreasing.

They also reviewed studies indicating that legal restrictions on advertising and promotional activities have reduced smoking prevalence, with the strongest evidence based on a study commissioned by the government of New Zealand to assess trends in 33 countries between 1970 and 1986. The study focused mainly on adult consumption, but also noted that, "In countries where advertising has been totally banned or severely restricted, the percentage of young people who smoke has decreased more rapidly than in countries where tobacco promotion has been less restricted." (New Zealand 1989).

In the United States, many state and local governments and government agencies have enacted legislation to restrict certain forms of cigarette advertising (Bierig, et al., 1994). For example, some communities are banning cigarette billboards in sports facilities in order to keep cigarette ads from young sports fans. Other communities have banned cigarette advertisements throughout their mass transit systems.

The tobacco industry has denied that advertising and promotion causally affect the decisions of young people to begin smoking, and the Committee acknowledged that it is not feasible to conduct case control studies in an environment free of tobacco marketing to determine the independent causal effect of advertising and promotion on tobacco consumption. However, they argue that "... the preponderance of evidence suggests that features of advertising and promotion tend to encourage youths to smoke and that this is sufficient basis for action." (Lynch and Bonnie, pp. 130-131).

A number of surveys have assessed public support for various legislative actions to prevent or limit minors' access to tobacco products and to ban or restrict advertising and promotions. Several of these have been reviewed by the surgeon general and are summarized in Tables I.1 and I.2 (CDC, pp. 212-214). Most people do not believe that laws prohibiting the sale of tobacco to minors are adequately



TABLE I.1  
PUBLIC OPINION ABOUT DIFFERENT LEGISLATIVE ACTIONS TO PREVENT  
MINORS' ACCESS TO TOBACCO, UNITED STATES, 1987-1991

| Source and Year of Survey                                                                | Description of Survey                                                                                                                                                  | Questions or Statements                                                                            | Responses                                                 |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| University of Minnesota 1987<br>(Forster et al. 1991)                                    | Telephone survey of a random sample of adults (aged 18-74 years) in seven communities in Minnesota (N=821)                                                             | Do you favor or oppose suspending a retailer's tobacco license for sale to minors?                 | 75% favored suspending the license                        |
|                                                                                          |                                                                                                                                                                        | Do you favor or oppose eliminating all cigarette vending machines?                                 | 57% favored eliminating the machines                      |
|                                                                                          |                                                                                                                                                                        | Do you favor or oppose eliminating cigarette vending machines where teenagers gather?              | 80% favored eliminating the machines                      |
| American Cancer Society 1989<br>(Marcus et al., in press)                                | Telephone survey of a random sample of adults (aged $\geq 18$ years) in four states: Arizona (N = 294), Pennsylvania (N = 291), Texas (N = 303), and Michigan (N = 98) | Do you think there should be laws to ban the sale of cigarettes through vending machines?          | Support for a ban across the four states sampled: 60%-68% |
| National Cancer Institute 1989 (Centers for Disease Control 1991b)                       | Telephone survey of a random sample of 300 to 400 adults (aged 25-64 years) in each of 10 U.S. COMMIT* intervention communities                                        | Tobacco products should be as strictly controlled as alcohol products.                             | Agreement across the 10 communities sampled: 51%-75%      |
|                                                                                          |                                                                                                                                                                        | Merchants who sell tobacco to minors should be fined.                                              | 77%-93%                                                   |
|                                                                                          |                                                                                                                                                                        | Cigarette vending machines should be eliminated in places where teens gather.                      | 76%-89%                                                   |
| California Department of Health Services (California Department of Health Services 1991) | Telephone survey of a random sample of adults (aged $\geq 18$ years) in California (N = 6,600)                                                                         | Do you think cigarette vending machines that are accessible to minors should be allowed or banned? | 82% favored a ban (74% smokers; 87% nonsmokers)           |

\*COMMIT = Community Intervention Trial for Smoking Cessation.

Source: CDC (1994) Table 2, p. 214.

TABLE I.2

PUBLIC OPINION ABOUT RESTRICTING OR BANNING DIFFERENT TYPES OF TOBACCO  
ADVERTISING AND PROMOTIONS, UNITED STATES, 1987-1991

| Source and Year of Survey                                                                        | Description of Survey                                                                                                                                                  | Questions or Statements                                                                                                       | Responses                                            |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| University of Minnesota 1987<br>(Forster et al. 1991)                                            | Telephone survey of a random sample of adults (aged 18-74 years) in seven communities in Minnesota (N=821)                                                             | Do you favor or oppose prohibiting tobacco signs and billboards?                                                              | 73% favored a prohibition                            |
|                                                                                                  |                                                                                                                                                                        | Do you favor or oppose prohibiting tobacco advertising in magazines and newspapers?                                           | 70% favored prohibition                              |
| American Cancer Society 1989<br>(Marcus et al., in press)                                        | Telephone survey of a random sample of adults (aged $\geq 18$ years) in four states: Arizona (N = 294), Pennsylvania (N = 291), Texas (N = 303), and Michigan (N = 98) | Advertising of cigarettes should be banned in newspapers, magazines, and outdoor posters or billboards.                       | Agreement across the four states sampled: 61%-69%    |
|                                                                                                  |                                                                                                                                                                        | Tobacco companies should be prohibited from distributing free tobacco samples on public property or through the mail.         | 73%-81%                                              |
|                                                                                                  |                                                                                                                                                                        | Tobacco companies should be prohibited from sponsoring sports events or advertising their products at these events.           | 49%-59%                                              |
| National Cancer Institute 1989 (Centers for Disease Control 1991b)                               | Telephone survey of random sample of 300 to 400 adults (aged 25-64 years) in each of 10 U.S. COMMIT* intervention communities                                          | Tobacco companies should not be allowed to sponsor sporting and cultural events.                                              | Agreement across the 10 communities sampled: 31%-56% |
| California Department of Health Services 1990<br>(California Department of Health Services 1991) | Telephone survey of a random sample of adults (aged $\geq 18$ years) in California (N = 6,600)                                                                         | Do you think advertising of tobacco products on outdoor billboards should be allowed or banned?                               | 54% favored a ban (42% smokers; 62% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think advertising of tobacco products through newspapers and magazines should be allowed or banned?                    | 49% favored a ban (38% smokers; 57% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think sponsorship of sporting or cultural events by tobacco companies should be allowed or banned?                     | 52% favored a ban (39% smokers; 61% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think that distribution of free cigarettes and tobacco products on public property should be allowed or banned?        | 75% favored a ban (62% smokers; 84% nonsmokers)      |
|                                                                                                  |                                                                                                                                                                        | Do you think that distribution of free tobacco samples or coupons to obtain free samples by mail should be allowed or banned? | 67% favored a ban (52% smokers; 78% nonsmokers)      |

\* COMMIT = Community Intervention Trial for Smoking Cessation.

Source: CDC (1994) Table 2, p. 214.

enforced and majorities of both non-smokers and smokers have supported stronger measures to limit youth access to tobacco products. Some surveys have assessed public support for specific measures to limit youth access, such as licensing retailers, penalizing merchants who sell to minors, and eliminating or restricting the location of vending machines. Strong majorities have favored suspending retailers' licenses for sales to minors, and several surveys have shown support for controlling tobacco as strictly as alcohol products. There has also been support for banning the sale of cigarettes through vending machines (57 to 68 percent in the University of Minnesota and American Cancer Society surveys cited in Table I.1). Moreover, support increases (76 to 89 percent) for vending machine bans in areas that are accessible to minors.

Several surveys have also assessed support for limiting specific types of tobacco advertising and promotions (see Table I.2). There has been strong support for banning the distribution of free cigarettes and tobacco products on public property or by mail (75 and 67 percent, respectively in a large California Department of Health Survey and 73 to 81 percent in an American Cancer Society Survey, cited in I.2). Support for prohibiting tobacco advertising in newspapers, magazines, and billboards and prohibiting sponsorship of sporting and cultural events by tobacco companies is more variable across surveys.

## **B. INSTRUMENT DESIGN**

The surveys described above included selected questions assessing public support for actions intended to curb youth access to tobacco products; however, the main focus of these surveys was on broader tobacco control issues and they were based on state or community samples. The Robert Wood Johnson Foundation's (RWJF) Youth Access Survey is different in that its scope is national and its primary focus is on a broad range of policy alternatives intended to limit minors' access to tobacco products and to prohibit or reduce the effect of advertising and promotional campaigns.

The survey topics and questions were developed by RWJF and Mathematica Policy Research, Inc. (MPR), pretested with 20 respondents, and modified as a result of the pretest before being fielded. We reviewed questions used in the surveys cited above and the first five state surveys conducted for the

RWJF SmokeLess States program (results not yet published). We developed new questions for issues that had not previously been included on surveys and revised wording of existing questions, where necessary, to clearly indicate to respondents that the objective of these policies was to reduce youth access to tobacco products or to make tobacco products less appealing to youth, rather than to limit the rights of adults to purchase tobacco products.

For example, many surveys have asked whether or not vending machines should be banned. However, before asking the question itself, we indicated that the objective of this ban was to reduce youth access.

- *Next, I am going to ask for your opinion about several proposals intended to make it more difficult for kids to get cigarettes.* Do you think the sale of cigarettes in vending machines should be allowed or banned? (a2) [IF NO, WE ALSO ASKED] Do you think vending machines which are accessible to kids should be allowed or banned? (a3)

We also incorporated research results into questions. For example, we cited research that has demonstrated that most smokers begin as adolescents before asking opinions on increasing legal age limits.

- *Research has shown that most adult smokers begin smoking before they are 21.* Do you think that restricting the sale of cigarettes to people 21 and older will help reduce the number of kids under 21 who begin smoking? (a8a)

Similarly, before asking opinions on advertising and promotional restrictions, we indicated that the purpose of these proposals was to restrict the use of methods that may encourage youth to smoke.

- Cigarette companies currently use many different advertising and promotion methods. I am going to ask for your opinion concerning several proposals designed to restrict promotions or advertisements that *may encourage kids to smoke.* (a9)

Questions on public support for banning specific promotions or restricting advertising methods also mentioned the objective of limiting youth access to cigarettes and other tobacco products (see questions a11, a13, a14, a15, and a18).

The policy alternatives included in the survey are summarized below; the full text of questions is included in Appendix B.

#### *Youth Access<sup>1</sup>*

- Ease of access (a1)
- Ban or restrict location of cigarette vending machines (a2-3)
- Verification of youthful customers IDs by retailers (a4)
- Ban self-service displays (a5)
- Limit cigarette sales to selected retail outlets (a6)
- Increase legal age of purchase to 19 or 21 (a8a and a8b)

#### *Advertising*

- Ban billboard advertising (a9)
- Ban newspaper advertising (a10)
- Support for tombstone advertising (a11)
- Support for plain packaging (a13)

#### *Promotions*

- Prohibit coupons in cigarette packs (a14)
- Prohibit coupon promotions to obtain free cigarettes (a15)
- Prohibit sale of single cigarettes (a16)
- Prohibit distribution of free cigarettes on public streets (a17)
- Prohibit tobacco companies from paying to display their products in movies or videos (a19)
- Prohibit tobacco companies from sponsoring sporting or entertainment events where their brand names are featured (a18)

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<sup>1</sup>We did not include questions on methods for enforcing compliance by retailers. This issue is complex and there was insufficient time to develop appropriate questions to adequately assess it in a national survey.

### *Nicotine and Smoking Cessation Policies*

- Perception of nicotine addiction (a29)
- Awareness of nicotine manipulation (a30-a30a)
- Require tobacco companies to gradually reduce the amount of nicotine in cigarettes (a32a)
- Require insurance companies to cover the cost of programs to quit smoking (a32b)
- Require tobacco companies to list additives on package labels (a34a)
- Government should regulate cigarettes, since it regulates other products containing nicotine (a34b)

### **C. SAMPLE CHARACTERISTICS**

The characteristics of the survey sample are shown in Table I.3. The survey included questions on demographic characteristics (age, sex, ethnicity, and whether there are any children in the household), socioeconomic background (education, occupation, and income), political characteristics (ideology, party, and political activity), tobacco use, and the perception of having lost a family member or close friend to tobacco related diseases. Region was determined by mapping telephone exchanges into census regions.

Conventional categories were used for most characteristics. For tobacco use, we differentiated among persons living in tobacco-free households, non-tobacco users living in households in which other household members use tobacco, current tobacco users who indicated they plan to quit within the next six months, and current users who do not plan to quit within the next six months. We chose this categorization for two reasons. First, current users who plan to quit are a key group for questions on smoking cessation issues and may have different views from other tobacco users on other questions. Second, it was not obvious whether the views of non-tobacco users who are living with tobacco users would conform with other tobacco users, non-tobacco users, or fall between the two groups. Tobacco use was defined to include persons who currently smoke cigarettes every day or some days or currently use pipes, cigars, chewing tobacco, or snuff on a regular basis.



TABLE I.3  
SAMPLE CHARACTERISTICS<sup>a</sup>

| Characteristics                   | Percent |
|-----------------------------------|---------|
| <b>Sex</b>                        |         |
| Male                              | 47.8    |
| Female                            | 52.2    |
| <b>Age</b>                        |         |
| 18-24                             | 12.6    |
| 25-34                             | 22.4    |
| 35-54                             | 37.5    |
| 55 and older                      | 27.4    |
| <b>Ethnicity</b>                  |         |
| White Non-Hispanic                | 77.3    |
| African American Non-Hispanic     | 11.0    |
| Hispanic                          | 8.4     |
| Other                             | 3.2     |
| Not Ascertained                   | 0.1     |
| <b>Region</b>                     |         |
| Northeast                         | 19.1    |
| Midwest                           | 24.1    |
| South                             | 37.1    |
| West                              | 19.7    |
| <b>Have Children in Household</b> |         |
| Yes                               | 43.7    |
| No                                | 56.2    |
| Not Ascertained                   | 0.1     |
| <b>Education</b>                  |         |
| High School or Less               | 54.5    |
| Some College                      | 24.5    |
| College Graduate or Higher        | 20.7    |
| Not Ascertained                   | 0.2     |

TABLE I.3 (continued)

| Characteristics                                   | Percent |
|---------------------------------------------------|---------|
| <b>Occupation</b>                                 |         |
| Professional                                      | 23.5    |
| Clerical                                          | 14.7    |
| Blue Collar                                       | 24.7    |
| Not in Labor Force                                | 35.6    |
| Not Ascertained                                   | 1.4     |
| <b>Income</b>                                     |         |
| Less than \$20,000                                | 21.1    |
| \$20,000 to less than \$50,000                    | 46.5    |
| \$50,000 or More                                  | 21.1    |
| Not Ascertained                                   | 11.4    |
| <b>Ideology</b>                                   |         |
| Liberal                                           | 19.4    |
| Moderate                                          | 31.9    |
| Conservative                                      | 39.6    |
| Not Ascertained                                   | 9.1     |
| <b>Party Affiliation</b>                          |         |
| Democrat                                          | 36.3    |
| Independent                                       | 28.1    |
| Republican                                        | 28.2    |
| Not Ascertained                                   | 7.4     |
| <b>Ideology and Party Affiliation<sup>b</sup></b> |         |
| Liberal Democrat                                  | 9.7     |
| Liberal Independent                               | 6.3     |
| Liberal Republican                                | 2.8     |
| Moderate Democrat                                 | 12.7    |
| Moderate Independent                              | 11.7    |
| Moderate Republican                               | 5.8     |
| Conservative Democrat                             | 10.6    |
| Conservative Independent                          | 8.5     |
| Conservative Republican                           | 18.4    |
| Not Ascertained                                   | 13.5    |

TABLE I.3 (continued)

| Characteristics                                                       | Percent |
|-----------------------------------------------------------------------|---------|
| <b>Political Activities</b>                                           |         |
| Candidate or Worked on Campaign                                       | 10.6    |
| Contributed Money or Wrote Letters to Politicians                     | 27.1    |
| Voted                                                                 | 39.9    |
| None of the Above/Not Known                                           | 22.4    |
| <b>Tobacco Use</b>                                                    |         |
| Current User, Plans to Quit in 6 Months                               | 11.3    |
| Current User, No Plans to Quit in 6 Months                            | 15.5    |
| Non-User; Other Household Member is a User                            | 13.3    |
| Non-User; No Tobacco Users in Household                               | 59.9    |
| <b>Lost Family Member or Close Friend to Tobacco-Related Diseases</b> |         |
| Yes                                                                   | 44.3    |
| No                                                                    | 53.3    |
| Not Ascertained                                                       | 2.3     |

<sup>a</sup>All distributions are weighted; weighting procedures are described in Appendix A.

<sup>b</sup>For tables interacting ideology and party affiliation, we combined independents and republicans, both because of small subgroup sample sizes and because republicans and independents had similar distributions, after controlling for ideology. However, Appendix C shows separate distributions for each political group defined by ideology and party.

We also asked respondents whether they have ever lost a family member or close friend to diseases caused by smoking. While this question is clearly based on perception, it is not unlikely that perceived loss of a loved one may affect views on tobacco control policies.<sup>2</sup>

In subsequent sections, we highlight important patterns for major subgroups, defined by selected demographic and political characteristics and tobacco use. In general, we did not discuss patterns by socioeconomic measures (income, occupation, and education). These characteristics are highly correlated with each other and with demographic characteristics, and we did not perform multivariate analyses on these data to attempt to isolate their relationships to youth access policies.<sup>3</sup> An exception is questions on awareness of the nicotine spiking issue, where responses were strongly related to education. A full set of tables crosstabulating each question by these characteristics is included in Appendix C.

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<sup>2</sup>As will be shown below, respondents who indicated that they have lost family or friends to tobacco-related diseases were more likely to support policies designed to curb youth access to tobacco products than other respondents. We did not investigate the demographic characteristics of this group, but will do so in the future.

<sup>3</sup>In subsequent papers, we expect to use multivariate methods to analyze differences in support for policies to reduce tobacco use by subgroups of the population.



## II. YOUTH ACCESS, ADVERTISING AND PROMOTIONS

### A. YOUTH ACCESS TO TOBACCO PRODUCTS

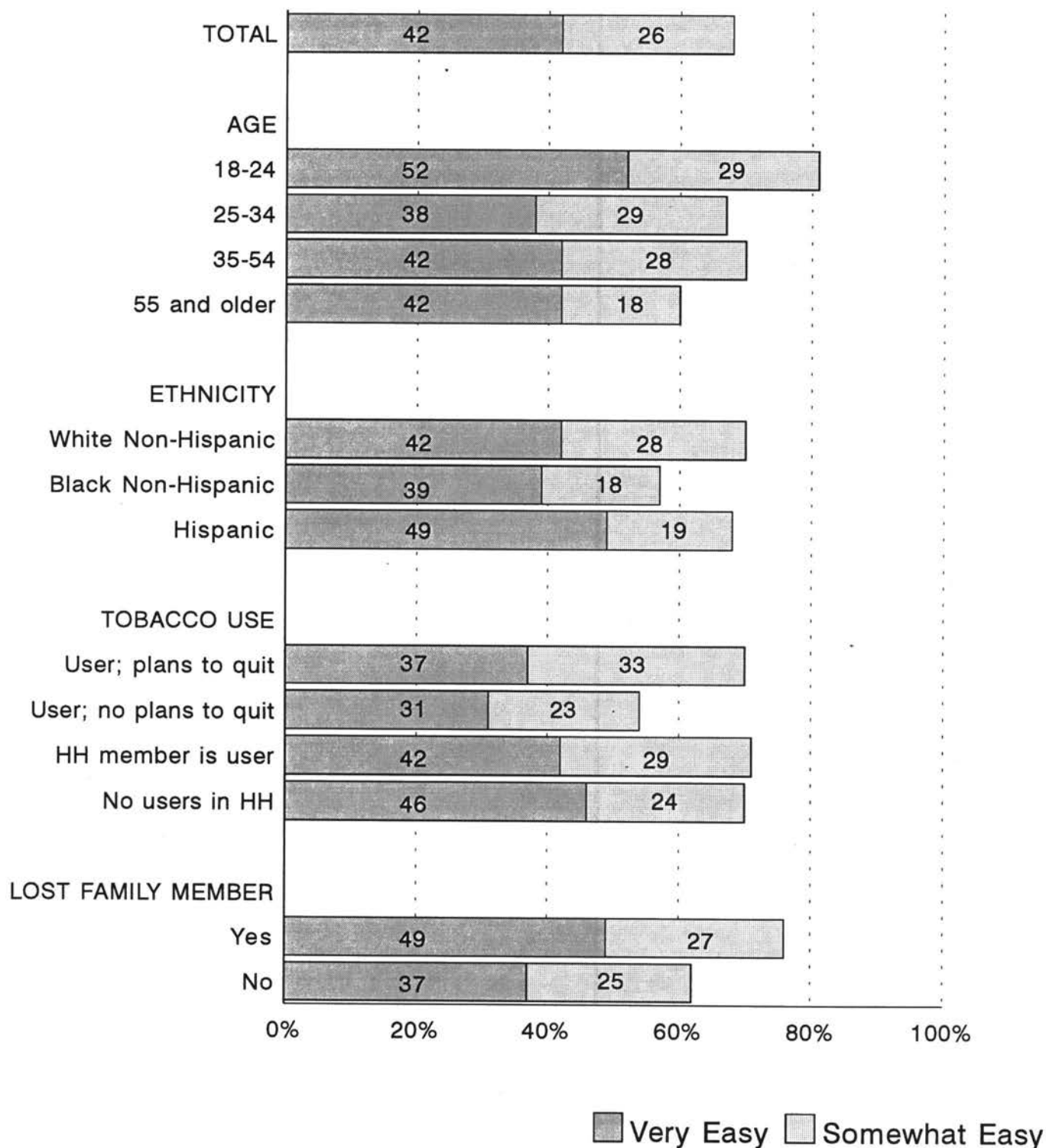
Most adults believe that it is relatively easy for minors' to obtain cigarettes. Overall, 68 percent of the public believe that it is very or somewhat easy for minors to purchase cigarettes or other tobacco products in their communities (Table II.1). More importantly, young adults (18 to 24 years of age), who may have a more realistic perception of this problem, are much more likely to believe that it is easy for minors to buy tobacco products. Eighty-one percent believe that it is very or somewhat easy to obtain tobacco products, compared with 67 percent for those 25 to 34, 70 percent of those 35 to 54, and 60 percent for those 55 and older. Young adults also are more likely to believe that it is *very* easy to obtain tobacco products than are older respondents (52 percent compared with 38 to 42 percent for other age groups).

African-American respondents were somewhat less likely to believe that tobacco products were very or somewhat easy to buy in their communities (57 percent versus 68 percent for Hispanics and 70 percent for white non-Hispanic respondents).

Tobacco use and having lost a family member or close friend to diseases caused by smoking were related to perceptions of youth access. Current tobacco users who do not plan to quit in the next six months were considerably less likely to believe that minors can easily obtain cigarettes in their communities (54 percent), compared with non-users and users who plan to quit (about 70 percent for each group). Adults who indicated they have lost friends or relatives to tobacco related diseases also are more likely to believe that minors have easy access to tobacco products than those who have not experienced a personal loss (76 versus 62 percent). Persons who have experienced personal losses have particularly strong beliefs about this issue, as 49 percent indicated they believe it is very easy for minors to buy cigarettes and other tobacco products in their communities (compared with 37 percent for those who indicated they did not lose anyone to tobacco-related diseases).



TABLE II.1  
EASE OF ACCESS <sup>a</sup>  
(Percent)



<sup>a</sup> In your opinion, how easy is it for kids to buy cigarettes and other tobacco products in your community -- very easy, somewhat easy, somewhat difficult, or very difficult?

We assessed public support for five proposals designed to limit access to tobacco products:

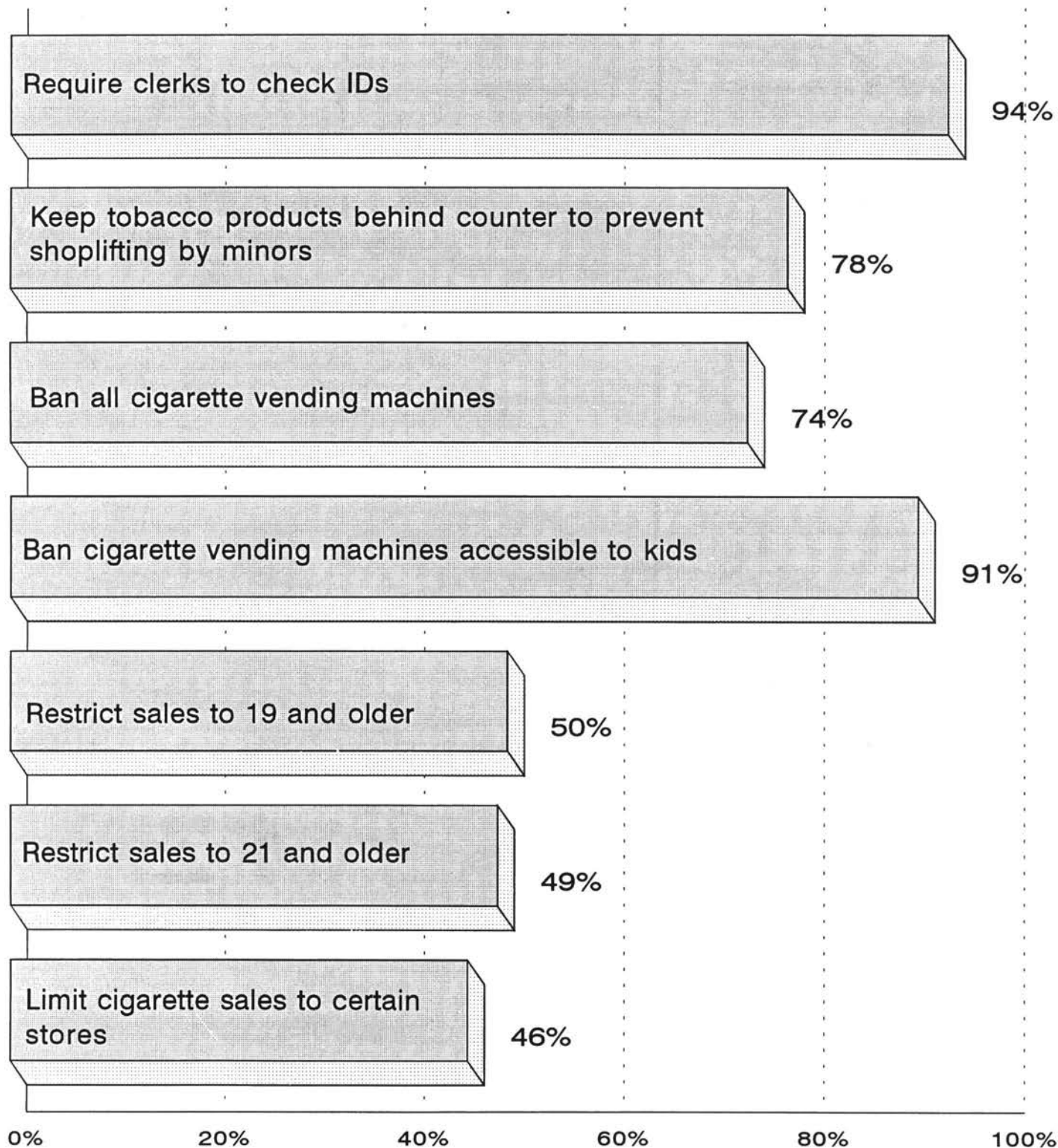
- Banning or restricting cigarette vending machines (a2-3)
- Verifying the identification of young customers by retailers (a4)
- Banning self-service displays (a5)
- Limiting cigarette sales to selected retail outlets (a6)
- Increasing the legal age of purchase to 19 or 21 (a8a and a8b)

The public showed strong support for restricting cigarette vending machines (74 percent supporting a total ban and 91 percent a ban on vending machines "which are accessible to kids," banning self-service displays (78 percent), and requiring retailers to verify the identification of young customers (94 percent), but weaker support for increasing the legal age of purchase to age 19 or 21 (50 percent and 49 percent, respectively), or limiting licensing to selected outlets (46 percent) (see Table II.2). The strong support for vending machine restrictions mirrors the findings of an American Cancer Society survey, in which 73 percent of voters reported that they would favor banning cigarette vending machines because of concern with children's easy access to the machines (Marttila and Kiley 1993). Other surveys also have shown that the public supports restrictions or bans on cigarette vending machines (see Table I.1 above). Moreover, many areas of the country have imposed at least some limitations on cigarette vending machines; a recent report by the Office of the Inspector General states that restrictions have been adopted by 21 states, Washington D.C., and 170 local communities (Office of the Inspector General, 1992).

Self-service displays allow customers to help themselves to cigarettes and other tobacco products and present them to a clerk for purchase. Several studies have shown that these displays invite shoplifting by underage customers. For example, a 1992 survey of 7,891 ninth grade students in Erie County, New York showed 44 percent of daily smokers reported having shoplifted cigarettes (Roswell Park 1993). We assessed support for actions to ban self-service displays by asking respondents which of the following statements they agreed with:

TABLE II.2

# PUBLIC OPINION ABOUT POLICIES TO LIMIT MINOR'S ACCESS TO TOBACCO PRODUCTS



- Retailers have the right to display tobacco products wherever they want. OR
- Retailers should keep all tobacco products behind the counter to prevent shoplifting by minors.

Seventy-eight percent indicated support for a ban on self-service displays by selecting the second option.

Nearly everyone (94 percent) favored requiring clerks to check the identification of anyone appearing to be under age before selling them cigarettes or smokeless tobacco. However, the key issue here is enforcement. The Office of the Inspector General (1992) found that state and local officials generally do not enforce laws intended to restrict sales of tobacco products to minors. The IOM Committee on Preventing Nicotine Addiction in Children and Adults recommended monitoring violations of youth access legislation by using 16 and 17-year olds, who are representative of the ethnic makeup of their communities, to conduct random purchase attempts (Lynch and Bonnie, p. 222). We did not test public response to this approach in this survey, but recommend that it be tested in states considering this type of enforcement mechanism.

Support for increasing age limits for tobacco purchases was weaker. After informing respondents that, "Research has shown that most adult smokers begin smoking before they are 21," we asked, "Do you think that restricting the sale of cigarettes to people 21 and older would help reduce the number of kids under 21 who begin smoking?" A follow-up question asked, "Do you think that restricting the sale of cigarettes to people 19 and older will help reduce the number of kids in high school who begin smoking?" For both proposals, support was about equally divided between those who agreed and those who did not.

In its recently published report on youth access issues, the IOM Committee recommended against increasing the minimum age for purchase above 18 (Lynch and Bonnie, p. 224). The Committee argued that the main argument for an age higher than 18 is to minimize use by 16 and 17 year olds. However, they believed that this argument is not strong enough to overcome the presumptive case for an 18-year old minimum age for purchase of tobacco products. They also pointed out that a higher age limit would

be ignored by many retailers, undermining compliance with the youth access ban. The response to these proposals suggests that the public also is not strongly supportive of an increase in the minimum age for purchase.

Support for limiting cigarette sales to specific types of retail outlets also was limited (46 percent). The question was phrased in general terms, "Do you favor or oppose allowing the sale of cigarettes only in certain stores, just as is done with alcohol?" to provide an assessment of overall national support. An alternative approach, which may be used in community or state-based surveys, might focus on specific restrictions, such as tobacco-free zones near schools or bans on pharmacy sales. The IOM Committee argued that tobacco-free zones near schools would reinforce educational efforts directed toward students and bans on pharmacy sales would support the message that tobacco use is incompatible with health (Lynch and Bonnie, pp. 224-225).

Support for policies to limit youth access to tobacco products is broadly based (Table II.3). Given the political shift in the last election, it is noteworthy that strong support for banning or restricting cigarette vending machines, verifying identification of youthful customers, and banning self-service displays was demonstrated across all political groups and regions of the country. Although men and women were both strongly supportive of all three measures, women consistently showed higher levels of support for banning cigarette vending machines and self-service displays. Support from women on these two issues was 11 to 12 percentage points greater than from men. Hispanics (on both issues), and African Americans (on self-service displays), were more supportive of these proposals than white non-Hispanics. Nevertheless, about three-fourths of white non-Hispanics supported both proposals.

Tobacco users, who do not plan on quitting in the next six months, were less supportive of a vending machine ban (52 percent) than users who plan to quit or non-users (70 to 80 percent). Since current tobacco users would be adversely affected by a cigarette vending machine ban, this result is hardly

TABLE II.3  
PUBLIC SUPPORT FOR POLICIES TO LIMIT MINORS' ACCESS TO TOBACCO  
BY SELECTED CHARACTERISTICS  
(Percent)

|                                                                                                                     | Sex <sup>a</sup> |      |        | Age <sup>b</sup> |       |       |     | Ethnicity <sup>c</sup>    |                           |          |
|---------------------------------------------------------------------------------------------------------------------|------------------|------|--------|------------------|-------|-------|-----|---------------------------|---------------------------|----------|
|                                                                                                                     | Total            | Male | Female | 18-24            | 25-34 | 35-54 | 55+ | White<br>Non-<br>Hispanic | Black<br>Non-<br>Hispanic | Hispanic |
| Ban the sale of cigarettes in vending machines (a2)                                                                 | 74               | 68   | 79     | 73               | 75    | 73    | 74  | 73                        | 75                        | 85       |
| Ban vending machines which are accessible to kids (a3) <sup>a</sup>                                                 | 91               | 88   | 94     | 92               | 95    | 91    | 88  | 91                        | 94                        | 93       |
| Require clerks to check IDs of anyone appearing to be under age before selling cigarettes or smokeless tobacco (a4) | 94               | 93   | 94     | 95               | 96    | 94    | 91  | 94                        | 92                        | 93       |
| Retailers should keep tobacco products behind the counter to prevent shoplifting by minors (a5)                     | 78               | 71   | 83     | 78               | 78    | 77    | 77  | 76                        | 83                        | 89       |
| Favor allowing sale of cigarettes only in certain stores, just as is done with alcohol (a6)                         | 46               | 39   | 53     | 53               | 45    | 46    | 45  | 43                        | 47                        | 73       |
| Restrict sale of cigarettes to 21 and older (a8a)                                                                   | 49               | 47   | 50     | 43               | 51    | 50    | 47  | 44                        | 61                        | 65       |
| Restrict sale of cigarettes to 19 and older (a8b)                                                                   | 50               | 49   | 51     | 44               | 53    | 51    | 50  | 47                        | 57                        | 67       |

NOTE: Respondents who supported a total ban on vending machines were skipped over the question on banning vending machines accessible to youth. In this table, we have assumed that respondents supporting a total ban also would support a partial ban.

<sup>a</sup> Differences significant ( $\alpha = .05$ , 2 tail) for a2, a3, a5, a6.

<sup>b</sup> Differences between 18-24 and other age groups significant ( $\alpha = .10$ ) for a6; differences between 18-24 and 25-34 significant ( $\alpha = .10$ ) for a8a and a8b.

<sup>c</sup> Differences between white non-Hispanics and Hispanics significant ( $\alpha = .05$ ) for a2, a5, a6, a8a, a8b; between black non-Hispanics and Hispanics ( $\alpha = .05$ ) for a2, a5, a6, a8b; between white non-Hispanics and black non-Hispanics ( $\alpha = .05$ ), a8a, a8b.



TABLE II.3 (continued)

|                                                                                                                     | Region <sup>d</sup> |         |       |      | Tobacco Use <sup>e</sup>    |                       |     |                              |                               |     | Lost Family Member <sup>f</sup> |    |
|---------------------------------------------------------------------------------------------------------------------|---------------------|---------|-------|------|-----------------------------|-----------------------|-----|------------------------------|-------------------------------|-----|---------------------------------|----|
|                                                                                                                     | Northeast           | Midwest | South | West | User                        |                       |     | Non-User                     |                               |     | Yes                             | No |
|                                                                                                                     |                     |         |       |      | Plans to Quit in Six Months | Does Not Plan to Quit | All | Other HH Member Uses Tobacco | No Tobacco Users in Household | All |                                 |    |
| Ban the sale of cigarettes in vending machines (a2)                                                                 | 75                  | 72      | 75    | 73   | 70                          | 52                    | 60  | 73                           | 80                            | 79  | 80                              | 70 |
| Ban vending machines which are accessible to kids (a3)*                                                             | 93                  | 93      | 92    | 88   | 90                          | 79                    | 84  | 94                           | 94                            | 94  | 95                              | 89 |
| Require clerks to check IDs of anyone appearing to be under age before selling cigarettes or smokeless tobacco (a4) | 92                  | 95      | 94    | 94   | 95                          | 91                    | 93  | 93                           | 94                            | 94  | 96                              | 92 |
| Retailers should keep tobacco products behind the counter to prevent shoplifting by minors (a5)                     | 77                  | 77      | 78    | 78   | 73                          | 69                    | 71  | 83                           | 79                            | 80  | 80                              | 75 |
| Favor allowing sale of cigarettes only in certain stores, just as is done with alcohol (a6)                         | 51                  | 41      | 47    | 48   | 30                          | 24                    | 26  | 49                           | 55                            | 54  | 53                              | 41 |
| Restrict sale of cigarettes to 21 and older (a8a)                                                                   | 50                  | 45      | 50    | 50   | 47                          | 28                    | 36  | 47                           | 55                            | 53  | 53                              | 45 |
| Restrict sale of cigarettes to 19 and older (a8b)                                                                   | 49                  | 49      | 51    | 51   | 47                          | 33                    | 39  | 45                           | 56                            | 54  | 52                              | 48 |

<sup>d</sup> Difference between midwest and northeast significant ( $\alpha = .05$ ) for a6; differences between midwest and south and west, respectively, significant ( $\alpha = .10$ ) for a6.

<sup>e</sup> Differences between users who plan to quit and those who don't significant ( $\alpha = .05$ ) for a2, a3, a8a; differences significant ( $\alpha = .10$ ) for a4; differences between two non-user groups significant ( $\alpha = .05$ ) for a2, a8b ( $\alpha = .10$ ) for a8b; differences between all users and all non-users significant ( $\alpha = .05$ ) for a2, a3, a5, a6, a8a, a8b.

<sup>f</sup> Differences significant ( $\alpha = .05$ ) for all questions except a8b.

TABLE II.3 (continued)

|                                                                                                                     | Ideology <sup>a</sup> |          |              | Party Affiliation <sup>b</sup> |     |      | Ideology and Party Affiliation <sup>i</sup> |              |           |              |               |              |
|---------------------------------------------------------------------------------------------------------------------|-----------------------|----------|--------------|--------------------------------|-----|------|---------------------------------------------|--------------|-----------|--------------|---------------|--------------|
|                                                                                                                     |                       |          |              |                                |     |      | Liberals                                    |              | Moderates |              | Conservatives |              |
|                                                                                                                     | Liberal               | Moderate | Conservative | Dem                            | Rep | Ind. | Dem                                         | Rep/<br>Ind. | Dem       | Rep/<br>Ind. | Dem           | Rep/<br>Ind. |
| Ban the sale of cigarettes in vending machines (a2)                                                                 | 75                    | 72       | 76           | 76                             | 74  | 71   | 76                                          | 73           | 75        | 69           | 81            | 75           |
| Ban vending machines which are accessible to kids (a3) <sup>a</sup>                                                 | 93                    | 91       | 92           | 92                             | 91  | 92   | 91                                          | 94           | 92        | 90           | 93            | 92           |
| Require clerks to check IDs of anyone appearing to be under age before selling cigarettes or smokeless tobacco (a4) | 97                    | 95       | 93           | 95                             | 94  | 94   | 97                                          | 97           | 96        | 95           | 94            | 93           |
| Retailers should keep tobacco products behind the counter to prevent shoplifting by minors (a5)                     | 75                    | 75       | 79           | 79                             | 75  | 78   | 78                                          | 73           | 77        | 73           | 81            | 78           |
| Favor allowing sale of cigarettes only in certain stores, just as is done with alcohol (a6)                         | 47                    | 46       | 47           | 51                             | 43  | 45   | 53                                          | 42           | 48        | 44           | 54            | 44           |
| Restrict sale of cigarettes to 21 and older (a8a)                                                                   | 44                    | 47       | 53           | 52                             | 50  | 43   | 47                                          | 40           | 51        | 46           | 58            | 50           |
| Restrict sale of cigarettes to 19 and older (a8b)                                                                   | 43                    | 52       | 53           | 53                             | 52  | 45   | 44                                          | 42           | 55        | 50           | 59            | 51           |

<sup>a</sup> Differences between all liberals and all conservatives significant ( $\alpha = .05$ ) for a8a and a8b and between moderates and conservatives for a8a.

<sup>b</sup> Differences between democrats and independents significant ( $\alpha = .05$ ) for a8a and a8b, and between democrats and republicans significant ( $\alpha = .05$ ) for a6. Differences between democrats and independents significant ( $\alpha = .10$ ) for a6.

<sup>i</sup> Differences between liberal democrats and liberal rep/ind. significant ( $\alpha = .05$ ) for a6; between conservative democrats and conservative rep/ind. significant ( $\alpha = .05$ ) for a6 and ( $\alpha = .10$ ) for a8a and a8b.

surprising. However, even tobacco users who do not intend to quit in the next six months are supportive of a ban on vending machines which are accessible to kids (79 percent). Both tobacco users planning to quit (73 percent) and those not planning to quit (69 percent) were supportive of banning self-service displays.

The ambivalence of the public toward increasing the legal age of purchase was also broadly based, with the notable exceptions of African Americans, Hispanics, and conservative democrats. Sixty-five percent of Hispanics and 61 percent of African Americans, compared with only 44 percent of white non-Hispanics, agreed that the legal age should be increased to 21. Similarly, 58 percent of conservative democrats also supported increasing the age of purchase to 21, compared with 50 percent of republican and independent conservatives, and less than 50 percent of liberals and moderates, regardless of party.

Hispanics also were strongly in favor of allowing the sale of cigarettes only in certain stores, just as is done with alcohol (73 percent), compared with less than half of African Americans and white non-Hispanics. No other subgroup of the population was strongly supportive of this measure.

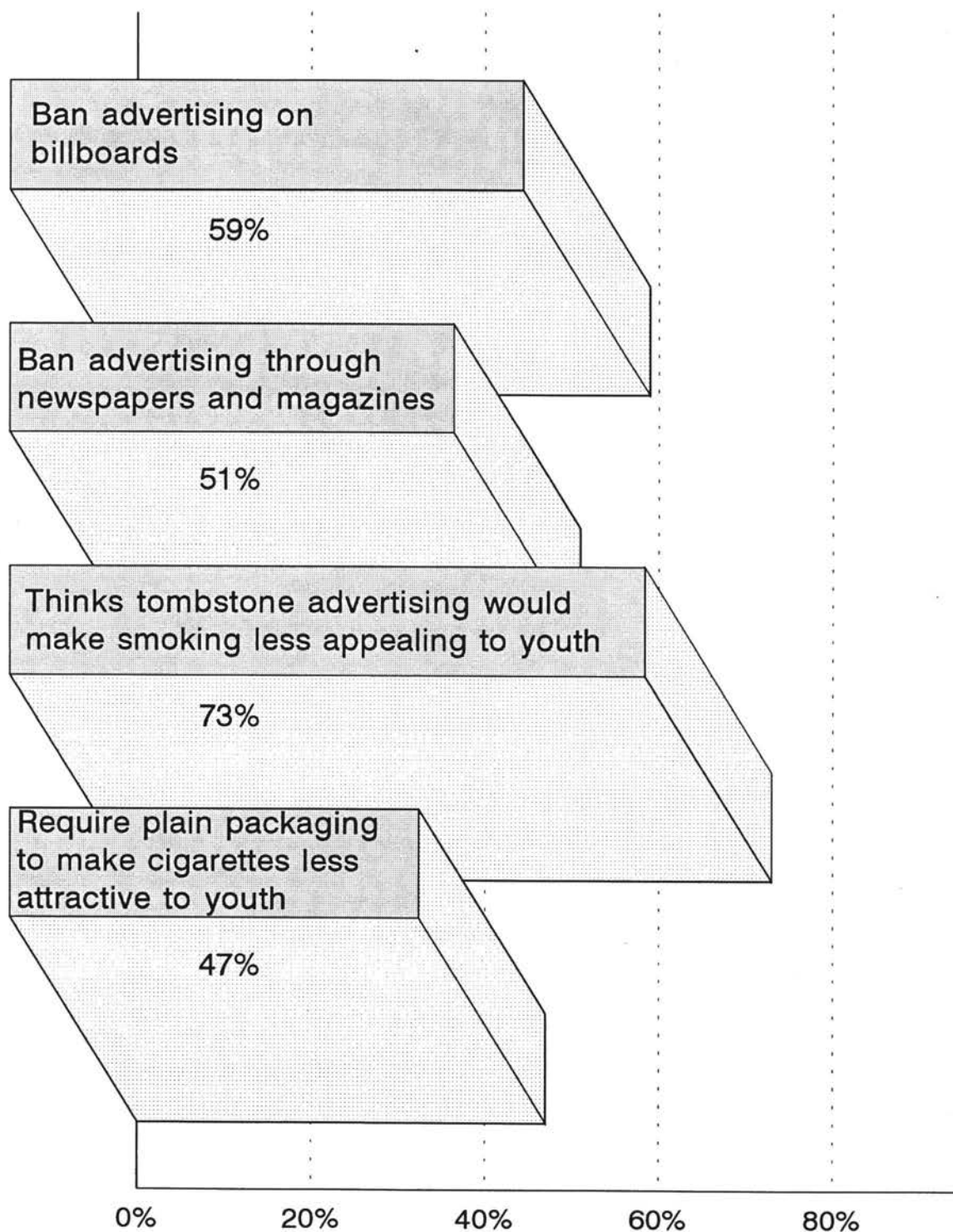
## **B. RESTRICTING OR BANNING VARIOUS TYPES OF TOBACCO ADVERTISING**

The public is ambivalent about a total ban on tobacco advertising--59 percent supporting a ban on billboard advertising and 51 percent a ban on advertising in newspapers and magazines (see Table II.4). We also asked respondents whether they believed limited advertising restrictions--tombstone advertising and plain packaging--would reduce the appeal of cigarette advertising to minors. These questions are shown below:

- Assuming that tobacco advertising is not banned, do you think limiting tobacco advertisements to words only, with pictures and cartoons prohibited, would make smoking less appealing to kids?
- Plain packaging of cigarettes and smokeless products would mean that the package would include only the brand name and warning label in black letters against a white background. To make cigarettes appear less attractive to kids, should tobacco companies be required to use plain packaging for their products or should plain packaging not be required?

TABLE II.4

PUBLIC OPINION ABOUT RESTRICTING  
OR BANNING VARIOUS TYPES OF ADVERTISING



Approximately three-fourths of the public (73 percent) indicated that they believed tombstone advertising would reduce the appeal of cigarette advertisements. However, less than half (47 percent) believed that requiring plain packaging would make cigarettes less attractive to kids. This suggests that a majority of the public agrees with researchers and public health officials who have maintained that minors are sensitive to image advertising (Lynch and Bonnie 1994 and CDC 1994). Tombstone advertising would prohibit the use of visual appeals embodied in many cigarette advertisements. However, less than half the public believes that modifying cigarette packaging itself would affect youthful behavior.

The demographic differences described above for youth access issues are also reflected in responses to advertising proposals (Table II.5). Women are more likely than men to support a total ban on billboard advertising (66 versus 52 percent) and newspaper or magazine advertising (57 versus 45 percent). Similarly, Hispanics and African Americans are also more likely than white non-Hispanics to support both proposals. Sixty-nine percent of Hispanics support a ban on billboard advertising and 62 percent a ban on newspaper and magazine advertising. Support for these two proposals among African Americans is 62 and 57 percent, respectively, and is 57 and 49 percent, respectively, among white non-Hispanics. Adults who have lost a family member to tobacco-related diseases are far more likely to support these proposals than those who have not (by 15 percentage points for banning billboard advertising and 15 percentage points for banning magazine and newspaper advertising). Support also increases with age, with those 55 and older demonstrating the strongest support for both restrictions (71 percent for the billboard advertising ban and 63 percent for the newspaper and magazine advertising ban).

Support for both measures lags in the midwest compared with other regions. Fifty-four percent of mid-westerners supported a billboard advertising ban, compared with 58 percent in the south, 62 percent in the northeast, and 64 percent in the west. Similarly, only 47 percent of mid-westerners supported a newspaper advertising ban, whereas, 52 to 54 percent of adults in other regions supported such a ban.

TABLE II.5

PUBLIC SUPPORT FOR RESTRICTING OR BANNING VARIOUS TYPES OF ADVERTISING  
BY SELECTED CHARACTERISTICS  
(Percent)

|                                                                                    | Total | Sex <sup>a</sup> |        | Age <sup>b</sup> |       |       |     | Ethnicity <sup>c</sup>    |                           |          |
|------------------------------------------------------------------------------------|-------|------------------|--------|------------------|-------|-------|-----|---------------------------|---------------------------|----------|
|                                                                                    |       | Male             | Female | 18-24            | 25-34 | 35-54 | 55+ | White<br>Non-<br>Hispanic | Black<br>Non-<br>Hispanic | Hispanic |
| Ban advertising on billboards (a9)                                                 | 59    | 52               | 66     | 46               | 50    | 60    | 71  | 57                        | 62                        | 69       |
| Ban advertising through<br>newspapers or magazines (a10)                           | 51    | 45               | 57     | 41               | 41    | 53    | 63  | 49                        | 57                        | 62       |
| Thinks tombstone advertising<br>would make smoking less<br>appealing to kids (a11) | 73    | 69               | 77     | 72               | 75    | 74    | 71  | 73                        | 72                        | 75       |
| Require plain packaging to make<br>cigarettes less attractive to kids<br>(a13)     | 47    | 42               | 51     | 48               | 45    | 47    | 48  | 45                        | 48                        | 62       |

<sup>a</sup> Differences significant ( $\alpha = .05$ ) for all questions.

<sup>b</sup> Differences between 18-24 and 35-54, and 55+, respectively, and between 25-34 and 35-54, and 55+, respectively, significant ( $\alpha = .05$ ) for a9 and a10.

<sup>c</sup> Differences between white non-Hispanics and Hispanics significant ( $\alpha = .05$ ) for a9, a10, and 13 and between black non-Hispanics and Hispanics for a9, and a13. Differences between white and black non-Hispanics significant ( $\alpha = .05$ ) for a10 and ( $\alpha = .10$ ) for a9. Difference between black non-Hispanics and Hispanics significant ( $\alpha = .10$ ) for a10.



TABLE II.5 (continued)

|                                                                              | Region <sup>d</sup> |         |       |      | Tobacco Use <sup>e</sup>    |                       |     |                              |                               |     | Lost Family Member <sup>f</sup> |    |
|------------------------------------------------------------------------------|---------------------|---------|-------|------|-----------------------------|-----------------------|-----|------------------------------|-------------------------------|-----|---------------------------------|----|
|                                                                              | Northeast           | Midwest | South | West | User                        |                       |     | Non-User                     |                               |     | Yes                             | No |
|                                                                              |                     |         |       |      | Plans to Quit in Six Months | Does Not Plan to Quit | All | Other HH Member Uses Tobacco | No Tobacco Users in Household | All |                                 |    |
| Ban advertising on billboards (a9)                                           | 62                  | 54      | 58    | 64   | 52                          | 34                    | 42  | 62                           | 66                            | 65  | 67                              | 52 |
| Ban advertising through newspapers or magazines (a10)                        | 53                  | 47      | 53    | 54   | 48                          | 27                    | 36  | 57                           | 57                            | 57  | 60                              | 45 |
| Thinks tombstone advertising would make smoking less appealing to kids (a11) | 78                  | 68      | 73    | 75   | 68                          | 58                    | 62  | 75                           | 78                            | 77  | 78                              | 69 |
| Require plain packaging to make cigarettes less attractive to kids (a13)     | 48                  | 43      | 50    | 46   | 41                          | 33                    | 36  | 44                           | 52                            | 51  | 54                              | 41 |

<sup>d</sup> Differences between midwest and northeast and west, respectively, significant ( $\alpha = .10$ ) for a9 and a11. Difference between northeast and west significant ( $\alpha = .10$ ) for a10. Difference between south and west significant ( $\alpha = .10$ ) for a9. Difference between midwest and south significant ( $\alpha = .10$ ) for a13.

<sup>e</sup> Differences between users who plan to quit and users who do not plan to quit significant ( $\alpha = .05$ ) for a9, a10, and a11 and significant ( $\alpha = .10$ ) for a13. Differences between two groups of non-users significant ( $\alpha = .10$ ) for a13. Differences between all users and all non-users significant ( $\alpha = .05$ ) for all variables.

<sup>f</sup> All differences significant ( $\alpha = .05$ ).

TABLE II.5 (continued)

|                                                                              | Ideology <sup>a</sup> |          |              | Party Affiliation <sup>b</sup> |     |      | Ideology and Party Affiliation <sup>i</sup> |              |           |              |               |              |
|------------------------------------------------------------------------------|-----------------------|----------|--------------|--------------------------------|-----|------|---------------------------------------------|--------------|-----------|--------------|---------------|--------------|
|                                                                              |                       |          |              |                                |     |      | Liberals                                    |              | Moderates |              | Conservatives |              |
|                                                                              | Liberal               | Moderate | Conservative | Dem                            | Rep | Ind. | Dem                                         | Rep/<br>Ind. | Dem       | Rep/<br>Ind. | Dem           | Rep/<br>Ind. |
| Ban advertising on billboards (a9)                                           | 53                    | 57       | 64           | 66                             | 54  | 54   | 63                                          | 43           | 64        | 50           | 70            | 61           |
| Ban advertising through newspapers or magazines (a10)                        | 49                    | 48       | 55           | 57                             | 49  | 46   | 56                                          | 43           | 52        | 44           | 63            | 52           |
| Thinks tombstone advertising would make smoking less appealing to kids (a11) | 72                    | 71       | 78           | 74                             | 77  | 69   | 74                                          | 71           | 74        | 69           | 79            | 77           |
| Require plain packaging to make cigarettes less attractive to kids (a13)     | 46                    | 44       | 49           | 49                             | 41  | 50   | 48                                          | 45           | 46        | 42           | 52            | 48           |

<sup>a</sup> Differences between liberals and conservatives significant ( $\alpha = .05$ ) for a9 and ( $\alpha = .10$ ) for a10 and a11 and between moderates and conservatives ( $\alpha = .05$ ) for a9, a10, and a11.

<sup>b</sup> Differences between democrats and republicans significant ( $\alpha = .05$ ) for a9, a10, and a13. Differences between democrats and independents significant ( $\alpha = .05$ ) for a9 and a10 and significant ( $\alpha = .10$ ) for a11. Differences between republicans and independents significant ( $\alpha = .05$ ) for a11 and a13.

<sup>i</sup> Differences between liberal democrats and liberal rep/ind. significant ( $\alpha = .05$ ) for a9 and a10, between moderate democrats and rep/ind. significant ( $\alpha = .05$ ) for a9 and ( $\alpha = .10$ ) for a10 and differences between conservative democrats and rep/ind. significant ( $\alpha = .05$ ) for a9 and a10.

Not surprisingly, support for banning cigarette advertising is greater among non-users than users; sixty-five percent of non-users support a ban on billboard advertising and 57 percent a ban in newspapers and magazines. (Differences between non-users living in tobacco free households and non-users living with tobacco users were not significant.) Tobacco users who do not plan to quit are least likely to support banning tobacco advertising on billboards (34 percent) or through newspapers or magazines (27 percent). Tobacco users who plan to quit are about evenly split on these issues--52 percent supporting a billboard advertising ban and 48 percent a newspaper and magazine ban.

As with other regulatory measures, conservative democrats show the strongest support of any political group for bans on billboard advertising (70 percent) and newspaper advertising (63 percent). Liberal democrats (63 percent), moderate democrats (64 percent), and conservative republicans (61 percent) also demonstrated support for a ban on billboard advertising, with moderate republicans and independents (50 percent), and liberal republicans and independents (43 percent) showing less support. With the exception of conservative democrats (63 percent), other political groups were divided on support for a ban on newspaper advertising (support ranging from 43 to 56 percent). The lack of clear patterns among political groups (other than conservative democrats) for banning tobacco advertising on billboards and in newspapers suggests that other factors may be more highly correlated with views on tobacco advertising bans.

Perceptions of the effect of tombstone advertising and plain packaging on the appeal of smoking to youth are fairly consistent across demographic and political groups. The perceptions of tobacco users are particularly interesting since they are experienced in responding to tobacco advertising messages. Most (62 percent) believe that tombstone advertising would make smoking less appealing to youth, but relatively few (36 percent) think that plain packaging would have the same effect.

### **C. BANNING VARIOUS TYPES OF TOBACCO PROMOTIONS**

Over the past twenty years, the tobacco industry's distribution of marketing resources has shifted from advertising to promotions, with about 83 percent of 1991 expenditures devoted to non-advertising

promotional activities (Lynch and Bonnie 1994, pp. 108-109). We assessed public support for banning several promotions appealing to youth. These included:

- Coupons included in cigarette packs that can be used to obtain promotional items appealing to kids, such as hats, tee shirts, jackets, or caps (a14)
- Coupon promotions that make it possible for anyone, regardless of age, to obtain free cigarettes by mail (a15)
- Sale of single cigarettes (a16)
- Distribution of free cigarettes on public streets (a17)
- Tobacco companies paying to display their products in movies or videos (a19)
- Tobacco companies sponsoring sporting or entertainment events where their brand names are featured (a18)

Support is strong for banning both coupon promotions, the sale of single cigarettes, and the distribution of free cigarettes on public streets (70 to 88 percent), but is weaker for prohibiting tobacco companies from promoting their products in movies or videos or sports and other entertainment events (60 and 55 percent, respectively) (see Table II.6).

Again, the pattern of support for promotional bans is similar to advertising bans (Table II.7). Support is broadly based for promotions unrelated to sports, entertainment, or media programming (a14-17), although the gender and age gaps continue, with women and older persons demonstrating greater support for these proposals. Except for coupon promotions within cigarette packs, where white non-Hispanics are less supportive than African-Americans, the gap between those two groups closed. Hispanics continue to be more supportive of promotional bans than non-Hispanics. Support for these promotional bans is strongest in the northeast, but is strong in other regions, as well. Tobacco users who do not plan to quit are less supportive of banning non-entertainment promotions; however, the only promotion for which a majority of tobacco users oppose a ban is coupons included in cigarette packs that can be used to obtain promotional items, a promotion from which current smokers may personally

TABLE II.6

# PUBLIC OPINION ABOUT RESTRICTING OR BANNING VARIOUS TYPES OF PROMOTIONS

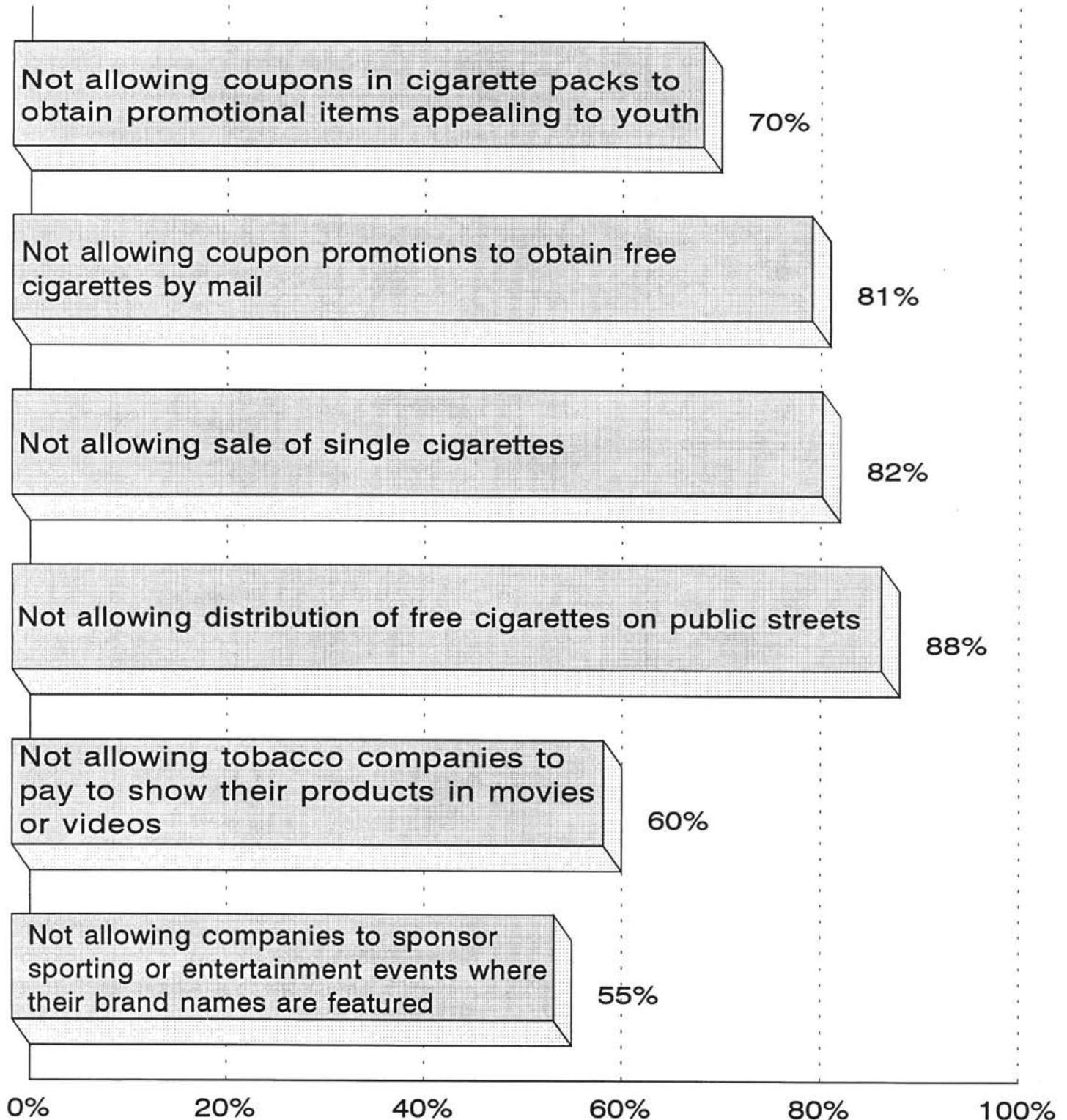


TABLE II.7  
PUBLIC SUPPORT FOR BANNING VARIOUS TYPES OF PROMOTIONS  
(Percent)

|                                                                                                                       | Sex <sup>a</sup> |      |        | Age <sup>b</sup> |       |       |     | Ethnicity <sup>c</sup>    |                           |          |
|-----------------------------------------------------------------------------------------------------------------------|------------------|------|--------|------------------|-------|-------|-----|---------------------------|---------------------------|----------|
|                                                                                                                       | Total            | Male | Female | 18-24            | 25-34 | 35-54 | 55+ | White<br>Non-<br>Hispanic | Black<br>Non-<br>Hispanic | Hispanic |
| Not allowing coupons in cigarette packs to obtain promotional items appealing to kids (a14)                           | 70               | 61   | 79     | 60               | 62    | 70    | 82  | 68                        | 77                        | 82       |
| Not allowing coupon promotions to obtain free cigarettes by mail (a15)                                                | 81               | 78   | 84     | 78               | 82    | 79    | 85  | 80                        | 80                        | 90       |
| Not allowing sale of single cigarettes (a16)                                                                          | 82               | 76   | 87     | 77               | 78    | 81    | 89  | 82                        | 82                        | 86       |
| Not allowing distribution of free cigarettes on public streets (a17)                                                  | 88               | 81   | 94     | 87               | 87    | 86    | 90  | 87                        | 87                        | 93       |
| Not allowing tobacco companies to pay to show their products in movies or videos (a19)                                | 60               | 53   | 67     | 46               | 55    | 61    | 71  | 60                        | 60                        | 69       |
| Not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are featured (a18) | 55               | 47   | 63     | 47               | 49    | 54    | 66  | 52                        | 65                        | 72       |

<sup>a</sup> All differences significant ( $\alpha = .05$ ).

<sup>b</sup> Differences between 18-24 and 55+, significant ( $\alpha = .05$ ) for a14, a16, a19, and a18, and ( $\alpha = .10$ ) for a15; differences between 25-34 and 55+, significant ( $\alpha = .05$ ) for a14, a19, and a18; differences between 35-54 and 55+ significant ( $\alpha = .05$ ) for a14, a15, a16, a19 and a18; differences between 18-24 and 25-34 significant ( $\alpha = .10$ ) for a19; differences between 35-54 and 55+ significant ( $\alpha = .05$ ) for all variables; ( $\alpha = .10$ ) for a17.

<sup>c</sup> Differences between white non-Hispanics and Hispanics and between black non-Hispanics and Hispanics significant ( $\alpha = .05$ ) for a14, a15, a17, a19, and a18 and significant ( $\alpha = .10$ ) for a16.



TABLE II.7 (continued)

|                                                                                                                       | Region <sup>d</sup> |         |       |      | Tobacco Use <sup>e</sup>    |                       |     |                              |                               |     | Lost Family Member <sup>f</sup> |    |
|-----------------------------------------------------------------------------------------------------------------------|---------------------|---------|-------|------|-----------------------------|-----------------------|-----|------------------------------|-------------------------------|-----|---------------------------------|----|
|                                                                                                                       | Northeast           | Midwest | South | West | User                        |                       |     | Non-User                     |                               |     | Yes                             | No |
|                                                                                                                       |                     |         |       |      | Plans to Quit in Six Months | Does Not Plan to Quit | All | Other HH Member Uses Tobacco | No Tobacco Users in Household | All |                                 |    |
| Not allowing coupons in cigarette packs to obtain promotional items appealing to kids (a14)                           | 75                  | 68      | 69    | 70   | 60                          | 42                    | 50  | 74                           | 78                            | 78  | 73                              | 68 |
| Not allowing coupon promotions to obtain free cigarettes by mail (a15)                                                | 82                  | 81      | 81    | 82   | 73                          | 56                    | 63  | 87                           | 88                            | 88  | 87                              | 77 |
| Not allowing sale of single cigarettes (a16)                                                                          | 88                  | 83      | 82    | 74   | 78                          | 71                    | 74  | 85                           | 85                            | 85  | 85                              | 79 |
| Not allowing distribution of free cigarettes on public streets (a17)                                                  | 88                  | 86      | 88    | 89   | 84                          | 72                    | 77  | 90                           | 92                            | 91  | 91                              | 85 |
| Not allowing tobacco companies to pay to show their products in movies or videos (a19)                                | 65                  | 61      | 57    | 60   | 53                          | 37                    | 44  | 64                           | 67                            | 66  | 67                              | 54 |
| Not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are featured (a18) | 56                  | 55      | 55    | 55   | 48                          | 28                    | 36  | 60                           | 63                            | 62  | 62                              | 49 |

<sup>d</sup> Differences between northeast and other regions significant ( $\alpha = .10$ ) for a14 and a16 and differences between northeast and south significant ( $\alpha = .10$ ) for a19. Differences between west and midwest and south, respectively, significant ( $\alpha = .05$ ) for a16.

<sup>e</sup> All differences except a16 between user planning to quit and user not planning to quit significant ( $\alpha = .05$ ); all differences between all users and all non-users significant ( $\alpha = .05$ ).

<sup>f</sup> All differences significant ( $\alpha = .05$ ).

TABLE II.7 (continued)

|                                                                                                                       | Ideology <sup>a</sup> |          |              | Party Affiliation <sup>b</sup> |     |      | Ideology and Party Affiliation <sup>c</sup> |              |           |              |               |              |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------|----------|--------------|--------------------------------|-----|------|---------------------------------------------|--------------|-----------|--------------|---------------|--------------|
|                                                                                                                       |                       |          |              |                                |     |      | Liberals                                    |              | Moderates |              | Conservatives |              |
|                                                                                                                       | Liberal               | Moderate | Conservative | Dem                            | Rep | Ind. | Dem                                         | Rep/<br>Ind. | Dem       | Rep/<br>Ind. | Dem           | Rep/<br>Ind. |
| Not allowing coupons in cigarette packs to obtain promotional items appealing to kids (a14)                           | 71                    | 68       | 72           | 75                             | 67  | 66   | 77                                          | 65           | 74        | 63           | 77            | 70           |
| Not allowing coupon promotions to obtain free cigarettes by mail (a15)                                                | 77                    | 81       | 84           | 84                             | 78  | 79   | 82                                          | 72           | 85        | 78           | 87            | 81           |
| Not allowing sale of single cigarettes (a16)                                                                          | 81                    | 79       | 84           | 83                             | 80  | 82   | 82                                          | 81           | 82        | 77           | 86            | 83           |
| Not allowing distribution of free cigarettes on public streets (a17)                                                  | 87                    | 87       | 89           | 89                             | 88  | 87   | 89                                          | 86           | 88        | 86           | 90            | 88           |
| Not allowing tobacco companies to pay to show their products in movies or videos (a19)                                | 58                    | 59       | 62           | 64                             | 58  | 57   | 62                                          | 56           | 63        | 54           | 63            | 61           |
| Not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are featured (a18) | 50                    | 52       | 60           | 63                             | 50  | 49   | 58                                          | 41           | 58        | 46           | 72            | 55           |

<sup>a</sup> Differences between liberals and conservatives significant ( $\alpha = .05$ ) for a15 and a18 and between moderates and conservatives for a18; difference between moderates and conservatives significant ( $\alpha = .10$ ) for a15.

<sup>b</sup> Differences between democrats and republicans and independents, respectively, significant ( $\alpha = .05$ ) for a14, a15, a19, and a18.

<sup>c</sup> Differences between liberal democrats and liberal rep/ind. significant ( $\alpha = .05$ ) for a14, a15, and a18; between moderate democrats and moderate rep/ind. significant ( $\alpha = .05$ ), for a14, a19, and a18 and significant ( $\alpha = .10$ ) for a15; differences between conservative democrats and conservatives rep/ind. significant ( $\alpha = .05$ ) for a18 and ( $\alpha = .10$ ) for a14 and a15.

benefit. Conservative democrats again are the political group that is most supportive of promotional bans, but support for these policies is strong across other political groups, as well.

Public support is more divided on the two proposals to ban tobacco companies from promoting their products in sports and entertainment events and in the media. Approximately two-thirds of women, but only about one-half of men support these proposals. Support for these proposals also increases with age. Less than half of 18 to 24 year olds support them, with support increasing steadily for each age group. Although we did not examine the combined relationship of age and sex to these proposals, it is not unlikely that young males are the most resistant to restrictions on tobacco company support for entertainment and sports events and product displays in movies and videos. Hispanic respondents again are more supportive of these proposals than non-Hispanics. Differences among political groups are smaller than among demographic groups, with conservative democrats again demonstrating greater support for restrictions, particularly for not allowing tobacco companies to sponsor sporting or entertainment events where their brand names are shown (72 percent); no other political group, based on ideological and party affiliation, exceeded 58 percent support for this measure. Tobacco users who do not plan to quit are strongly opposed to both proposals.

### III. NICOTINE AND SMOKING CESSATION POLICIES

Although the primary focus of the survey is on public attitudes toward policies designed to reduce youth access to and the appeal of tobacco products, we also included questions on public perceptions of nicotine addiction and support for proposals to regulate nicotine content and to assist smokers who want to quit.

#### A. NICOTINE ADDICTION

The public overwhelmingly believes that nicotine in cigarettes is addicting (92 percent, see Table III.1). Not surprisingly, 92 percent of tobacco users who indicated they plan to quit in the next six months indicated that they thought nicotine was addicting; however, 85 percent of tobacco users who do not plan to quit in the next six months also share this belief.<sup>1</sup>

We assessed the public's knowledge of the government's hearings on nicotine manipulation and their beliefs about whether or not tobacco companies deliberately adjusted nicotine levels to keep smokers addicted. First, respondents were asked if they had seen or heard anything in the last six months about tobacco companies and the amount of nicotine in cigarettes (a30). If they had, we asked what they recalled reading or hearing in an open-ended question and coded the responses (a30a). Then respondents were asked if they believed that cigarette companies deliberately adjusted nicotine levels (a31).

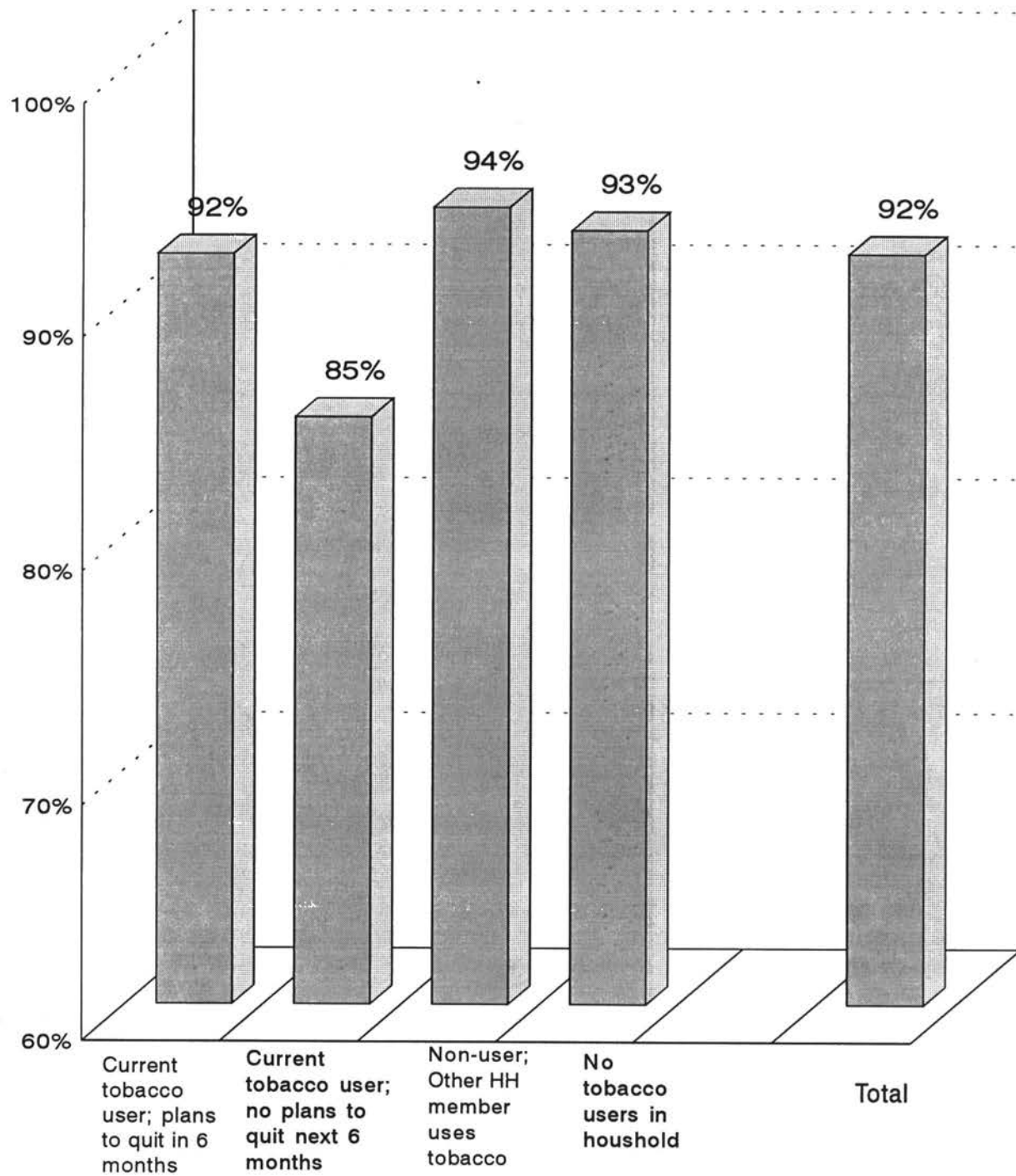
Public awareness of the nicotine manipulation issue is shown in Table III.2. Fifty-seven percent indicated that they were aware of the issue, with awareness varying by education--48 percent of those with a high school education or less, 60 percent of those with some college, and 76 percent of college graduates.

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<sup>1</sup>These results are consistent across demographic, political, and socioeconomic groups. Distributions for all groups are included in Appendix C, Tables 20.1, 20.2., and 20.3.

TABLE III.1

# PUBLIC'S BELIEFS ABOUT NICOTINE ADDICTION BY TOBACCO USE <sup>a</sup>



<sup>a</sup> Do you personally think nicotine in cigarettes is addicting or is it not addicting?

TABLE III.2

## AWARENESS OF THE NICOTINE MANIPULATION ISSUE BY EDUCATION AND TOBACCO USE

|                                                                                                                                           | Total | Education           |              |              | Tobacco Use                 |                                |                              |                       |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------|--------------|--------------|-----------------------------|--------------------------------|------------------------------|-----------------------|
|                                                                                                                                           |       | High School or Less | Some College | College Grad | Current User, Plans to Quit | Current User, No Plans to Quit | Other HH Member Uses Tobacco | No Tobacco User in HH |
| Seen or heard anything in last six months about tobacco companies and amount of nicotine in cigarettes? (a30)                             |       |                     |              |              |                             |                                |                              |                       |
| Yes                                                                                                                                       | 57    | 48                  | 60           | 76           | 61                          | 58                             | 55                           | 56                    |
| No/Don't Know                                                                                                                             | 43    | 52                  | 40           | 24           | 39                          | 42                             | 45                           | 44                    |
| Total                                                                                                                                     | 100   | 100                 | 100          | 100          | 100                         | 100                            | 100                          | 100                   |
| IF YES: What did respondent recall reading or hearing about nicotine? (a30a)                                                              |       |                     |              |              |                             |                                |                              |                       |
| (1) Addictive or harmful                                                                                                                  | 24    | 27                  | 23           | 19           | 20                          | 19                             | 28                           | 25                    |
| (2) Tobacco companies spiking or manipulating amount of nicotine                                                                          | 28    | 24                  | 30           | 33           | 33                          | 34                             | 22                           | 27                    |
| (3) Addictive or harmful and manipulating amount of nicotine                                                                              | 18    | 18                  | 17           | 19           | 21                          | 18                             | 17                           | 18                    |
| (4) Tobacco companies or other groups deny manipulation; some companies reducing amount of nicotine; anti-tobacco groups distorting issue | 10    | 10                  | 10           | 9            | 7                           | 8                              | 13                           | 10                    |
| (5) Cites both government and tobacco industry positions on nicotine manipulation                                                         | 5     | 2                   | 7            | 9            | 4                           | 4                              | 3                            | 6                     |
| (6) Could not recall relevant details/Don't Know/Refusal                                                                                  | 15    | 19                  | 14           | 11           | 16                          | 18                             | 19                           | 14                    |
| Total                                                                                                                                     | 100   | 100                 | 100          | 100          | 100                         | 100                            | 100                          | 100                   |



About half of the sample indicating awareness of the issue cited nicotine manipulation--28 percent citing only nicotine manipulation, 18 percent mentioning nicotine manipulation and adding that nicotine is addictive or harmful, and 5 percent citing both the government's position on nicotine manipulation and the industry's response. Twenty-four percent recalled they heard that nicotine was addictive or harmful, but did not mention anything about nicotine manipulation. Ten percent said they recalled that tobacco companies or other groups denied manipulating nicotine, that some companies were reducing the amount of nicotine in tobacco, or that anti-tobacco groups were distorting the issue. Fifteen percent who said they were aware of the issue could not recall relevant details about it.

Awareness of the nicotine manipulation issue varied by only a few percentage points, with respect to tobacco use (see Table III.2). However, of those who were aware of the issue, tobacco users were somewhat more likely to cite nicotine manipulation by the tobacco industry in their responses (summation of categories 2, 3, and 5). Fifty-eight percent of tobacco users who plan to quit and 56 percent of those who do not mentioned nicotine manipulation, compared with 41 percent of non-users living with tobacco users and 51 percent of non-users in smoke-free households.

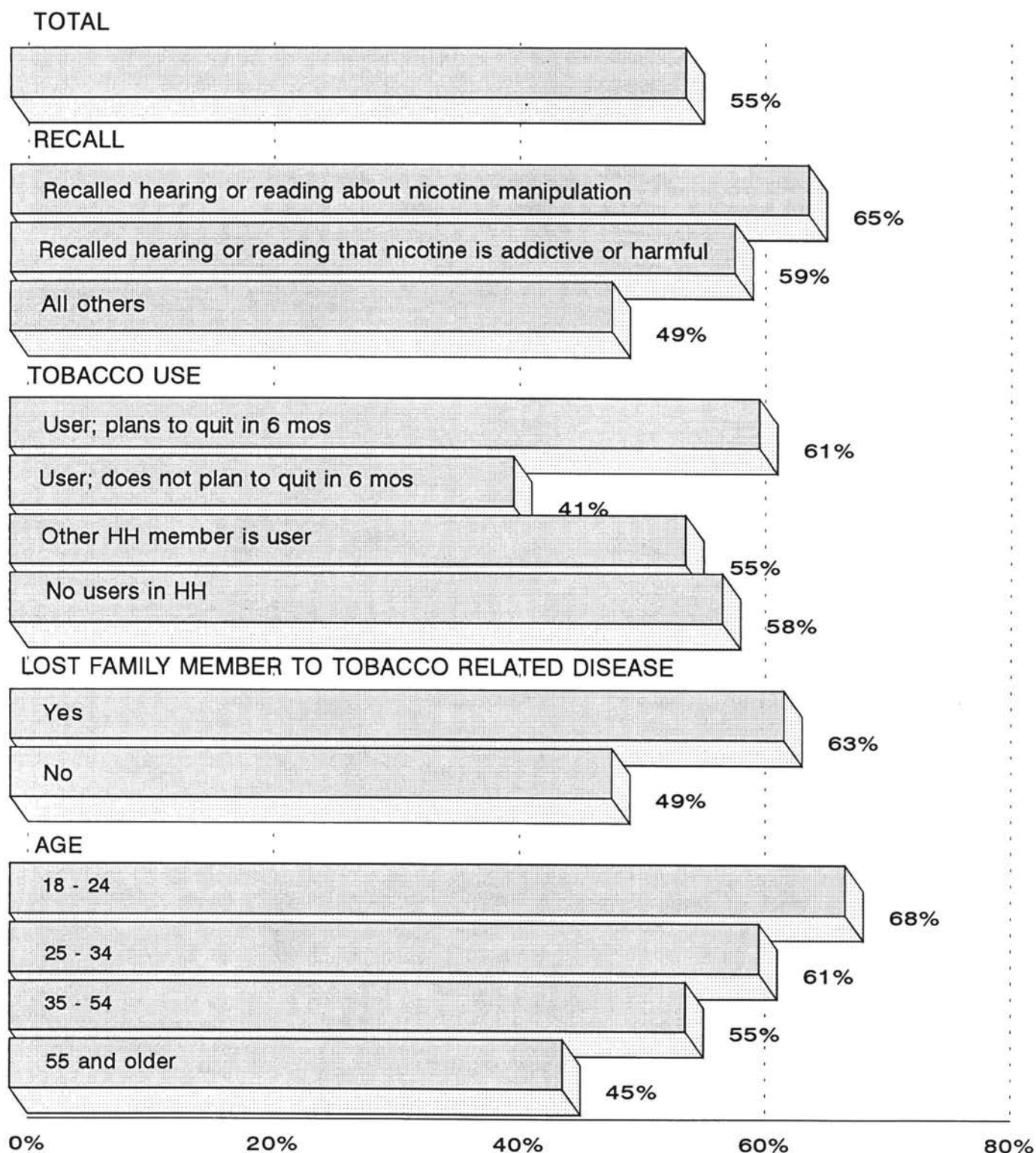
Over half of the public (55 percent) believe that the cigarette industry deliberately adjusts nicotine levels to keep smokers addicted to cigarettes; 27 percent does not; and 18 percent indicated they could not answer the question.<sup>2</sup> Those who recalled hearing about the issue were more likely to believe that tobacco companies manipulated nicotine levels (65 percent), compared with 59 percent who recalled that nicotine is harmful or addictive (but did not mention nicotine manipulation), and 49 percent who did not recall anything or did not cite nicotine manipulation (see Table III.3). Tobacco users planning to quit were more likely to believe that tobacco companies manipulate nicotine levels (61 percent) than current users not planning to quit (41 percent). A majority of non-tobacco users, whether living in smoke-free households (58 percent) or with tobacco users (55 percent) also believe that cigarette companies deliberately manipulated nicotine levels.

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<sup>2</sup>See Appendix C, Tables 23.1, 23.2, and 23.3 for a complete set of distributions for this question.

TABLE III.3

PERCENT BELIEVING THAT CIGARETTE COMPANIES  
MANIPULATE NICOTINE LEVELS BY SELECTED <sup>a</sup>  
CHARACTERISTICS



<sup>a</sup> Do you believe that cigarette companies deliberately adjust nicotine levels to keep smokers addicted or do you believe that cigarette companies don't deliberately do this?

Skepticism regarding the industry's position that it is not manipulating nicotine levels was inversely related to age; young adults (18 to 24) were most likely to believe that tobacco companies were deliberately adjusting nicotine levels (68 percent). Support for this belief declines with age, as fewer than half (45 percent) of persons 55 and older believe that tobacco companies are deliberately doing this.

## **B. PROPOSALS TO REGULATE NICOTINE CONTENT AND TO ASSIST SMOKERS WHO WANT TO QUIT**

### **1. Regulating Nicotine Content**

Respondents were asked whether or not they agreed with two proposals to regulate cigarettes and other tobacco products (Table III.4):

- Tobacco companies should be required to list the additives on package labels the way food and drug companies are required to list ingredients.
- Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes.

Support for both proposals was strong--93 percent agreeing with a requirement to list additives and 71 percent with a proposal to regulate cigarettes like other nicotine products. Support was also broadly based, cutting across political party and ideology for both proposals and (for the additives requirement) embracing current tobacco users, as well as non-users. Over 90 percent of each political group (defined by party and ideology) support the additive requirement and from two-thirds to three-fourths of each group support regulating cigarettes like other nicotine products. Tobacco users not planning to quit had mixed views on nicotine regulation, with half agreeing to the proposal and half disagreeing.<sup>3</sup>

### **2. Assisting with Smoking Cessation**

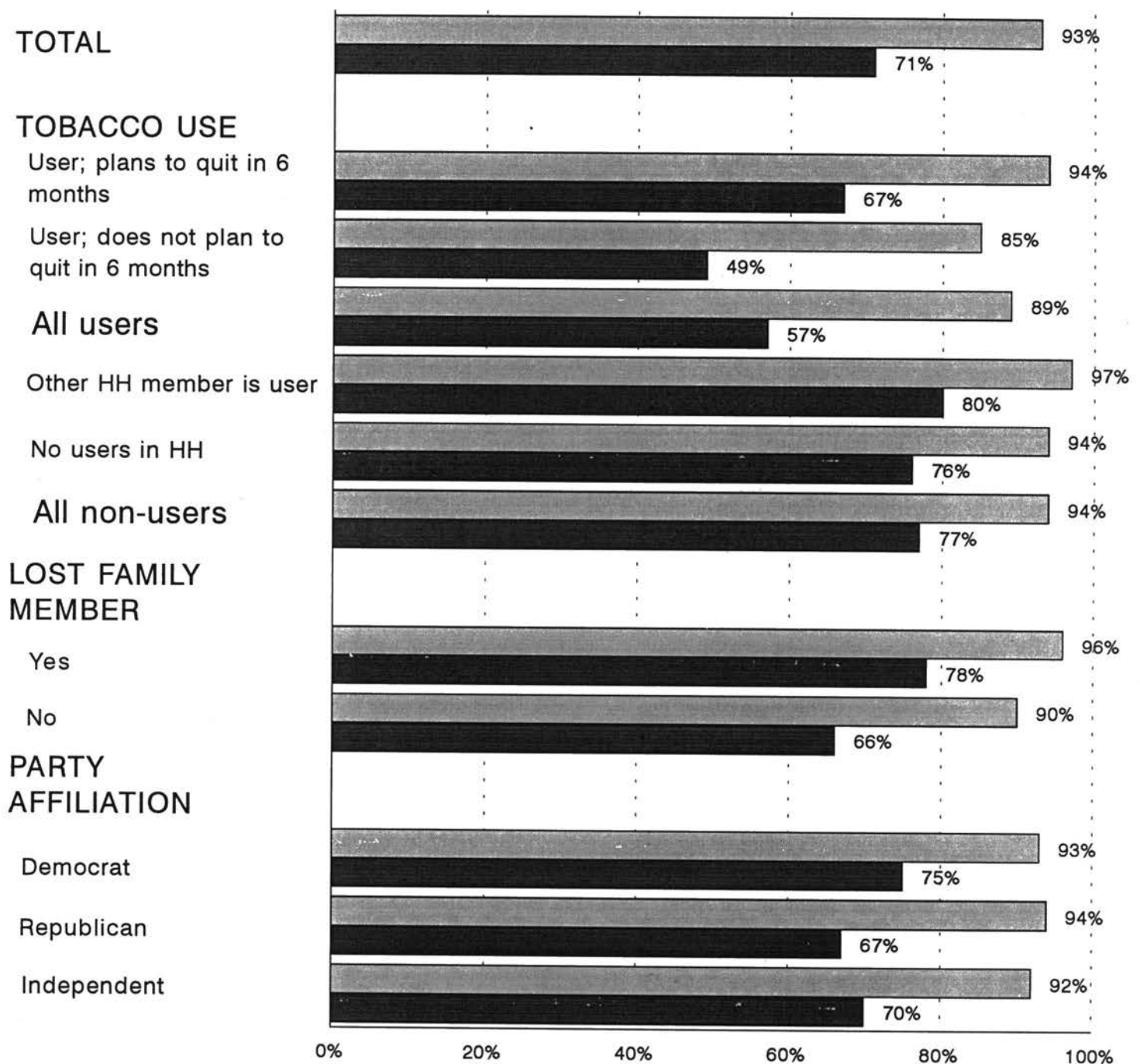
The survey included two proposals to assist smokers who want to quit:

- Requiring tobacco companies to gradually reduce the amount of nicotine in cigarettes

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<sup>3</sup>Support was also consistent across demographic groups; see Appendix C, Tables 26.1, 26.2, and 26.3 for these distributions.

TABLE III.4  
PERCENT AGREEING WITH PROPOSALS  
TO REGULATE TOBACCO PRODUCTS



Tobacco companies should be required to list additives on package labels the way food and drug companies are required to list ingredients.



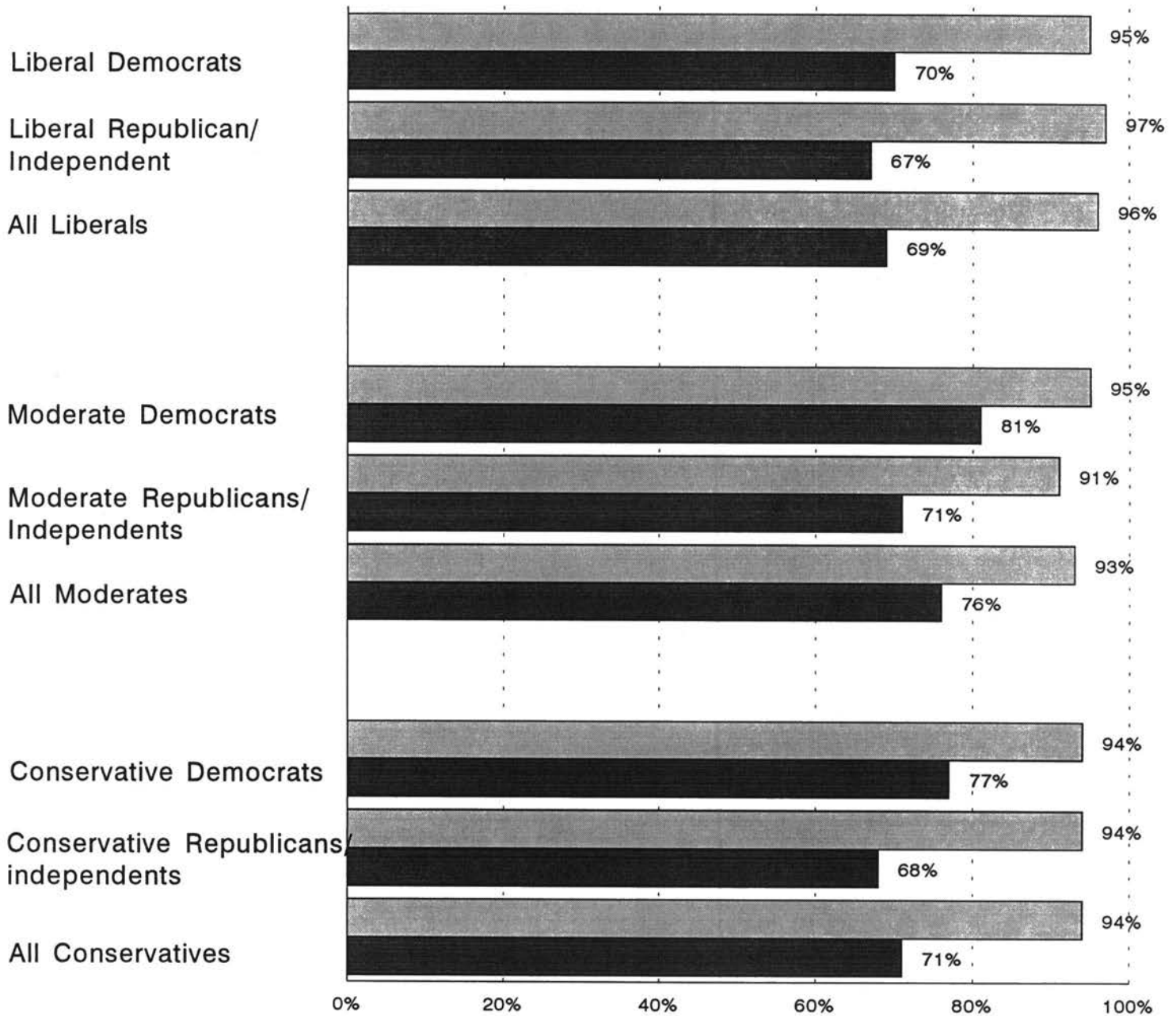
Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes too.



TABLE III.4

(Continued)

# PERCENT AGREEING WITH PROPOSALS TO REGULATE TOBACCO PRODUCTS



Tobacco companies should be required to list additives on package labels the way food and drug companies are required to list ingredients.



Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes too.

- Requiring insurance companies to cover the cost of programs to quit smoking

Again, support was strong and broadly based, as 79 percent supported the first proposal and 65 percent the second (Table III.5). As might be expected, current tobacco users who plan to quit in the next six months are very supportive of both proposals (81 and 73 percent). However, majorities of users who do not plan to quit and, to a slightly lesser extent, non-users, also favor these proposals. Persons who lost family members or friends to tobacco related diseases continue to show higher support for proposals to assist smokers who want to quit. Support also cuts across political party and ideological lines, with over three-fourths of each political group favoring a requirement that tobacco companies gradually reduce the amount of nicotine in cigarettes and somewhat smaller majorities of each group also supporting the insurance company requirement. However, conservative republicans and independents were slightly less likely to support a requirement that insurance companies cover the cost of smoking cessation programs (58 percent), compared with conservative democrats (68 percent), moderates (64 percent), or liberals (74 percent). Among moderates and liberals, differences by party were not significant.



TABLE III.5  
PERCENT FAVORING PROPOSALS TO ASSIST  
WITH SMOKING CESSATION

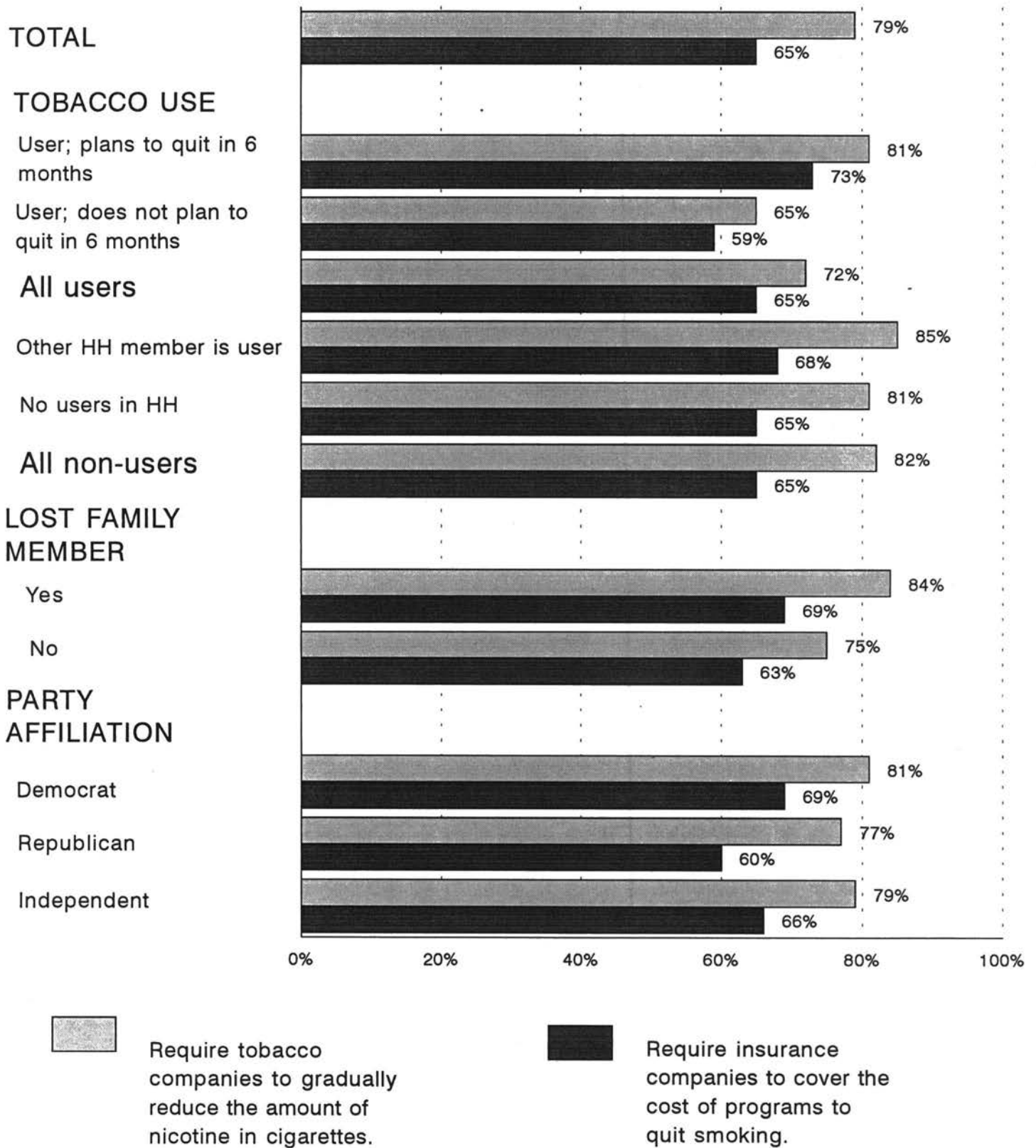
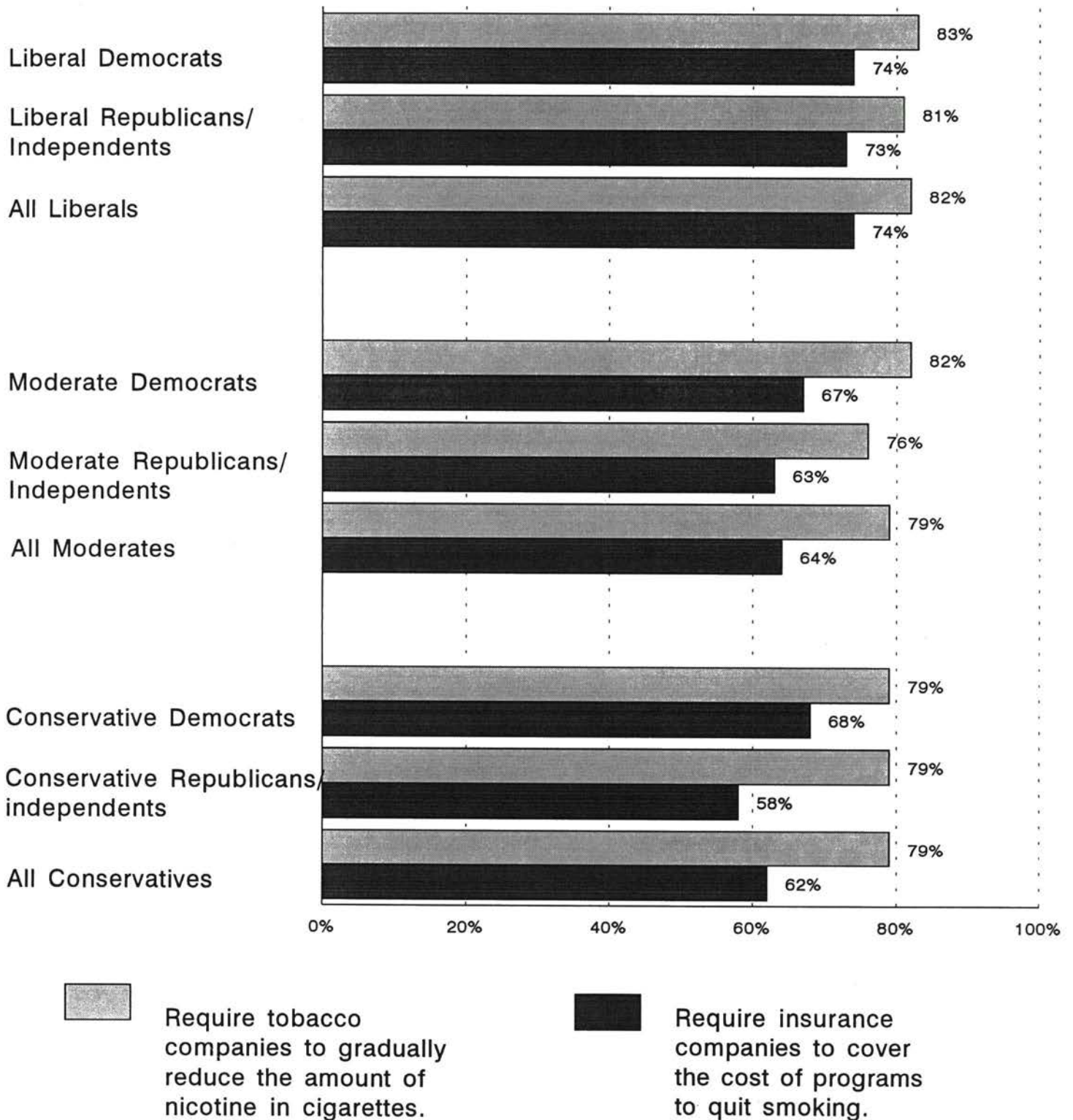


TABLE III.5

(Continued)

# PERCENT FAVORING PROPOSALS TO ASSIST WITH SMOKING CESSATION



#### IV. CONCLUSIONS

Although the sale of tobacco products to minors is illegal, the public recognizes that it is relatively easy for minors to purchase cigarettes and other tobacco products and will support specific policies that limit minors' access to these products. We observed broadly-based support for a ban on cigarette vending machines, self-service displays, and verification of youthful customers' identifications. However, we did not assess support for enforcement policies to ensure retailer compliance, an issue that is growing in importance in many states. The public was ambivalent about increasing age limits for tobacco purchases and limiting tobacco sales to certain types of retailers. We did not specify the types of retailers that should be restricted from selling tobacco products; future surveys on minors' access issues might assess support for creating tobacco-free zones near schools or bans on pharmacy sales.

The public is more likely to support bans on tobacco promotions than advertising, with strong majorities supporting bans on coupon promotions, sales of single cigarettes, and distribution of free cigarettes on public streets. Support was mixed for prohibiting tobacco companies from paying to show their products in movies and videos and from sponsoring sporting or entertainment events where their brand names are featured, with males and young adults being least supportive. Advertising bans on billboards and in newspapers and magazines appear to be polarizing, with males and young adults, in particular, demonstrating weaker support for these policies. Most of the public believe that tombstone advertising would make smoking less appealing to minors, but only about half believe that plain packaging would reduce the appeal of cigarettes to youth. Tobacco users, in particular, were skeptical about the impact of plain packaging on young smokers' purchasing decisions.

The overwhelming majority of tobacco users and non-users believe that nicotine is addicting, and support requiring tobacco companies to list additives on package labels. Most also support extending government regulation of nicotine products, such as patches and gum, to cigarettes. The public also would support policies requiring tobacco companies to reduce the amount of nicotine in cigarettes and insurance companies to cover the cost of programs to quit smoking. Support for these proposals crosses ideological and party lines.

Although support for many measures to curb minors' access to tobacco products is broadly based (receiving majority support across demographic and political groups, as well as region), we observed that women, older adults, African-Americans and Hispanics were more supportive of most policies. Among political groups, conservative democrats consistently demonstrated greater support for tobacco control measures than other groups. Adults who believe they have lost family members or friends to tobacco related diseases, a group representing 44 percent of the population, were more supportive of policies designed to limit access to youth. Like many other surveys on public attitudes toward tobacco control policies, we observed that non-users were more supportive than users. However, current tobacco users who indicated they plan to quit in the next six months expressed levels of support for youth access policies that were more similar to non-users than users who do not plan to quit.



## REFERENCES

- Bierig, Jack, Susan D. Weber, and T. Robert Scarborough. "Legal Analysis of Approaches to State and Local Regulation of Tobacco Advertising in the U.S." *Tobacco Control*, vol. 3, 1994, pp. 257-262.
- Brick, J. Michael, J. Waksberg, D. Kulp, and A. Starer. "Bias in List-Assisted Telephone Surveys." Paper presented at the American Association of Public Opinion Research, May 1994.
- Center for Disease Control and Prevention. *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*. Washington, DC: U.S. Department of Health and Human Services, 1994.
- Cummings, K. Michael, Terry Pechacek, and Donald Shopland. "The Illegal Sale of Cigarettes to U.S. Minors: Estimates by State." *American Journal of Public Health*, vol. 84, no. 2, 1994, pp. 300-302.
- Cummings, K. Michael, Eva Sciandra, Terry F. Pechacek, Mario Orlandi, and William R. Lynn. For the COMMIT Research Group. "Where Teenagers Get Their Cigarettes: A Survey of the Purchasing Habits of 13-16 Year Olds in 12 U.S. Communities." *Tobacco Control*, vol. 1, 1992, pp. 264-267.
- Johnson, L., J. Bachman, and P. O'Malley. "Monitoring the Future Study." Press release, The University of Michigan, Ann Arbor, January 27, 1994.
- Lynch, Barbara S., and Richard J. Bonnie (ed). *Growing Up Tobacco Free*, Committee on Preventing Nicotine Addiction in Children and Youth, Division of Biobehavioral Sciences and Mental Disorders, Institute of Medicine, National Academy Press. Washington, DC, 1994.
- Marttila & Kiley, Inc. *Highlights from an American Cancer Society Survey of U.S. Voter Attitudes Toward Cigarette Smoking*. Boston: September 1993.
- New Zealand Toxic Substances Board. *Health or Tobacco: An End to Tobacco Advertising and Promotion*. Wellington, New Zealand: Department of Health, 1989, xxix.
- Office of the Inspector General. *Youth Access to Tobacco*. Department of Health and Human Services, OEI 02-92-00880, December 1992.
- Response Research, Inc. *Study of Teenage Cigarette Smoking and Purchasing Behavior*. For the National Automatic Merchandising Association. Chicago: June/July 1989.
- Roswell Park Cancer Institute. *Survey of Alcohol, Tobacco and Drug Use: Ninth Grade Students in Erie County, 1992*. Buffalo, NY: Roswell Park Cancer Institute, Department of Cancer Control and Epidemiology, 1993.
- Teenage Attitudes and Practices Survey II, Centers for Disease Control, National Center for Health Statistics, U.S. Department of Health and Human Services, 1993 (unpublished data).

## APPENDIX A

### SAMPLE DESIGN, WEIGHTING, AND ESTIMATION PROCEDURES

#### 1. Sample Design

The survey employed a single-stage list-assisted<sup>1</sup> random-digit-dialing (RDD) sample purchased from a commercial vendor, Genesys Sampling Systems. The sample frame was stratified to facilitate oversampling of African-Americans, Hispanics and residents of California. Below we describe the sample frame, stratification, sample allocation, and data collection methods.

**The Frame.** The sample frame includes a subset of all possible telephone numbers in the contiguous United States (and the District of Columbia). The vendor has divided all area code/exchange combinations<sup>2</sup> currently assigned for use by telephone companies into banks of 100 consecutive numbers.<sup>3</sup> Those banks with one or more published household numbers are retained in the frame; the remaining banks are not used because they contain so few household numbers that including them would increase survey costs with little gain in coverage.<sup>4</sup>

**Stratification.** We used stratification to allow efficient oversampling of African-Americans, Hispanics, and residents of California. In addition to a national probability sample of approximately 1,500 adults, we wished to obtain approximately 500 interviews with African-Americans, 400 with Hispanics and 400 interviews with residents of California. We estimated that a national sample of 1,500

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<sup>1</sup>A distinct advantage of list-assisted frames is the ability to use single-stage, unclustered sample designs. A recent paper recommending the use of list-assisted RDD sample designs for national surveys was given at the American Association of Public Opinion Research (Brick, 1994).

<sup>2</sup>Of a ten-digit telephone number, (XXX) YYY-ZZZZ, the first three (XXX) are the area code, and YYY defines the exchange, also called the central office code.

<sup>3</sup>For example, (609) 799-3500 to (609) 799-3599 would comprise a bank.

<sup>4</sup>While the omitted banks may contain up to 5 percent of household telephone numbers, the likelihood of reaching a household in these banks is so low (less than 2 percent) that it is inefficient to include them.



adults with no oversampling would yield only about 180 African-Americans, 120 Hispanics and 160 Californians.

The design employed ten strata: the first level of stratification was between California and the remainder of the contiguous United States; within each of these two major strata, we formed five substrata based on the expected yield of African-Americans and Hispanics. The ten substrata are depicted in Table A.1. Each area code/exchange combination was assigned to one of the ten substrata, based on data provided by the vendor.

**Sample Allocation and Respondent Selection.** We made two allocations of sample. The purpose of the allocation for the first phase of interviewing was to obtain approximately 1,500 interviews from a nationally representative equal probability sample of households, supplemented by additional interviews in California resulting in a total of 400 interviews in that state. We attempted interviews with all households having at least one member 18 years of age or older; however, no screening on race or ethnicity was done in the first phase. For the second phase, we allocated sample based on estimated prevalences of African-Americans and Hispanics, oversampling strata with higher prevalences. Our prevalence estimates were based on figures provided by Genesys Sampling Systems, adjusted for experiences in the first phase. During the second phase, we screened households,<sup>5</sup> and did not attempt interviews in households in which the screening respondent was not African-American or Hispanic.

Within each sampled household we selected one adult at random. We used an abbreviated within-household selection method for households with up to three adults and full enumeration for households with more than three adults. The abbreviated method randomly picked the older or younger adult for a two-person household, and the oldest, youngest or next oldest adult in households with three adults.

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<sup>5</sup>The screener included questions on smoking status, as an ice-breaker, ethnicity, and whether or not Hispanic.

TABLE A.1  
DEFINITIONS OF SAMPLING STRATA

| Strata <sup>a</sup> |            | Description of Area Code                                               |
|---------------------|------------|------------------------------------------------------------------------|
| Non-California      | California | Exchange/Combinations Included in Strata                               |
| 0                   | 5          | Expected prevalence of African-American households at least 60 percent |
| 1                   | 6          | Expected prevalence of African-American households 40-59 percent       |
| 2                   | 7          | Other exchanges, expected Hispanic prevalence at least 50 percent      |
| 3                   | 8          | Other exchanges, expected Hispanic prevalence 35-49 percent            |
| 4                   | 9          | Remaining exchanges                                                    |

<sup>a</sup>The numbering in the table is consistent with that on the data files.

**Data Collection Methods.** The survey was conducted by computer assisted telephone interview (CATI). The CATI system was used to control the release of telephone numbers to interviewers, automatically dial telephone numbers, control the timing of calls to sampled households, select eligible respondents, control the sequencing and presentation of survey questions in English or Spanish, and produce clean data files. The scheduling program insured that a minimum of 12 calls were made to contact a sampled telephone number. Calls were spaced at different times, based on optional calling patterns for a general population. Sampled households that refused were contacted again by highly experienced interviewers, who were trained to respond to reluctant respondents.

## 2. Weights and Design Effects

Analysis of the survey data should use sample weights. Use of unweighted data could result in biased estimates, because the design oversampled some groups, resulting in a sample that is not distributed in the same way as the population being studied. Differences in non-response by subgroups in the population further increased the differences between the population and sample distributions. Below we describe the steps used to calculate the weights, discuss the design effects of weighting, and evaluate the impact of weighting.

**Constructing the Weights.** The sample weights are the product of three adjustment factors that correct for disproportionate sampling and response rates: (1) the inverse of each respondent's probability of selection; (2) the inverse of the response rate for a case's response cell (3) a series of ratio adjustments to better estimates of population totals.<sup>6</sup>

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<sup>6</sup>Specifically, the weight is:

$$(1/P_{ihs}) * (1/RR_c) * \text{RATIOADJ}$$

where:

$P_{ih}$  is the probability of the  $i$ th individual in the  $h$ th household in stratum  $s$ .

$RR_c$  is the response rate for cell  $c$ .

RATIOADJ is the ratio adjustment factor.

As discussed in the text,  $P_{ihs}$  and RATIOADJ are themselves the products of multiple factors because sampling took place in stages, and the ratio adjustment was arrived at iteratively.

**Probability of Selection.** In calculating the probabilities of selection, we calculated three stages of selection: (1) selection of telephone numbers from the sample frame, (2) subsampling of numbers for actual calling; (3) selection of individuals within the household.<sup>7</sup> A respondent's probability of selection depended on the stratum to which his or her telephone number was assigned, the number of telephone numbers used by the household, whether he or she was African-American or Hispanic and the number of adults living in the household. The probabilities of selection for African-American and Hispanic households varied by substratum.<sup>8</sup> For households other than African-American and Hispanic households, probabilities of selection were greater in California than in other states, but were approximately equal across substrata.<sup>9</sup> Within households, individuals had a chance of selection that was inversely proportional to the number of adults living in the household.

---


$$^7\text{Thus } P_{\text{ih}} = P1_s * P2_s * P(I)_h * np$$

where:

$P1_s$  and  $P2_s$  are the two stages of selecting the number within the stratum

$P(I)_h = 1/n_{\text{hh}}$  is the within household probability of an individual being selected.

$n_{\text{hh}}$  is the number of adults in household H.

$np$  is the number of telephones in the household.

<sup>8</sup>As discussed in the section on sample design, we oversampled strata with higher prevalences of African-American and Hispanic households. Thus, an African-American in a low-prevalence stratum would have a lower probability of selection than an African-American in a high-prevalence stratum.

<sup>9</sup>Respondents who were not African-American or Hispanic generally were selected only in the first phase when there was no oversampling, because we attempted to screen out persons who were not African-American or Hispanic during the second phase of sample release. However, seventeen persons were interviewed during the second phase who at the end of the interview identified themselves as non-Hispanic whites or Asians. In weighting, the probabilities of selection of these cases were computed as if they were African-American or Hispanic.

**Response Rate Adjustment.** We formed 12 cells for the response rate adjustment, based on stratum and racial/ethnic group. In California, we created one response rate cell for African-Americans and Hispanics and another cell for others, because most of the substrata had very few cases and we considered the stratum- specific response rates to be unreliable. Outside California we formed two cells (African-American, Hispanic/Other) per stratum. The response rate for a cell is defined as the ratio of the number of completed interviews to the estimated number of sampled households that are eligible.<sup>10</sup> As discussed above (A.4), the response rate adjustment is the inverse of the response rate.

**Ratio Adjustments.** To determine the need for further weighting adjustments, we computed a preliminary weight based on the probability of selection and response rate and compared the distribution of that sample to Census Bureau estimates of the study population. The preliminary weights did not fully correct for differences in sex, age, race, ethnicity, and education. We thus undertook a series of adjustments:

- First, by sex and whether Hispanic
- Second, by sex and race
- Third, by education

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<sup>10</sup>Specifically,

$$RR_c = \frac{n_c}{(n_c + e_c + ER_c(dk_c))}$$

where

- $n_c$  = the number of completed interviews in cell c
- $e_c$  = the number of non-completed eligible households (household with a member at least 18 years old) in cell c
- $ER$  =  $(n_c + e_c)/(n_c + e_c + ie_c)$
- $ie_c$  = the number of ineligible telephone numbers (non-residential and not-in-service)
- $dk_c$  = the number of cases where eligibility was not known

- Fourth, by age and sex

In each case, the adjustment was the ratio of the Census estimate of the population distribution to that of the sample, using weights derived in the previous iteration.<sup>11</sup>

**Design Effects and Sampling Errors.** Commonly used formulas for sampling error in most statistical software rely on simple random sampling assumptions. However, the oversampling used in this survey and the presence of differential response patterns require the use of sample weights, and the sampling error of a weighted sample is different from that of a simple random sample. Thus, the commonly used formulas will yield incorrect estimates of sampling error (standard errors, confidence intervals) for estimates and of levels of significance for tests of differences between groups of respondents.

The change in sampling error (usually an increase, but sometimes a decrease) relative to that expected from a simple random sample is called a design effect (DEFF).<sup>12</sup> We estimated design effects across subgroups for the study's main outcome variables.<sup>13</sup> We found that the design effect varied substantially, ranging from less than one for Blacks, Hispanics and residents of California to nearly two for the subgroup of respondents with a high school education or less. Tables A.2.A through A.2.F give 95 percent confidence intervals for percentages for several subgroups. Tables A.3 and A.4 give minimum differences required for observed differences in percentages to be considered statistically significant at the 5 and 10 percent levels.

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<sup>11</sup>For the first adjustment (ADJ1), we used for the sample estimate, the preliminary weight,  $(1/P_{ih}) \cdot (1/RR_c)$ . For the second adjustment (ADJ2) we used  $(1/P_{ih}) \cdot (1/RR_c) \cdot (ADJ1)$ , and so on.

$$^{12}DEFF = VAR_{design} / VAR_{SRS}$$

where:

$VAR_{design}$  is the (weighted) sample variance for the actual design.

$VAR_{SRS}$  is the sample variance estimated for a simple random sample of the same size.

<sup>13</sup>Estimates of design effects we computed using PROC CROSSTAB in SUDAAN, a software package developed by Research Triangle Institute.



**Net Effects of Weighting.** The use of unweighted data could lead to biased estimates. In addition, weights can introduce a design effect, or increase in sampling error relative to that of a simple random sample of the same size.

To check our hypothesis that weighting is needed for this survey, we examined several variables to determine: (1) whether a bias seemed to exist and (2) whether the use of weights increased the variance more than it decreased bias. Table A.5 shows the root mean error (RME)<sup>14</sup> and the estimated bias of using unweighted data for six key variables. All of the biases were relatively small, and one is almost negligible. However, the root mean errors are larger for the unweighted sample for five of the six variables, indicating that the weighting process is effective--it reduces bias more than it increases sampling error.

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<sup>14</sup>The Root Mean Error is the square root of the Mean Square Error (MSE), where the MSE is defined as (Sample Variance + Bias<sup>2</sup>). For the weighted estimate the RME is the standard error (the square root of the sample variance) because we assume the weighted estimate to be unbiased. For the unweighted estimate we assume no design effect on the sample variance, while for the weighted estimate we use weighted the standard errors, which incorporate any design effects.

Thus, for a percentage (p):

$$RME \text{ (Unweighted)} = \sqrt{\frac{p(100 - p)}{n - 1} + Bias^2}$$

$$RME \text{ (Weighted)} = \sqrt{\frac{p(100 - p) DEFF}{n - 1}}$$

where Bias = p(unweighted) - p(weighted)

TABLE A.2.A  
 HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES  
 (GROUP(S): COLLEGE GRADUATES)  
 ASSUMING DEFF = 1.0

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 6.9%                     |
| 300         | 3.4%                     | 4.5%                     | 5.2%                     | 5.6%                     | 5.7%                     |
| 400         | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%                     |
| 500         | 2.6%                     | 3.5%                     | 4.0%                     | 4.3%                     | 4.4%                     |
| 600         | 2.4%                     | 3.2%                     | 3.7%                     | 3.9%                     | 4.0%                     |
| 700         | 2.2%                     | 3.0%                     | 3.4%                     | 3.6%                     | 3.7%                     |
| 800         | 2.1%                     | 2.8%                     | 3.2%                     | 3.4%                     | 3.5%                     |
| 900         | 2.0%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 1000        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1100        | 1.8%                     | 2.4%                     | 2.7%                     | 2.9%                     | 3.0%                     |
| 1200        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.8%                     |
| 1300        | 1.6%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.7%                     |
| 1400        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 1500        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.5%                     |
| 1600        | 1.5%                     | 2.0%                     | 2.2%                     | 2.4%                     | 2.5%                     |
| 1700        | 1.4%                     | 1.9%                     | 2.2%                     | 2.3%                     | 2.4%                     |
| 1800        | 1.4%                     | 1.8%                     | 2.1%                     | 2.3%                     | 2.3%                     |
| 1900        | 1.3%                     | 1.8%                     | 2.1%                     | 2.2%                     | 2.2%                     |
| 2000        | 1.3%                     | 1.8%                     | 2.0%                     | 2.1%                     | 2.2%                     |
| 2100        | 1.3%                     | 1.7%                     | 2.0%                     | 2.1%                     | 2.1%                     |
| 2200        | 1.3%                     | 1.7%                     | 1.9%                     | 2.0%                     | 2.1%                     |
| 2300        | 1.2%                     | 1.6%                     | 1.9%                     | 2.0%                     | 2.0%                     |
| 2400        | 1.2%                     | 1.6%                     | 1.8%                     | 2.0%                     | 2.0%                     |

TABLE A.2.B

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): AFRICAN AMERICANS, HISPANICS, CALIFORNIA)

ASSUMING DEFF = 0.8

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 3.7%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.2%                     |
| 300         | 3.0%                     | 4.1%                     | 4.6%                     | 5.0%                     | 5.1%                     |
| 400         | 2.6%                     | 3.5%                     | 4.0%                     | 4.3%                     | 4.4%                     |
| 500         | 2.4%                     | 3.1%                     | 3.6%                     | 3.8%                     | 3.9%                     |
| 600         | 2.1%                     | 2.9%                     | 3.3%                     | 3.5%                     | 3.6%                     |
| 700         | 2.0%                     | 2.7%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 800         | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 900         | 1.8%                     | 2.3%                     | 2.7%                     | 2.9%                     | 2.9%                     |
| 1000        | 1.7%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.8%                     |
| 1100        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 1200        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.5%                     |
| 1300        | 1.5%                     | 1.9%                     | 2.2%                     | 2.4%                     | 2.4%                     |
| 1400        | 1.4%                     | 1.9%                     | 2.1%                     | 2.3%                     | 2.3%                     |
| 1500        | 1.4%                     | 1.8%                     | 2.1%                     | 2.2%                     | 2.3%                     |
| 1600        | 1.3%                     | 1.8%                     | 2.0%                     | 2.1%                     | 2.2%                     |
| 1700        | 1.3%                     | 1.7%                     | 1.9%                     | 2.1%                     | 2.1%                     |
| 1800        | 1.2%                     | 1.7%                     | 1.9%                     | 2.0%                     | 2.1%                     |
| 1900        | 1.2%                     | 1.6%                     | 1.8%                     | 2.0%                     | 2.0%                     |
| 2000        | 1.2%                     | 1.6%                     | 1.8%                     | 1.9%                     | 2.0%                     |
| 2100        | 1.1%                     | 1.5%                     | 1.8%                     | 1.9%                     | 1.9%                     |
| 2200        | 1.1%                     | 1.5%                     | 1.7%                     | 1.8%                     | 1.9%                     |
| 2300        | 1.1%                     | 1.5%                     | 1.7%                     | 1.8%                     | 1.8%                     |
| 2400        | 1.1%                     | 1.4%                     | 1.6%                     | 1.8%                     | 1.8%                     |

TABLE A.2.C

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): WOMEN, THOSE WITH SOME COLLEGE)

ASSUMING DEFF = 1.3

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 4.8%                     | 6.3%                     | 7.3%                     | 7.8%                     | 7.9%                     |
| 300         | 3.9%                     | 5.2%                     | 5.9%                     | 6.3%                     | 6.5%                     |
| 400         | 3.4%                     | 4.5%                     | 5.1%                     | 5.5%                     | 5.6%                     |
| 500         | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%                     |
| 600         | 2.7%                     | 3.7%                     | 4.2%                     | 4.5%                     | 4.6%                     |
| 700         | 2.5%                     | 3.4%                     | 3.9%                     | 4.1%                     | 4.2%                     |
| 800         | 2.4%                     | 3.2%                     | 3.6%                     | 3.9%                     | 4.0%                     |
| 900         | 2.2%                     | 3.0%                     | 3.4%                     | 3.7%                     | 3.7%                     |
| 1000        | 2.1%                     | 2.8%                     | 3.2%                     | 3.5%                     | 3.5%                     |
| 1100        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.4%                     |
| 1200        | 1.9%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.2%                     |
| 1300        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1400        | 1.8%                     | 2.4%                     | 2.7%                     | 2.9%                     | 3.0%                     |
| 1500        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.9%                     |
| 1600        | 1.7%                     | 2.2%                     | 2.6%                     | 2.7%                     | 2.8%                     |
| 1700        | 1.6%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.7%                     |
| 1800        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 1900        | 1.5%                     | 2.1%                     | 2.4%                     | 2.5%                     | 2.6%                     |
| 2000        | 1.5%                     | 2.0%                     | 2.3%                     | 2.4%                     | 2.5%                     |
| 2100        | 1.5%                     | 2.0%                     | 2.2%                     | 2.4%                     | 2.4%                     |
| 2200        | 1.4%                     | 1.9%                     | 2.2%                     | 2.3%                     | 2.4%                     |
| 2300        | 1.4%                     | 1.9%                     | 2.1%                     | 2.3%                     | 2.3%                     |
| 2400        | 1.4%                     | 1.8%                     | 2.1%                     | 2.2%                     | 2.3%                     |

TABLE A.2.D

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): TOTAL SAMPLE, INCOME \$50K AND UP, GROUPS NOT SPECIFIED)

ASSUMING DEFF = 1.5

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 5.1%                     | 6.8%                     | 7.8%                     | 8.3%                     | 8.5%                     |
| 300         | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 6.9%                     |
| 400         | 3.6%                     | 4.8%                     | 5.5%                     | 5.9%                     | 6.0%                     |
| 500         | 3.2%                     | 4.3%                     | 4.9%                     | 5.3%                     | 5.4%                     |
| 600         | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%                     |
| 700         | 2.7%                     | 3.6%                     | 4.2%                     | 4.4%                     | 4.5%                     |
| 800         | 2.5%                     | 3.4%                     | 3.9%                     | 4.2%                     | 4.2%                     |
| 900         | 2.4%                     | 3.2%                     | 3.7%                     | 3.9%                     | 4.0%                     |
| 1000        | 2.3%                     | 3.0%                     | 3.5%                     | 3.7%                     | 3.8%                     |
| 1100        | 2.2%                     | 2.9%                     | 3.3%                     | 3.5%                     | 3.6%                     |
| 1200        | 2.1%                     | 2.8%                     | 3.2%                     | 3.4%                     | 3.5%                     |
| 1300        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.3%                     |
| 1400        | 1.9%                     | 2.6%                     | 2.9%                     | 3.1%                     | 3.2%                     |
| 1500        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1600        | 1.8%                     | 2.4%                     | 2.8%                     | 2.9%                     | 3.0%                     |
| 1700        | 1.7%                     | 2.3%                     | 2.7%                     | 2.9%                     | 2.9%                     |
| 1800        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.8%                     |
| 1900        | 1.7%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.8%                     |
| 2000        | 1.6%                     | 2.1%                     | 2.5%                     | 2.6%                     | 2.7%                     |
| 2100        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |
| 2200        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.6%                     |
| 2300        | 1.5%                     | 2.0%                     | 2.3%                     | 2.5%                     | 2.5%                     |
| 2400        | 1.5%                     | 2.0%                     | 2.2%                     | 2.4%                     | 2.5%                     |

TABLE A.2.E

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): MEN, WHITES, INCOME LESS THAN \$50K, NON-CALIFORNIA)

ASSUMING DEFF = 1.7

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 5.4%                     | 7.2%                     | 8.3%                     | 8.9%                     | 9.1%                     |
| 300         | 4.4%                     | 5.9%                     | 6.8%                     | 7.2%                     | 7.4%                     |
| 400         | 3.8%                     | 5.1%                     | 5.9%                     | 6.3%                     | 6.4%                     |
| 500         | 3.4%                     | 4.6%                     | 5.2%                     | 5.6%                     | 5.7%                     |
| 600         | 3.1%                     | 4.2%                     | 4.8%                     | 5.1%                     | 5.2%                     |
| 700         | 2.9%                     | 3.9%                     | 4.4%                     | 4.7%                     | 4.8%                     |
| 800         | 2.7%                     | 3.6%                     | 4.1%                     | 4.4%                     | 4.5%                     |
| 900         | 2.6%                     | 3.4%                     | 3.9%                     | 4.2%                     | 4.3%                     |
| 1000        | 2.4%                     | 3.2%                     | 3.7%                     | 4.0%                     | 4.0%                     |
| 1100        | 2.3%                     | 3.1%                     | 3.5%                     | 3.8%                     | 3.9%                     |
| 1200        | 2.2%                     | 3.0%                     | 3.4%                     | 3.6%                     | 3.7%                     |
| 1300        | 2.1%                     | 2.8%                     | 3.2%                     | 3.5%                     | 3.5%                     |
| 1400        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.4%                     |
| 1500        | 2.0%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 1600        | 1.9%                     | 2.6%                     | 2.9%                     | 3.1%                     | 3.2%                     |
| 1700        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 1800        | 1.8%                     | 2.4%                     | 2.8%                     | 3.0%                     | 3.0%                     |
| 1900        | 1.8%                     | 2.3%                     | 2.7%                     | 2.9%                     | 2.9%                     |
| 2000        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.9%                     |
| 2100        | 1.7%                     | 2.2%                     | 2.6%                     | 2.7%                     | 2.8%                     |
| 2200        | 1.6%                     | 2.2%                     | 2.5%                     | 2.7%                     | 2.7%                     |
| 2300        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.7%                     |
| 2400        | 1.6%                     | 2.1%                     | 2.4%                     | 2.6%                     | 2.6%                     |



TABLE A.2.F

## HALF WIDTH OF 95% CONFIDENCE INTERVAL FOR PERCENTAGES

(GROUP(S): THOSE WITH HIGH SCHOOL OR LESS)

ASSUMING DEFF = 2.0

| Sample Size | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0%<br>or 60.0% | P Near 50.0%<br>or 50.0% |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 200         | 5.9%                     | 7.9%                     | 9.0%                     | 9.6%                     | 9.8%                     |
| 300         | 4.8%                     | 6.4%                     | 7.3%                     | 7.9%                     | 8.0%                     |
| 400         | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 6.9%                     |
| 500         | 3.7%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.2%                     |
| 600         | 3.4%                     | 4.5%                     | 5.2%                     | 5.5%                     | 5.7%                     |
| 700         | 3.1%                     | 4.2%                     | 4.8%                     | 5.1%                     | 5.2%                     |
| 800         | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%                     |
| 900         | 2.8%                     | 3.7%                     | 4.2%                     | 4.5%                     | 4.6%                     |
| 1000        | 2.6%                     | 3.5%                     | 4.0%                     | 4.3%                     | 4.4%                     |
| 1100        | 2.5%                     | 3.3%                     | 3.8%                     | 4.1%                     | 4.2%                     |
| 1200        | 2.4%                     | 3.2%                     | 3.7%                     | 3.9%                     | 4.0%                     |
| 1300        | 2.3%                     | 3.1%                     | 3.5%                     | 3.8%                     | 3.8%                     |
| 1400        | 2.2%                     | 3.0%                     | 3.4%                     | 3.6%                     | 3.7%                     |
| 1500        | 2.1%                     | 2.9%                     | 3.3%                     | 3.5%                     | 3.6%                     |
| 1600        | 2.1%                     | 2.8%                     | 3.2%                     | 3.4%                     | 3.5%                     |
| 1700        | 2.0%                     | 2.7%                     | 3.1%                     | 3.3%                     | 3.4%                     |
| 1800        | 2.0%                     | 2.6%                     | 3.0%                     | 3.2%                     | 3.3%                     |
| 1900        | 1.9%                     | 2.5%                     | 2.9%                     | 3.1%                     | 3.2%                     |
| 2000        | 1.9%                     | 2.5%                     | 2.8%                     | 3.0%                     | 3.1%                     |
| 2100        | 1.8%                     | 2.4%                     | 2.8%                     | 3.0%                     | 3.0%                     |
| 2200        | 1.8%                     | 2.4%                     | 2.7%                     | 2.9%                     | 3.0%                     |
| 2300        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.9%                     |
| 2400        | 1.7%                     | 2.3%                     | 2.6%                     | 2.8%                     | 2.8%                     |

TABLE A.3  
MINIMUM DIFFERENCES REQUIRED FOR COMPARISONS  
BETWEEN GROUPS OF PERCENTAGES (P)  
WITH ALPHA = 0.05, 2 TAIL TEST

| Groups Being Compared |                             | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|-----------------------|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>SEX</b>            |                             |                          |                          |                          |                          |              |
| A1                    | Men, Women                  | 3.1%                     | 4.1%                     | 4.7%                     | 5.0%                     | 5.1%         |
| <b>AGE</b>            |                             |                          |                          |                          |                          |              |
| B1                    | 18-24, 25-34                | 5.5%                     | 7.3%                     | 8.3%                     | 8.9%                     | 9.1%         |
| B2                    | 18-24, 35-54                | 5.1%                     | 6.9%                     | 7.9%                     | 8.4%                     | 8.6%         |
| B3                    | 18-24, 55+                  | 5.6%                     | 7.5%                     | 8.6%                     | 9.2%                     | 9.4%         |
| B4                    | 25-34, 35-54                | 3.8%                     | 5.1%                     | 5.8%                     | 6.2%                     | 6.4%         |
| B5                    | 25-34, 55+                  | 4.4%                     | 5.9%                     | 6.8%                     | 7.2%                     | 7.4%         |
| B6                    | 35-54, 55+                  | 4.0%                     | 5.4%                     | 6.2%                     | 6.6%                     | 6.7%         |
| <b>ETHNICITY</b>      |                             |                          |                          |                          |                          |              |
| C1                    | White, Black                | 3.2%                     | 4.2%                     | 4.8%                     | 5.2%                     | 5.3%         |
| C2                    | White, Hispanic             | 3.4%                     | 4.5%                     | 5.1%                     | 5.5%                     | 5.6%         |
| C3                    | Black, Hispanic             | 3.5%                     | 4.7%                     | 5.4%                     | 5.8%                     | 5.9%         |
| <b>HAVE CHILDREN</b>  |                             |                          |                          |                          |                          |              |
| D1                    | Yes, No                     | 3.2%                     | 4.2%                     | 4.8%                     | 5.2%                     | 5.3%         |
| <b>EDUCATION</b>      |                             |                          |                          |                          |                          |              |
| E1                    | HS or Less, Some College    | 3.7%                     | 4.9%                     | 5.6%                     | 6.0%                     | 6.1%         |
| E2                    | HS or Less, College Grad.   | 3.5%                     | 4.6%                     | 5.3%                     | 5.7%                     | 5.8%         |
| E3                    | Some College, College Grad. | 3.5%                     | 4.7%                     | 5.3%                     | 5.7%                     | 5.8%         |
| <b>OCCUPATION</b>     |                             |                          |                          |                          |                          |              |
| F1                    | Professional, Clerical      | 4.7%                     | 6.3%                     | 7.2%                     | 7.7%                     | 7.9%         |
| F2                    | Professional, Blue Collar   | 4.3%                     | 5.8%                     | 6.6%                     | 7.0%                     | 7.2%         |
| F3                    | Professional, NLF           | 3.8%                     | 5.1%                     | 5.9%                     | 6.3%                     | 6.4%         |
| F4                    | Clerical, Blue Collar       | 4.9%                     | 6.6%                     | 7.5%                     | 8.0%                     | 8.2%         |
| F5                    | Clerical, NLF               | 4.5%                     | 6.0%                     | 6.9%                     | 7.4%                     | 7.5%         |
| F6                    | Blue Collar, NLF            | 4.1%                     | 5.5%                     | 6.2%                     | 6.7%                     | 6.8%         |
| <b>IDEOLOGY</b>       |                             |                          |                          |                          |                          |              |
| G1                    | Liberal, Moderate           | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 7.0%         |
| G2                    | Liberal, Conservative       | 4.1%                     | 5.4%                     | 6.2%                     | 6.6%                     | 6.8%         |
| G3                    | Moderate, Conservative      | 3.6%                     | 4.8%                     | 5.5%                     | 5.8%                     | 6.0%         |

TABLE A.3 (continued)

| Groups Being Compared            |                                     | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|----------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>POLITICAL<br/>AFFILIATION</b> |                                     |                          |                          |                          |                          |              |
| H1                               | Democrat, Rep. Or Ind.              | 3.8%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.3%         |
| H2                               | Republican, Independent             | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 7.0%         |
| <b>POLITICAL<br/>ACTIVITY</b>    |                                     |                          |                          |                          |                          |              |
| I1                               | Campaign, Contribute                | 5.2%                     | 6.9%                     | 8.0%                     | 8.5%                     | 8.7%         |
| I2                               | Campaign, Vote                      | 4.9%                     | 6.6%                     | 7.5%                     | 8.1%                     | 8.2%         |
| I3                               | Contribute, Vote                    | 3.8%                     | 5.0%                     | 5.8%                     | 6.1%                     | 6.3%         |
| <b>TOBACCO USE</b>               |                                     |                          |                          |                          |                          |              |
| J1                               | None in HH, Any Other<br>Group      | 4.7%                     | 6.3%                     | 7.2%                     | 7.7%                     | 7.9%         |
| J2                               | Any Other Two Groups                | 6.1%                     | 8.2%                     | 9.4%                     | 10.0%                    | 10.2%        |
| J3                               | Smokers, Non-Smokers                | 3.5%                     | 4.7%                     | 5.3%                     | 5.7%                     | 5.8%         |
| <b>LOST FAMILY<br/>MEMBER</b>    |                                     |                          |                          |                          |                          |              |
| K1                               | Yes, No                             | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%         |
| <b>GEOGRAPHIC</b>                |                                     |                          |                          |                          |                          |              |
| L1                               | California, Rest of U.S.            | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%         |
| <b>REGION</b>                    |                                     |                          |                          |                          |                          |              |
| M1                               | Northeast, Midwest                  | 5.0%                     | 6.6%                     | 7.6%                     | 8.1%                     | 8.3%         |
| M2                               | Northeast, South                    | 4.5%                     | 6.0%                     | 6.9%                     | 7.4%                     | 7.5%         |
| M3                               | Northeast, West                     | 4.5%                     | 6.0%                     | 6.8%                     | 7.3%                     | 7.5%         |
| M4                               | Midwest, South                      | 4.3%                     | 5.7%                     | 6.5%                     | 7.0%                     | 7.1%         |
| M5                               | Midwest, West                       | 4.2%                     | 5.7%                     | 6.5%                     | 6.9%                     | 7.1%         |
| M6                               | South, West                         | 3.7%                     | 4.9%                     | 5.6%                     | 6.0%                     | 6.2%         |
| <b>IDEOLOGY BY<br/>PARTY</b>     |                                     |                          |                          |                          |                          |              |
| N1                               | Liberals: Democrats, Others         | 6.7%                     | 8.9%                     | 10.2%                    | 10.9%                    | 11.1%        |
| N2                               | Moderates: Democrats, Others        | 5.5%                     | 7.4%                     | 8.4%                     | 9.0%                     | 9.2%         |
| N3                               | Conservatives: Democrats,<br>Others | 5.3%                     | 7.1%                     | 8.1%                     | 8.7%                     | 8.9%         |

TABLE A.4  
MINIMUM DIFFERENCES REQUIRED FOR COMPARISONS  
BETWEEN GROUPS OF PERCENTAGES (P)  
WITH ALPHA = 0.10, 2 TAIL TEST

| Groups Being Compared |                             | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|-----------------------|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>SEX</b>            |                             |                          |                          |                          |                          |              |
| A1                    | Men, Women                  | 2.6%                     | 3.4%                     | 3.9%                     | 4.2%                     | 4.3%         |
| <b>AGE</b>            |                             |                          |                          |                          |                          |              |
| B1                    | 18-24, 25-34                | 4.6%                     | 6.1%                     | 7.0%                     | 7.5%                     | 7.6%         |
| B2                    | 18-24, 35-54                | 4.3%                     | 5.8%                     | 6.6%                     | 7.1%                     | 7.2%         |
| B3                    | 18-24, 55+                  | 4.7%                     | 6.3%                     | 7.2%                     | 7.7%                     | 7.9%         |
| B4                    | 25-34, 35-54                | 3.2%                     | 4.3%                     | 4.9%                     | 5.2%                     | 5.3%         |
| B5                    | 25-34, 55+                  | 3.7%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.2%         |
| B6                    | 35-54, 55+                  | 3.4%                     | 4.5%                     | 5.2%                     | 5.5%                     | 5.6%         |
| <b>ETHNICITY</b>      |                             |                          |                          |                          |                          |              |
| C1                    | White, Black                | 2.7%                     | 3.6%                     | 4.1%                     | 4.4%                     | 4.4%         |
| C2                    | White, Hispanic             | 2.8%                     | 3.8%                     | 4.3%                     | 4.6%                     | 4.7%         |
| C3                    | Black, Hispanic             | 3.0%                     | 4.0%                     | 4.5%                     | 4.9%                     | 5.0%         |
| <b>HAVE CHILDREN</b>  |                             |                          |                          |                          |                          |              |
| D1                    | Yes, No                     | 2.7%                     | 3.6%                     | 4.1%                     | 4.3%                     | 4.4%         |
| <b>EDUCATION</b>      |                             |                          |                          |                          |                          |              |
| E1                    | HS or Less, Some College    | 3.1%                     | 4.1%                     | 4.7%                     | 5.0%                     | 5.1%         |
| E2                    | HS or Less, College Grad.   | 2.9%                     | 3.9%                     | 4.4%                     | 4.8%                     | 4.9%         |
| E3                    | Some College, College Grad. | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%         |
| <b>OCCUPATION</b>     |                             |                          |                          |                          |                          |              |
| F1                    | Professional, Clerical      | 4.0%                     | 5.3%                     | 6.0%                     | 6.5%                     | 6.6%         |
| F2                    | Professional, Blue Collar   | 3.6%                     | 4.8%                     | 5.5%                     | 5.9%                     | 6.0%         |
| F3                    | Professional, NLF           | 3.2%                     | 4.3%                     | 4.9%                     | 5.3%                     | 5.4%         |
| F4                    | Clerical, Blue Collar       | 4.1%                     | 5.5%                     | 6.3%                     | 6.7%                     | 6.9%         |
| F5                    | Clerical, NLF               | 3.8%                     | 5.0%                     | 5.8%                     | 6.2%                     | 6.3%         |
| F6                    | Blue Collar, NLF            | 3.4%                     | 4.6%                     | 5.2%                     | 5.6%                     | 5.7%         |
| <b>IDEOLOGY</b>       |                             |                          |                          |                          |                          |              |
| G1                    | Liberal, Moderate           | 3.5%                     | 4.7%                     | 5.4%                     | 5.7%                     | 5.8%         |
| G2                    | Liberal, Conservative       | 3.4%                     | 4.6%                     | 5.2%                     | 5.6%                     | 5.7%         |
| G3                    | Moderate, Conservative      | 3.0%                     | 4.0%                     | 4.6%                     | 4.9%                     | 5.0%         |

TABLE A.4 (continued)

| Groups Being Compared        |                                  | P Near 10.0%<br>or 90.0% | P Near 20.0%<br>or 80.0% | P Near 30.0%<br>or 70.0% | P Near 40.0% or<br>60.0% | P Near 50.0% |
|------------------------------|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>POLITICAL AFFILIATION</b> |                                  |                          |                          |                          |                          |              |
| H1                           | Democrat, Rep. Or Ind.           | 3.2%                     | 4.2%                     | 4.8%                     | 5.1%                     | 5.3%         |
| H2                           | Republican, Independent          | 3.5%                     | 4.7%                     | 5.4%                     | 5.7%                     | 5.9%         |
| <b>POLITICAL ACTIVITY</b>    |                                  |                          |                          |                          |                          |              |
| I1                           | Campaign, Contribute             | 4.4%                     | 5.8%                     | 6.7%                     | 7.1%                     | 7.3%         |
| I2                           | Campaign, Vote                   | 4.1%                     | 5.5%                     | 6.3%                     | 6.8%                     | 6.9%         |
| I3                           | Contribute, Vote                 | 3.2%                     | 4.2%                     | 4.8%                     | 5.2%                     | 5.3%         |
| <b>TOBACCO USE</b>           |                                  |                          |                          |                          |                          |              |
| J1                           | None in HH, Any Other Group      | 4.0%                     | 5.3%                     | 6.1%                     | 6.5%                     | 6.6%         |
| J2                           | Any Other Two Groups             | 5.2%                     | 6.9%                     | 7.9%                     | 8.4%                     | 8.6%         |
| J3                           | Smokers, Non-Smokers             | 2.9%                     | 3.9%                     | 4.5%                     | 4.8%                     | 4.9%         |
| <b>LOST FAMILY MEMBER</b>    |                                  |                          |                          |                          |                          |              |
| K1                           | Yes, No                          | 2.5%                     | 3.4%                     | 3.9%                     | 4.1%                     | 4.2%         |
| <b>GEOGRAPHIC</b>            |                                  |                          |                          |                          |                          |              |
| L1                           | California, Rest of U.S.         | 2.5%                     | 3.4%                     | 3.9%                     | 4.1%                     | 4.2%         |
| <b>REGION</b>                |                                  |                          |                          |                          |                          |              |
| M1                           | Northeast, Midwest               | 4.2%                     | 5.6%                     | 6.4%                     | 6.8%                     | 7.0%         |
| M2                           | Northeast, South                 | 3.8%                     | 5.0%                     | 5.8%                     | 6.2%                     | 6.3%         |
| M3                           | Northeast, West                  | 3.8%                     | 5.0%                     | 5.7%                     | 6.1%                     | 6.3%         |
| M4                           | Midwest, South                   | 3.6%                     | 4.8%                     | 5.5%                     | 5.9%                     | 6.0%         |
| M5                           | Midwest, West                    | 3.6%                     | 4.7%                     | 5.4%                     | 5.8%                     | 5.9%         |
| M6                           | South, West                      | 3.1%                     | 4.1%                     | 4.7%                     | 5.1%                     | 5.2%         |
| <b>IDEOLOGY BY PARTY</b>     |                                  |                          |                          |                          |                          |              |
| N1                           | Liberals: Democrats, Others      | 5.6%                     | 7.5%                     | 8.6%                     | 9.2%                     | 9.4%         |
| N2                           | Moderates: Democrats, Others     | 4.6%                     | 6.2%                     | 7.1%                     | 7.6%                     | 7.7%         |
| N3                           | Conservatives: Democrats, Others | 4.5%                     | 5.9%                     | 6.8%                     | 7.3%                     | 7.4%         |

TABLE A.5

ROOT MEAN ERROR (RME) FOR SELECTED VARIABLES (PERCENTAGES)

| Question | Variable                                                                | Unweighted<br>RME | Weighted<br>RME | Bias of Unweighted<br>Estimate |
|----------|-------------------------------------------------------------------------|-------------------|-----------------|--------------------------------|
| A2       | Sale of cigarettes in vending machines<br>should be allowed             | 1.80              | 1.11            | -1.56                          |
| A3       | Cigarette machines accessible to kids<br>should be allowed <sup>b</sup> | 1.34              | 2.33            | -0.20                          |
| A4       | Favor checking ID for cigarette sales                                   | 0.91              | 0.56            | -0.74                          |
| A5       | Retailers have right to display<br>tobacco products where they want     | 1.99              | 1.08            | -1.81                          |
| A9       | Allow billboard advertising                                             | 2.29              | 1.28            | -2.05                          |
| A10      | Allow newspaper advertising                                             | 1.64              | 1.30            | -1.27                          |

<sup>b</sup>Only those responding "allowed" to QA2 were asked QA3.



**APPENDIX B**  
**SURVEY INSTRUMENT**  
**(ENGLISH VERSION)**

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LIMITS TO ACCESS, ADVERTISING, AND PROMOTIONS

>thes< [allow 9]  
>else< [allow 4]  
>s< [allow 1]  
>ss< [allow 1]  
>a1< First, in your opinion, how easy is it for kids to buy cigarettes  
and other tobacco products in your community--very easy, somewhat  
easy, somewhat difficult, or very difficult?

<1> VERY EASY  
<2> SOMEWHAT EASY  
<3> SOMEWHAT DIFFICULT  
<4> VERY DIFFICULT

<8> DON'T KNOW  
<9> REFUSED

===>

>a2< Next, I am going to ask for your opinion about several proposals  
intended to make it more difficult for kids to get cigarettes.

Do you think the sale of cigarettes in vending machines should be  
allowed or banned?

<1> ALLOWED  
<2> BANNED[goto a4]

<8> DON'T KNOW  
<9> REFUSED

===>

>a3< Do you think cigarette vending machines which are accessible to  
kids should be allowed or banned?

<1> ALLOWED  
<2> BANNED

<8> DON'T KNOW  
<9> REFUSED

===>

>a4< Do you favor or oppose requiring store clerks to check the IDs  
of anyone appearing to be under age before selling them cigarettes  
or smokeless tobacco, just as they do with alcohol?

<1> FAVOR  
<2> OPPOSE

<8> DON'T KNOW  
<9> REFUSED

===>

>ta5< [if RAN2 eq <2> goto A5]

>a5< Which of the following statements do you agree with?

<1> Retailers have the right to display tobacco products  
wherever they want.

<2> Retailers should keep all tobacco products behind the  
counter to prevent shoplifting by minors.

<8> DON'T KNOW

<9> REFUSED

===>[goto a6]

>A5< Which of the following statements do you agree with?  
[equiv a5]

<2> Retailers should keep all tobacco products behind the  
counter to prevent shoplifting by minors.

<1> Retailers have the right to display tobacco products  
wherever they want.

<8> DON'T KNOW

<9> REFUSED

===>

>a6< Do you favor or oppose allowing the sale of cigarettes only  
in certain stores, just as is done with alcohol?

<1> FAVOR

<2> OPPOSE

<8> DON'T KNOW

<9> REFUSED

===>

>a8a< Research has shown that most adult smokers begin smoking before  
they are 21. Do you think that restricting the sale of cigarettes  
to people 21 and older will help reduce the number of kids under  
21 who begin smoking?

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

===>

>a8b< Do you think that restricting the sale of cigarettes to people 19 and older will help reduce the number of kids in high school who begin smoking?

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

===>

>a9< Cigarette companies currently use many different advertising and promotion methods. I am going to ask for your opinion concerning several proposals designed to restrict promotions or advertisements that may encourage kids to smoke.

Should advertising of tobacco products on billboards be allowed or banned?

<1> ALLOWED

<2> BANNED

<8> DON'T KNOW

<9> REFUSED

===>

>a10< Should advertising of tobacco products through newspapers and magazines be allowed or banned?

<1> ALLOWED

<2> BANNED

<8> DON'T KNOW

<9> REFUSED

===>

>a11< Assuming that tobacco advertising is not banned, do you think limiting tobacco ads to words only, with pictures and cartoons prohibited, would make smoking less appealing to kids?

<1> YES

<0> NO

<8> DON'T KNOW

<9> REFUSED

===>

>a13< Plain packaging of cigarettes and smokeless products would

mean that the package would include only the brand name and warning label in black letters against a white background. To make cigarettes appear less attractive to kids, should tobacco companies be required to use plain packaging for their products or should plain packaging not be required?

<1> YES, REQUIRED  
<0> NO, NOT REQUIRED

<8> DON'T KNOW  
<9> REFUSED

====>

>a14< Should tobacco companies be allowed to include coupons in cigarette packs that can be used to obtain promotional items appealing to kids, such as hats, tee shirts, jackets, or caps, or should this not be allowed?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

====>

>a15< Coupon promotions make it possible for anyone, regardless of age, to obtain free cigarettes by mail. Should coupon promotions be allowed or not allowed?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

====>

>a16< Should the sale of single cigarettes be allowed or not?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

====>

>a17< Should the distribution of free cigarettes on public streets be allowed or not?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

===>

>a18< Cigarette advertising on television is illegal. However, cigarette brand names are often seen on TV sports or other entertainment events that kids watch. Should tobacco companies be allowed to sponsor sporting or entertainment events, where their brand names are featured, or not?

PROBE: Examples of these events are the Virginia Slims tennis tournament and the Marlboro Racing Team.

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

===>

>a19< Should tobacco companies be allowed to pay to show their products in movies or videos or not?

<1> ALLOWED  
<2> NOT ALLOWED

<8> DON'T KNOW  
<9> REFUSED

===>

#### TOBACCO USE AND SMOKING CESSATION

>a20< The next few questions are about tobacco use.

Have you smoked at least 100 cigarettes in your entire life?

<1> YES [goto a21]  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

===> [goto a22]

>a21< Do you now smoke cigarettes every day, some days, or not at all?

<1> EVERY DAY

<2> SOME DAYS  
<3> NOT AT ALL

<8> DON'T KNOW  
<9> REFUSED

====>

>a22< Do you use pipes, cigars, chewing tobacco,  
or snuff on a regular basis?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>

>ta23< [store <> in else]  
[if a21 ge <1>] [if a21 le <2>] [store <else> in else] [endif] [endif]  
[if a22 eq <1>] [store <else> in else] [endif]

>a23< Does anyone [fill else] in your household smoke?

<1> YES  
<0> NO  
<7> NOT APPLICABLE/ONE PERSON HOUSEHOLD[goto ta26]

<8> DON'T KNOW  
<9> REFUSED

====>

>a24< Are there any children under the age of 18 currently  
living in your household?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>

>ta25< [if a23 eq <1>] [if a24 eq <1> goto a25] [endif]  
[goto ta26]  
IF Q.28 = 1 and Q. 29=1, ASK 30; ELSE GOTO A.31

>a25< Does any household member under the age of 18 smoke?

<1> YES  
<0> NO



<8> DON'T KNOW  
<9> REFUSED

====>

>ta26< [if a21 eq <1> goto a26]  
[if a21 eq <2> goto a26]  
[if a22 eq <1> goto a26]  
[goto a29]

>a26< Are you planning to quit smoking or using chewing tobacco or snuff  
in the next six months?

<1> YES[goto a29]  
<0> NO

<8> DON'T KNOW  
<9> REFUSED[goto a29]  
====>

>a27< How likely are you to quit smoking or using chewing tobacco or snuff  
in the next five years-- very likely, somewhat likely, somewhat  
unlikely, very unlikely?

<1> VERY LIKELY  
<2> SOMEWHAT LIKELY  
<3> SOMEWHAT UNLIKELY  
<4> VERY UNLIKELY

<8> DON'T KNOW  
<9> REFUSED  
====>

>a29< Do you personally think nicotine in cigarettes is addicting  
or is not addicting?

<1> YES, ADDICTING  
<0> NO, NOT ADDICTING

<8> DON'T KNOW  
<9> REFUSED

====>

#### NICOTINE AND SMOKING CESSATION POLICIES

>a30< Have you seen or heard anything in the last six months  
about tobacco companies and the amount of nicotine in cigarettes?

<1> YES [goto a30a]  
<0> NO

<8> DON'T KNOW

<9> REFUSED

===>[goto a31]

>a30a< What do you recall reading or hearing about nicotine?

TYPE <1> TO SPECIFY AND END WITH ///[specify]

<8> DON'T KNOW

<9> REFUSED

===>

>a31< Do you believe that cigarette companies deliberately adjust nicotine levels to keep smokers addicted to cigarettes or do you believe that cigarette companies do not deliberately do this?

<1> DELIBERATELY ADJUST NICOTINE

<2> DO NOT DELIBERATELY DO THIS

<8> DON'T KNOW

<9> REFUSED

===>

>a32a< Now I am going to mention a couple of proposals to help people who want to quit smoking. Please tell me whether you favor or oppose each one of these proposals.

Requiring tobacco companies to gradually reduce the amount of nicotine in cigarettes.

PROBE: Which way are you leaning?

<1> FAVOR

<2> OPPOSE

<8> DON'T KNOW

<9> REFUSED

===>

>a32b< Requiring insurance companies to cover the cost of programs to quit smoking.

PROBE: Which way are you leaning?

<1> FAVOR

<2> OPPOSE

<8> DON'T KNOW  
<9> REFUSED

====>

>a34< Next, I am going to read two arguments that have been made in [r]favor[n] of regulating cigarettes. Please tell me whether you agree or disagree with each statement.

TYPE <g> TO CONTINUE====>

>ta34< [if RAN2 eq <2> goto a34b]  
ROTATE

>a34a< Tobacco companies should be required to list additives on package labels the way food and drug companies are required to list ingredients.

<1> AGREE  
<2> DISAGREE

<8> DON'T KNOW  
<9> REFUSED

====>

>t34b< [if RAN2 eq <2> goto a40]

>a34b< Since the government currently regulates all other products containing nicotine, such as nicotine patches and gum, it should regulate cigarettes.

<1> AGREE  
<2> DISAGREE

<8> DON'T KNOW  
<9> REFUSED

====>

>t34c< [if RAN2 eq <2> goto a34a]

>a40< To the best of your knowledge, have you ever lost a family member or close friend to diseases caused by smoking?

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

====>



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DEMOGRAPHICS

>e1< CODE SEX OF RESPONDENT WITHOUT ASKING UNLESS UNSURE

- <1> MALE
- <2> FEMALE

===>

>e3< Now some final questions for classification purposes. In which category does your age fall?

READ CATEGORIES

- <1> 18 to 24
- <2> 25 to 34
- <3> 35 to 44
- <4> 45 to 54
- <5> 55 to 64
- <6> 65 or older

- <8> DON'T KNOW
- <9> REFUSED

===>

>e4< What is the last grade or level of school you have completed?

INTERVIEWER: READ LIST

- <1> Less than high school (grades 1-11)
- <2> High school graduate (grade 12)
- <3> Some college (grades 13-15)
- <4> College graduate

- <8> DON'T KNOW
- <9> REFUSED

===>

>e5< Are you now married, not married but living with a partner, widowed, divorced, separated, or have you never been married?

INTERVIEWER: MARK RESPONSE WITH THE SMALLEST NUMBER THAT APPLIES

- <1> Married
- <2> Living with a partner
- <3> Widowed
- <4> Divorced/Annulled
- <5> Separated
- <6> Never married

- <8> DON'T KNOW

<9> REFUSED

===>

>e6< Which of the following categories [r]best[n] describes your present situation? Are you . . .

PROBE: REPEAT QUESTION EMPHASIZING "best"

<1> Retired

<2> A student (INCLUDES PERSONS WHO WORK TO PAY FOR SCHOOL)

<3> A homemaker (NOT EMPLOYED OUTSIDE THE HOME)

<4> Currently employed, or [goto e7]

<5> Currently unemployed, laid off, or looking for work? [goto e7]

<8> DON'T KNOW

<9> REFUSED

===> [goto e9]

>e7< Which of the following categories best describes your current or most recent job or occupation?

<1> Professional, administrative, or executive

<2> Clerical, administrative support, sales, or technical

<3> Crafts, trades, factory work, service, or labor

<8> DON'T KNOW/CANNOT BE CLASSIFIED

<9> REFUSED

===>

>e9< When it comes to most political issues, do you think of yourself as a liberal, a moderate, or a conservative?

<1> LIBERAL

<2> MODERATE

<3> CONSERVATIVE

<8> DON'T KNOW

<9> REFUSED

===>

>e10< And do you think of yourself as a Democrat, an Independent, or a Republican?

<1> DEMOCRAT

<2> INDEPENDENT

<3> REPUBLICAN

<4> OTHER (SPECIFY) [specify]

<8> DON'T KNOW

<9> REFUSED

==>

>e11< I will now read a list of political activities. Please tell me if you have done that particular activity at least once during the past two years.

Have you...

CODE ALL THAT APPLY.

[r] [fill e11a:1] [n] <1> voted, [goto e11a]  
[r] [fill e11b:1] [n] <2> written a letter to a politician, [goto e11b]  
[r] [fill e11c:1] [n] <3> contributed money to a candidate, [goto e11c]  
[r] [fill e11d:1] [n] <4> worked on a campaign such as stuffing letters or [goto e11d]  
putting up signs, or  
[r] [fill e11e:1] [n] <5> been a candidate for a political office? [goto e11e]

<n> NONE OF THE ABOVE/NO OTHER RESPONSE

<x> DELETE A RESPONSE [goto E11]

<8> DON'T KNOW

<9> REFUSED

==> [goto e12]

>e11a< [allow 1] [store <1> in e11a] [store <> in e11] [goto e11]  
>e11b< [allow 1] [store <2> in e11b] [store <> in e11] [goto e11]  
>e11c< [allow 1] [store <3> in e11c] [store <> in e11] [goto e11]  
>e11d< [allow 1] [store <4> in e11d] [store <> in e11] [goto e11]  
>e11e< [allow 1] [store <5> in e11e] [store <> in e11] [goto e11]

>E11< THIS SCREEN IS TO DELETE A RESPONSE.

[r] [fill e11a:1] [n] <1> voted, [goto e11A]  
[r] [fill e11b:1] [n] <2> written a letter to a politician, [goto e11B]  
[r] [fill e11c:1] [n] <3> contributed money to a candidate, [goto e11C]  
[r] [fill e11d:1] [n] <4> worked on a campaign such as stuffing letters or [goto e11D]  
putting up signs, or  
[r] [fill e11e:1] [n] <5> been a candidate for a political office? [goto e11E]

==>

>e11A< [store <> in e11a] [store <> in E11] [store <> in e11] [goto e11]  
>e11B< [store <> in e11b] [store <> in E11] [store <> in e11] [goto e11]  
>e11C< [store <> in e11c] [store <> in E11] [store <> in e11] [goto e11]  
>e11D< [store <> in e11d] [store <> in E11] [store <> in e11] [goto e11]  
>e11E< [store <> in e11e] [store <> in E11] [store <> in e11] [goto e11]

>e12< Including yourself, how many people live in your household?

<1>

<2-20>



<98> DON'T KNOW  
<99> REFUSED

===>

>e14< Do you consider yourself to be of Hispanic origin, such as Mexican, Puerto Rican, Cuban, or other Spanish background?

NOTE: CODE WITHOUT ASKING IF KNOWN FOR BLACK/HISPANIC OVERSAMPLE

<1> YES  
<0> NO

<8> DON'T KNOW  
<9> REFUSED

===>

>e15< Which of the following categories best describes your racial background? White, African American or Black, American Indian or Native American, Asian or Pacific Islander, or some other race?

NOTE: CODE WITHOUT ASKING IF KNOWN FOR BLACK/HISPANIC OVERSAMPLE

<1> WHITE  
<2> AFRICAN AMERICAN OR BLACK  
<3> AMERICAN INDIAN, NATIVE AMERICAN, ALASKA NATIVE (ALEUT/ESKIMO)  
<4> ASIAN OR PACIFIC ISLANDER  
<5> OTHER (SPECIFY) [specify]

<8> DON'T KNOW  
<9> REFUSED

===>

>e16< For tabulation purposes only, please tell me which of the following income categories includes your total household income in 1993 before taxes--less than \$20,000, \$20,000 to \$30,000, \$30,000 to \$40,000, \$40,000 to \$50,000, or over \$50,000?

PROBE: The information you provide will be kept confidential and only be used in statistical summaries.

<1> LESS THAN \$20,000  
<2> \$20,000 TO \$29,999  
<3> \$30,000 TO \$39,999  
<4> \$40,000 TO \$49,999  
<5> OVER \$50,000?

<8> DON'T KNOW  
<9> REFUSED

===>

```
>e19<  Finally, do you have any other phone numbers in your home in
      addition to ([fill AREA]) [fill PRFX:0] - [fill SUFX:0]?

      <1> YES
      <0> NO [goto e22]

      <8> DON'T KNOW [goto e22]
      <9> REFUSED [goto e22]

      ==>

>e20<  How many other telephone numbers are there in your home besides
      ([fill AREA]) [fill PRFX:0] - [fill SUFX:0]?

      PROBE:  Answers to these questions help us ensure that the survey
               accurately represents the people of your state.

      <1> ONE OTHER NUMBER
      <2> TWO OTHER NUMBERS
      <3> THREE OR MORE OTHER NUMBERS

      <8> DON'T KNOW
      <9> REFUSED

      ==>

>te20<  [if e20 eq <1>] [store <Is this> in thes] [store <> in s] [else]
        [store <Are these> in thes] [store <s> in s] [endif]

>e21<  [fill thes] other phone number[fill s] for . . .

      <1> Home use,
      <2> Business and home use, or
      <3> Business use only?

      <8> DON'T KNOW
      <9> REFUSED

      ==>

>e22<  During the past 12 months, was there any time when you did not
      have a working telephone in your household for two weeks or more?

      <1> YES [goto e23]
      <0> NO

      <8> DON'T KNOW
      <9> REFUSED

      ==> [goto end]

>e23<  For how many of the past 12 months did you not have a working
      telephone in your household?
```

```
<1-12>

<98> DON'T KNOW[goto e24]
<99> REFUSED

===>[goto end]

>e24<  We would like your best estimate of the length of time that your
      household was without a working telephone during the past 12 months.
      Was it...

      <1> less than a month,
      <2> one to six months, or
      <3> more than six months?

      <8> DON'T KNOW
      <9> REFUSED

      ===>

>end<  [store <1> in CODE]
      [if RFSL ge <1> goto CAMT]
      [goto MOD7]
```

---

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