

News and Information Services

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Cigarette smoking continues to rise among American teen-agers in 1996.

FOR RELEASE AT 12:00 NOON, EST, THURSDAY, DECEMBER 19, 1996.

EDITORS: Results of this survey will be released at a news conference on Dec. 19 in Washington, D.C. Among those participating in the release of results will be Secretary of Health and Human Services, Donna E. Shalala, the Director of the Office of National Drug Control Policy, General Barry R. McCaffrey, Secretary of Transportation, Frederico Pena, Secretary of Education Richard Riley, and the principal investigator of the Monitoring the Future study, Lloyd D. Johnston. For further information on the study, contact Johnston at (313) 763-5043.

ANN ARBOR---Cigarette smoking continued to rise among American secondary school students for the fifth year in a row, according to the most recent annual, national survey of eighth-, 10th-, and 12th-grade students.

Over the past year (between 1995 and 1996) the percentage of students reporting any cigarette smoking in the 30 days prior to the survey rose by about 10 percent among both eighth- and 10th-graders. Over the past five years (1991-96) the proportion reporting smoking in the prior 30 days has risen by nearly one-half among the eighth-graders (from 14 percent to 21 percent) and 10th-graders (from 21 percent to 30 percent). Among the 12th-graders the proportional increases have been less, but still appreciable. Current smoking (i.e., smoking in the prior 30-days) rose by more than one-fifth since 1991 (from 28 percent to 34 percent) among 12th-graders, although the increase in the

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most recent year was only one-half of one percentage point (0.5 percent). (See Table 1.)

In sum, in 1996 current smoking rates are 21 percent among eighth-graders (13-14 years old), 30 percent among 10th-graders (15-16 years old), and 34 percent among 12th-graders (17-18 years old). These rates are impressively high, especially when compared to the fact that about 25 percent of all adults are classified as current smokers according to the National Health Interview Survey.

These findings will be contained in a forthcoming report by University of Michigan social psychologists Lloyd Johnston, Patrick O'Malley, and Jerald Bachman, based on 22 years of national surveys as part of the Monitoring the Future Study. The study is conducted at the U-M Institute for Social Research and has been funded under a series of research grants from the National Institute on Drug Abuse, one of the National Institutes of Health.

"Because young people tend to carry the smoking habits they develop in adolescence into adulthood, the substantial and continuing increases in teen smoking bode ill for the eventual longevity and health of this generation of American young people," concludes Johnston. "Hundreds of thousands of children from each graduating class are likely to suffer appalling diseases, and to die prematurely, as a result of the smoking habits they are developing in childhood and adolescence."

The investigators note that substantial increases in smoking have been occurring in virtually every sociodemographic group; among boys and girls, among those bound for college and those not, among respondents in all regions of the country and in urban and rural areas, among all socioeconomic levels, and among those in the three major racial/ethnic groups (white, African Americans, and Hispanic Americans). "No one's kids are safe from this resurgence in smoking," warns Johnston, "so all parents should be

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concerned and alerted.” (See Table 2.)

Although smoking rates are increasing among all groups surveyed, there are some important subgroup differences in smoking rates; for example, respondents without future college plans are more likely to smoke than those who have such plans; those growing up in the South are somewhat less likely to smoke than those growing up in other regions of the country; and African American youngsters are substantially less likely to smoke than white youngsters. (Hispanic Americans tend to be in the middle.) (See Table 2.)

Asked to comment on the likely causes of the upturn in smoking, Johnston says: “The breadth of the increase suggests that broad cultural influences are at work here--- influences that reach virtually every sector of society. Two that come immediately to mind are the massive advertising and promotional efforts of the tobacco industry, and the extensive portrayal of smoking by role models in the media, particularly in movies.” The advertising and promotional budgets of the tobacco industry totaled some 6 billion dollars by 1993, and the investigators point to the attractiveness to young people of much of the advertising content, and many of the promotional items.

“While there are as yet no hard statistics to prove that there has been a great increase in the portrayal of smoking in movies and other entertainment programming, more cursory observations by a number of people suggest that this has been the case,” according to Johnston.

Young people continue to report cigarettes as being easily available to them: 77 percent of the eighth-graders, who are 13 or 14 years old, report that cigarettes would be “very easy” or “fairly easy” for them to get, and 91 percent of the 10th-graders say the same thing. (See Table 3.)

While pack-a-day smoking is still disapproved by the majority of youngsters, there

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has been a steady decline since the early 90s in the proportions saying they disapprove. Since 1991, the proportion of eighth-graders saying they disapprove of pack-a-day smoking has fallen from 83 percent to 77 percent, the proportion of 10th-graders from 79 percent to 72 percent, and the proportion of 12th-graders from 71 percent to 67 percent. Among 12th-graders, for whom longer-term trends are available, the proportion disapproving of smoking is at its lowest level since 1978. (See Table 3.)

While the degree of risk associated with being a pack-a-day smoker has changed little, many youngsters do not see a great risk in smoking that much. In 1996 only 50 percent of the eighth-graders reported that a pack-a-day smoker runs a great risk of harming himself or herself "physically or in other ways," only 58 percent of the 10th-graders and 68 percent of the 12th-graders reported seeing such risk. "As we have seen, a great deal of smoking is initiated at a very young age, when youngsters seem to be least aware of the dangers," Johnston notes. (See Table 3.)

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The study, titled "Monitoring the Future," is also widely known as the National High School Senior Survey. It has been conducted under a series of investigator-initiated research grants from the National Institute on Drug Abuse. Surveys have been carried out each year since 1975 by the University of Michigan Institute for Social Research. In 1996, the seniors comprised about 16,000 students in 144 public and private high schools nationwide, selected to be representative of all seniors in the continental United States. They completed self-administered questionnaires given to them in their classrooms by U-M personnel in the spring of the year. Beginning in 1991, similar surveys of nationally representative samples of eighth- and 10th-graders have been conducted annually. The 1996 eighth-grade sample contained about 18,000 students in 152 schools, and the 10th-grade sample contained about 17,000 students in 139 schools. In all, approximately 50,000 students in 435 public and private secondary schools were surveyed in 1996.

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TABLE 1

Long-Term Trends in Prevalence of Cigarettes for Eighth, Tenth, and Twelfth Graders

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	'95-'96 change	'91-'96 change
Lifetime																								
8th Grade																	44.0	45.2	45.3	46.1	46.4	49.2	+2.8 _{ss}	+5.2 _{sss}
10th Grade																	55.1	53.5	56.3	56.9	57.6	61.2	+3.6 _{sss}	+6.1 _{sss}
12th Grade	73.6	75.4	75.7	75.3	74.0	71.0	71.0	70.1	70.6	69.7	68.8	67.6	67.2	66.4	65.7	64.4	63.1	61.8	61.9	62.0	64.2	63.5	-0.7	+0.4
Thirty-Day																								
8th Grade																	14.3	15.5	16.7	18.6	19.1	21.0	+1.9 _s	+6.7 _{sss}
10th Grade																	20.8	21.5	24.7	25.4	27.9	30.4	+2.5 _s	+9.6 _{sss}
12th Grade	36.7	38.8	38.4	36.7	34.4	30.5	29.4	30.0	30.3	29.3	30.1	29.6	29.4	28.7	28.6	29.4	28.3	27.8	29.9	31.2	33.5	34.0	+0.5	+5.7 _{sss}
Daily																								
8th Grade																	7.2	7.0	8.3	8.8	9.3	10.4	+1.1	+3.2 _{sss}
10th Grade																	12.6	12.3	14.2	14.6	16.3	18.3	+2.0 _s	+5.7 _{sss}
12th Grade	26.9	28.8	28.8	27.5	25.4	21.3	20.3	21.1	21.2	18.7	19.5	18.7	18.7	18.1	18.9	19.1	18.5	17.2	19.0	19.4	21.6	22.2	+0.6	+3.7 _{sss}
1/2 pack+/day																								
8th Grade																	3.1	2.9	3.5	3.6	3.4	4.3	+0.9 _s	+1.2 _{ss}
10th Grade																	6.5	6.0	7.0	7.6	8.3	9.4	+1.1 _s	+2.9 _{sss}
12th Grade	17.9	19.2	19.4	18.8	16.5	14.3	13.5	14.2	13.8	12.3	12.5	11.4	11.4	10.6	11.2	11.3	10.7	10.0	10.9	11.2	12.4	13.0	+0.6	+2.3 _{ss}
Approximate Ns:																								
8th Grade																	17500	18600	18300	17300	17500	17800		
10th Grade																	14800	14800	15300	15800	17000	15600		
12th Grade	9400	15400	17100	17800	15500	15900	17500	17700	16300	15900	16000	15200	16300	16300	16700	15200	15000	15800	16300	15400	15400	14300		

NOTE: Level of significance of difference between the two years indicated: s = .05, ss = .01, sss = .001.

SOURCE: The Monitoring the Future Study, The University of Michigan.

TABLE 2
Cigarettes: Trends in Thirty-Day Prevalence
by Subgroups for Eighth, Tenth, and Twelfth Graders

	Percent Who Smoked in Last 30 Days																																						
	8th Grade						10th Grade						12th Grade																										
	1991	1992	1993	1994	1995	1996	'95-'96 change	'91-'96 change	1991	1992	1993	1994	1995	1996	'95-'96 change	'91-'96 change	1991	1992	1993	1994	1995	1996	'95-'96 change	'91-'96 change															
<i>Approximate N =</i>	17500	18600	18300	17300	17500	17800										14800	14800	15300	15800	17000	15600							15000	15800	16300	15400	15400	14300						
Total	14.3	15.5	16.7	18.6	19.1	21.0	+1.9 _s	+6.7 _{sss}	20.8	21.5	24.7	25.4	27.9	30.4	+2.5 _s	+9.6 _{sss}	28.3	27.8	29.9	31.2	33.5	34.0	+0.5	+5.7 _{sss}															
Sex:																																							
Male	15.5	14.9	17.2	19.3	18.8	20.6	+1.8	+5.1 _{sss}	20.8	20.6	24.6	26.6	27.7	30.1	+2.4 _s	+9.3 _{sss}	29.0	29.2	30.7	32.9	34.5	34.9	+0.4	+5.9 _{sss}															
Female	13.1	15.9	16.3	17.9	19.0	21.1	+2.1	+8.0 _{sss}	20.7	22.2	24.5	23.9	27.9	30.8	+2.9 _s	+10.1 _{sss}	27.5	26.1	28.7	29.2	32.0	32.4	+0.4	+4.9 _{sss}															
College Plans:																																							
None or < 4 yrs.	29.2	31.9	34.1	36.6	36.5	39.2	+2.7	+10.0 _{sss}	36.5	35.0	41.9	42.2	46.3	46.2	-0.1	+9.7 _{sss}	38.1	38.6	37.3	40.9	43.5	45.0	+1.5	+6.9 _{sss}															
Complete 4 yrs.	11.8	13.1	14.3	16.1	16.8	18.2	+1.4	+6.4 _{sss}	17.3	18.6	21.0	21.7	24.7	27.8	+3.1 _{ss}	+10.5 _{sss}	24.2	23.8	27.3	28.0	29.9	30.8	+0.9	+6.6 _{sss}															
Region:																																							
Northeast	13.7	14.4	15.0	17.8	18.6	22.1	+3.5	+8.4 _{sss}	22.4	21.9	27.1	24.5	27.8	31.7	+3.9	+9.3 _{sss}	30.5	29.6	34.2	33.2	34.4	38.5	+4.1	+8.0 _{ss}															
North Central	15.5	16.5	16.3	18.5	20.9	23.2	+2.3	+7.7 _{sss}	22.9	24.3	26.0	28.8	30.1	32.5	+2.4	+9.6 _{sss}	34.6	31.7	33.2	36.2	37.8	37.7	-0.1	+3.1															
South	15.7	17.0	18.2	19.5	19.4	21.1	+1.7	+5.4 _{sss}	21.2	19.8	24.0	25.7	30.8	33.4	+2.6	+12.2 _{sss}	25.4	26.4	29.0	30.7	33.5	33.2	-0.3	+7.8 _{sss}															
West	10.0	12.2	16.4	18.0	16.5	17.1	+0.6	+7.1 _{sss}	16.7	20.2	21.2	20.1	19.6	20.8	+1.2	+4.1	23.2	22.8	22.9	24.0	26.5	24.4	-2.1	+1.2															
Population Density:																																							
Large MSA	12.8	15.0	14.1	15.5	16.5	19.4	+2.9 _s	+6.6 _{sss}	19.7	21.6	22.5	22.3	23.3	26.2	+2.9	+6.5 _{ss}	26.2	25.6	29.5	29.0	33.9	32.1	-1.8	+5.9 _s															
Other MSA	14.9	15.3	17.8	20.7	19.4	21.4	+2.0	+6.5 _{sss}	20.3	20.3	23.8	26.3	28.9	31.1	+2.2	+10.8 _{sss}	29.3	26.9	29.8	31.1	31.7	32.6	+0.9	+3.3															
Non-MSA	14.8	16.4	17.9	17.8	21.5	22.1	+0.6	+7.3 _{sss}	22.7	23.7	28.2	26.7	31.3	33.9	+2.6	+11.2 _{sss}	28.6	31.5	30.3	33.8	36.2	38.2	+2.0	+9.6 _{sss}															
Parental Education: ^a																																							
1.0-2.0 (Low)	26.2	24.1	23.3	26.1	25.3	26.5	+1.2	+0.3	23.5	28.4	29.5	26.4	30.9	28.7	-2.3	+5.2	31.3	27.1	26.5	26.2	31.2	31.5	+0.3	+0.2															
2.5-3.0	16.4	16.9	19.8	20.6	22.7	24.4	+1.7	+8.0 _{sss}	24.1	23.3	28.0	29.1	33.2	33.8	+0.6	+9.7 _{sss}	28.7	30.3	30.4	32.8	35.0	35.5	+0.5	+6.8 _{sss}															
3.5-4.0	13.9	14.9	17.4	20.1	20.8	21.4	+0.6	+7.5 _{sss}	20.4	20.6	24.8	26.0	27.8	31.6	+3.8 _{ss}	+11.2 _{sss}	28.4	27.8	29.9	31.4	33.2	33.2	0.0	+4.8 _{ss}															
4.5-5.0	10.1	13.3	12.5	14.9	14.9	18.4	+3.5 _{ss}	+8.3 _{sss}	18.5	19.5	20.1	22.6	25.9	28.7	+2.8	+10.2 _{sss}	26.9	25.8	30.1	32.0	32.6	34.5	+1.9	+7.6 _{sss}															
5.5-6.0 (High)	11.3	11.5	13.3	15.1	14.5	17.3	+2.8	+6.0 _{sss}	18.5	18.9	21.4	20.7	21.8	27.8	+6.0 _{ss}	+9.3 _{sss}	27.1	25.5	30.5	30.4	34.0	32.9	-1.1	+5.8 _s															
Race (2-yr. average): ^{b,c}																																							
White	—	16.2	17.8	18.9	20.7	22.7	+2.0	+6.5 _{sss}	—	24.1	26.0	27.8	29.7	32.9	+3.2 _{ss}	+8.8 _{sss}	32.2	31.8	33.2	35.2	36.6	38.1	+1.5	+5.8 _{sss}															
Black	—	5.3	6.6	8.7	8.9	9.6	+0.7	+4.3 _{sss}	—	6.6	7.5	9.8	11.5	12.2	+0.7	+5.6 _{sss}	10.6	8.7	9.5	10.9	12.9	14.2	+1.3	+3.6 _s															
Hispanic	—	16.7	18.3	21.3	21.6	19.6	-2.0	+2.9	—	18.3	20.5	19.4	21.4	23.7	+2.3	+5.4 _{ss}	24.0	25.0	24.2	23.6	25.1	25.4	+0.3	+1.4															

NOTES: Level of significance of difference between the two indicated years: s = .05, ss = .01, sss = .001. '—' indicates data not available.

SOURCE: The Monitoring the Future Study, The University of Michigan.

^aParental education is an average score of mother's education and father's education.

^bTo derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates. The changes shown for the three racial/ethnic groups in the "'91-'96 Change" column, actually reflect the 1992-1996 change for 8th and 10th graders, because 2-year moving averages are being used.

TABLE 3

Trends in Availability and Attitudes about Smoking One or More Packs of Cigarettes per Day, for Eighth, Tenth, and Twelfth Graders

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	'95-'96 change	'91-'96 change	
Perceived Risk^a																									
8th Grade																									
10th Grade																	51.6	50.8	52.7	50.8	49.8	50.4	50.4	+0.6	-1.2
12th Grade	51.3	56.4	58.4	59.0	63.0	63.7	63.3	60.5	61.2	63.8	66.5	66.0	68.6	68.0	67.2	68.2	60.3	59.3	60.7	59.0	57.0	57.9	+0.9	-2.4s	
Disapproval^b																									
8th Grade																									
10th Grade																	82.8	82.3	80.6	78.4	78.6	77.3	77.3	-1.3	-5.5sss
12th Grade	67.5	65.9	66.4	67.0	70.3	70.8	69.9	69.4	70.8	73.0	72.3	75.4	74.3	73.1	72.4	72.8	79.4	77.8	76.5	73.9	73.2	71.6	-1.6	-7.8sss	
Availability^c																									
8th Grade																									
10th Grade																		77.8	75.5	76.1	76.4	76.9	+0.5	—	
12th Grade																		89.1	89.4	90.3	90.7	91.3	+0.6	—	
Approximate Ns:																									
8th Grade																		17500	18600	18300	17300	17500	17800		
10th Grade																		14800	14800	15300	15800	17000	15600		
12th Grade	2800	2900	3100	3800	3300	3200	3600	3600	3300	3300	3300	3000	3300	3300	2800	2600	2500	2700	2800	2600	2600	2400			

NOTE: Level of significance of difference between the two years indicated: s = .05, ss = .01, sss = .001.

SOURCE: The Monitoring the Future Study, The University of Michigan.

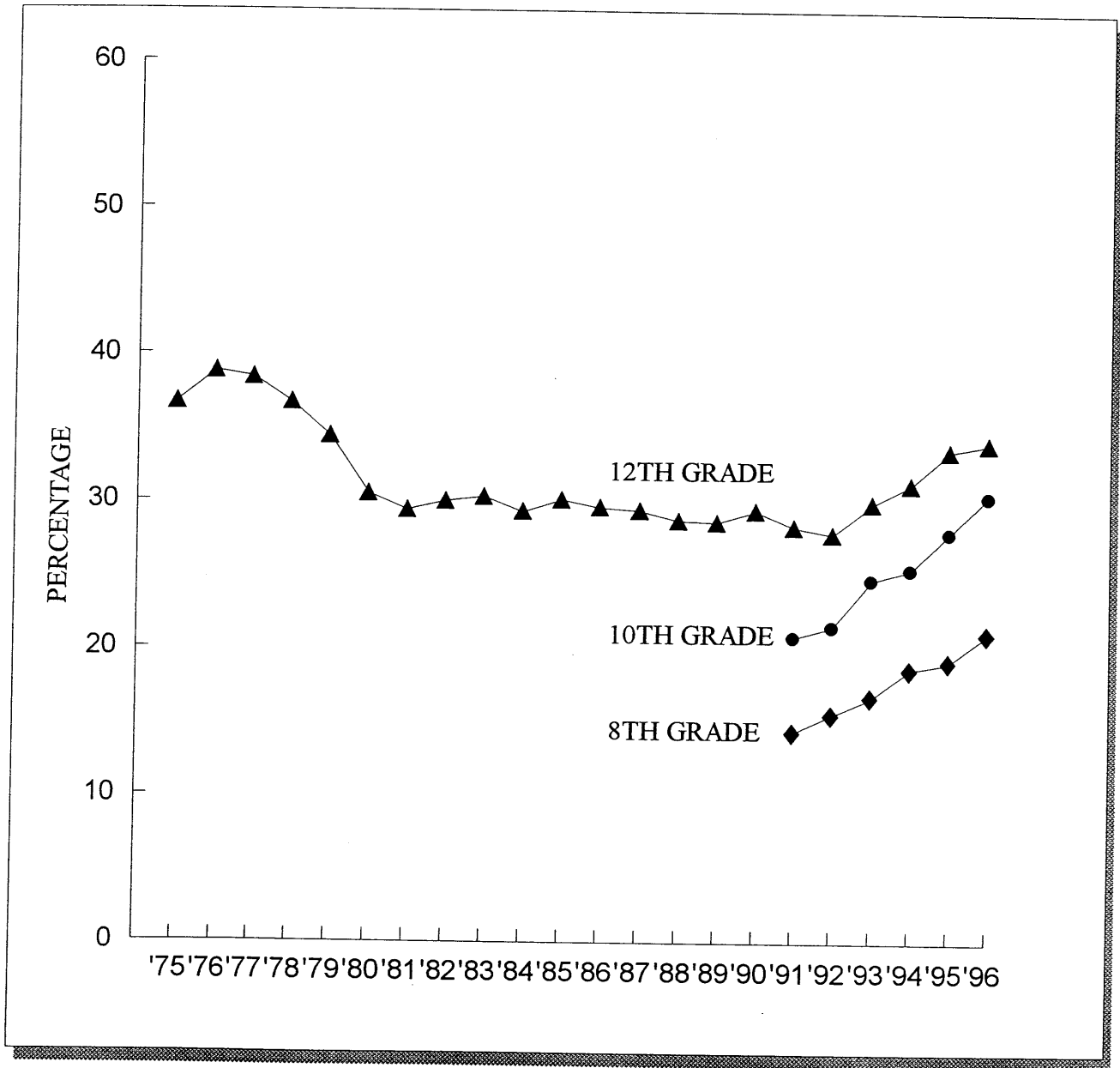
^aThe question text was: How much do you think people risk harming themselves (physically or in other ways), if they smoke one or more packs of cigarettes per day? Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar. The percent saying "great risk" is shown.

^bThe question text was: Do you disapprove of people smoking one or more packs of cigarettes per day? For 12th graders the question asked about people who are "18 or older." Answer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. For 8th and 10th graders: there was another category - "Can't say, drug unfamiliar" - which was included in the calculation of these percentages. The percent saying they "disapprove" or "strongly disapprove" is shown.

^cThe question text was: How difficult do you think it would be for you to get cigarettes, if you wanted some? Answer alternatives were: (1) Probably impossible, (2) Very difficult, (3) Fairly difficult, (4) Fairly easy, (5) Very easy, (8) Can't say, drug unfamiliar (included in the calculation of these percentages). The percent saying cigarettes are "fairly easy" or "very easy" to get is shown. In 1992 only, availability data based on one of two forms; N is one-half of N indicated. The question was not asked of the 12th graders.

FIGURE 1

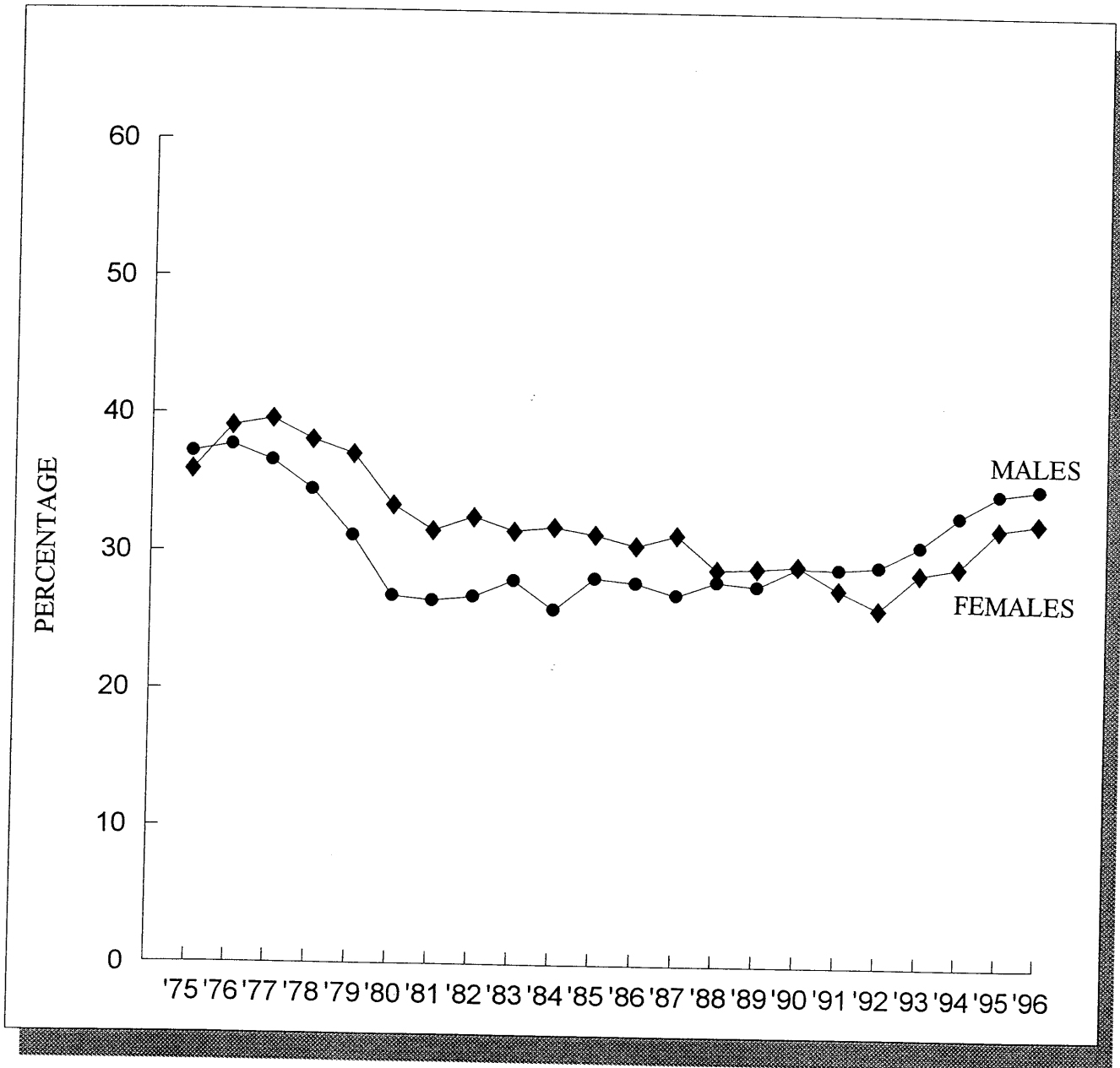
**Trends in Thirty-Day Prevalence of Cigarette Smoking
for Eighth, Tenth, and Twelfth Graders**



Source: The Monitoring the Future Study, The University of Michigan. See Table 1 for exact numbers.

FIGURE 2

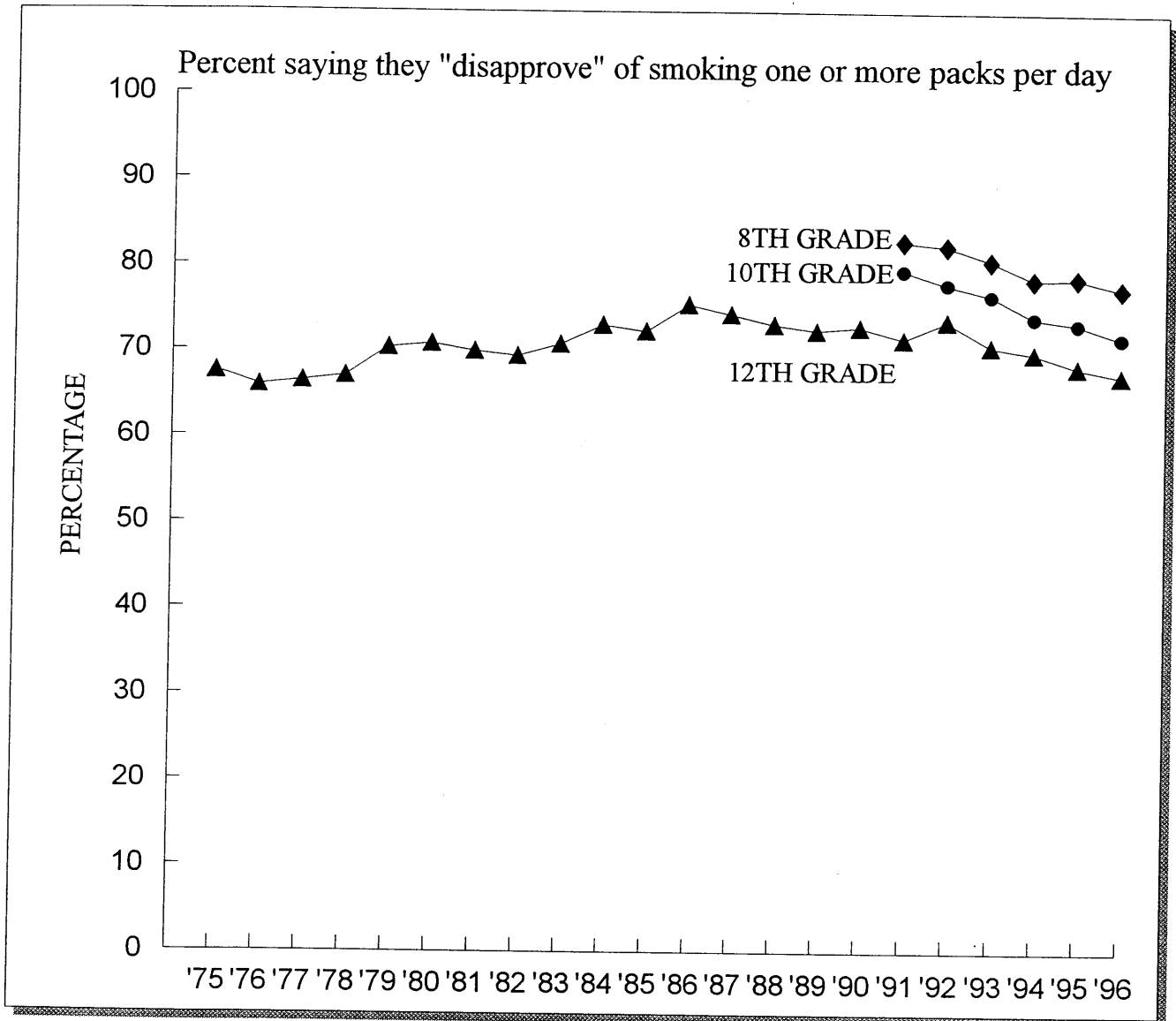
**Trends in Thirty-Day Prevalence of Cigarette Use, by Gender
Twelfth Graders**



Source: The Monitoring the Future Study, The University of Michigan. See Table 2 for exact numbers for selected years.

FIGURE 3

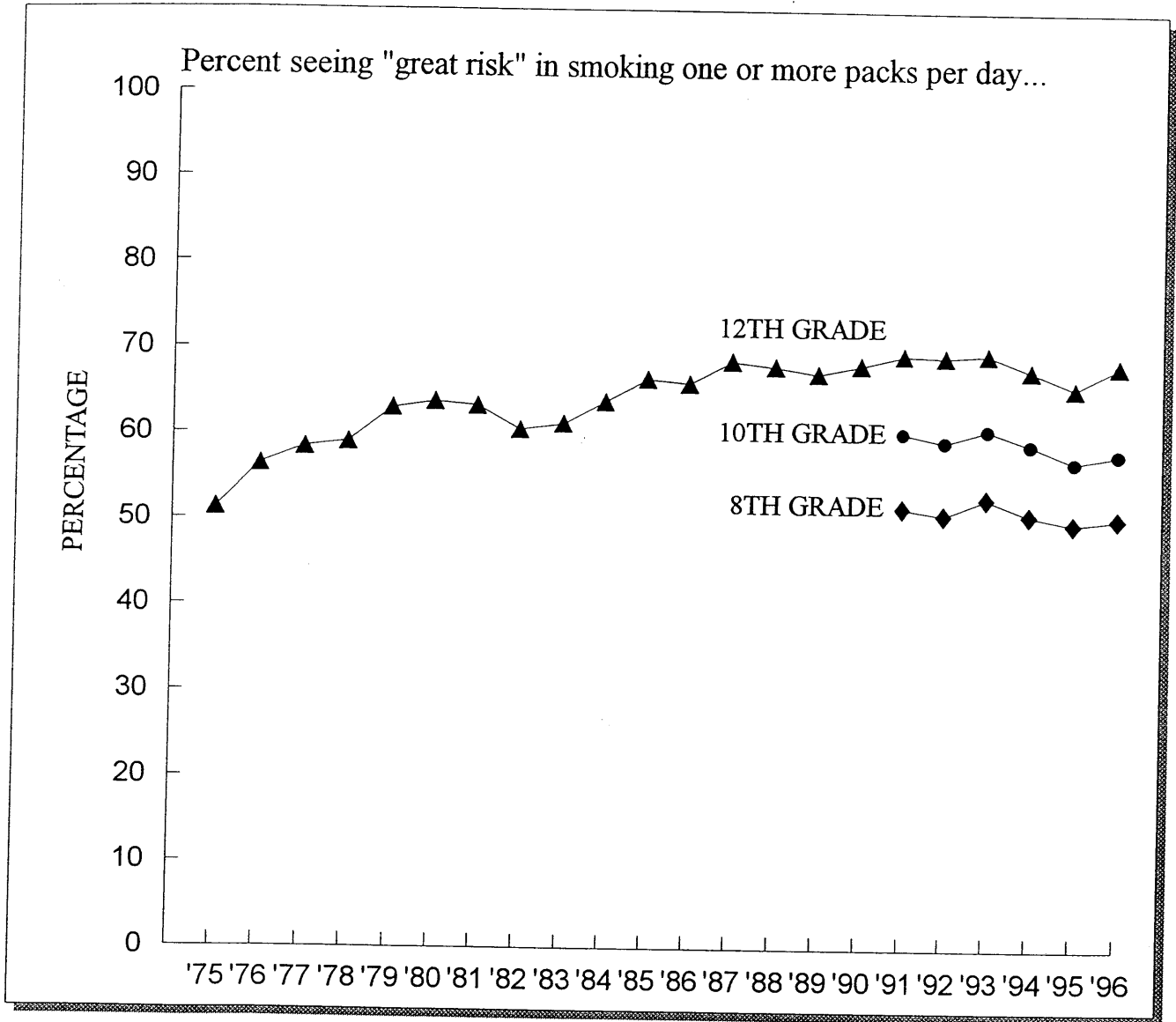
**Trends in Disapproval of Smoking
for Eighth, Tenth, and Twelfth Graders**



Source: The Monitoring the Future Study, The University of Michigan. See Table 3 for exact numbers.

FIGURE 4

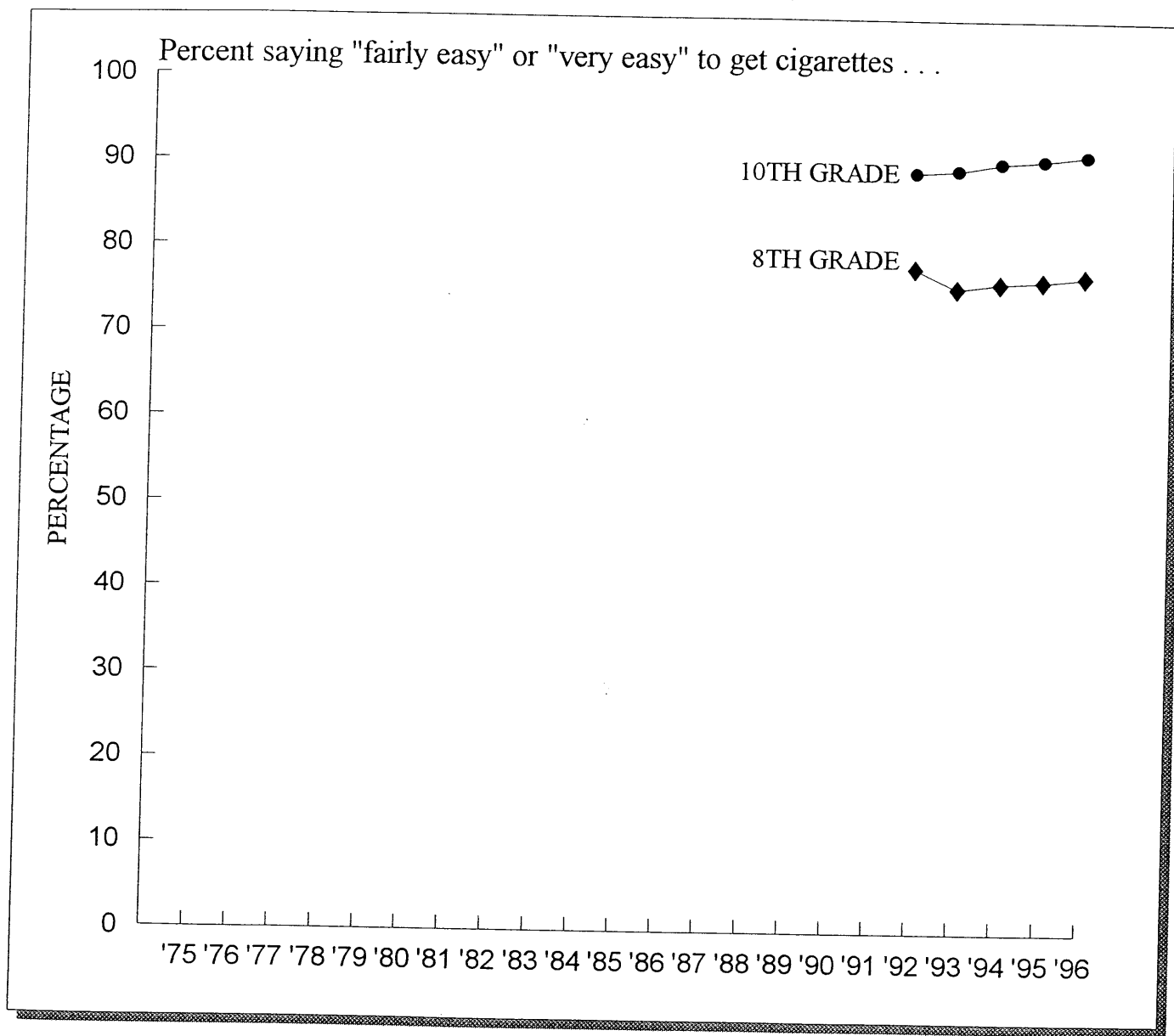
**Trends in Perceived Harmfulness of Smoking
for Eighth, Tenth, and Twelfth Graders**



Source: The Monitoring the Future Study, The University of Michigan. See Table 3 for exact numbers.

FIGURE 5

Trends in Perceived Availability of Cigarettes for Eighth and Tenth Graders



Source: The Monitoring the Future Study, The University of Michigan. See Table 3 for exact numbers.