

December 11, 2007

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**EMBARGOED FOR RELEASE AFTER 11 A.M. EST, TUESDAY, DEC. 11, 2007**

**EDITORS:** Results of this year's Monitoring the Future survey are being released at the White House by the President. The National Institute on Drug Abuse, which sponsors the study, and the University of Michigan, which designed and conducted the study, will be available for follow-up briefings for the media at the National Press Club. Participants will include the director of the White House Office of National Drug Control Policy (ONDCP), John Walters; the director of the National Institute on Drug Abuse (NIDA), Nora Volkow; and the principal investigator of the study, Lloyd Johnston. For further information, contact Johnston at (734) 763-5043.

## **Teen smoking resumes decline**

ANN ARBOR, Mich.----The number of U.S. teens who smoke has shown significant declines in recent years, particularly among those in their early teens. These declines can be seen in their lifetime, 30-day, and daily smoking rates, according to the latest Monitoring the Future (MTF) study.

Including a further decline this year, the rate of smoking in the prior 30 days is now down by two thirds among 8<sup>th</sup> graders to 7 percent from the peak level reached in 1996 of 21 percent.

"That should eventually translate into many fewer illnesses and premature deaths for this generation of young people," said University of Michigan Distinguished Research Scientist Lloyd Johnston, the study's principal investigator.

MTF, now in its 33<sup>rd</sup> year, tracks smoking, drinking, and illicit drug use among the nation's secondary school students, surveying about 50,000 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders in more than 400 secondary schools every year. A separate, accompanying report provides the results relating to illicit drug and alcohol use.

After warning last year of an end to the decline in daily smoking among younger teens, particularly 8<sup>th</sup> graders, the study found a resumption of that decline this year. Following a decade of substantial improvement, daily smoking among young people in their early and middle teens stopped declining last year, following a deceleration of the decline in the years immediately preceding.

But this year significant declines were observed among the nation's 8<sup>th</sup> graders in their lifetime, 30-day, and daily smoking rates; among 10<sup>th</sup> graders there was also some decline on all of these measures.

“We don't have a ready explanation for why the declines in smoking resumed in 2007, but whatever the reason, it is an important development, given that cigarette smoking is still the leading preventable cause of death and disease in this country,” Johnston said.

Compared to peak levels in the mid-1990s, past 30-day smoking rates in 2007 are down by 54 percent among 10<sup>th</sup> graders and 41 percent among 12<sup>th</sup> graders. The researchers expect that smoking rates among 10<sup>th</sup> and 12<sup>th</sup> graders will continue to decline as the current 8<sup>th</sup> graders, who smoke at lower rates, get older. The rates of past 30-day smoking now stand at 7 percent, 14 percent, and 22 percent across the three grades.

*Daily* smoking has declined even more sharply during the past decade—by half for 12<sup>th</sup> graders from recent peak levels and more than two thirds for 8<sup>th</sup> graders. In 2007, daily smoking is reported by 3 percent of 8<sup>th</sup> graders, 7 percent of 10<sup>th</sup> graders, and 12 percent of 12<sup>th</sup> graders.

Many fewer young teens even try cigarettes today compared to the mid-1990s. In 1996 half (49 percent) of all 8<sup>th</sup> graders indicated that they had ever smoked a cigarette, whereas in 2007 little more than one fifth of them (22 percent) said they had. But by the end of 12<sup>th</sup> grade, 46 percent of students in 2007 reported at least trying cigarettes, and 22 percent reported that they were currently smoking.

“Clearly smoking rates are down and experimentation with cigarettes has shifted up in age,” Johnston said. “That's all to the good; but it still leaves too many of our young people adopting a habit that will have adverse consequences for them and those around them. The fact that over a fifth of our young people are smoking when they leave high school, given all that is known today about the health consequences, is hardly the basis for complacency.”

### **Attitudes about Smoking**

Most young people today understand that there is a considerable *risk* associated with daily smoking. In grades 8, 10, and 12, respectively, 61 percent, 68 percent, and 77 percent of the 2007 respondents say that they see “great risk” of harm in being a pack-a-day smoker

This belief increased considerably in earlier years, beginning after 1995, which probably contributed to the downturn in smoking; but it has been quite stable among the younger teens for the last three years. “It should be noted that the younger teens are least aware of the dangers of

smoking, which is unfortunate, since they are at the age when many initiate smoking and begin to develop a smoking habit,” Johnston said.

The large majority of teens today say they *disapprove* of smoking at the pack-a-day level: 87 percent, 85 percent, and 81 percent of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders, respectively. Disapproval has grown considerably since 1996 and is still continuing to increase in the lower grades.

The great majority of teens today also say that they “prefer to date people who don’t smoke”: 81 percent, 80 percent, and 77 percent in grades 8, 10, and 12. Nearly two thirds think that “becoming a smoker reflects poor judgment.”

These attitudes became more widespread after the mid-1990s, but have not grown much over the past few years. Johnston added, “Despite what cigarette ads have implied for decades, smoking makes you less attractive to the great majority of the opposite sex, not more; and young people need to know that.”

### **Availability of Cigarettes to Teens**

The proportion of teens who say that they could get cigarettes “fairly easily” or “very easily,” if they wanted some, has been declining for some years, particularly among the younger teens. Today, 56 percent of 8<sup>th</sup> graders—most of whom are 13 or 14 years old—say they could get cigarettes fairly easily. As high as that number is, it is down considerably from 77 percent in 1996. Tenth graders have greater availability, as might be expected, but fewer of them say they could get cigarettes fairly or very easily in 2007 (78 percent) than said that in 1996 (91 percent). This decline in availability is continuing today, with significant drops in both grades this year. It would appear that the efforts of many states and communities to get retail outlets to stop selling to underage smokers is having some success, conclude the investigators, even though the majority of teens still say that they can get cigarettes.

### **Smokeless Tobacco**

Like cigarettes, the 30-day prevalence of using smokeless or “spit” tobacco reached a recent peak in the mid-1990s and then declined. All three grade levels have shown a reduction of about one half in their 30-day prevalence rates since those peak levels, but the declines appear to have ended in all grades, and use remained fairly level this year. At present, the prevalence rates for any use of smokeless or “spit” tobacco in the prior 30 days are 3 percent, 6 percent, and 7 percent in grades 8, 10, and 12. That means that one in every fifteen high school seniors is a current user of smokeless tobacco. However, among boys, who account for almost all smokeless tobacco use, the rates are considerably higher: 5 percent, 10 percent, and 12 percent. In other words, nearly one in eight boys in 12<sup>th</sup> grade is a current user of smokeless tobacco.

Only a minority of students see great *risk* in using smokeless tobacco regularly, averaging around 45 percent, without much difference by grade. Perceived risk grew from about 1995 through 2004, likely helping to account for the decline in use in those years, but it has changed little since then.

## Kreteks and Bidis

In 2000, a single question was introduced into the study about the use of bidis—small flavored cigarettes imported from India—because of rising concern at the time about their growing popularity. In 2001 a single question was introduced for similar reasons about the use of kreteks—clove-flavored cigarettes imported from Indonesia.

Relatively low prevalence rates were observed for both types of specialty cigarettes in the initial years of measurement, and since then use has declined substantially and fairly steadily in all grades. By 2007 the annual prevalence of bidis use was down by three quarters among 12<sup>th</sup> graders, from 9 percent in 2000 to under 2 percent in 2007, including some further decline this year. Annual prevalence of kretek use among 12<sup>th</sup> graders is down by one third since 2001, but it did not decline further this year. The investigators conclude that both kreteks and bidis constituted short-term fads that have not caught on with mainstream American youth, making it unlikely that they will become the health menace some had feared. The investigators note, however, that mainstream tobacco companies have themselves introduced flavored cigarettes, which may help to explain the declines in these fringe products.

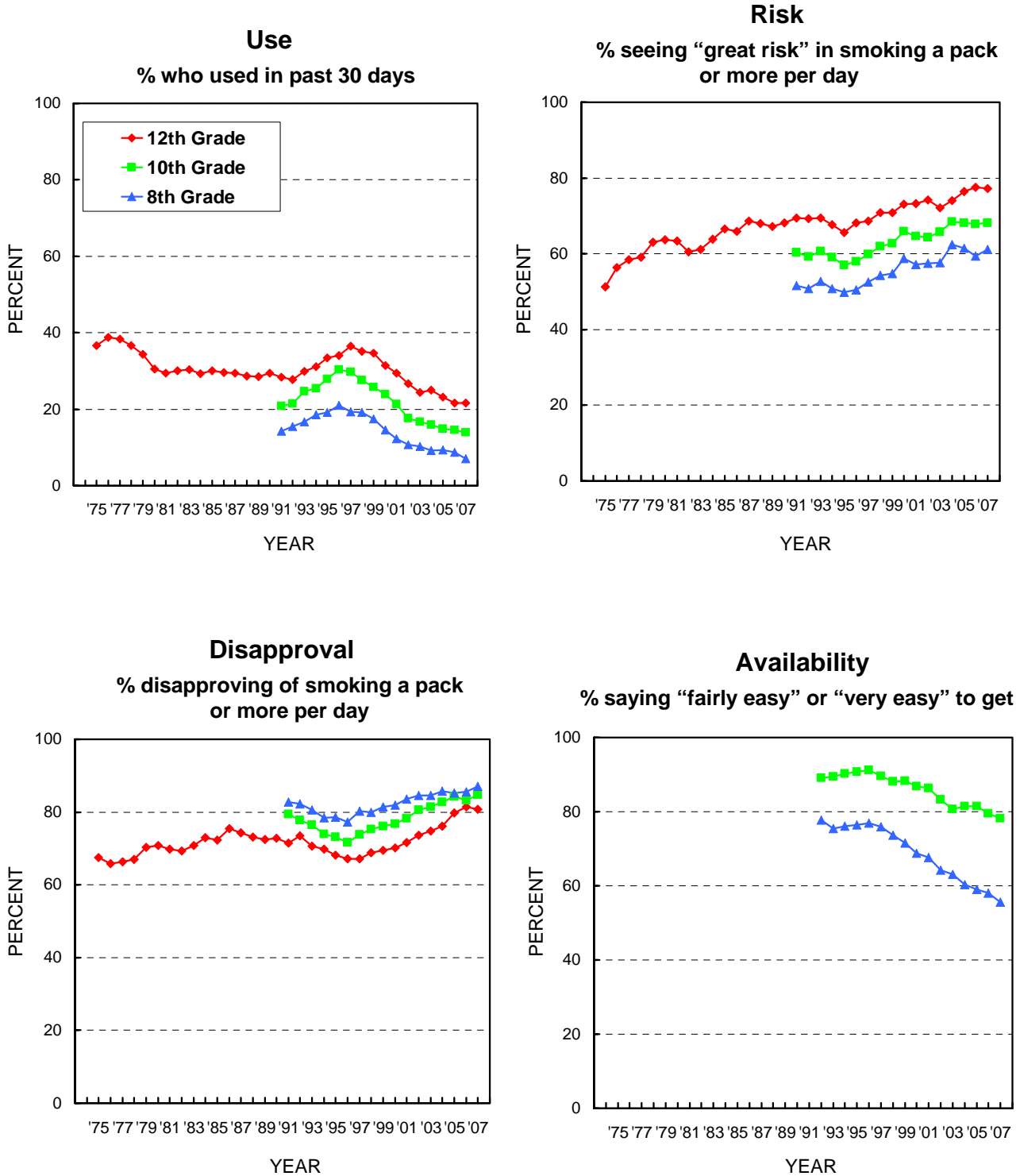
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Monitoring the Future has been funded under a series of competing, investigator-initiated research grants from the National Institute on Drug Abuse, part of the National Institutes of Health (Grant Number R01DA01411). Surveys of nationally representative samples of American high school seniors were begun in 1975, making the Class of 2007 the 33<sup>rd</sup> such class surveyed. Surveys of 8<sup>th</sup> and 10<sup>th</sup> graders were added to the design in 1991, making the 2007 nationally representative samples the 17<sup>th</sup> such classes surveyed. The sample sizes in 2007 are 16,495 eighth graders in 151 schools, 16,398 tenth graders in 120 schools, and 15,132 twelfth graders in 132 schools, for a total of 48,025 students in 403 secondary schools. The samples are drawn separately at each grade level to be representative of students in that grade in public and private secondary schools across the coterminous United States. Schools are selected with probability proportionate to their estimated class size.

The findings summarized here will be published in the forthcoming volume: Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2008). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2007* (NIH Publication No. [to be assigned]). Bethesda, MD: National Institute on Drug Abuse.

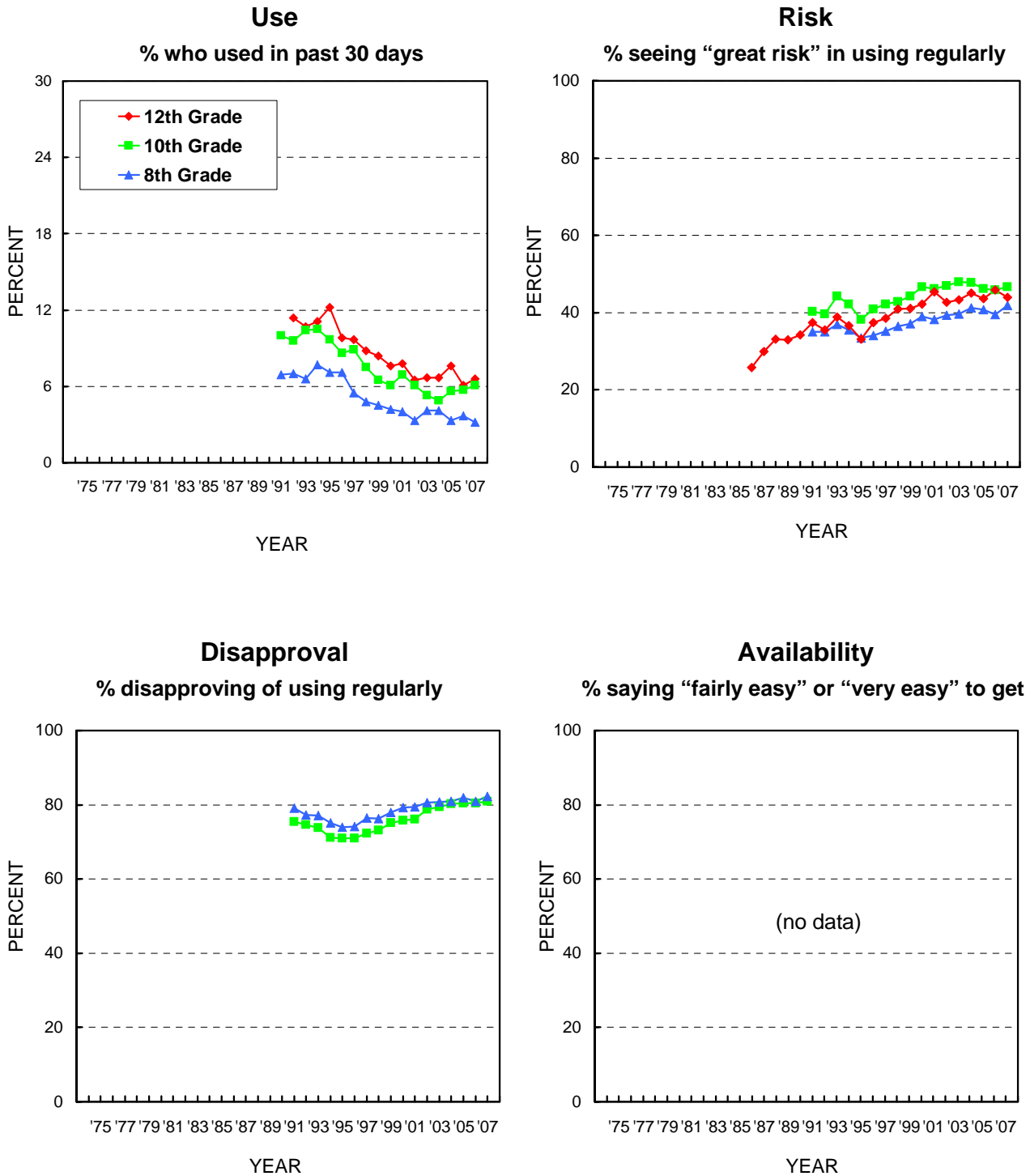
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**FIGURE 1**  
**Cigarettes: Trends in 30-Day Use, Risk, Disapproval, and Availability**  
 Grades 8, 10, and 12



Source: The Monitoring the Future study, the University of Michigan.

**FIGURE 2**  
**Smokeless Tobacco: Trends in 30-Day Use, Risk, and Disapproval**  
 Grades 8, 10, and 12



Source. The Monitoring the Future study, the University of Michigan.

**TABLE 1**  
**Trends in Prevalence of Use of Cigarettes for Eighth, Tenth, and Twelfth Graders**



	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
<b>Lifetime</b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	44.0
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55.1
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
<b>Thirty-Day</b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.3
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.8
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
<b>Daily</b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.2
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.6
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
<b>1/2 Pack+ per Day</b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.1
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.5
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
<b>Approximate Ns:</b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,500
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14,800
12th Grade	9,400	15,400	17,100	17,800	15,500	15,900	17,500	17,700	16,300	15,900	16,000	15,200	16,300	16,300	16,700	15,200	15,000

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ .

"—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

**TABLE 1 (cont.)**  
**Trends in Prevalence of Use of Cigarettes for Eighth, Tenth, and Twelfth Graders**

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2006- 2007</u>	<u>change</u>
<b>Lifetime</b>																		
8th Grade	45.2	45.3	46.1	46.4	49.2	47.3	45.7	44.1	40.5	36.6	31.4	28.4	27.9	25.9	24.6	22.1	-2.4	ss
10th Grade	53.5	56.3	56.9	57.6	61.2	60.2	57.7	57.6	55.1	52.8	47.4	43.0	40.7	38.9	36.1	34.6	-1.5	
12th Grade	61.8	61.9	62.0	64.2	63.5	65.4	65.3	64.6	62.5	61.0	57.2	53.7	52.8	50.0	47.1	46.2	-0.9	
<b>Thirty-Day</b>																		
8th Grade	15.5	16.7	18.6	19.1	21.0	19.4	19.1	17.5	14.6	12.2	10.7	10.2	9.2	9.3	8.7	7.1	-1.6	ss
10th Grade	21.5	24.7	25.4	27.9	30.4	29.8	27.6	25.7	23.9	21.3	17.7	16.7	16.0	14.9	14.5	14.0	-0.5	
12th Grade	27.8	29.9	31.2	33.5	34.0	36.5	35.1	34.6	31.4	29.5	26.7	24.4	25.0	23.2	21.6	21.6	0.0	
<b>Daily</b>																		
8th Grade	7.0	8.3	8.8	9.3	10.4	9.0	8.8	8.1	7.4	5.5	5.1	4.5	4.4	4.0	4.0	3.0	-0.9	s
10th Grade	12.3	14.2	14.6	16.3	18.3	18.0	15.8	15.9	14.0	12.2	10.1	8.9	8.3	7.5	7.6	7.2	-0.4	
12th Grade	17.2	19.0	19.4	21.6	22.2	24.6	22.4	23.1	20.6	19.0	16.9	15.8	15.6	13.6	12.2	12.3	+0.1	
<b>1/2 Pack+ per Day</b>																		
8th Grade	2.9	3.5	3.6	3.4	4.3	3.5	3.6	3.3	2.8	2.3	2.1	1.8	1.7	1.7	1.5	1.1	-0.4	
10th Grade	6.0	7.0	7.6	8.3	9.4	8.6	7.9	7.6	6.2	5.5	4.4	4.1	3.3	3.1	3.3	2.7	-0.5	
12th Grade	10.0	10.9	11.2	12.4	13.0	14.3	12.6	13.2	11.3	10.3	9.1	8.4	8.0	6.9	5.9	5.7	-0.2	
<b>Approximate Ns:</b>																		
8th Grade	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	16,100		
10th Grade	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	16,100		
12th Grade	15,800	16,300	15,400	15,400	14,300	15,400	15,200	13,600	12,800	12,800	12,900	14,600	14,600	14,700	14,200	14,500		

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ .

"—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.



**TABLE 2**  
**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
<b>Perceived Risk<sup>a</sup></b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51.6
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60.3
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	69.4
<b>Disapproval<sup>b</sup></b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	82.8
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.4
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	71.4
<b>Availability<sup>c</sup></b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Approximate Ns:</b>																	
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,500
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14,800
12th Grade	2,800	2,900	3,100	3,800	3,300	3,200	3,600	3,600	3,300	3,300	3,300	3,000	3,300	3,300	2,800	2,600	2,600

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ .

"—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

**TABLE 2 (cont.)**  
**Trends in Availability and Attitudes about Smoking One or More Packs**  
**of Cigarettes per Day for Eighth, Tenth, and Twelfth Graders**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2006- 2007 change
<b>Perceived Risk<sup>a</sup></b>																	
8th Grade	50.8	52.7	50.8	49.8	50.4	52.6	54.3	54.8	58.8	57.1	57.5	57.7	62.4	61.5	59.4	61.1	+1.7
10th Grade	59.3	60.7	59.0	57.0	57.9	59.9	61.9	62.7	65.9	64.7	64.3	65.7	68.4	68.1	67.7	68.2	+0.4
12th Grade	69.2	69.5	67.6	65.6	68.2	68.7	70.8	70.8	73.1	73.3	74.2	72.1	74.0	76.5	77.6	77.3	-0.3
<b>Disapproval<sup>b</sup></b>																	
8th Grade	82.3	80.6	78.4	78.6	77.3	80.3	80.0	81.4	81.9	83.5	84.6	84.6	85.7	85.3	85.6	87.0	+1.4
10th Grade	77.8	76.5	73.9	73.2	71.6	73.8	75.3	76.1	76.7	78.2	80.6	81.4	82.7	84.3	83.2	84.7	+1.5
12th Grade	73.5	70.6	69.8	68.2	67.2	67.1	68.8	69.5	70.1	71.6	73.6	74.8	76.2	79.8	81.5	80.7	-0.8
<b>Availability<sup>c</sup></b>																	
8th Grade	77.8	75.5	76.1	76.4	76.9	76.0	73.6	71.5	68.7	67.7	64.3	63.1	60.3	59.1	58.0	55.6	-2.4 ss
10th Grade	89.1	89.4	90.3	90.7	91.3	89.6	88.1	88.3	86.8	86.3	83.3	80.7	81.4	81.5	79.5	78.2	-1.3 s
<b>Approximate Ns:</b>																	
8th Grade	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	16,100	
10th Grade	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	16,100	
12th Grade	2,700	2,800	2,600	2,600	2,400	2,600	2,500	2,300	2,100	2,100	2,200	2,400	2,400	2,500	2,400	2,400	

<sup>a</sup>The 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 percentage saying "great risk" is shown. For 8th and 10th graders: Beginning in 1999, perceived risk data based on two of four forms; N is two thirds of N indicated.

<sup>b</sup>The question text was: Do you disapprove of people smoking one or more packs of cigarettes per day? 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 percentage saying they "disapprove" or "strongly disapprove" is shown. For 8th and 10th graders: Beginning in 1999, disapproval data based on two of four forms; N is two thirds of N indicated.

<sup>c</sup>The 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, and (8) Can't say, drug unfamiliar (included in the calculation of these percentages). The percentage 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 12th graders.

**TABLE 3**  
**Trends in Various Attitudes Towards Cigarette Use Among Eighth, Tenth, and Twelfth Graders**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Percentage who report "mostly agree" or "agree"																	
I prefer to date people who don't smoke																	
8th Grade	77.8	76.0	75.2	74.1	73.6	70.9	72.3	74.5	76.9	77.2	79.4	80.6	79.6	81.0	81.2	81.2	82.8
10th Grade	75.9	76.4	74.3	71.6	71.6	69.1	68.2	71.8	73.0	75.2	75.4	76.3	76.7	79.5	79.6	80.4	80.9
12th Grade	74.0	72.3	70.4	69.0	66.0	66.0	63.9	66.0	64.4	70.0	68.5	72.3	71.8	72.0	74.8	76.7	76.6
Smoking is a dirty habit																	
8th Grade	71.4	70.8	70.3	68.4	68.4	67.9	67.7	68.2	70.0	70.8	72.3	74.1	71.6	74.3	73.7	74.8	75.8
10th Grade	70.7	71.0	69.2	67.5	68.0	66.6	65.8	68.3	68.7	70.8	70.3	71.2	70.5	71.7	72.0	73.7	72.7
12th Grade	71.6	73.1	71.8	68.0	68.2	67.5	70.0	70.5	69.7	73.5	71.6	74.5	73.3	72.6	74.9	77.1	76.7
I think that becoming a smoker reflects poor judgment																	
8th Grade	62.2	60.9	59.7	58.7	59.3	57.0	57.6	58.8	60.0	60.9	63.1	64.3	63.7	64.1	64.6	65.5	66.1
10th Grade	57.5	59.0	57.3	54.2	53.7	52.9	50.1	53.9	54.7	56.5	55.4	59.3	56.8	58.8	59.4	61.5	60.3
12th Grade	61.0	60.7	59.4	58.1	55.1	54.9	56.2	54.7	55.5	58.9	57.2	59.8	56.6	56.0	60.3	61.9	61.7
I strongly dislike being near people who are smoking																	
8th Grade	53.8	52.1	52.9	51.1	49.7	45.7	46.6	48.5	48.7	50.1	52.2	54.0	54.4	57.0	55.7	55.4	56.8
10th Grade	50.7	50.9	50.0	47.7	46.0	42.6	41.6	44.4	44.0	46.5	46.7	49.1	51.2	52.6	52.3	55.2	53.7
12th Grade	48.9	49.4	48.6	47.4	44.2	42.3	38.3	41.0	39.3	41.3	43.3	47.4	47.6	46.5	47.8	49.7	50.2
I personally don't mind being around people who are smoking																	
8th Grade	29.5	31.1	31.1	32.8	34.2	37.8	34.8	34.7	32.9	31.6	30.7	29.1	27.8	27.6	26.8	27.7	27.3
10th Grade	33.1	35.0	35.1	36.8	38.5	42.8	41.1	39.7	38.8	38.1	35.5	34.7	32.2	30.0	30.4	30.8	30.4
12th Grade	33.1	34.5	33.0	35.5	37.0	39.1	41.8	38.6	41.3	39.6	39.7	35.0	33.5	32.7	35.1	32.0	31.3
The harmful effects of cigarettes have been exaggerated																	
8th Grade	19.9	21.8	22.4	24.4	23.1	25.3	22.4	23.8	22.7	21.6	21.4	22.0	20.5	22.1	20.4	21.1	20.8
10th Grade	16.4	17.9	18.8	18.9	19.3	20.0	19.5	20.1	19.3	18.8	17.3	18.0	19.5	17.8	17.5	17.4	18.3
12th Grade	13.8	13.0	13.6	14.9	14.4	12.8	14.0	13.4	14.5	16.8	15.8	12.7	13.1	13.1	13.1	14.1	14.2
Smokers know how to enjoy life more than nonsmokers																	
8th Grade	4.9	5.0	5.4	6.3	5.9	6.7	5.4	5.8	6.1	5.4	5.5	5.2	5.3	5.9	5.4	5.7	5.1
10th Grade	3.5	3.9	4.2	4.1	4.2	4.6	3.7	4.7	4.2	4.7	4.5	4.1	4.8	4.4	4.0	4.4	4.2
12th Grade	3.6	3.3	3.5	3.8	4.0	3.5	3.2	3.8	4.3	3.7	5.5	4.1	3.5	3.5	3.4	3.8	3.2

Source: The Monitoring the Future study, the University of Michigan.

Notes: For 8th graders: Ns range from 6,604 to 8,005. For 10th graders: Ns range from 6,398 to 7,807. For 12th graders: Ns range from 1,795 to 3,112.

**TABLE 4**  
**Trends in Prevalence of Use of Smokeless Tobacco for Eighth, Tenth, and Twelfth Graders**

	1975-85	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2006- 2007 change	
<b>Lifetime</b>																									
8th Grade	—	—	—	—	—	—	22.2	20.7	18.7	19.9	20.0	20.4	16.8	15.0	14.4	12.8	11.7	11.2	11.3	11.0	10.1	10.2	9.1	-1.1	
10th Grade	—	—	—	—	—	—	28.2	26.6	28.1	29.2	27.6	27.4	26.3	22.7	20.4	19.1	19.5	16.9	14.6	13.8	14.5	15.0	15.1	+0.1	
12th Grade	—	31.4	32.2	30.4	29.2	—	—	32.4	31.0	30.7	30.9	29.8	25.3	26.2	23.4	23.1	19.7	18.3	17.0	16.7	17.5	15.2	15.1	-0.1	
<b>Thirty-Day</b>																									
8th Grade	—	—	—	—	—	—	6.9	7.0	6.6	7.7	7.1	7.1	5.5	4.8	4.5	4.2	4.0	3.3	4.1	4.1	3.3	3.7	3.2	-0.5	
10th Grade	—	—	—	—	—	—	10.0	9.6	10.4	10.5	9.7	8.6	8.9	7.5	6.5	6.1	6.9	6.1	5.3	4.9	5.6	5.7	6.1	+0.4	
12th Grade	—	11.5	11.3	10.3	8.4	—	—	11.4	10.7	11.1	12.2	9.8	9.7	8.8	8.4	7.6	7.8	6.5	6.7	6.7	7.6	6.1	6.6	+0.5	
<b>Daily</b>																									
8th Grade	—	—	—	—	—	—	1.6	1.8	1.5	1.9	1.2	1.5	1.0	1.0	0.9	0.9	1.2	0.8	0.8	1.0	0.7	0.7	0.8	+0.1	
10th Grade	—	—	—	—	—	—	3.3	3.0	3.3	3.0	2.7	2.2	2.2	2.2	1.5	1.9	2.2	1.7	1.8	1.6	1.9	1.7	1.6	-0.1	
12th Grade	—	4.7	5.1	4.3	3.3	—	—	4.3	3.3	3.9	3.6	3.3	4.4	3.2	2.9	3.2	2.8	2.0	2.2	2.8	2.5	2.2	2.8	+0.7	
<b>Approximate Ns:</b>																									
8th Grade	—	—	—	—	—	—	17,500	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	16,100		
10th Grade	—	—	—	—	—	—	14,800	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	16,100		
12th Grade	—	15,200	16,300	16,300	16,700	—	15,000	15,800	16,300	15,400	15,400	14,300	15,400	15,200	13,600	12,800	12,800	12,900	14,600	14,600	14,700	14,200	14,500		

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ .

"—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

For 8th and 10th graders: Data based on one of two forms for 1991-1996 and on two of four forms beginning in 1997; N is one half of N indicated.

For 12th graders: Data based on one form; N is one fifth of N indicated in 1986-1988 and one sixth of N indicated beginning in 1989.

The prevalence of use of smokeless tobacco was not asked of 12th graders in 1990 and 1991. Prior to 1990 the prevalence-of-use question on smokeless tobacco was located near the end of one 12th-grade questionnaire form, whereas after 1991 the question was placed earlier and in a different form. This shift could explain the discontinuities between the corresponding data.

**TABLE 5**  
**Trends in Attitudes about Regular Smokeless Tobacco Use for Eighth, Tenth, and Twelfth Graders**

	1975-85	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2006- 2007 change		
<b>Perceived Risk<sup>a</sup></b>																										
8th Grade	—	—	—	—	—	—	35.1	35.1	36.9	35.5	33.5	34.0	35.2	36.5	37.1	39.0	38.2	39.4	39.7	41.3	40.8	39.5	41.8	41.8	+2.2	
10th Grade	—	—	—	—	—	—	40.3	39.6	44.2	42.2	38.2	41.0	42.2	42.8	44.2	46.7	46.2	46.9	48.0	47.8	46.1	45.9	46.7	46.7	+0.8	
12th Grade	—	25.8	30.0	33.2	32.9	34.2	37.4	35.5	38.9	36.6	33.2	37.4	38.6	40.9	41.1	42.2	45.4	42.6	43.3	45.0	43.6	45.9	44.0	44.0	-1.9	
<b>Disapproval<sup>b</sup></b>																										
8th Grade	—	—	—	—	—	—	79.1	77.2	77.1	75.1	74.0	74.1	76.5	76.3	78.0	79.2	79.4	80.6	80.7	81.0	82.0	81.0	82.3	82.3	+1.3	
10th Grade	—	—	—	—	—	—	75.4	74.6	73.8	71.2	71.0	71.0	72.3	73.2	75.1	75.8	76.1	78.7	79.4	80.2	80.5	80.5	80.9	80.9	+0.4	
<b>Approximate Ns:</b>																										
8th Grade	—	—	—	—	—	—	17,500	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	16,100	16,100	16,100	
10th Grade	—	—	—	—	—	—	14,800	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	16,100	16,100	16,100	
12th Grade	—	3,000	3,300	3,300	2,800	2,600	2,600	2,700	2,800	2,600	2,600	2,400	2,600	2,500	2,300	2,100	2,100	2,200	2,400	2,400	2,500	2,400	2,400	2,400	2,400	

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes: s = 0.05, ss = 0.01, sss = 0.001.

“—” indicates data not available.

<sup>a</sup>Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

<sup>b</sup>The question text was: How much do you think people risk harming themselves (physically or in other ways) if they use smokeless tobacco regularly? Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar. The percentage saying "great risk" is shown.

<sup>c</sup>The question text was: Do you disapprove of people using smokeless tobacco regularly? 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 percentage saying they "disapprove" or "strongly disapprove" is shown. This question was not asked of 12th graders.

**TABLE 6**  
**Cigarettes: Trends in Thirty-Day Prevalence of Use by Subgroups for Eighth Graders**

	Percentage who used in last thirty days													2006- 2007	change			
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Approximate N =	17,500	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	16,100	
Total	14.3	15.5	16.7	18.6	19.1	21.0	19.4	19.1	17.5	14.6	12.2	10.7	10.2	9.2	9.3	8.7	7.1	-1.6 ss
Gender:																		
Male	15.5	14.9	17.2	19.3	18.8	20.6	19.1	18.0	16.7	14.3	12.2	11.0	9.6	8.3	8.7	8.1	7.5	-0.6
Female	13.1	15.9	16.3	17.9	19.0	21.1	19.5	19.8	17.7	14.7	12.0	10.4	10.6	9.9	9.7	8.9	6.4	-2.5 ss
College Plans:																		
None or under 4 years	29.2	31.9	34.1	36.6	36.5	39.2	40.0	40.1	40.3	34.7	30.0	29.3	27.8	25.6	26.7	23.2	23.9	+0.7
Complete 4 years	11.8	13.1	14.3	16.1	16.8	18.2	16.9	16.5	14.5	12.2	10.0	8.9	8.3	7.4	7.4	7.1	5.4	-1.8 sss
Region:																		
Northeast	13.7	14.4	15.0	17.8	18.6	22.1	18.0	15.6	15.7	13.7	11.4	9.1	7.7	7.2	7.8	6.7	3.7	-3.0 s
North Central	15.5	16.5	16.3	18.5	20.9	23.2	20.0	22.3	21.3	17.1	12.0	11.0	12.2	10.8	9.5	9.3	7.8	-1.5
South	15.7	17.0	18.2	19.5	19.4	21.1	21.0	21.1	18.7	14.7	14.3	13.0	11.7	10.3	11.6	10.9	8.6	-2.3 s
West	10.0	12.2	16.4	18.0	16.5	17.1	17.1	15.1	12.1	12.2	9.3	7.5	7.0	7.4	6.3	5.7	5.8	+0.1
Population Density:																		
Large MSA	12.8	15.0	14.1	15.5	16.5	19.4	15.8	16.4	12.7	12.1	9.3	7.5	7.7	7.7	6.7	6.4	4.7	-1.8 s
Other MSA	14.9	15.3	17.8	20.7	19.4	21.4	19.7	17.7	16.0	13.1	11.6	10.6	9.8	8.9	9.8	8.8	7.6	-1.2
Non-MSA	14.8	16.4	17.9	17.8	21.5	22.1	22.8	24.8	26.1	21.1	16.9	14.9	14.4	11.6	11.8	11.6	9.5	-2.1
Parental Education: <sup>a</sup>																		
1.0-2.0 (Low)	26.2	24.1	23.3	26.1	25.3	26.5	26.9	26.7	26.6	22.0	20.3	20.3	17.5	15.8	16.6	14.7	13.8	-0.8
2.5-3.0	16.4	16.9	19.8	20.6	22.7	24.4	22.4	23.9	23.5	19.6	16.4	14.5	14.8	12.2	13.4	12.5	10.2	-2.2
3.5-4.0	13.9	14.9	17.4	20.1	20.8	21.4	20.9	21.4	17.0	14.7	12.6	10.5	9.6	9.6	10.5	8.8	7.8	-0.9
4.5-5.0	10.1	13.3	12.5	14.9	14.9	18.4	16.2	14.2	12.3	10.2	8.3	7.8	6.7	6.7	5.9	5.5	3.9	-1.6 s
5.5-6.0 (High)	11.3	11.5	13.3	15.1	14.5	17.3	15.3	13.8	12.2	9.8	6.9	5.8	6.0	5.2	4.3	4.8	2.4	-2.4 ss
Race (2-year average): <sup>b</sup>																		
White	—	16.2	17.8	18.9	20.7	22.7	22.8	21.5	20.1	17.7	14.7	12.0	10.9	10.0	9.4	9.3	8.1	-1.2
Black	—	5.3	6.6	8.7	8.9	9.6	10.9	10.6	10.7	9.6	8.2	7.7	6.9	6.9	7.1	6.0	5.1	-0.9
Hispanic	—	16.7	18.3	21.3	21.6	19.6	19.1	20.1	20.5	16.6	13.0	12.7	11.9	10.1	9.0	8.8	8.0	-0.8

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes: s = 0.05, ss = 0.01, sss = 0.001. "—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

<sup>a</sup>Parental education is an average score of mother's education and father's education. See Appendix B for details.

<sup>b</sup>To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample size and thus provide more stable estimates. For the data beginning in 2005, see the race/ethnicity note at the end of Appendix D.

**TABLE 7**  
**Cigarettes: Trends in Thirty-Day Prevalence of Use by Subgroups for Tenth Graders**

	Percentage who used in last thirty days														2006–			
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	change
Approximate N =	14,800	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	16,100	
Total	20.8	21.5	24.7	25.4	27.9	30.4	29.8	27.6	25.7	23.9	21.3	17.7	16.7	16.0	14.9	14.5	14.0	-0.5
Gender:																		
Male	20.8	20.6	24.6	26.6	27.7	30.1	28.2	26.2	25.2	23.8	20.9	16.7	16.2	16.2	14.5	13.4	14.6	+1.2
Female	20.7	22.2	24.5	23.9	27.9	30.8	31.1	29.1	25.8	23.6	21.5	18.6	17.0	15.7	15.1	15.5	13.3	-2.2 s
College Plans:																		
None or under 4 years	36.5	35.0	41.9	42.2	46.3	46.2	47.2	45.2	44.0	38.6	38.1	33.3	33.0	33.1	29.4	32.7	30.1	-2.6
Complete 4 years	17.3	18.6	21.0	21.7	24.7	27.8	26.8	24.5	22.7	21.5	18.5	15.1	14.0	13.6	12.9	12.1	11.8	-0.3
Region:																		
Northeast	22.4	21.9	27.1	24.5	27.8	31.7	29.3	30.1	28.0	23.9	18.1	15.9	16.6	16.6	14.9	11.8	13.1	+1.3
North Central	22.9	24.3	26.0	28.8	30.1	32.5	31.7	29.5	30.2	27.1	24.2	19.2	18.4	14.6	16.2	18.1	17.1	-1.0
South	21.2	19.8	24.0	25.7	30.8	33.4	32.2	29.8	26.3	25.5	23.5	19.6	18.2	20.4	16.4	15.6	14.4	-1.2
West	16.7	20.2	21.2	20.1	19.6	20.8	23.2	19.6	17.5	16.8	15.0	14.1	12.5	10.9	10.9	10.9	11.1	+0.2
Population Density:																		
Large MSA	19.7	21.6	22.5	22.3	23.3	26.2	26.6	22.5	22.9	23.1	17.3	14.2	13.1	12.0	11.7	11.5	12.1	+0.6
Other MSA	20.3	20.3	23.8	26.3	28.9	31.1	28.9	26.6	25.0	21.3	20.5	17.6	16.6	16.6	14.7	13.3	13.9	+0.7
Non-MSA	22.7	23.7	28.2	26.7	31.3	33.9	34.9	35.7	30.4	29.4	27.6	22.6	22.4	20.4	19.8	22.4	17.2	-5.2 ss
Parental Education: <sup>a</sup>																		
1.0–2.0 (Low)	23.5	28.4	29.5	26.4	30.9	28.7	28.2	28.0	30.5	29.3	22.5	21.4	23.4	19.3	16.4	20.4	17.5	-2.9
2.5–3.0	24.1	23.3	28.0	29.1	33.2	33.8	33.2	33.0	29.6	26.8	25.7	22.4	21.2	19.9	19.7	19.7	18.4	-1.3
3.5–4.0	20.4	20.6	24.8	26.0	27.8	31.6	30.9	27.3	26.0	25.3	21.1	17.4	16.2	17.8	15.7	15.5	14.7	-0.8
4.5–5.0	18.5	19.5	20.1	22.6	25.9	28.7	28.5	25.7	22.4	21.2	18.9	15.1	13.4	12.6	12.5	10.8	11.3	+0.4
5.5–6.0 (High)	18.5	18.9	21.4	20.7	21.8	27.8	24.6	22.5	21.4	19.1	17.1	12.7	11.6	10.8	10.8	10.0	9.7	-0.2
Race (2-year average): <sup>b</sup>																		
White	—	24.1	26.0	27.8	29.7	32.9	34.4	33.2	30.8	28.2	25.7	22.4	20.0	18.7	17.6	16.6	16.2	-0.4
Black	—	6.6	7.5	9.8	11.5	12.2	12.8	13.7	12.5	11.1	11.1	9.8	8.9	9.2	8.7	8.0	7.1	-0.9
Hispanic	—	18.3	20.5	19.4	21.4	23.7	23.0	21.3	21.1	19.6	16.8	14.3	13.2	13.9	13.5	12.1	10.5	-1.6

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes: s = 0.05, ss = 0.01, sss = 0.001. "—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

<sup>a</sup>Parental education is an average score of mother's education and father's education. See Appendix B for details.

<sup>b</sup>To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample size and thus provide more stable estimates. For the data beginning in 2005, see the race/ethnicity note at the end of Appendix D.

**TABLE 8**  
**Cigarettes: Trends in Thirty-Day Prevalence of Use by Subgroups for Twelfth Graders**

	Percentage who used in last thirty days																
	Class of:																
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Approximate N =	9,400	15,400	17,100	17,800	15,500	15,900	17,500	17,700	16,300	15,900	16,000	15,200	16,300	16,300	16,700	15,200	15,000
Total	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
Gender:																	
Male	37.2	37.7	36.6	34.5	31.2	26.8	26.5	26.8	28.0	25.9	28.2	27.9	27.0	28.0	27.7	29.1	29.0
Female	35.9	39.1	39.6	38.1	37.1	33.4	31.6	32.6	31.6	31.9	31.4	30.6	31.4	28.9	29.0	29.2	27.5
College Plans:																	
None or under 4 years	—	46.3	46.2	44.6	43.0	39.6	38.1	38.7	38.0	37.9	40.5	38.5	39.7	37.5	38.0	37.5	38.1
Complete 4 years	—	29.8	29.4	27.4	26.0	22.3	22.3	22.1	23.3	22.7	22.8	24.0	24.3	24.4	24.1	25.4	24.2
Region:																	
Northeast	40.1	41.8	43.0	40.6	37.0	34.1	31.5	32.1	34.6	33.5	34.2	35.2	34.1	31.2	29.4	31.9	30.5
North Central	39.5	41.3	40.5	39.0	36.6	31.5	32.4	33.5	33.2	31.4	34.1	32.5	31.7	31.1	34.9	34.0	34.6
South	36.2	39.1	37.6	35.7	35.4	31.8	28.9	29.4	28.7	28.6	25.6	26.1	26.0	28.0	26.4	26.1	25.4
West	26.3	28.3	27.7	27.3	24.8	21.2	21.8	20.4	21.8	22.9	26.3	23.3	26.6	23.9	22.7	25.1	23.2
Population Density:																	
Large MSA	39.7	40.4	40.9	37.5	33.4	31.2	30.6	32.1	30.8	31.3	31.9	30.8	29.3	26.9	25.9	27.9	26.2
Other MSA	35.1	35.9	36.1	34.3	33.5	29.7	27.4	27.8	29.1	28.2	28.5	28.0	28.2	28.3	28.2	29.6	29.3
Non-MSA	36.7	40.9	39.2	39.4	36.4	30.9	30.9	31.2	31.5	29.3	30.8	31.0	31.8	31.4	32.2	30.4	28.6
Parental Education: <sup>a</sup>																	
1.0-2.0 (Low)	37.2	43.2	39.6	38.1	38.1	32.7	32.5	32.6	32.7	33.6	32.3	28.6	28.8	28.1	25.4	26.3	31.3
2.5-3.0	37.0	41.2	40.8	39.3	35.9	34.2	31.7	32.0	32.2	31.8	32.3	32.3	31.4	29.9	30.8	30.8	28.7
3.5-4.0	31.9	35.3	37.3	34.0	33.3	28.0	28.2	29.0	28.0	28.1	29.7	29.7	28.8	27.8	29.4	29.3	28.4
4.5-5.0	32.3	35.0	33.0	32.6	30.1	25.7	26.0	25.5	27.8	25.2	27.7	26.4	27.6	28.6	27.0	29.1	26.9
5.5-6.0 (High)	26.8	30.8	32.8	31.9	29.6	24.0	22.5	25.1	25.5	23.7	22.6	26.7	29.3	27.8	26.3	28.6	27.1
Race (2-year average): <sup>b</sup>																	
White	—	—	—	38.3	37.6	36.0	33.0	30.5	30.7	31.3	31.2	31.3	31.9	32.1	32.2	32.3	32.2
Black	—	—	—	36.7	32.7	30.2	26.8	23.7	21.8	21.2	19.3	18.1	16.9	14.2	13.3	12.6	10.6
Hispanic	—	—	—	35.7	32.8	26.8	23.2	24.7	24.7	25.3	25.5	23.7	22.7	21.9	20.6	21.7	24.0

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ .

"—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

↑  
Cont.



**TABLE 8 (cont.)**  
**Cigarettes: Trends in Thirty-Day Prevalence of Use by Subgroups for Twelfth Graders**

	Percentage who used in last thirty days													2006-			
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	change
Approximate N =	15,800	16,300	15,400	15,400	14,300	15,400	15,200	13,600	12,800	12,800	12,900	14,600	14,600	14,700	14,200	14,500	
Total	27.8	29.9	31.2	33.5	34.0	36.5	35.1	34.6	31.4	29.5	26.7	24.4	25.0	23.2	21.6	21.6	0.0
Gender:																	
Male	29.2	30.7	32.9	34.5	34.9	37.3	36.3	35.4	32.8	29.7	27.4	26.2	25.3	24.8	22.4	23.1	+0.6
Female	26.1	28.7	29.2	32.0	32.4	35.2	33.3	33.5	29.7	28.7	25.5	22.1	24.1	20.7	20.1	19.6	-0.5
College Plans:																	
None or under 4 years	38.6	37.3	40.9	43.5	45.0	45.7	46.7	44.9	43.6	40.8	37.5	36.2	36.8	34.8	32.9	32.4	-0.5
Complete 4 years	23.8	27.3	28.0	29.9	30.8	33.1	31.3	31.4	27.3	25.9	23.6	20.8	21.6	20.0	18.6	19.0	+0.4
Region:																	
Northeast	29.6	34.2	33.2	34.4	38.5	40.6	35.9	34.2	33.1	30.3	27.3	25.0	25.9	22.0	23.1	23.8	+0.6
North Central	31.7	33.2	36.2	37.8	37.7	39.3	40.0	37.8	35.6	35.9	31.7	27.3	28.3	26.8	23.6	24.7	+1.2
South	26.4	29.0	30.7	33.5	33.2	35.0	34.3	36.2	29.6	25.9	27.2	24.3	24.6	24.6	23.2	21.9	-1.3
West	22.8	22.9	24.0	26.5	24.4	30.5	29.1	27.6	28.1	25.2	19.4	20.7	20.1	17.5	15.0	15.8	+0.8
Population Density:																	
Large MSA	25.6	29.5	29.0	33.9	32.1	34.9	32.9	30.0	27.4	27.3	24.8	18.9	20.8	20.8	20.7	19.9	-0.8
Other MSA	26.9	29.8	31.1	31.7	32.6	35.7	34.2	35.0	31.5	28.2	26.2	25.1	26.3	22.6	20.3	20.8	+0.5
Non-MSA	31.5	30.3	33.8	36.2	38.2	40.0	39.7	38.7	36.3	34.3	30.1	30.4	27.6	27.4	25.3	25.9	+0.5
Parental Education: <sup>a</sup>																	
1.0-2.0 (Low)	27.1	26.5	26.2	31.2	31.5	31.2	32.3	33.0	31.3	24.8	20.9	23.5	21.0	19.1	21.1	20.5	-0.6
2.5-3.0	30.3	30.4	32.8	35.0	35.5	36.5	36.0	37.3	32.2	31.5	28.9	27.0	28.7	27.3	24.7	24.7	0.0
3.5-4.0	27.8	29.9	31.4	33.2	33.2	35.6	36.7	35.0	32.8	30.3	28.6	24.3	26.3	24.8	22.9	21.6	-1.3
4.5-5.0	25.8	30.1	32.0	32.6	34.5	37.5	34.2	32.4	30.2	29.3	25.0	22.6	23.8	21.8	19.2	20.5	+1.4
5.5-6.0 (High)	25.5	30.5	30.4	34.0	32.9	38.5	33.1	34.4	27.4	25.0	25.3	21.0	19.9	18.0	17.4	18.4	+1.0
Race (2-year average): <sup>b</sup>																	
White	31.8	33.2	35.2	36.6	38.1	40.7	41.7	40.1	37.9	35.3	32.5	29.4	28.2	27.6	25.9	24.9	-1.0
Black	8.7	9.5	10.9	12.9	14.2	14.3	14.9	14.9	14.3	13.3	12.1	10.0	10.1	10.7	10.5	10.8	+0.3
Hispanic	25.0	24.2	23.6	25.1	25.4	25.9	26.6	27.3	27.7	23.8	21.3	19.0	18.5	17.1	16.0	15.3	-0.7

<sup>a</sup>Parental education is an average score of mother's education and father's education. See Appendix B for details.

<sup>b</sup>To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample size and thus provide more stable estimates. For the data beginning in 2005, see the race/ethnicity note at the end of Appendix D.

**TABLE 9**  
**Smokeless Tobacco: Trends in Thirty-Day Prevalence of Use by Subgroups for Eighth Graders**

	Percentage who used in last thirty days													2006-	2007	change			
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005		2006	2007	
Approximate N =	17,500	18,600	18,300	17,300	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	16,100		
Total	6.9	7.0	6.6	7.7	7.1	7.1	5.5	4.8	4.5	4.2	4.0	3.3	4.1	4.1	3.3	3.7	3.2	-0.5	
Gender:																			
Male	12.7	12.5	10.9	12.8	11.8	11.4	9.9	8.1	6.9	6.7	6.9	5.4	6.7	6.4	5.3	5.3	4.7	-0.6	
Female	1.4	2.0	2.7	2.4	2.9	2.9	1.5	1.5	2.1	1.8	1.4	1.3	1.8	1.7	1.5	2.1	1.7	-0.4	
College Plans:																			
None or under 4 years	12.7	17.1	15.5	16.7	15.4	16.4	12.6	13.9	13.2	11.4	14.6	10.2	12.8	12.3	10.8	11.3	8.9	-2.4	
Complete 4 years	6.1	5.5	5.3	6.5	6.0	5.6	4.6	3.8	3.5	3.4	2.9	2.6	3.3	3.2	2.4	2.9	2.7	-0.2	
Region:																			
Northeast	5.0	4.9	3.4	6.1	5.4	4.9	3.2	2.7	2.5	2.7	3.7	2.7	3.1	3.4	1.4	2.9	1.5	-1.4	
North Central	7.1	7.5	7.2	7.1	7.6	8.3	6.8	4.3	5.3	4.8	4.0	3.9	3.5	4.2	3.2	4.0	2.9	-1.1	
South	9.5	9.3	8.0	9.9	8.7	8.1	6.7	6.9	5.9	5.8	5.4	4.1	5.9	5.5	5.3	4.6	4.1	-0.5	
West	3.5	4.4	6.3	6.0	5.0	5.9	4.1	3.9	2.9	1.9	2.1	1.5	2.5	2.0	1.4	2.2	2.8	+0.6	
Population Density:																			
Large MSA	4.8	4.2	3.3	4.6	4.1	4.2	3.6	2.9	1.8	2.4	2.4	1.5	2.6	1.9	1.3	1.9	1.9	+0.1	
Other MSA	6.2	6.9	6.8	6.4	6.7	7.1	4.7	4.1	3.9	3.9	3.5	2.9	3.7	3.6	2.8	3.1	3.1	-0.1	
Non-MSA	10.4	10.3	9.9	13.0	11.2	10.6	9.0	8.5	8.9	7.0	7.0	6.2	6.9	7.7	7.0	7.1	5.3	-1.8	
Parental Education: <sup>a</sup>																			
1.0-2.0 (Low)	11.4	7.8	9.4	8.9	10.6	6.3	8.3	5.4	6.6	7.4	5.0	4.5	6.8	6.9	5.7	5.9	4.9	-1.0	
2.5-3.0	8.4	8.5	7.5	8.4	9.9	8.8	6.0	5.1	5.7	5.2	5.4	5.1	5.1	6.0	4.9	3.9	3.7	-0.2	
3.5-4.0	6.7	7.0	7.5	8.7	7.0	7.2	6.5	5.9	4.5	4.5	3.7	3.2	4.1	3.5	3.1	3.7	3.1	-0.6	
4.5-5.0	4.8	7.0	5.2	6.1	5.0	6.8	4.8	4.4	3.3	2.9	2.5	2.4	3.1	3.2	2.4	3.1	2.5	-0.6	
5.5-6.0 (High)	6.1	4.6	4.9	6.8	5.8	5.9	3.7	3.9	3.1	3.0	4.2	2.5	2.7	2.9	1.8	3.4	2.3	-1.2	
Race (2-year average): <sup>b</sup>																			
White	—	8.3	8.0	8.1	8.9	8.8	7.6	6.1	5.4	5.2	4.8	4.1	3.9	4.4	4.2	3.7	3.8	+0.1	
Black	—	1.8	2.7	3.2	2.6	2.2	2.6	2.3	2.3	2.7	2.2	1.6	2.7	3.0	2.0	2.1	2.3	+0.2	
Hispanic	—	4.2	4.0	5.0	5.7	5.2	4.6	4.5	4.6	3.7	3.3	4.0	4.7	4.0	2.6	3.1	2.9	-0.2	

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ . "—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

Data based on one of two forms in 1991-1996 and on two of four forms beginning in 1997; N is one half of N indicated.

<sup>a</sup>Parental education is an average score of mother's education and father's education. See Appendix B for details.

<sup>b</sup>To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample size and thus provide more stable estimates. For the data beginning in 2005, see the race/ethnicity note at the end of Appendix D.

**TABLE 10**  
**Smokeless Tobacco: Trends in Thirty-Day Prevalence of Use by Subgroups for Tenth Graders**

	Percentage who used in last thirty days													2006–	2007			
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	change
Approximate N =	14,800	14,800	15,300	15,800	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	16,100	
Total	10.0	9.6	10.4	10.5	9.7	8.6	8.9	7.5	6.5	6.1	6.9	6.1	5.3	4.9	5.6	5.7	6.1	+0.4
Gender:																		
Male	18.7	18.1	19.3	19.2	17.2	15.0	14.9	13.8	12.2	11.4	12.7	9.9	9.6	9.0	9.7	10.2	10.2	0.0
Female	1.3	1.8	2.0	2.1	2.1	2.3	2.7	1.7	1.3	1.3	1.6	2.1	1.3	1.0	1.6	1.2	2.0	+0.8
College Plans:																		
None or under 4 years	16.9	17.5	20.2	19.9	20.3	16.3	18.5	17.8	13.2	13.9	16.0	13.6	13.0	12.2	13.3	14.9	14.0	-0.9
Complete 4 years	8.4	8.0	8.4	8.5	7.8	7.2	7.2	5.7	5.4	4.8	5.4	4.8	4.1	3.9	4.5	4.5	5.0	+0.5
Region:																		
Northeast	8.6	5.3	8.0	9.0	7.6	6.8	9.3	6.5	5.2	4.6	4.9	4.7	4.5	5.1	4.6	4.5	5.9	+1.4
North Central	11.0	9.6	10.0	10.0	11.0	9.5	7.1	7.9	8.1	6.2	7.0	4.8	4.9	3.7	5.7	7.5	6.3	-1.1
South	11.6	11.4	11.8	11.7	10.9	10.2	10.2	9.5	7.9	7.7	9.6	8.3	7.5	7.3	7.0	6.0	8.3	+2.4
West	7.8	10.9	11.1	10.9	7.7	6.0	8.2	4.6	4.0	4.5	3.0	5.1	3.5	3.0	4.5	4.1	3.3	-0.9
Population Density:																		
Large MSA	5.9	6.4	6.5	6.2	5.9	5.5	4.2	3.7	4.6	5.6	4.1	4.5	3.7	3.0	3.2	3.9	4.1	+0.2
Other MSA	9.2	9.3	10.1	10.9	9.2	8.4	8.3	5.7	5.3	4.3	5.7	6.1	4.8	4.3	5.3	5.3	5.8	+0.6
Non-MSA	14.7	13.3	14.1	13.9	15.0	12.2	14.7	15.1	11.3	9.8	12.5	8.2	9.2	9.0	9.4	9.6	9.9	+0.2
Parental Education: <sup>a</sup>																		
1.0–2.0 (Low)	6.6	10.1	10.9	9.4	9.6	8.1	9.0	6.8	7.2	7.4	6.9	6.7	7.4	3.7	4.4	7.4	6.1	-1.3
2.5–3.0	12.1	11.0	12.2	12.5	10.4	9.7	9.4	8.2	7.0	6.4	8.9	8.1	5.0	5.8	6.7	7.1	6.9	-0.3
3.5–4.0	10.6	10.5	10.9	10.2	10.9	8.3	10.3	8.6	7.3	6.3	7.1	5.5	4.9	5.2	6.0	5.7	6.4	+0.7
4.5–5.0	9.3	7.6	9.9	9.8	9.8	8.5	7.2	6.9	6.1	6.2	5.7	5.4	5.7	4.4	5.6	4.9	6.1	+1.2
5.5–6.0 (High)	8.6	8.1	7.0	8.9	6.0	7.7	8.3	5.2	4.8	4.0	4.8	5.2	4.3	4.4	3.8	5.3	4.8	-0.5
Race (2-year average): <sup>b</sup>																		
White	—	11.4	12.0	12.5	12.0	11.0	10.4	10.0	8.7	7.5	7.5	7.7	6.9	6.1	6.6	6.9	7.3	+0.4
Black	—	2.9	2.3	2.3	2.5	2.5	2.8	2.3	1.6	2.0	3.2	2.6	2.5	2.7	2.5	3.2	3.3	+0.1
Hispanic	—	6.2	6.1	4.3	3.6	4.0	4.6	4.8	4.8	4.5	4.0	4.0	4.1	3.3	3.1	3.4	2.7	-0.7

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ . "—" indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error.

Data based on one of two forms in 1991–1996 and on two of four forms beginning in 1997; N is one half of N indicated.

<sup>a</sup>Parental education is an average score of mother's education and father's education. See Appendix B for details.

<sup>b</sup>To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample size and thus provide more stable estimates. For the data beginning in 2005, see the race/ethnicity note at the end of Appendix D.

**TABLE 11**  
**Smokeless Tobacco: Trends in Thirty-Day Prevalence of Use by Subgroups for Twelfth Graders**

	Percentage who used in last thirty days																	2006- 2007 change					
	1975- 1985	1986	1987	1988	1989	1991 <sup>a</sup>	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002		2003	2004	2005	2006	2007
Approximate N =	—	15,200	16,300	16,300	16,700	—	15,800	16,300	15,400	15,400	14,300	15,400	15,200	13,600	12,800	12,800	12,900	14,600	14,600	14,700	14,200	14,500	
Total	—	11.5	11.3	10.3	8.4	—	11.4	10.7	11.1	12.2	9.8	9.7	8.8	8.4	7.6	7.8	6.5	6.7	6.7	7.6	6.1	6.6	+0.5
Gender:																							
Male	—	22.3	22.8	19.9	15.9	—	20.8	19.7	20.3	23.6	19.5	18.7	15.6	15.5	14.4	14.2	12.2	12.5	12.2	12.7	11.0	11.9	+0.9
Female	—	1.6	0.7	1.7	1.2	—	2.0	2.3	2.6	1.8	1.1	1.2	1.5	1.3	1.3	1.6	1.2	1.0	1.6	1.9	1.5	1.2	-0.3
College Plans:																							
None or under 4 years	—	14.5	15.5	13.1	9.6	—	18.0	14.9	15.8	18.7	17.6	16.9	14.3	10.5	15.8	13.0	10.8	12.8	11.9	15.2	13.4	11.7	-1.7
Complete 4 years	—	9.8	9.0	8.8	7.7	—	9.4	9.4	9.3	9.9	7.6	7.4	7.1	7.6	5.4	6.1	4.8	4.8	4.9	5.4	4.1	5.3	+1.2
Region:																							
Northeast	—	9.5	7.3	5.9	5.0	—	8.2	9.6	12.0	9.6	8.4	6.9	2.6	4.3	5.3	5.4	5.3	6.3	5.1	8.0	5.3	5.3	0.0
North Central	—	13.5	11.3	10.8	8.3	—	12.3	13.6	14.7	16.7	12.6	13.4	11.8	8.9	11.1	9.9	7.8	5.7	7.4	10.5	7.0	9.1	+2.2
South	—	12.2	13.7	12.1	9.8	—	12.5	11.1	9.7	11.9	9.2	9.0	10.5	10.7	7.3	8.5	7.9	7.9	8.4	7.5	7.5	7.9	+0.4
West	—	9.3	11.7	10.9	9.1	—	11.1	7.0	8.5	8.6	8.5	9.1	7.3	7.0	6.3	6.2	3.9	6.0	4.3	4.0	3.4	2.8	-0.6
Population Density:																							
Large MSA	—	9.0	6.4	7.7	6.8	—	5.9	7.1	7.5	12.5	8.6	6.5	4.7	4.9	4.2	4.4	3.4	3.4	3.8	4.3	4.8	3.9	-0.8
Other MSA	—	8.9	10.5	8.5	7.6	—	11.1	9.9	11.3	9.5	7.4	7.4	7.7	8.5	7.9	8.0	5.7	6.9	5.6	7.8	4.6	6.8	+2.2
Non-MSA	—	17.1	17.5	16.1	11.7	—	16.9	15.0	14.7	16.7	15.3	17.9	16.1	11.7	11.4	11.5	11.9	10.4	12.1	11.3	10.9	10.1	-0.8
Parental Education: <sup>b</sup>																							
1.0-2.0 (Low)	—	8.6	11.7	10.7	5.3	—	14.9	7.0	12.3	9.8	6.3	5.8	6.1	5.4	4.3	6.3	4.1	9.3	6.1	5.3	4.9	5.3	+0.5
2.5-3.0	—	14.4	11.5	10.7	7.0	—	12.4	11.6	12.9	11.5	10.4	10.7	9.0	9.1	9.9	7.5	5.6	5.9	8.8	9.7	8.0	9.8	+1.8
3.5-4.0	—	11.5	12.1	10.6	9.0	—	12.4	10.8	9.8	12.8	9.1	10.4	9.8	8.8	8.9	8.6	7.4	6.5	4.6	7.8	6.4	5.3	-1.1
4.5-5.0	—	10.4	11.7	11.8	10.2	—	8.0	13.3	11.1	12.8	11.4	9.1	9.6	8.5	6.2	6.2	7.3	7.6	7.9	8.0	6.1	6.6	+0.5
5.5-6.0 (High)	—	7.7	8.1	7.2	8.4	—	10.6	7.8	10.2	11.6	8.1	9.9	7.4	7.9	5.7	10.3	4.6	6.2	5.4	3.7	3.5	5.8	+2.3
Race (2-year average): <sup>c</sup>																							
White	—	—	12.9	12.0	10.6	—	—	13.8	13.8	13.8	13.0	12.2	11.8	11.0	10.5	10.3	9.7	8.5	8.2	8.7	8.8	8.3	-0.6
Black	—	—	2.1	4.5	4.5	—	—	2.0	1.9	2.1	2.7	2.2	1.4	1.5	1.5	1.2	1.0	1.0	0.6	0.3	0.5	1.8	+1.3
Hispanic	—	—	4.4	5.2	5.1	—	—	6.0	5.4	7.6	8.1	5.3	4.3	3.9	3.8	3.2	2.6	3.1	3.9	4.9	3.8	2.7	-1.2

Source: The Monitoring the Future study, the University of Michigan.

Notes: Level of significance of difference between the two most recent classes:  $s = 0.05$ ,  $ss = 0.01$ ,  $sss = 0.001$ . "—" indicates data not available. Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding error. Data based on one of six forms; N is one sixth of N indicated.

**Caution: Limited sample sizes (see "Notes" above). Use caution in interpreting subgroup trends.**

<sup>a</sup>The prevalence of use of smokeless tobacco was not asked of 12th graders in 1990 and 1991. Prior to 1990 the prevalence-of-use question on smokeless tobacco was located near the end of one 12th-grade questionnaire form, whereas after 1991 the question was placed earlier and in a different form. This shift could explain the discontinuities in the data.

<sup>b</sup>Parental education is an average score of mother's education and father's education. See Appendix B for details.

<sup>c</sup>To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample size and thus provide more stable estimates. For the data beginning in 2005, see the race/ethnicity note at the end of Appendix D.