

Dec. 14, 2011

Contacts: Jared Wadley, (734) 936-7819, jwadley@umich.edu
Patti Meyer, (734) 647-1083, mtfinfo@isr.umich.edu

Study Web site: www.monitoringthefuture.org

EMBARGOED FOR RELEASE AFTER 10 A.M. EST WEDNESDAY, DEC. 14, 2011

EDITORS: Results of this year's Monitoring the Future survey are being released at a news conference to be held at the National Press Club in Washington, D.C. by the National Institute on Drug Abuse, which sponsors the study, and the University of Michigan, which designed and conducted the study. Participating will be the director of the White House Office of National Drug Control Policy (ONDCP), R. Gil Kerlikowske; the Assistant Secretary for Health, DHHS, Howard Koh; 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 professor Johnston at (734) 763-5043.

Decline in teen smoking resumes in 2011

ANN ARBOR, Mich.--- The 2011 national survey results from the Monitoring the Future study show decreases in teen smoking in all three grades under study—grades 8, 10, and 12. The proportion saying that they smoked at all in the prior 30 days fell significantly for the three grades combined, from 12.8% in 2010 to 11.7% this year ($p < .01$).

“This is very good news for the health and longevity of these young people,” states Lloyd Johnston, the principal investigator of the study. “Even a reduction of only one percentage point can translate into thousands of premature deaths being prevented.” More than 400,000 Americans per year are estimated to die prematurely as a result of their smoking cigarettes; and most smokers begin their habit in adolescence.

The good news this year was especially welcome because it followed some evidence in the 2010 survey that the substantial decrease in teen smoking begun in the mid-1990s had decelerated considerably, and may have come to a halt among younger teens.

The Monitoring the Future study, which has been tracking teen smoking in the United States for the past 37 years, found that since last year the proportion of students reporting any cigarette smoking in the prior 30 days has decreased among 8th graders from 7.1% in 2010 to 6.1% in 2011, among 10th graders from 13.6% to 11.8%, and among 12th graders from 19.2% to 18.7%. (The decline at 10th grade was statistically significant.) These estimates come from the study's national surveys of some 47,000 students in about 400 secondary schools each year. The study is

directed by a team of research professors at the University of Michigan's Institute for Social Research, and since its inception has been funded through a series of research grants from the National Institute on Drug Abuse—one of the National Institutes of Health.

Peak smoking levels among teens were reached in 1996-1997. Since those peak levels, the proportions of students smoking in the month prior to the annual survey has fallen by large proportions: 71%, 61%, and 49% in grades 8, 10, and 12, respectively. In the five or six years immediately following the peak levels, smoking among teens fell sharply. This likely was due to several factors, including the extensive negative attention the industry received as well as sharply rising cigarette prices caused in part by increased state sales taxes on cigarettes. Also, the Master Settlement Agreement with the state attorneys general caused the tobacco companies to raise cigarette prices considerably, and it , ended the Joe Camel ad campaign, and funded a large anti-smoking media campaign aimed at youth (conducted by the American Legacy Foundation). In addition, the numbers of public places in which smoking is permitted has been in decline for some years.

After 2002 (or 2003 in the case of the 12th graders) the decline in teen smoking slowed considerably, at the same time that funding was cut back substantially for national and state anti-smoking campaigns and as less public attention was paid to the issue.

The proportion of students seeing a great risk of harm associated with being a smoker had been rising prior to and during the period of declining use, but leveled off in the past several years. However, this year *perceived risk* associated with smoking rose in all three grades (significantly so in 10th grade). The proportion of teens saying that they *disapprove* of smoking had leveled recently, as well, but it also increased in all three grades in 2011 (significantly so in 10th grade).

By taking up cigarette smoking, significant proportions of teens are still putting themselves at risk for a host of serious diseases and a premature death. Smoking in the prior 30 days is reported by 6%, 12%, and 19% of 8th, 10th, and 12th graders, respectively. Rates of smoking on a current *daily* basis are 2.4%, 5.5%, and 10% in the three grades, respectively. Based on follow-up surveys of previous 12th grade classes, quite a number of the lighter smokers are likely to become daily smokers after they leave high school.

One reason smoking has declined so sharply is that the proportion of students who ever *try smoking* has fallen dramatically. While 49% of 8th graders in 1996 had tried cigarettes, “only” 18% of the 8th graders in 2011 indicate having ever done so, a 63% decline in smoking initiation over the past 15 years.

Eighth and tenth grade students are asked about how difficult it would be for them to get cigarettes, if they wanted them—what the researchers call *perceived availability*. This measure showed a fairly sharp drop after 1996. The decline in perceived availability halted after 2007, but resumed again this year. The 8th graders have shown the sharpest decline—from 77% saying they could get cigarettes “fairly easily” or “very easily” in 1996 compared to 52% in 2011. Perceived availability among 10th graders fell from 91% in 1996 to 74% by 2011. “Although there has been some real progress made in reducing the availability of cigarettes to those who are underage—

particularly to the younger teens—it is clear that the majority of teens still say they can get cigarettes fairly easily,” notes Johnston.

Attitudes toward smoking and smokers changed in important ways during the period of sharply declining cigarette use. These changes included increases in preferring to date nonsmokers, strongly disliking being around people who are smoking, thinking that becoming a smoker reflects poor judgment, and believing that smoking is a dirty habit. All of these negative attitudes about smoking and smokers rose to high levels by 2007, but they have either leveled or begun to reverse since then (Table 3).

Johnston says, “Future progress in lowering teen smoking rates is likely to depend on there being further changes in the external environment—policy changes such as raising cigarette taxes, further limiting where smoking is permitted, bringing back broad-based anti-smoking ad campaigns, and making quit-smoking programs more available.”

Smokeless tobacco

The use of smokeless tobacco (which includes snuff, plug, dipping tobacco, chewing tobacco, and more recently “snus”) also is assessed in the study. (“Snus” is a spitless chewing tobacco, pronounced “snoose.”) From the mid-1990s to the early 2000s, there was a substantial decline in smokeless tobacco use among teens—monthly prevalence fell by one third to one half—but the declines ended and a rebound in use developed from the mid-2000s through 2010. This rebound did not continue into 2011, however; and there was some decline in all three grades (none statistically significant). Thirty-day prevalence of smokeless tobacco use in 2011 is 3.5%, 6.6%, and 8.3%, among 8th, 10th, and 12th graders, respectively. The rates are considerably higher for boys—4.9%, 11.5%, and 14.2%.

Perceived risk appears to have played an important role in the decline of smokeless tobacco use, as was true for cigarettes. In all three grades, perceived risk for smokeless tobacco rose fairly steadily from 1995 through 2004 before leveling. However, there has not been a great deal of fall-off in these measures since 2004, suggesting that other factors may be leading to the recent increases in use—possibly increased promotion of these products and a proliferation of types of smokeless tobacco products available.

Hookahs and small cigars

Two of the latest developments to raise public health concern are the smoking of tobacco by using hookah (pronounced “WHO-ka”) water pipes, and the smoking of small cigars. Questions about these forms of tobacco use were included in the survey of 12th graders for the first time in 2010. In 2011 the annual prevalence rate for smoking with a hookah rose by 1.4 percentage points to 18.5%—not a statistically significant increase. Only 10% of 12th grade students reported smoking with a hookah more than two times during the year, suggesting a considerable amount of light or experimental use. Males had only a slightly higher prevalence rate than females—20% versus 17%.

Smoking small cigars is a more prevalent behavior, with 12th graders having an annual prevalence in 2010 of 23%, but with only 11% indicating use on more than two occasions during the year. There is a larger gender difference for this form of tobacco use, with an annual

prevalence of 27% among males compared to 12% among females. “We will continue to monitor these two forms of tobacco consumption to see if they represent a growing problem among youth, and we will be examining their use among young adults, as well,” states Johnston.

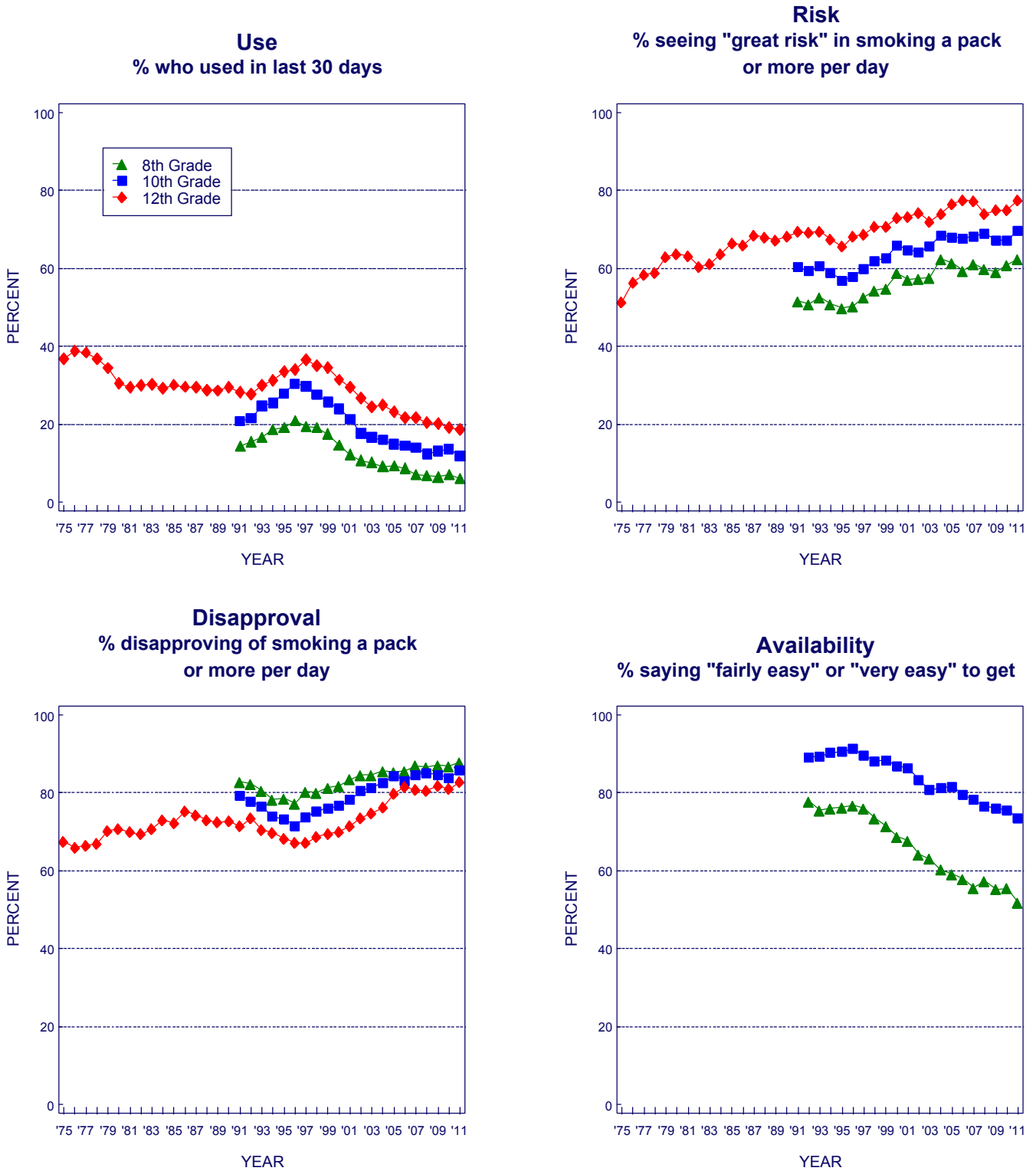
#

Monitoring the Future has been funded under a series of competing, investigator-initiated research grants from the National Institute on Drug Abuse, one of the National Institutes of Health. The lead investigators, in addition to Lloyd Johnston, are Patrick O’Malley, Jerald Bachman, and John Schulenberg—all research professors at the University of Michigan’s Institute for Social Research. Surveys of nationally representative samples of American high school seniors were begun in 1975, making the class of 2011 the 37th such class surveyed. Surveys of 8th and 10th graders were added to the design in 1991, making the 2011 nationally representative samples the 21st such classes surveyed. The 2011 samples total 46,733 students located in 400 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 a forthcoming volume: Johnston, L. D., O’Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2011*. Ann Arbor, MI: Institute for Social Research, The University of Michigan.

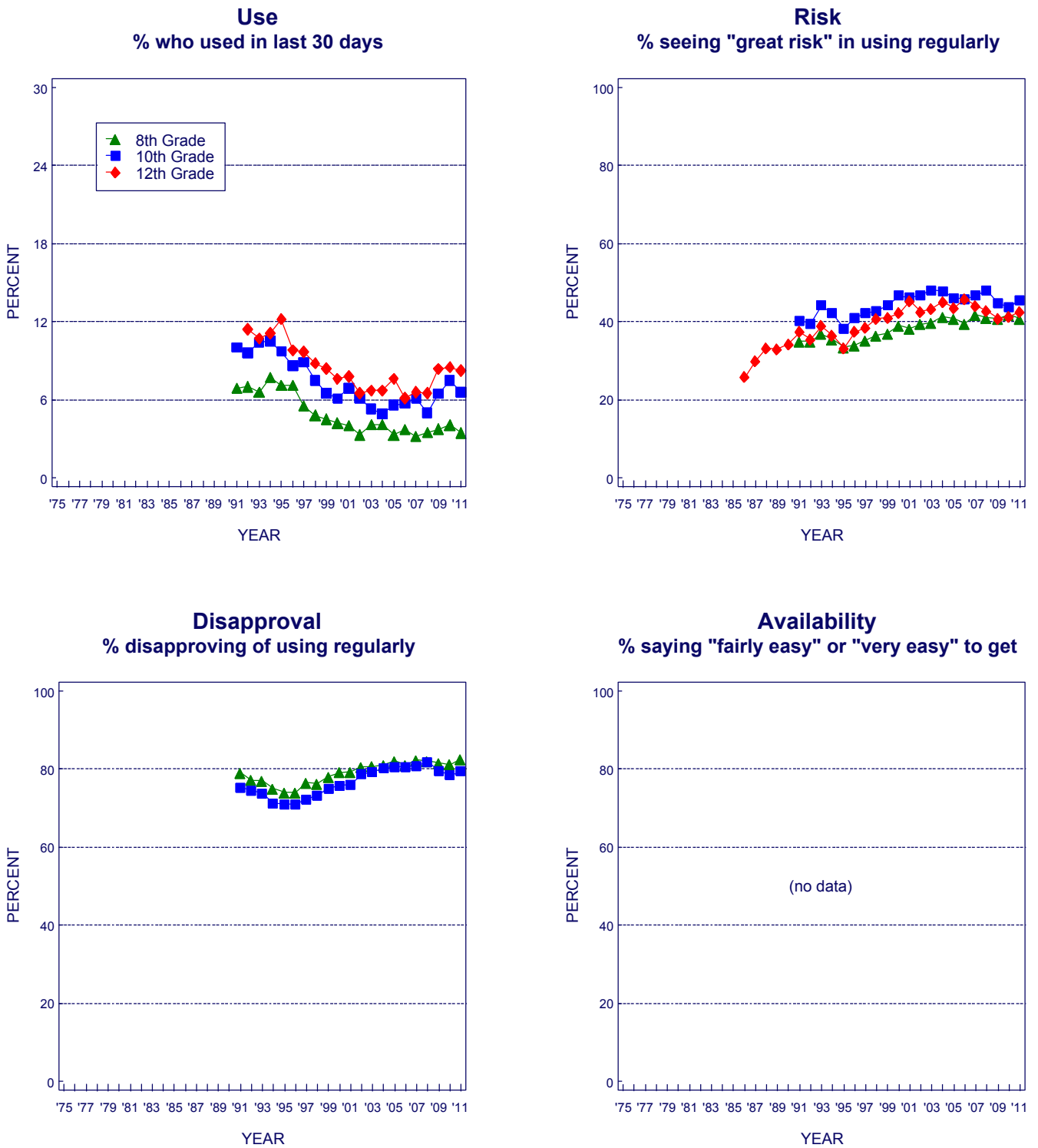
The content presented here is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse, or the National Institutes of Health.

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 in Grades 8, 10, and 12

(Entries are percentages.)

	<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>
Lifetime																		
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	44.0	45.2
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55.1	53.5
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
30-Day																		
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.3	15.5
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.8	21.5
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
Daily																		
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.2	7.0
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.6	12.3
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
1/2 Pack+ per Day																		
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.1	2.9
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.5	6.0
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
Approximate Ns																		
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,500	18,600
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14,800	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	15,800



(Table continued on next page.)

TABLE 1 (cont.)
Trends in Prevalence of Use of Cigarettes in Grades 8, 10, and 12
 (Entries are percentages.)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010– 2011 change
Lifetime																				
8th Grade	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	20.5	20.1	20.0	18.4	-1.7
10th Grade	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	31.7	32.7	33.0	30.4	-2.6 s
12th Grade	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	44.7	43.6	42.2	40.0	-2.3 s
30-Day																				
8th Grade	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	6.8	6.5	7.1	6.1	-1.0
10th Grade	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	12.3	13.1	13.6	11.8	-1.8 s
12th Grade	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	20.4	20.1	19.2	18.7	-0.5
Daily																				
8th Grade	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	3.1	2.7	2.9	2.4	-0.5
10th Grade	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	5.9	6.3	6.6	5.5	-1.0
12th Grade	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	11.4	11.2	10.7	10.3	-0.5
1/2 Pack+ per Day																				
8th Grade	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	1.2	1.0	0.9	0.7	-0.2
10th Grade	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	2.0	2.4	2.4	1.9	-0.6 s
12th Grade	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	5.4	5.0	4.7	4.3	-0.4
Approximate Ns																				
8th Grade	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	15,700	15,000	15,300	16,000	
10th Grade	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	15,100	15,900	15,200	14,900	
12th Grade	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	14,000	13,700	14,400	14,100	

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

Notes. Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding.

TABLE 2
Trends in Availability and Attitudes about Smoking 1 or More Packs
of Cigarettes per Day for Grades 8, 10, and 12

(Entries are percentages.)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Perceived Risk ^a																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51.6	50.8	52.7
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60.3	59.3	60.7
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	69.2	69.5
Disapproval ^b																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	82.8	82.3	80.6
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.4	77.8	76.5
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	73.5	70.6
Availability ^c																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.8	75.5
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	89.1	89.4
Approximate Ns																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,500	18,600	18,300
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14,800	14,800	15,300
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	2,700	2,800



6

(Table continued on next page.)

TABLE 2 (cont.)
Trends in Availability and Attitudes about Smoking 1 or More Packs
of Cigarettes per Day for Grades 8, 10, and 12

(Entries are percentages.)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010– 2011 change
Perceived Risk^a																			
8th Grade	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	59.8	59.1	60.9	62.5	+1.6
10th Grade	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	69.1	67.3	67.2	69.8	+2.6 s
12th Grade	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	74.0	74.9	75.0	77.7	+2.7
Disapproval^b																			
8th Grade	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	86.7	87.1	87.0	88.0	+1.0
10th Grade	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	85.2	84.5	83.9	85.8	+1.8 s
12th Grade	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	80.5	81.8	81.0	83.0	+2.0
Availability^c																			
8th Grade	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	57.4	55.3	55.5	51.9	-3.6 sss
10th Grade	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	76.5	76.1	75.6	73.6	-2.0 ss
Approximate Ns																			
8th Grade	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	15,700	15,000	15,300	16,000	
10th Grade	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	15,100	15,900	15,200	14,900	
12th Grade	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	2,300	2,300	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 = .05, ss = .01, sss = .001. '—' indicates data not available.

Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding.

^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 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.

^bThe 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.

^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, 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 toward Cigarette Use for Grades 8, 10, and 12

	Percentage who report "mostly agree" or "agree"																				
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
I would 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	82.6	81.3	81.5	81.7
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	80.0	79.9	78.9	80.1
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	75.2	74.9	73.3	74.7
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	75.0	73.6	72.4	72.9
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	72.0	72.1	71.7	71.4
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	73.5	73.4	73.1	72.4
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	64.5	63.9	62.5	61.6
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	60.6	59.6	59.1	57.4
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	58.1	57.7	54.4	55.5
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	57.9	55.9	55.2	56.9
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	53.5	52.9	52.2	53.9
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	47.9	48.7	49.1	49.5
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	25.6	25.8	27.1	25.1
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	29.2	30.4	30.3	28.6
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	31.5	31.6	32.4	31.4
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	20.9	21.2	22.3	20.5
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	18.5	18.6	17.8	18.1
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	14.5	15.0	12.8	13.8
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	5.2	5.6	6.7	5.6
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	5.0	5.2	5.7	5.3
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	4.2	3.9	8.1	7.7

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* in Grades 8, 10, and 12

(Entries are percentages.)

	<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>
Lifetime																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	20.7	18.7
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.2	26.6	28.1
12th Grade	—	—	—	—	—	—	—	—	—	—	—	31.4	32.2	30.4	29.2	—	—	32.4	31.0
30-Day																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.9	7.0	6.6
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.0	9.6	10.4
12th Grade	—	—	—	—	—	—	—	—	—	—	—	11.5	11.3	10.3	8.4	—	—	11.4	10.7
Daily																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.6	1.8	1.5
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.3	3.0	3.3
12th Grade	—	—	—	—	—	—	—	—	—	—	—	4.7	5.1	4.3	3.3	—	—	4.3	3.3
Approximate Ns																			
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,500	18,600	18,300
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14,800	14,800	15,300
12th Grade	—	—	—	—	—	—	—	—	—	—	—	15,200	16,300	16,300	16,700	—	15,000	15,800	16,300



(Table continued on next page.)

TABLE 4 (cont.)
Trends in Prevalence of Use of Smokeless Tobacco in Grades 8, 10, and 12
 (Entries are percentages.)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010– 2011 change
Lifetime																			
8th Grade	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	9.8	9.6	9.9	9.7	-0.2
10th Grade	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	12.2	15.2	16.8	15.6	-1.2
12th Grade	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	15.6	16.3	17.6	16.9	-0.8
30-Day																			
8th Grade	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	3.5	3.7	4.1	3.5	-0.6
10th Grade	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	5.0	6.5	7.5	6.6	-0.9
12th Grade	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	6.5	8.4	8.5	8.3	-0.3
Daily																			
8th Grade	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	0.8	0.8	0.9	0.8	-0.1
10th Grade	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	1.4	1.9	2.5	1.7	-0.8
12th Grade	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	2.7	2.9	3.1	3.1	0.0
Approximate Ns																			
8th Grade	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	15,700	15,000	15,300	16,000	
10th Grade	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	15,100	15,900	15,200	14,900	
12th Grade	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	14,000	13,700	14,400	14,100	

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

Notes. Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. 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. For all grades: In 2011 “snus” and “dissolvable tobacco” were added to the list of examples. An examination of the data did not show any effect from the wording change.

TABLE 5
Trends in Attitudes about Regular Smokeless Tobacco Use for Grades 8, 10, and 12

(Entries are percentages.)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Perceived Risk ^a																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.1	35.1	36.9	
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.3	39.6	44.2	
12th Grade	—	—	—	—	—	—	—	—	—	—	—	25.8	30.0	33.2	32.9	34.2	37.4	35.5	38.9	
Disapproval ^b																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79.1	77.2	77.1	
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.4	74.6	73.8	
Approximate Ns																				
8th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,500	18,600	18,300	
10th Grade	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14,800	14,800	15,300	
12th Grade	—	—	—	—	—	—	—	—	—	—	—	3,000	3,300	3,300	2,800	2,600	2,600	2,700	2,800	



(Table continued on next page.)

TABLE 5 (cont.)
Trends in Attitudes about Regular Smokeless Tobacco Use for Grades 8, 10, and 12

(Entries are percentages.)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010– 2011 change
Perceived Risk ^a																			
8th Grade	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	41.0	40.8	41.8	40.8	-1.0
10th Grade	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	48.0	44.7	43.7	45.7	+1.9
12th Grade	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	42.9	40.8	41.2	42.6	+1.4
Disapproval ^b																			
8th Grade	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	82.1	81.5	81.2	82.6	+1.4
10th Grade	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	81.8	79.5	78.5	79.5	+1.0
Approximate Ns																			
8th Grade	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	15,700	15,000	15,300	16,000	
10th Grade	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	15,100	15,900	15,200	14,900	
12th Grade	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	2,300	2,300	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 = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding.

^aThe 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.

^bThe 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 30-Day Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 30 days																				2010– 2011 change	
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011
Approximate weighted 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	15,700	15,000	15,300	16,000	
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	6.8	6.5	7.1	6.1	-1.0
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	6.7	6.7	7.4	6.2	-1.2
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	6.7	6.0	6.8	5.7	-1.1
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	21.1	19.5	22.8	18.2	-4.6
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	5.5	5.3	5.7	5.1	-0.6
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	5.9	5.6	6.0	4.4	-1.6
Midwest	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	8.1	7.0	8.6	6.4	-2.2
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	7.7	7.7	8.5	6.8	-1.8
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	5.2	4.6	4.0	6.1	+2.1 s
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	5.2	4.2	4.8	4.0	-0.8
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	7.5	6.9	7.6	7.0	-0.7
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	7.9	8.5	9.2	7.7	-1.5
Parental Education ^a																						
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	12.1	10.5	11.4	9.2	-2.2
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	8.7	8.8	10.2	9.8	-0.5
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	7.3	7.1	8.0	6.3	-1.6
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	4.7	4.4	4.9	3.9	-1.0
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	4.1	3.5	2.9	3.1	+0.2
Race/Ethnicity (2-year average) ^b																						
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	7.2	7.3	7.6	7.2	-0.4
African American	—	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	4.6	4.4	4.3	4.1	-0.2
Hispanic	—	16.7	18.3	21.3	21.6	19.6	19.1	20.1	20.5	16.6	13.0	12.8	11.9	10.1	9.0	8.8	8.0	7.0	6.5	6.7	6.9	+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 = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table D-S1 for the number of subgroup cases. See appendix B for definition of variables in table.

^aParental education is an average score of mother's education and father's education. See appendix B for details.

^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. See appendix B for details on how race/ethnicity is defined.

TABLE 7
Cigarettes: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 30 days																					2010– 2011 change
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Approximate weighted 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	15,100	15,900	15,200	14,900	
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	12.3	13.1	13.6	11.8	-1.8 s
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	12.7	13.7	15.0	13.4	-1.7
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	11.9	12.5	12.1	10.0	-2.0 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	30.1	29.0	32.5	28.5	-4.0
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	10.0	11.3	11.3	9.9	-1.4 s
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	10.1	11.1	12.1	12.2	+0.1
Midwest	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	14.5	12.9	14.5	11.8	-2.7
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	14.0	16.7	15.4	13.8	-1.6
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	9.6	10.1	11.1	8.5	-2.7
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	10.3	11.4	11.1	9.5	-1.5
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	12.3	13.0	13.5	11.5	-2.0
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	15.4	16.1	17.5	15.7	-1.8
Parental Education: ^a																						
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	15.7	18.2	18.8	14.6	-4.3 s
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	15.8	16.5	18.6	16.2	-2.4
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	13.9	13.8	15.1	12.7	-2.3 s
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	9.6	10.9	10.0	8.6	-1.4
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	7.8	8.9	7.7	8.0	+0.2
Race/Ethnicity (2-year average): ^b																						
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	15.1	14.4	14.7	14.3	-0.5
African American	—	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	6.5	6.8	6.7	7.1	+0.4
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	11.1	12.1	12.2	10.5	-1.7

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

Notes: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table D-S2 for the number of subgroup cases. See appendix B for definition of variables in table.

^aParental education is an average score of mother's education and father's education. See appendix B for details.

^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. See appendix B for details on how race/ethnicity is defined.

TABLE 8
Cigarettes: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 30 days																	
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Weighted 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	15,800
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	27.8
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	29.2
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	26.1
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	38.6
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	23.8
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	29.6
Midwest	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	31.7
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	26.4
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	22.8
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	25.6
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	26.9
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	31.5
Parental Education: ^a																		
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	27.1
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	30.3
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	27.8
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	25.8
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	25.5
Race/Ethnicity (2-year average): ^b																		
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	32.2	32.3	32.2	31.8
African American	—	—	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	12.2	10.6	8.7
Hispanic	—	—	35.7	32.8	26.8	22.6	23.2	24.7	24.7	25.3	25.5	23.7	22.7	21.9	20.6	21.7	24.0	25.0



(Table continued on next page.)

TABLE 8 (cont.)
Cigarettes: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 30 days																			2010– 2011 change
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Approximate weighted N =	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	14,000	13,700	14,400	14,100	
Total	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	20.4	20.1	19.2	18.7	-0.5
Gender:																				
Male	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	21.5	22.1	21.9	21.5	-0.4
Female	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	19.1	17.6	15.7	15.1	-0.6
College Plans:																				
None or under 4 years	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	32.4	31.2	31.2	32.2	+1.0
Complete 4 years	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	17.6	17.3	16.3	15.6	-0.6
Region:																				
Northeast	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	19.7	18.9	18.2	17.8	-0.3
Midwest	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	22.1	25.7	21.5	21.8	+0.2
South	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	22.4	20.0	20.5	18.4	-2.1
West	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	15.8	14.7	15.3	16.4	+1.1
Population Density:																				
Large MSA	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	18.8	17.7	18.7	17.2	-1.6
Other MSA	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	19.5	19.1	17.9	18.1	+0.2
Non-MSA	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	24.3	25.5	23.1	22.3	-0.9
Parental Education: ^a																				
1.0–2.0 (Low)	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	18.5	19.9	17.0	18.2	+1.2
2.5–3.0	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	22.4	23.2	21.6	22.4	+0.8
3.5–4.0	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	21.3	21.0	20.9	19.6	-1.3
4.5–5.0	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	18.6	18.0	17.5	15.9	-1.6
5.5–6.0 (High)	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	19.2	15.3	12.8	14.3	+1.5
Race/Ethnicity (2-year average): ^b																				
White	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	24.7	23.9	22.9	22.2	-0.7
African American	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	10.3	9.8	10.1	9.7	-0.4
Hispanic	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	15.0	15.7	15.0	14.3	-0.8

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

Notes. Level of significance of difference between the two most recent classes: $s = .05$, $ss = .01$, $sss = .001$. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table D-S3 for the number of subgroup cases. See appendix B for definition of variables in table.

^aParental education is an average score of mother's education and father's education. See appendix B for details.

^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. See appendix B for details on how race/ethnicity is defined.

TABLE 9
Smokeless Tobacco: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 30 days																				2010– 2011 change	
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011
Approximate weighted 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	15,700	15,000	15,300	16,000	
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	3.5	3.7	4.1	3.5	-0.6
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	5.5	6.3	6.3	4.9	-1.4
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	1.5	1.4	1.9	1.9	0.0
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	12.7	11.1	14.0	11.1	-2.9
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	2.7	3.1	3.2	2.8	-0.4
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	2.5	3.2	3.9	2.9	-0.9
Midwest	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	3.4	3.0	4.8	3.3	-1.5
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	5.2	5.6	5.0	4.3	-0.7
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	1.8	1.8	1.9	2.6	+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	2.8	2.5	2.3	1.8	-0.4
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	3.1	3.6	4.7	3.7	-1.0
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	5.4	5.8	5.0	5.4	+0.4
Parental Education: ^a																						
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	5.4	5.3	5.2	6.6	+1.4
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	5.1	5.5	6.0	4.2	-1.8
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	3.8	4.9	4.1	3.3	-0.8
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	2.4	2.9	3.3	2.7	-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	2.3	1.4	2.5	1.5	-1.0
Race/Ethnicity (2-year average): ^b																						
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	3.9	4.4	4.9	4.6	-0.3
African American	—	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	2.4	2.6	2.2	1.8	-0.5
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	2.4	2.5	2.6	3.2	+0.6

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

Notes. Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table D-S1 for the number of subgroup cases. See appendix B for definition of variables in table. 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 in Table D-S1. In 2011 “snus” and “dissolvable tobacco” were added to the list of examples.

^aParental education is an average score of mother’s education and father’s education. See appendix B for details.

^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. See appendix B for details on how race/ethnicity is defined.

TABLE 10
Smokeless Tobacco: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 30 days																				2010– 2011 change	
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011
Approximate weighted 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	15,100	15,900	15,200	14,900	
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	5.0	6.5	7.5	6.6	-0.9
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	8.2	11.1	13.0	11.5	-1.5
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	2.0	2.0	2.0	1.9	-0.2
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	14.6	17.5	21.8	17.9	-3.9
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	3.8	5.3	5.8	5.2	-0.6
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	3.3	6.6	6.7	5.6	-1.1
Midwest	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	7.2	7.7	9.2	6.4	-2.8
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	6.5	7.7	9.1	7.9	-1.1
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	2.2	3.3	4.0	5.4	+1.5
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	3.4	4.8	5.1	4.6	-0.4
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	4.4	6.3	7.0	6.1	-0.9
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	8.7	9.3	12.1	10.2	-1.9
Parental Education: ^a																						
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	5.0	7.9	6.5	6.4	-0.2
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	6.5	7.4	9.1	8.8	-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	5.4	7.4	8.7	7.2	-1.5
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	4.6	5.4	7.0	5.2	-1.8
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	2.9	5.6	6.0	5.3	-0.7
Race/Ethnicity (2-year average): ^b																						
White	—	11.4	12.0	12.5	12.0	11.0	10.4	10.0	8.7	7.5	7.5	7.8	6.9	6.1	6.6	6.9	7.3	7.3	7.5	9.1	9.1	0.0
African American	—	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	2.8	2.6	2.3	2.2	-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	2.6	2.9	2.8	3.4	+0.6

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

Notes. Level of significance of difference between the two most recent classes: $s = .05$, $ss = .01$, $sss = .001$. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table D-S2 for the number of subgroup cases. See appendix B for definition of variables in table. 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 in Table D-S2. In 2011 “snus” and “dissolvable tobacco” were added to the list of examples.

^aParental education is an average score of mother’s education and father’s education. See appendix B for details.

^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. See appendix B for details on how race/ethnicity is defined.

TABLE 11
Smokeless Tobacco: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 30 days																	
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 ^a	1991 ^a	1992
<i>Approximate weighted N =</i>	—	—	—	—	—	—	—	—	—	—	—	15,200	16,300	16,300	16,700	—	—	15,800
Total	—	—	—	—	—	—	—	—	—	—	—	11.5	11.3	10.3	8.4	—	—	11.4
Gender:																		
Male	—	—	—	—	—	—	—	—	—	—	—	22.3	22.8	19.9	15.9	—	—	20.8
Female	—	—	—	—	—	—	—	—	—	—	—	1.6	0.7	1.7	1.2	—	—	2.0
College Plans:																		
None or under 4 years	—	—	—	—	—	—	—	—	—	—	—	14.5	15.5	13.1	9.6	—	—	18.0
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	9.8	9.0	8.8	7.7	—	—	9.4
Region:																		
Northeast	—	—	—	—	—	—	—	—	—	—	—	9.5	7.3	5.9	5.0	—	—	8.2
Midwest	—	—	—	—	—	—	—	—	—	—	—	13.5	11.3	10.8	8.3	—	—	12.3
South	—	—	—	—	—	—	—	—	—	—	—	12.2	13.7	12.1	9.8	—	—	12.5
West	—	—	—	—	—	—	—	—	—	—	—	9.3	11.7	10.9	9.1	—	—	11.1
Population Density:																		
Large MSA	—	—	—	—	—	—	—	—	—	—	—	9.0	6.4	7.7	6.8	—	—	5.9
Other MSA	—	—	—	—	—	—	—	—	—	—	—	8.9	10.5	8.5	7.6	—	—	11.1
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	17.1	17.5	16.1	11.7	—	—	16.9
Parental Education: ^b																		
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	8.6	11.7	10.7	5.3	—	—	14.9
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	14.4	11.5	10.7	7.0	—	—	12.4
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	11.5	12.1	10.6	9.0	—	—	12.4
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	10.4	11.7	11.8	10.2	—	—	8.0
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	7.7	8.1	7.2	8.4	—	—	10.6
Race/Ethnicity (2-year average): ^c																		
White	—	—	—	—	—	—	—	—	—	—	—	—	12.9	12.0	10.6	—	—	—
African American	—	—	—	—	—	—	—	—	—	—	—	—	2.1	4.5	4.5	—	—	—
Hispanic	—	—	—	—	—	—	—	—	—	—	—	—	4.4	5.2	5.1	—	—	—



(Table continued on next page.)

TABLE 11 (cont.)
Smokeless Tobacco: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 30 days																			2010– 2011 change
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Approximate weighted N =	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	14,000	13,700	14,400	14,100	
Total	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	6.5	8.4	8.5	8.3	-0.3
Gender:																				
Male	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	11.8	15.8	15.7	14.2	-1.4
Female	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	1.0	1.7	1.7	1.8	+0.1
College Plans:																				
None or under 4 years	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	12.4	14.2	14.4	17.5	+3.1
Complete 4 years	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	5.0	7.3	7.3	6.4	-0.8
Region:																				
Northeast	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	7.5	7.1	7.6	8.2	+0.6
Midwest	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	7.2	14.1	12.2	7.8	-4.3
South	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	6.1	7.1	7.8	8.9	+1.1
West	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	5.6	4.6	6.7	7.7	+1.0
Population Density:																				
Large MSA	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	2.6	4.4	5.9	5.3	-0.6
Other MSA	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	6.2	7.7	7.9	8.4	+0.5
Non-MSA	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	11.8	15.0	13.8	12.4	-1.4
Parental Education: ^b																				
1.0–2.0 (Low)	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	3.4	2.8	6.1	2.2	-3.9
2.5–3.0	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	7.2	10.4	8.2	9.3	+1.1
3.5–4.0	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	6.8	9.4	8.7	8.2	-0.5
4.5–5.0	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	6.5	7.7	9.8	9.9	+0.1
5.5–6.0 (High)	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	6.3	8.7	7.5	6.3	-1.2
Race/Ethnicity (2-year average): ^c																				
White	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	8.6	10.5	12.1	11.8	-0.3
African American	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	2.0	1.5	2.2	1.8	-0.4
Hispanic	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	2.3	2.5	3.7	3.9	+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 = .05, ss = .01, sss = .001. '—' indicates data not available. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table D-S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of six forms;

N is one sixth of N indicated in Table D-S3. In 2011 "snus" and "dissolvable tobacco" were added to the list of examples.

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

^aPrevalence of smokeless tobacco use 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.

^bParental education is an average score of mother's education and father's education. See appendix B for details.

^cTo 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. See appendix B for details on how race/ethnicity is defined.