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Paper 94

DEMOGRAPHIC SUBGROUP TRENDS AMONG ADOLESCENTS IN THE USE OF VARIOUS LICIT AND ILLICIT DRUGS 1975–2019

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INTRODUCTION

This occasional paper presents national demographic subgroup data for the 1975-2019 Monitoring the Future (MTF) national survey results on 8th, 10th, and 12th graders' use of drugs, alcohol, and tobacco. MTF is funded by the National Institute on Drug Abuse at the National Institutes of Health under a series of investigator-initiated, competitive research grants to the University of Michigan. The study covers all major classes of illicit and licit psychoactive drugs for an array of population subgroups. The 2018 subgroup data presented here accompany the *Monitoring the Future National Survey Results on Drug Use: 1975-2019: Overview, Key Findings on Adolescent Drug Use*[1] and the *Monitoring the Future National Survey Results on Drug Use, 1975-2018: Volume I, Secondary School Students.*[2] Prior to 2014 subgroup data were available in tabular form only in Appendices B and D of the relevant year's *Volume I.*[3] Since 2014, the MTF subgroup definitions and data have been presented in this series of occasional papers, in both tables *and* figures to facilitate the examination and interpretation of trend data.

The Overview of Key Findings presents trends in prevalence, perceived risk, disapproval, and perceived availability for most drugs under study and a brief description of subgroup differences. *Volume I* contains a description of MTF's design and purposes, as well as extended reporting on substance use of all kinds—licit and illicit—and a number of related factors, such as attitudes and beliefs about drugs, age of initiation, noncontinuation of drug use, perceived availability, relevant conditions in the social environment, history of daily marijuana use, use of drugs for the treatment of ADHD, and sources of prescription drugs used outside of medical supervision.

The trends offered here in tabular and graphic forms cover demographic subgroups based on:

- Gender
- College plans
- Region of the country
- Population density
- Education level of the parents (a proxy for socioeconomic level)
- Racial/ethnic identification

Detailed descriptions of the demographic categories are provided in the section starting on page 385 of this paper.

The graphs and tables in this occasional paper present trend data for 8th-, 10th-, and 12th-grade respondents separately. Data for 12th grade begins with 1975, the first year in which a nationally representative sample of high school seniors was surveyed. Data for 8th and 10th grades begin with 1991, when the study's nationally representative annual surveys were expanded to include those lower grade levels.

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[1]Johnston, L. D., Miech, R. A.,, O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2020). *Monitoring the Future national survey results on drug use, 1975-2019: Overview, key findings on adolescent drug use*. Ann Arbor: Institute for Social Research, The University of Michigan.

[2]Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). *Monitoring the Future national survey results on drug use, 1975-2018: Volume I, Secondary school students*. Ann Arbor: Institute for Social Research, The University of Michigan.

[3]Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Miech, R. A. (2016 and preceding years). *Monitoring the Future national survey results on drug use, 1975-2015: Volume I, Secondary school students*. Ann Arbor: Institute for Social Research, The University of Michigan.

FIGURE 1
Any Illicit Drug:* Trends in Annual Prevalence by Gender
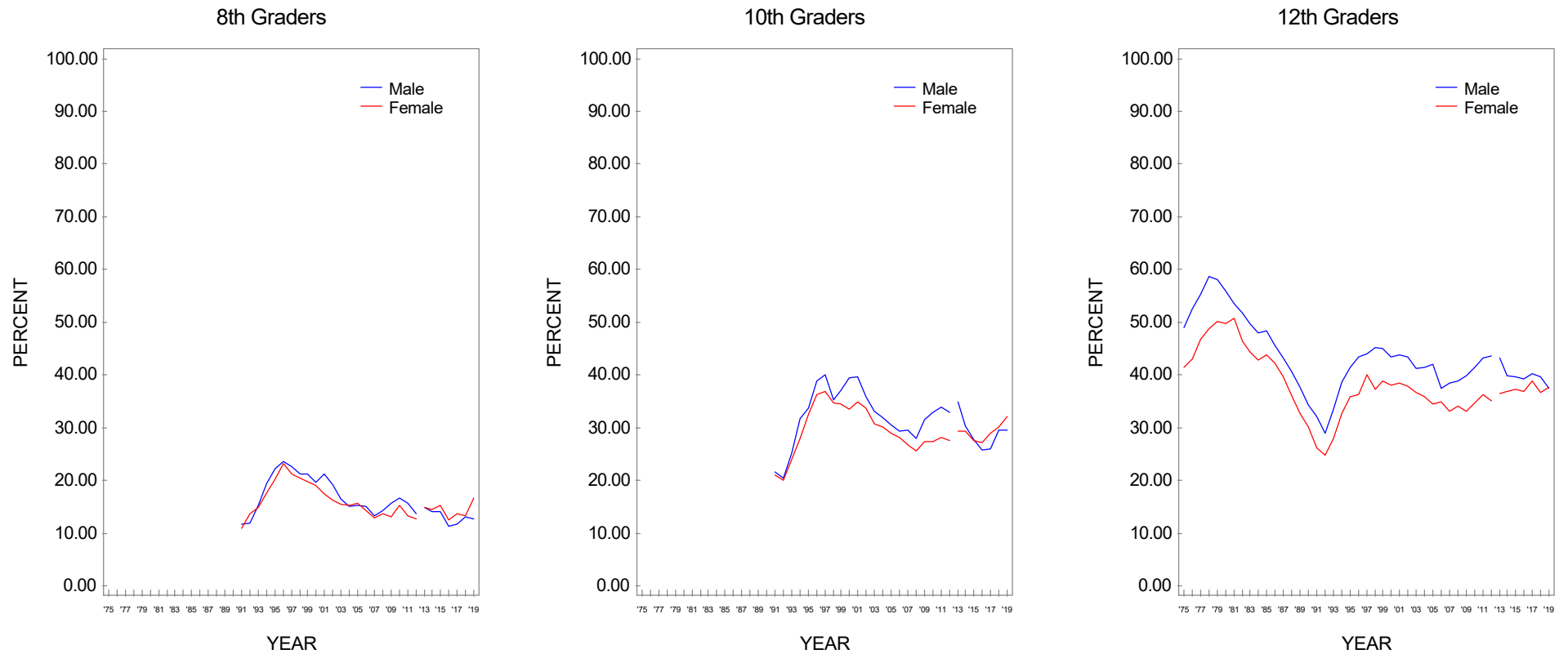
8th Graders

10th Graders

12th Graders

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

*Beginning in 2013, a revised set of questions on amphetamine use were introduced. Data for any illicit drug are affected by these changes.

FIGURE 2
Any Illicit Drug:* Trends in Annual Prevalence by College Plans
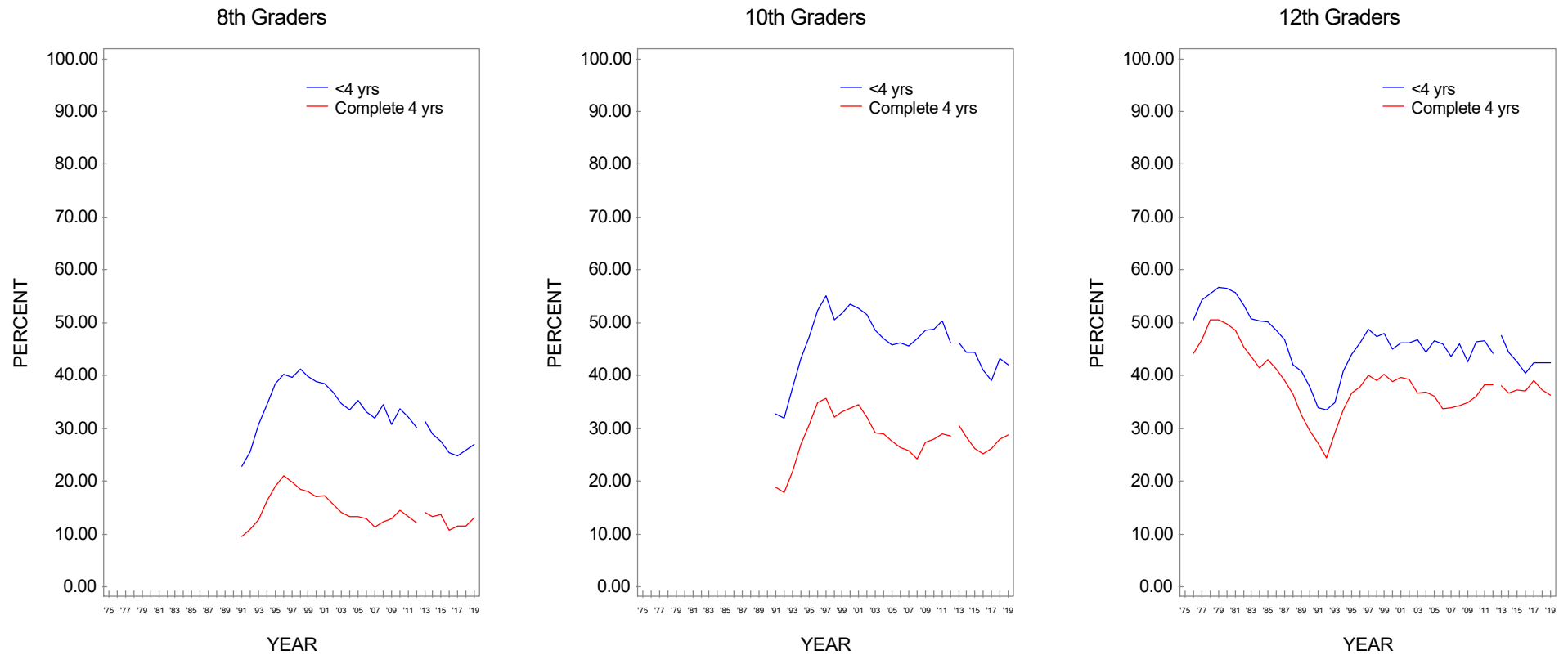
8th Graders — PERCENT vs YEAR, with legend: <4 yrs (blue), Complete 4 yrs (red)

10th Graders — PERCENT vs YEAR, with legend: <4 yrs (blue), Complete 4 yrs (red)

12th Graders — PERCENT vs YEAR, with legend: <4 yrs (blue), Complete 4 yrs (red)

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

*Beginning in 2013, a revised set of questions on amphetamine use were introduced. Data for any illicit drug are affected by these changes.

FIGURE 3
Any Illicit Drug:* Trends in Annual Prevalence by Region

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

*Beginning in 2013, a revised set of questions on amphetamine use were introduced. Data for any illicit drug are affected by these changes.

FIGURE 4
Any Illicit Drug:* Trends in Annual Prevalence by Population Density
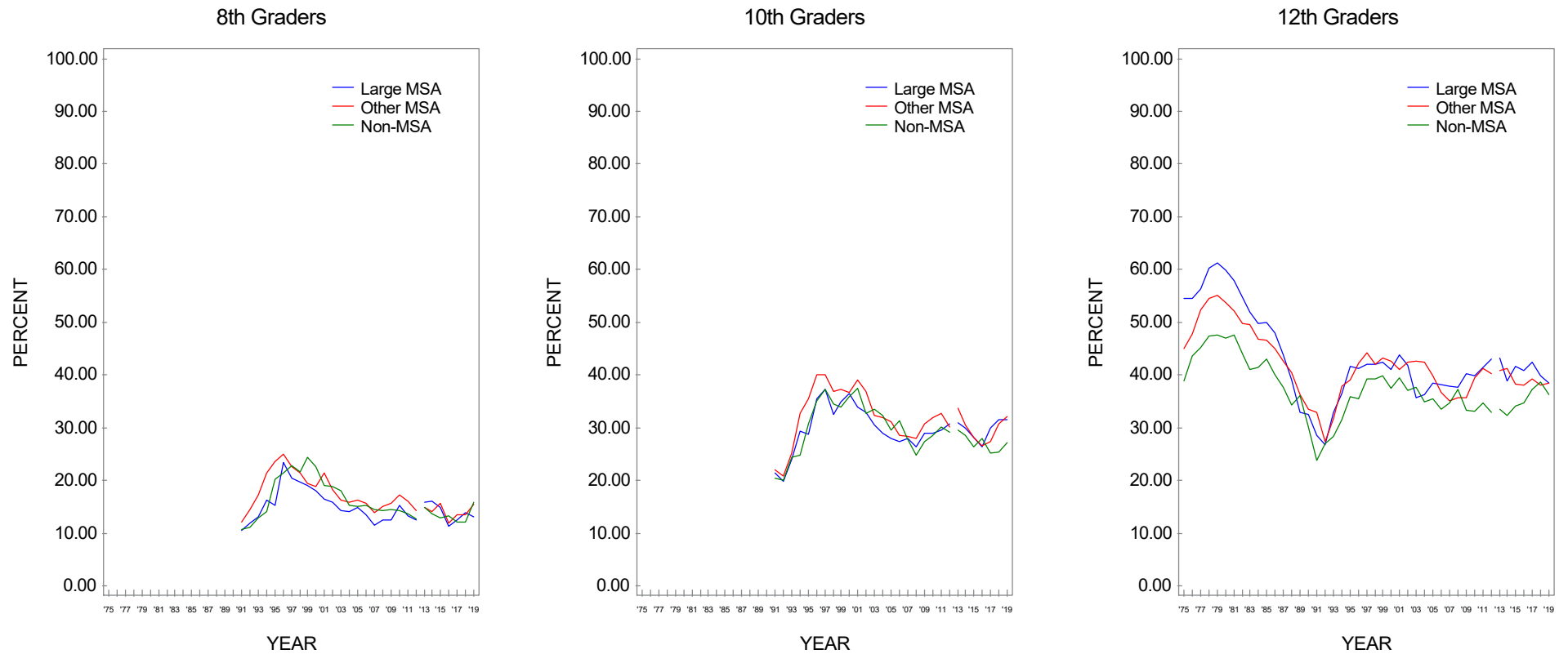
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2013, a revised set of questions on amphetamine use were introduced. Data for any illicit drug are affected by these changes.

FIGURE 5
Any Illicit Drug:* Trends in Annual Prevalence by Average Education Level of Parents**

FIGURE 6
Any Illicit Drug*: Trends in Annual Prevalence by Race/Ethnicity**
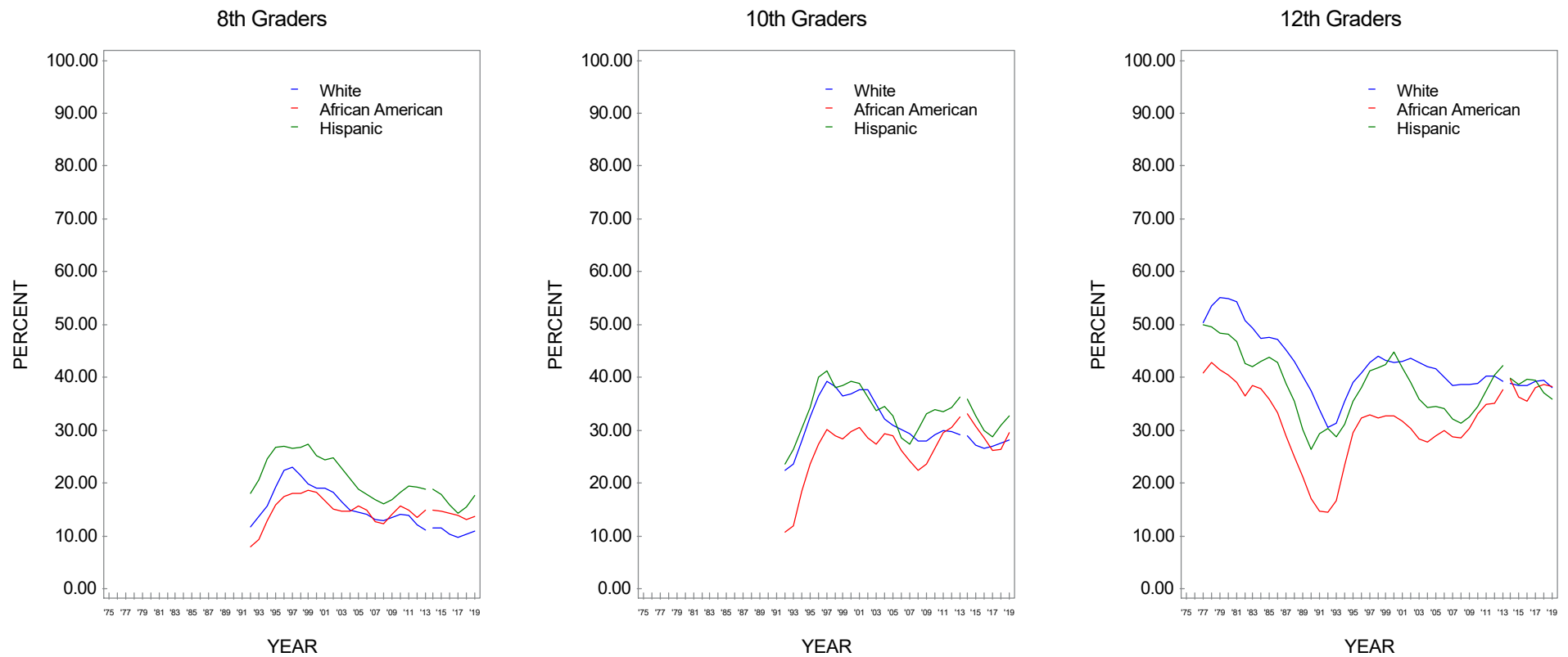
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2013, a revised set of questions on amphetamine use were introduced. Data for any illicit drug are affected by these changes.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 7
Any Illicit Drug other than Marijuana:* Trends in Annual Prevalence by Gender
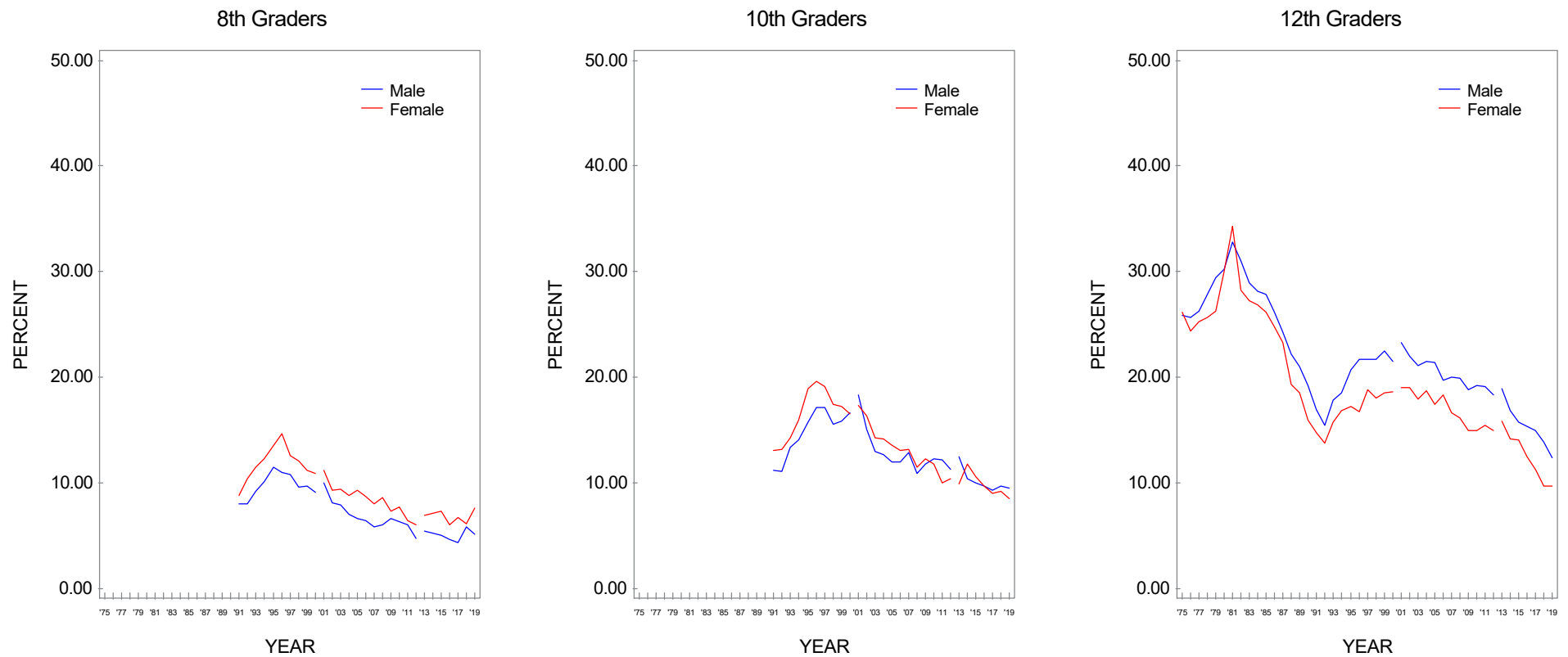
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, revised sets of questions on other hallucinogen and tranquilizer use were introduced. Beginning in 2013, a revised set of questions on amphetamines were introduced. Data for any illicit drug other than marijuana are affected by these changes.

FIGURE 8
Any Illicit Drug other than Marijuana:* Trends in Annual Prevalence by College Plans
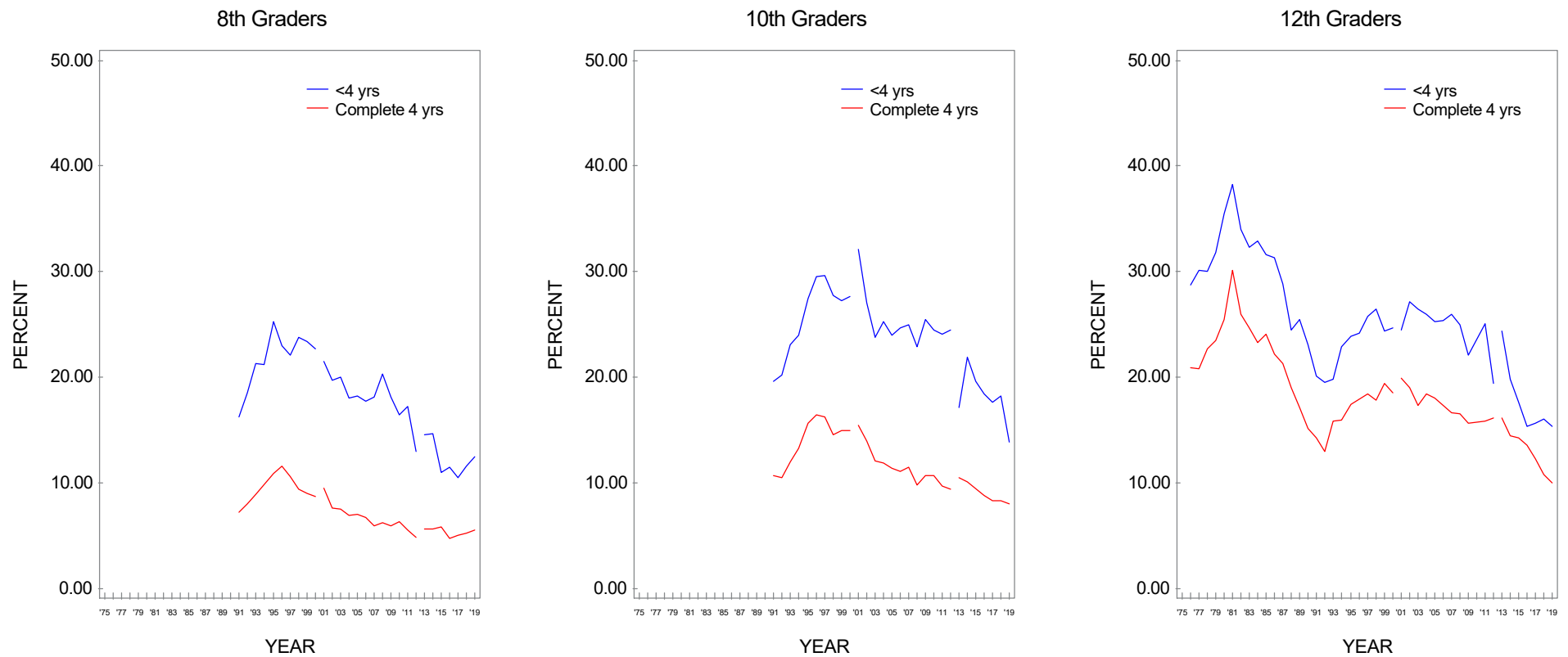
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, revised sets of questions on other hallucinogen and tranquilizer use were introduced. Beginning in 2013, a revised set of questions on amphetamines were introduced. Data for any illicit drug other than marijuana are affected by these changes.

FIGURE 9
Any Illicit Drug other than Marijuana:* Trends in Annual Prevalence by Region
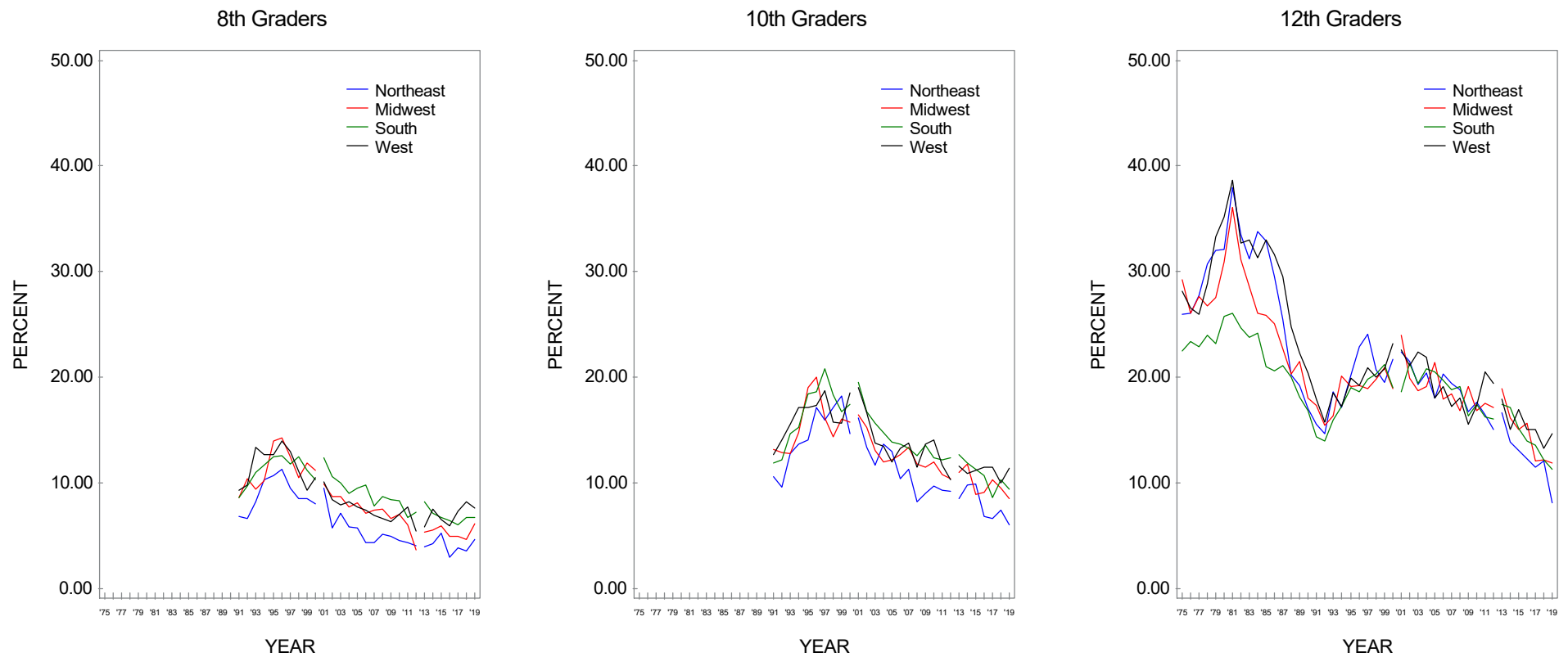
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, revised sets of questions on other hallucinogen and tranquilizer use were introduced. Beginning in 2013, a revised set of questions on amphetamines were introduced. Data for any illicit drug other than marijuana are affected by these changes.

FIGURE 10
Any Illicit Drug other than Marijuana:* Trends in Annual Prevalence by Population Density
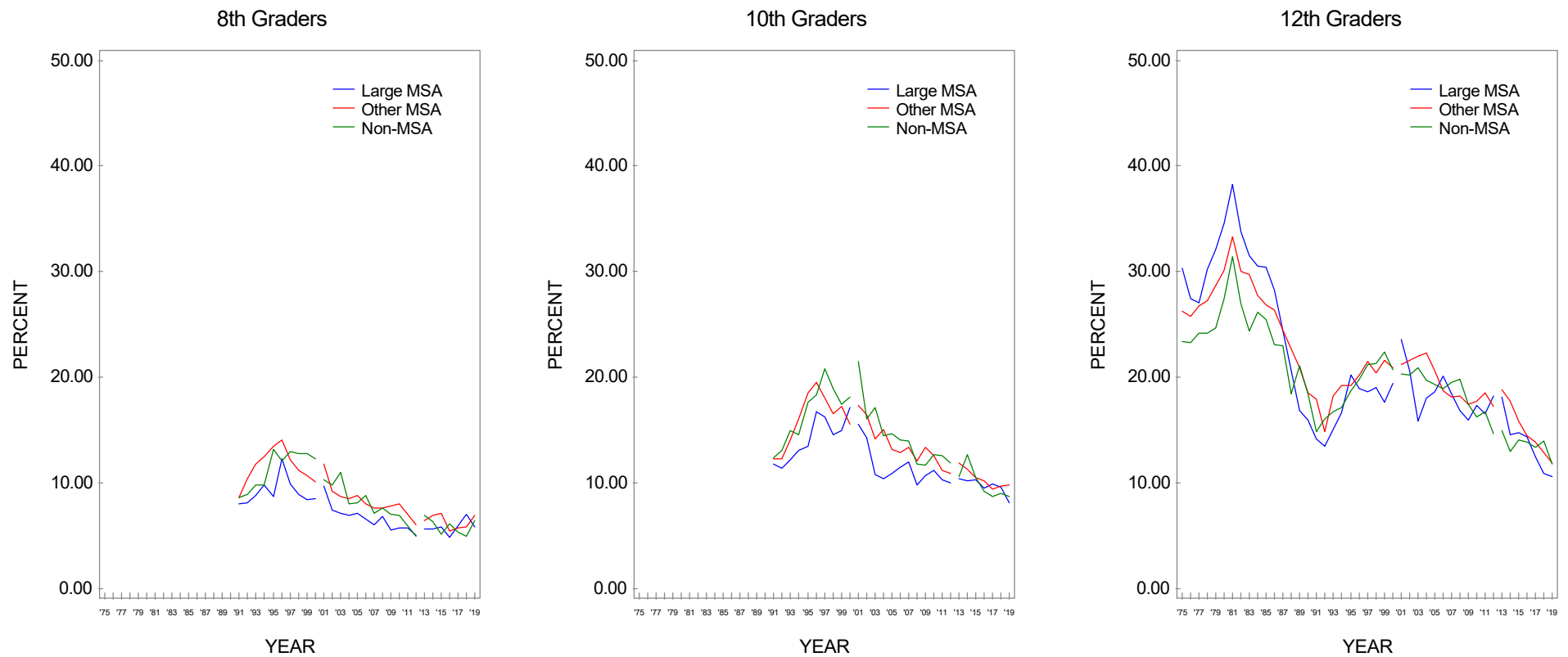
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, revised sets of questions on other hallucinogen and tranquilizer use were introduced. Beginning in 2013, a revised set of questions on amphetamines were introduced. Data for any illicit drug other than marijuana are affected by these changes.

FIGURE 11

Any Illicit Drug other than Marijuana:* Trends in Annual Prevalence by Average Education Level of Parents**

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

*Beginning in 2001, revised sets of questions on other hallucinogen and tranquilizer use were introduced. Beginning in 2013, a revised set of questions on amphetamines were introduced. Data for any illicit drug other than marijuana are affected by these changes.

**Parental education is an average score of mother's education and father's education.

FIGURE 12
Any Illicit Drug other than Marijuana:* Trends in Annual Prevalence by Race/Ethnicity**
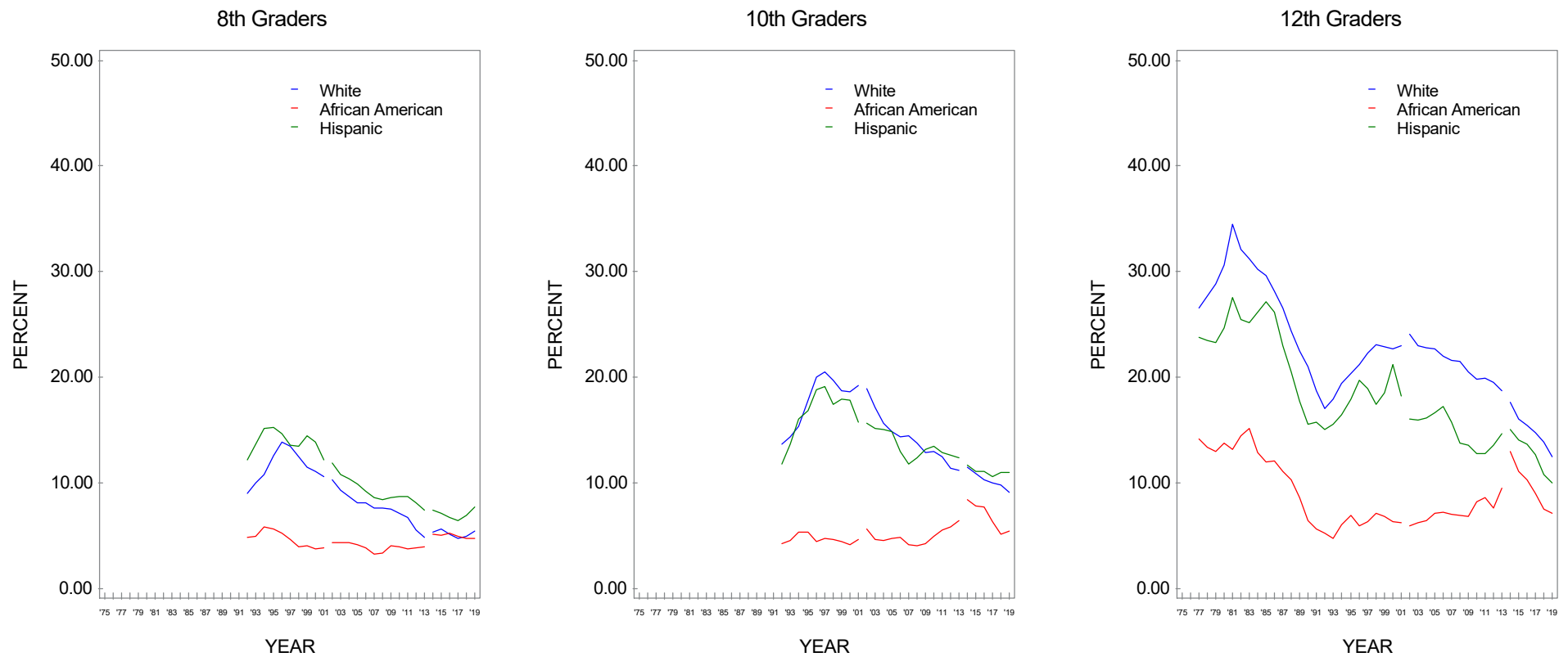
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, revised sets of questions on other hallucinogen and tranquilizer use were introduced. Beginning in 2013, a revised set of questions on amphetamines were introduced. Data for any illicit drug other than marijuana are affected by these changes.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 13
Marijuana: Trends in Lifetime Prevalence by Gender
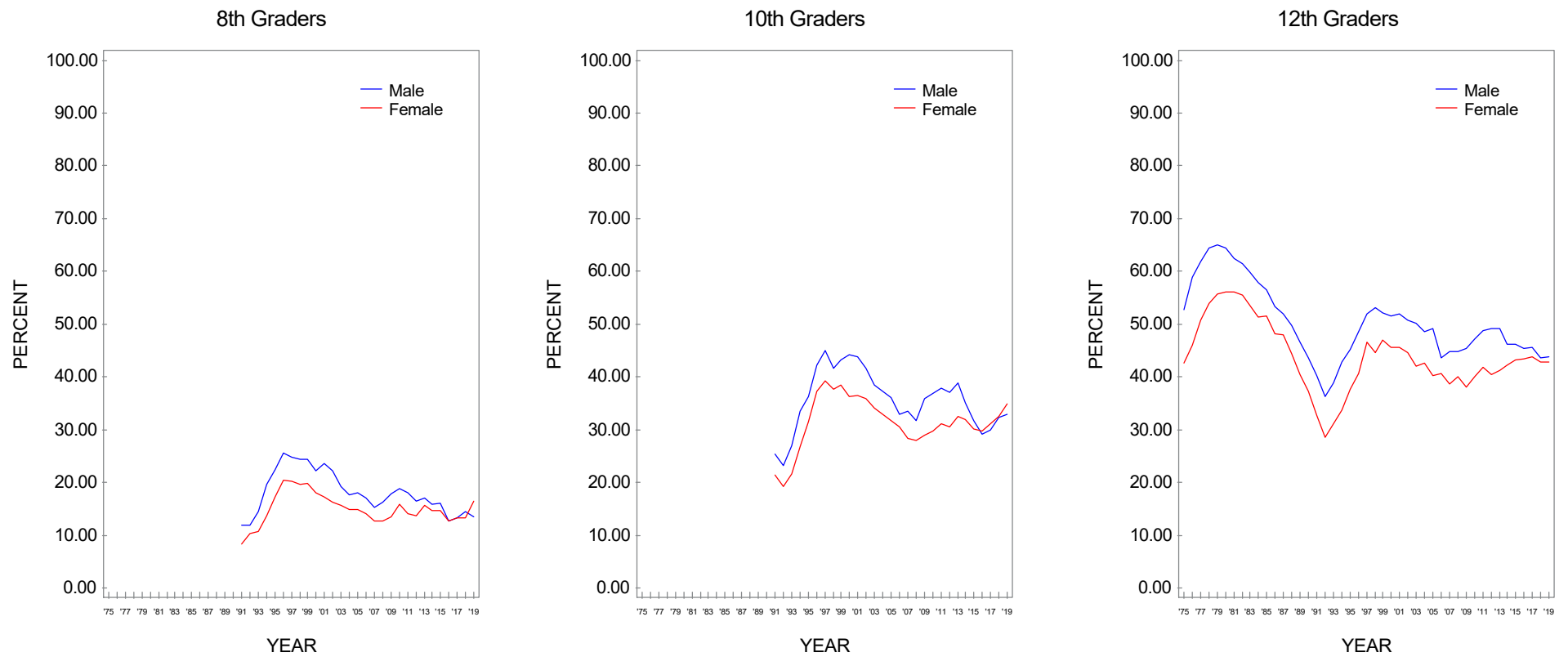
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 14
Marijuana: Trends in Lifetime Prevalence by College Plans
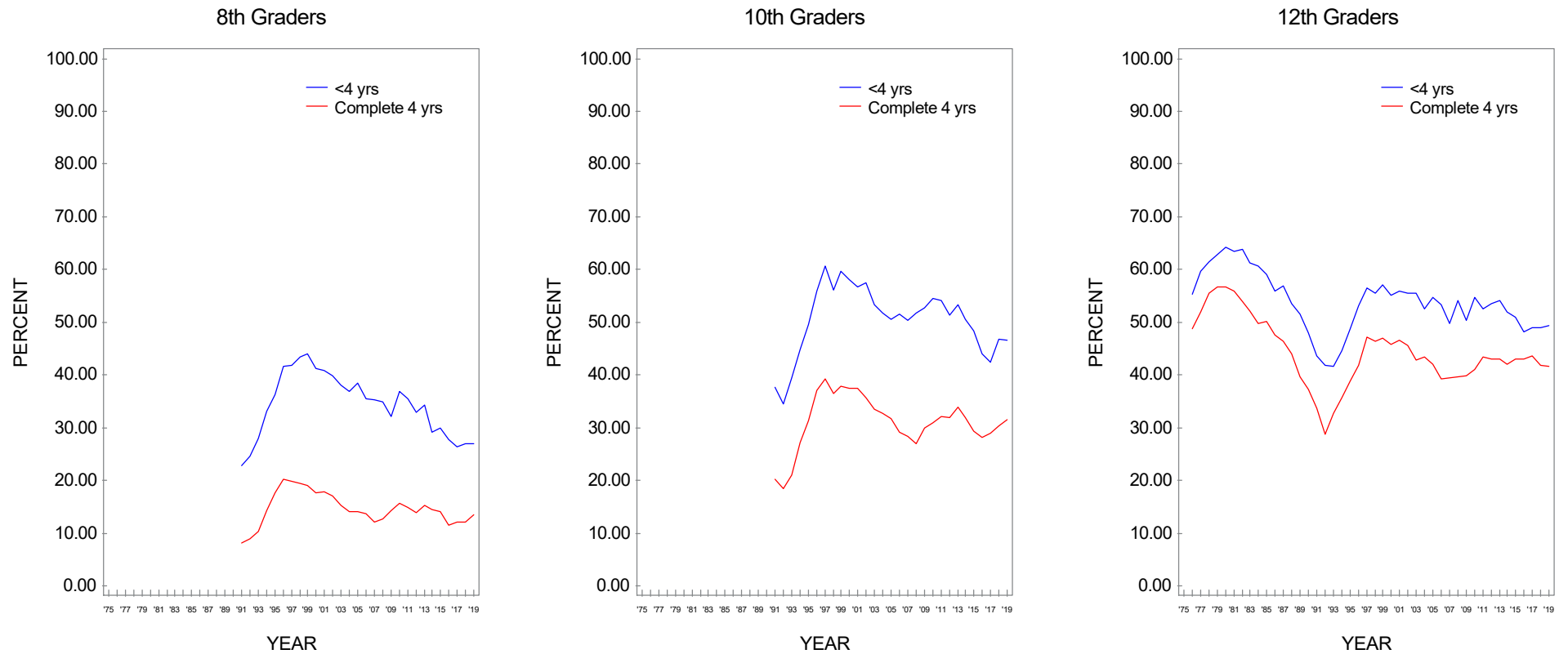
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 15
Marijuana: Trends in Lifetime Prevalence by Region
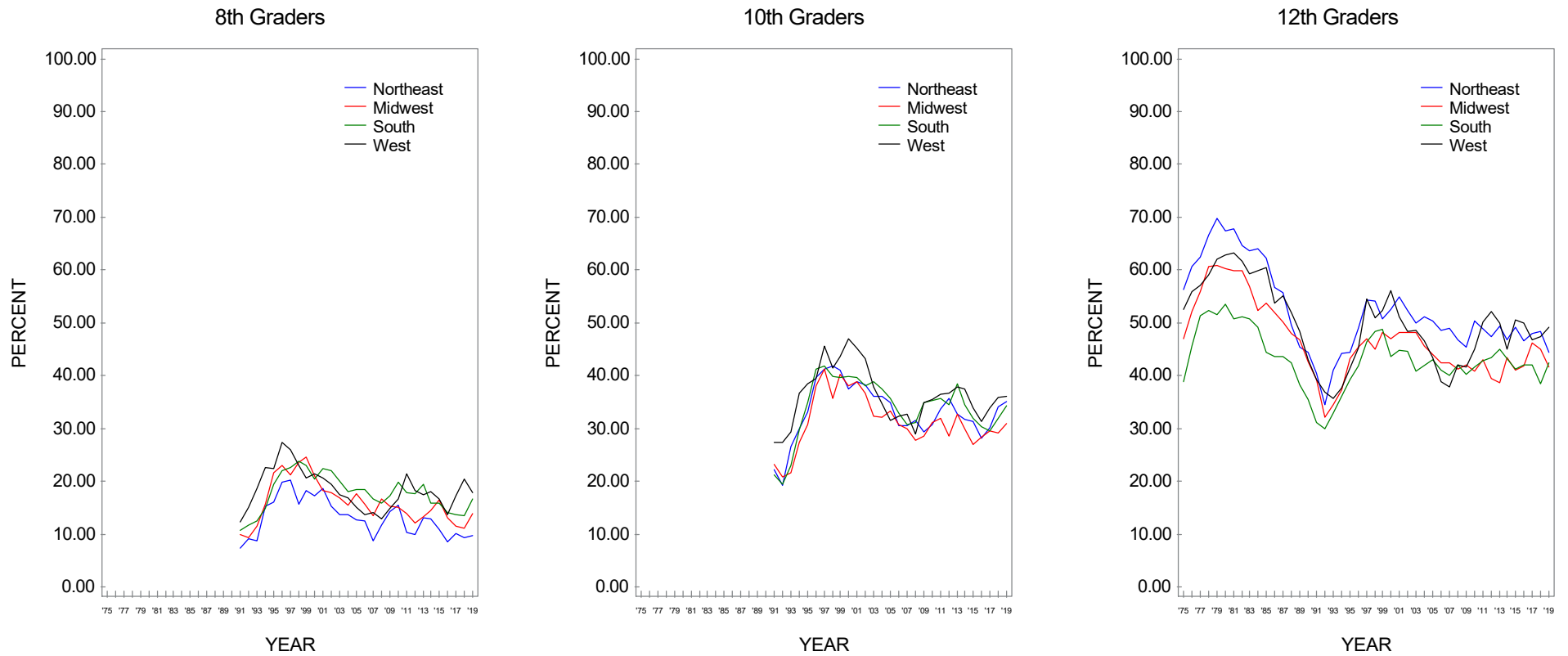
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 16
Marijuana: Trends in Lifetime Prevalence by Population Density
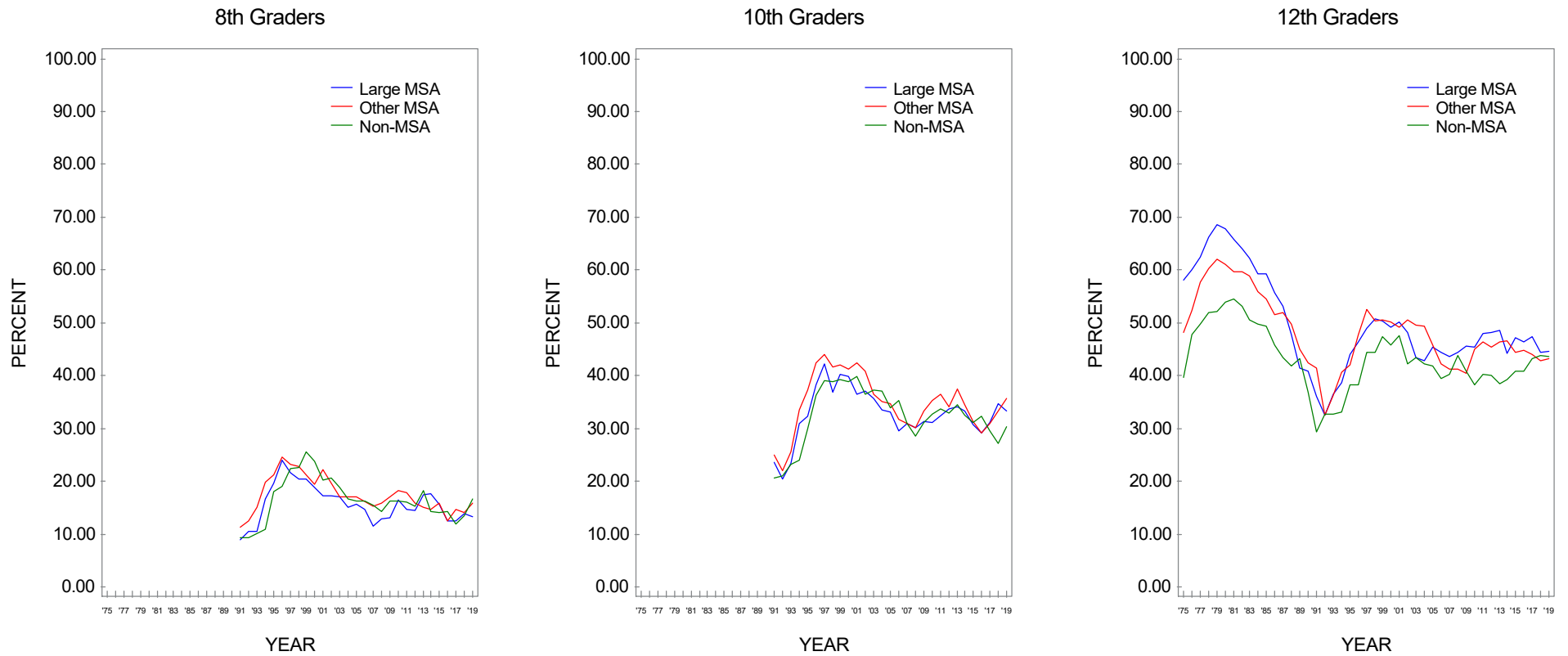
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 17

Marijuana: Trends in Lifetime Prevalence by Average Education Level of Parents*
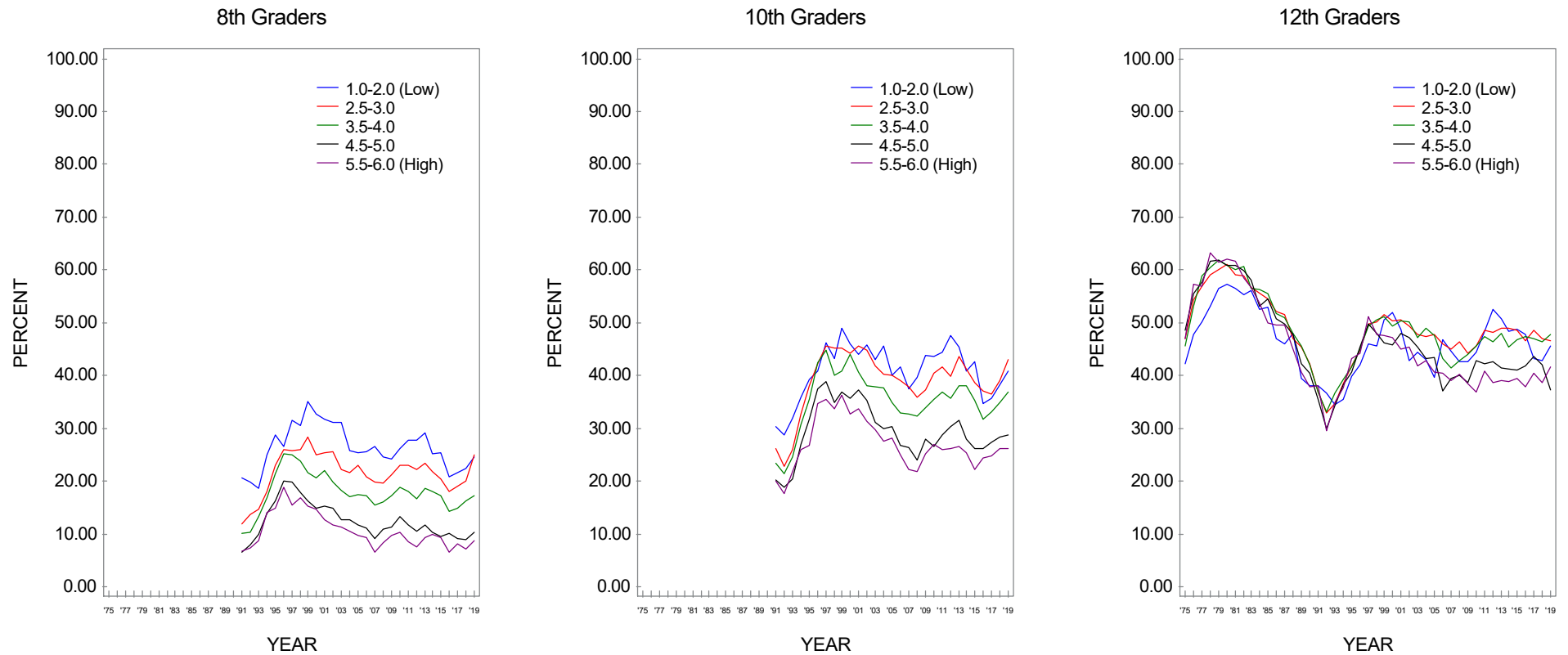
FIGURE 18
Marijuana: Trends in Lifetime Prevalence by Race/Ethnicity*
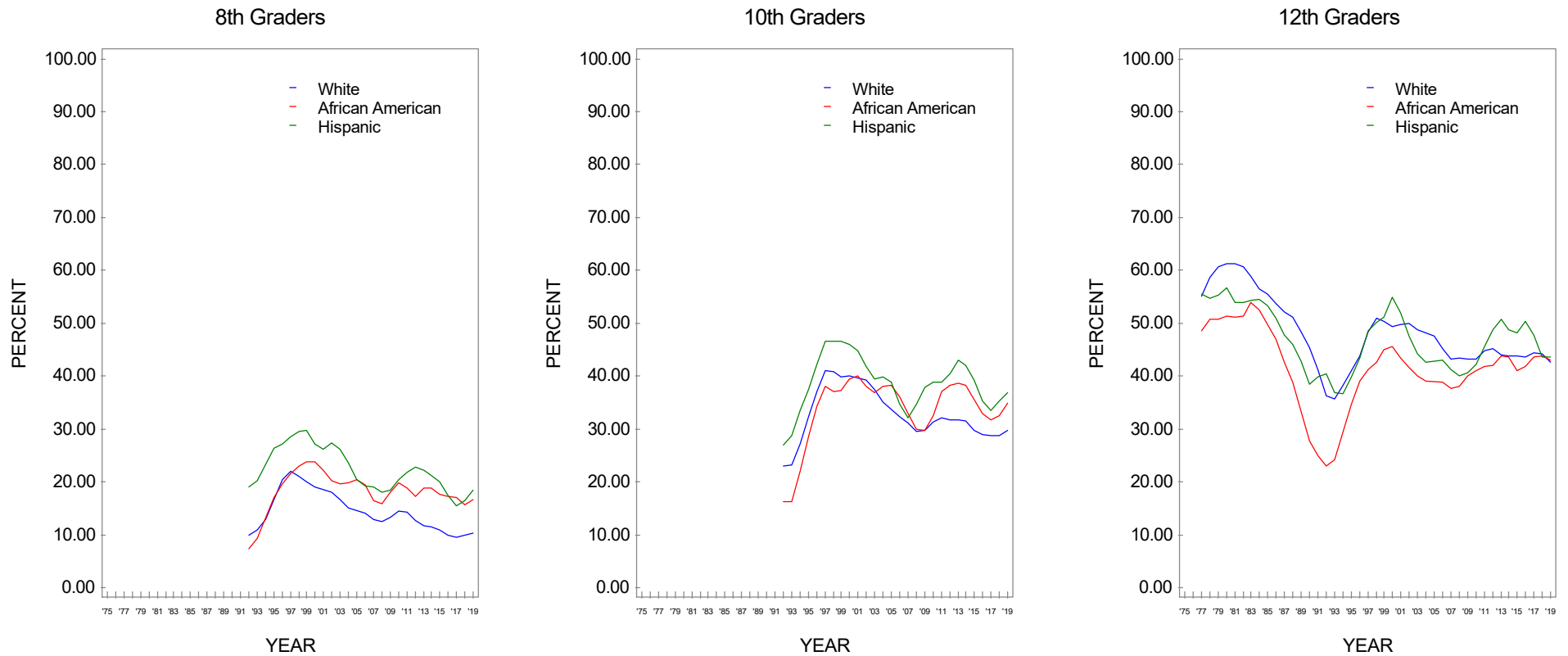
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 19
Marijuana: Trends in Annual Prevalence by Gender
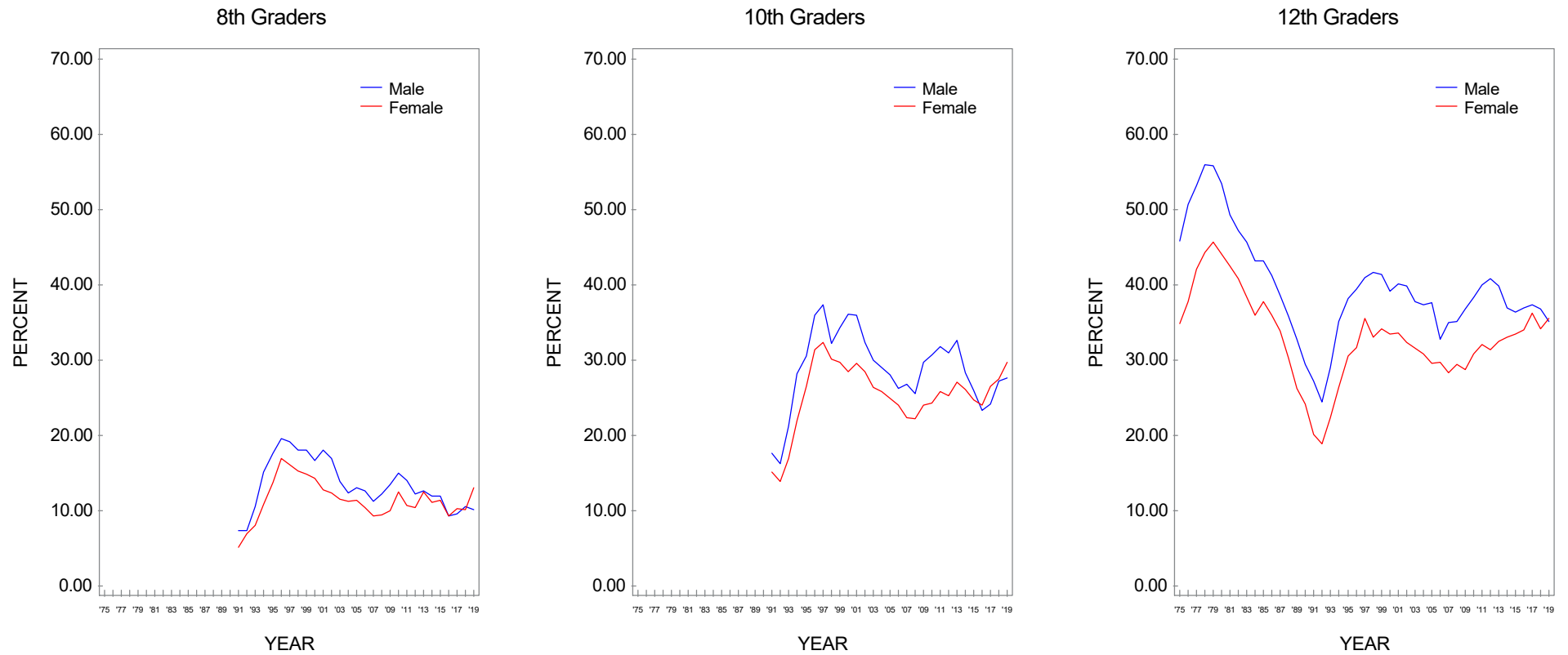
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 20
Marijuana: Trends in Annual Prevalence by College Plans
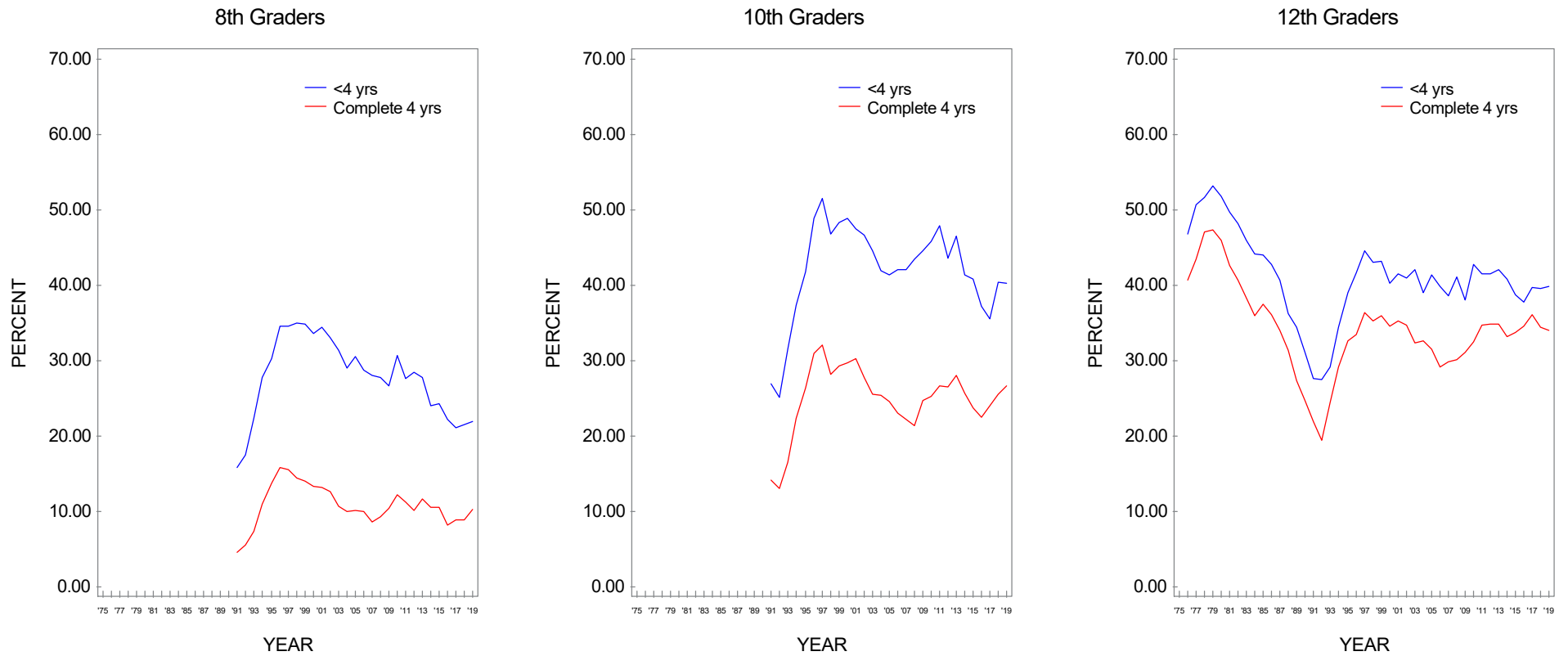
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 21
Marijuana: Trends in Annual Prevalence by Region
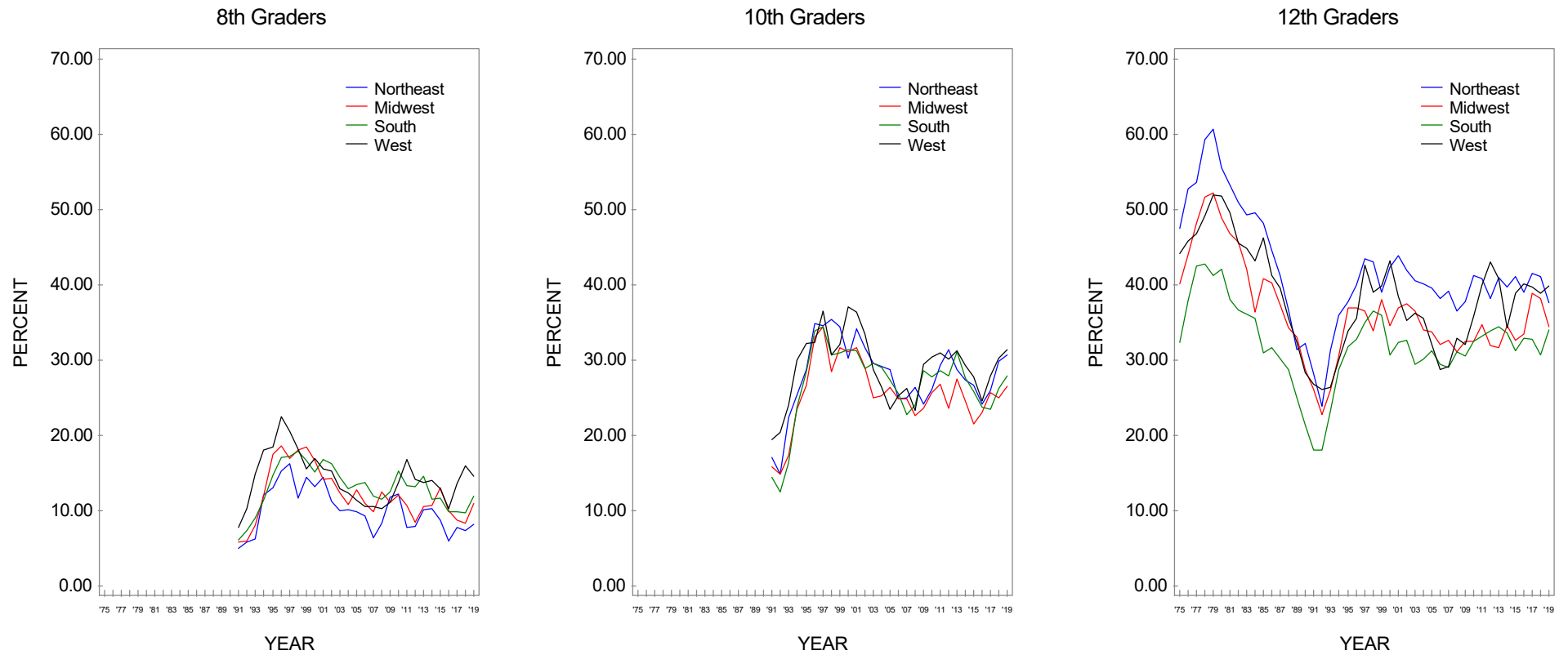
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 22
Marijuana: Trends in Annual Prevalence by Population Density
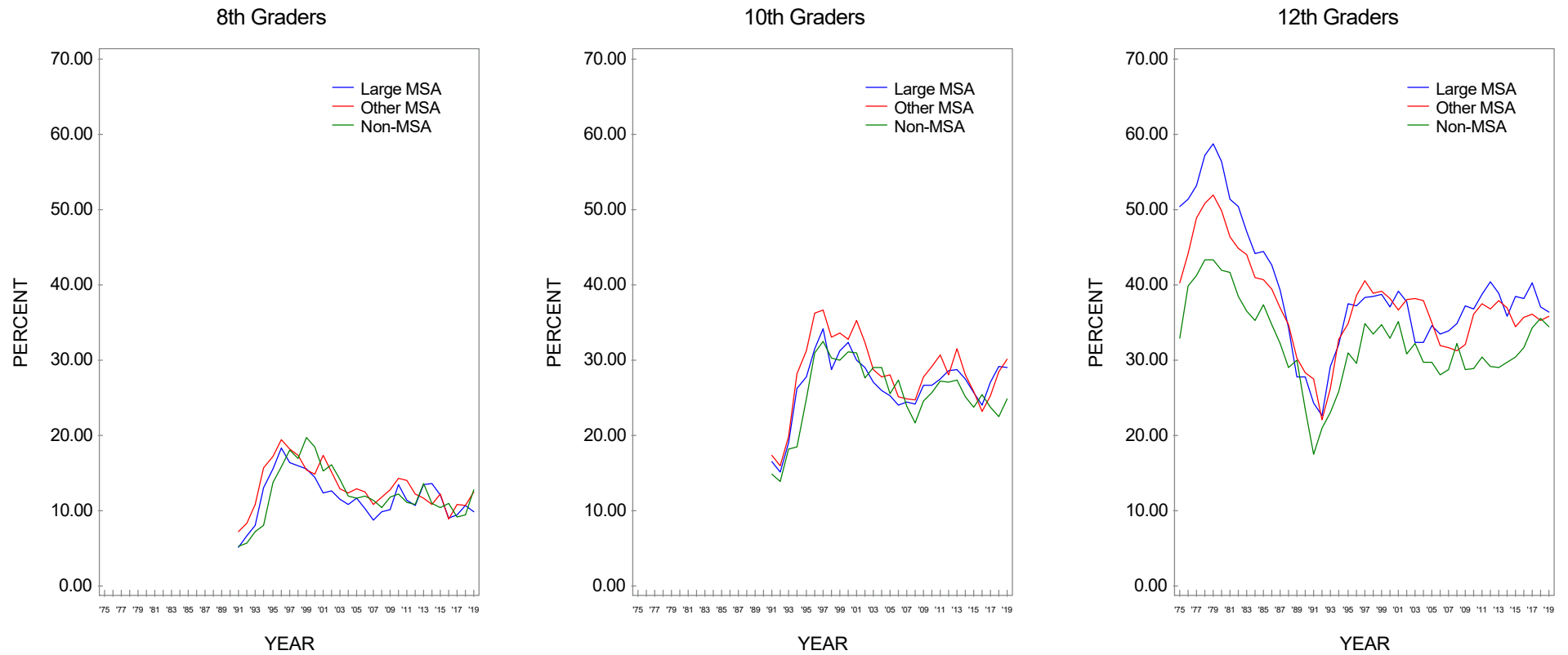
FIGURE 23
Marijuana: Trends in Annual Prevalence by Average Education Level of Parents*
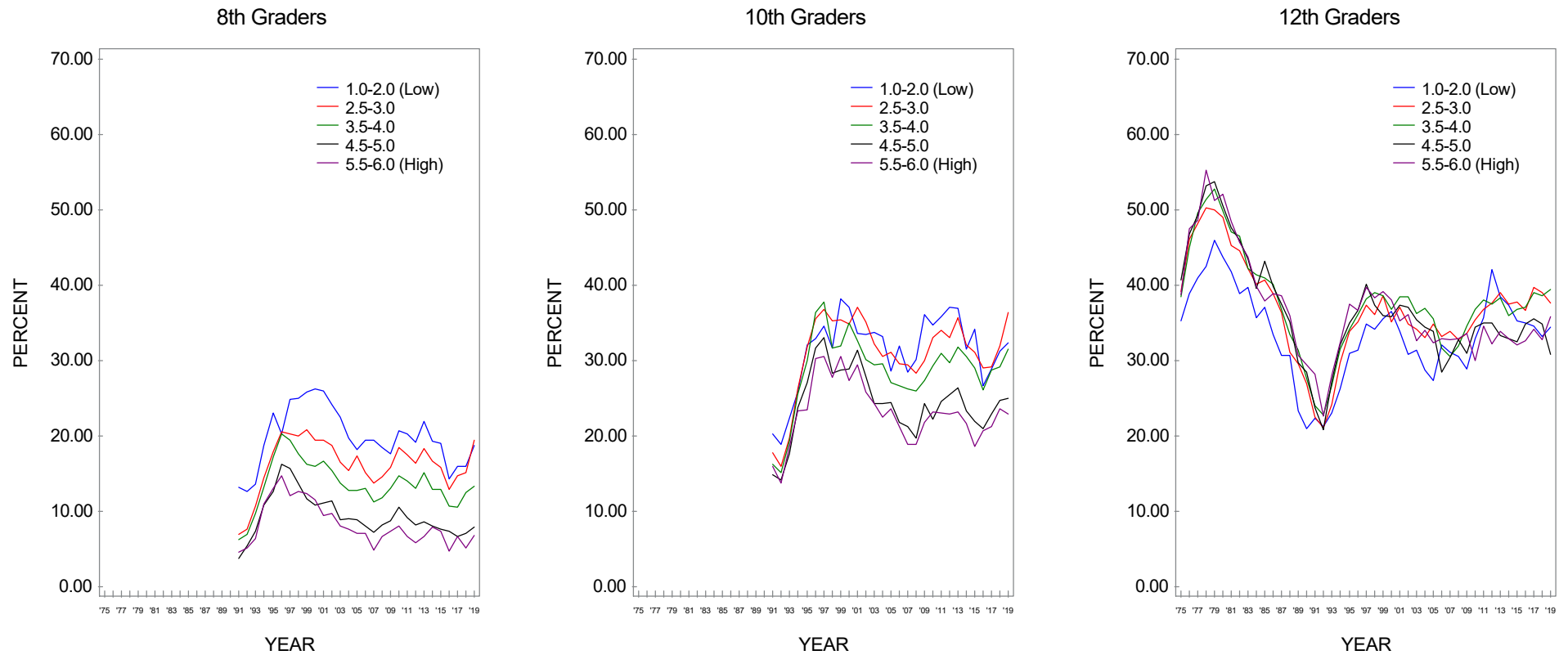
Source. The Monitoring the Future study, the University of Michigan.
*Parental education is an average score of mother's education and father's education.

FIGURE 24
Marijuana: Trends in Annual Prevalence by Race/Ethnicity*
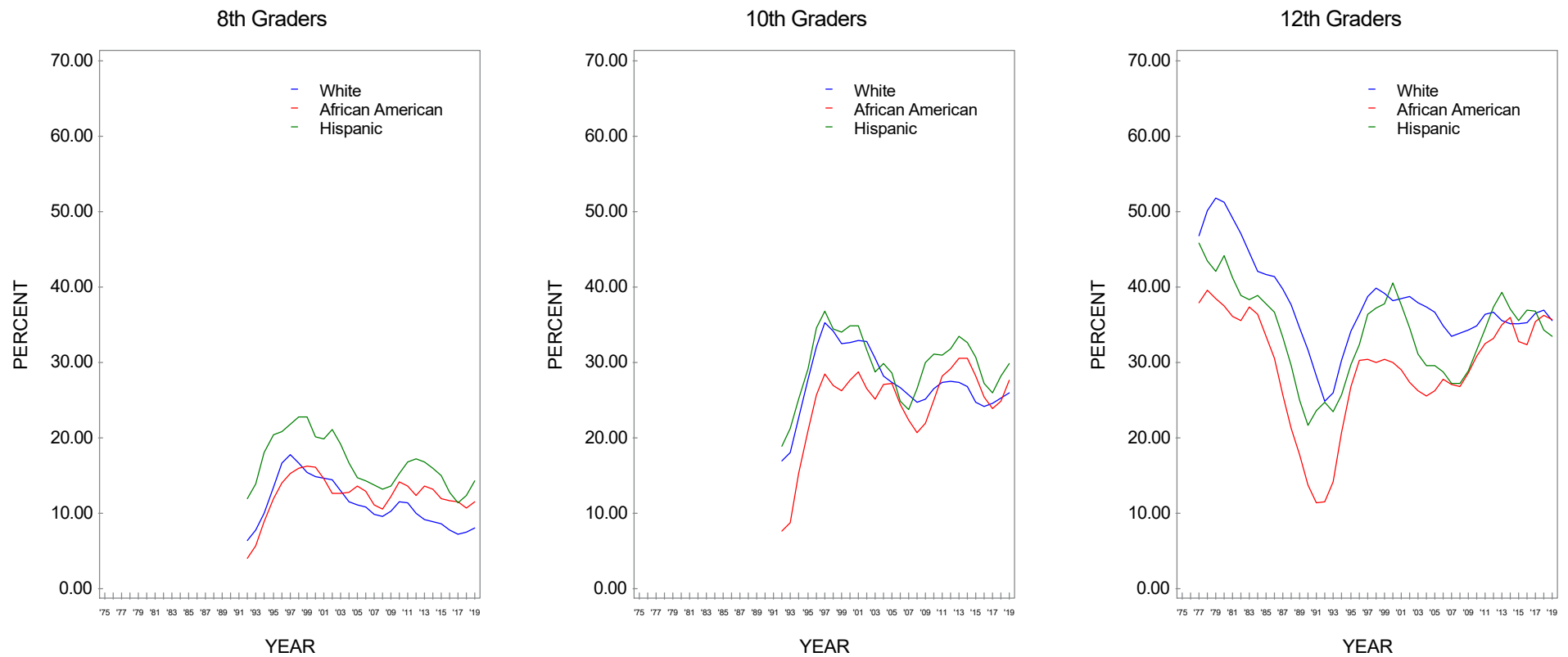
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Marijuana: Trends in 30-Day Prevalence by Gender
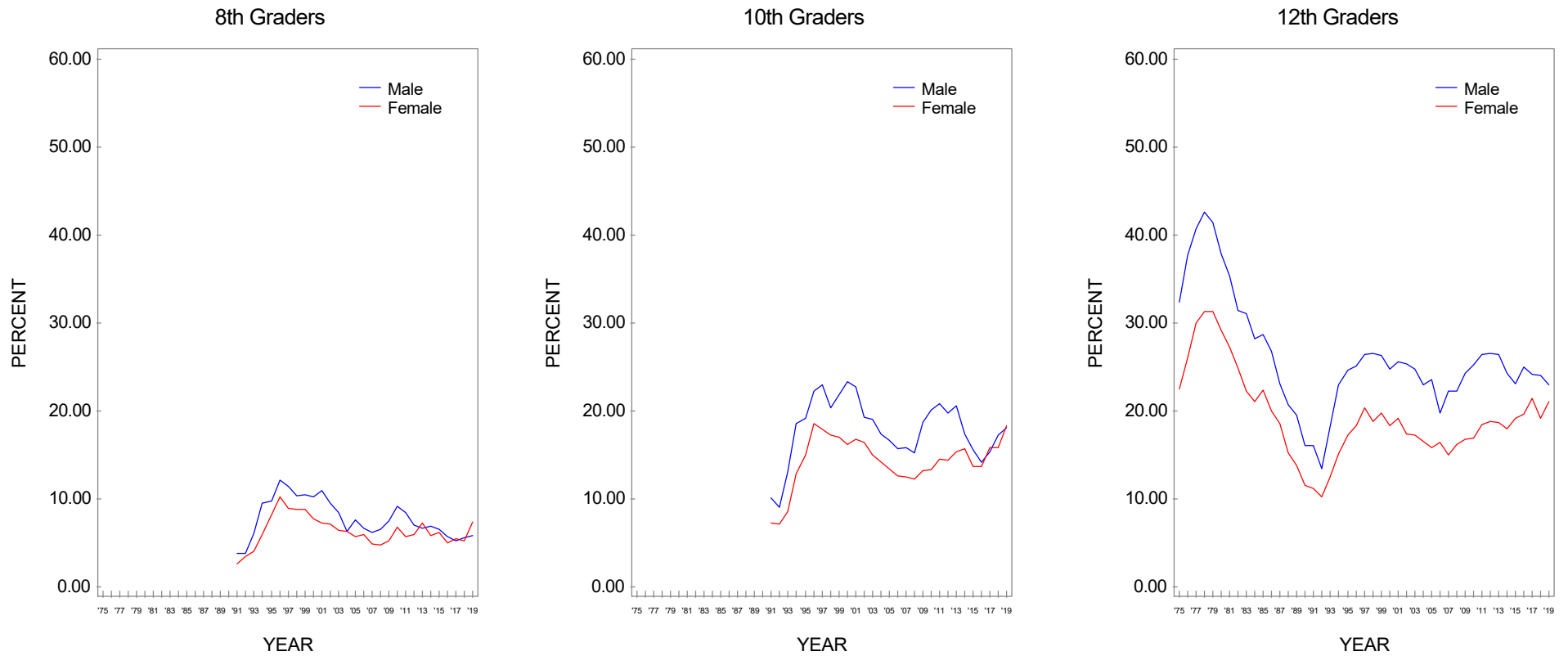
FIGURE 26
Marijuana: Trends in 30-Day Prevalence by College Plans
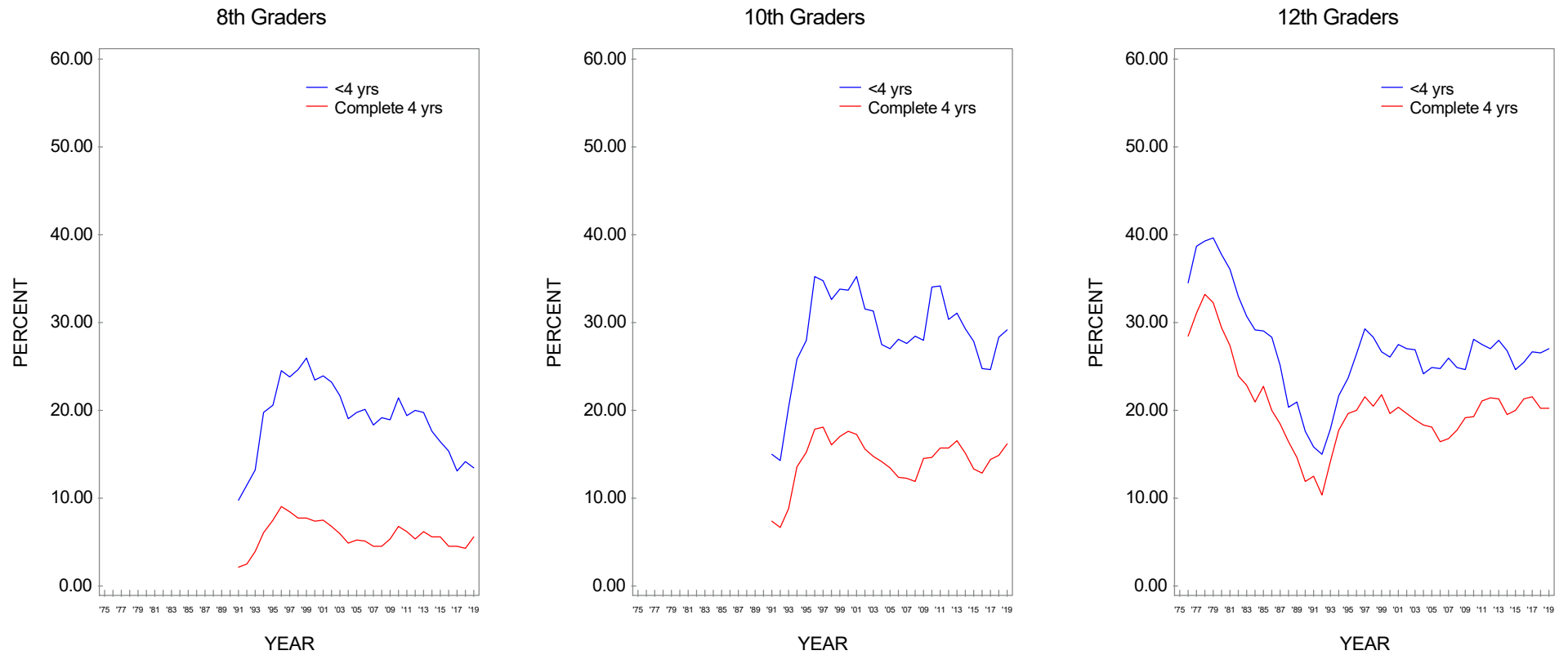
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 27
Marijuana: Trends in 30-Day Prevalence by Region
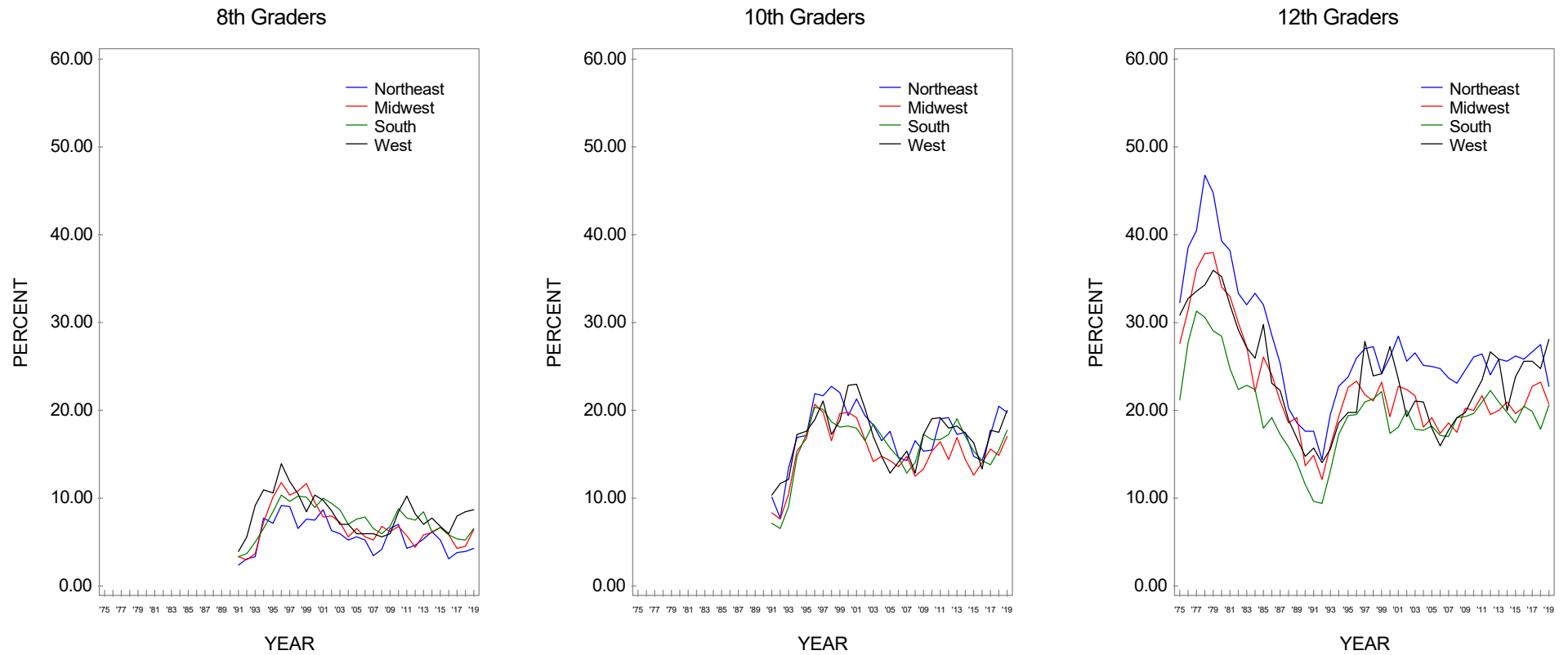
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 28
Marijuana: Trends in 30-Day Prevalence by Population Density
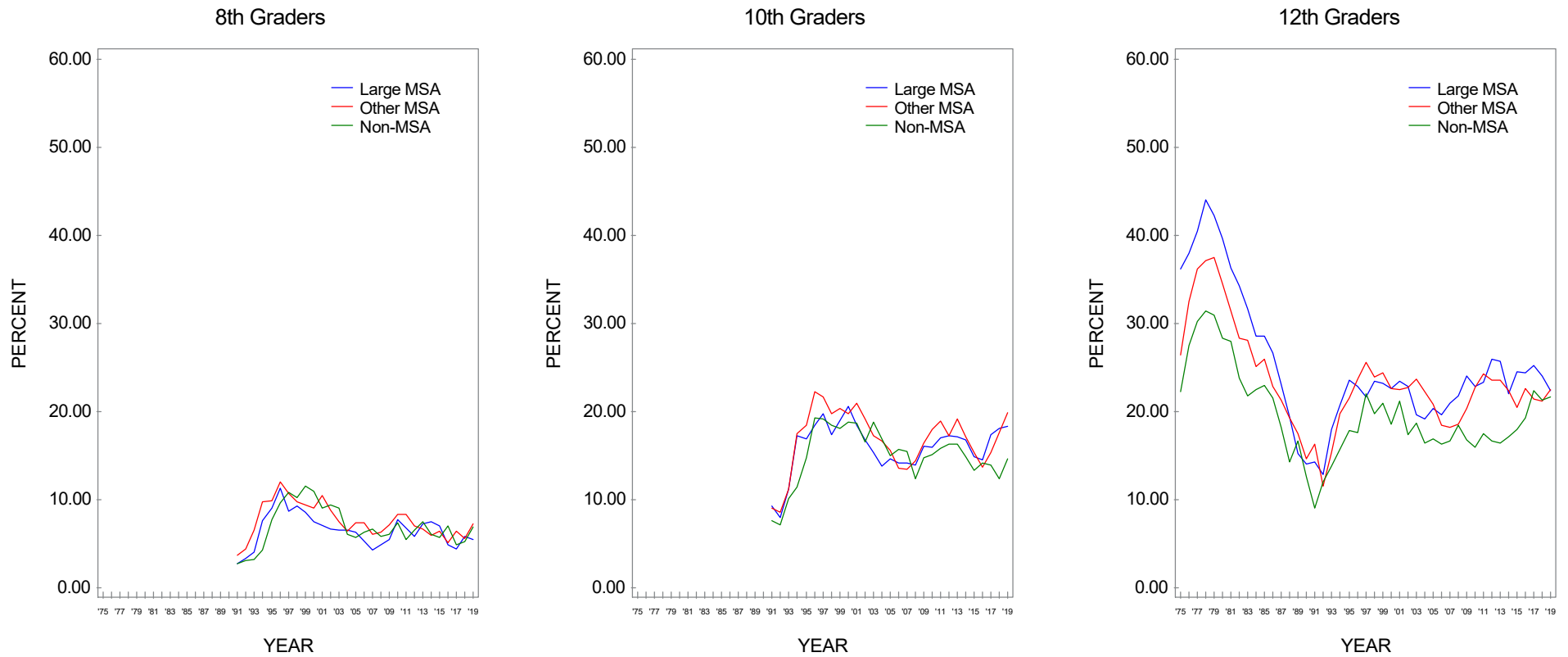
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 29
Marijuana: Trends in 30-Day Prevalence by Average Education Level of Parents*
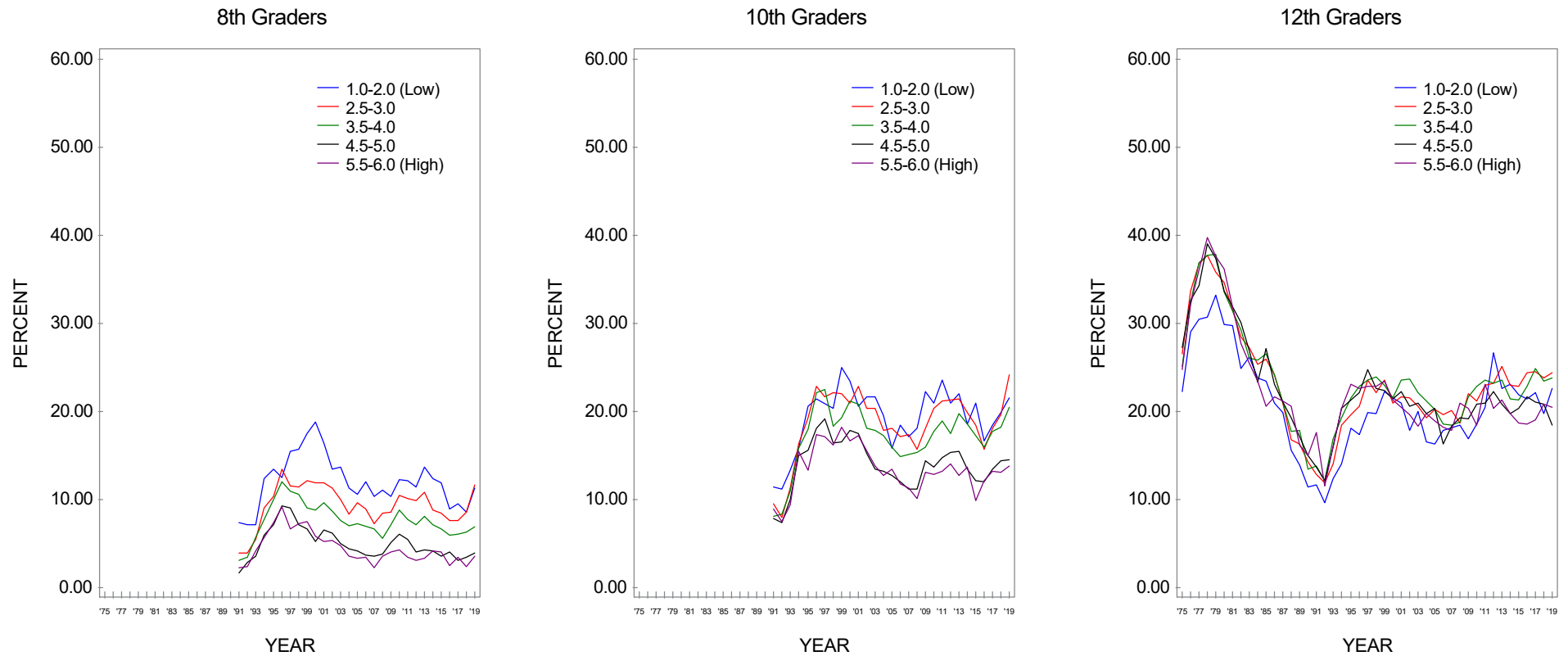
Source.   The Monitoring the Future study, the University of Michigan.
*Parental education is an average score of mother's education and father's education.

FIGURE 30
Marijuana: Trends in 30-Day Prevalence by Race/Ethnicity*
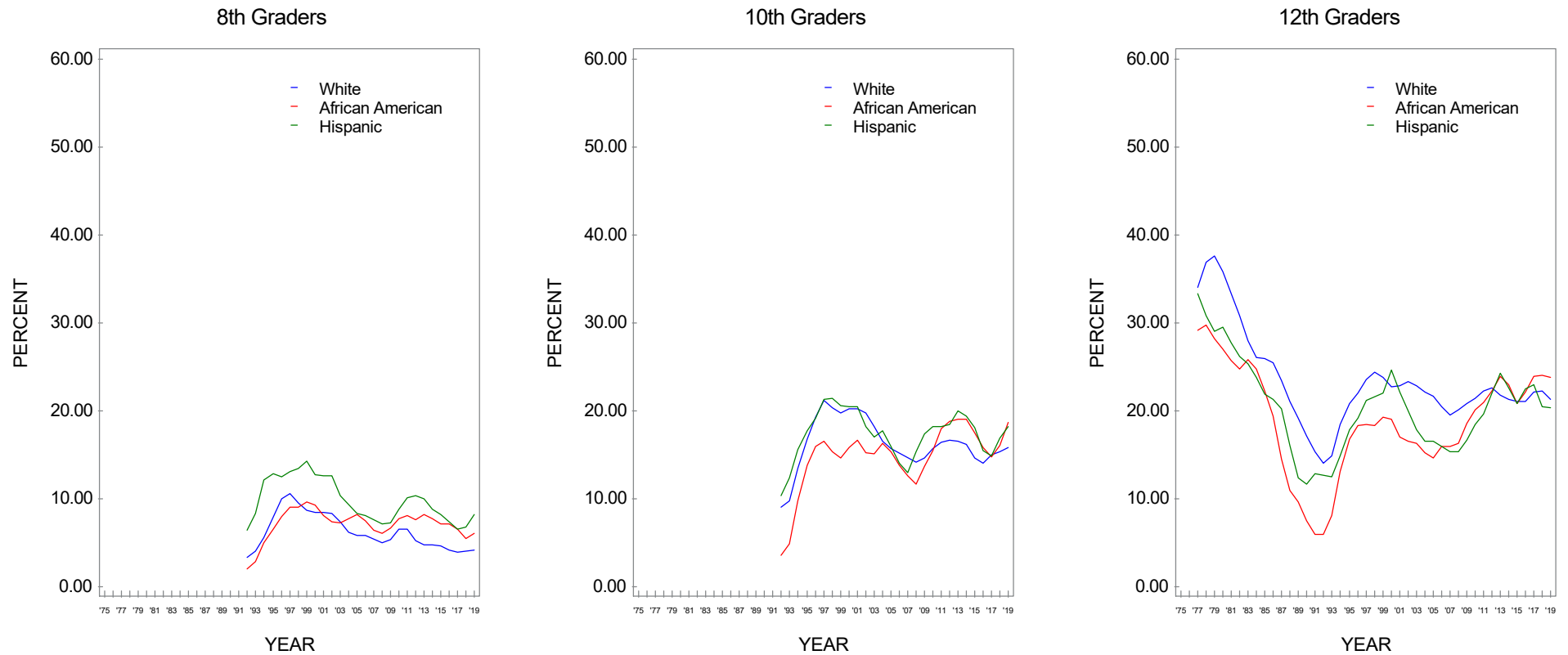
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 31
Marijuana: Trends in 30-Day Prevalence of Daily Use by Gender
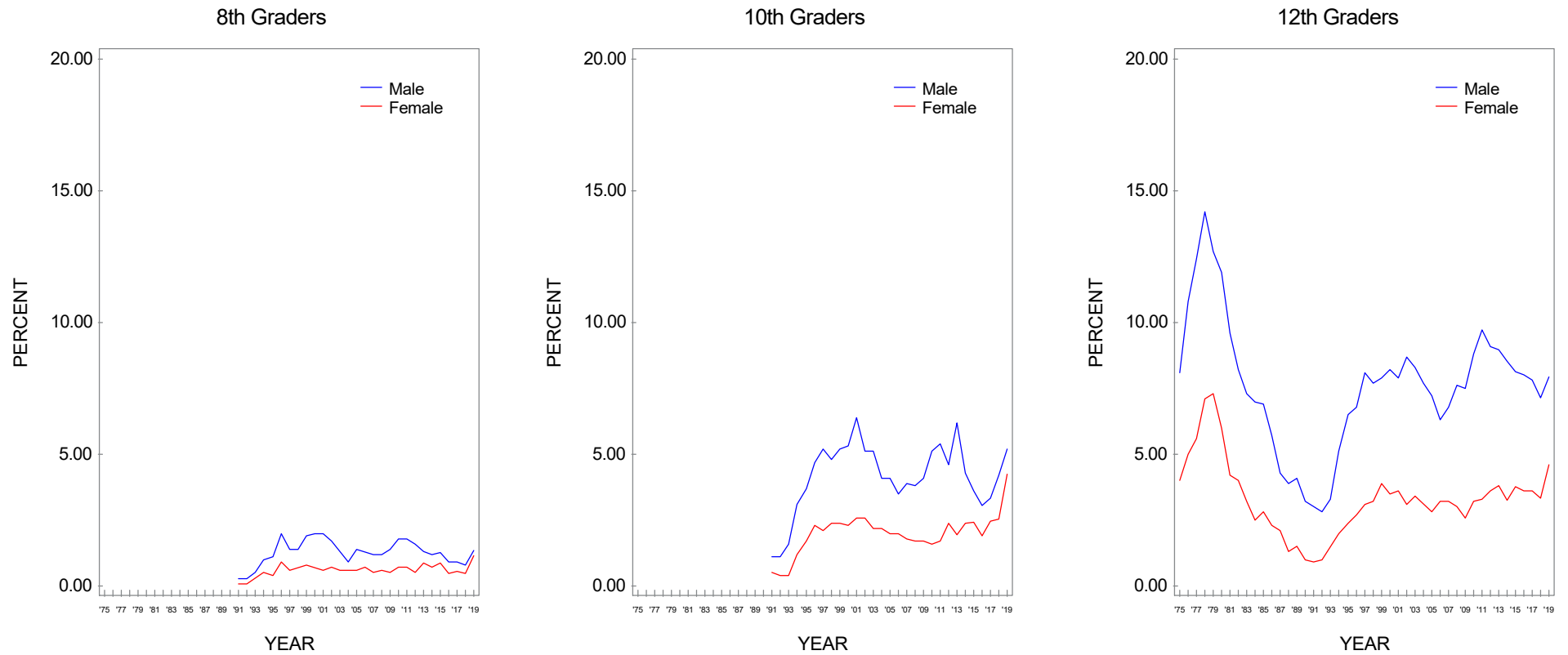
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 32
Marijuana: Trends in 30-Day Prevalence of Daily Use by College Plans

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

FIGURE 33
Marijuana: Trends in 30-Day Prevalence of Daily Use by Region

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

FIGURE 34
Marijuana: Trends in 30-Day Prevalence of Daily Use by Population Density
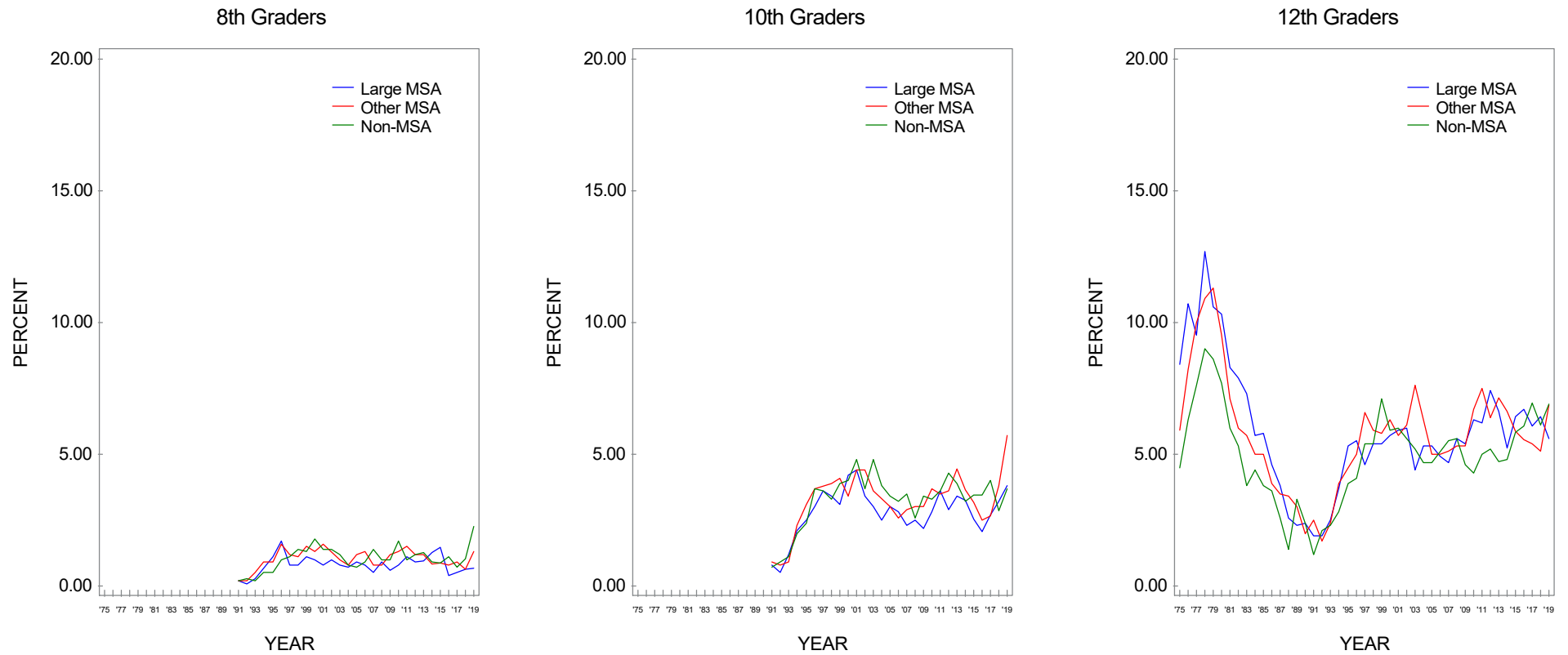
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 35
Marijuana: Trends 30-Day Prevalence of Daily Use by Average Education Level of Parents*
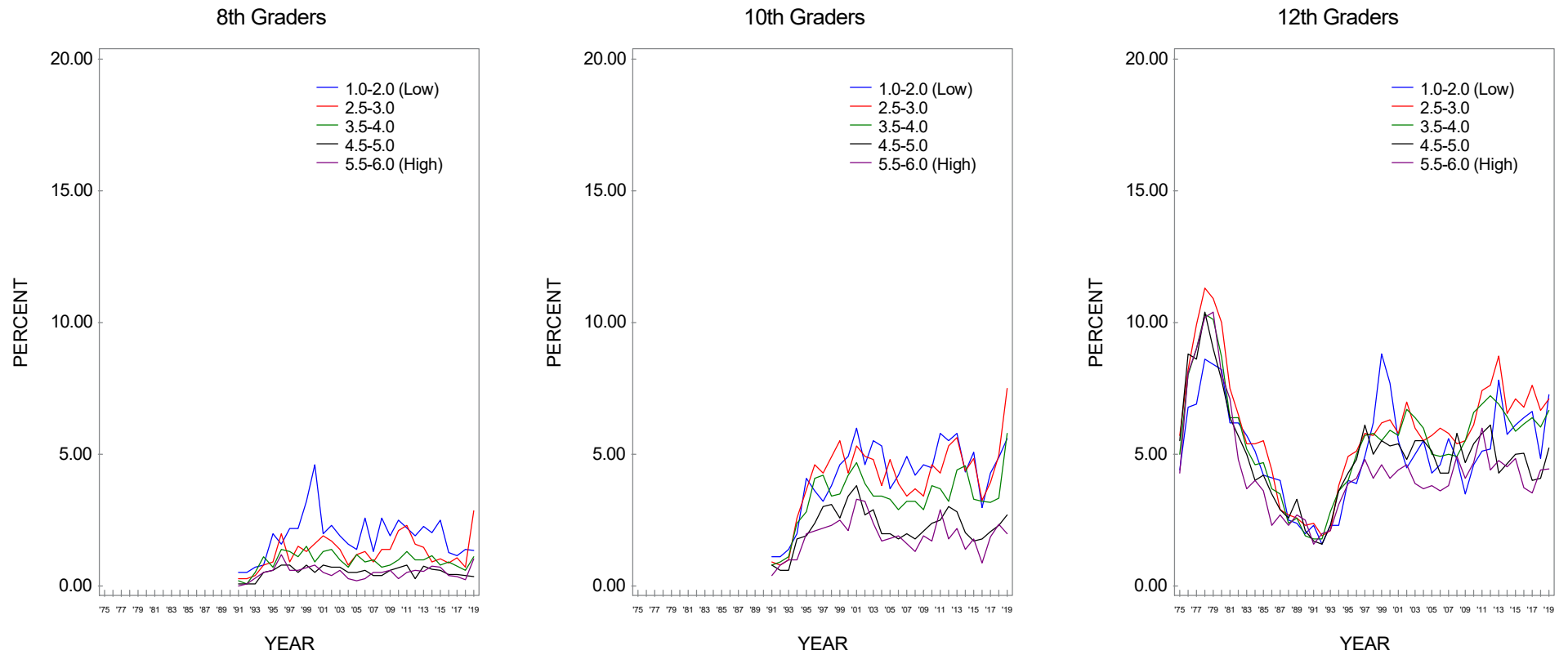
Source.   The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 36
Marijuana: Trends in 30-Day Prevalence of Daily Use by Race/Ethnicity*
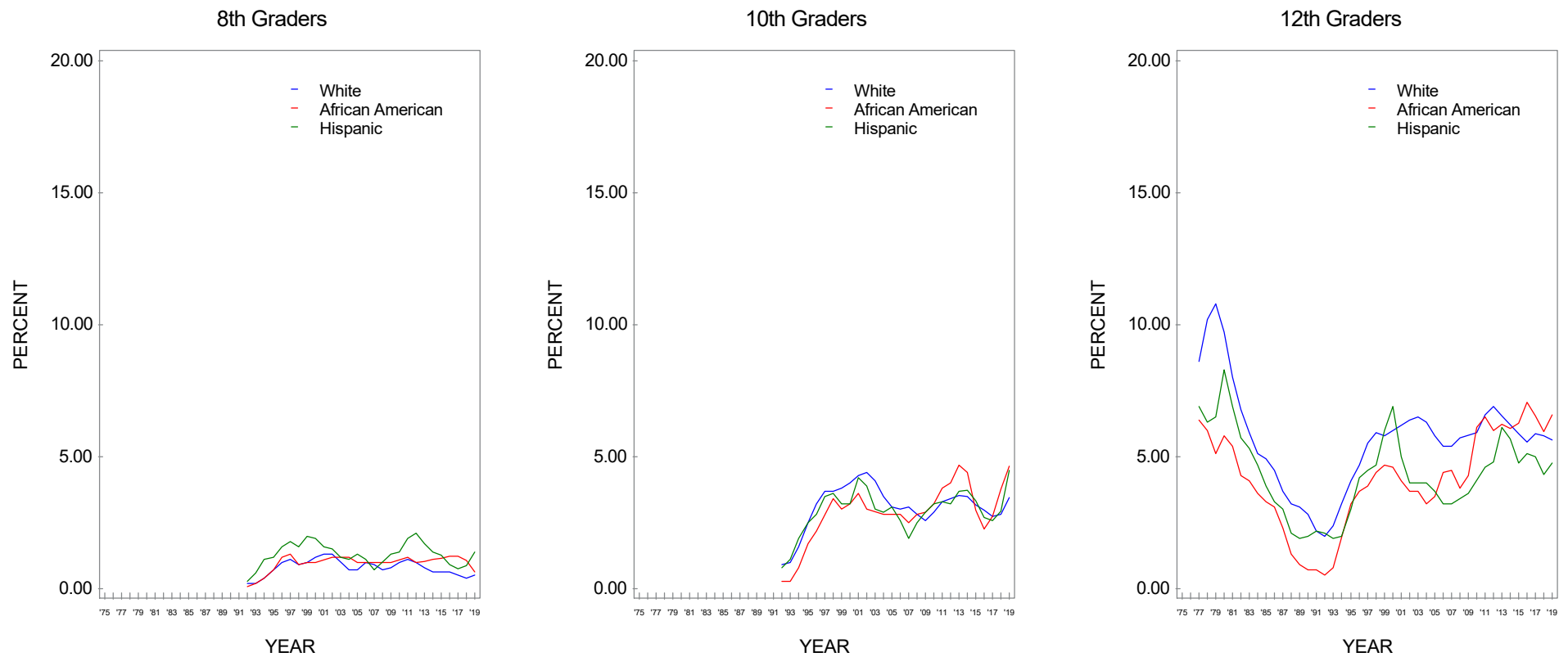
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

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FIGURE 37
Synthetic Marijuana: Trends in Annual Prevalence by Gender
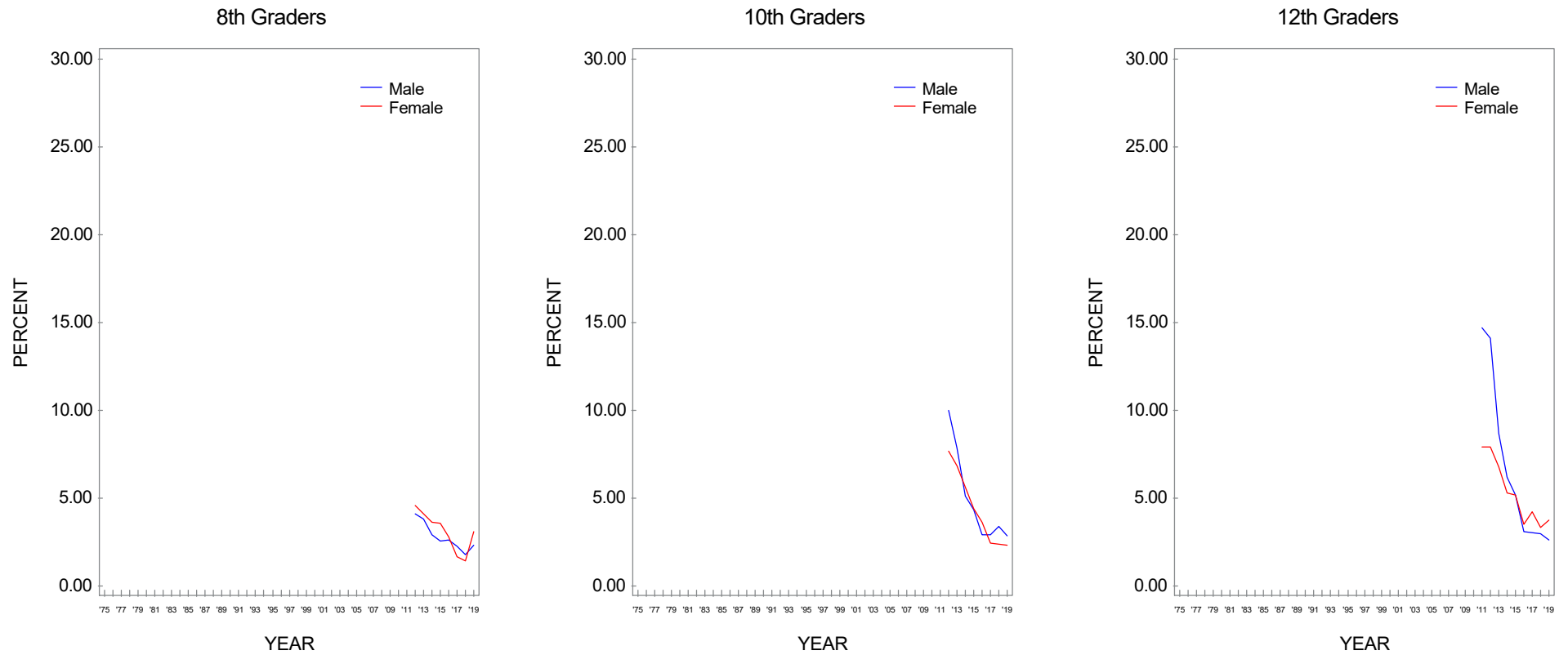
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 38
Synthetic Marijuana: Trends in Annual Prevalence by College Plans

8th Graders
10th Graders
12th Graders
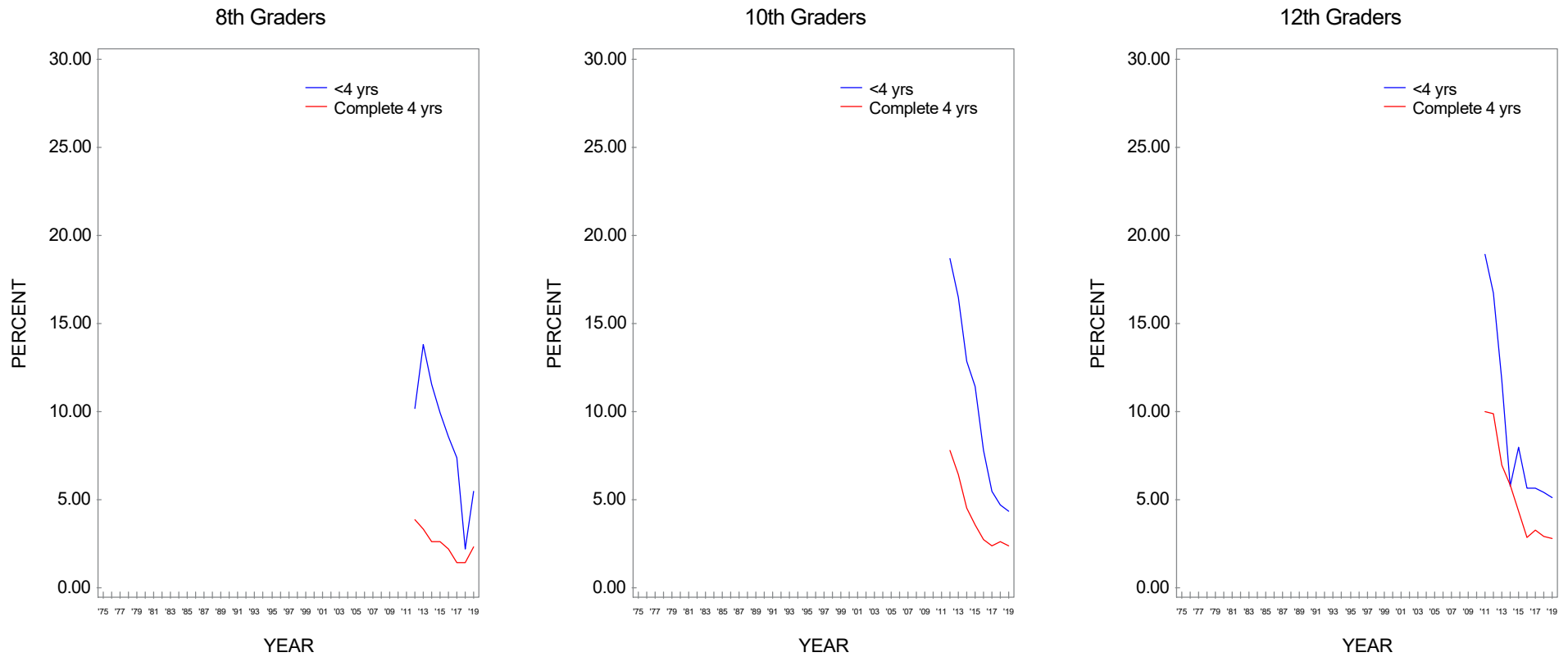
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 39
Synthetic Marijuana: Trends in Annual Prevalence by Region

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

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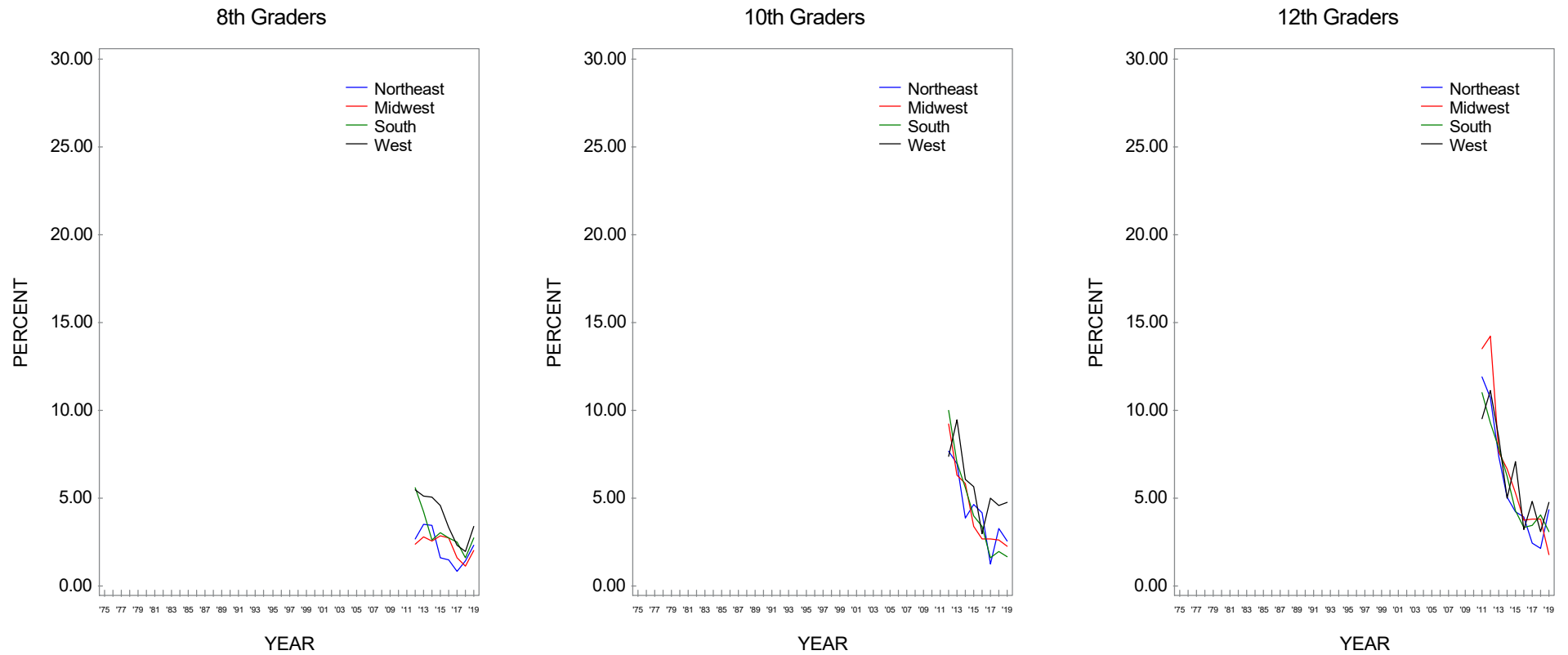
FIGURE 40
Synthetic Marijuana: Trends in Annual Prevalence by Population Density
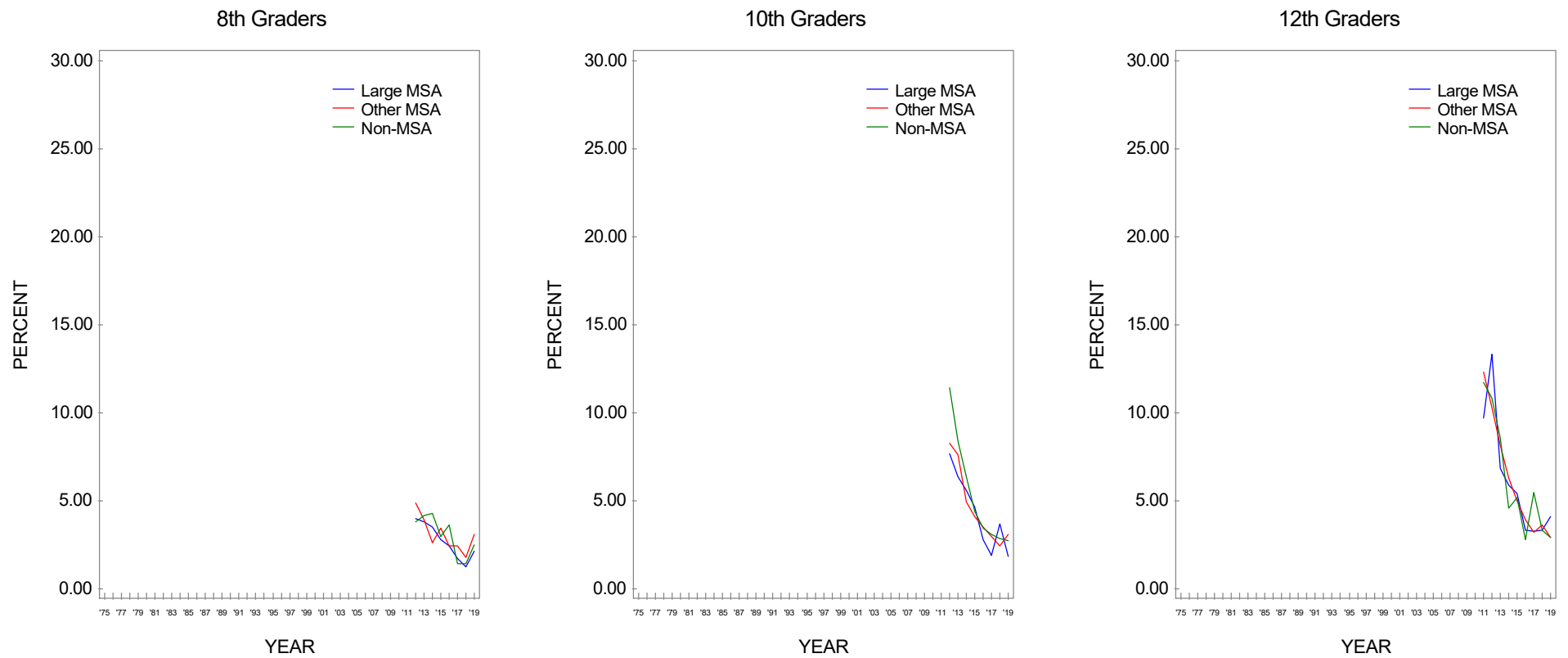
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 41
Synthetic Marijuana: Trends Annual Prevalence by Average Education Level of Parents*
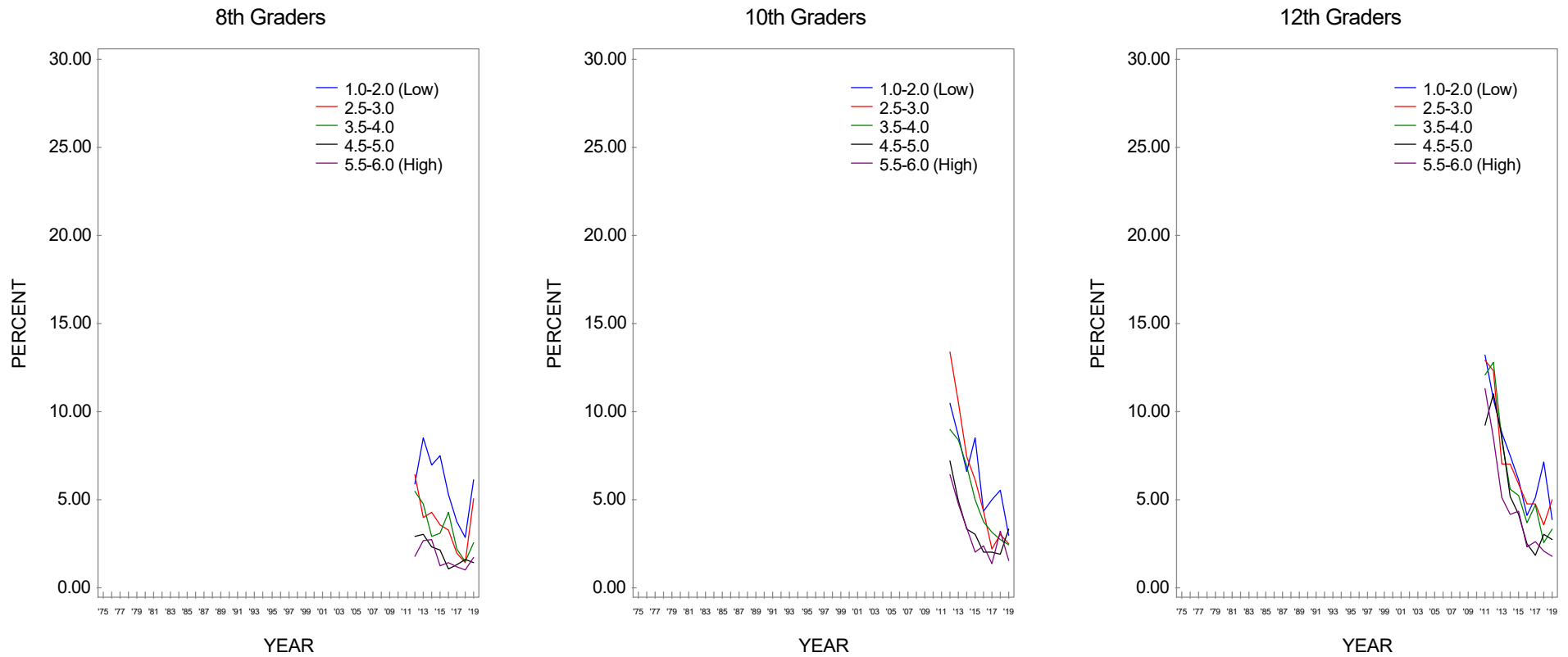
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 42
Synthetic Marijuana: Trends in Annual Prevalence by Race/Ethnicity*
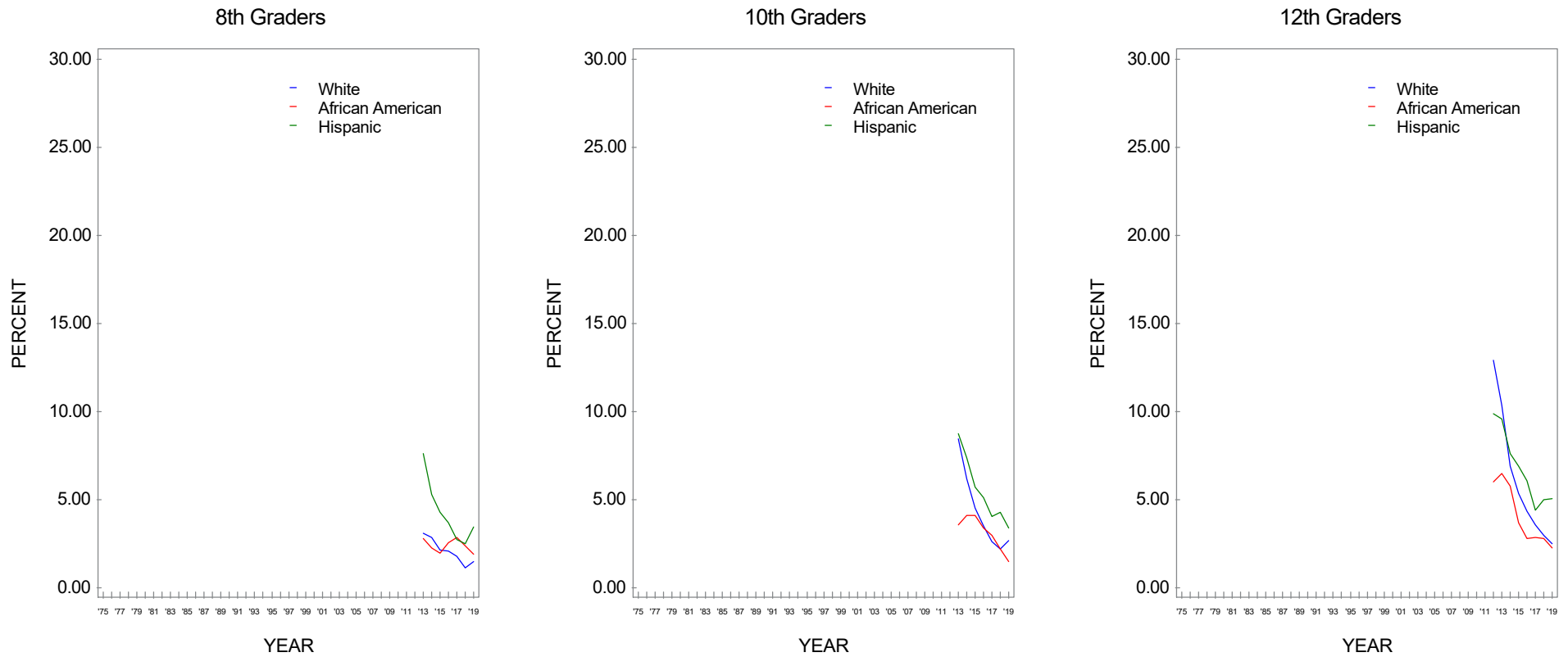
8th Graders

10th Graders

12th Graders

FIGURE 43
Inhalants: Trends in Annual Prevalence by Gender
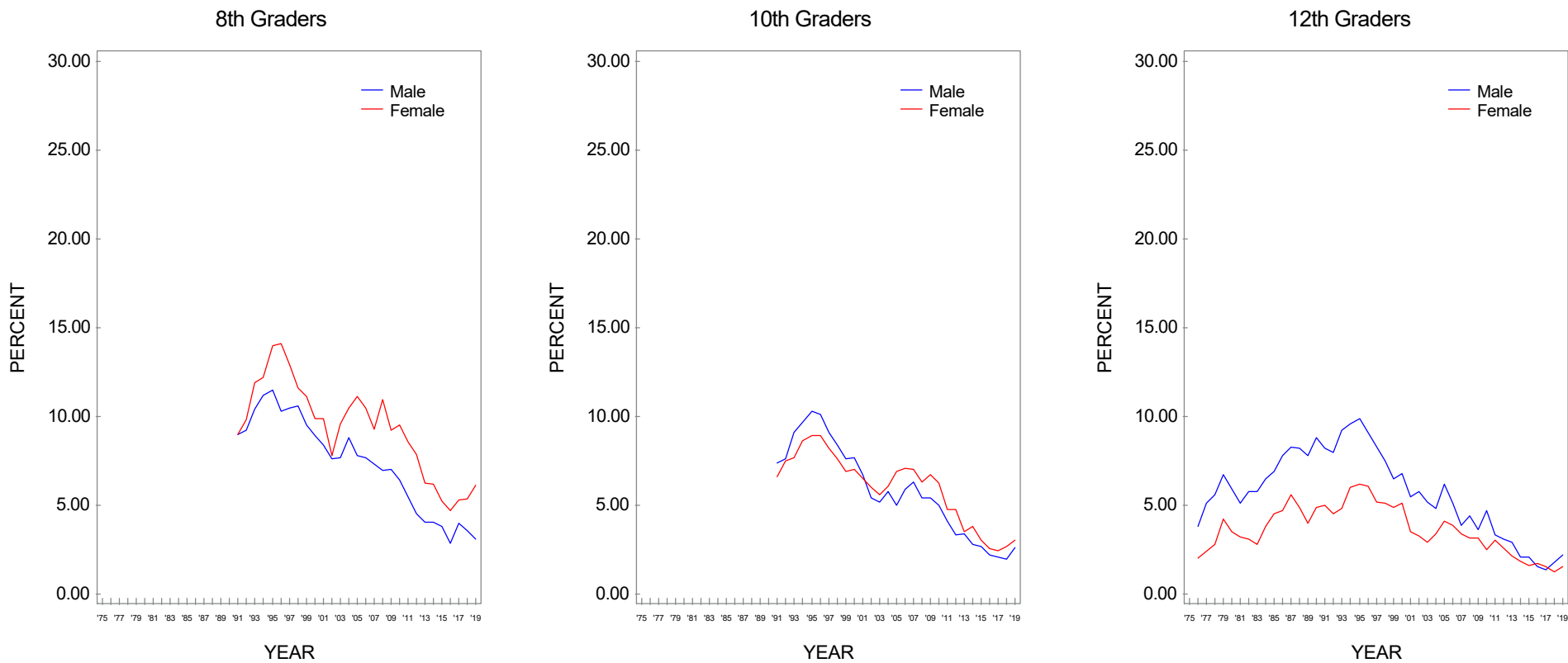
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 44
Inhalants: Trends in Annual Prevalence by College Plans
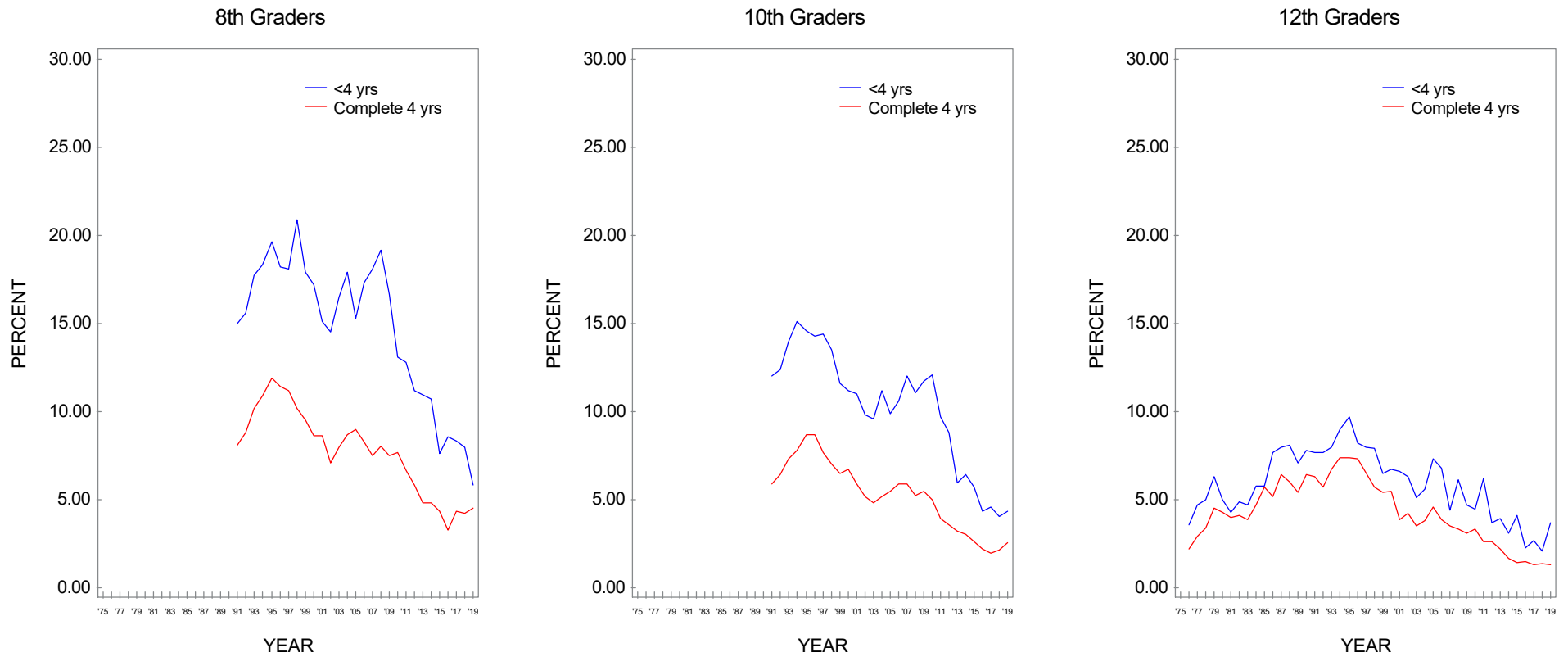
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 45
Inhalants: Trends in Annual Prevalence by Region
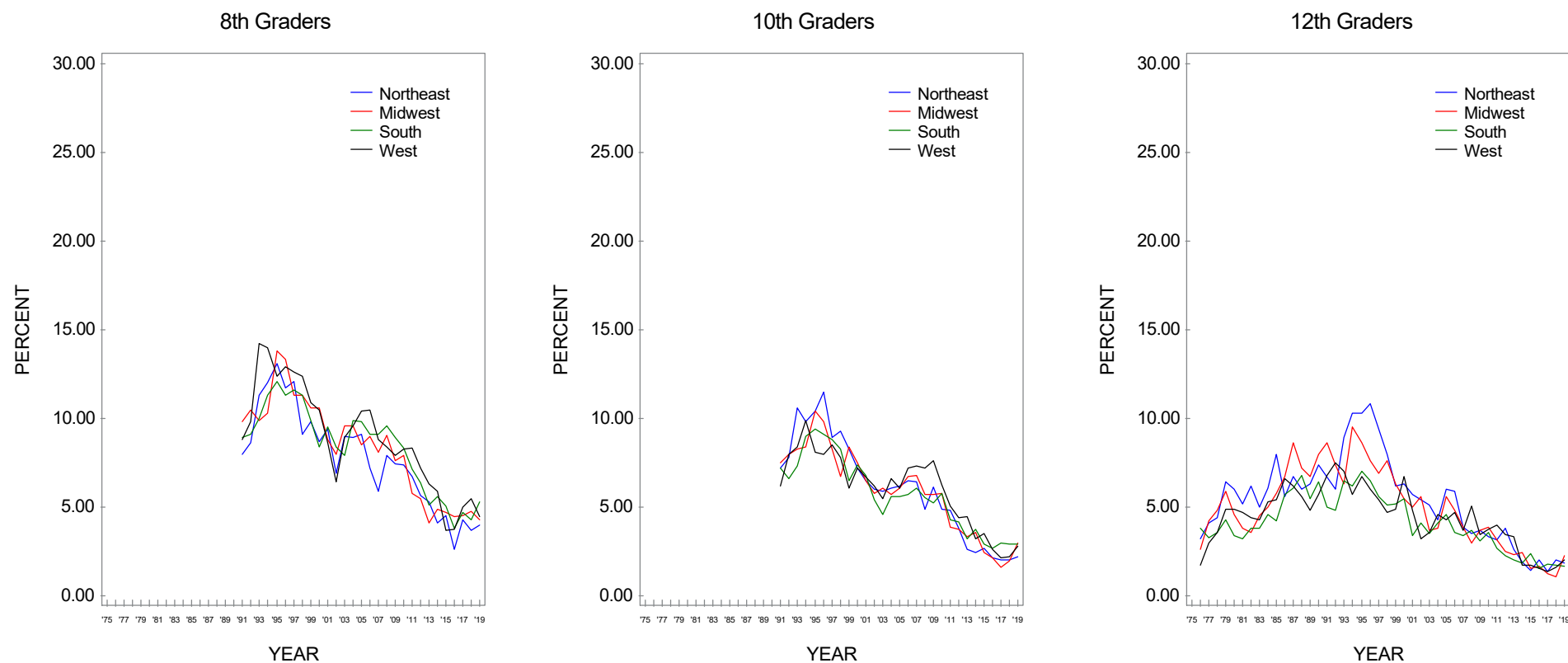
FIGURE 46
Inhalants: Trends in Annual Prevalence by Population Density
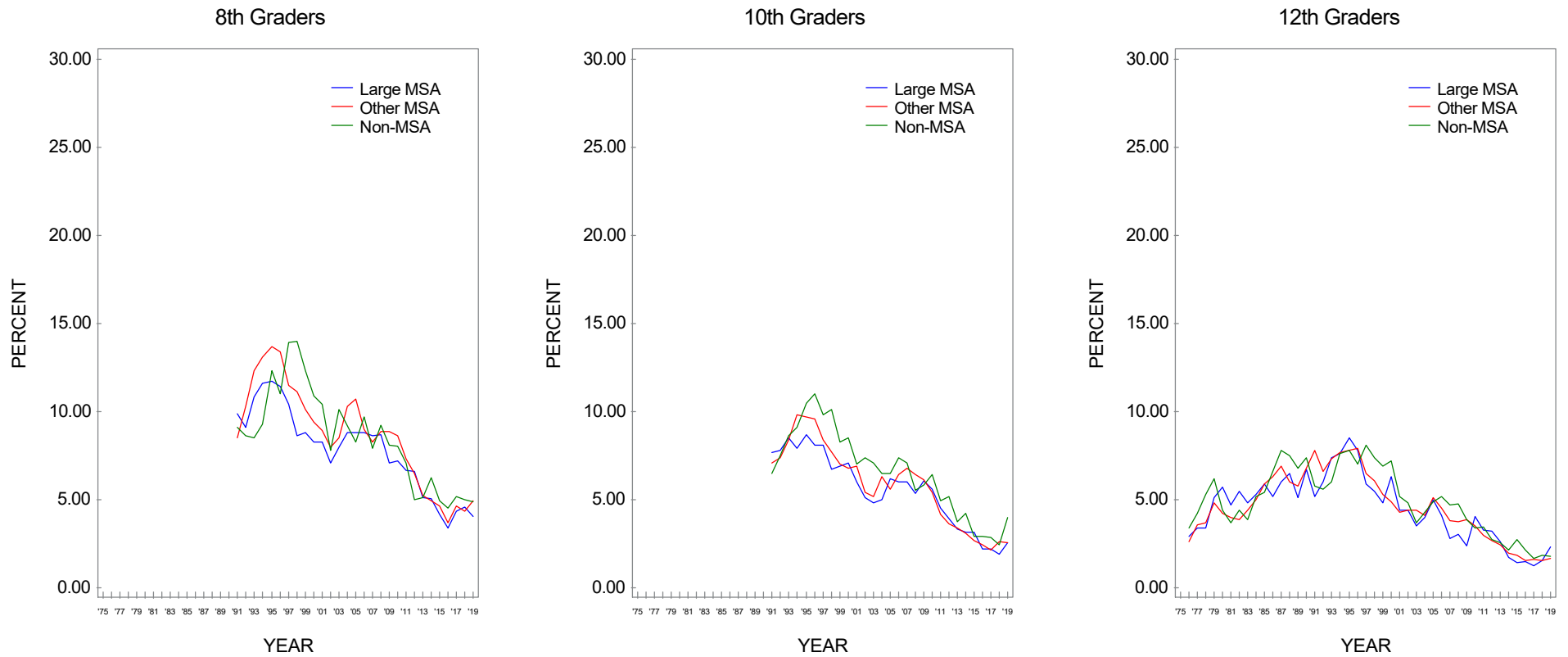
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 47
Inhalants: Trends in Annual Prevalence by Average Education Level of Parents*
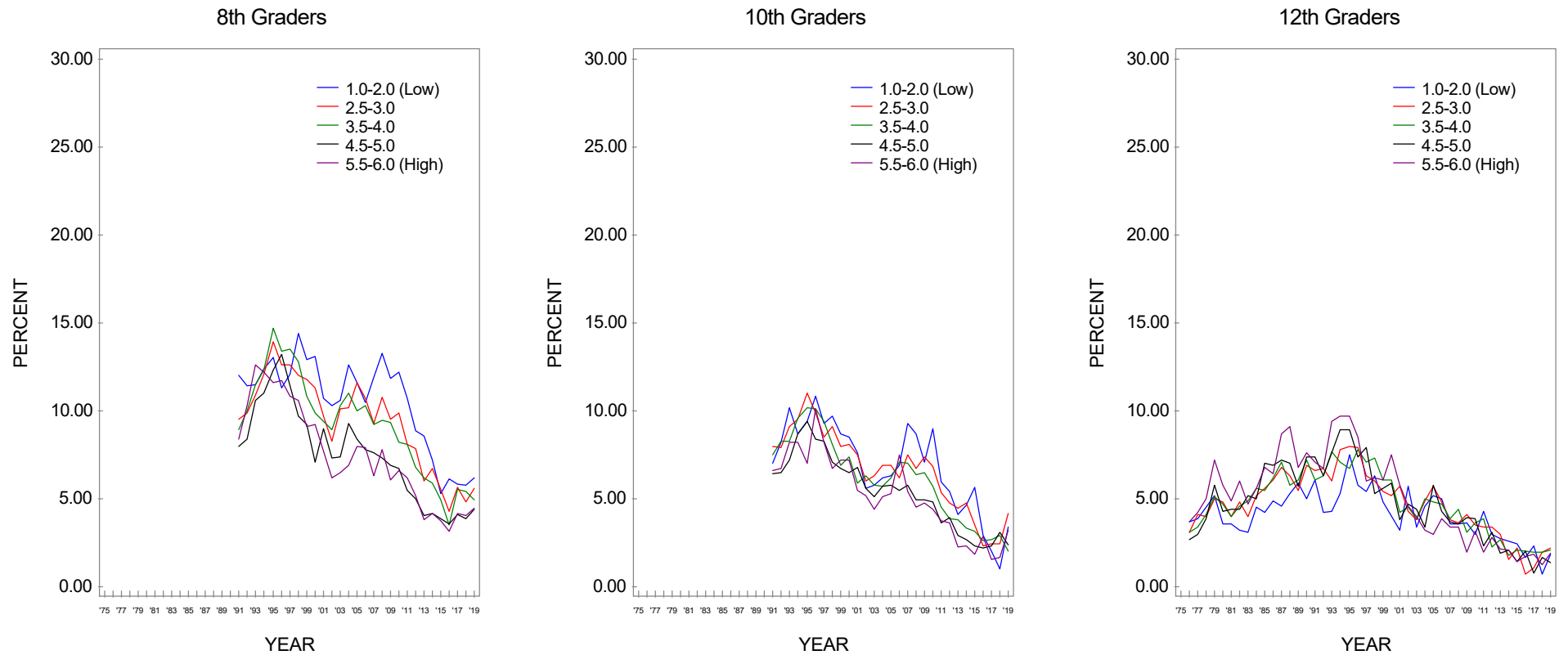
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 48
Inhalants: Trends in Annual Prevalence by Race/Ethnicity*
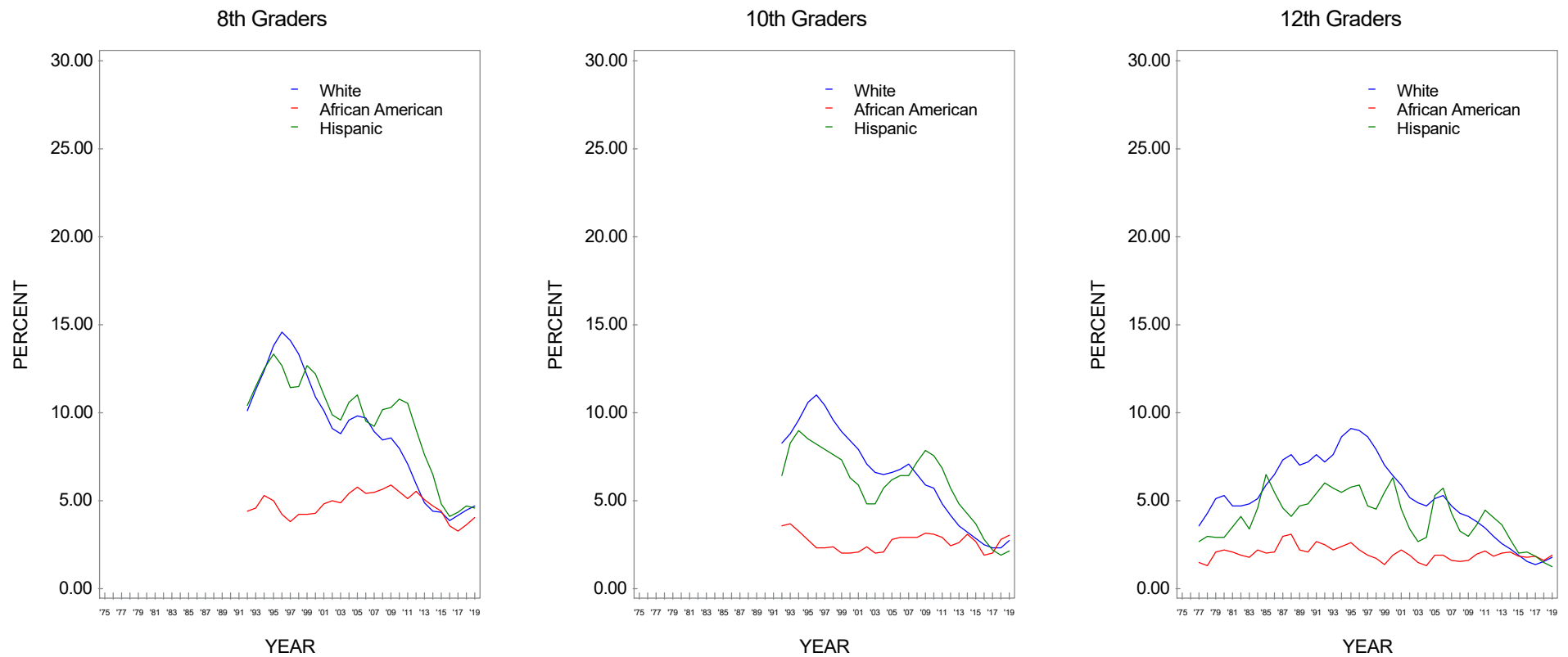
8th Graders | 10th Graders | 12th Graders

White
African American
Hispanic

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 49
Hallucinogens:* Trends in Annual Prevalence by Gender
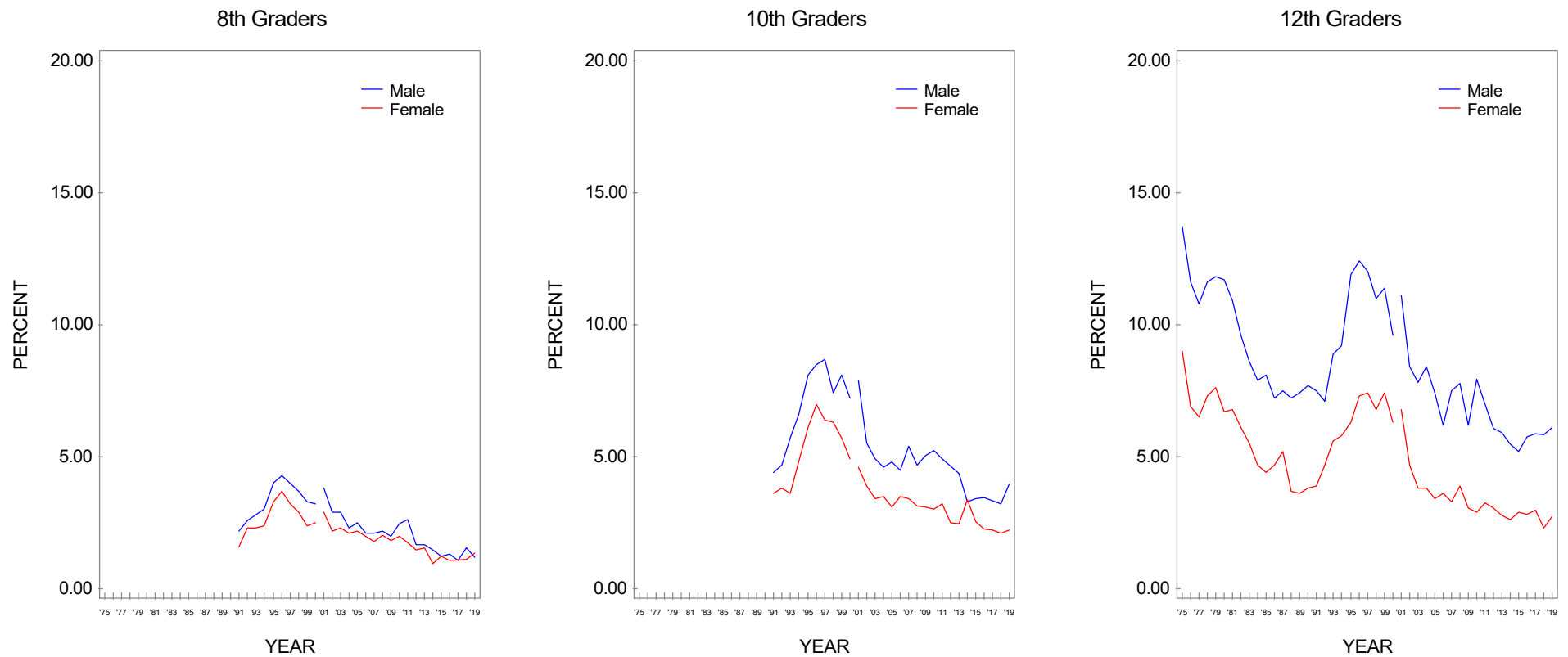
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. Data for hallucinogens are affected by these changes.

FIGURE 50
Hallucinogens:* Trends in Annual Prevalence by College Plans
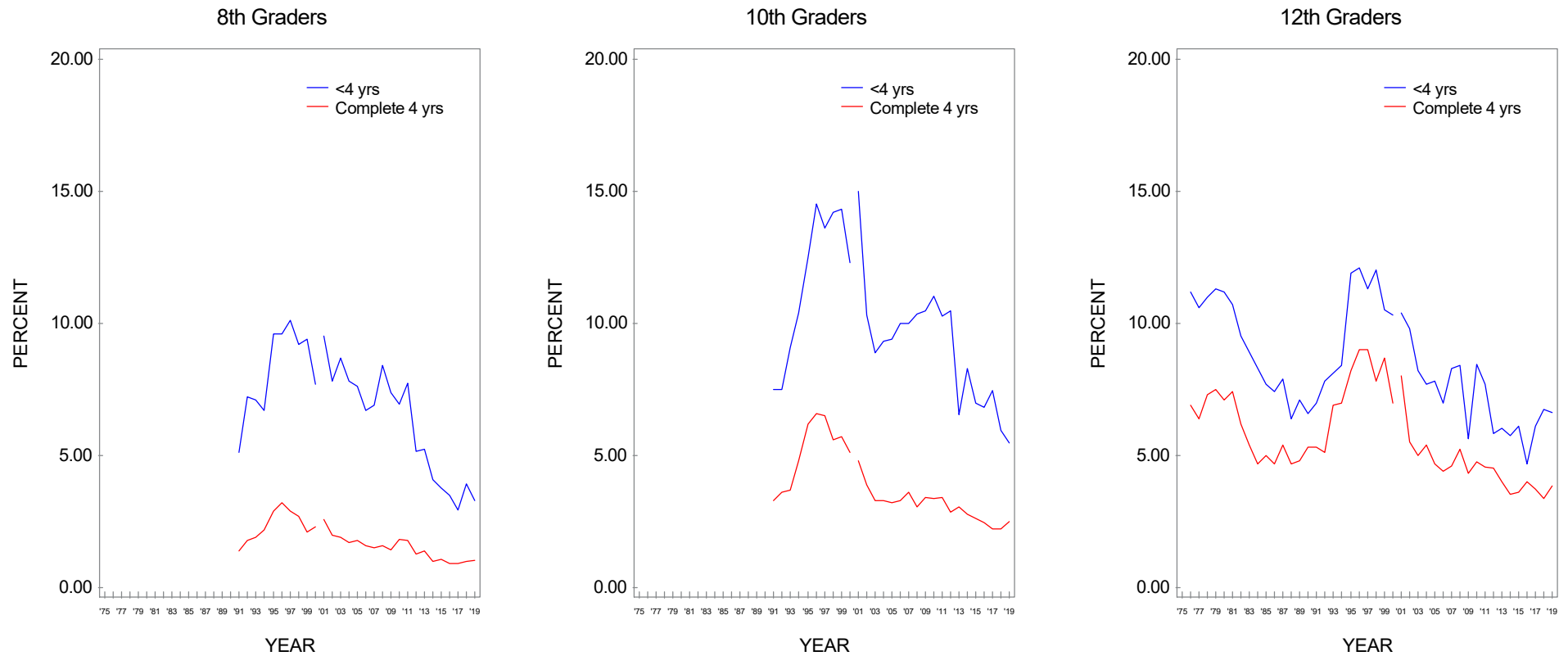
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. Data for hallucinogens are affected by these changes.

FIGURE 51
Hallucinogens:* Trends in Annual Prevalence by Region
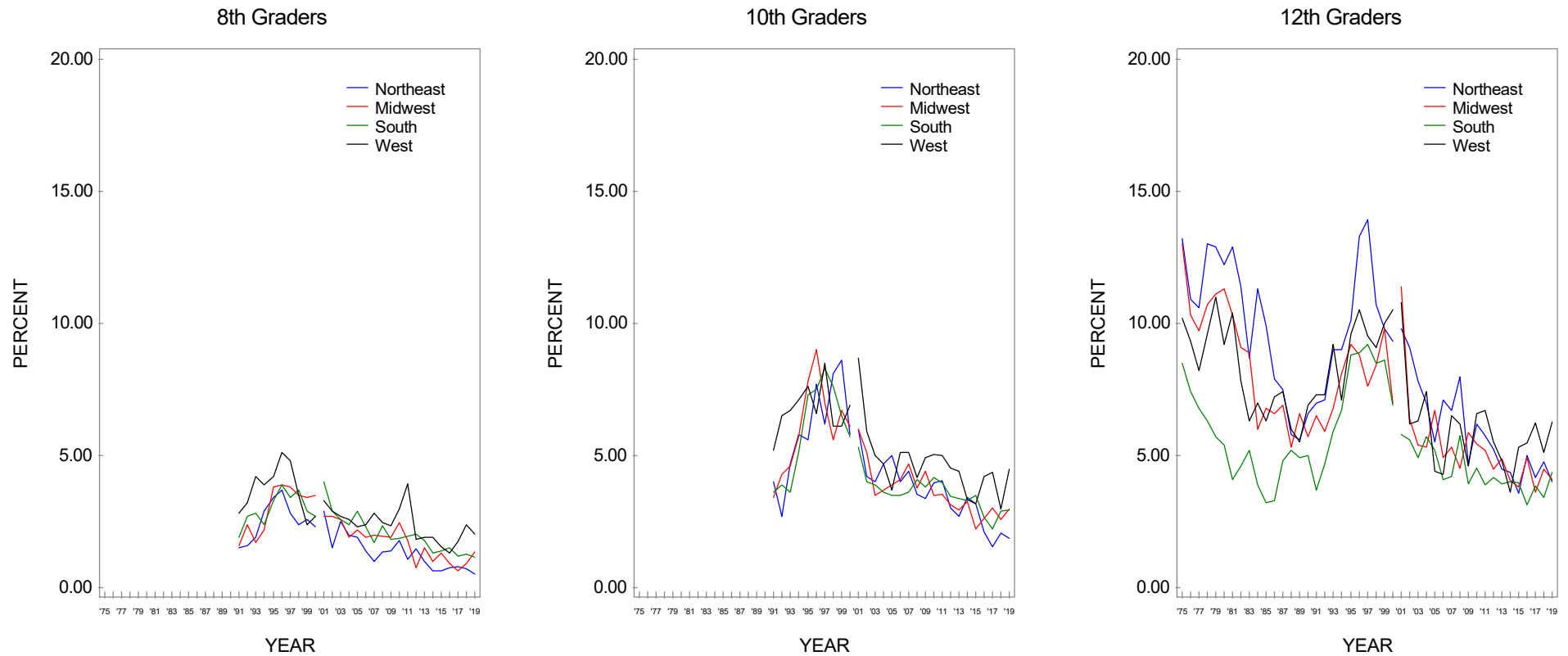
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. Data for hallucinogens are affected by these changes.

FIGURE 52
Hallucinogens:* Trends in Annual Prevalence by Population Density
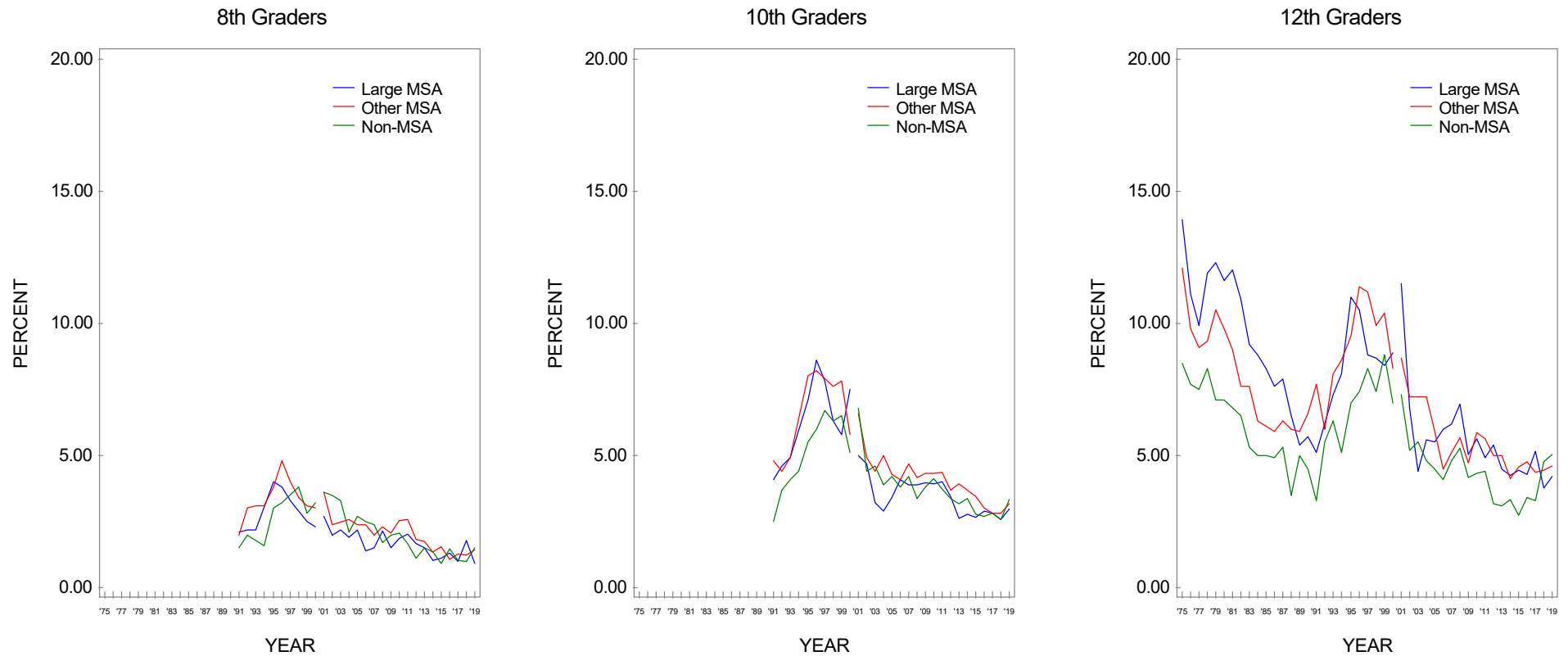
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. Data for hallucinogens are affected by these changes.

FIGURE 53
Hallucinogens:* Trends in Annual Prevalence by Average Education Level of Parents**
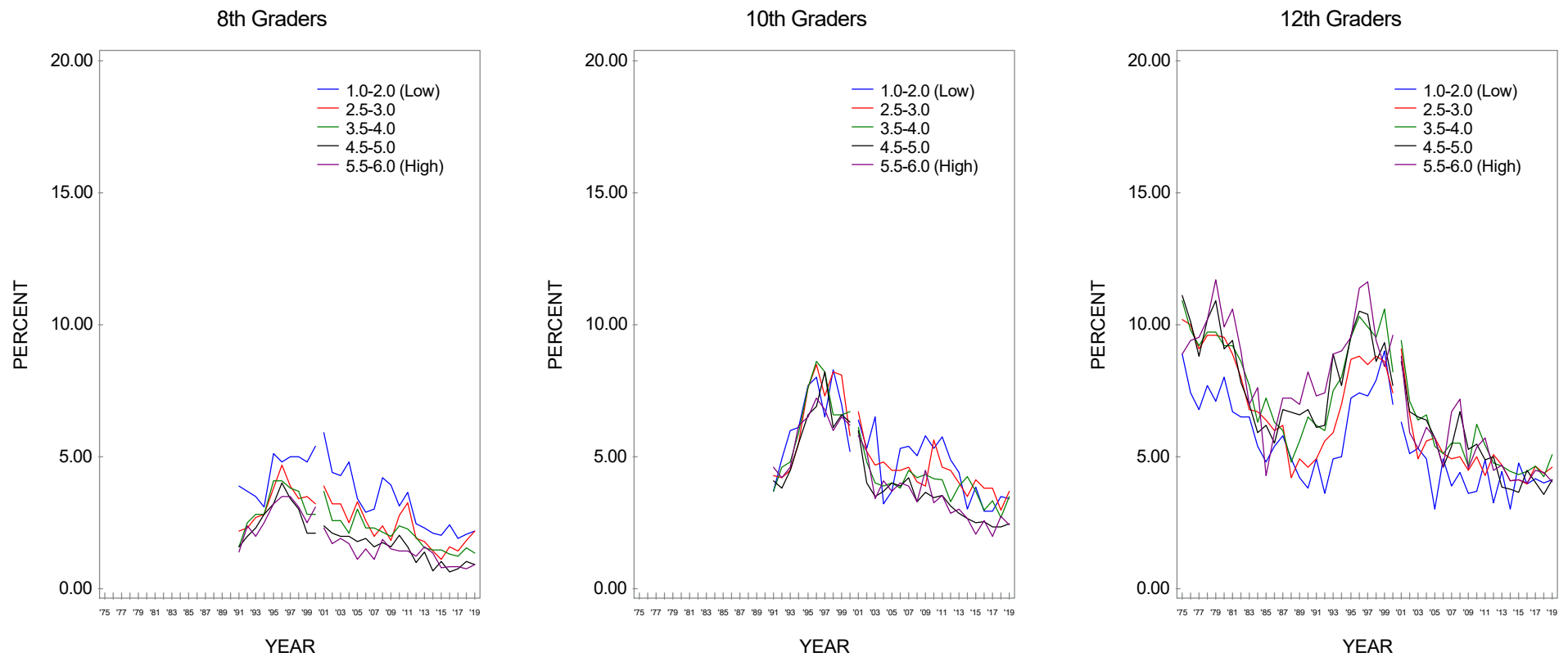
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. Data for hallucinogens are affected by these changes.
**Parental education is an average score of mother's education and father's education.

FIGURE 54
Hallucinogens:* Trends in Annual Prevalence by Race/Ethnicity**
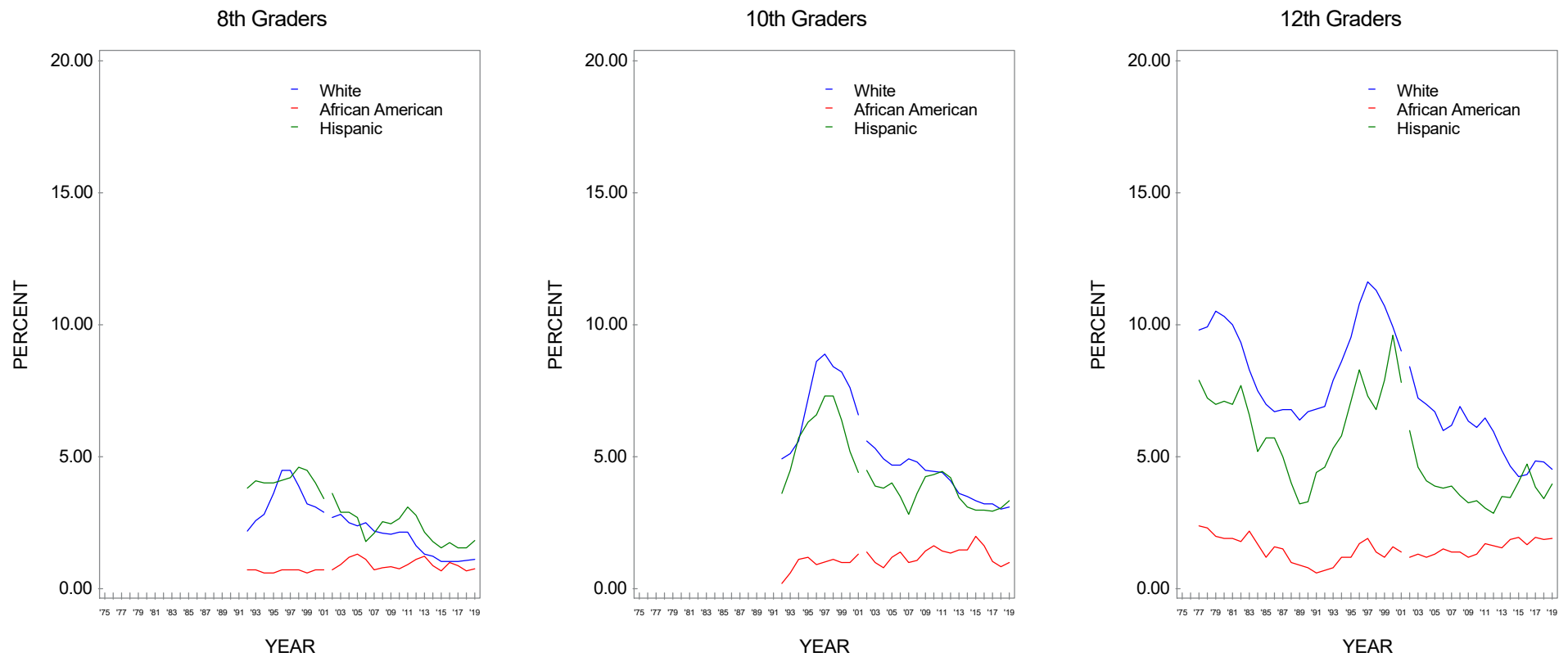
54

FIGURE 55
LSD: Trends in Annual Prevalence by Gender
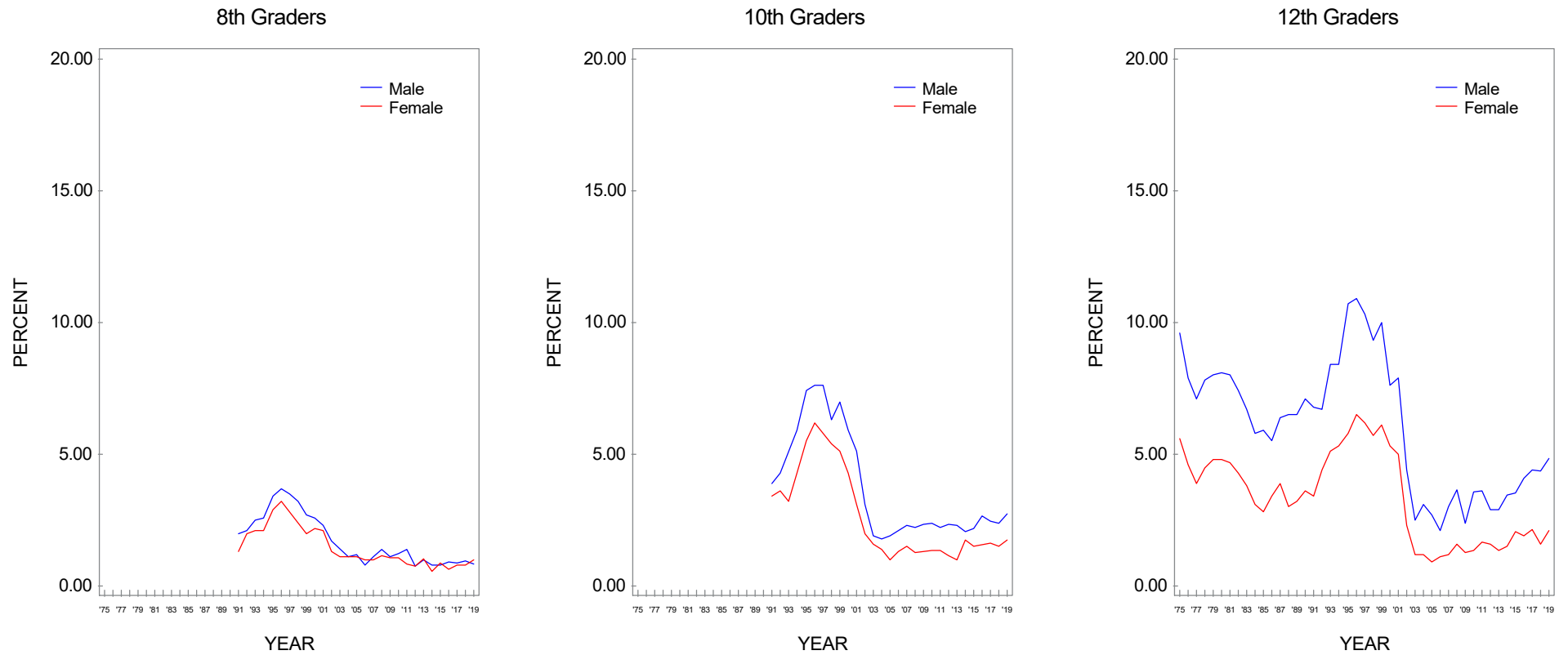
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 56
LSD: Trends in Annual Prevalence by College Plans
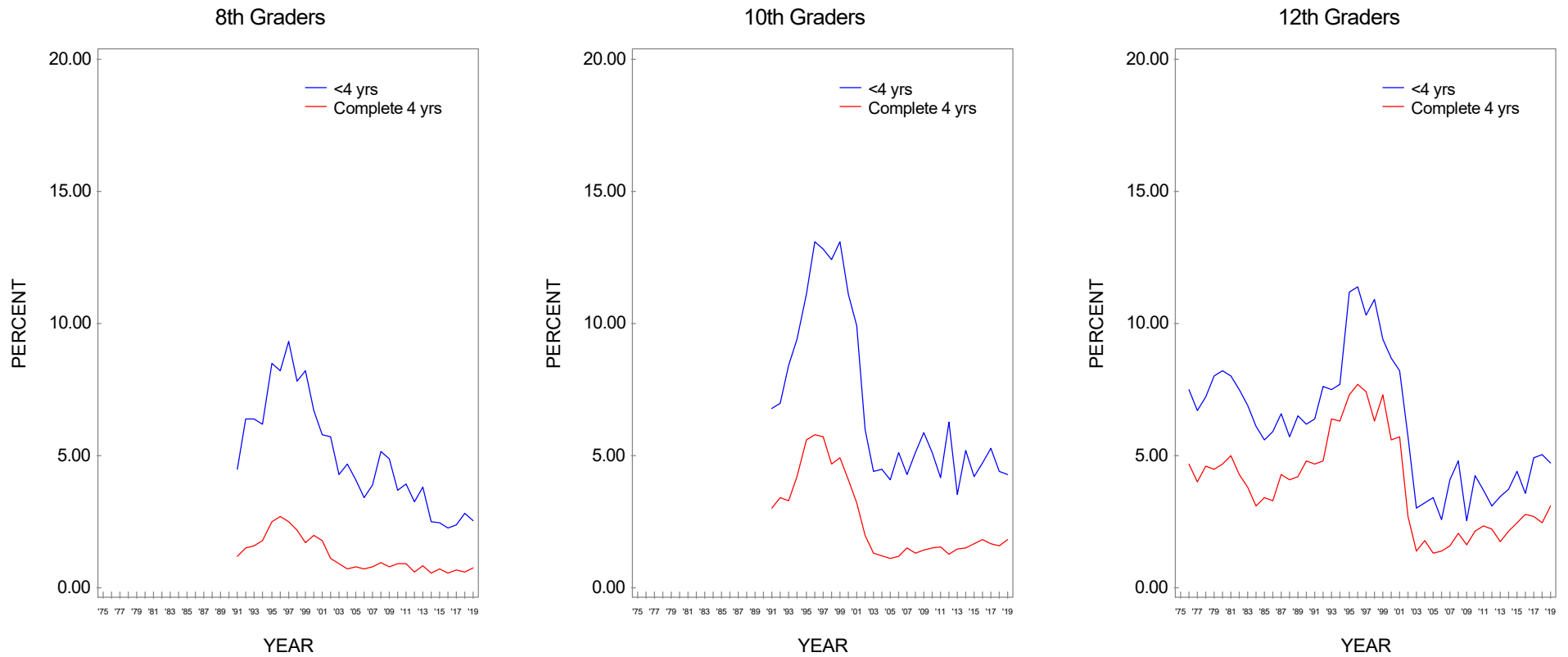
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 57
LSD: Trends in Annual Prevalence by Region

8th Graders

Northeast
Midwest
South
West

10th Graders

Northeast
Midwest
South
West

12th Graders

Northeast
Midwest
South
West

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

FIGURE 58
LSD: Trends in Annual Prevalence by Population Density
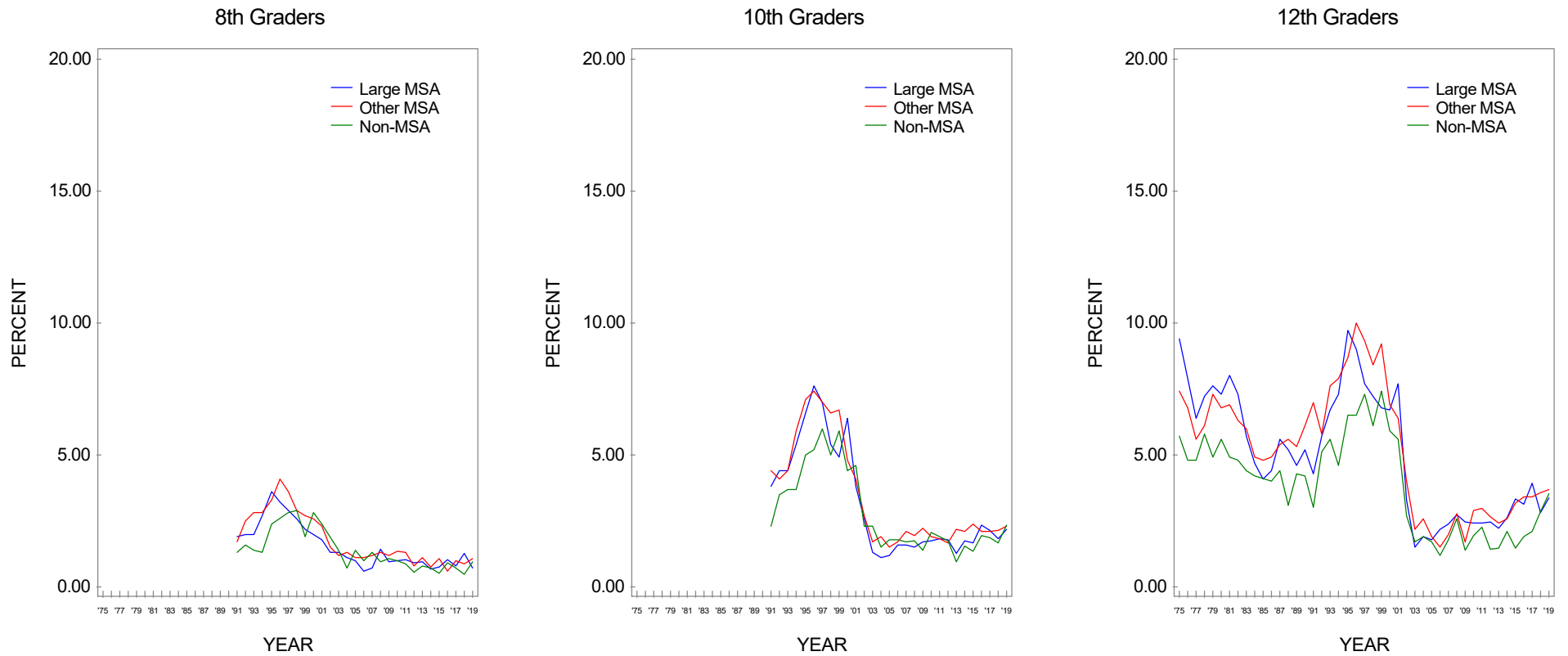
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 59
LSD: Trends in Annual Prevalence by Average Education Level of Parents*
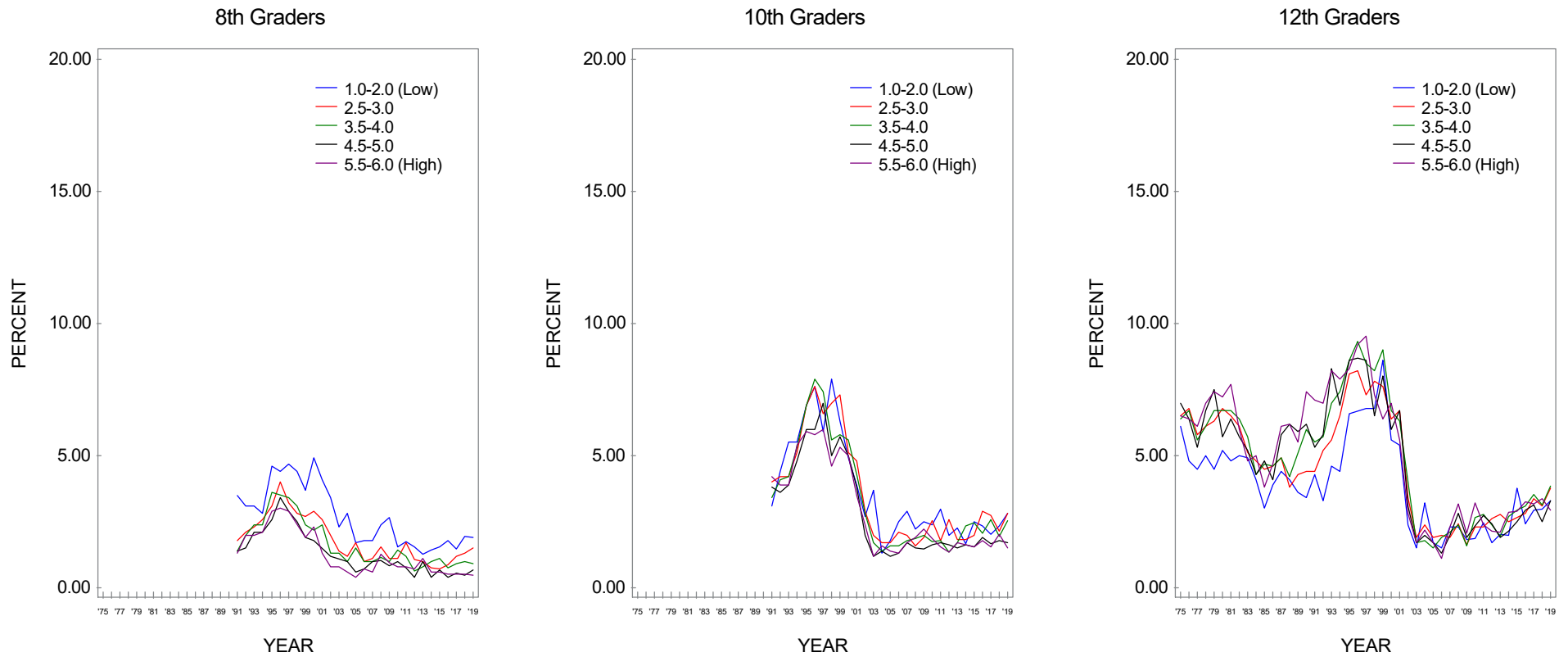
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 60
LSD: Trends in Annual Prevalence by Race/Ethnicity*
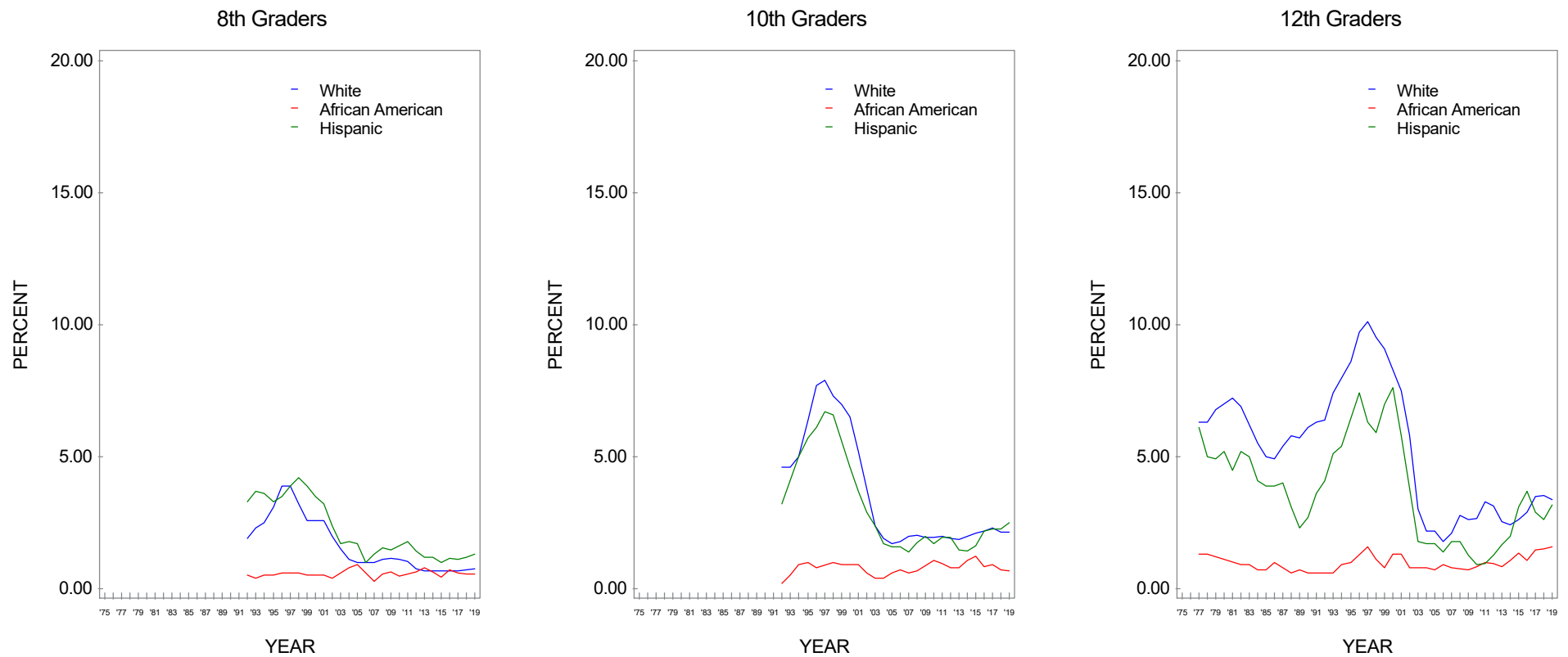
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 61

Hallucinogens other than LSD:* Trends in Annual Prevalence by Gender
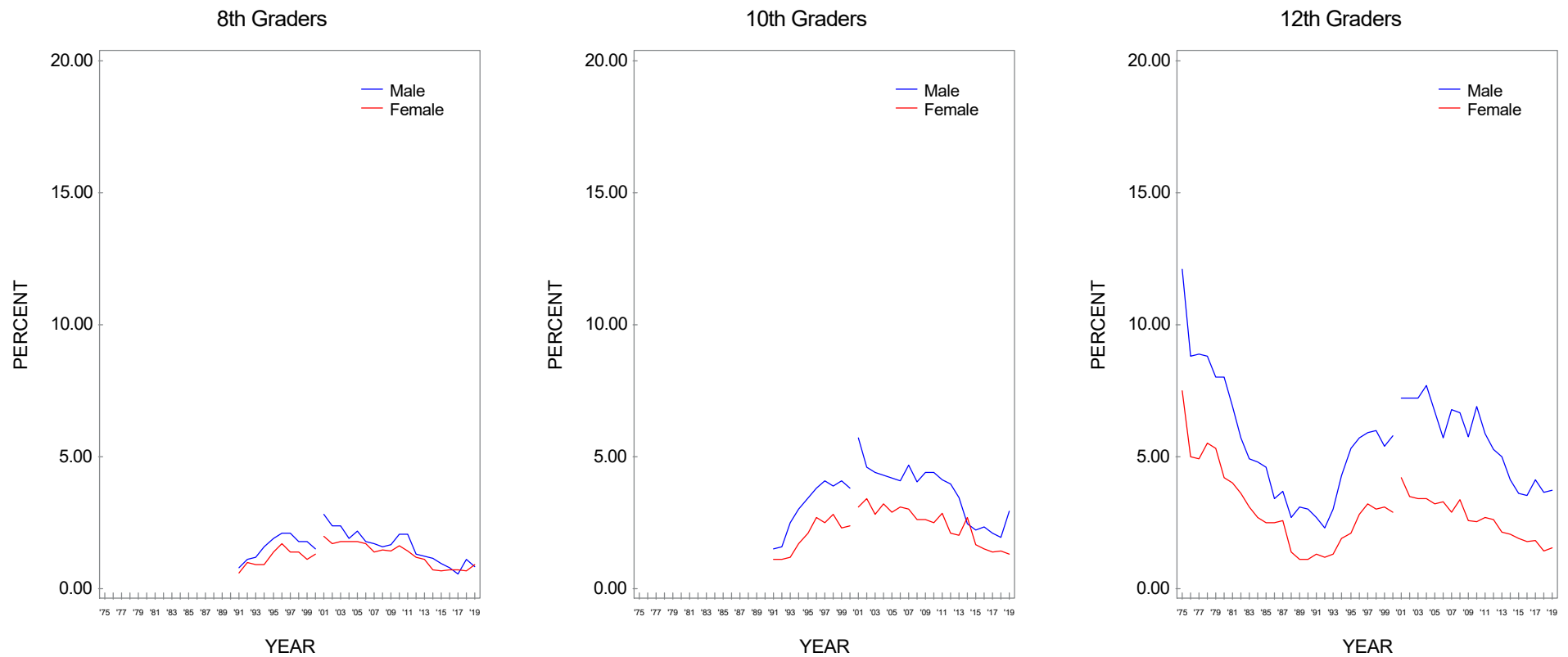
FIGURE 62
Hallucinogens other than LSD:* Trends in Annual Prevalence by College Plans
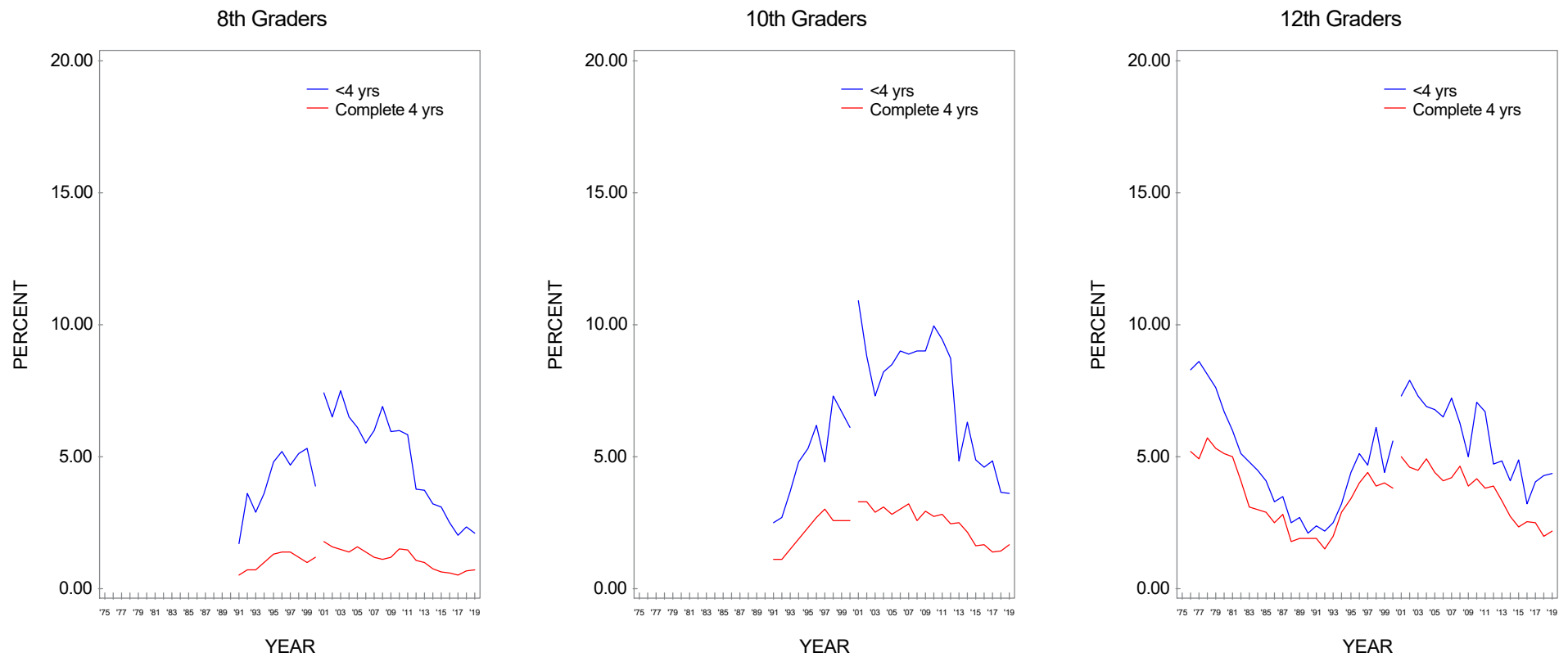
Source.   The Monitoring the Future study, the University of Michigan.
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples.

FIGURE 63
Hallucinogens other than LSD:* Trends in Annual Prevalence by Region
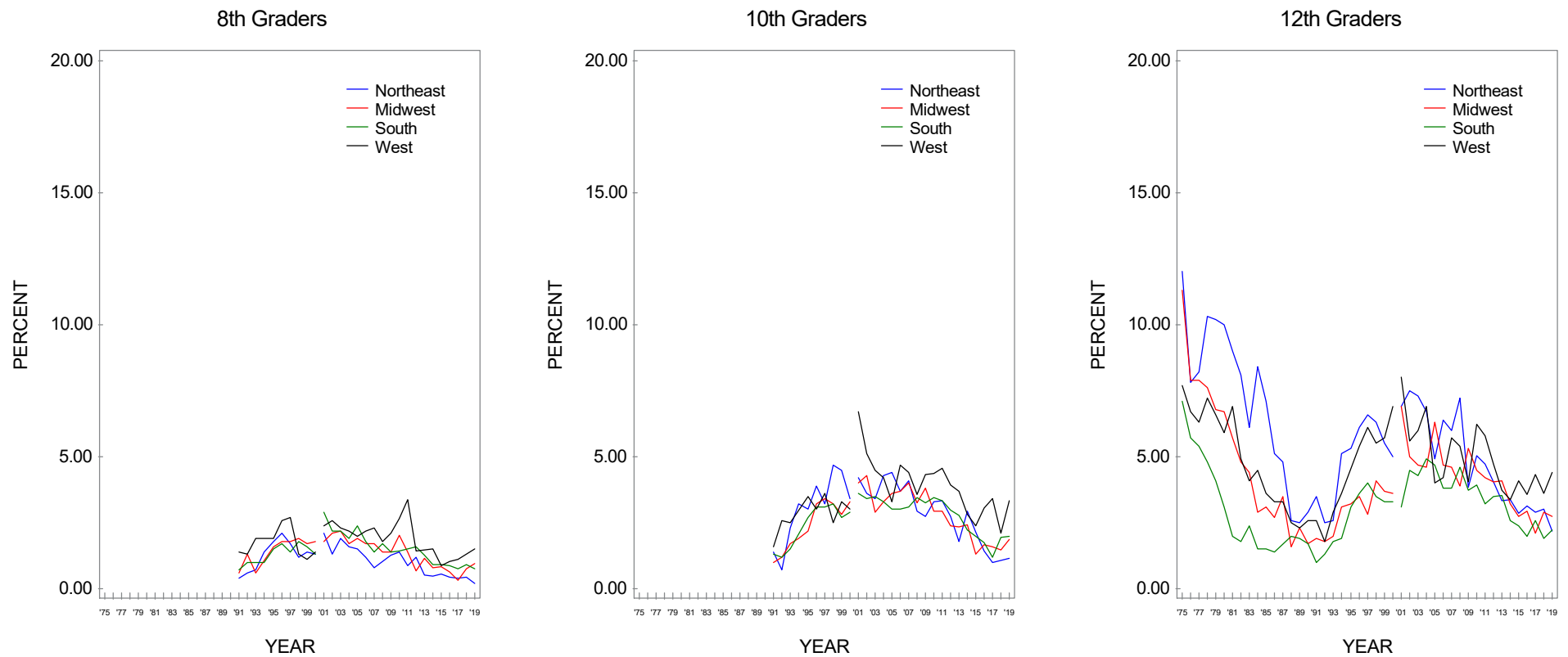
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples.

FIGURE 64

Hallucinogens other than LSD:* Trends in Annual Prevalence by Population Density
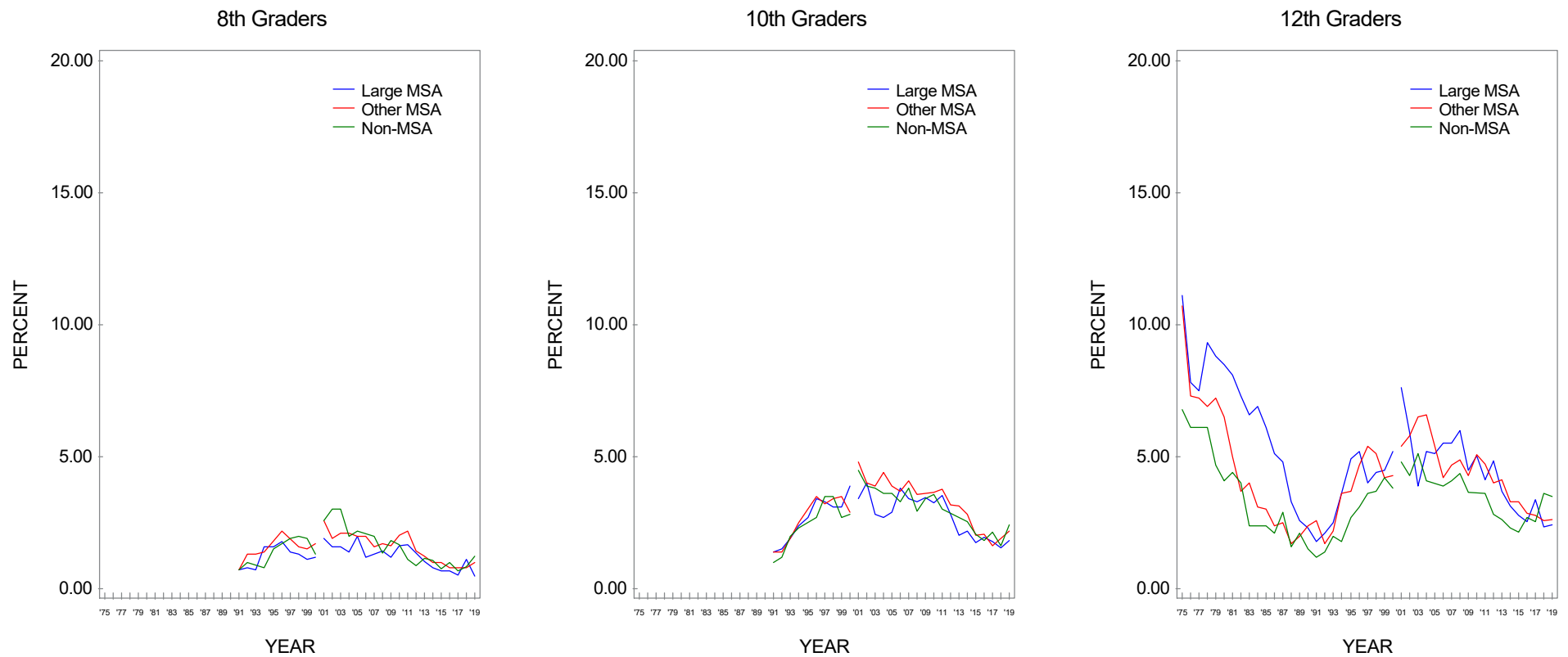
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples.

FIGURE 65

Hallucinogens other than LSD:* Trends in Annual Prevalence by Average Education Level of Parents**
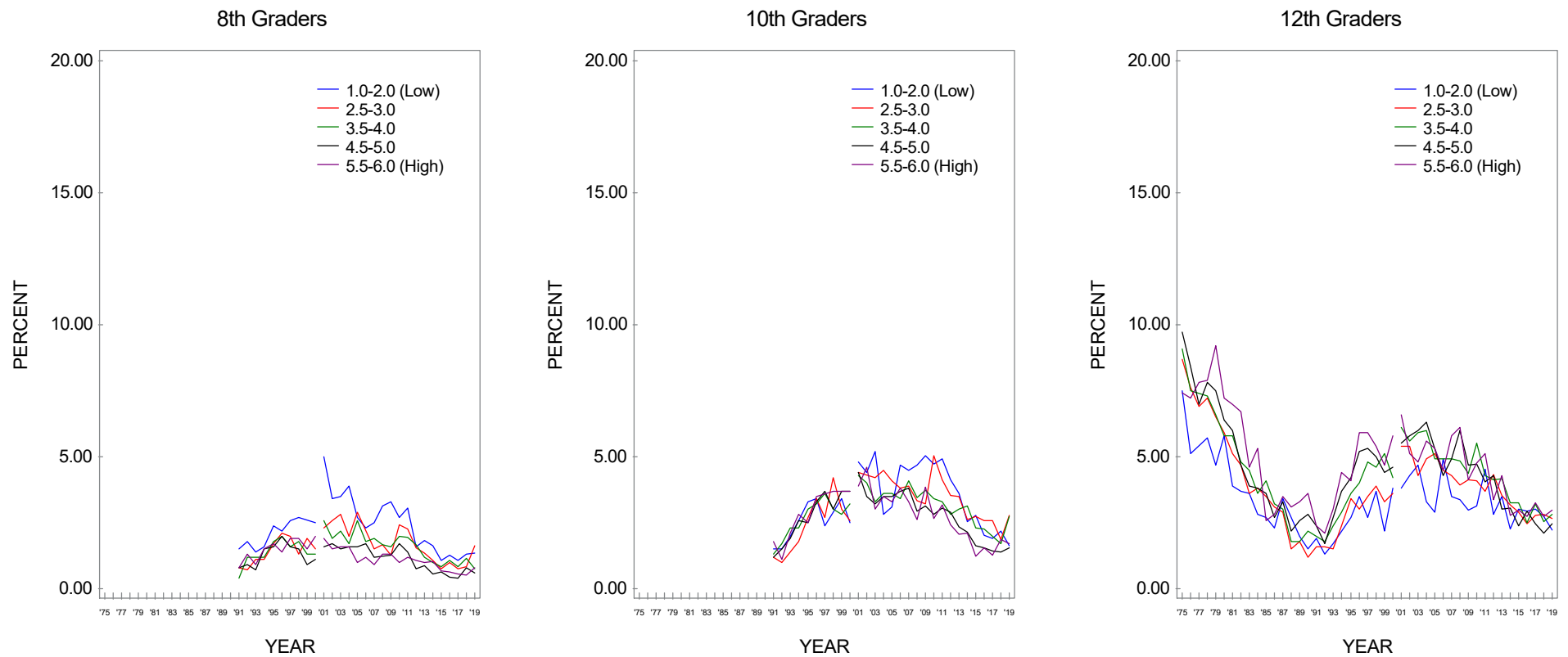
*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples.

**Parental education is an average score of mother's education and father's education.

FIGURE 66
Hallucinogens other than LSD:* Trends in Annual Prevalence by Race/Ethnicity**
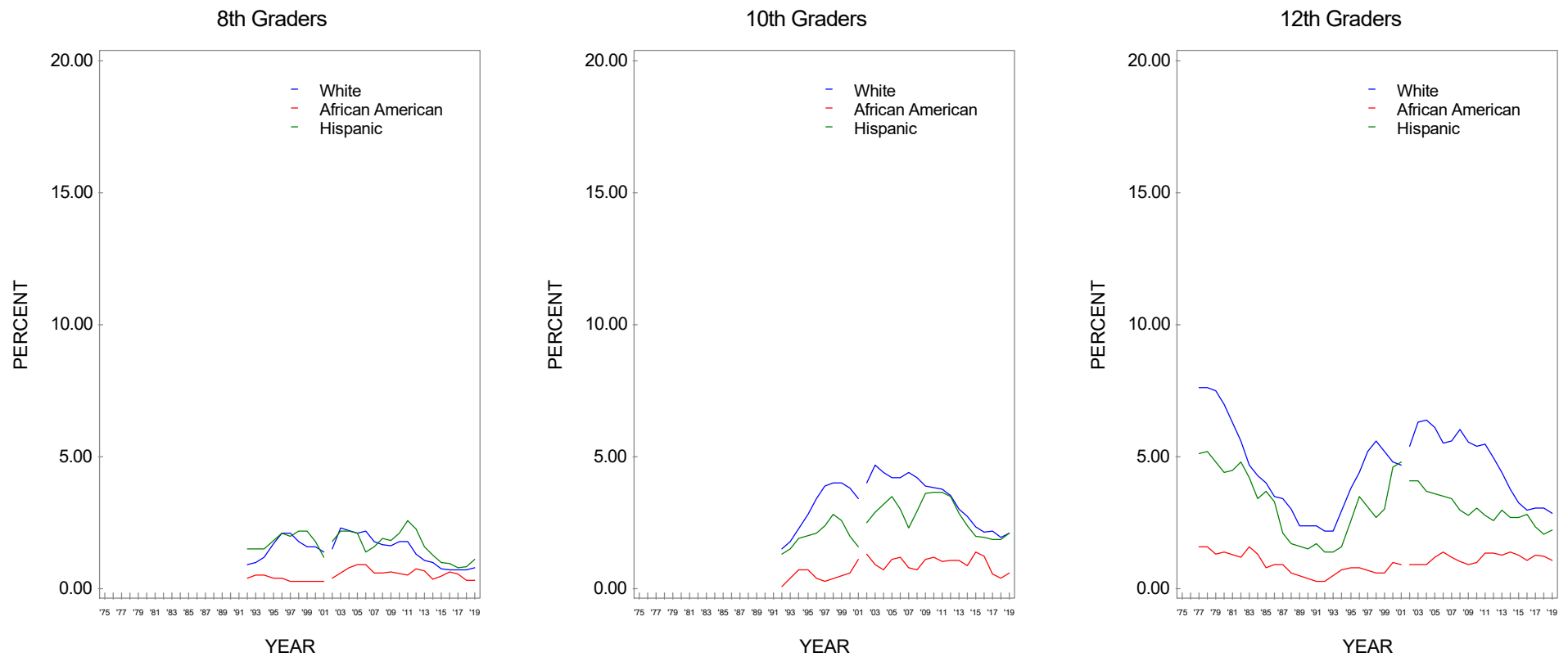
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on other hallucinogen use was introduced. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 67
MDMA (Ecstasy, Molly)*: Trends in Annual Prevalence by Gender
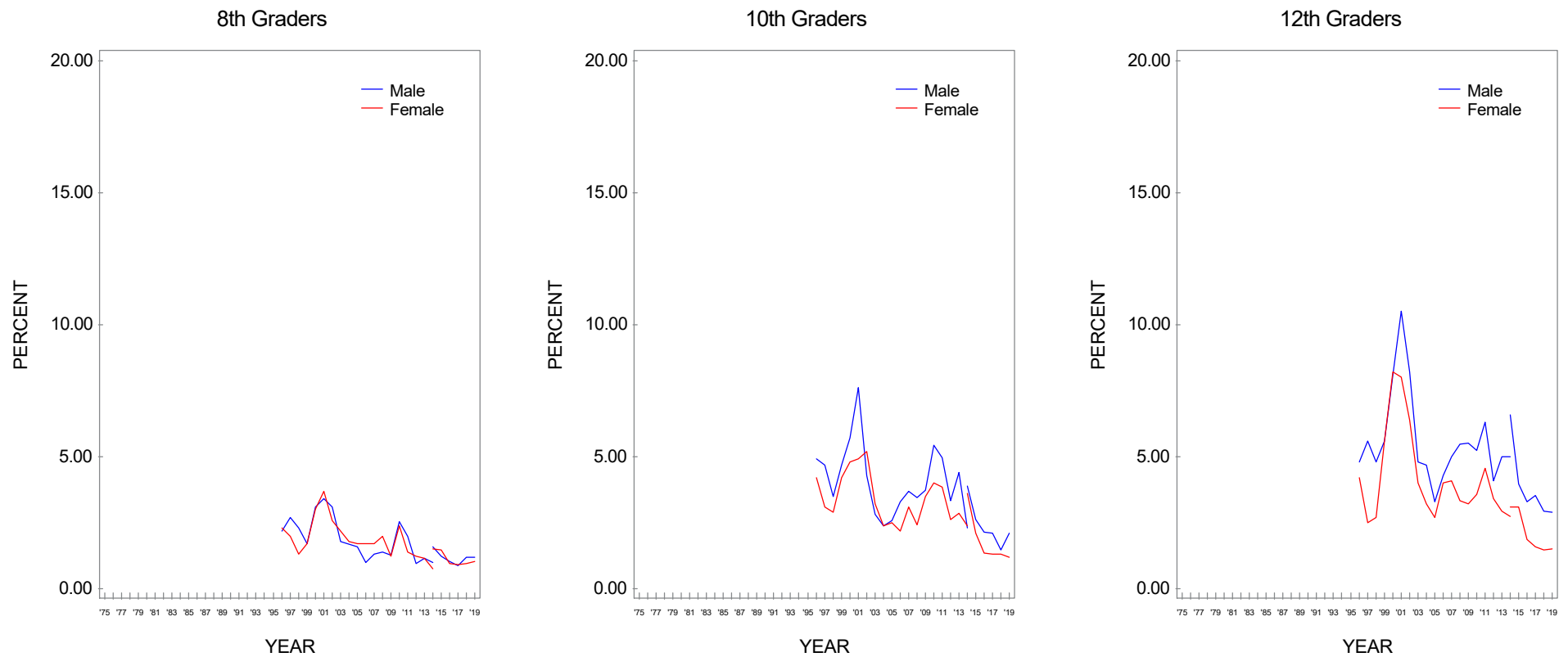
Source.   The Monitoring the Future study, the University of Michigan.

*In 2014, the question was changed in some of the questionnaire forms to include molly in the list of examples. In 2015, it was changed in the remaining forms. Data is presented here for both versions of the question.

FIGURE 68
MDMA (Ecstasy, Molly)*: Trends in Annual Prevalence by College Plans
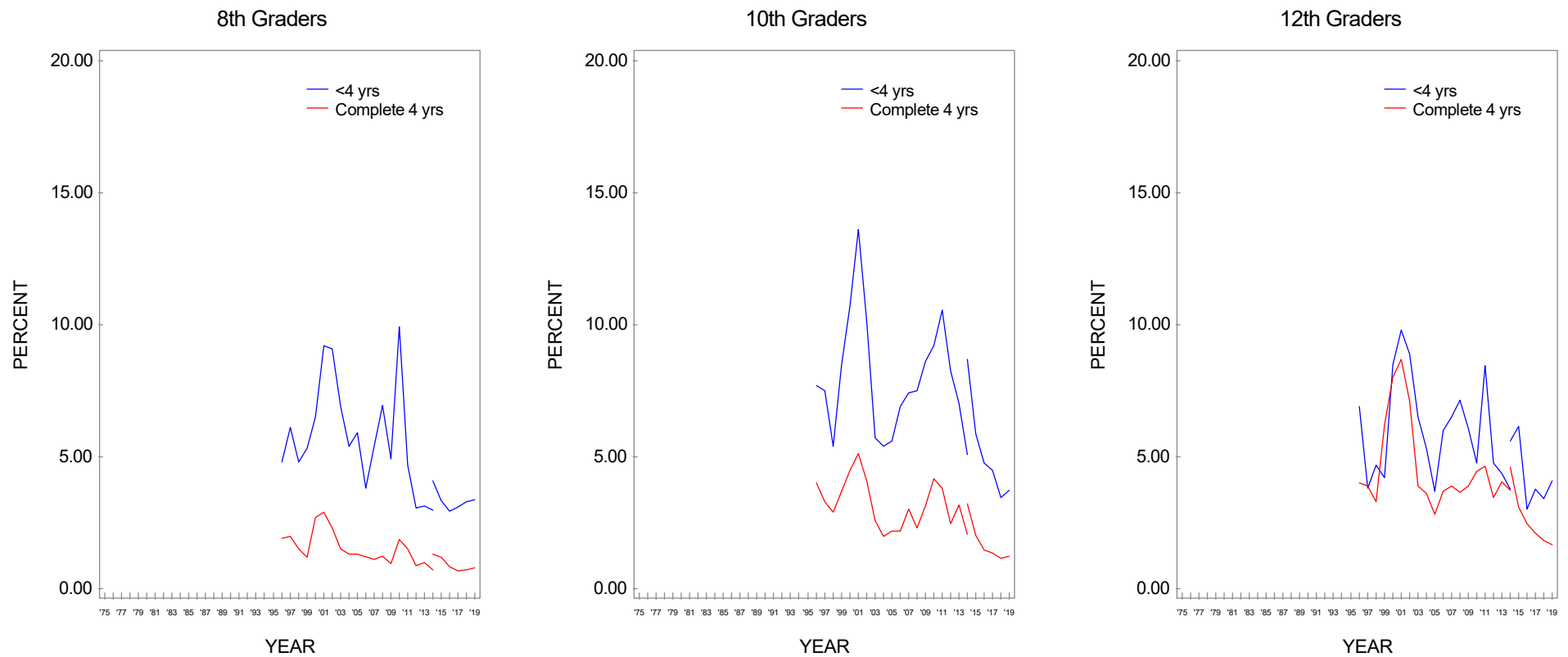
Source. The Monitoring the Future study, the University of Michigan.

*In 2014, the question was changed in some of the questionnaire forms to include molly in the list of examples. In 2015, it was changed in the remaining forms. Data is presented here for both versions of the question.

FIGURE 69

MDMA (Ecstasy, Molly)*: Trends in Annual Prevalence by Region
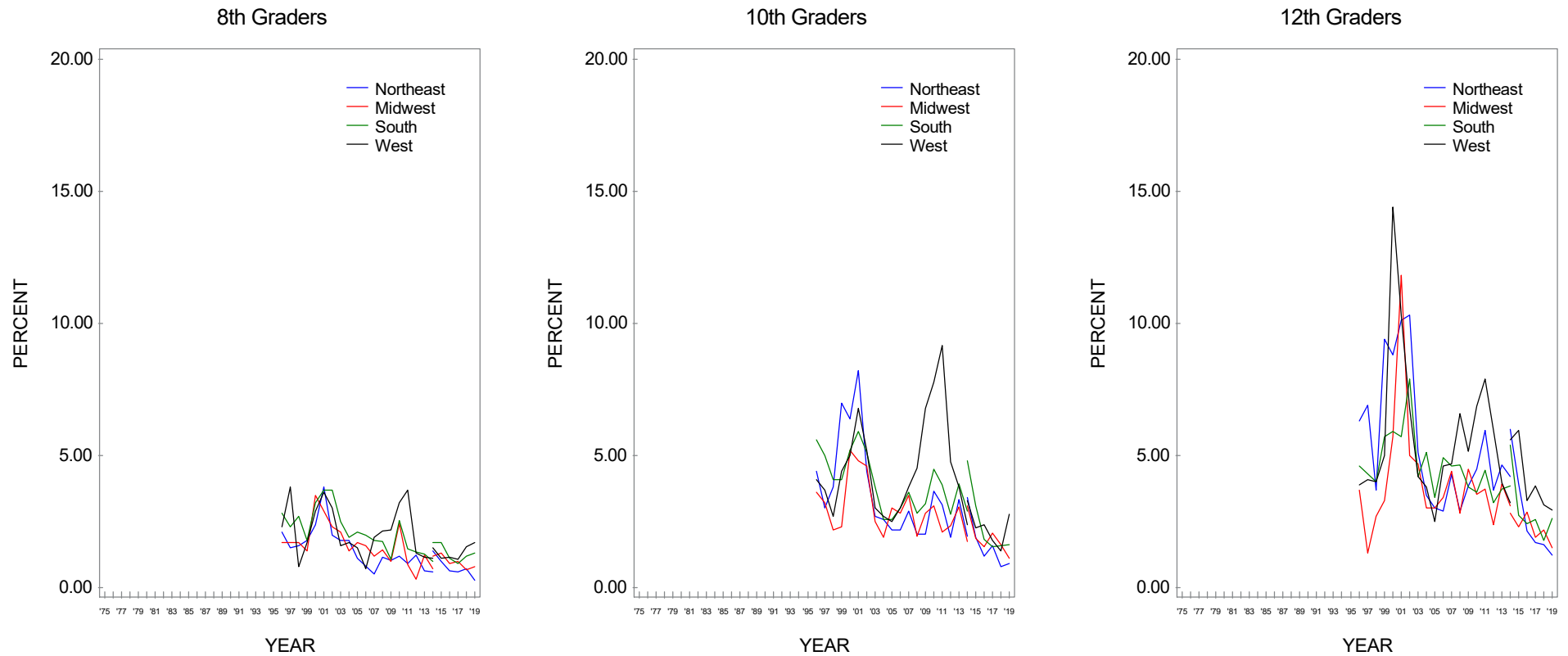
Source. The Monitoring the Future study, the University of Michigan.

*In 2014, the question was changed in some of the questionnaire forms to include molly in the list of examples. In 2015, it was changed in the remaining forms. Data is presented here for both versions of the question.

FIGURE 70
MDMA (Ecstasy, Molly)*: Trends in Annual Prevalence by Population Density
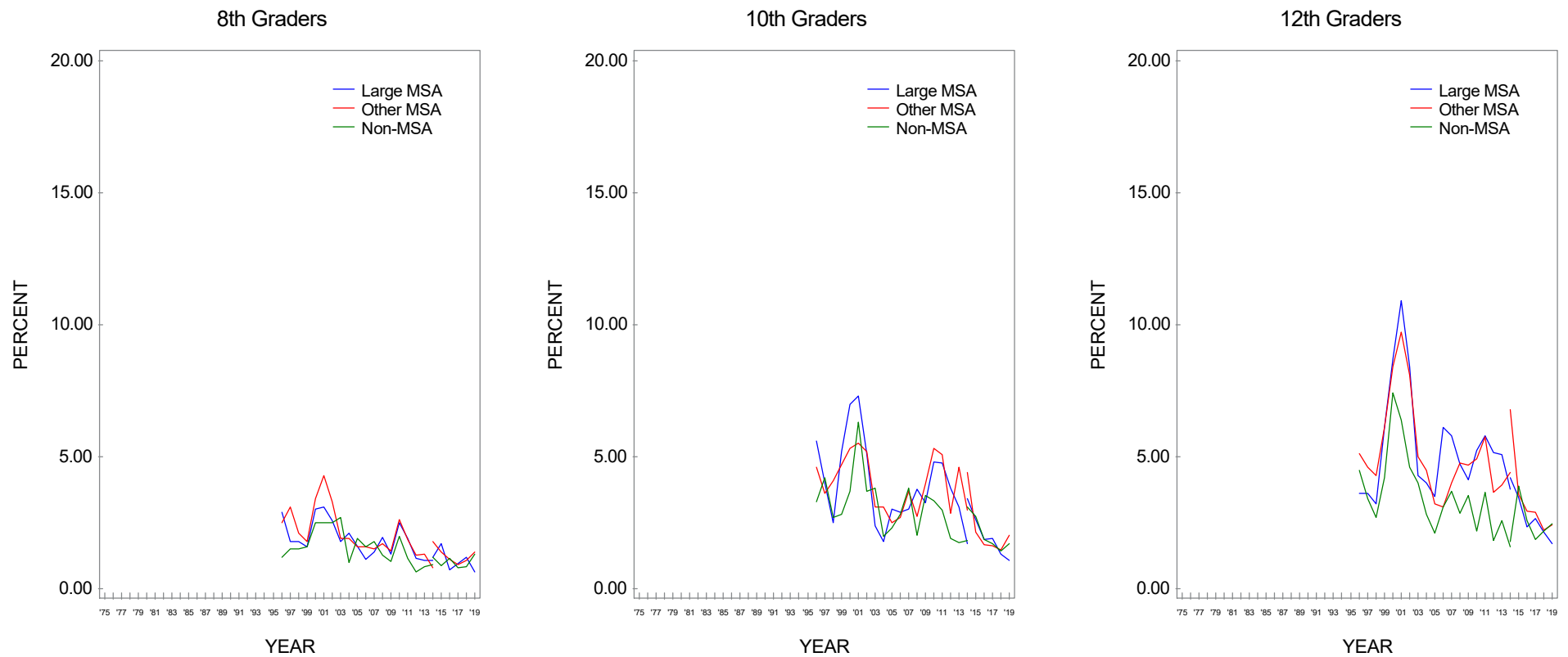
*In 2014, the question was changed in some of the questionnaire forms to include molly in the list of examples. In 2015, it was changed in the remaining forms. Data is presented here for both versions of the question.

FIGURE 71

MDMA (Ecstasy, Molly)*: Trends in Annual Prevalence by Average Education Level of Parents**
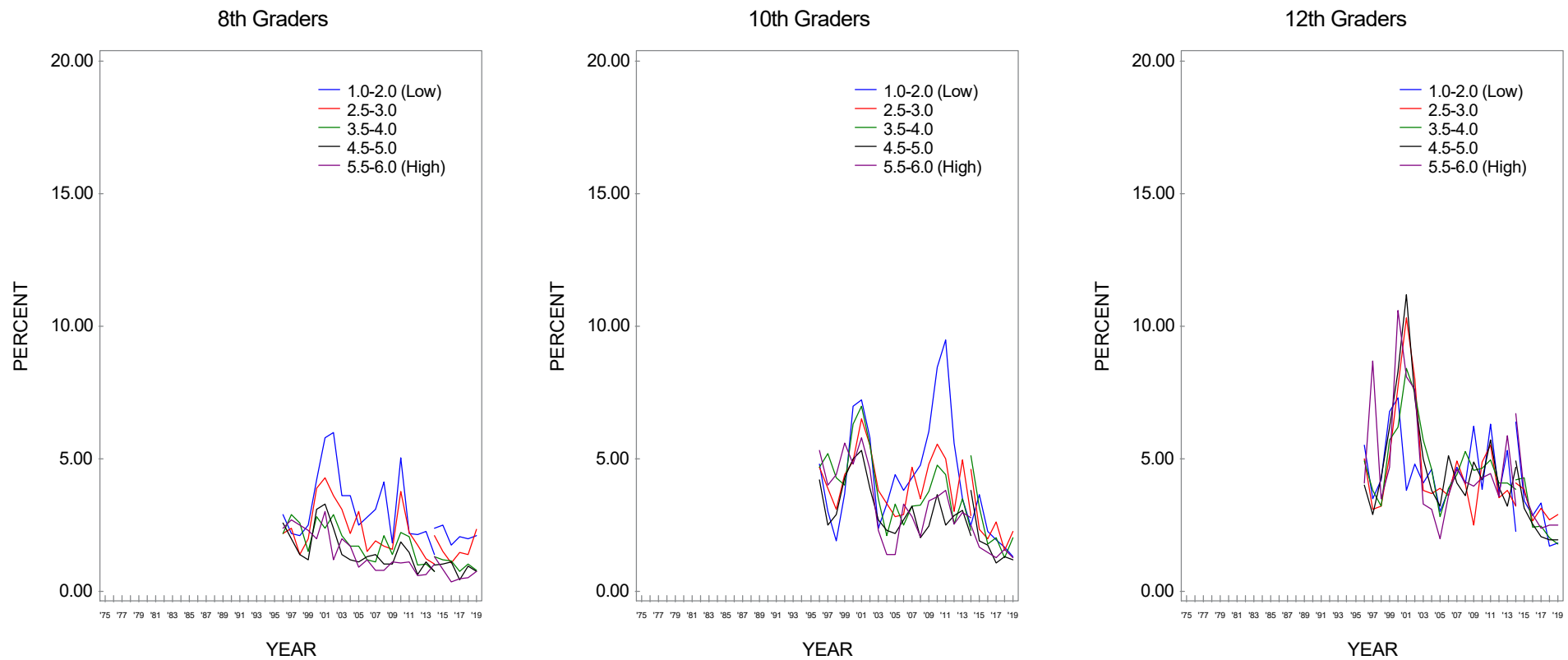
Source. The Monitoring the Future study, the University of Michigan.

*In 2014, the question was changed in some of the questionnaire forms to include molly in the list of examples. In 2015, it was changed in the remaining forms. Data is presented here for both versions of the question.

**Parental education is an average score of mother's education and father's education.

FIGURE 72
MDMA (Ecstasy, Molly)*: Trends in Annual Prevalence by Race/Ethnicity**
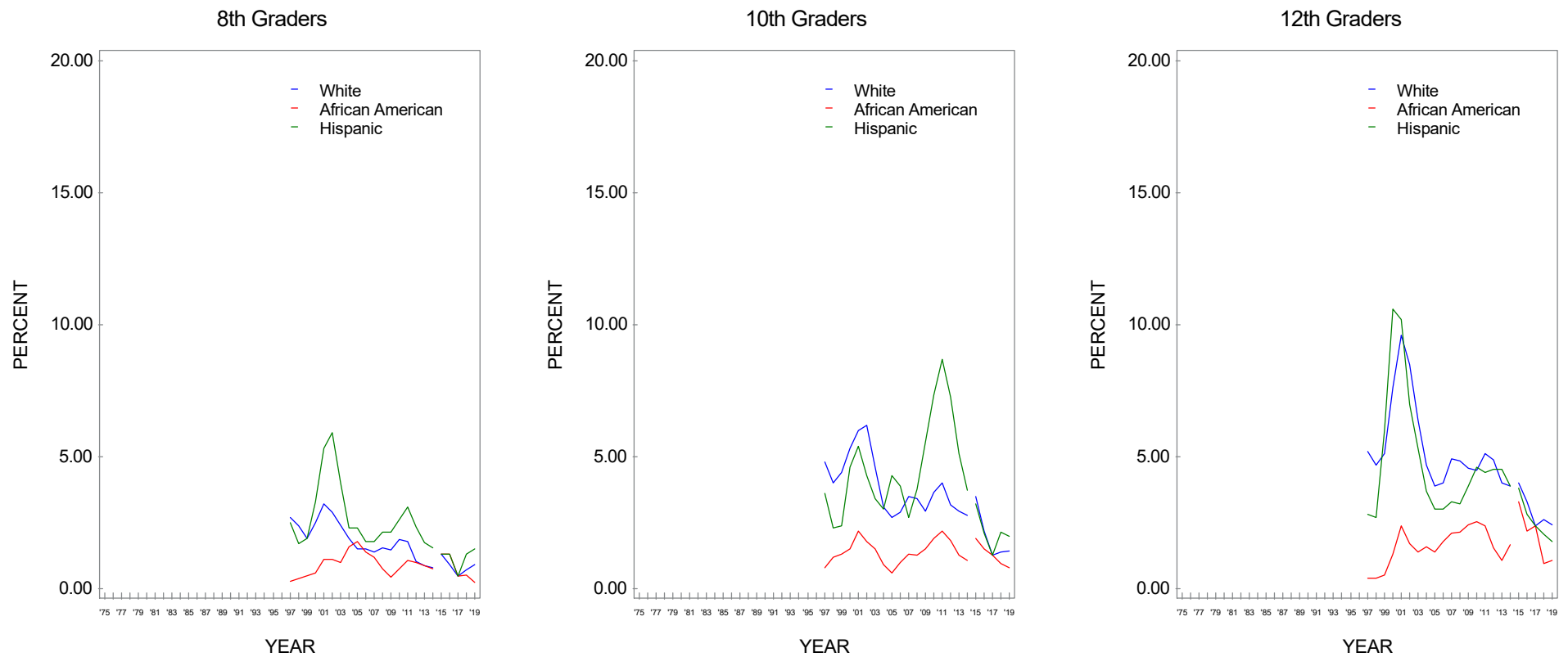
Source. The Monitoring the Future study, the University of Michigan.

*In 2014, the question was changed in some of the questionnaire forms to include molly in the list of examples. In 2015, it was changed in the remaining forms. Data is presented here for both versions of the question.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 73
Salvia: Trends in Annual Prevalence by Gender

8th Graders
10th Graders
12th Graders
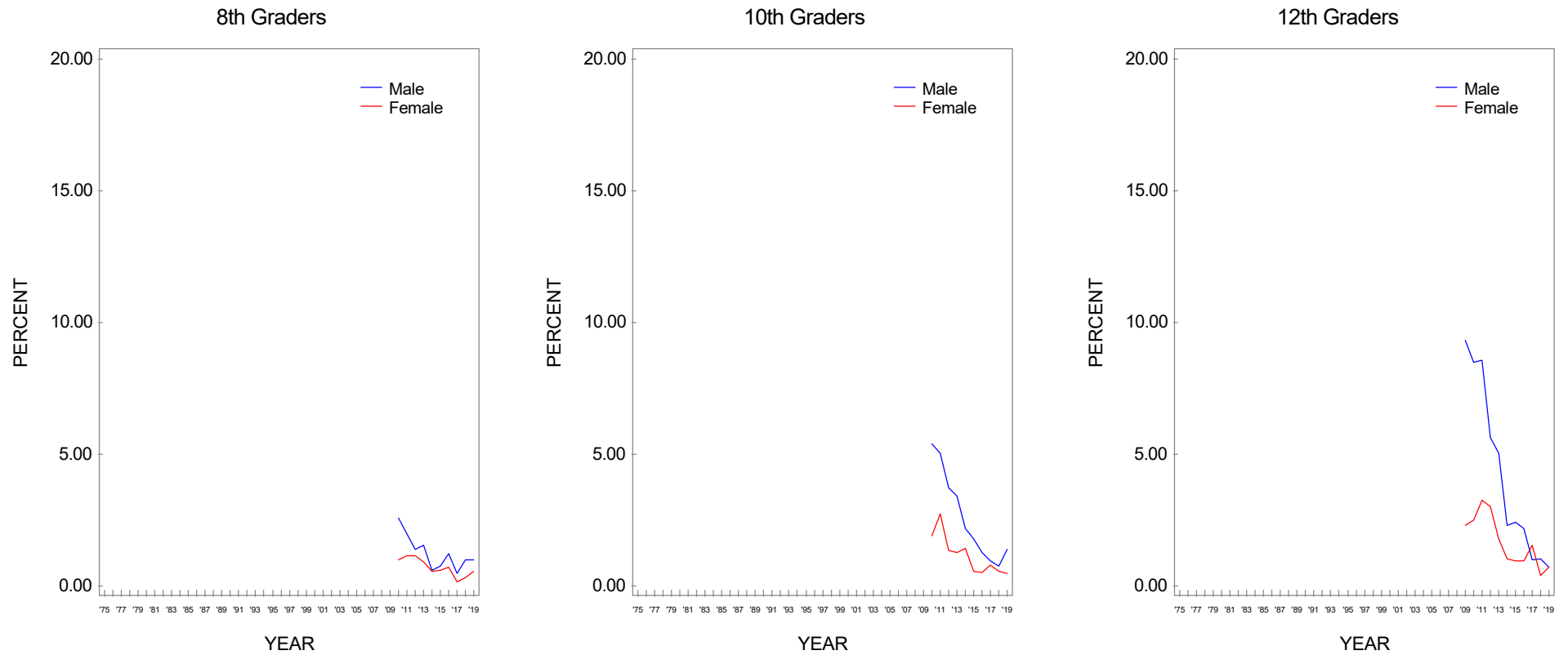
FIGURE 74
Salvia: Trends in Annual Prevalence by College Plans

8th Graders

PERCENT

- <4 yrs
- Complete 4 yrs

20.00
15.00
10.00
5.00
0.00

'75 '77 '79 '81 '83 '85 '87 '89 '91 '93 '95 '97 '99 '01 '03 '05 '07 '09 '11 '13 '15 '17 '19

YEAR

10th Graders

PERCENT

- <4 yrs
- Complete 4 yrs

20.00
15.00
10.00
5.00
0.00

'75 '77 '79 '81 '83 '85 '87 '89 '91 '93 '95 '97 '99 '01 '03 '05 '07 '09 '11 '13 '15 '17 '19

YEAR

12th Graders

PERCENT

- <4 yrs
- Complete 4 yrs

20.00
15.00
10.00
5.00
0.00

'75 '77 '79 '81 '83 '85 '87 '89 '91 '93 '95 '97 '99 '01 '03 '05 '07 '09 '11 '13 '15 '17 '19

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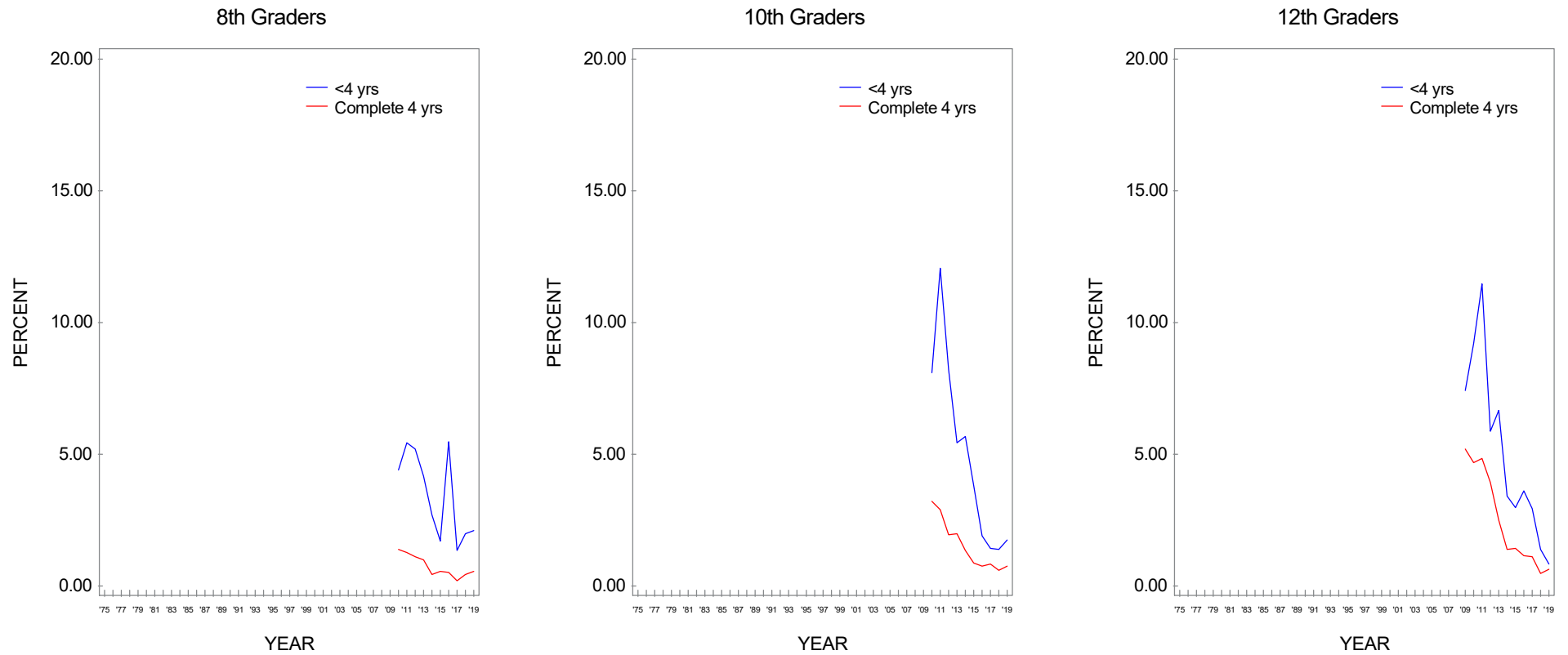
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 75
Salvia: Trends in Annual Prevalence by Region

8th Graders
10th Graders
12th Graders
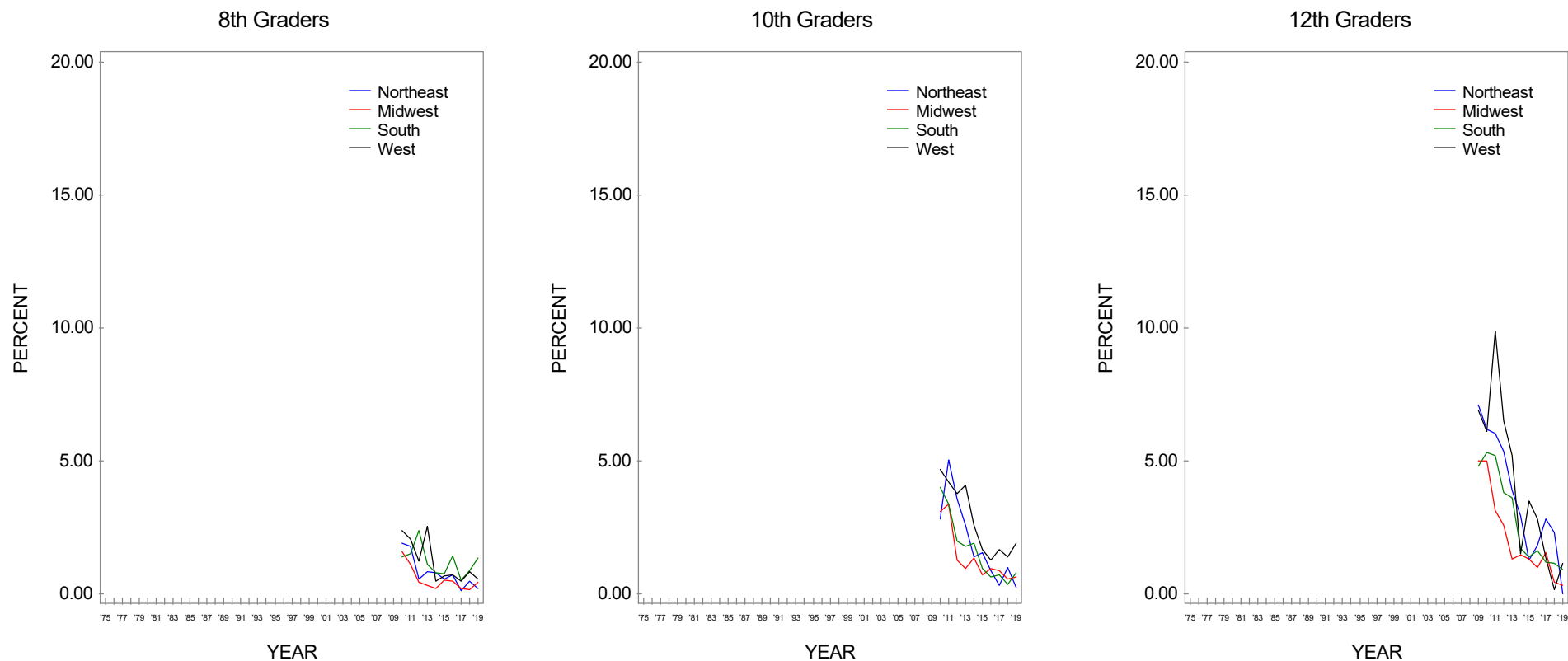
FIGURE 76
Salvia: Trends in Annual Prevalence by Population Density

FIGURE 77
Salvia: Trends in Annual Prevalence by Average Education Level of Parents*
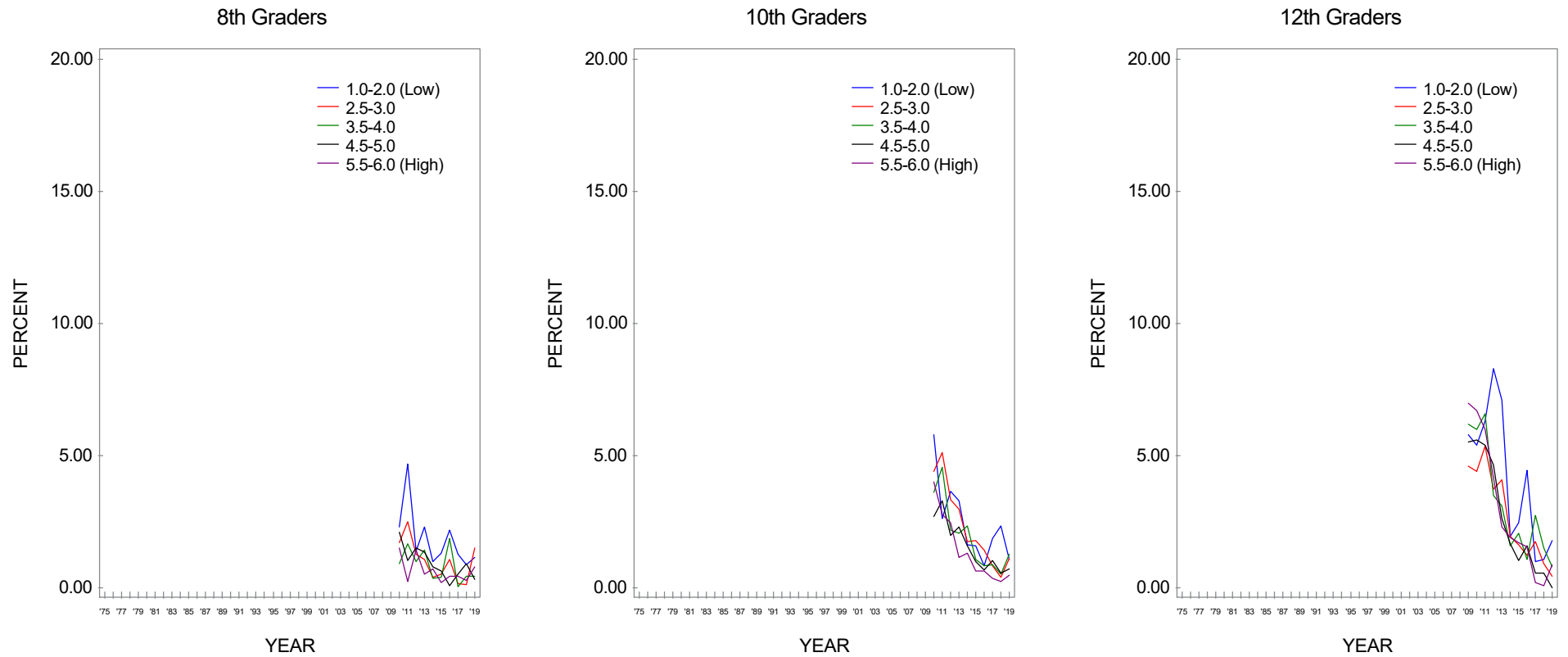
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 78
Salvia: Trends in Annual Prevalence by Race/Ethnicity*

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 79
Cocaine*: Trends in Annual Prevalence by Gender
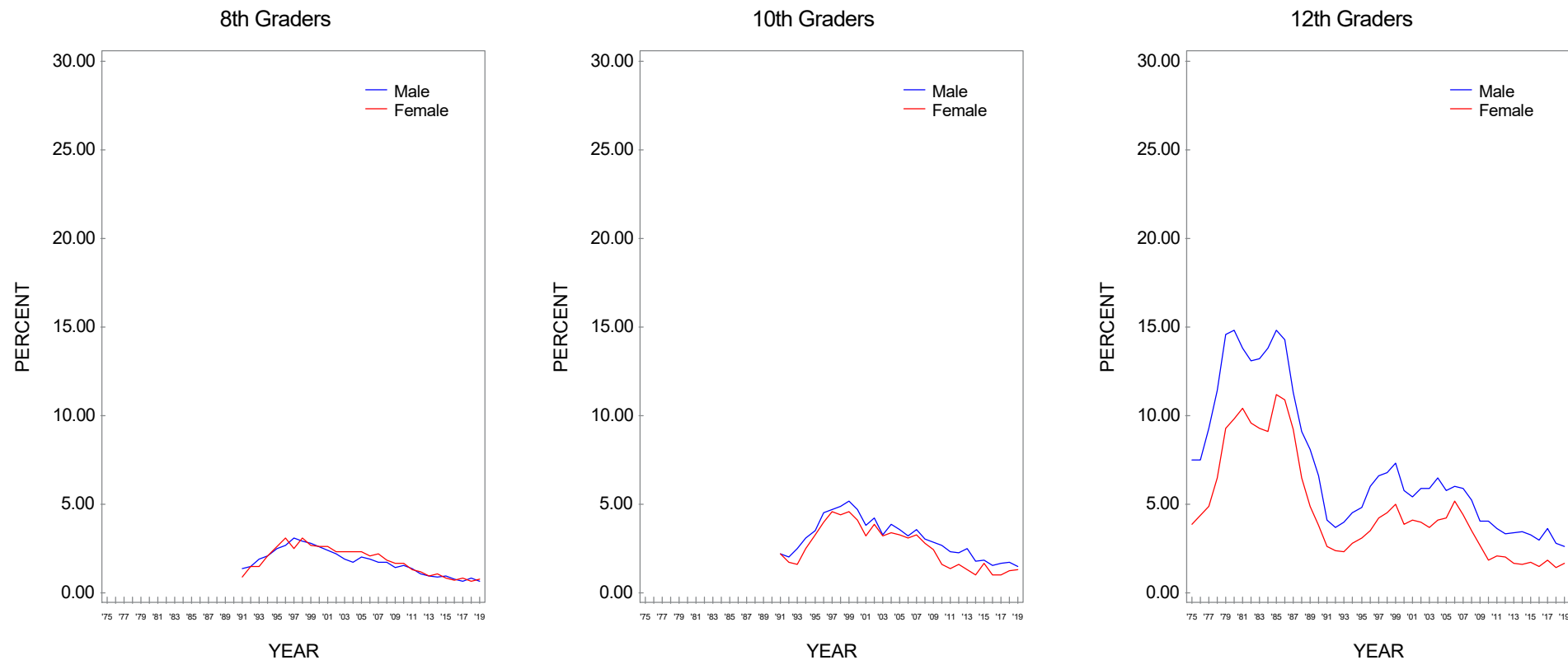
Source. The Monitoring the Future study, the University of Michigan.
*Cocaine in any form.

FIGURE 80
Cocaine*: Trends in Annual Prevalence by College Plans
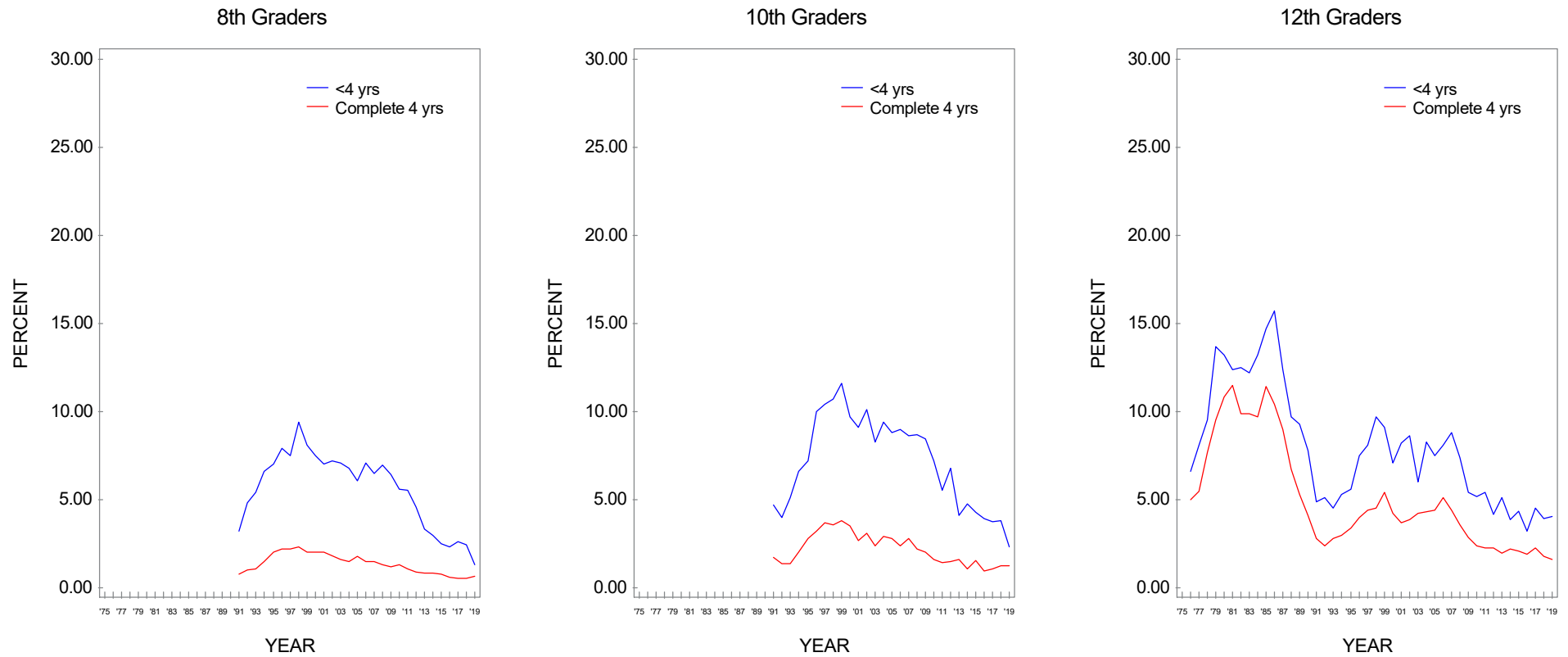
8th Graders / 10th Graders / 12th Graders — PERCENT vs YEAR, with lines for "<4 yrs" and "Complete 4 yrs"

Source. The Monitoring the Future study, the University of Michigan.
*Cocaine in any form.

FIGURE 81
Cocaine*: Trends in Annual Prevalence by Region
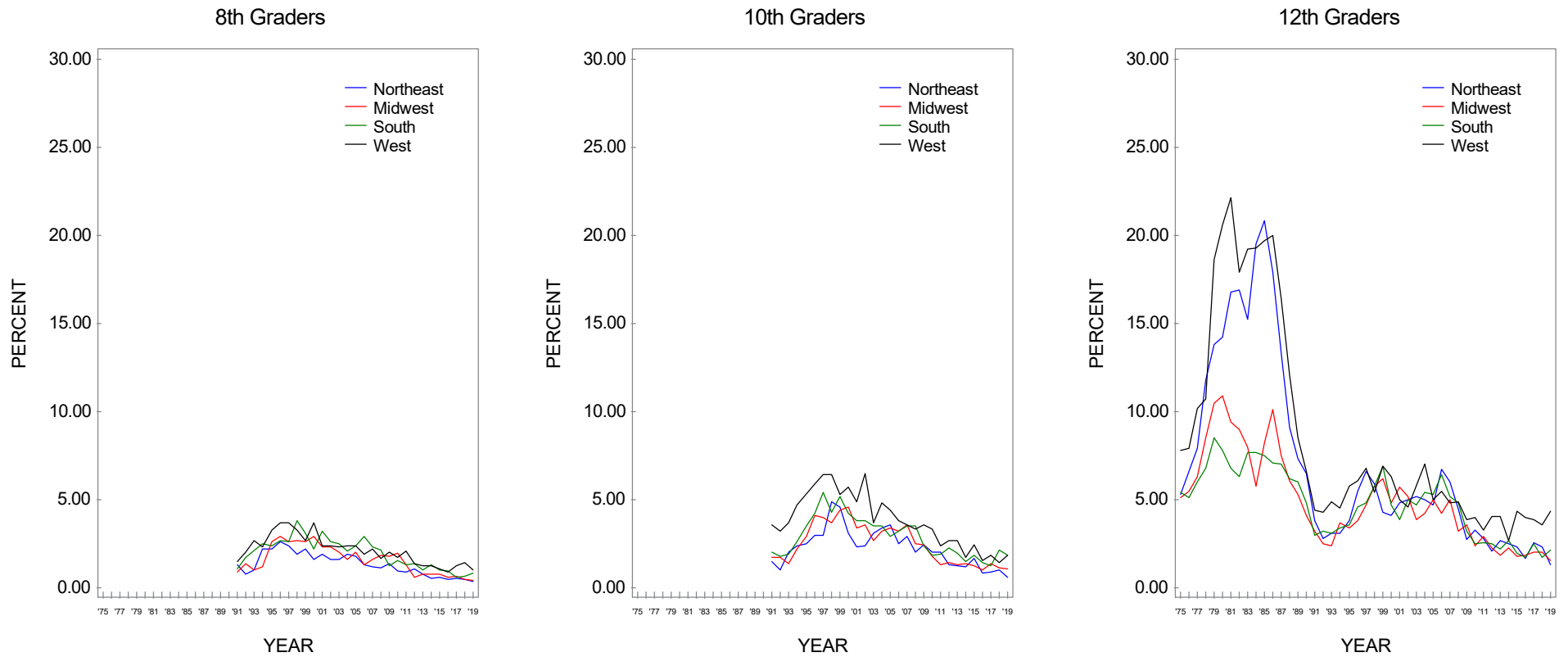
Source. The Monitoring the Future study, the University of Michigan.
*Cocaine in any form.

FIGURE 82
Cocaine*: Trends in Annual Prevalence by Population Density
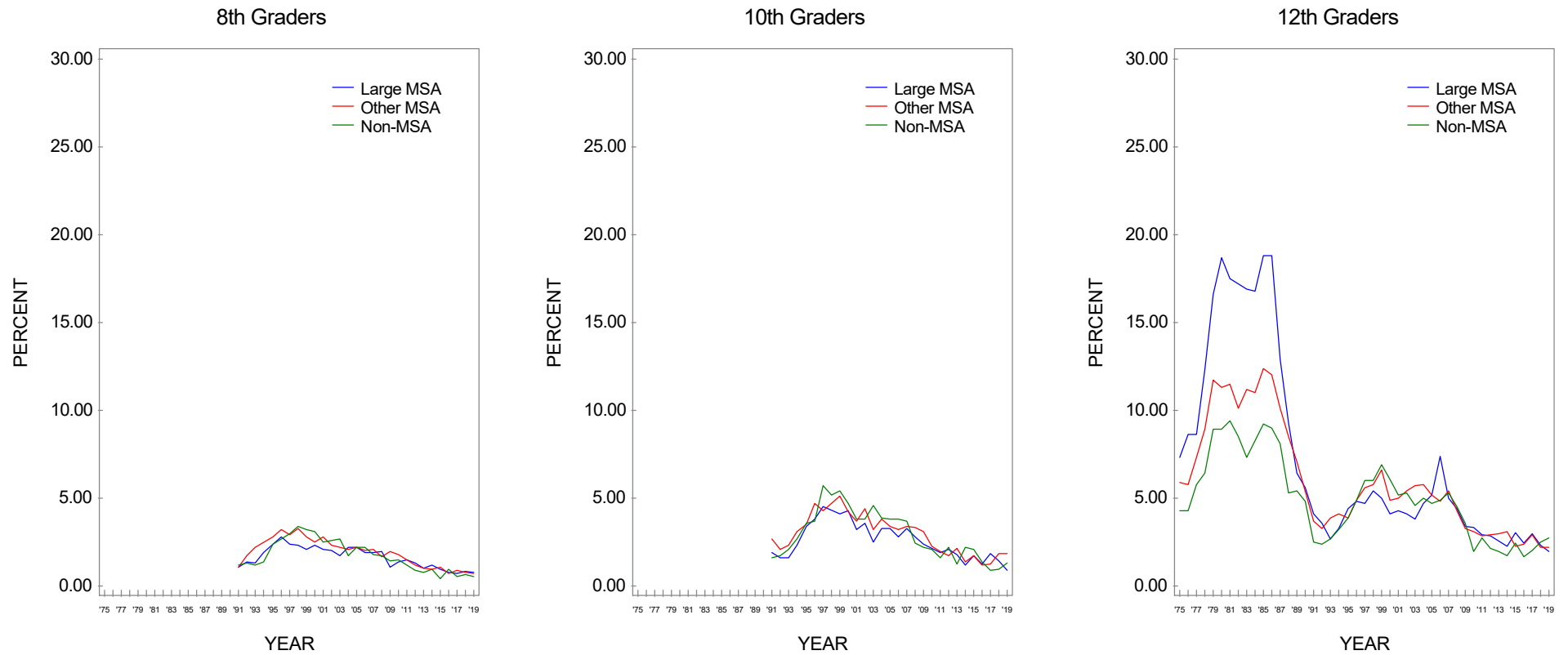
8th Graders

10th Graders

12th Graders

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

*Cocaine in any form.

FIGURE 83
Cocaine*: Trends in Annual Prevalence by Average Education Level of Parents**
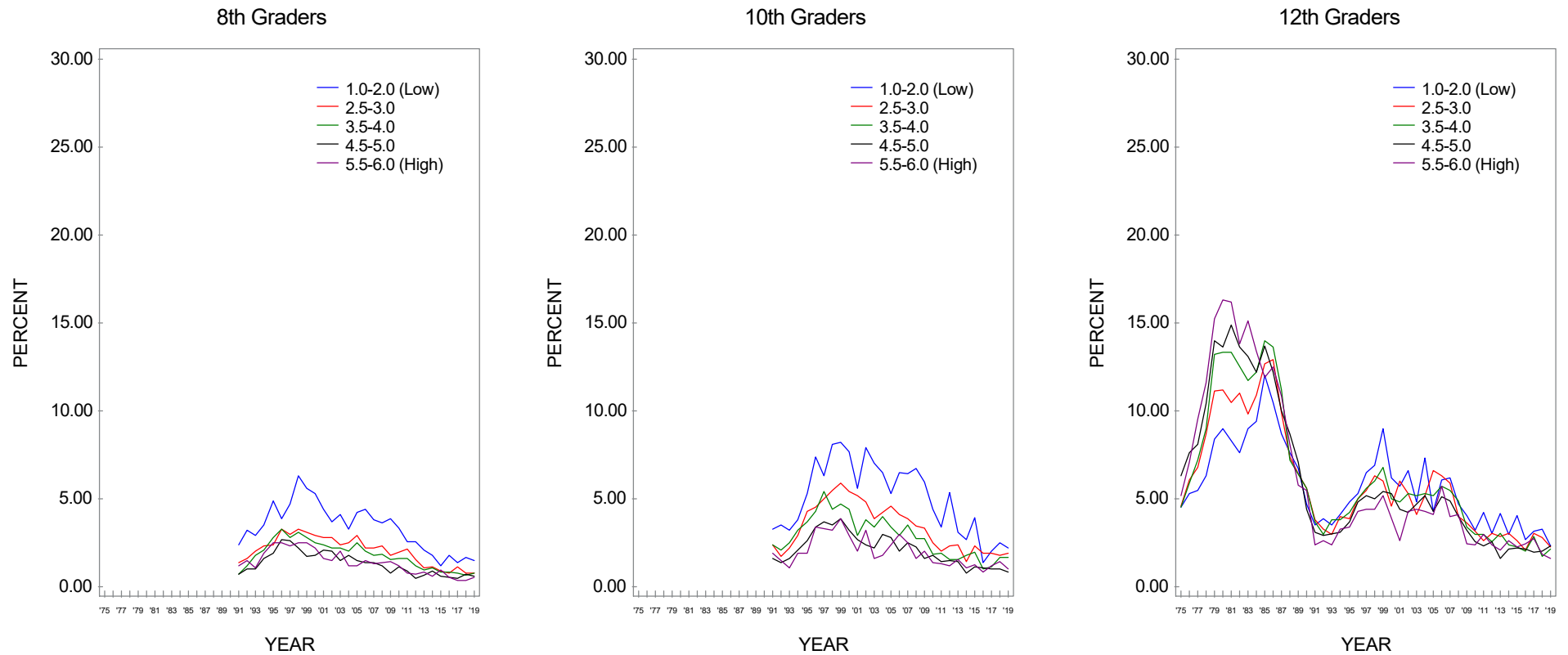
Source. The Monitoring the Future study, the University of Michigan.

*Cocaine in any form.

**Parental education is an average score of mother's education and father's education.

FIGURE 84
Cocaine*: Trends in Annual Prevalence by Race/Ethnicity**
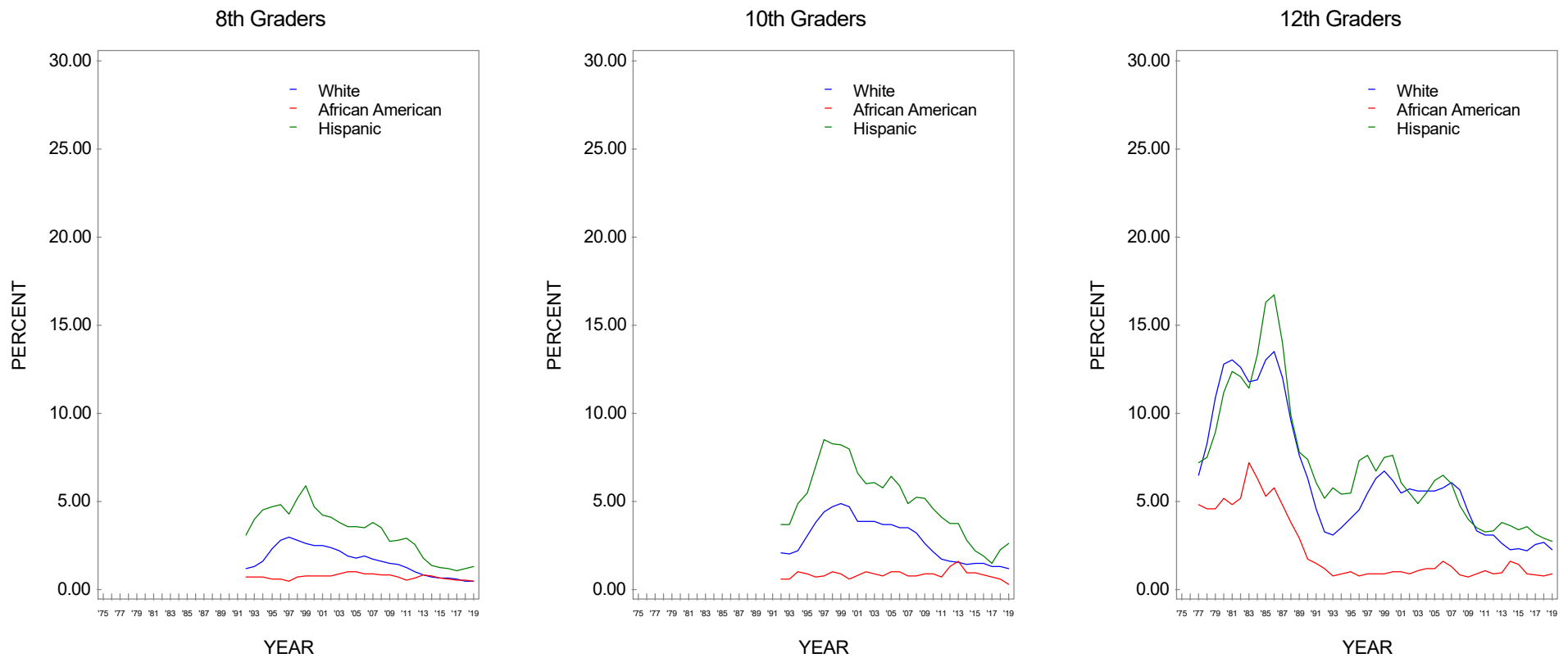
Source. The Monitoring the Future study, the University of Michigan.
*Cocaine in any form.
**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 85
Crack: Trends in Annual Prevalence by Gender
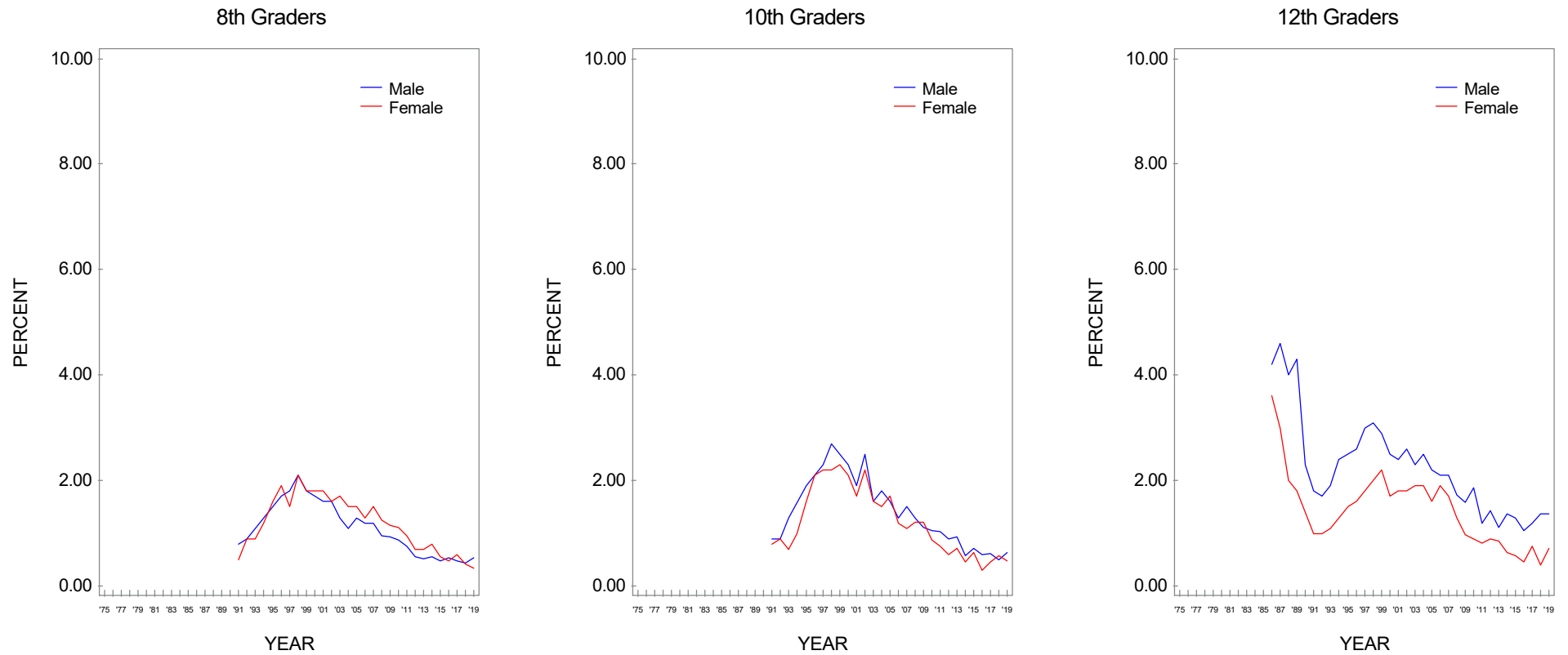
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 86
Crack: Trends in Annual Prevalence by College Plans
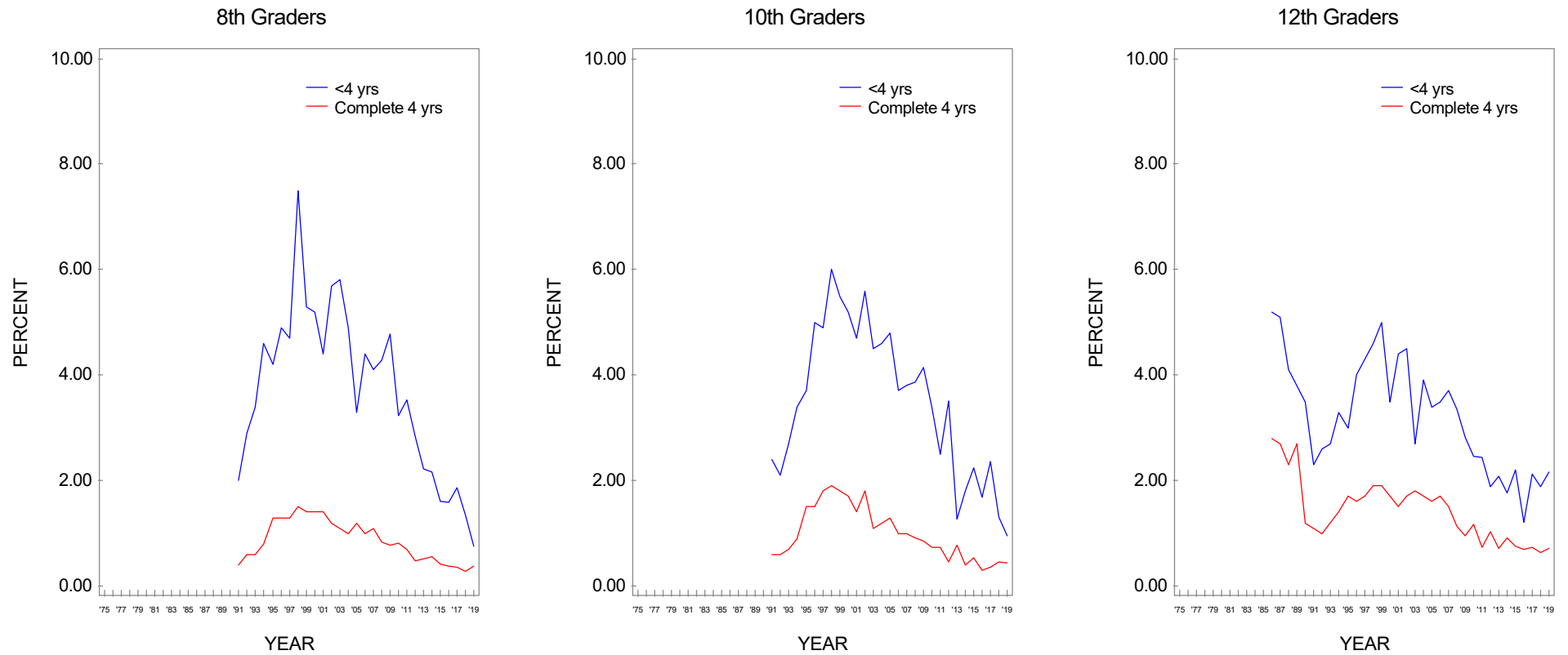
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 87
Crack: Trends in Annual Prevalence by Region

8th Graders

10th Graders

12th Graders
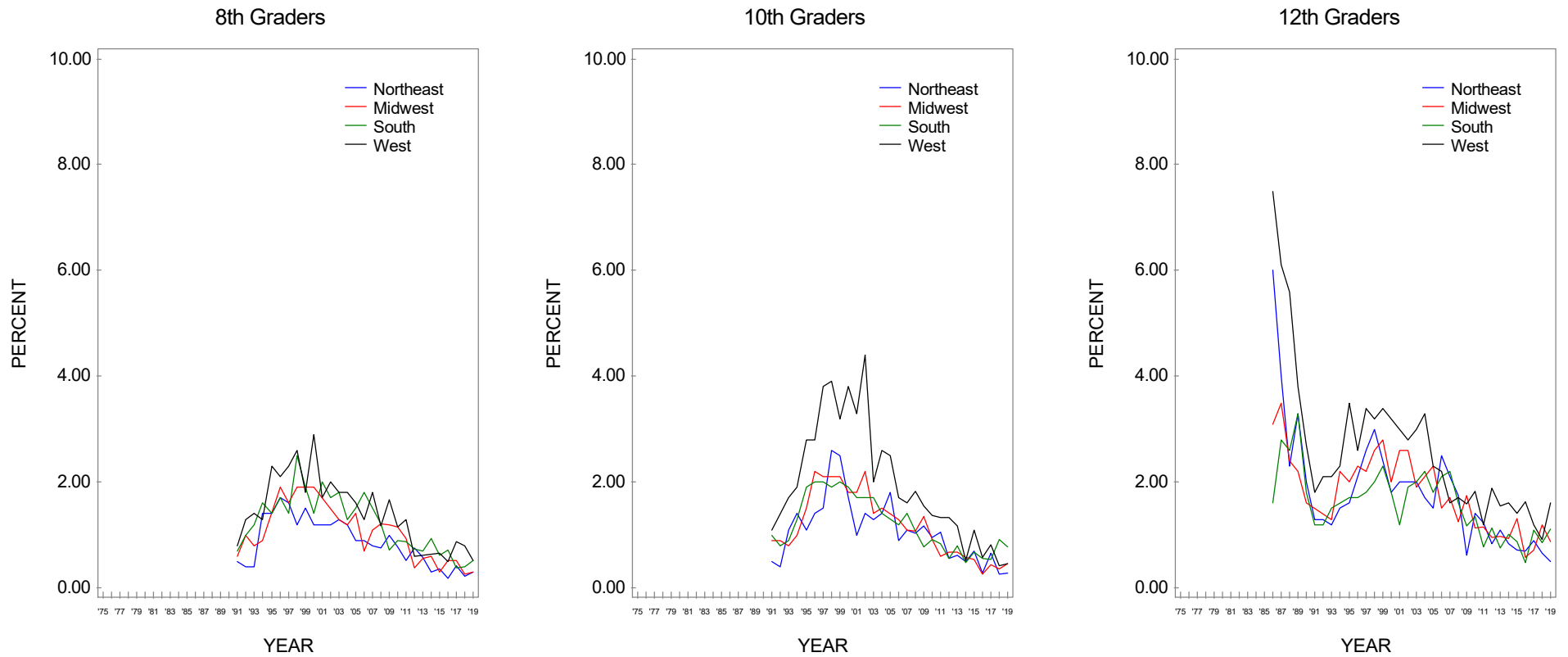
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 88
Crack: Trends in Annual Prevalence by Population Density
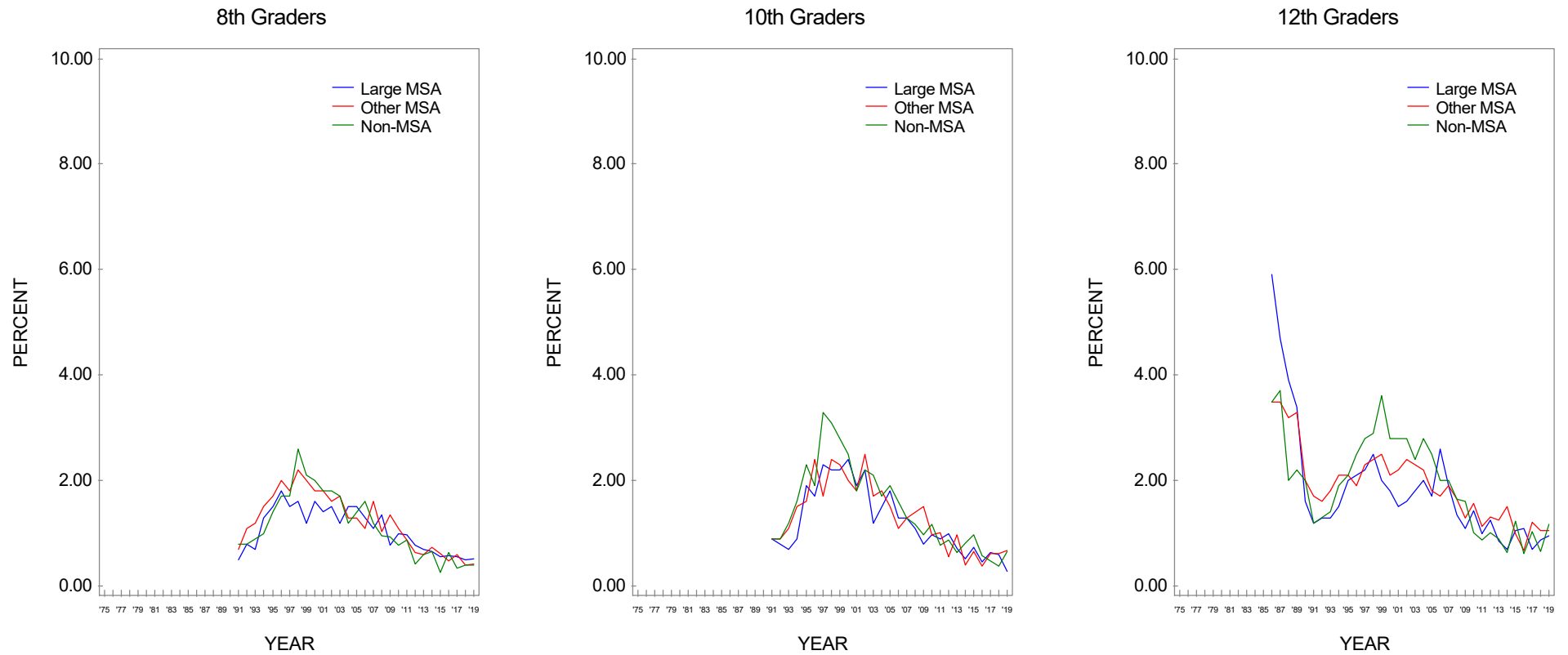
FIGURE 89
Crack: Trends in Annual Prevalence by Average Education Level of Parents*
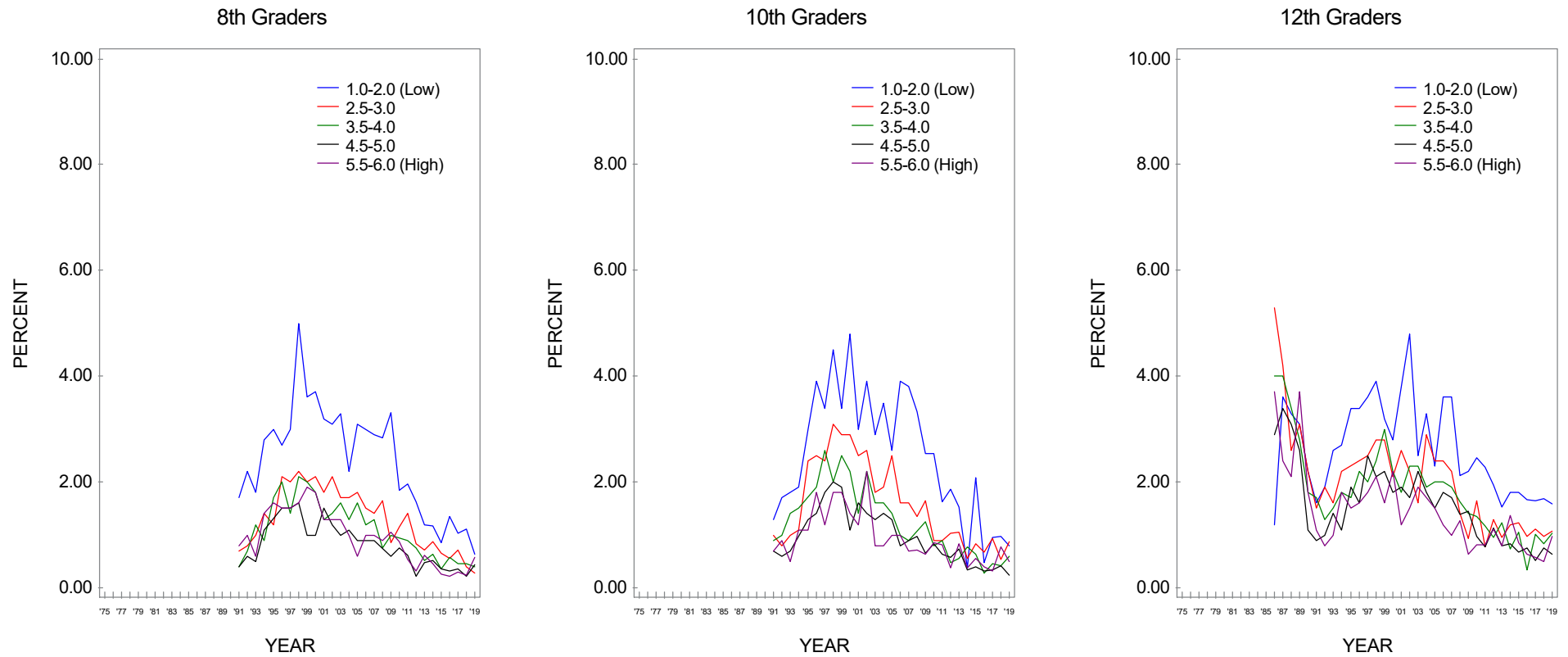
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 90
Crack: Trends in Annual Prevalence by Race/Ethnicity*

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 91
Cocaine other than Crack*: Trends in Annual Prevalence by Gender
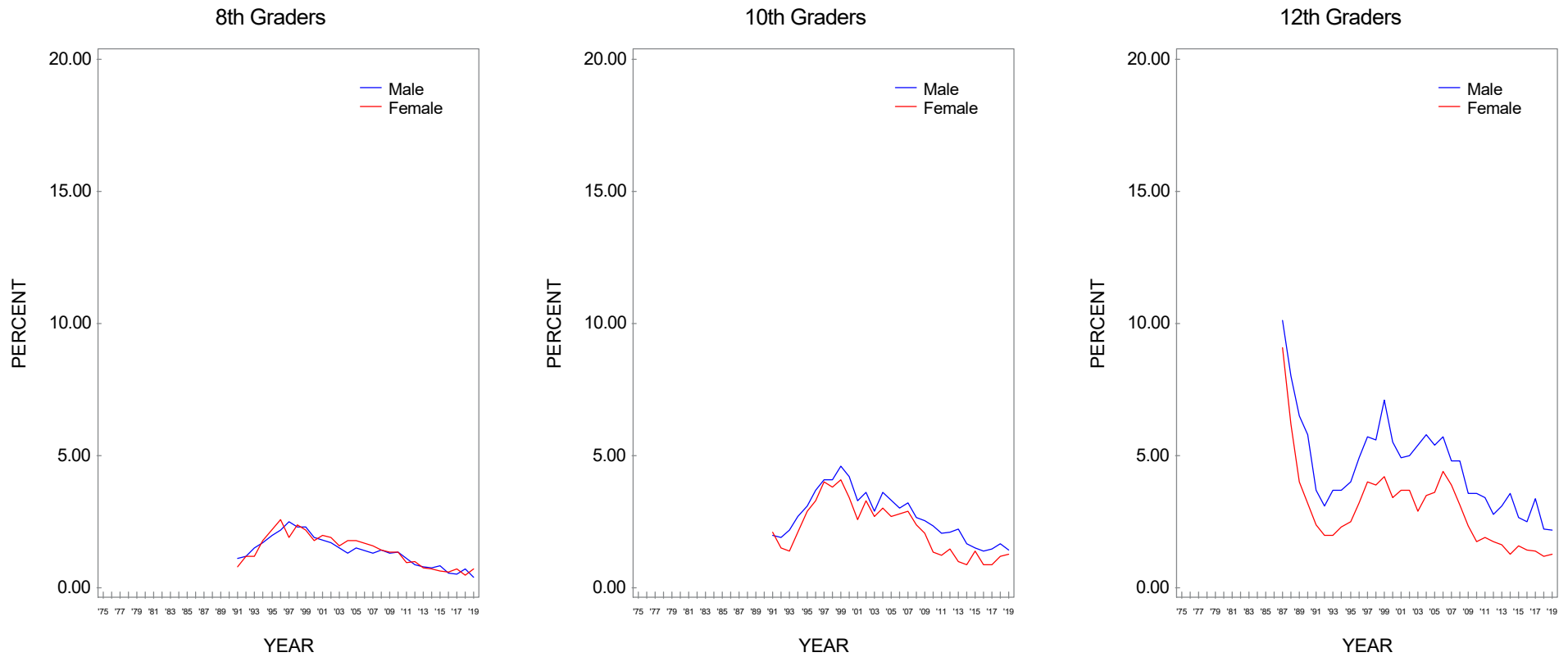
Source.   The Monitoring the Future study, the University of Michigan.
*Almost entirely powder cocaine for many years.

FIGURE 92
Cocaine other than Crack*: Trends in Annual Prevalence by College Plans
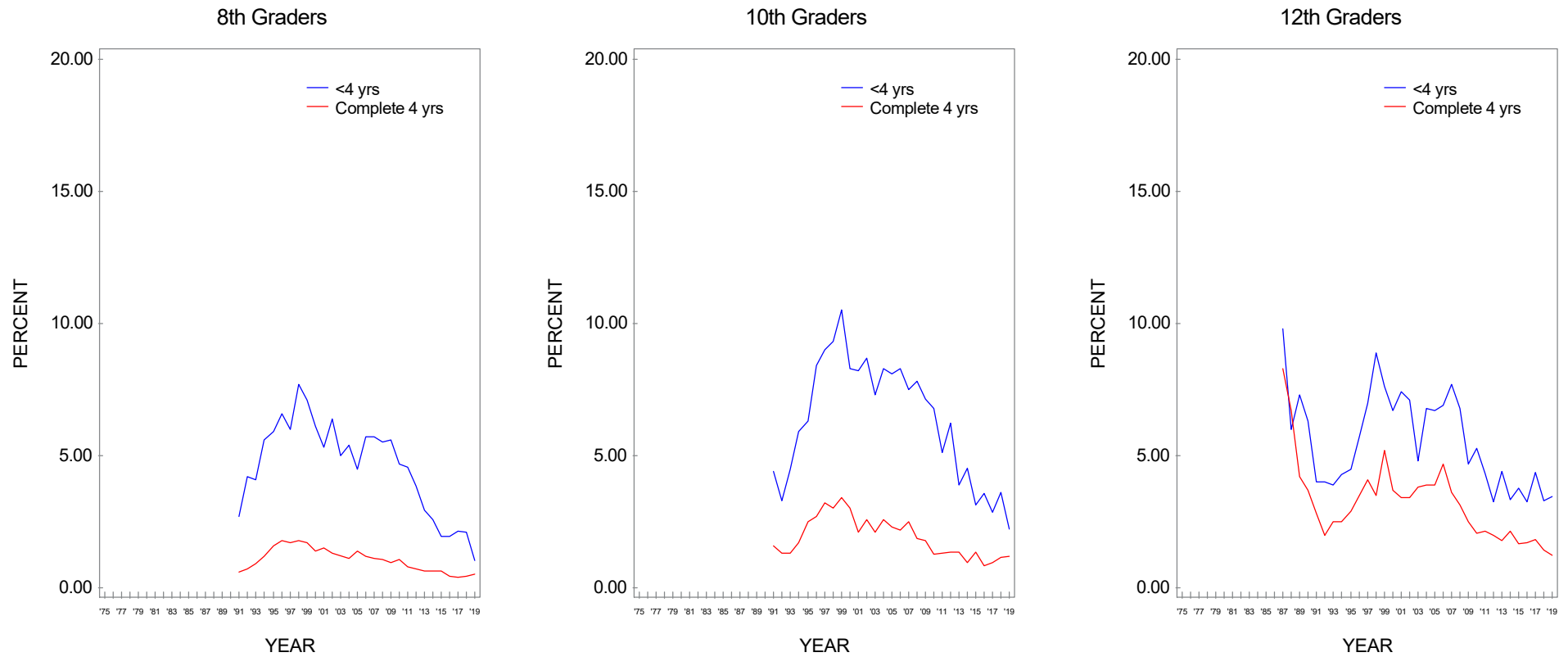
Source. The Monitoring the Future study, the University of Michigan.
*Almost entirely powder cocaine for many years.

FIGURE 93
Cocaine other than Crack*: Trends in Annual Prevalence by Region
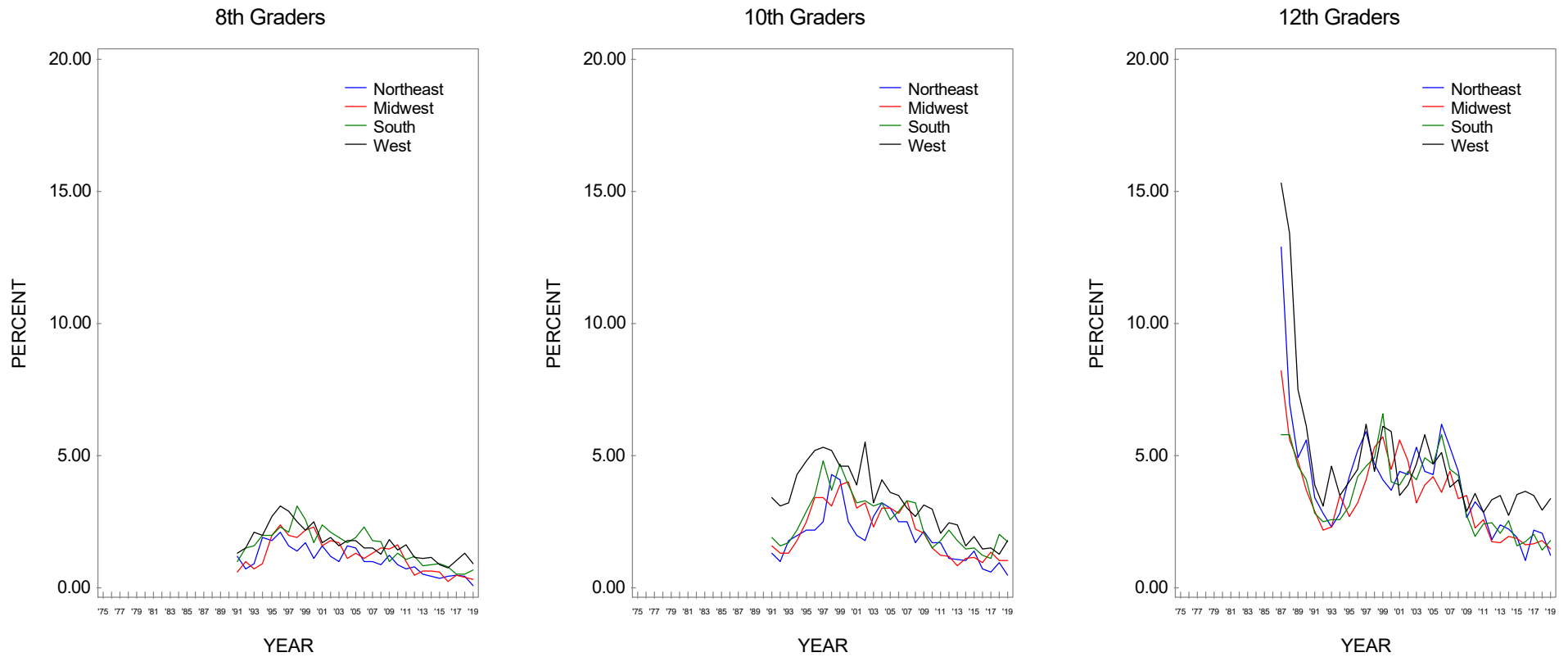
Source.   The Monitoring the Future study, the University of Michigan.

*Almost entirely powder cocaine for many years.

FIGURE 94
Cocaine other than Crack*: Trends in Annual Prevalence by Population Density
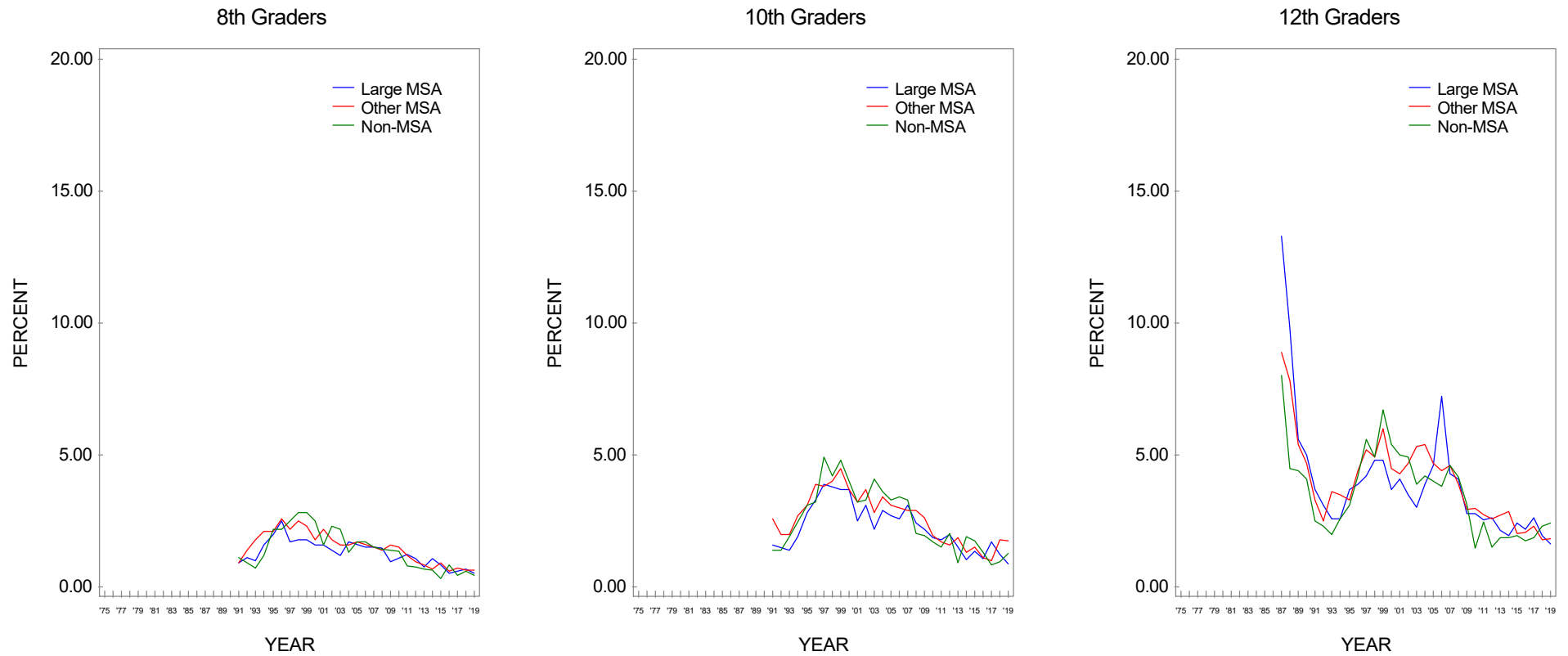
Source. The Monitoring the Future study, the University of Michigan.
*Almost entirely powder cocaine for many years.

FIGURE 95
Cocaine other than Crack*: Trends in Annual Prevalence by Average Education Level of Parents**
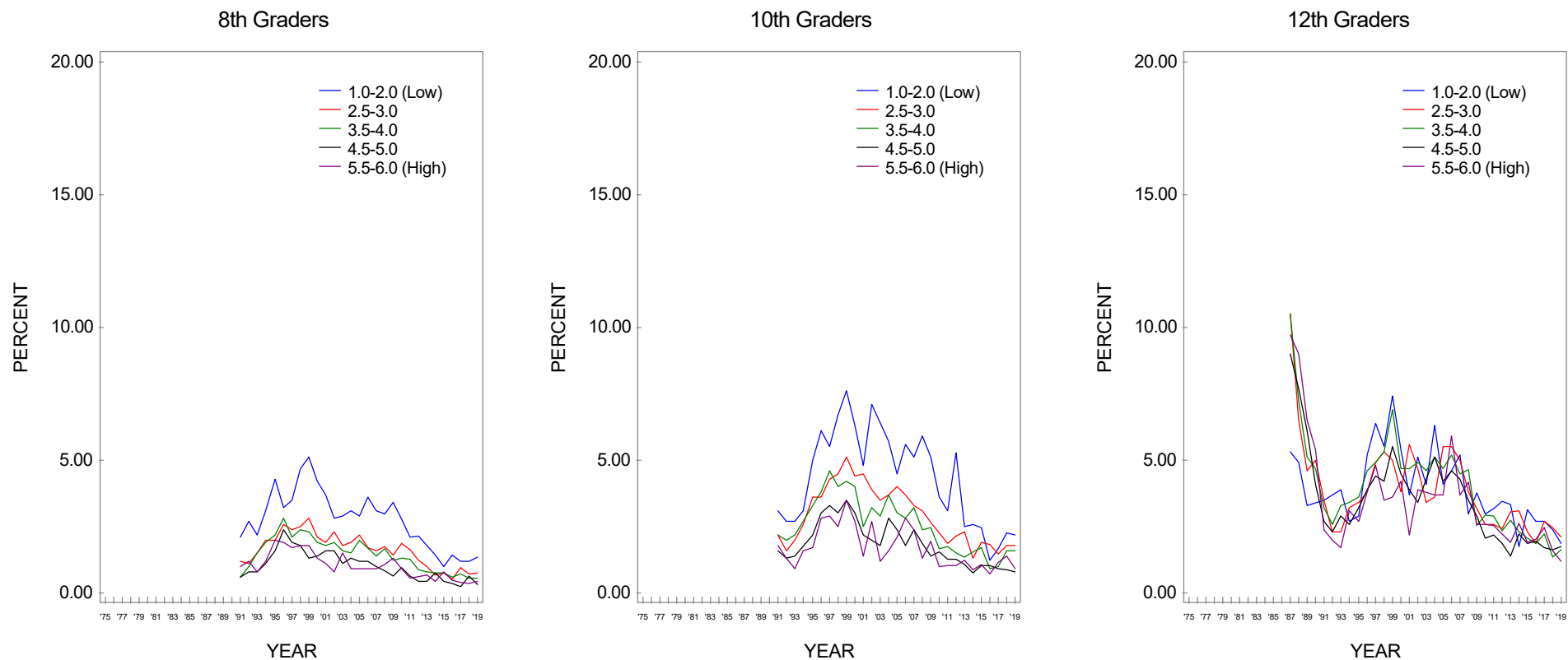
Source. The Monitoring the Future study, the University of Michigan.

*Almost entirely powder cocaine for many years.

**Parental education is an average score of mother's education and father's education.

FIGURE 96
Cocaine other than Crack*: Trends in Annual Prevalence by Race/Ethnicity**
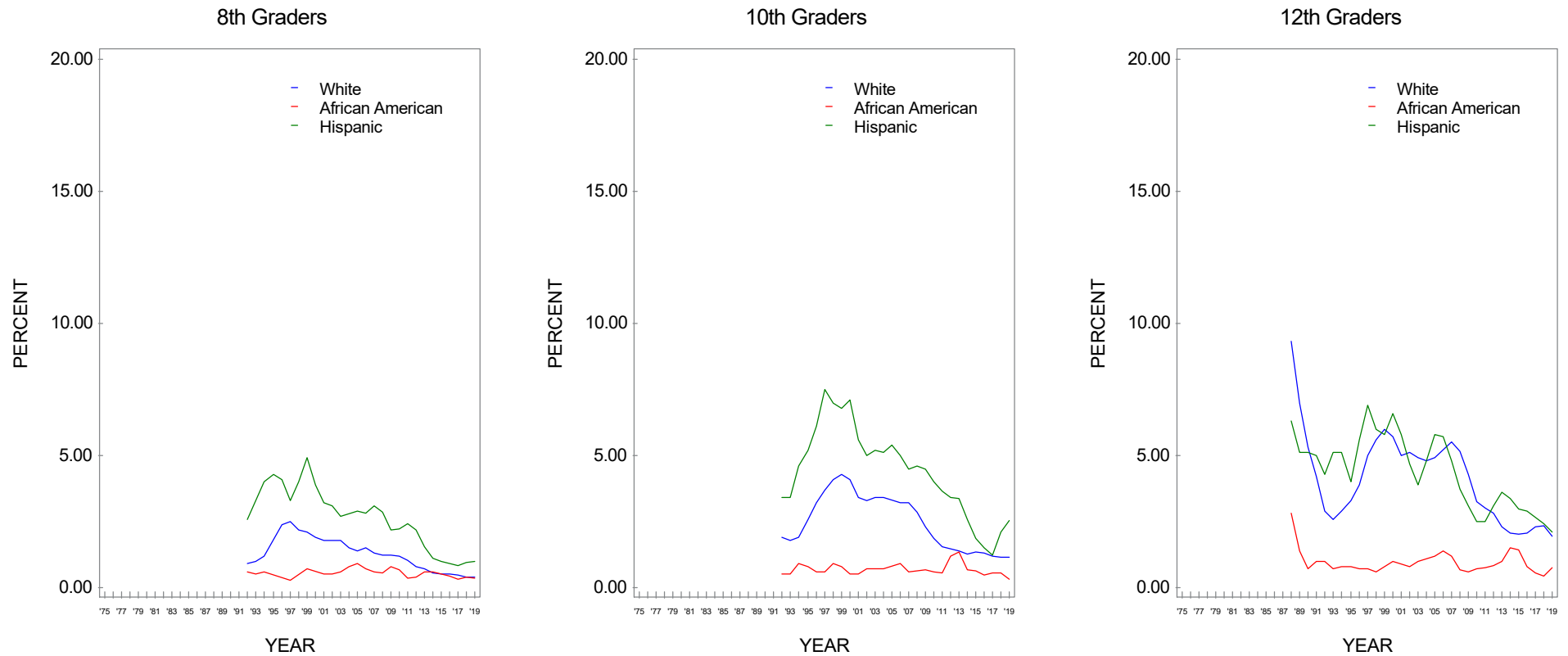
Source. The Monitoring the Future study, the University of Michigan.

*Almost entirely powder cocaine for many years.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 97
Heroin: Trends in Annual Prevalence by Gender
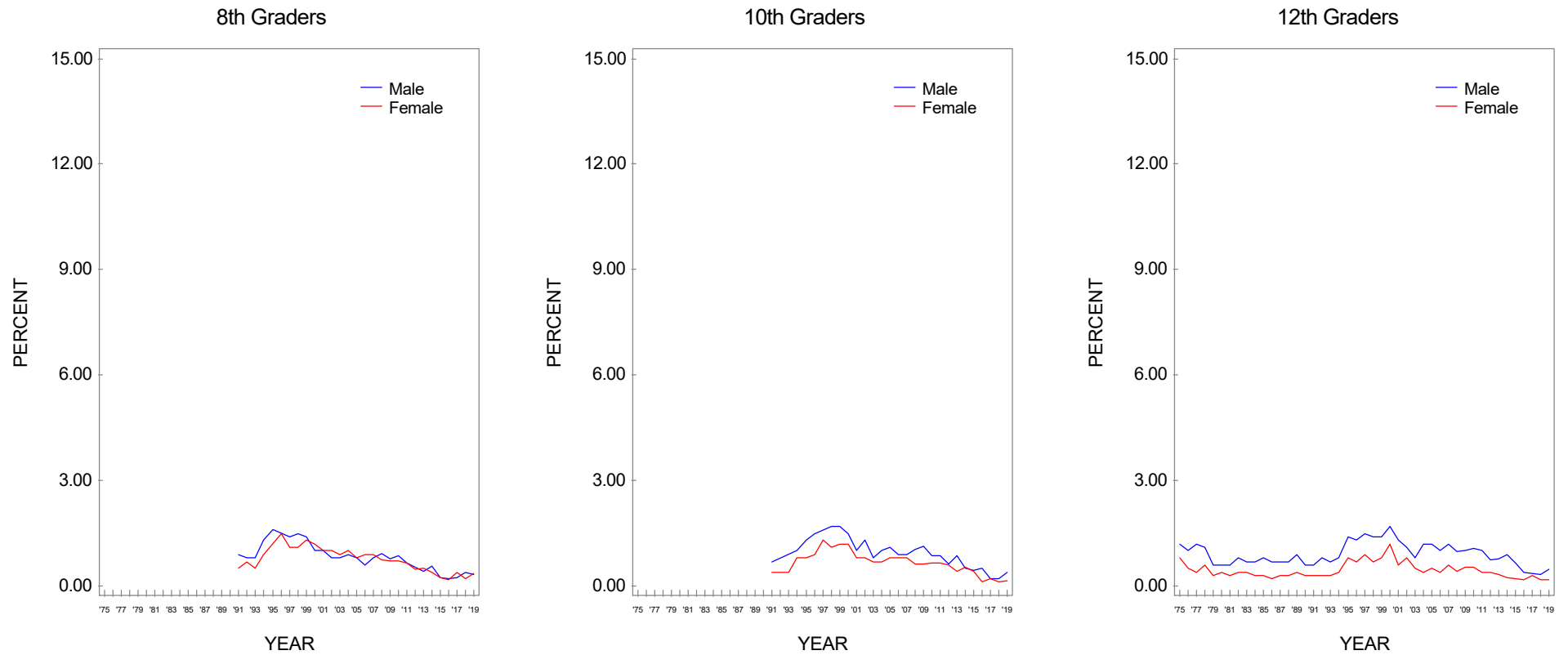
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 98
Heroin: Trends in Annual Prevalence by College Plans

8th Graders

10th Graders

12th Graders

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

FIGURE 99
Heroin: Trends in Annual Prevalence by Region
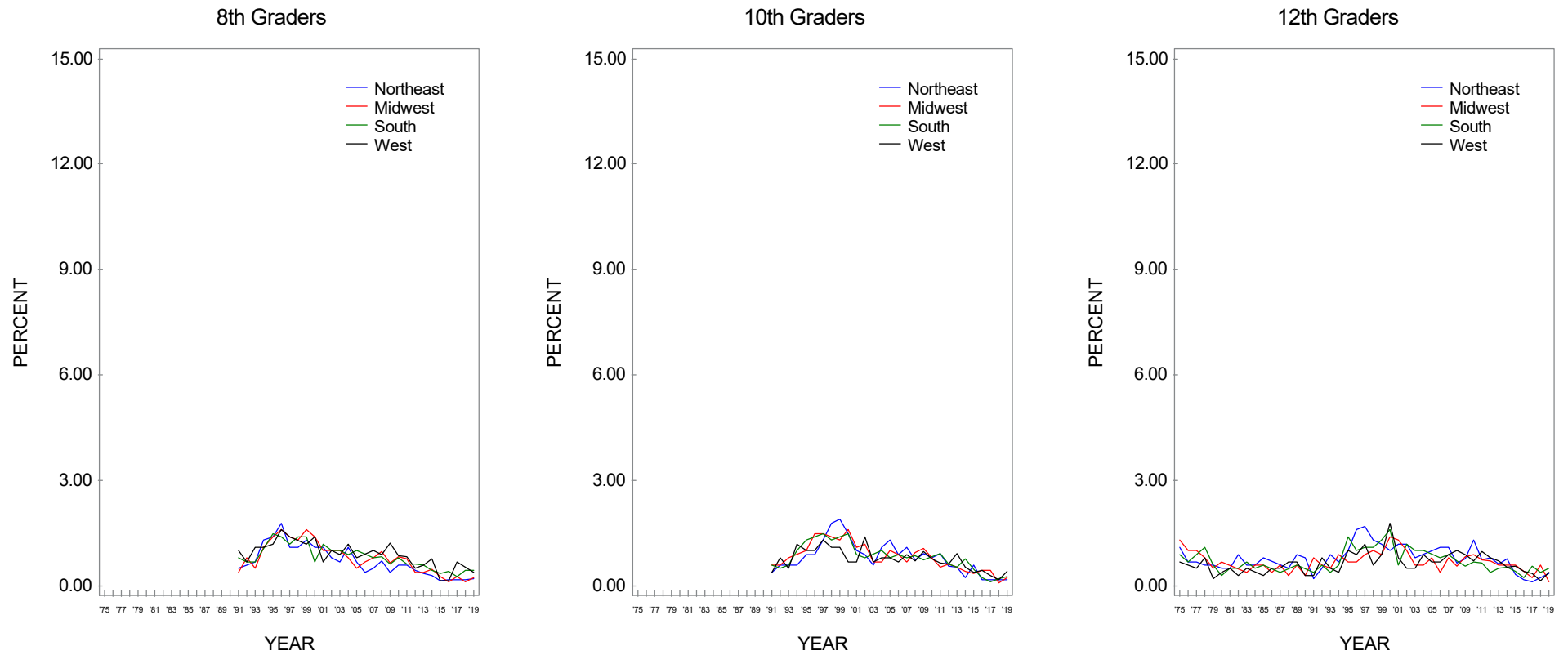
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 100
Heroin: Trends in Annual Prevalence by Population Density
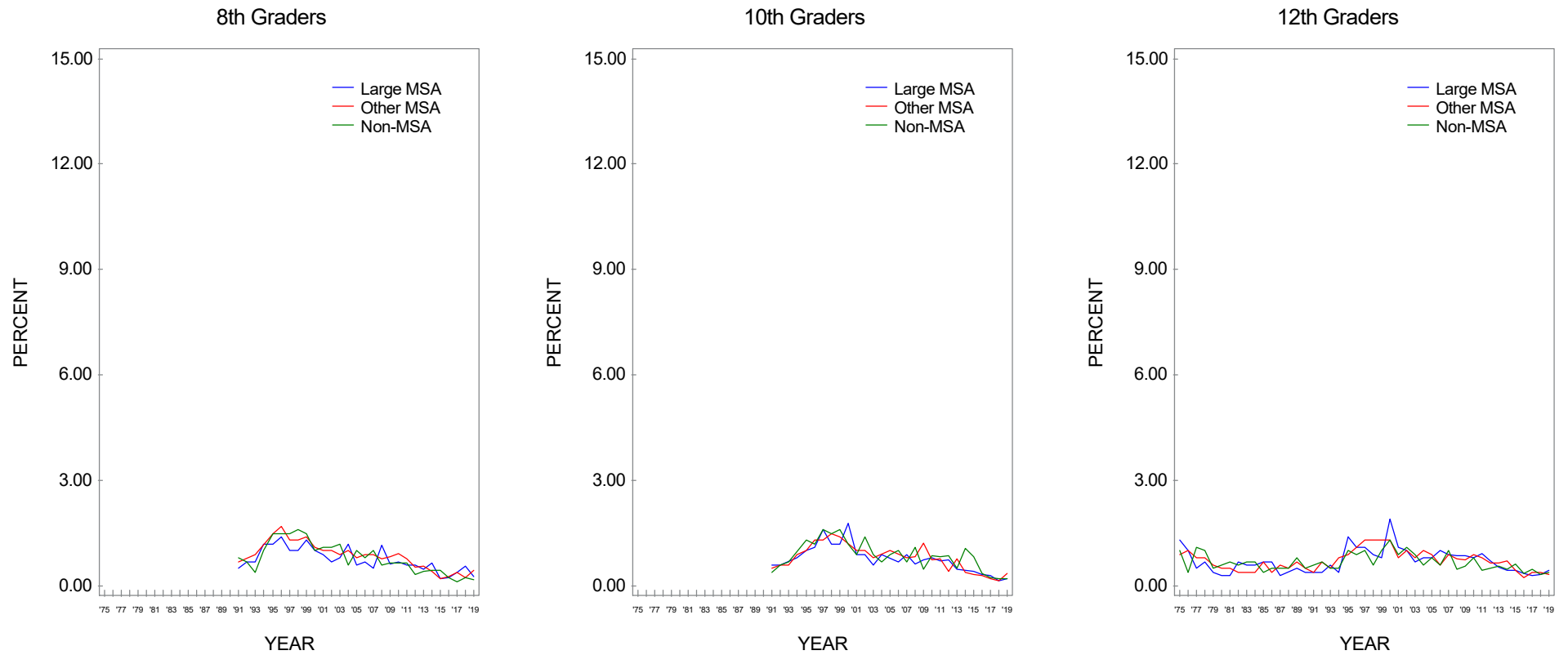
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 101
Heroin: Trends in Annual Prevalence by Average Education Level of Parents*
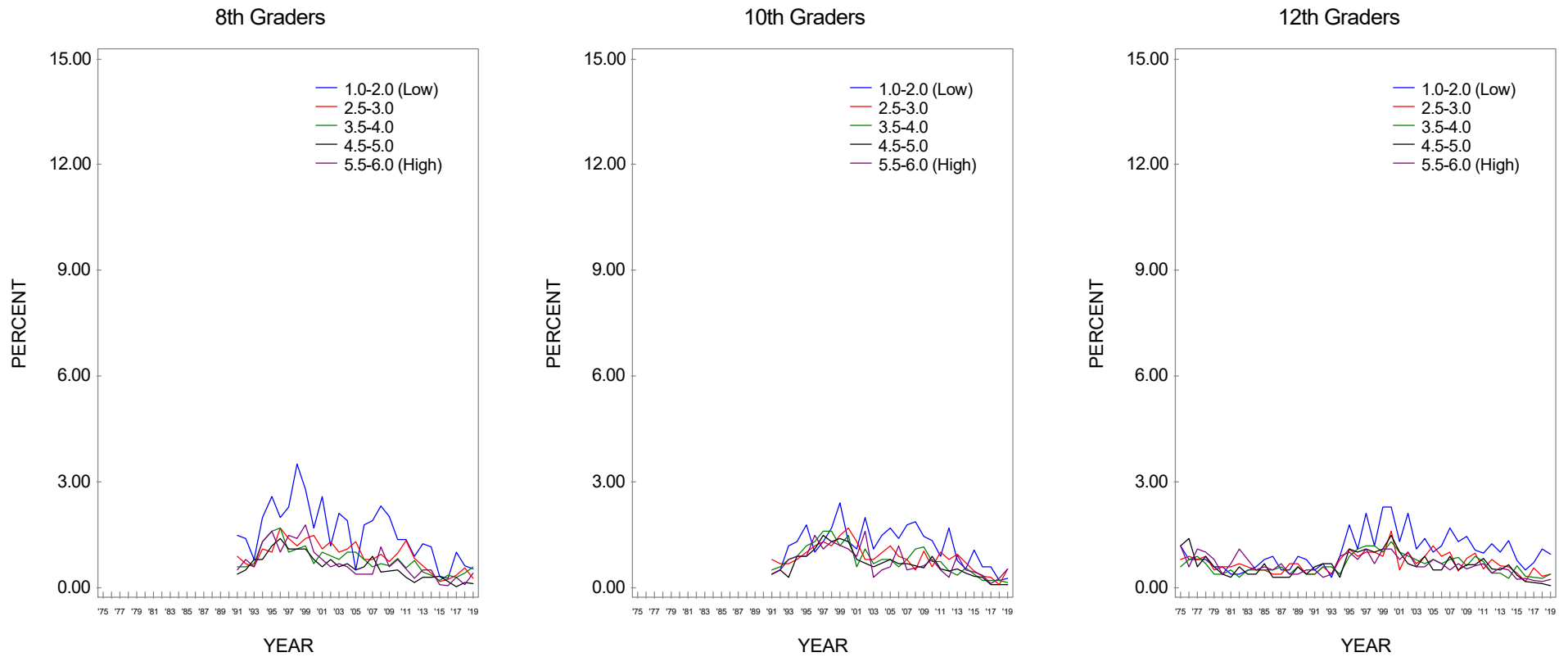
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 102
Heroin: Trends in Annual Prevalence by Race/Ethnicity*

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 103
Heroin with a Needle: Trends in Annual Prevalence by Gender
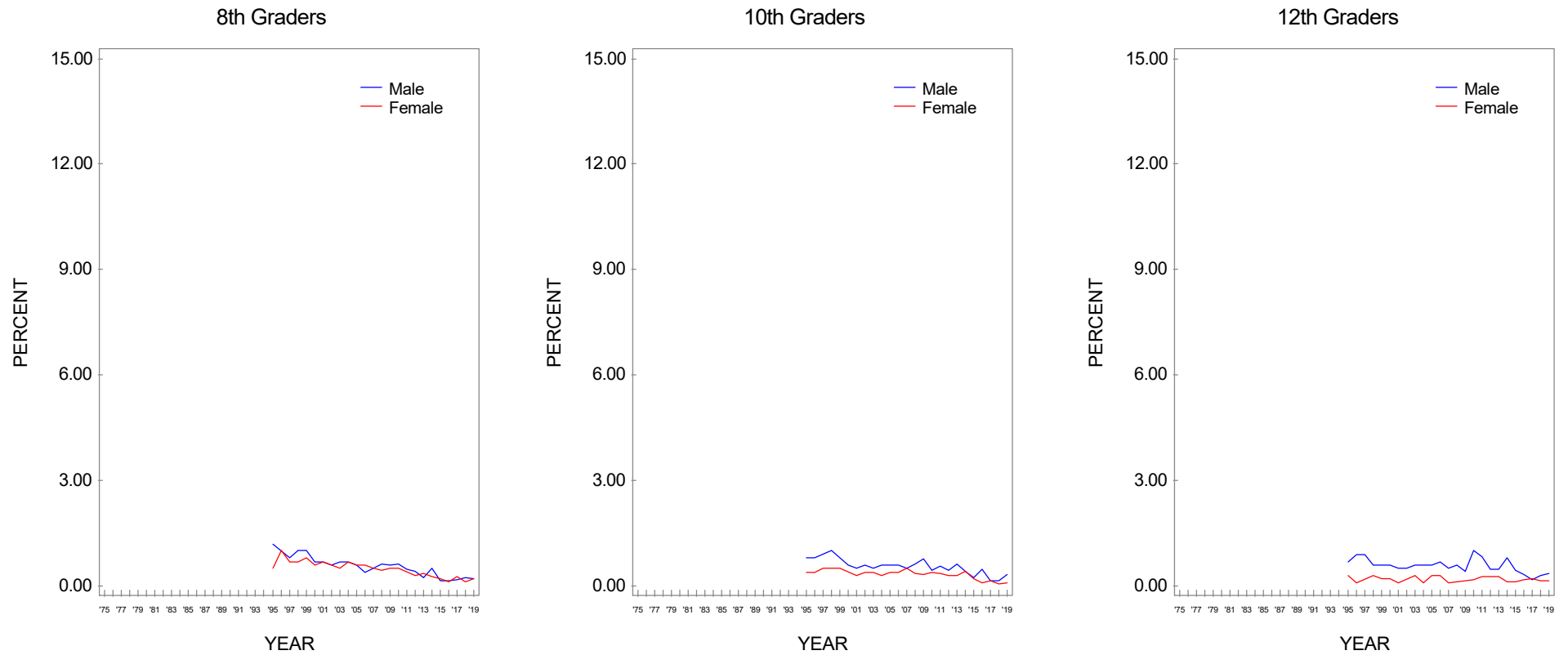
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 104
Heroin with a Needle: Trends in Annual Prevalence by College Plans

8th Graders

PERCENT

- <4 yrs
- Complete 4 yrs

10th Graders

PERCENT

- <4 yrs
- Complete 4 yrs

12th Graders

PERCENT

- <4 yrs
- Complete 4 yrs

YEAR

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

FIGURE 105
Heroin with a Needle: Trends in Annual Prevalence by Region
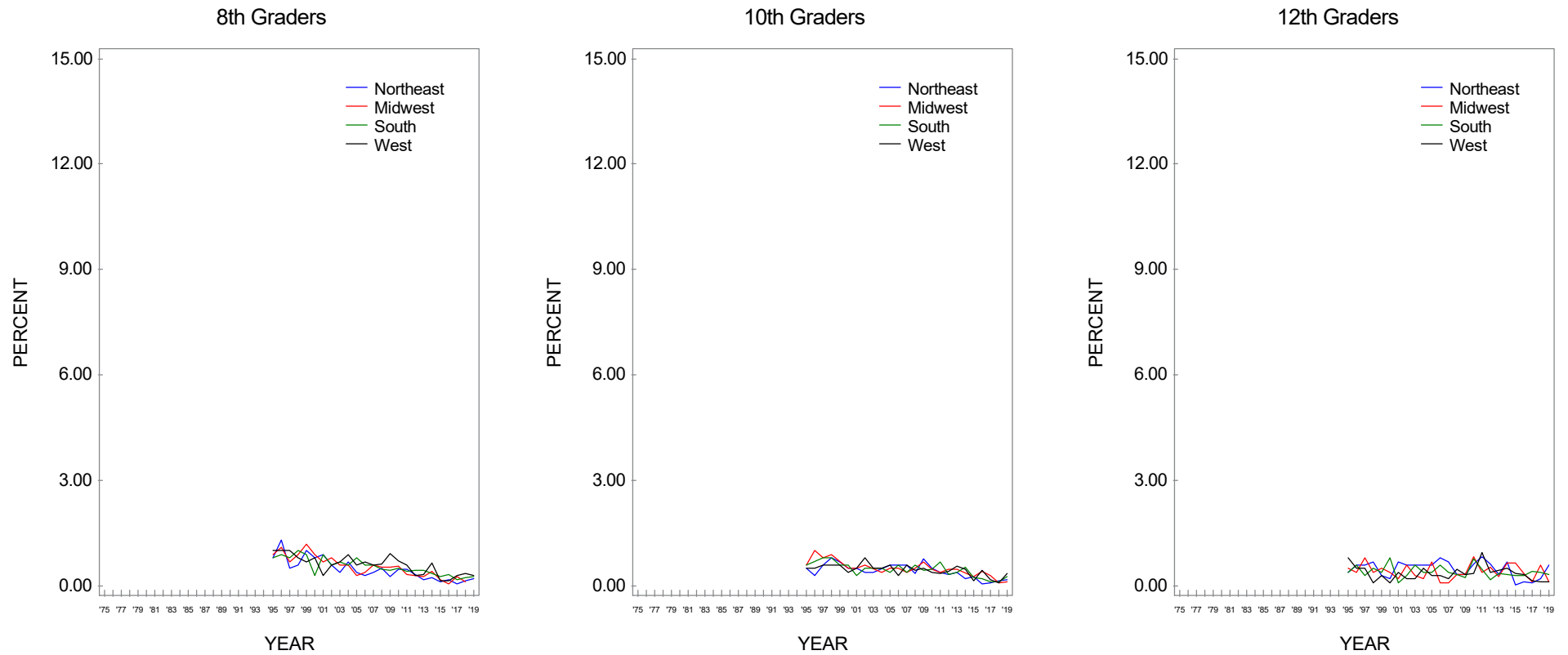
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 106
Heroin with a Needle: Trends in Annual Prevalence by Population Density

8th Graders

10th Graders

12th Graders
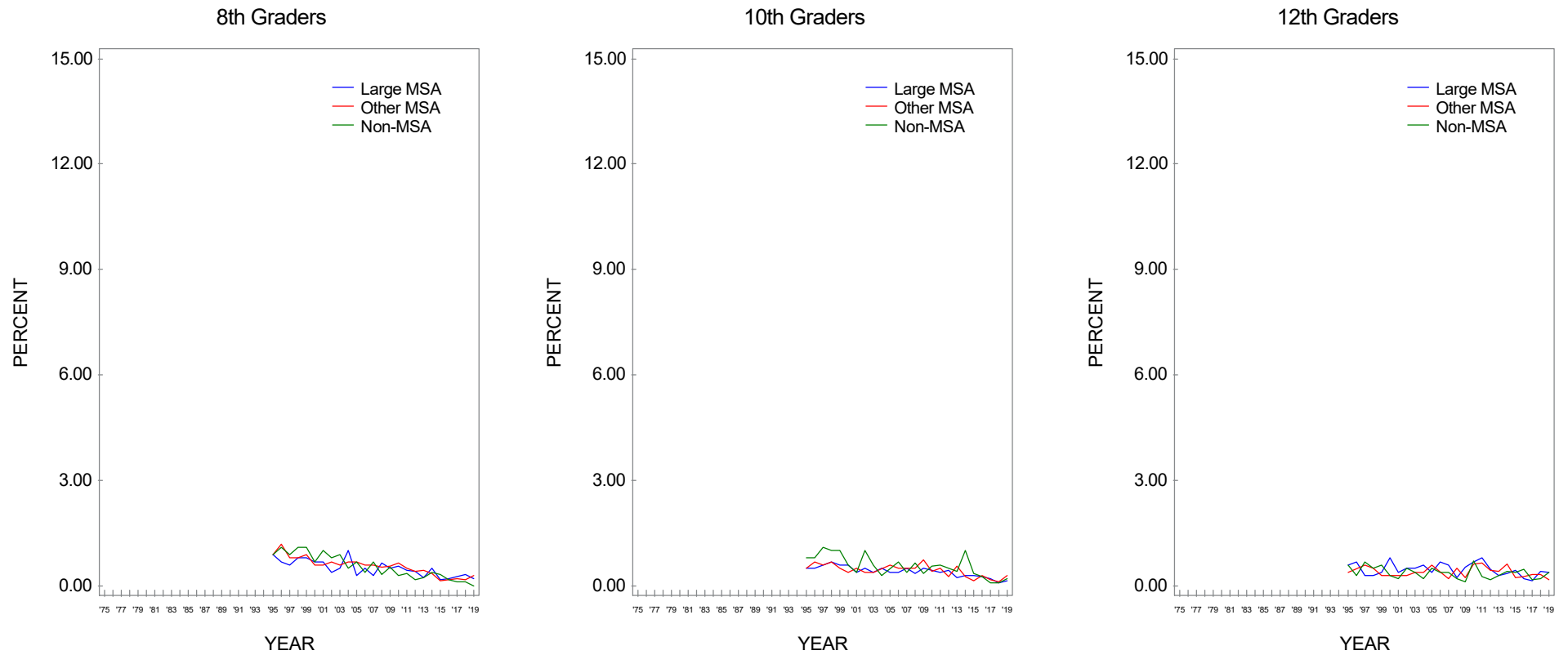
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 107

Heroin with a Needle: Trends in Annual Prevalence by Average Education Level of Parents*
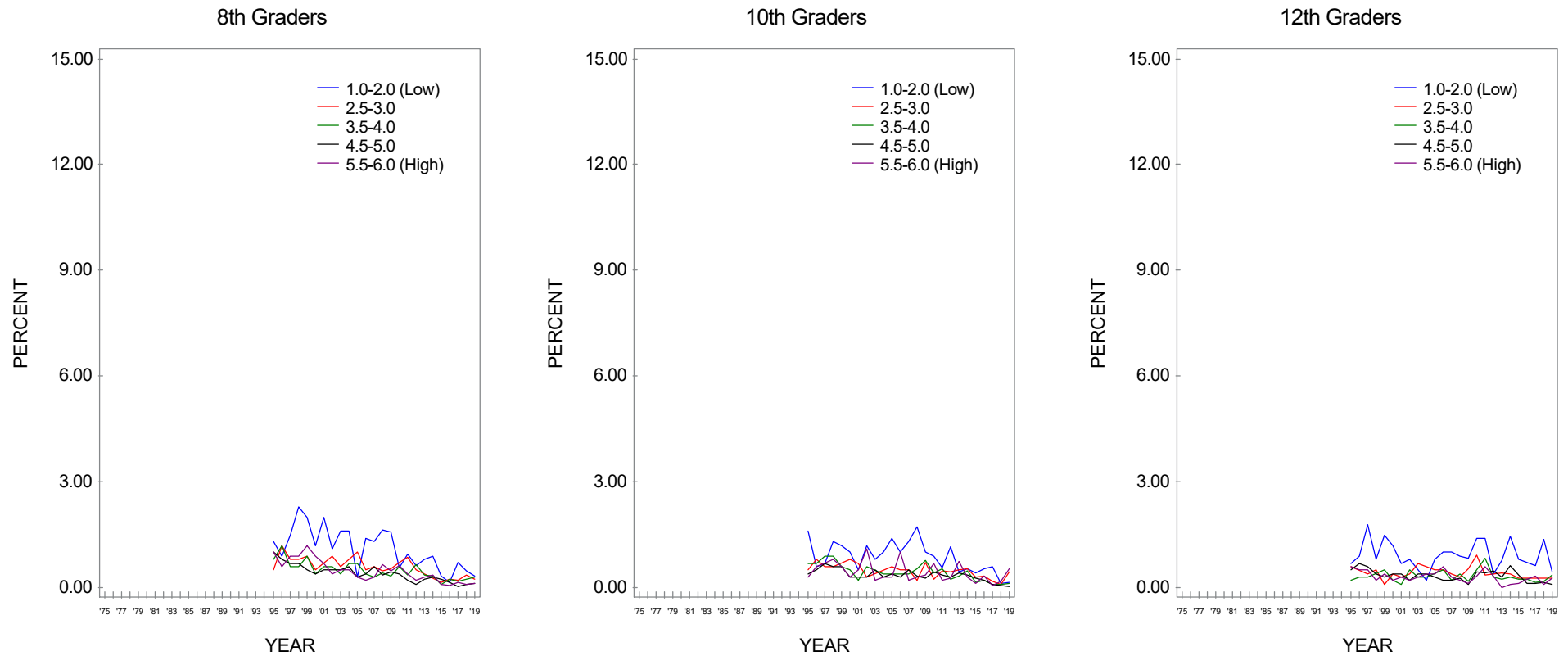
FIGURE 108
Heroin with a Needle: Trends in Annual Prevalence by Race/Ethnicity*
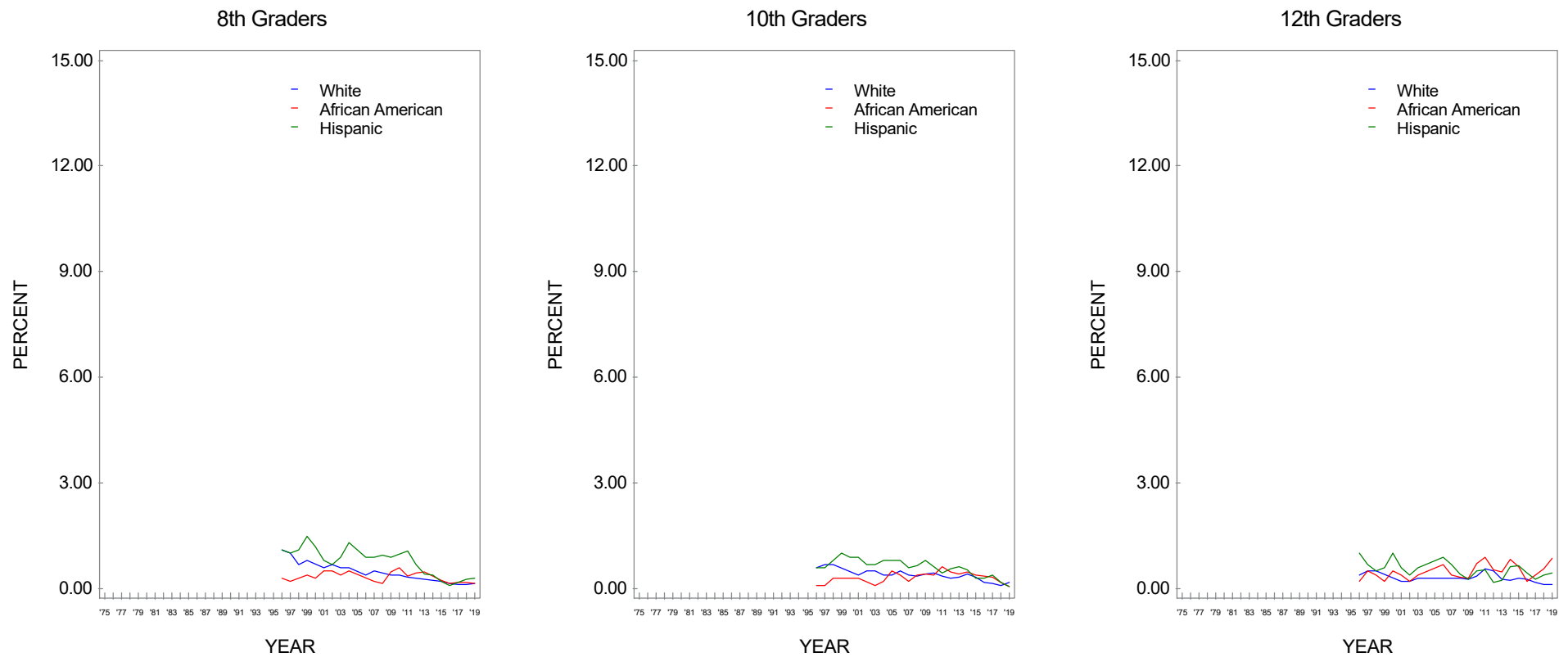
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 109
Heroin without a Needle: Trends in Annual Prevalence by Gender
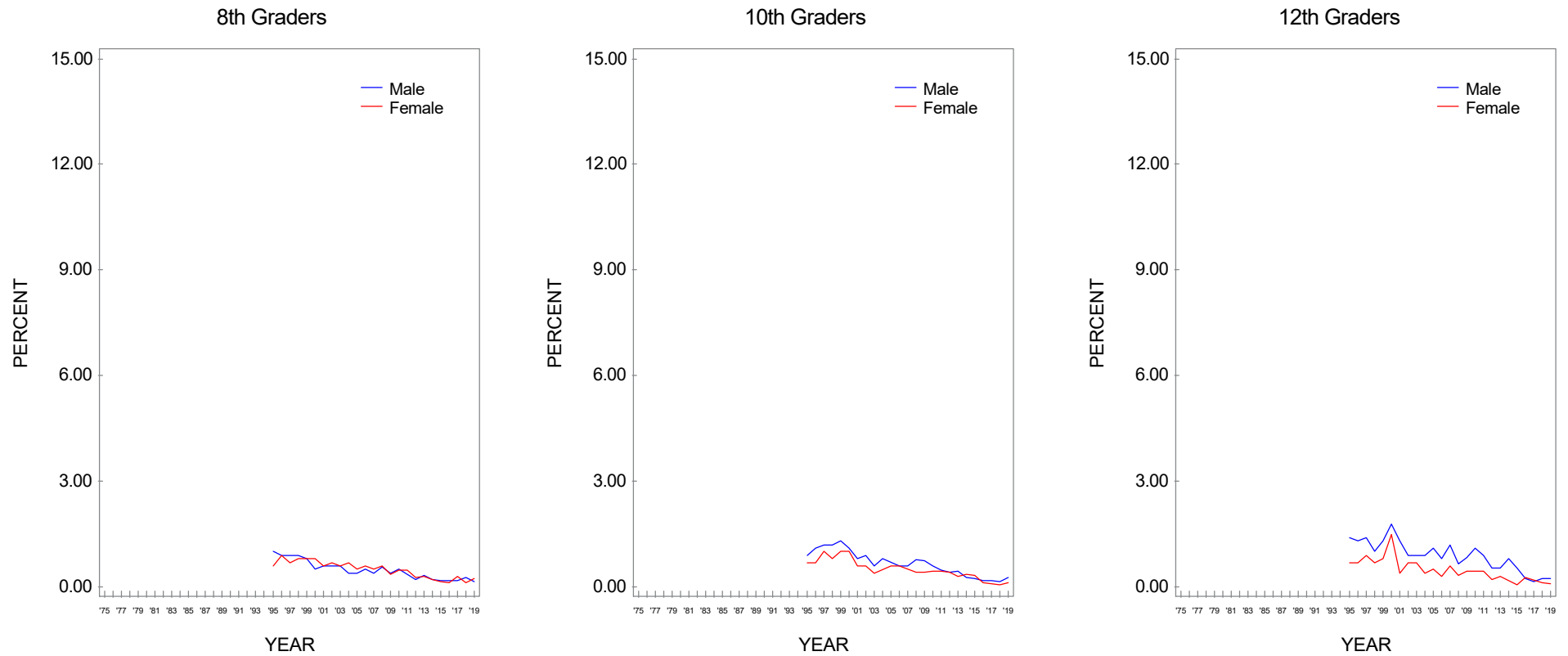
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 110
Heroin without a Needle: Trends in Annual Prevalence by College Plans

8th Graders

10th Graders

12th Graders
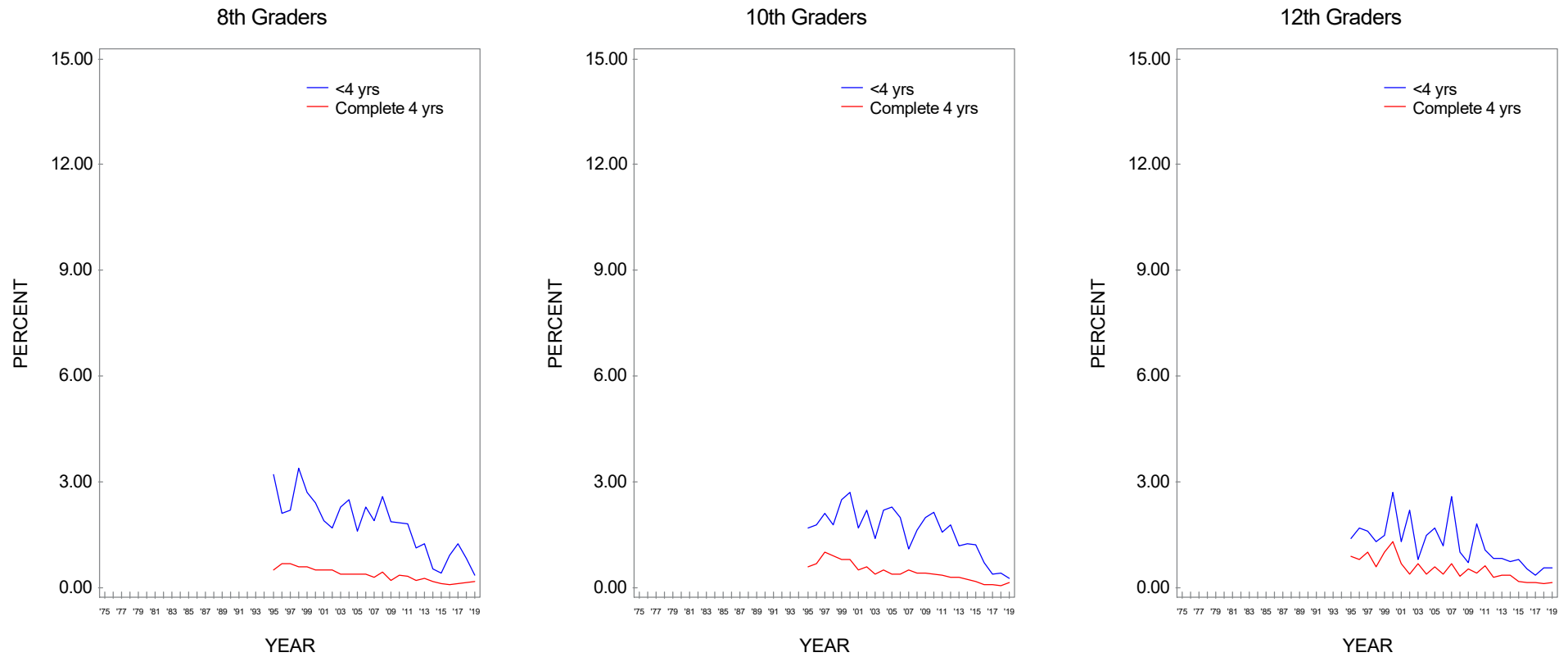
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 111
Heroin without a Needle: Trends in Annual Prevalence by Region

8th Graders

10th Graders

12th Graders
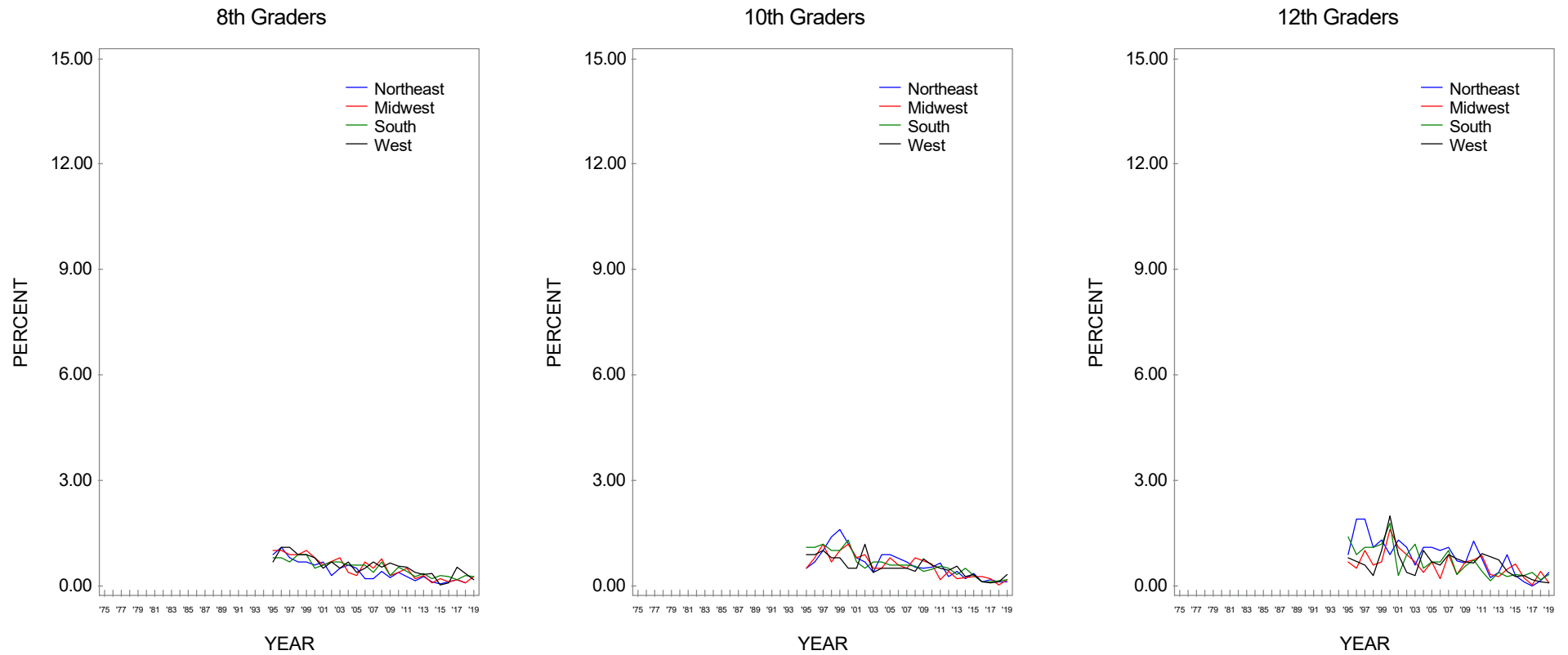
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 112
Heroin without a Needle: Trends in Annual Prevalence by Population Density
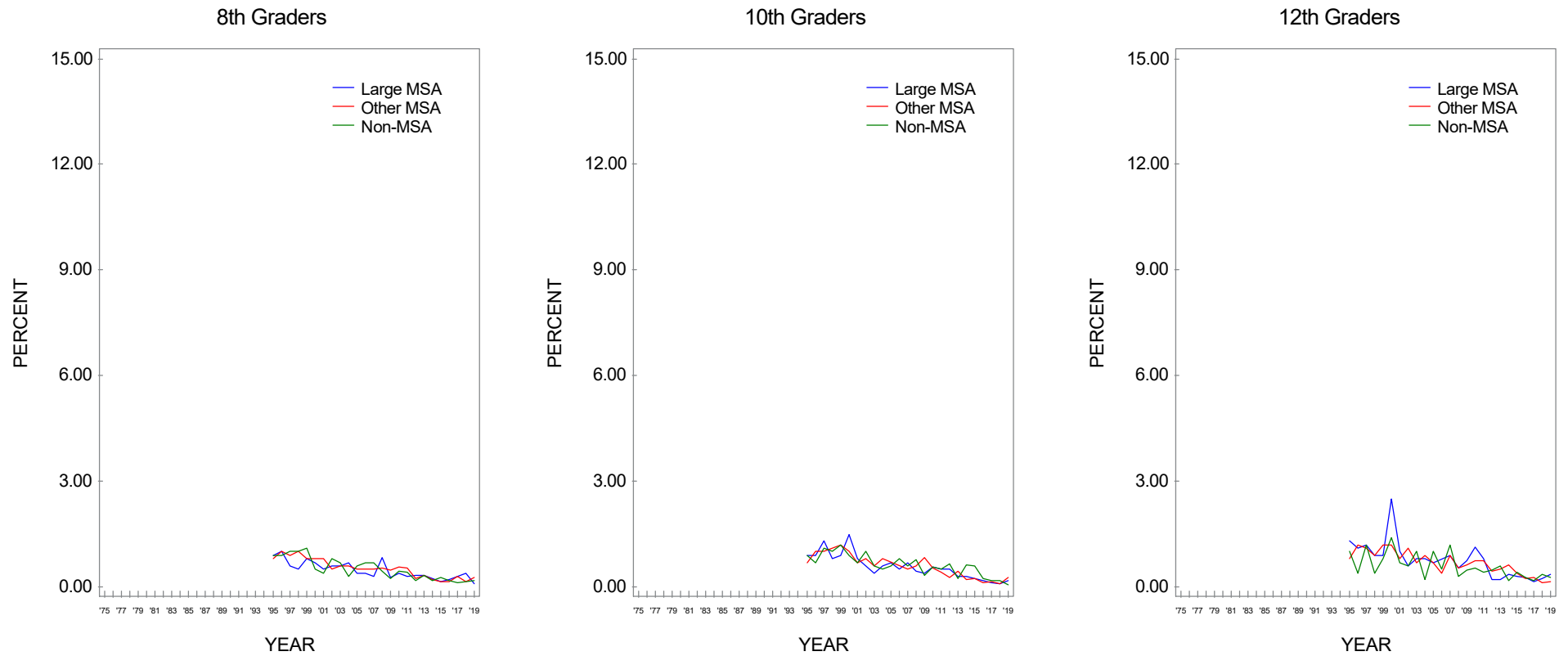
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 113
Heroin without a Needle: Trends in Annual Prevalence by Average Education Level of Parents*
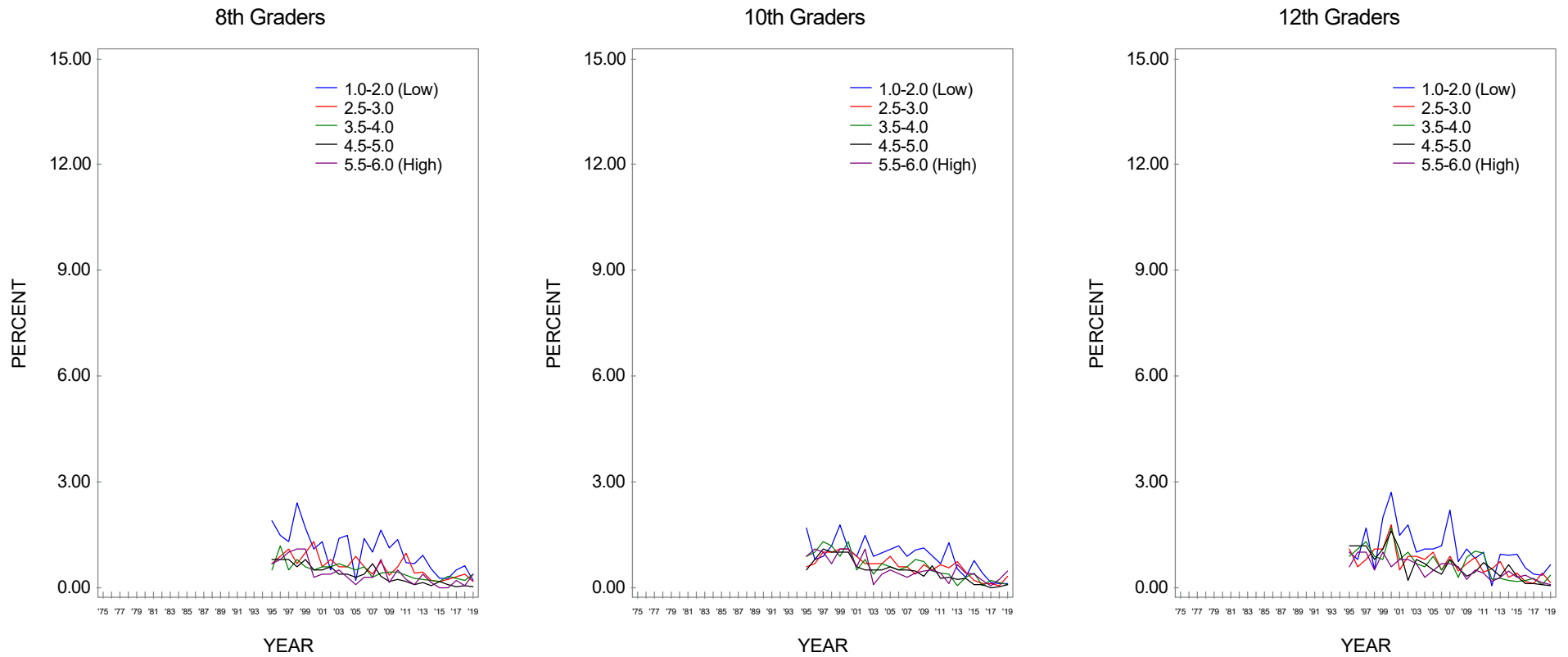
*Parental education is an average score of mother's education and father's education.

FIGURE 114
Heroin without a Needle: Trends in Annual Prevalence by Race/Ethnicity*
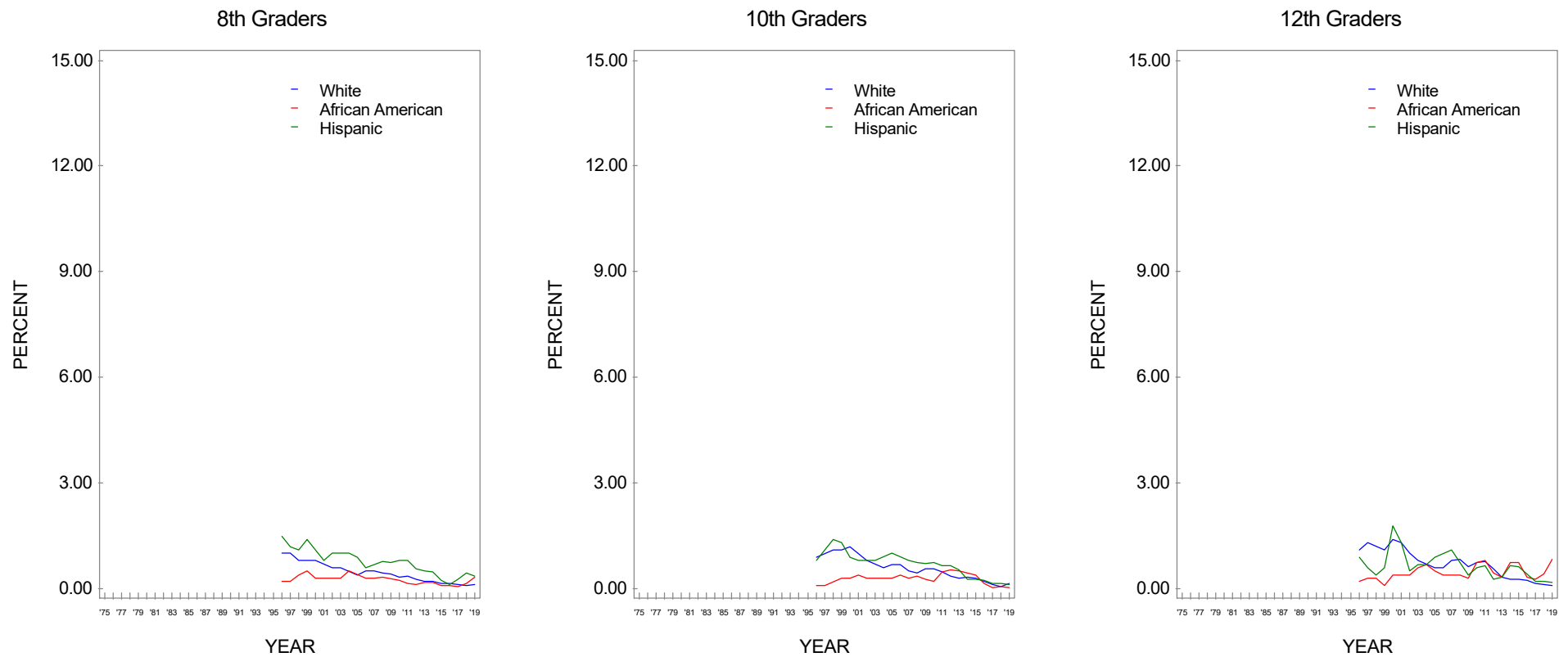
8th Graders — 10th Graders — 12th Graders
(White, African American, Hispanic)

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 115

Narcotics other than Heroin:* Trends in Annual Prevalence by Gender
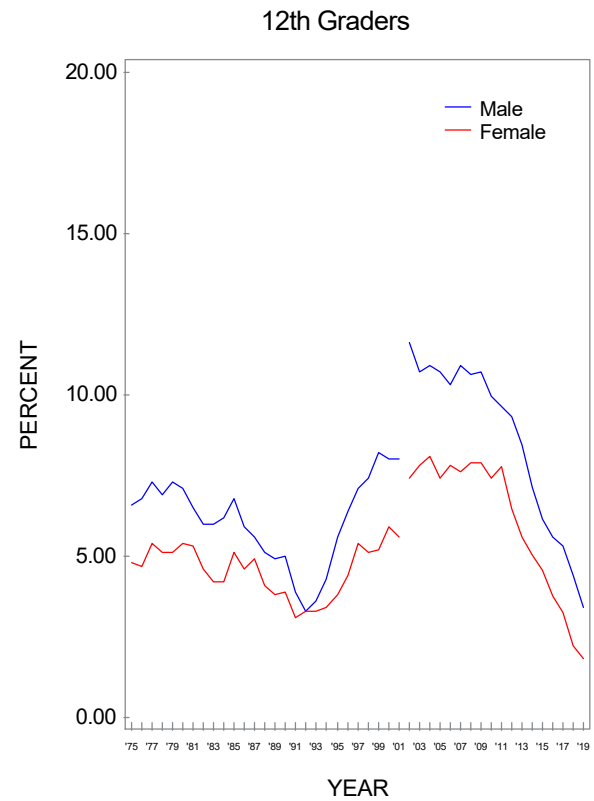
12th Graders

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

*Beginning in 2002, a revised set of questions on use of narcotics other than heroin was introduced. Talwin, laudanum, and paregoric were replaced with Vicodin, OxyContin, and Percocet.

FIGURE 116
Narcotics other than Heroin:* Trends in Annual Prevalence by College Plans
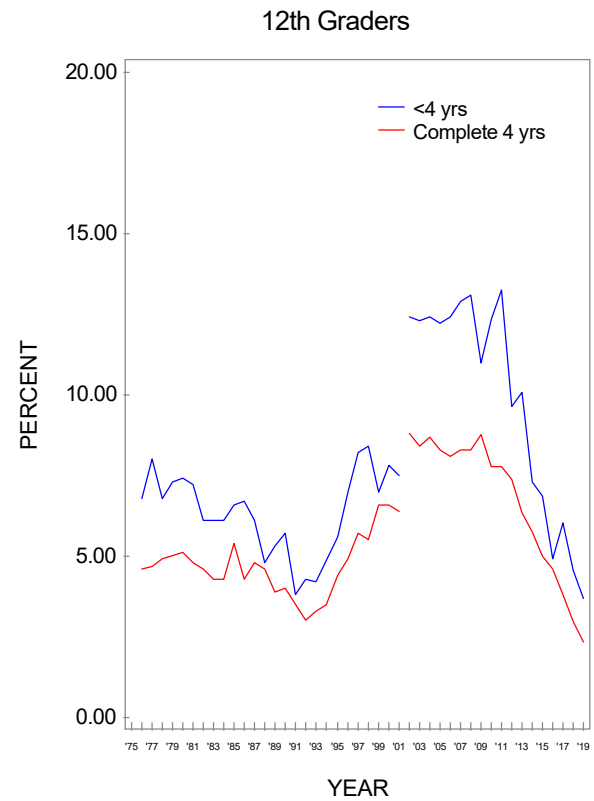
12th Graders

FIGURE 117
Narcotics other than Heroin:* Trends in Annual Prevalence by Region
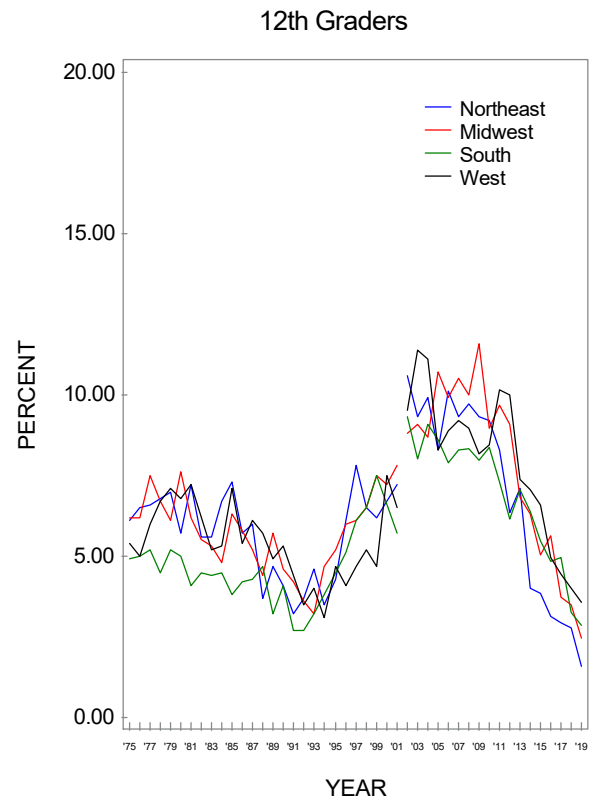
12th Graders

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

*Beginning in 2002, a revised set of questions on use of narcotics other than heroin was introduced. Talwin, laudanum, and paregoric were replaced with Vicodin, OxyContin, and Percocet.

FIGURE 118
Narcotics other than Heroin:* Trends in Annual Prevalence by Population Density
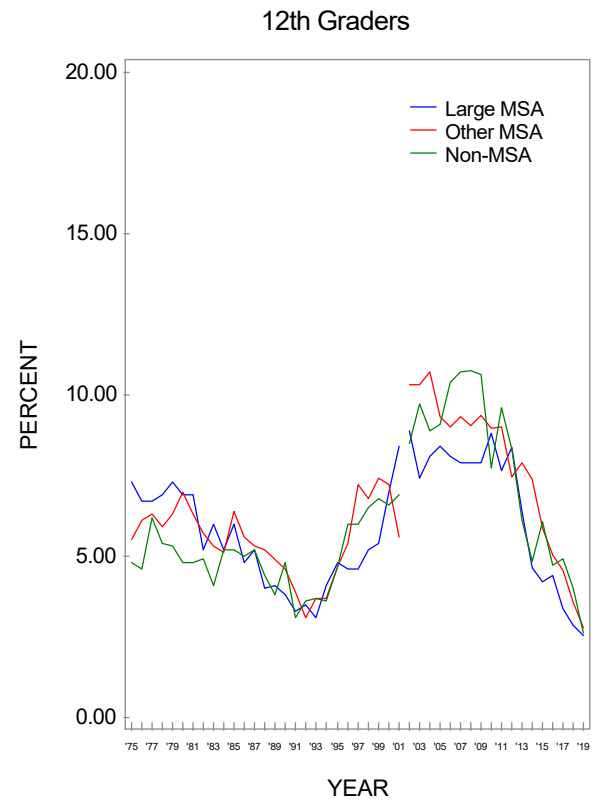
12th Graders

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

*Beginning in 2002, a revised set of questions on use of narcotics other than heroin was introduced. Talwin, laudanum, and paregoric were replaced with Vicodin, OxyContin, and Percocet.

FIGURE 119
Narcotics other than Heroin:* Trends in Annual Prevalence by Average Education Level of Parents**

12th Graders
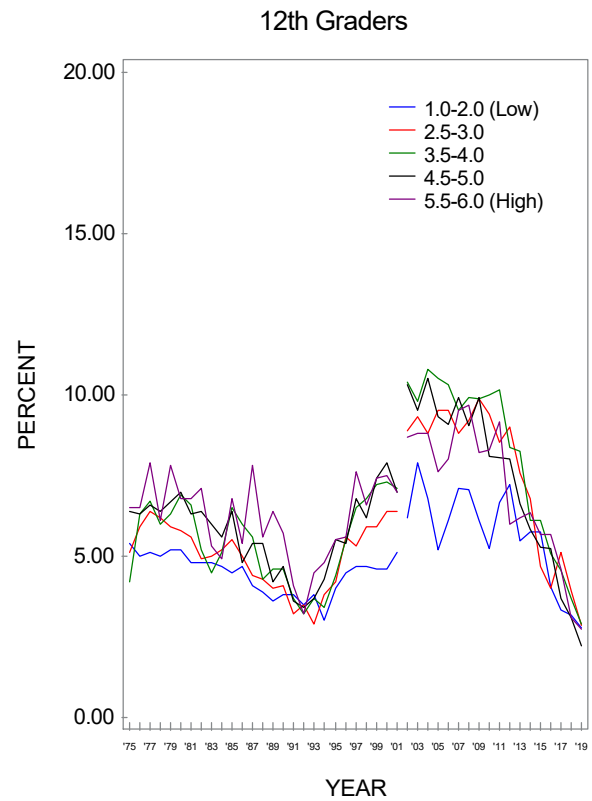
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2002, a revised set of questions on use of narcotics other than heroin was introduced. Talwin, laudanum, and paregoric were replaced with Vicodin, OxyContin, and Percocet.

**Parental education is an average score of mother's education and father's education.

FIGURE 120
Narcotics other than Heroin:* Trends in Annual Prevalence by Race/Ethnicity**
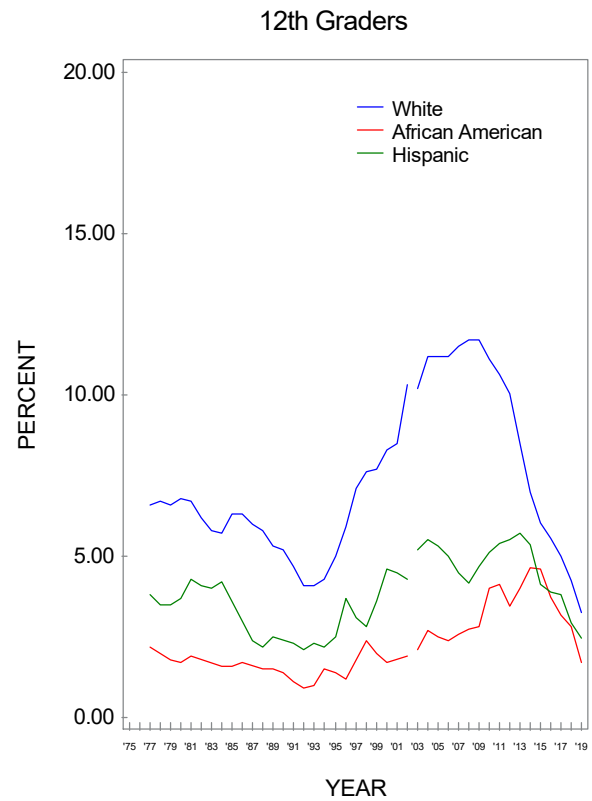
12th Graders

*Beginning in 2002, a revised set of questions on use of narcotics other than heroin was introduced. Talwin, laudanum, and paregoric
were replaced with Vicodin, OxyContin, and Percocet.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes
and thus provide more stable estimates.

FIGURE 121
OxyContin: Trends in Annual Prevalence by Gender
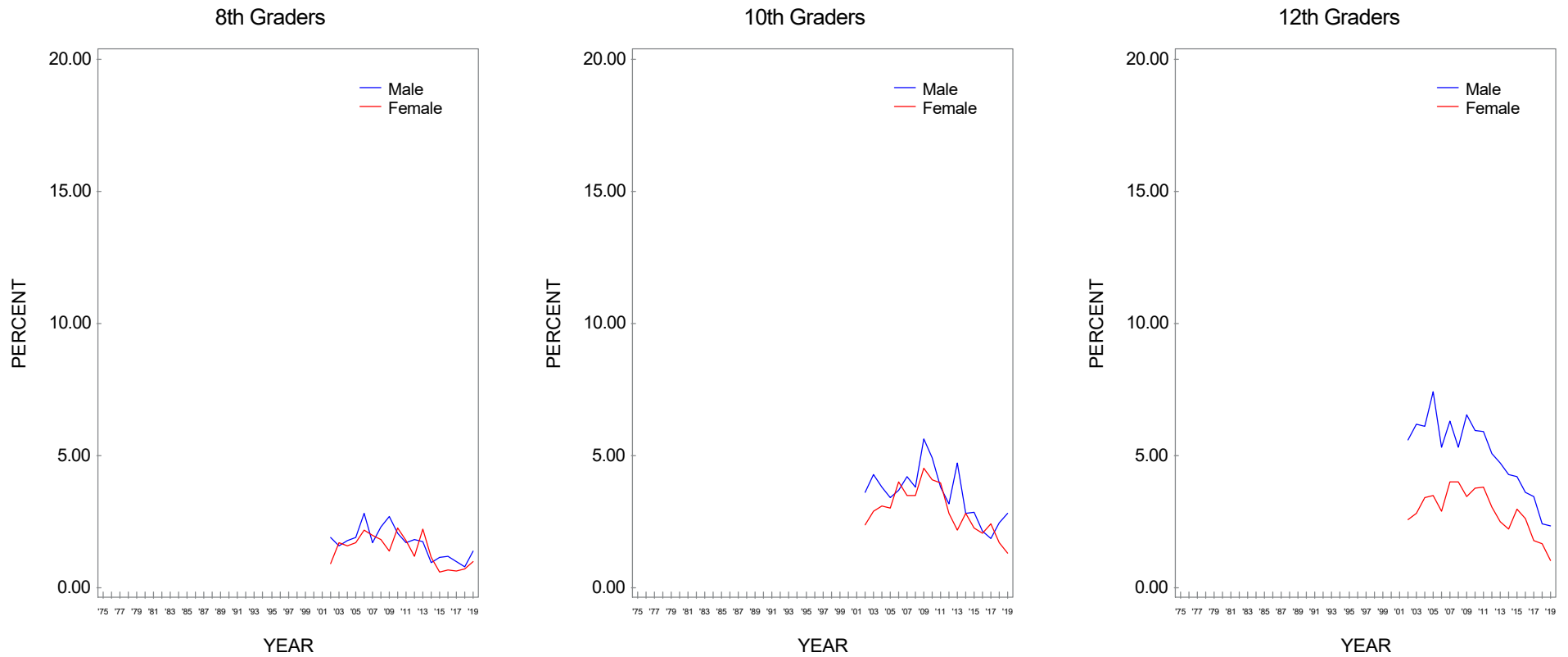
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 122
OxyContin: Trends in Annual Prevalence by College Plans
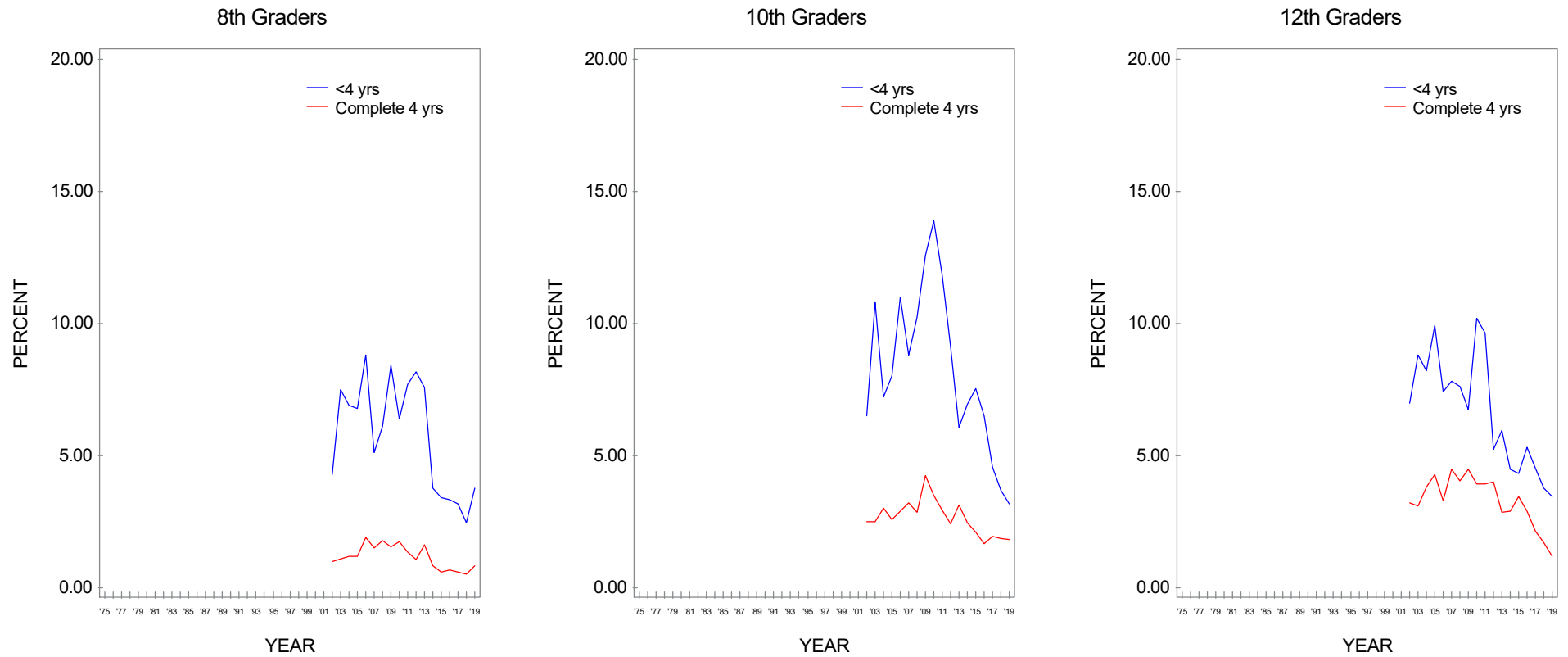
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 123
OxyContin: Trends in Annual Prevalence by Region
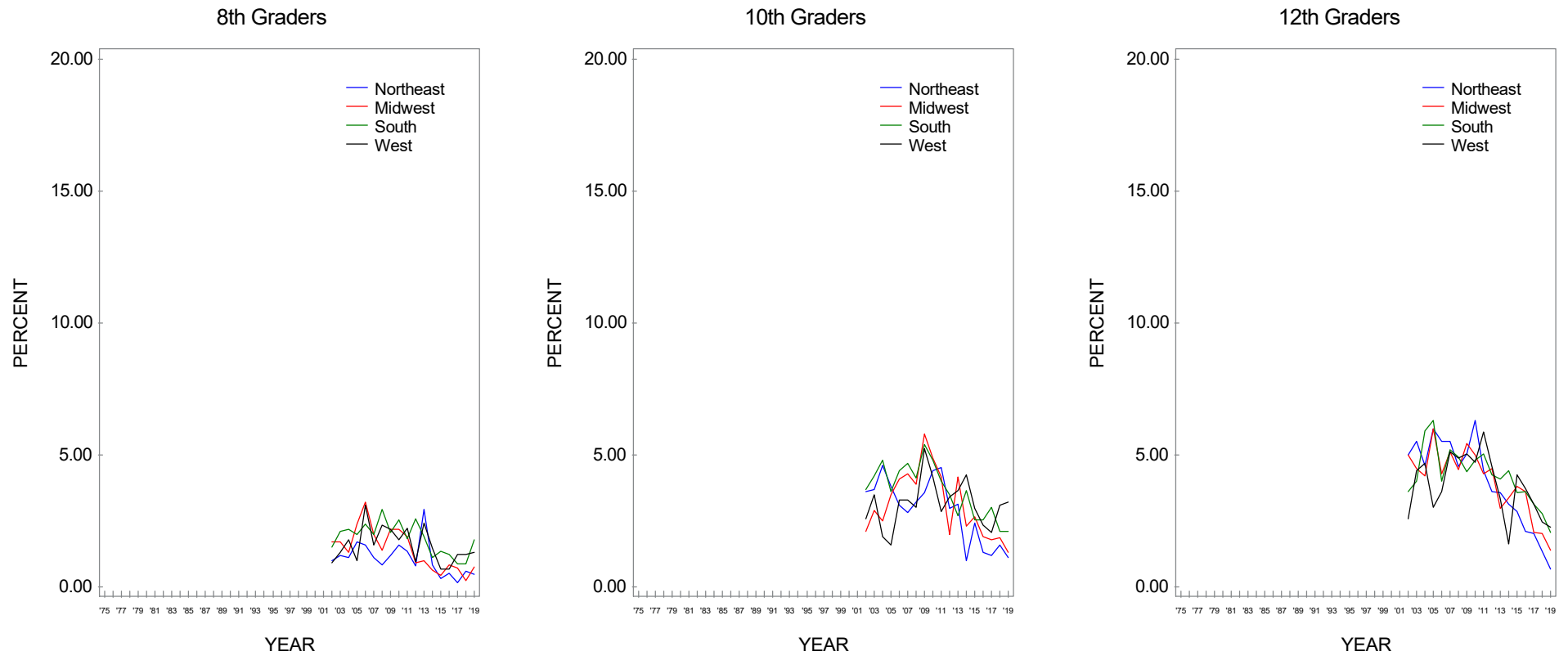
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 124
OxyContin: Trends in Annual Prevalence by Population Density

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

FIGURE 125
OxyContin: Trends in Annual Prevalence by Average Education Level of Parents*

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

*Parental education is an average score of mother's education and father's education.

FIGURE 126
OxyContin: Trends in Annual Prevalence by Race/Ethnicity*
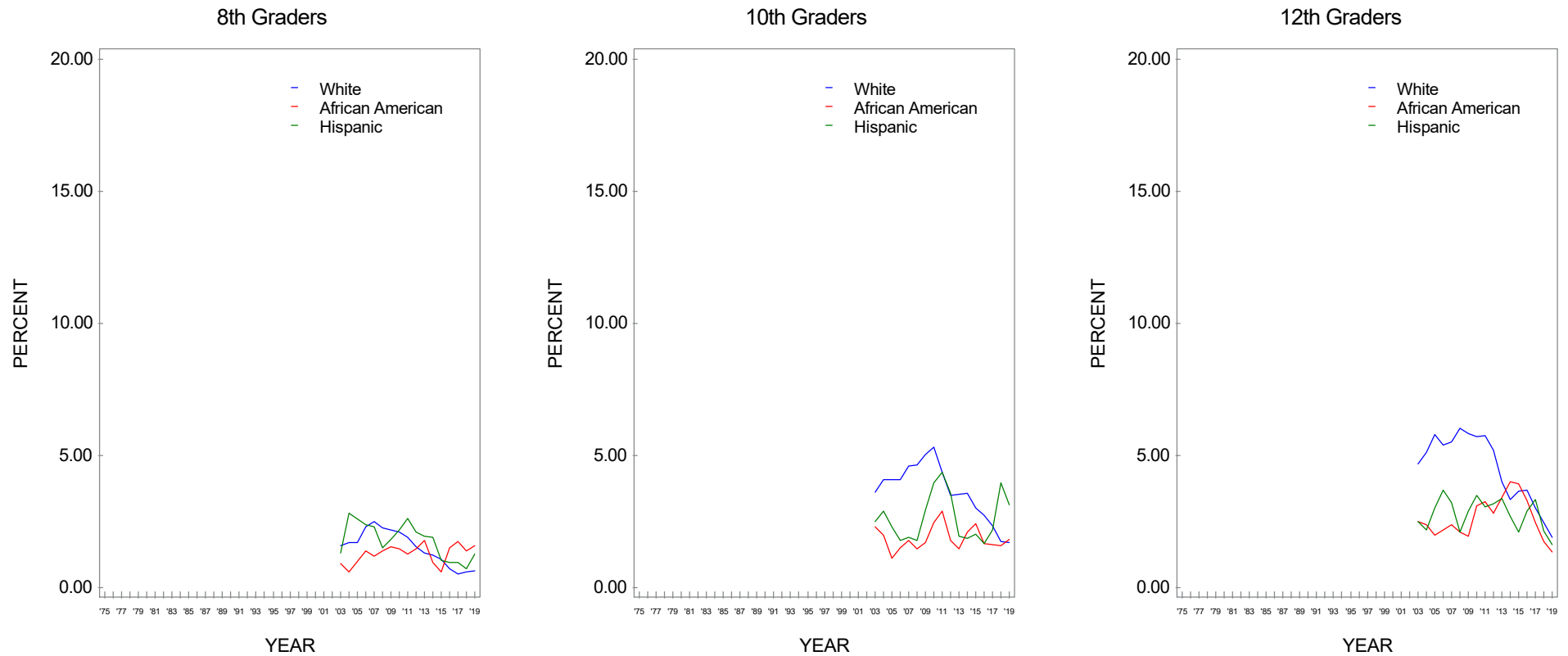
*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 127
Vicodin: Trends in Annual Prevalence by Gender
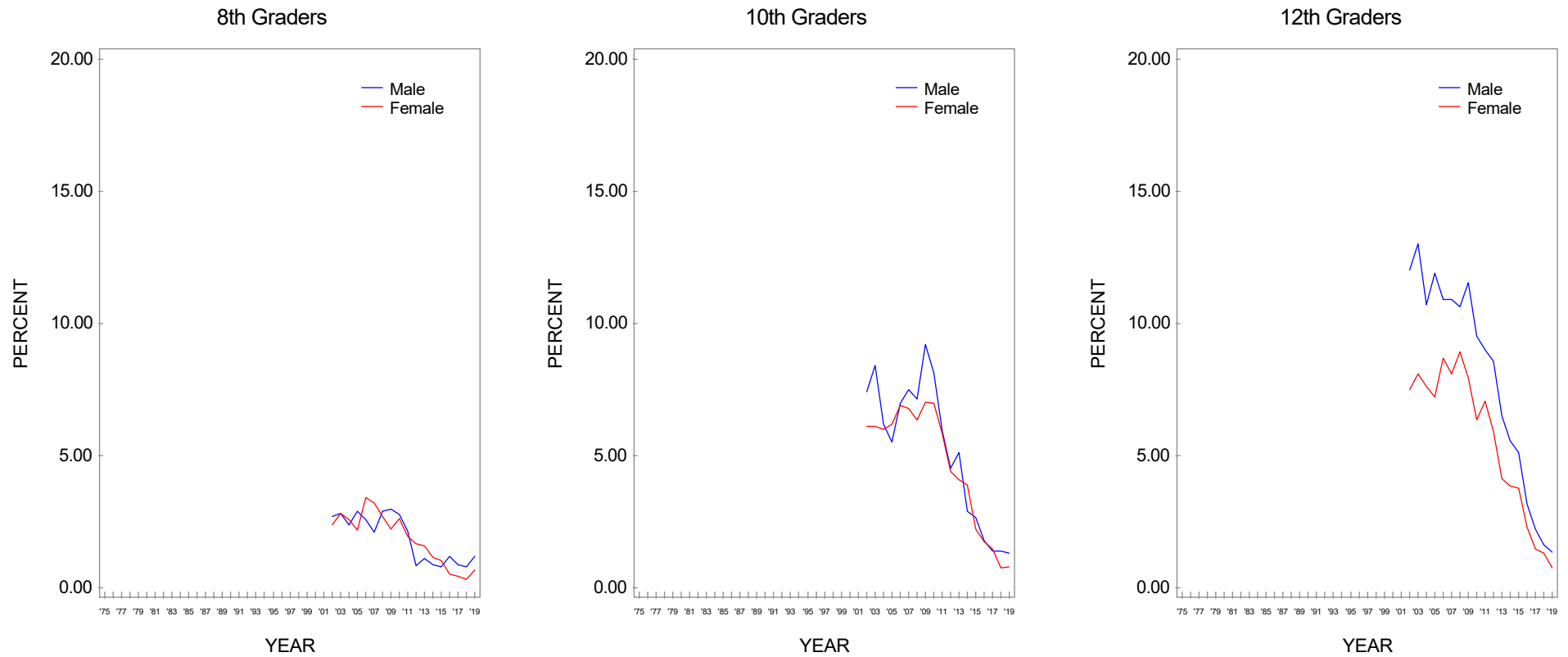
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 128
Vicodin: Trends in Annual Prevalence by College Plans
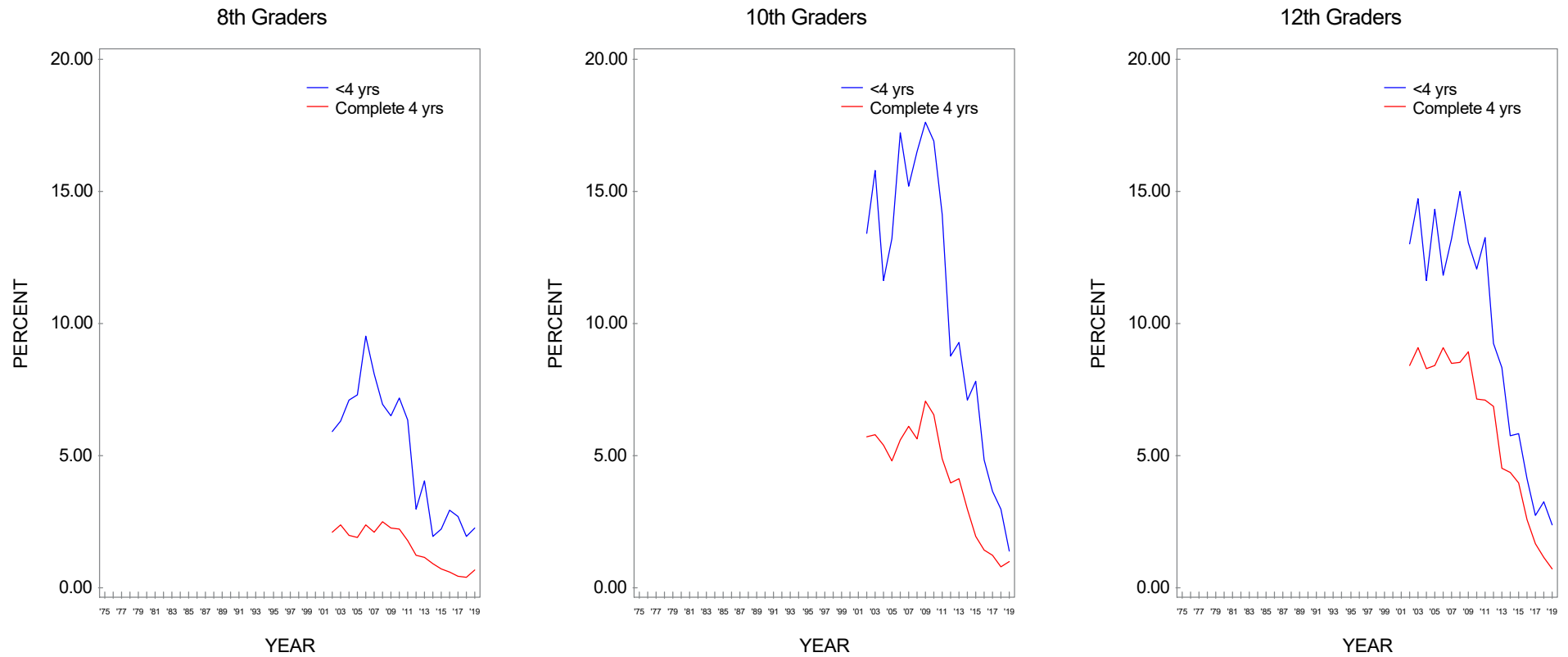
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 129
Vicodin: Trends in Annual Prevalence by Region
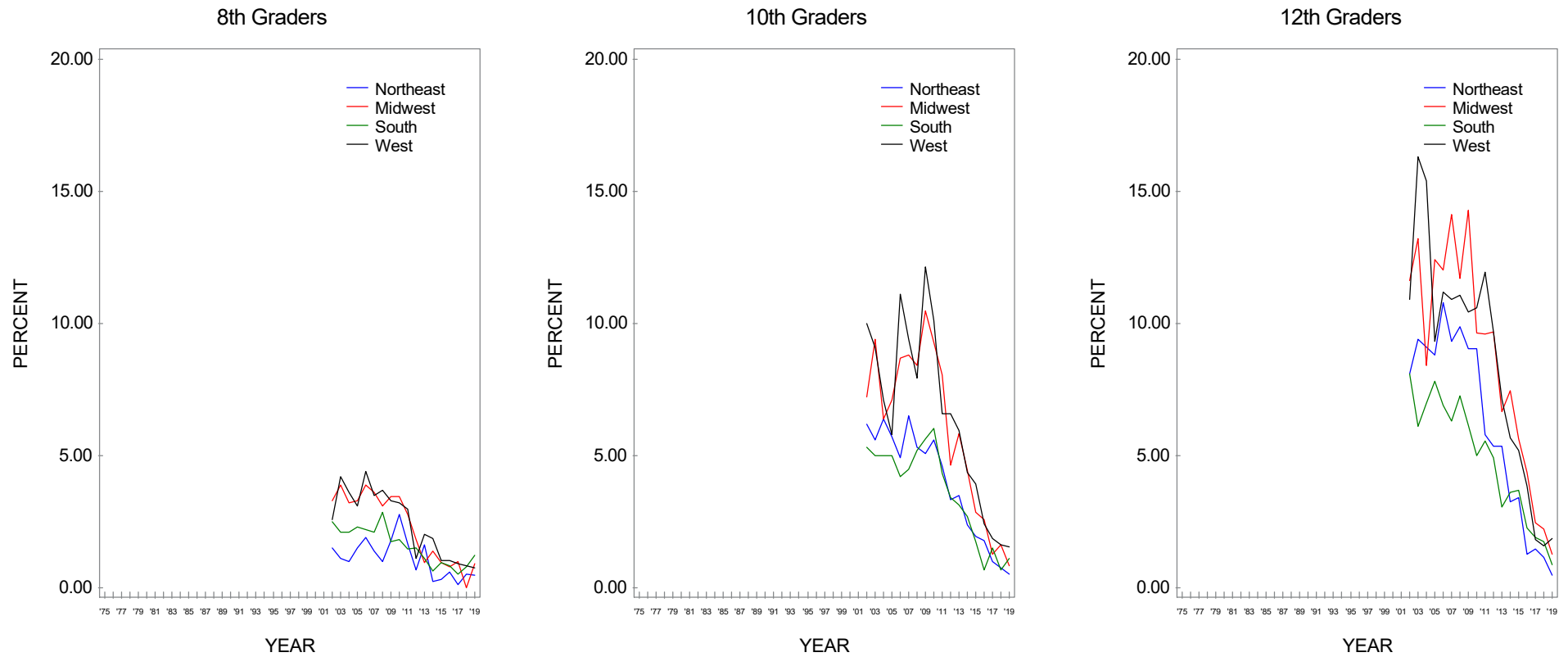
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 130
Vicodin: Trends in Annual Prevalence by Population Density

8th Graders

10th Graders

12th Graders
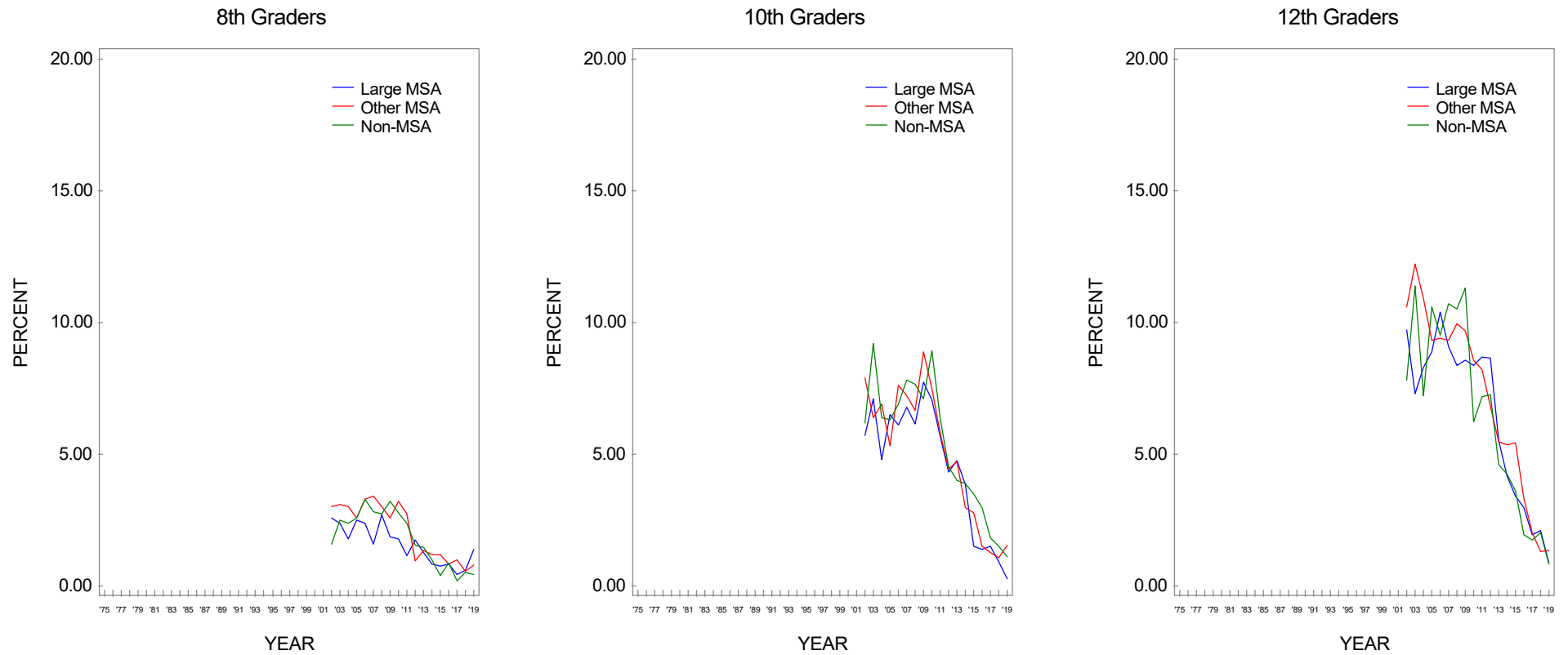
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 131

Vicodin: Trends in Annual Prevalence by Average Education Level of Parents*
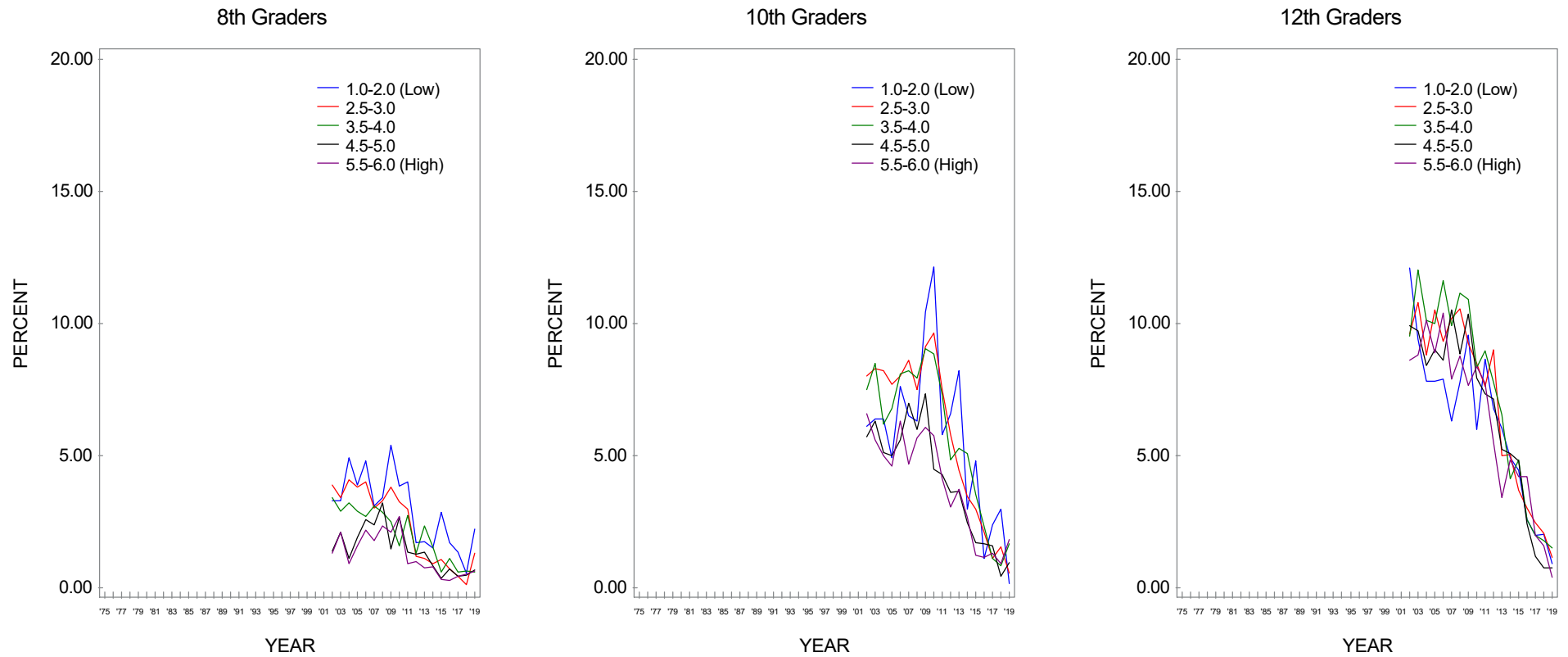
8th Graders   10th Graders   12th Graders

FIGURE 132
Vicodin: Trends in Annual Prevalence by Race/Ethnicity*
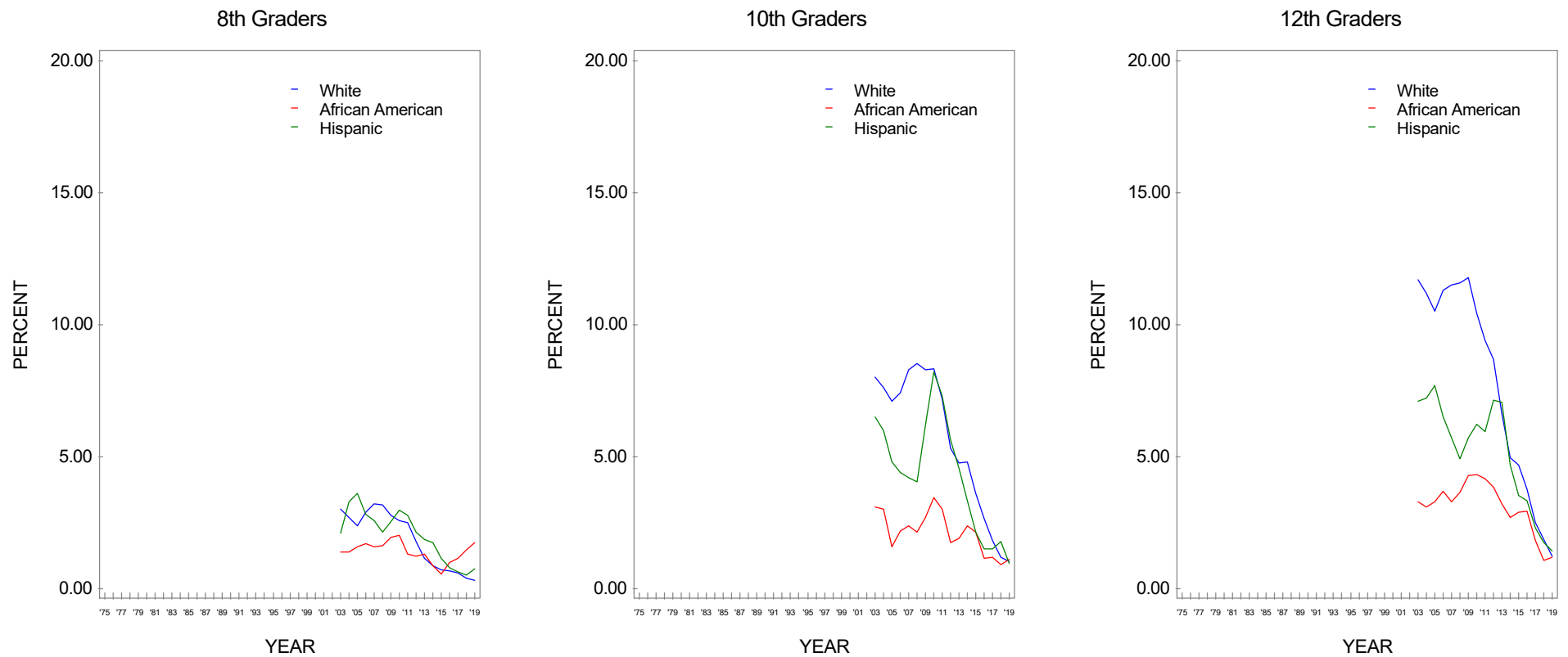
8th Graders

10th Graders

12th Graders

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 133
Amphetamines:* Trends in Annual Prevalence by Gender
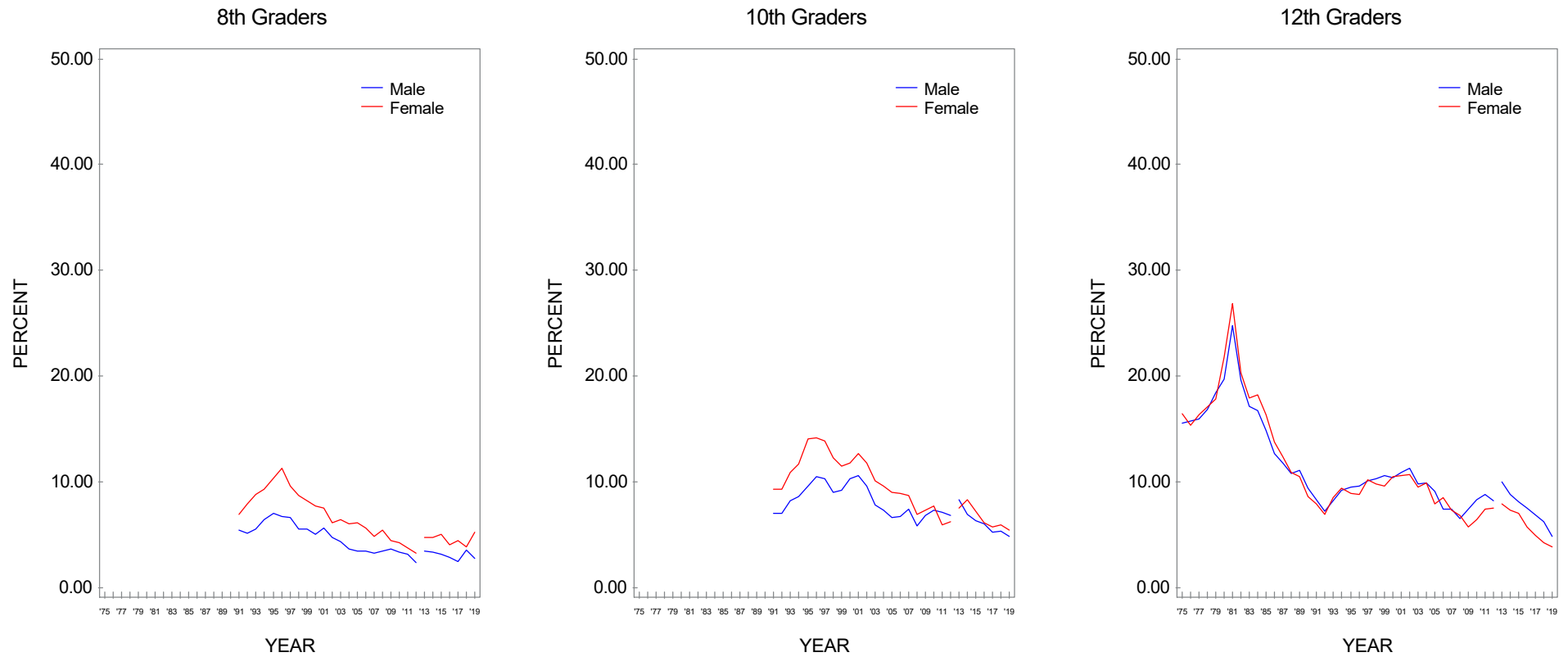
*After 1982, the question about amphetamine use was revised to further clarify that nonprescription stimulants should not be included in the answers.
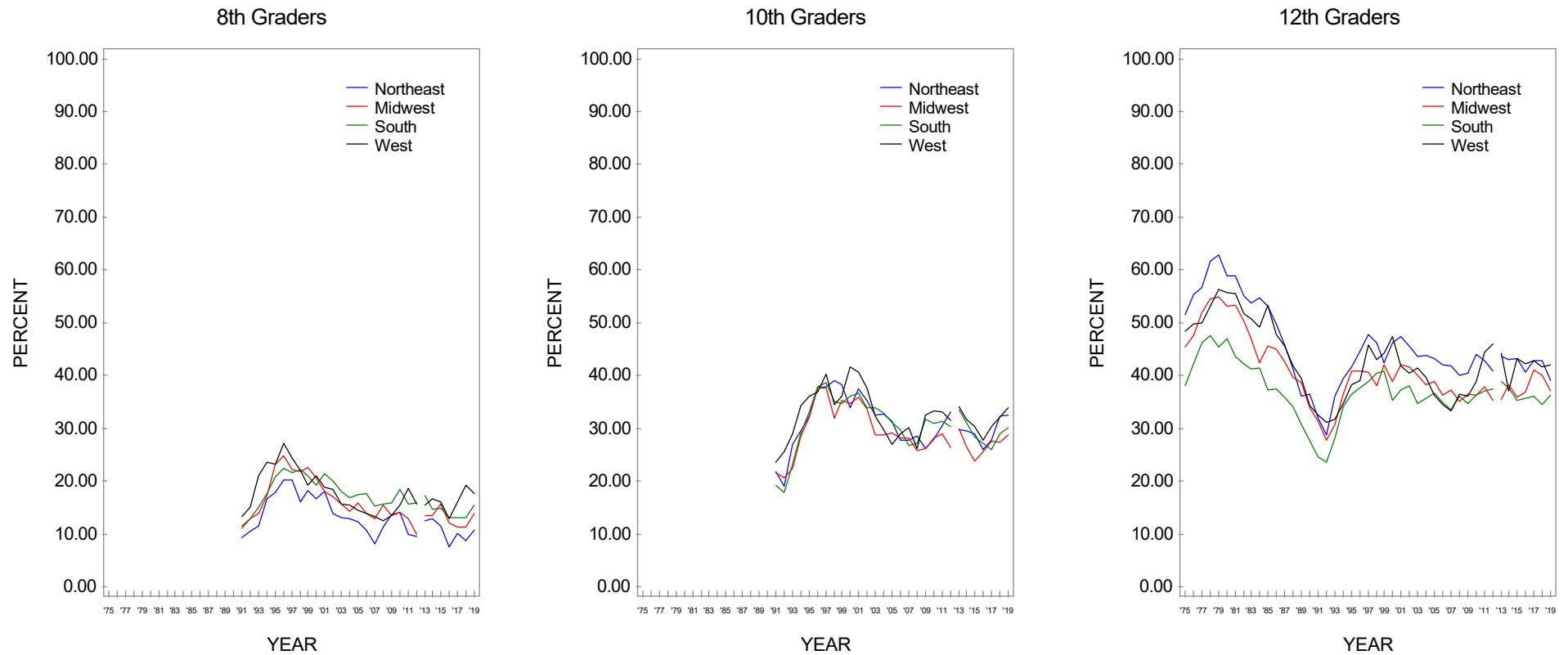
FIGURE 134

Amphetamines:* Trends in Annual Prevalence by College Plans
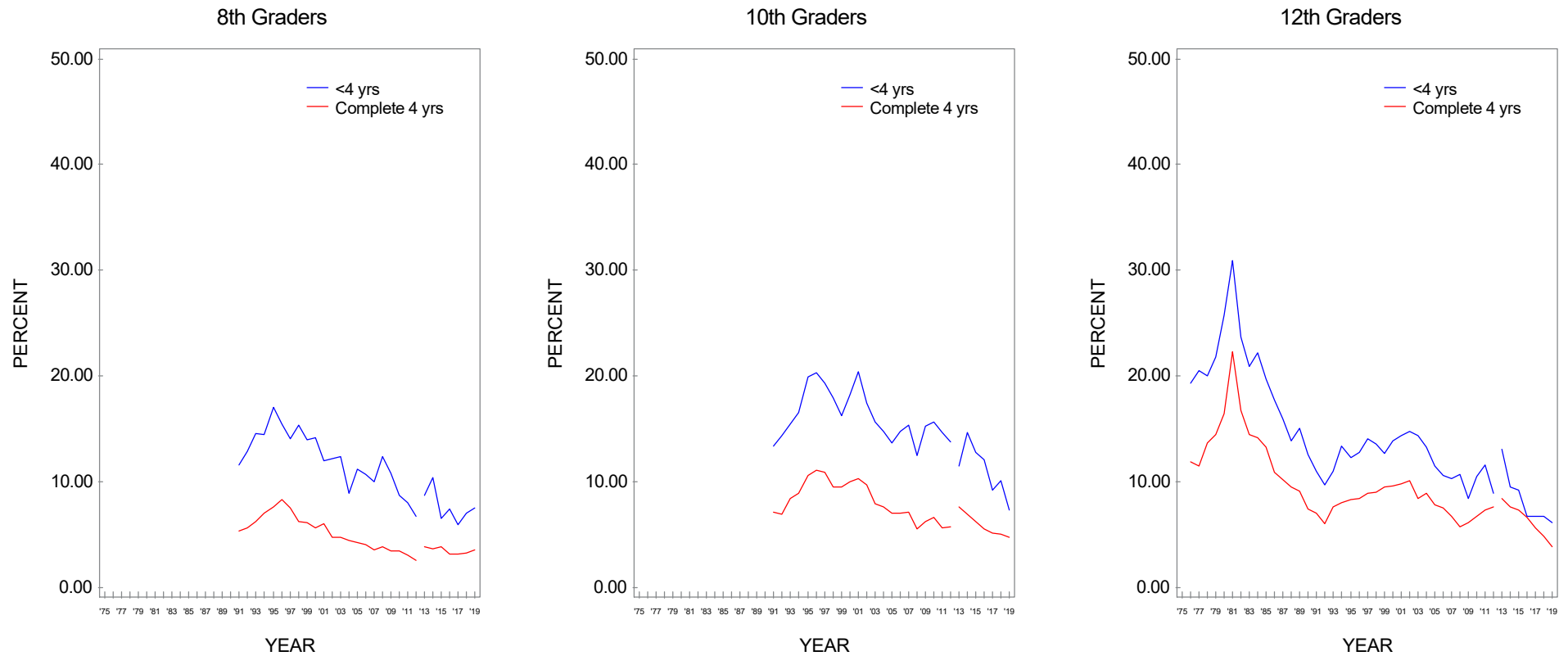
Source. The Monitoring the Future study, the University of Michigan.

*After 1982, the question about amphetamine use was revised to further clarify that nonprescription stimulants should not be included in the answers.

FIGURE 135
Amphetamines:* Trends in Annual Prevalence by Region
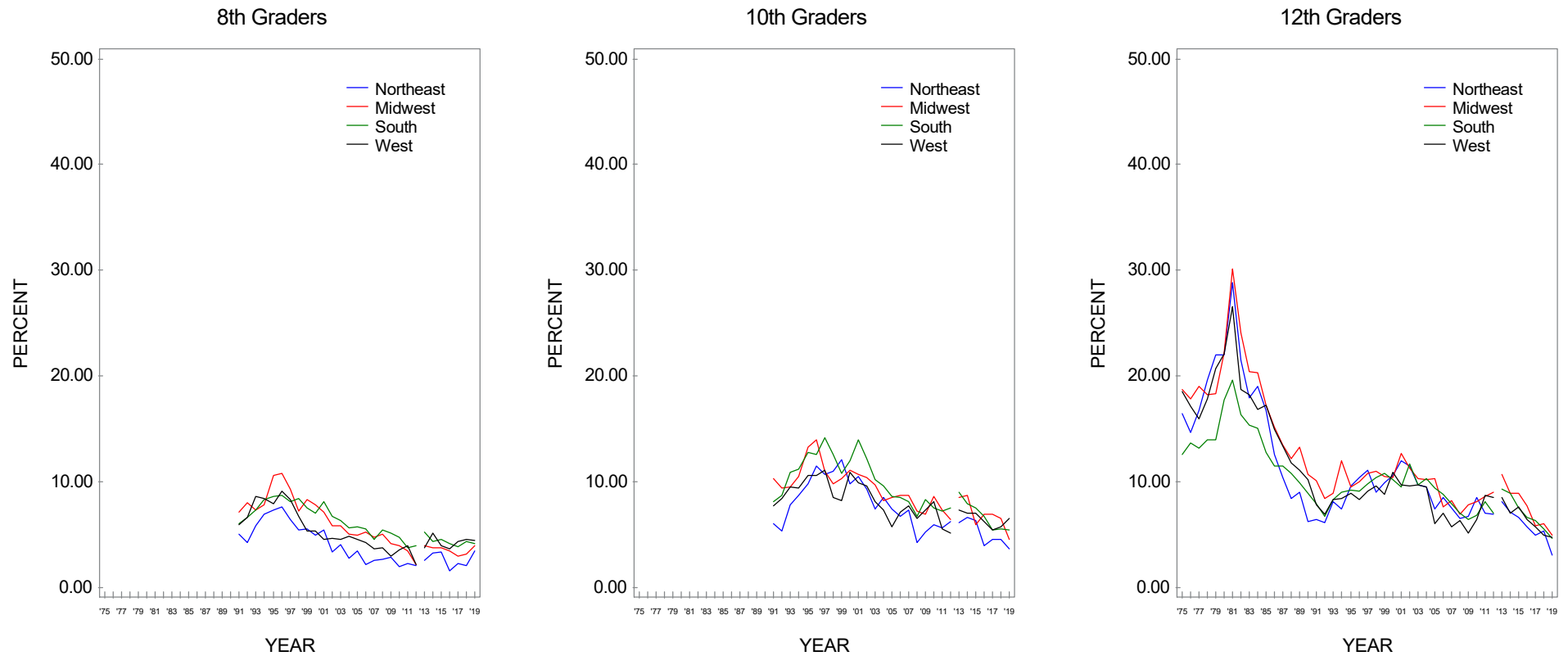
Source. The Monitoring the Future study, the University of Michigan.

*After 1982, the question about amphetamine use was revised to further clarify that nonprescription stimulants should not be included in the answers.

FIGURE 136
Amphetamines:* Trends in Annual Prevalence by Population Density
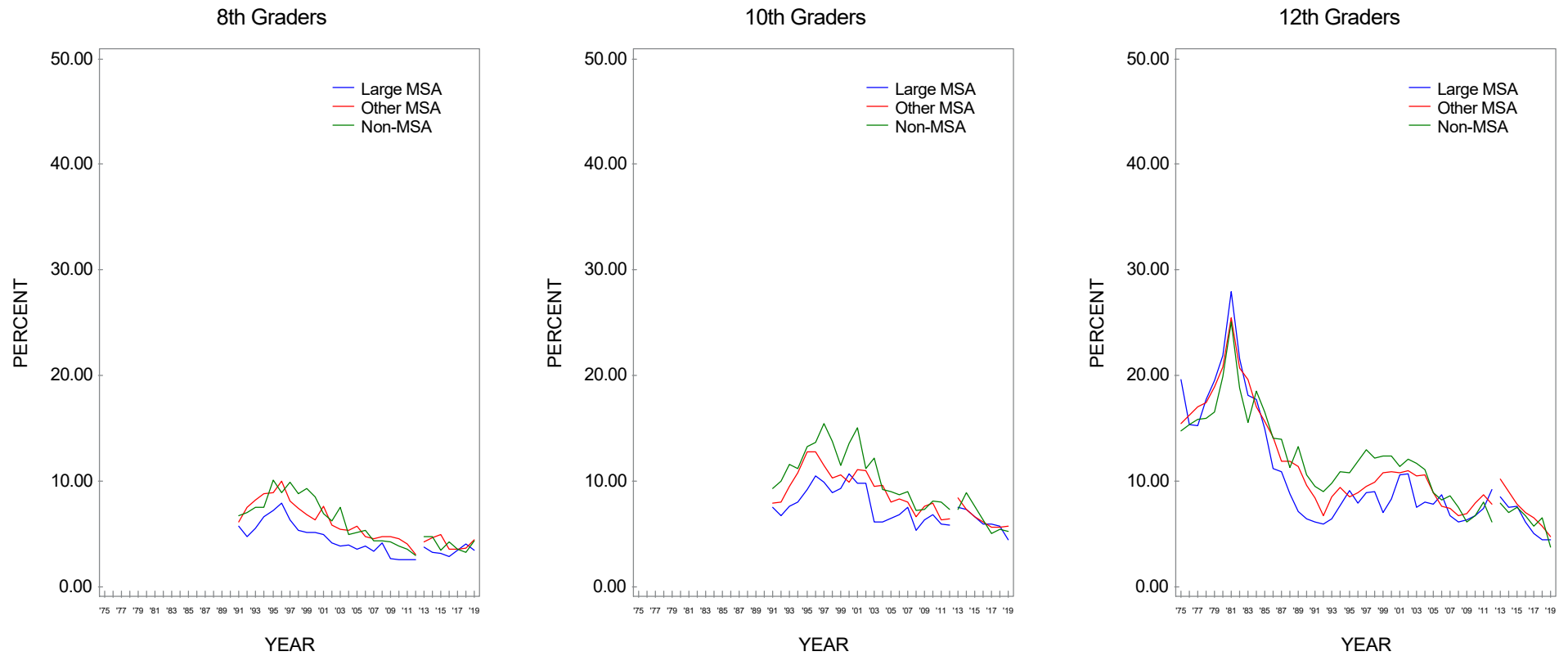
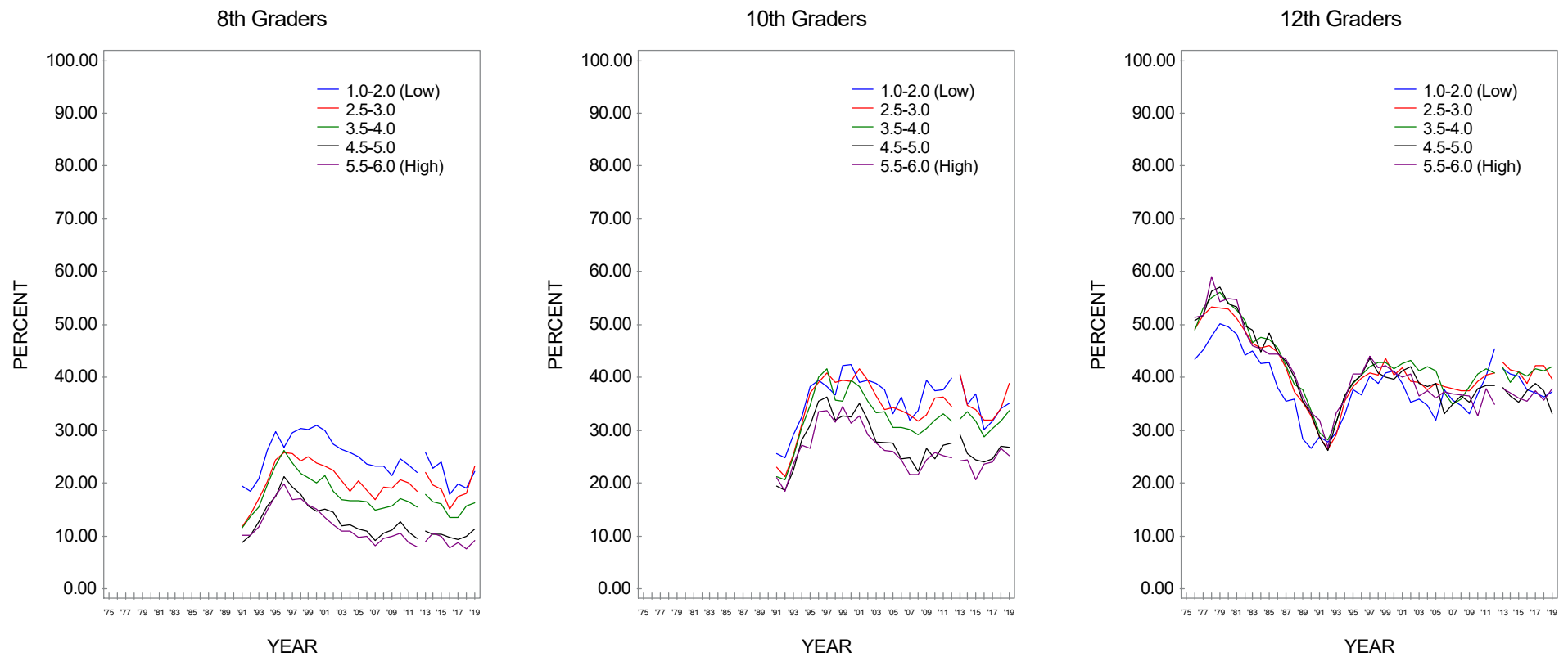*Source.* The Monitoring the Future study, the University of Michigan.

*After 1982, the question about amphetamine use was revised to further clarify that nonprescription stimulants should not be included in the answers.

FIGURE 137
Amphetamines:* Trends in Annual Prevalence by Average Education Level of Parents**
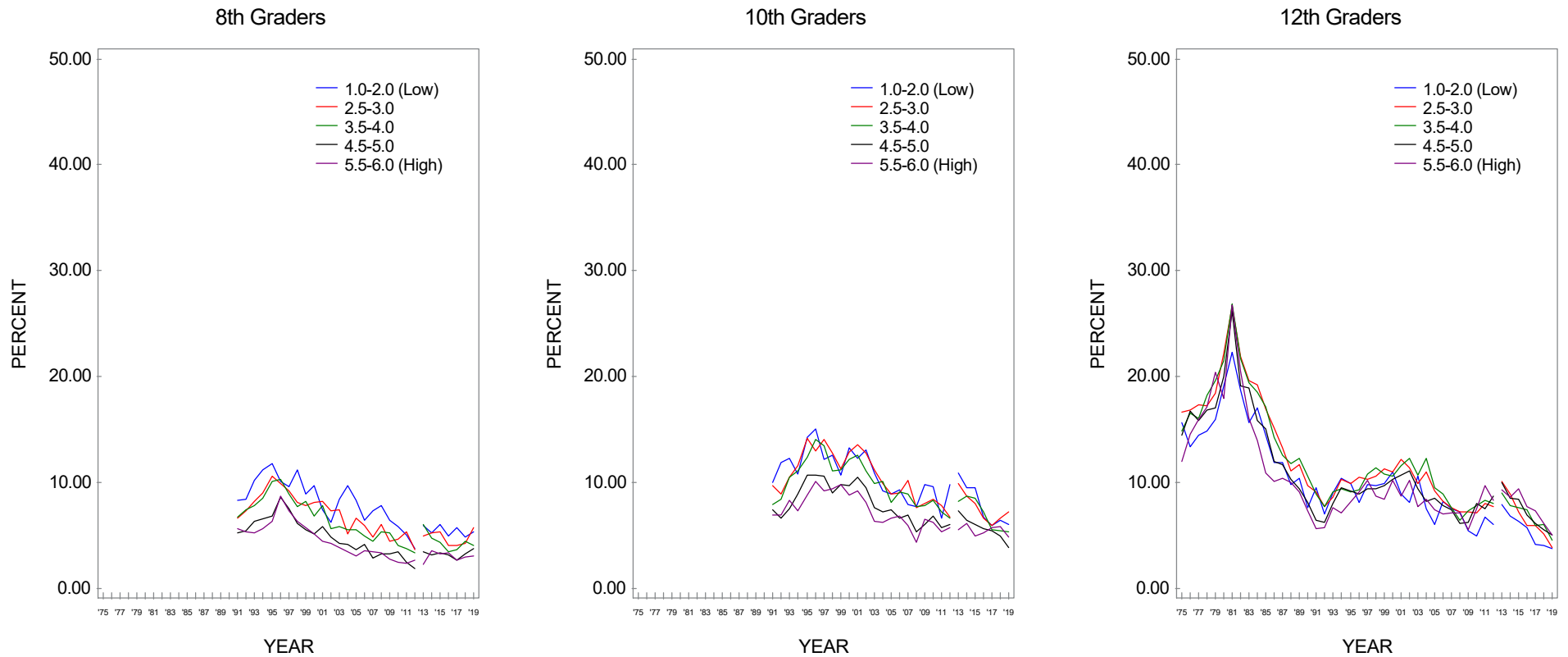
FIGURE 138
Amphetamines:* Trends in Annual Prevalence by Race/Ethnicity**
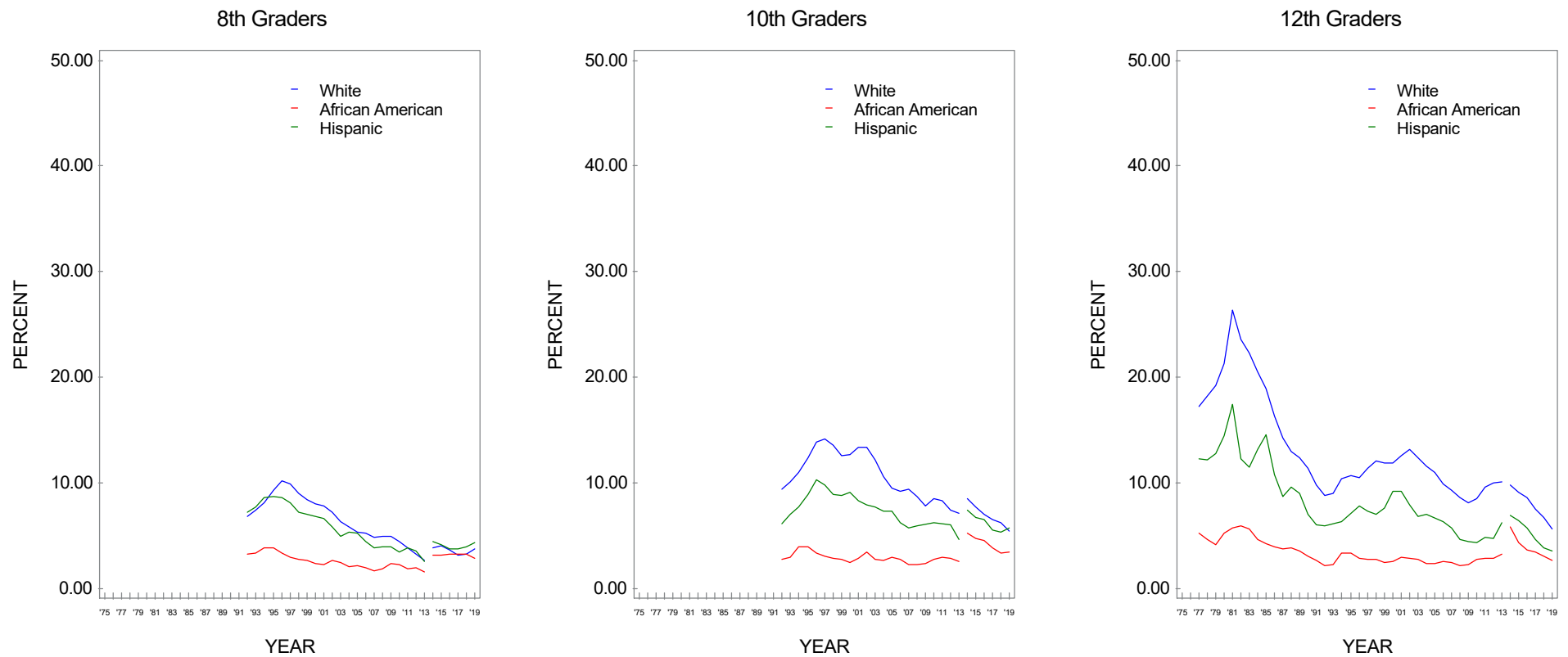
FIGURE 139
Ritalin: Trends in Annual Prevalence by Gender

8th Graders   **10th Graders**   **12th Graders**
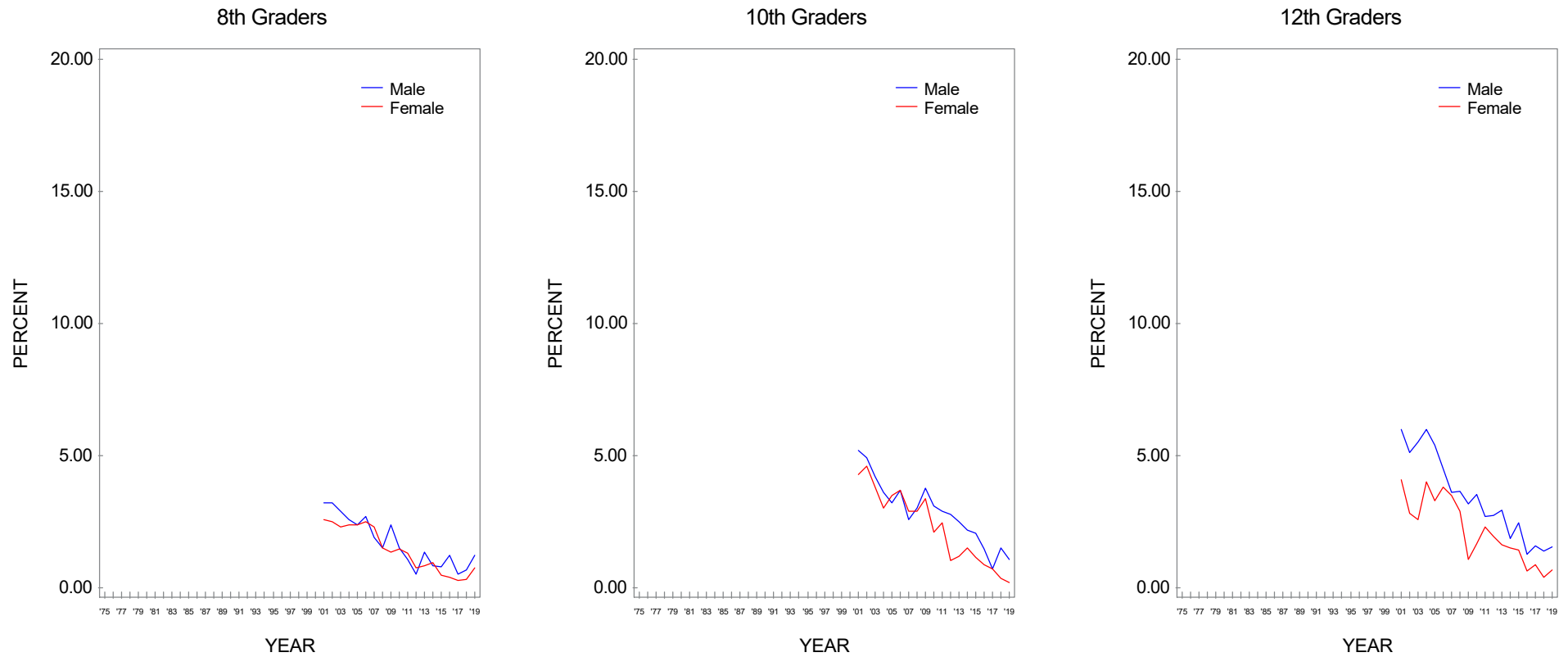
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 140
Ritalin: Trends in Annual Prevalence by College Plans
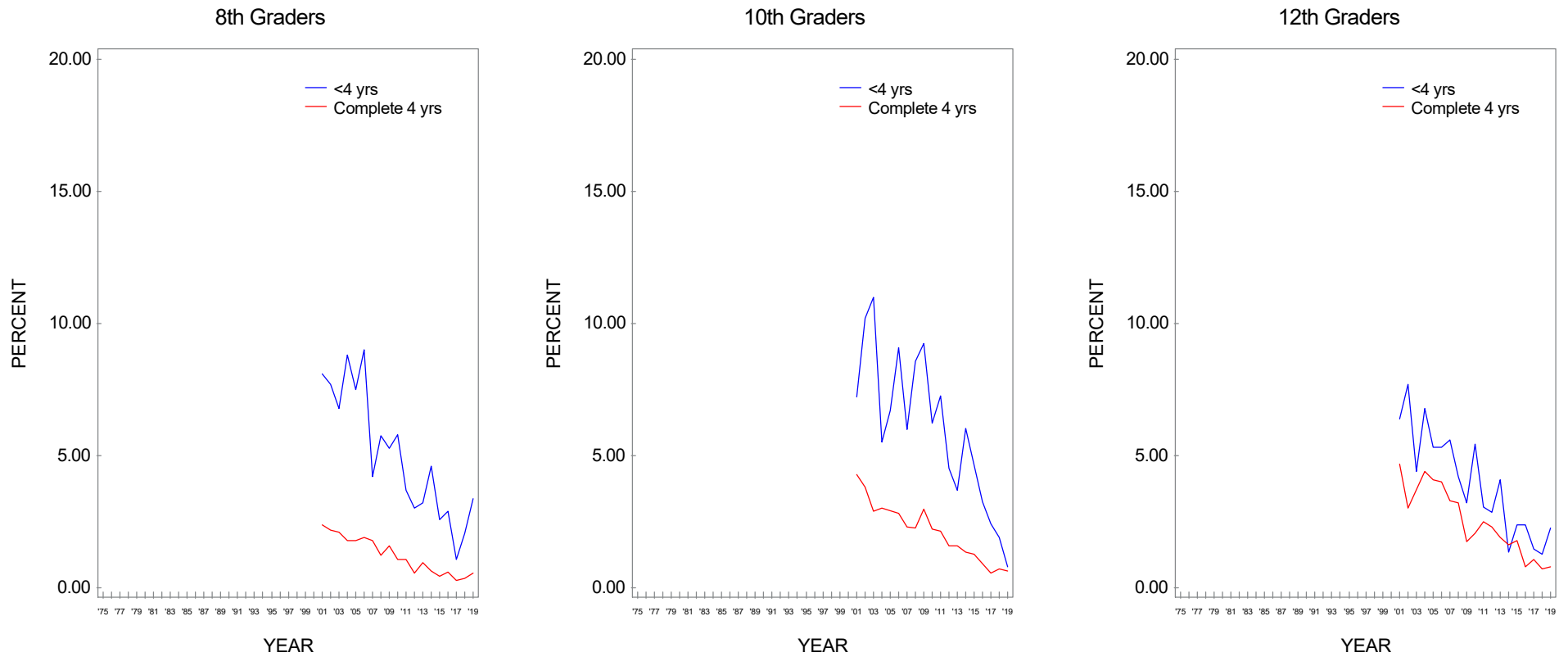
FIGURE 141
Ritalin: Trends in Annual Prevalence by Region

8th Graders

Legend:
- Northeast
- Midwest
- South
- West

PERCENT vs YEAR ('75 to '19)

10th Graders

Legend:
- Northeast
- Midwest
- South
- West

PERCENT vs YEAR ('75 to '19)

12th Graders

Legend:
- Northeast
- Midwest
- South
- West

PERCENT vs YEAR ('75 to '19)
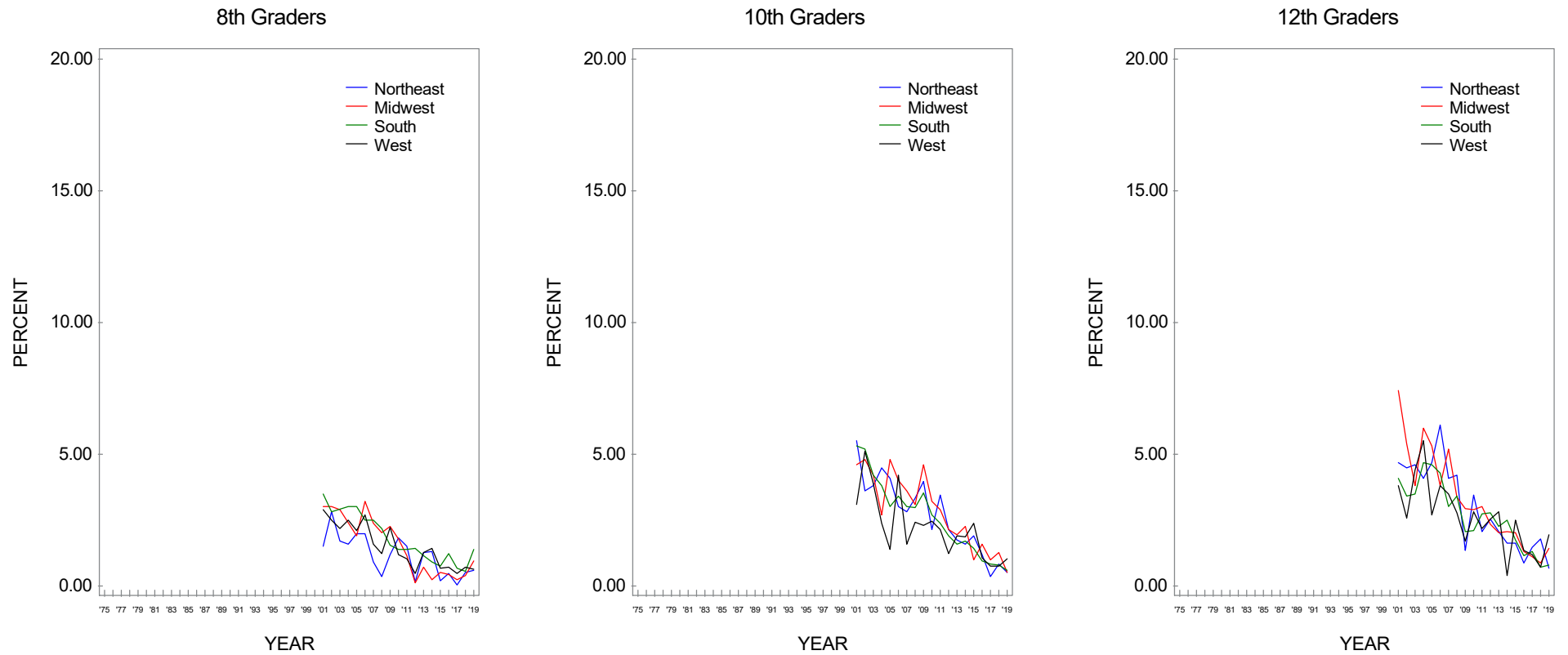
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 142
Ritalin: Trends in Annual Prevalence by Population Density
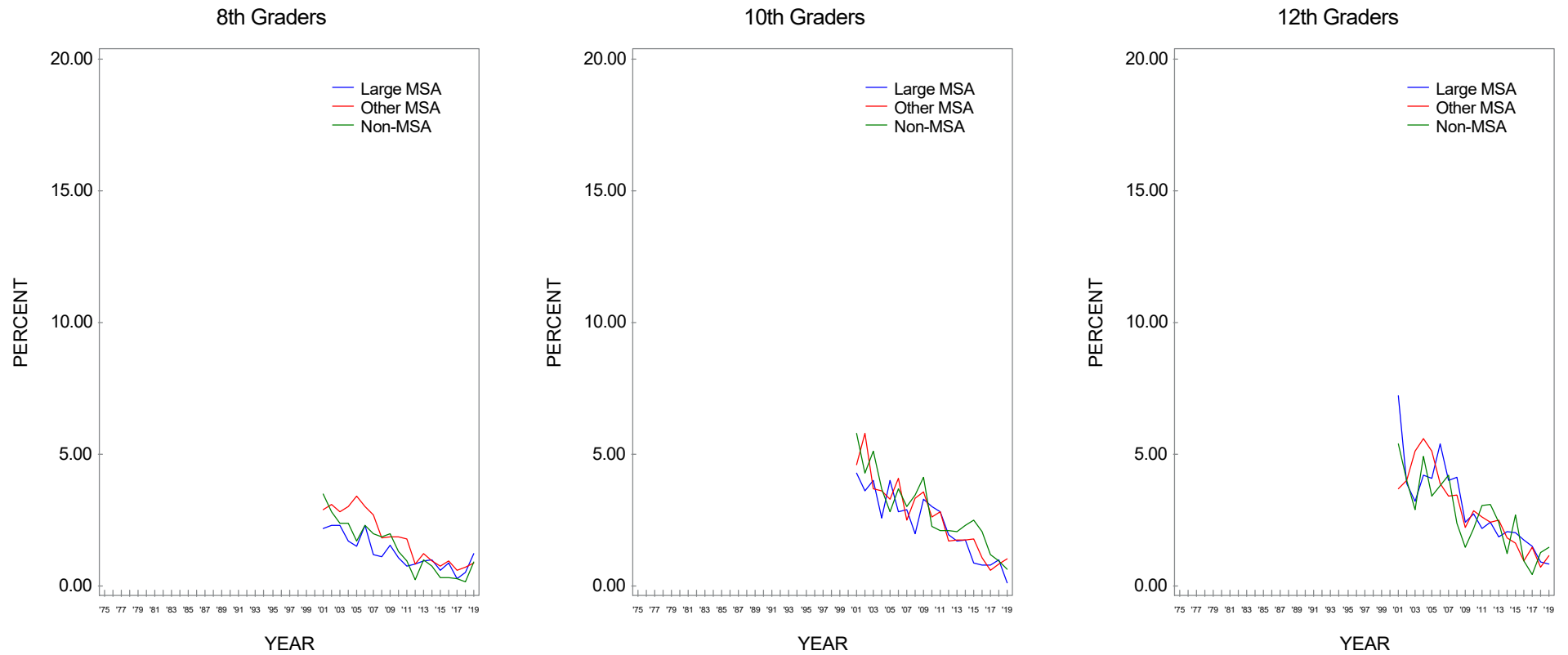
FIGURE 143
Ritalin: Trends in Annual Prevalence by Average Education Level of Parents*
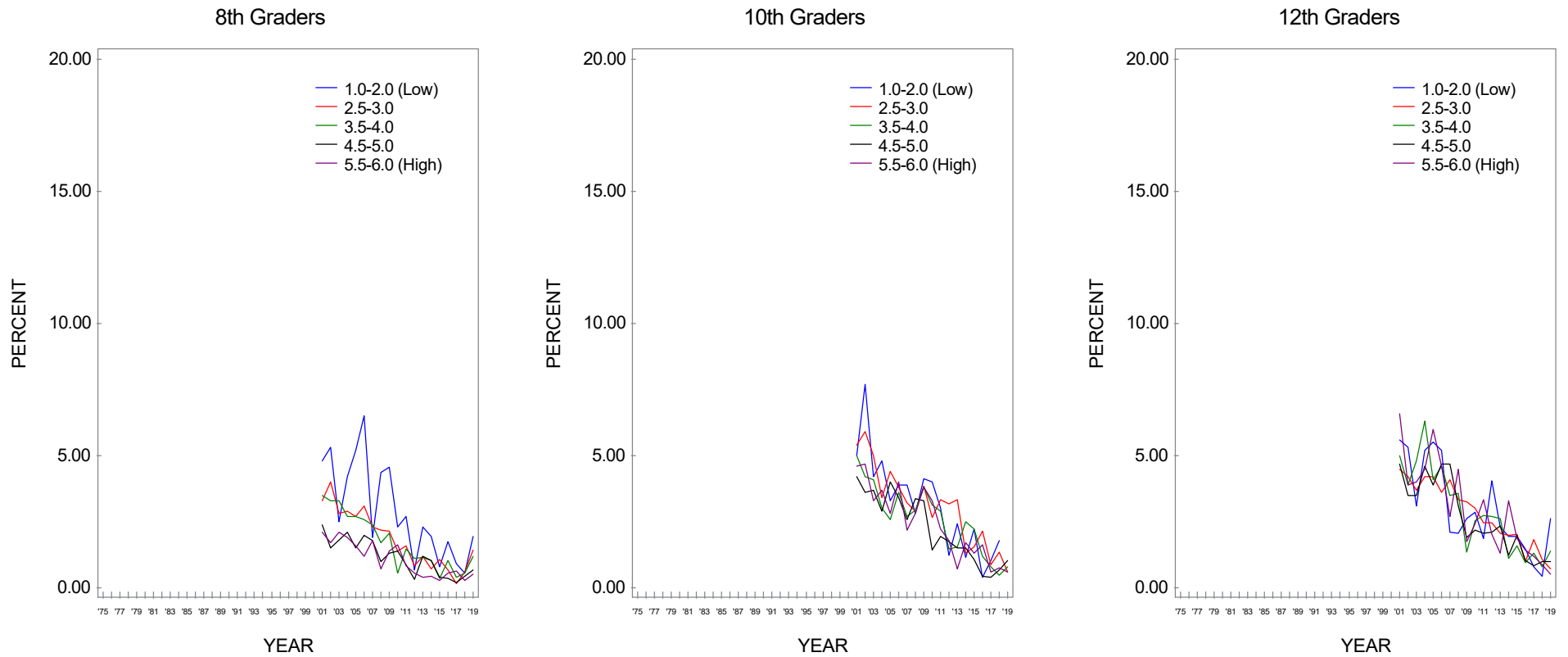
8th Graders

10th Graders

12th Graders

FIGURE 144
Ritalin: Trends in Annual Prevalence by Race/Ethnicity*
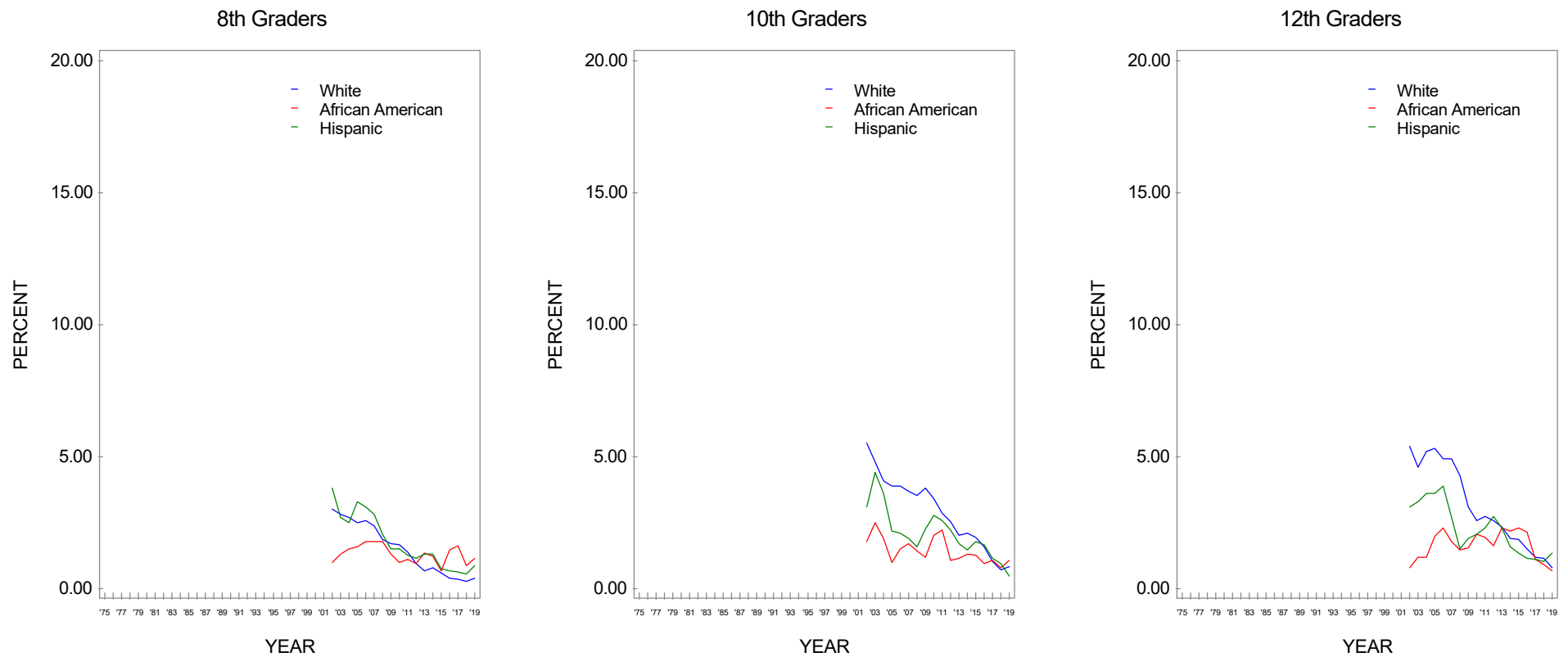
FIGURE 145
Adderall: Trends in Annual Prevalence by Gender
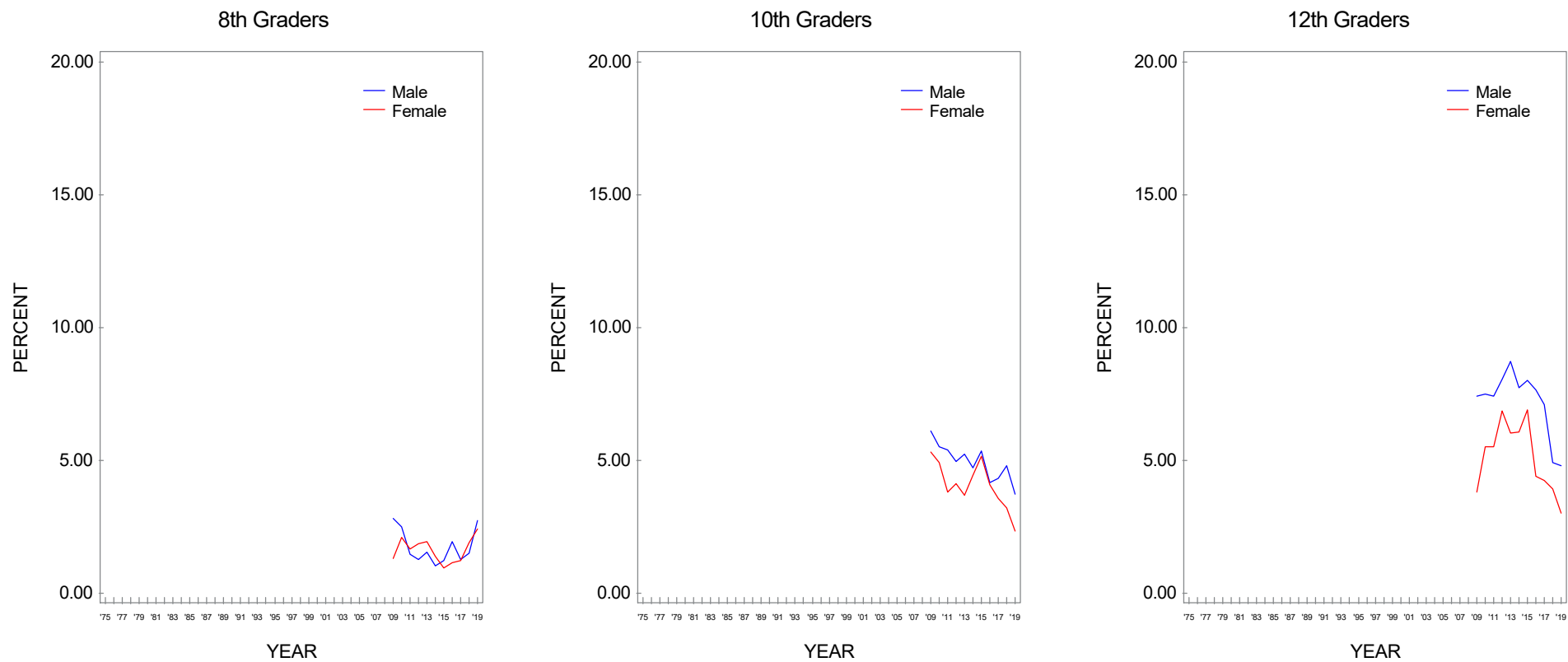
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 146
Adderall: Trends in Annual Prevalence by College Plans

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

FIGURE 147
Adderall: Trends in Annual Prevalence by Region
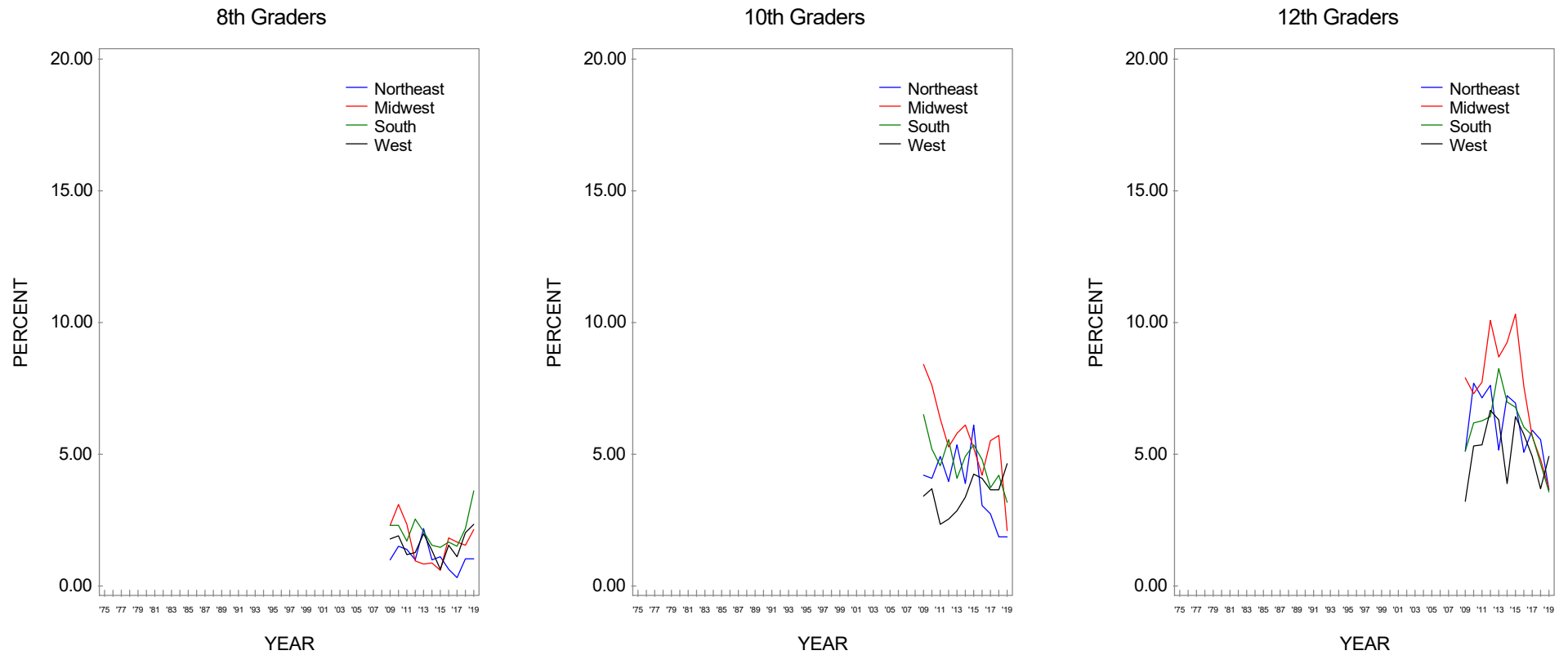
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 148
Adderall: Trends in Annual Prevalence by Population Density

8th Graders

10th Graders

12th Graders
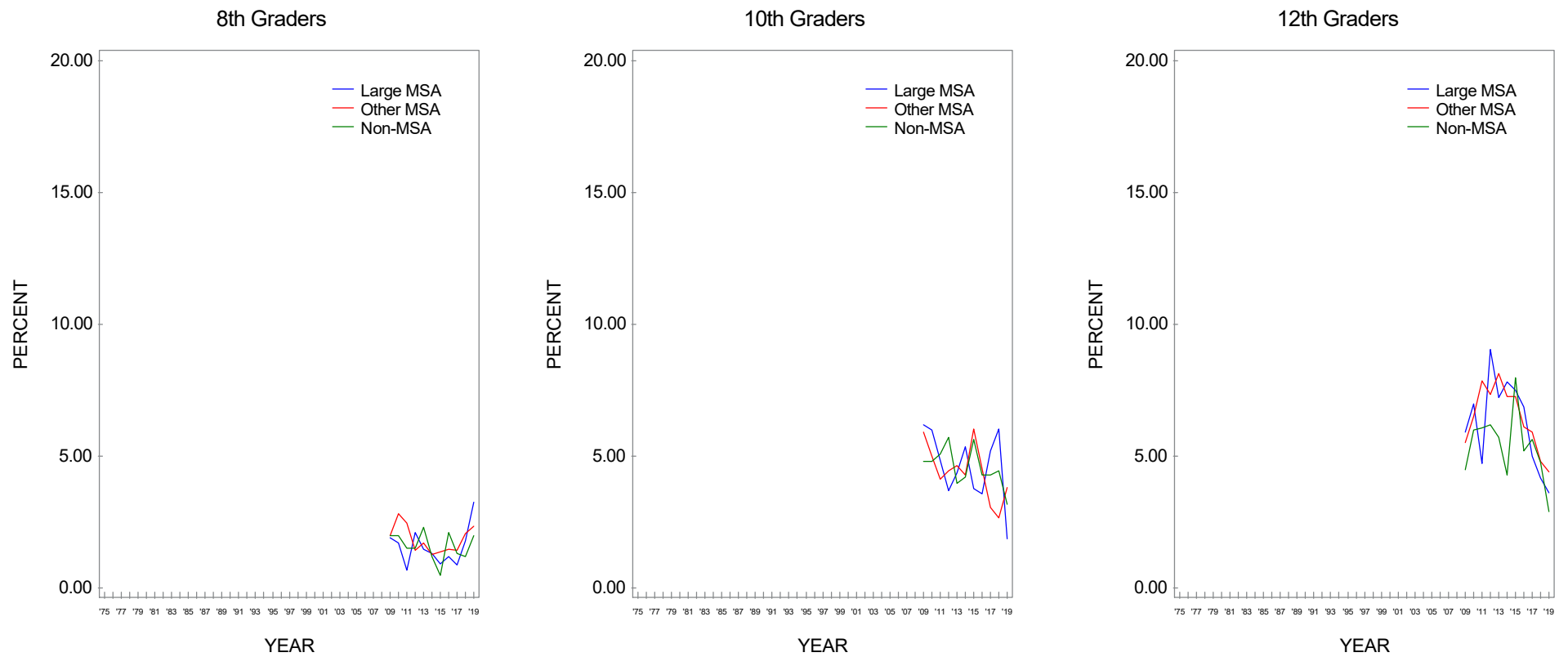
FIGURE 149
Adderall: Trends in Annual Prevalence by Average Education Level of Parents*
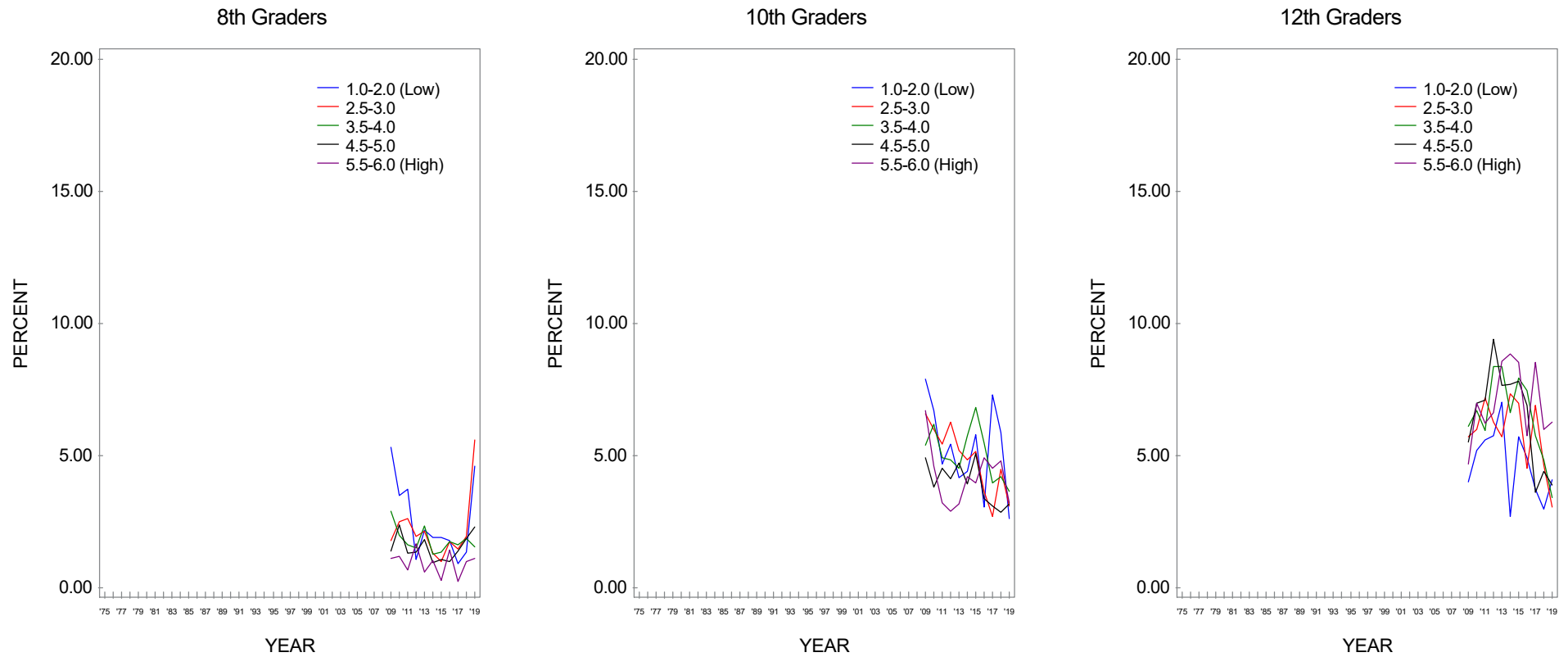
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 150
Adderall: Trends in Annual Prevalence by Race/Ethnicity*
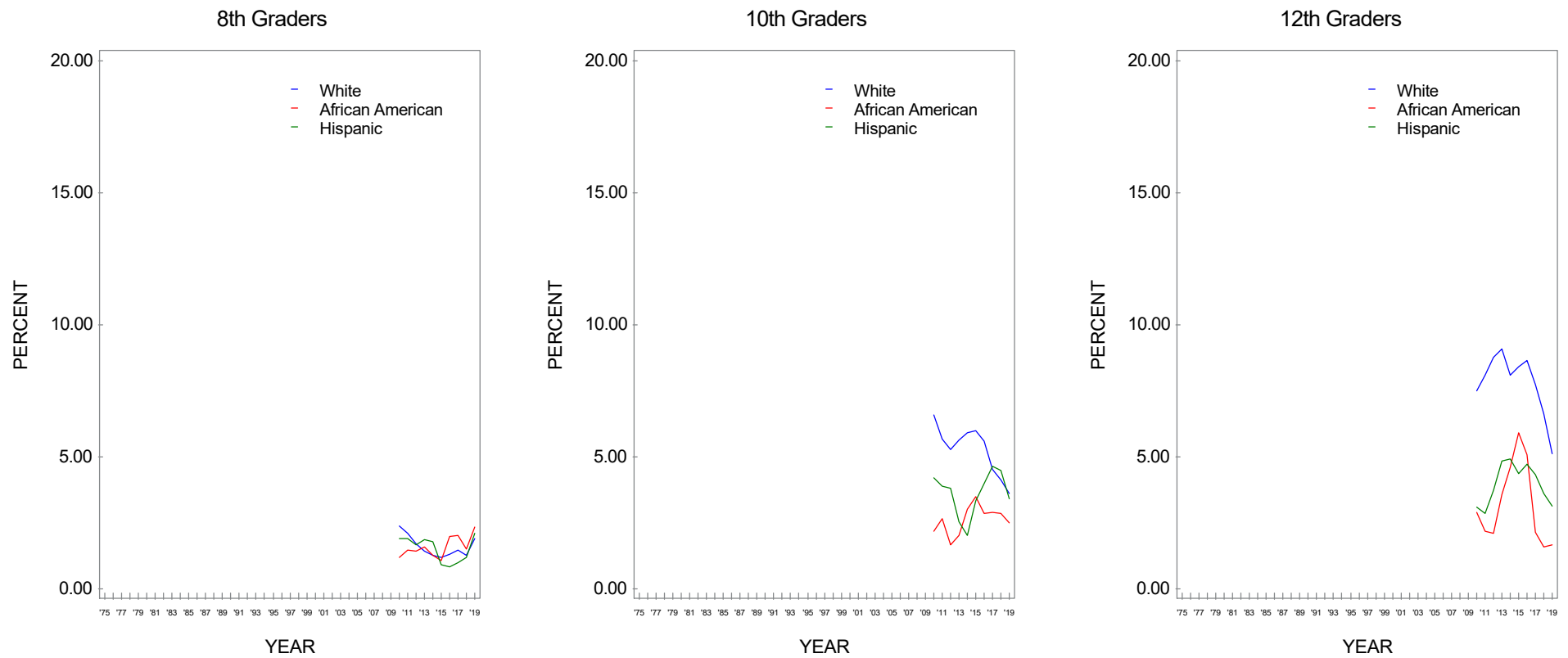
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 151
Provigil:* Trends in Annual Prevalence by Gender
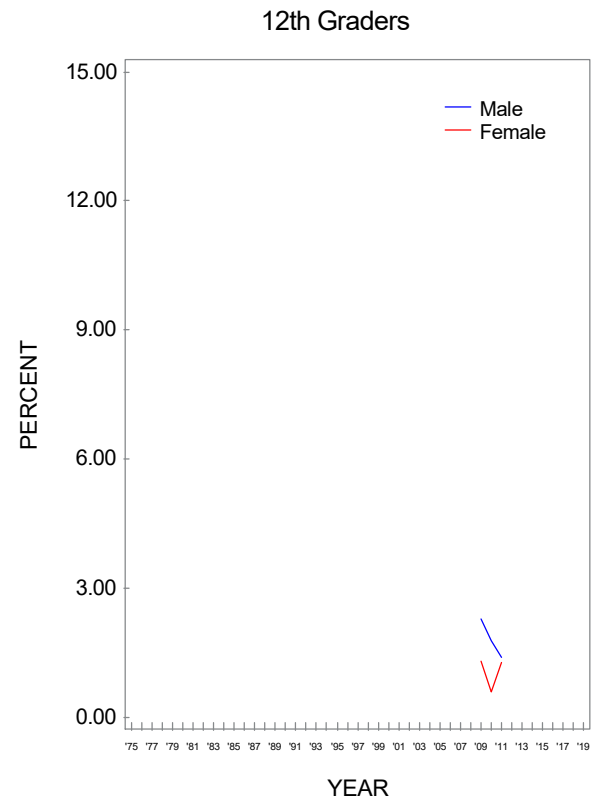
12th Graders

FIGURE 152

Provigil:* Trends in Annual Prevalence by College Plans
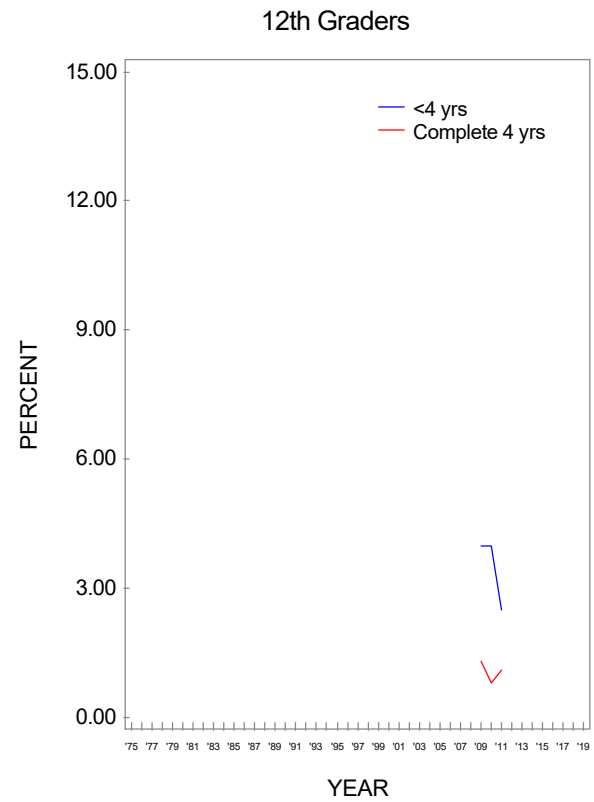
12th Graders

FIGURE 153
Provigil:* Trends in Annual Prevalence by Region
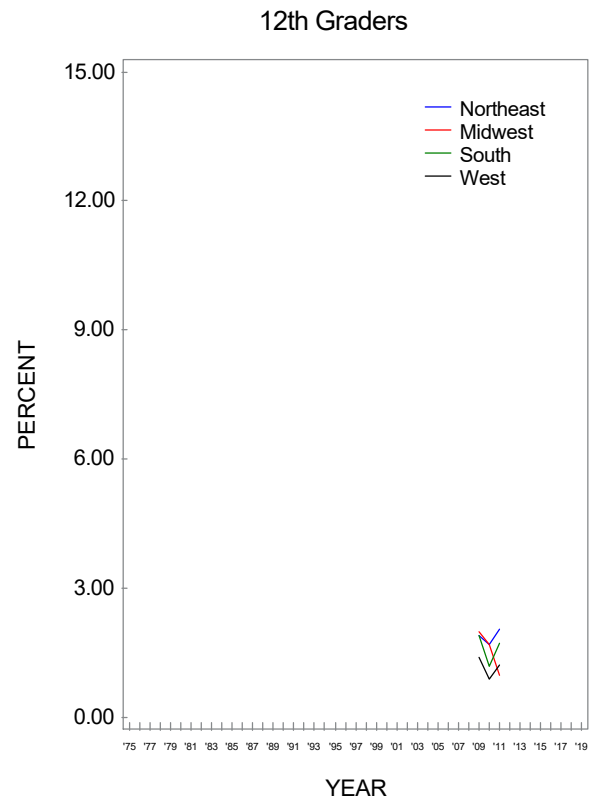
12th Graders

Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2012.

FIGURE 154
Provigil:* Trends in Annual Prevalence by Population Density
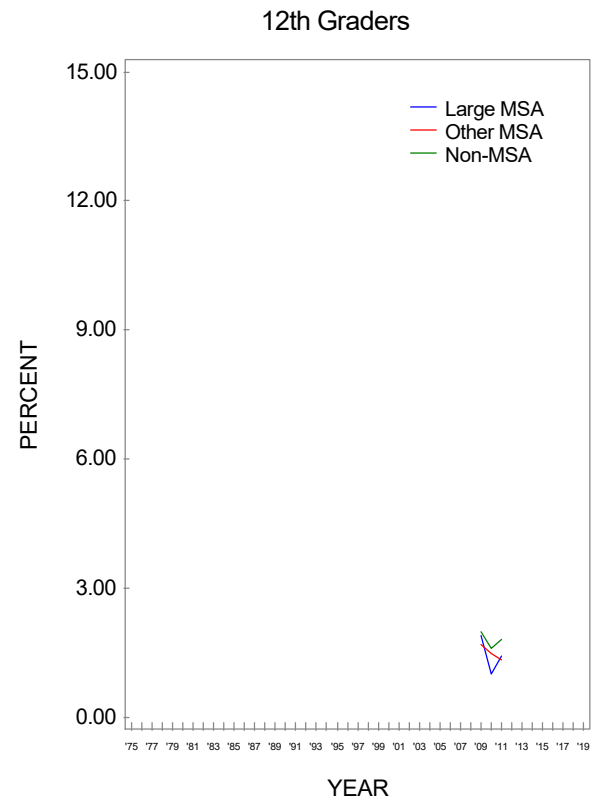
12th Graders

Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2012.

FIGURE 155
Provigil:* Trends in Annual Prevalence by Average Education Level of Parents**
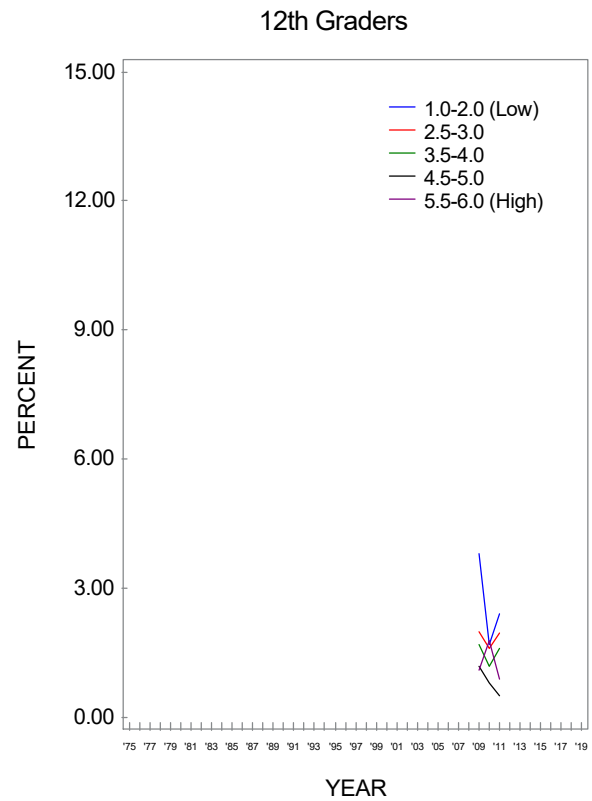
12th Graders

*Question discontinued in 2012.
**Parental education is an average score of mother's education and father's education.

FIGURE 156
Provigil:* Trends in Annual Prevalence by Race/Ethnicity**
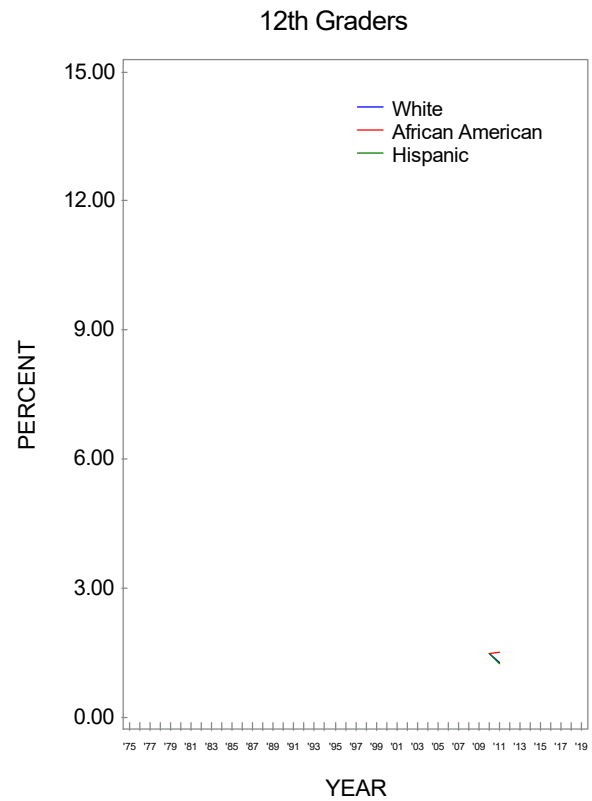
12th Graders

Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2012.
**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 157
Methamphetamine: Trends in Annual Prevalence by Gender
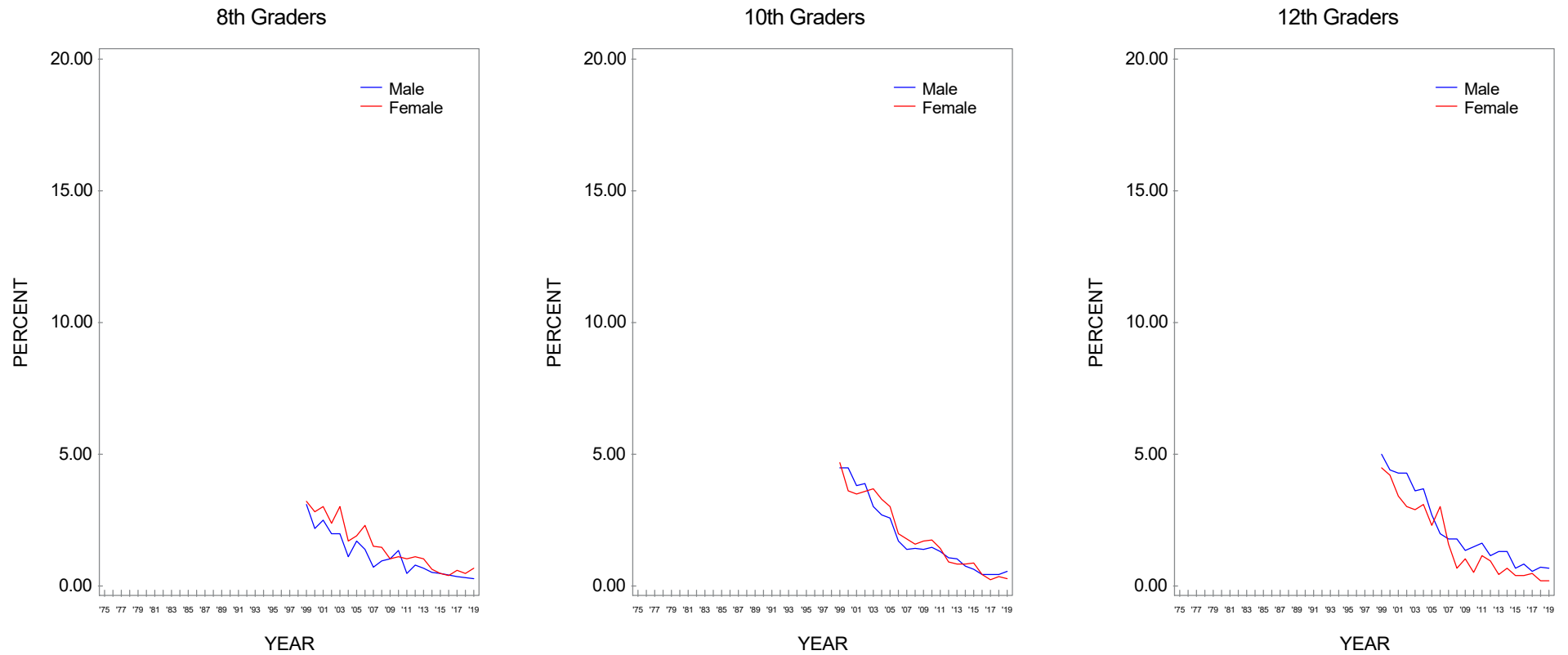
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 158
Methamphetamine: Trends in Annual Prevalence by College Plans
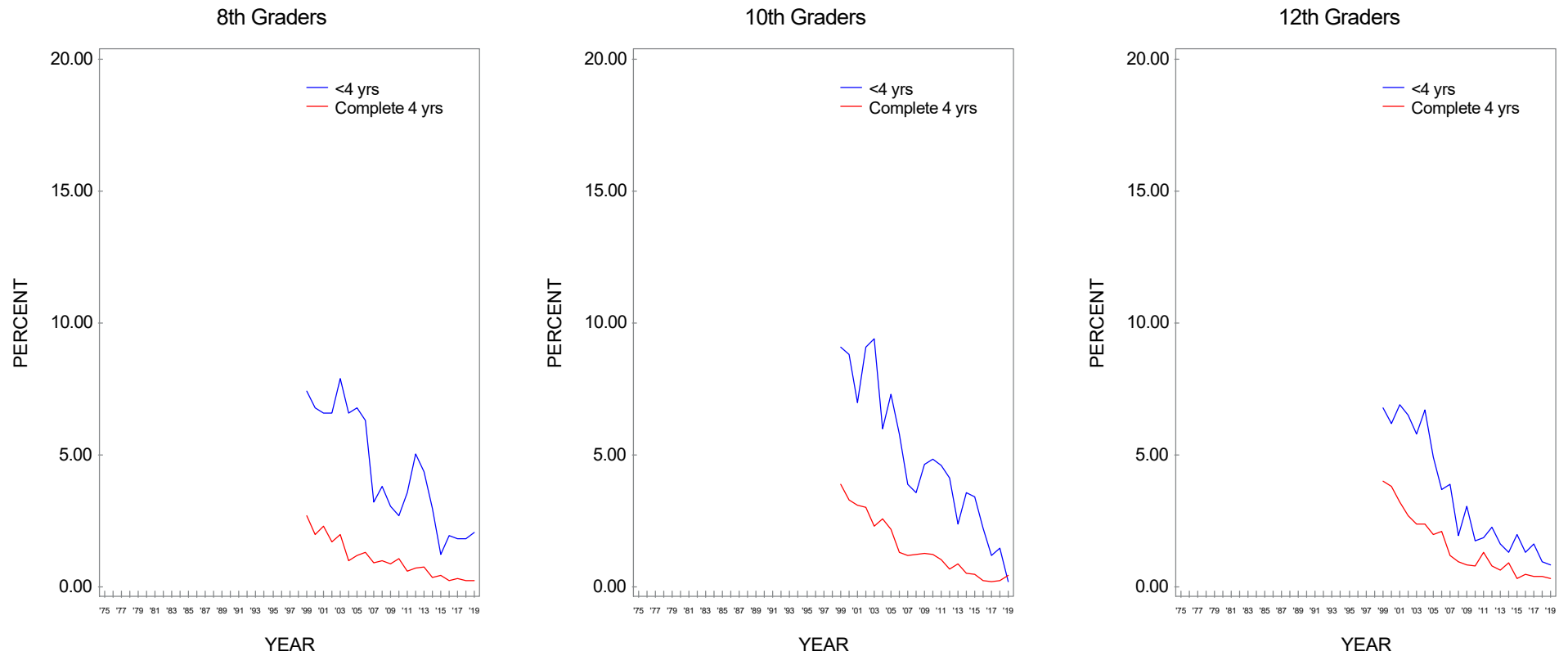
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 159
Methamphetamine: Trends in Annual Prevalence by Region
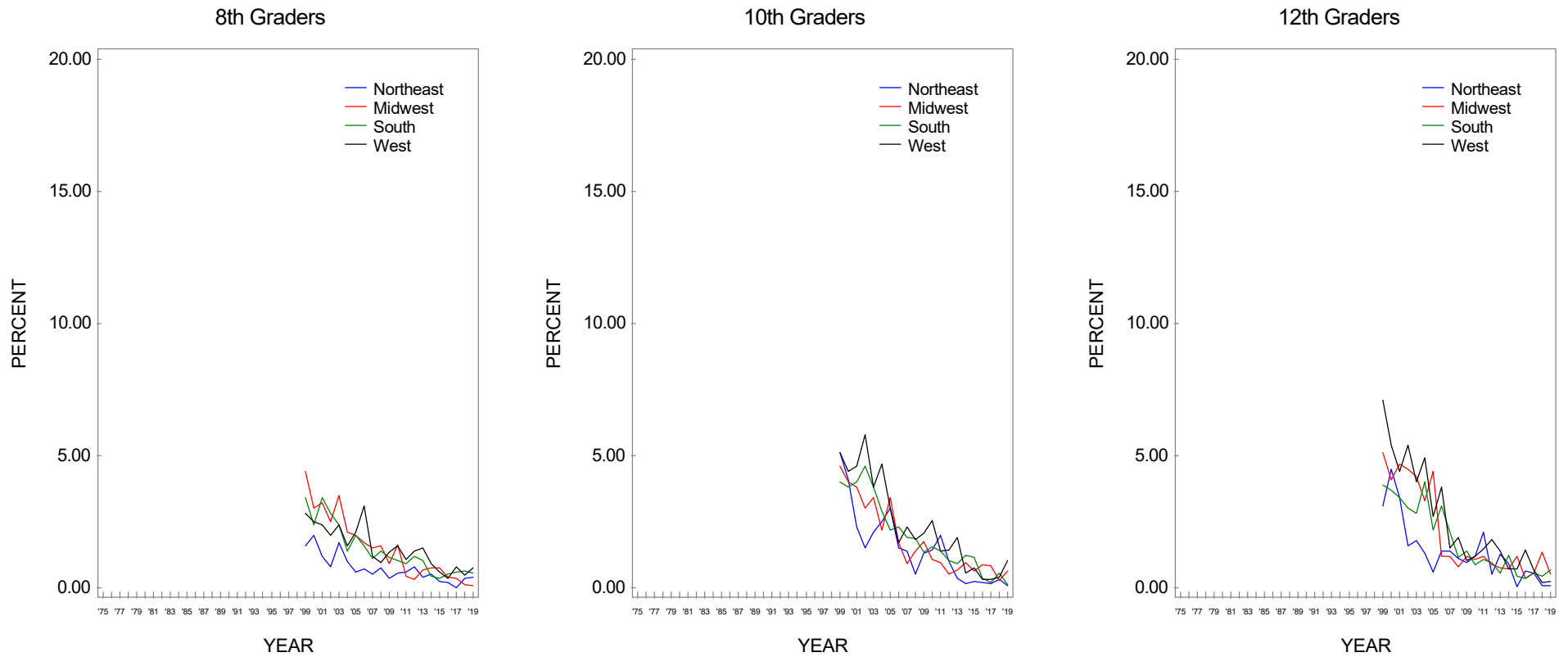
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 160
Methamphetamine: Trends in Annual Prevalence by Population Density
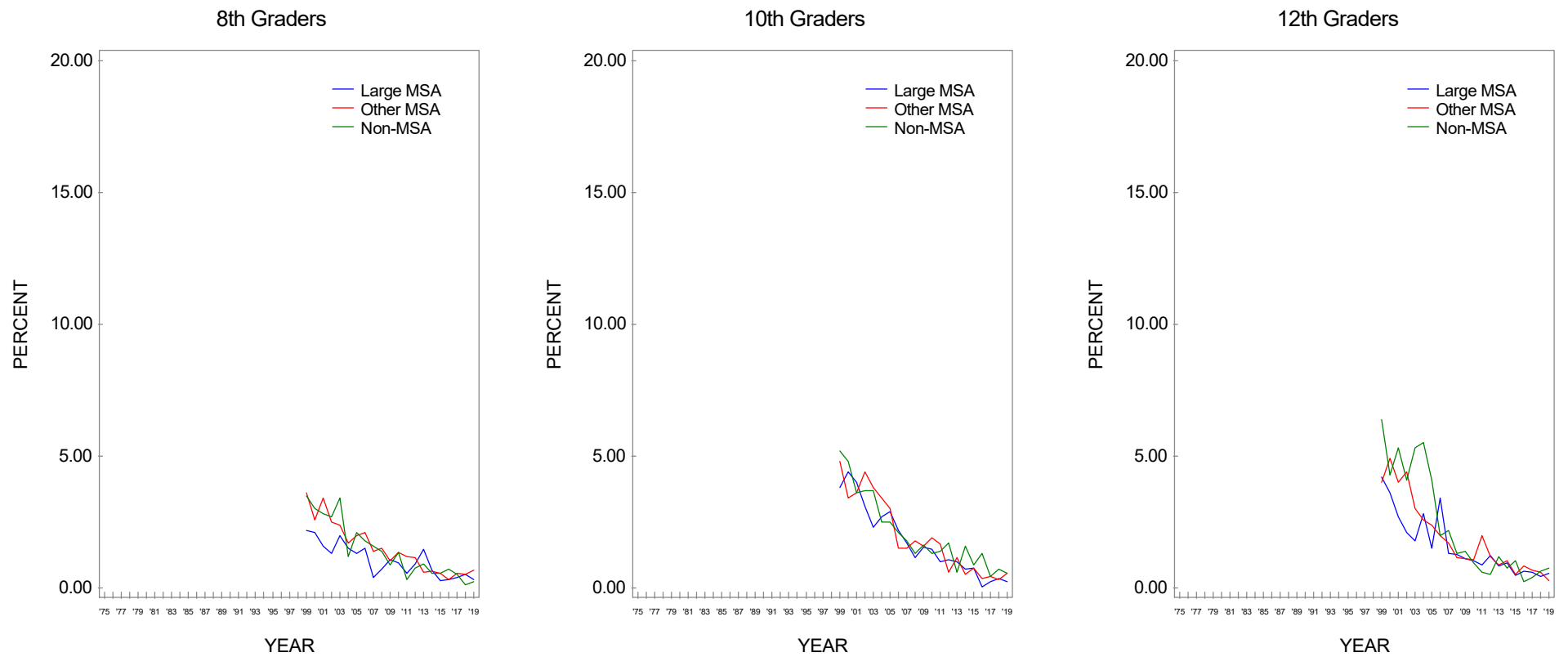
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 161
Methamphetamine: Trends in Annual Prevalence by Average Education Level of Parents*
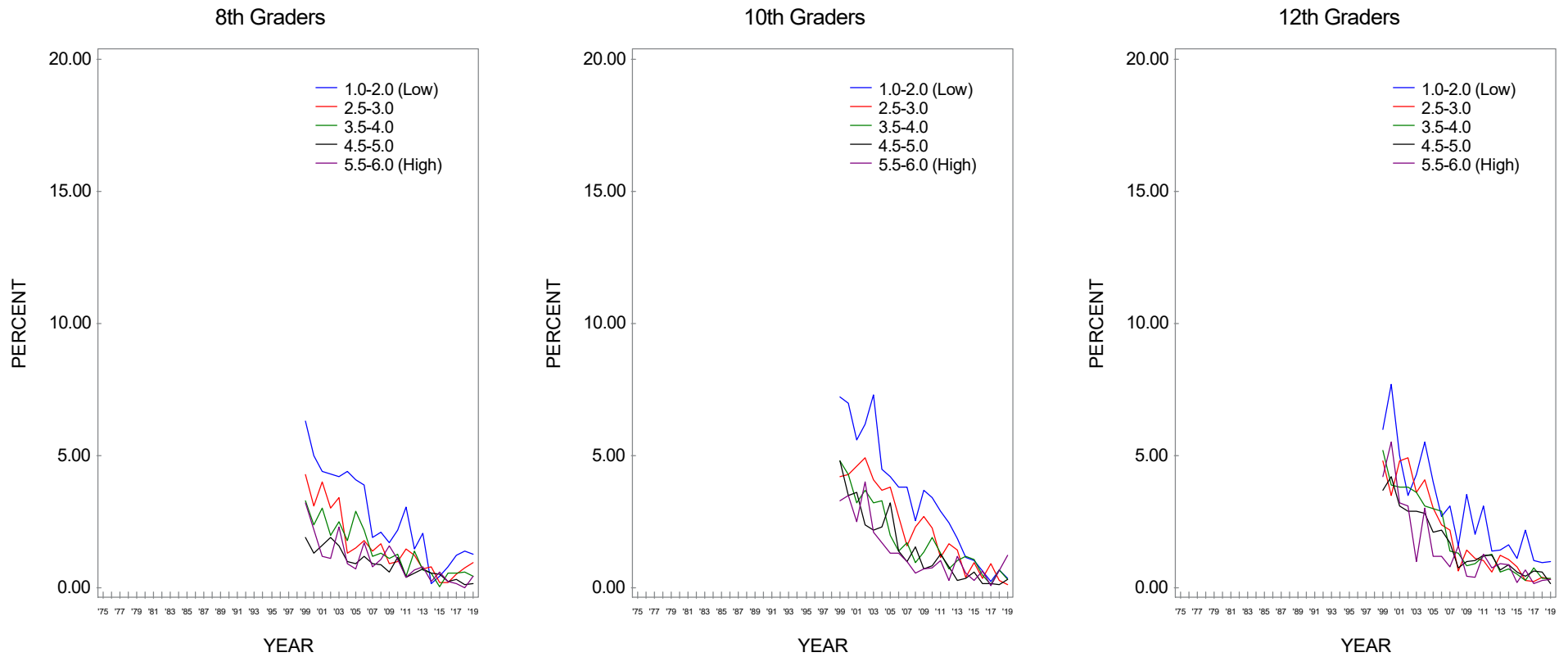
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 162
Methamphetamine: Trends in Annual Prevalence by Race/Ethnicity*
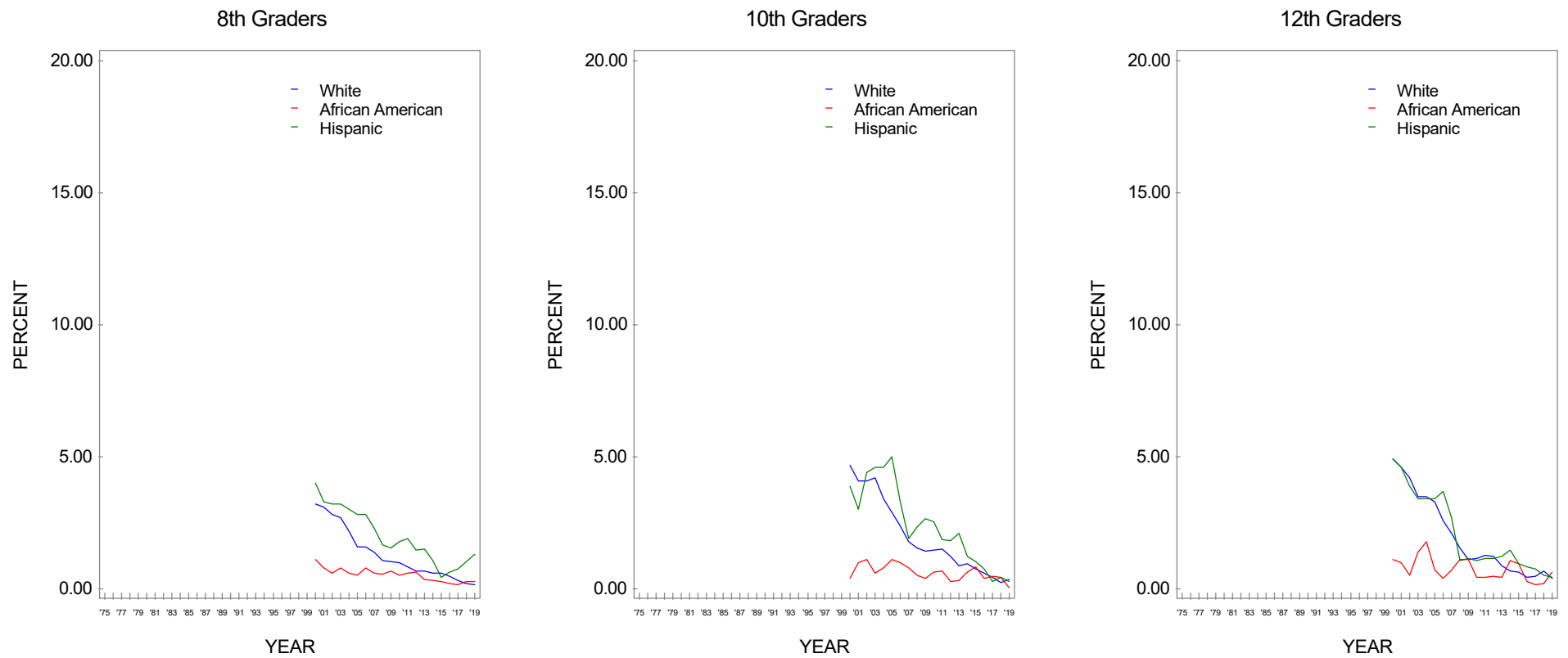
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 163
Crystal Methamphetamine (Ice): Trends in Annual Prevalence by Gender
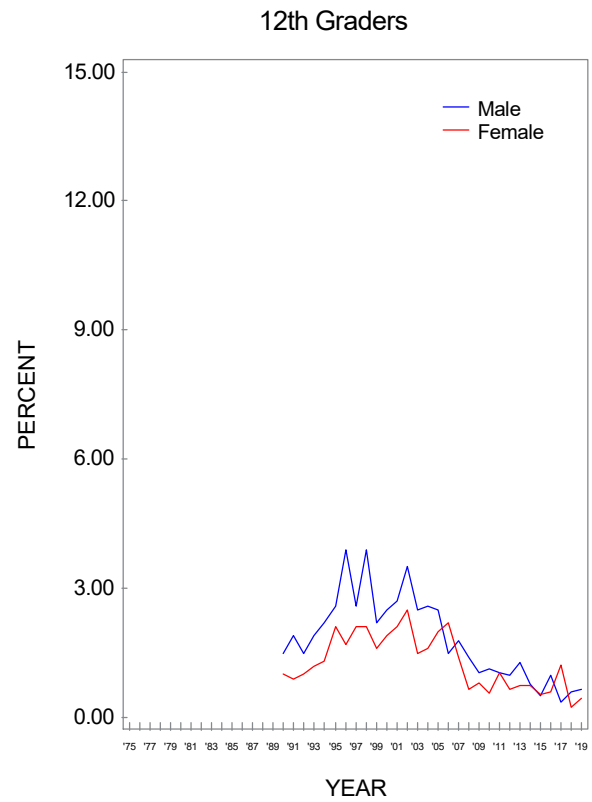
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 164
Crystal Methamphetamine (Ice): Trends in Annual Prevalence by College Plans
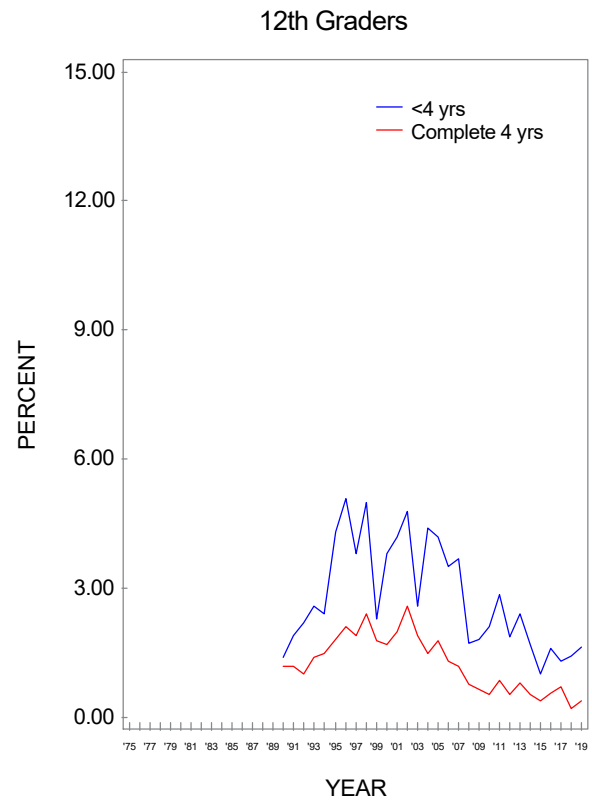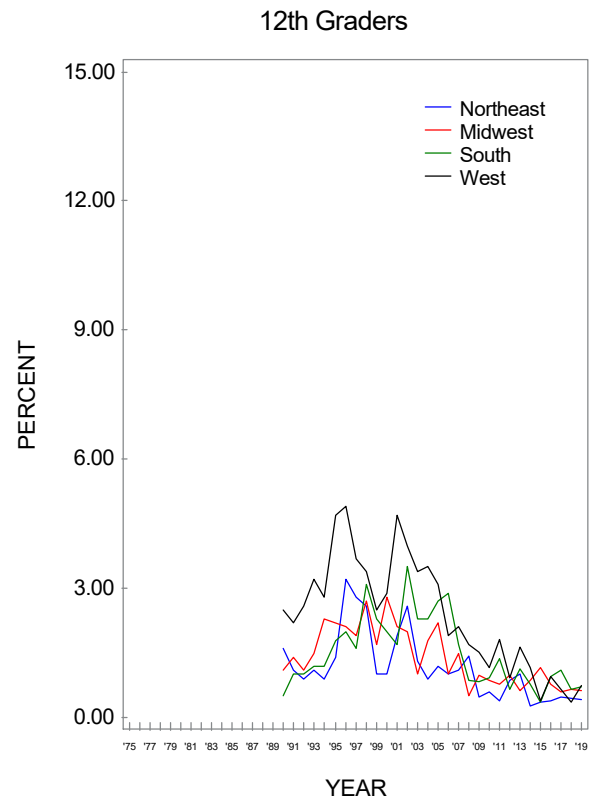
FIGURE 165

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

FIGURE 166
Crystal Methamphetamine (Ice): Trends in Annual Prevalence by Population Density
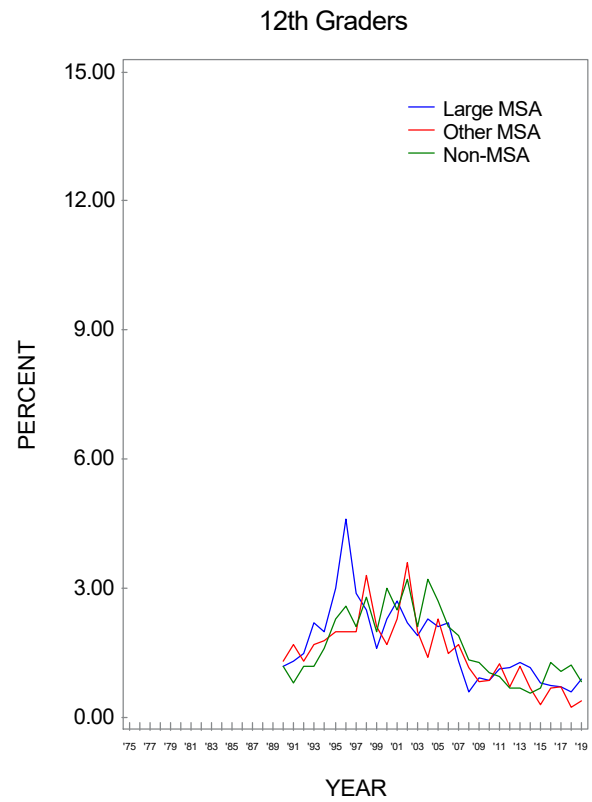
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 167

Crystal Methamphetamine (Ice): Trends in Annual Prevalence by Average Education Level of Parents*

12th Graders
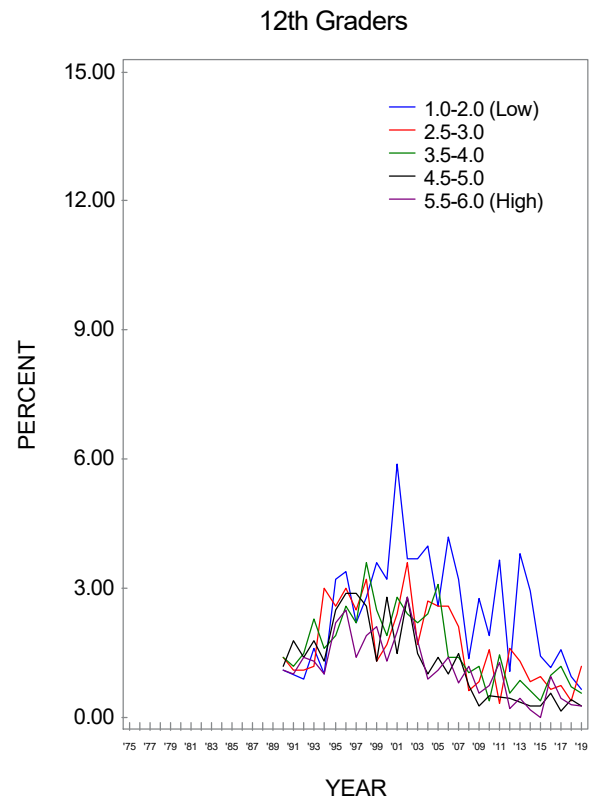
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 168
Crystal Methamphetamine (Ice): Trends in Annual Prevalence by Race/Ethnicity*
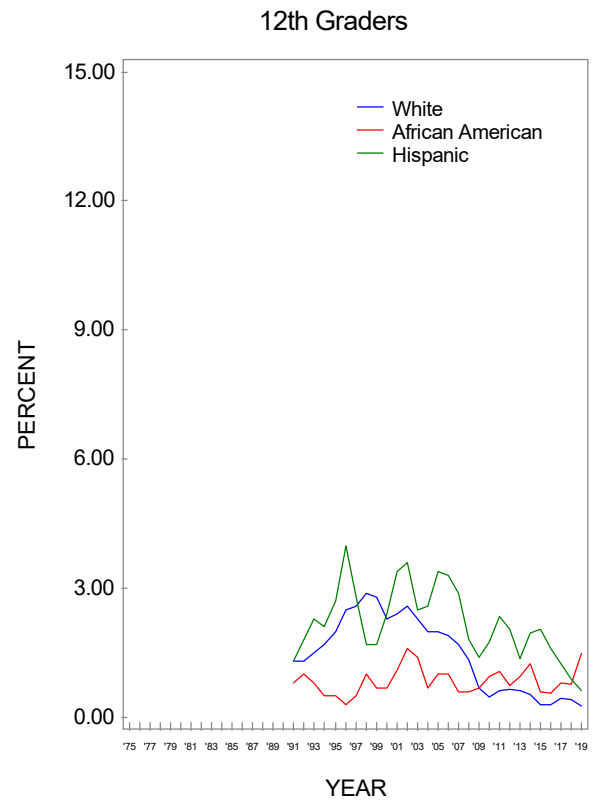
12th Graders

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 169
Bath Salts (Synthetic Stimulants):* Trends in Annual Prevalence by Gender
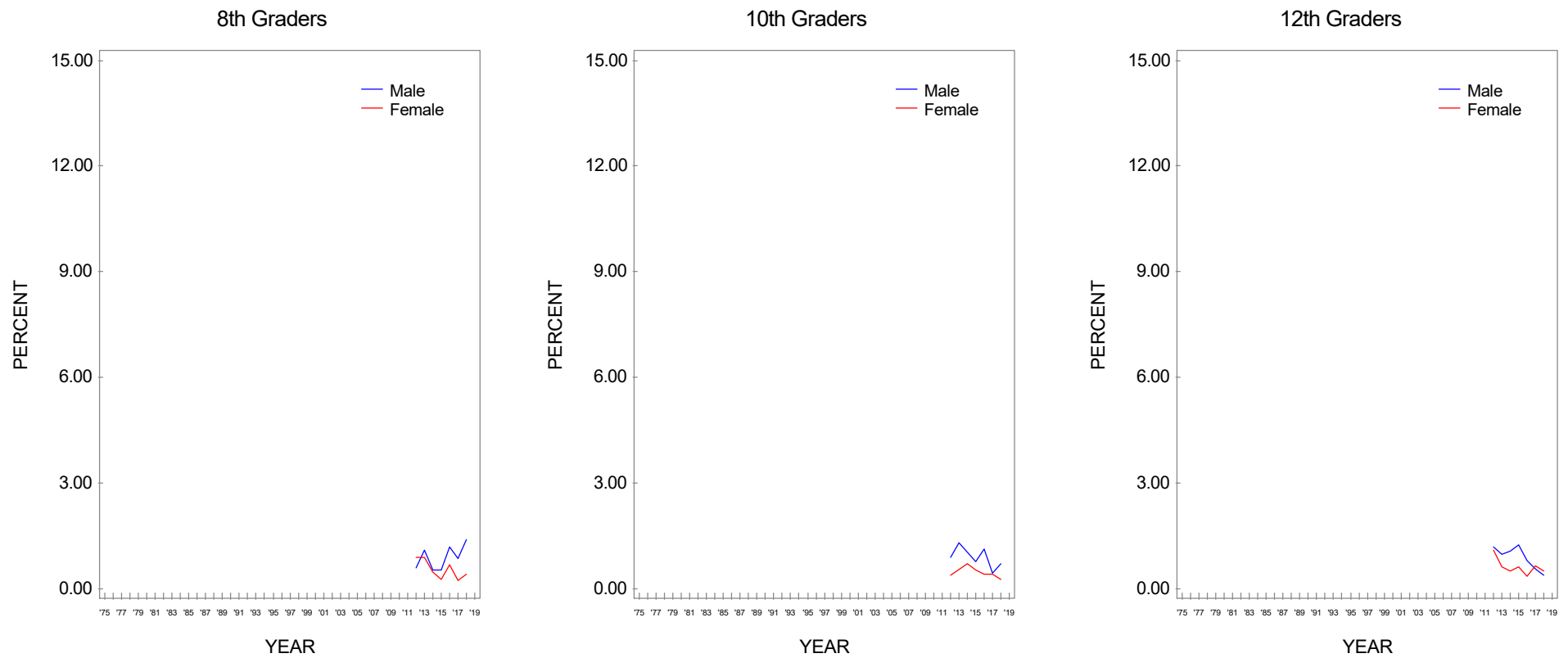
Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2019.

FIGURE 170
Bath Salts (Synthetic Stimulants): Trends in Annual Prevalence by College Plans
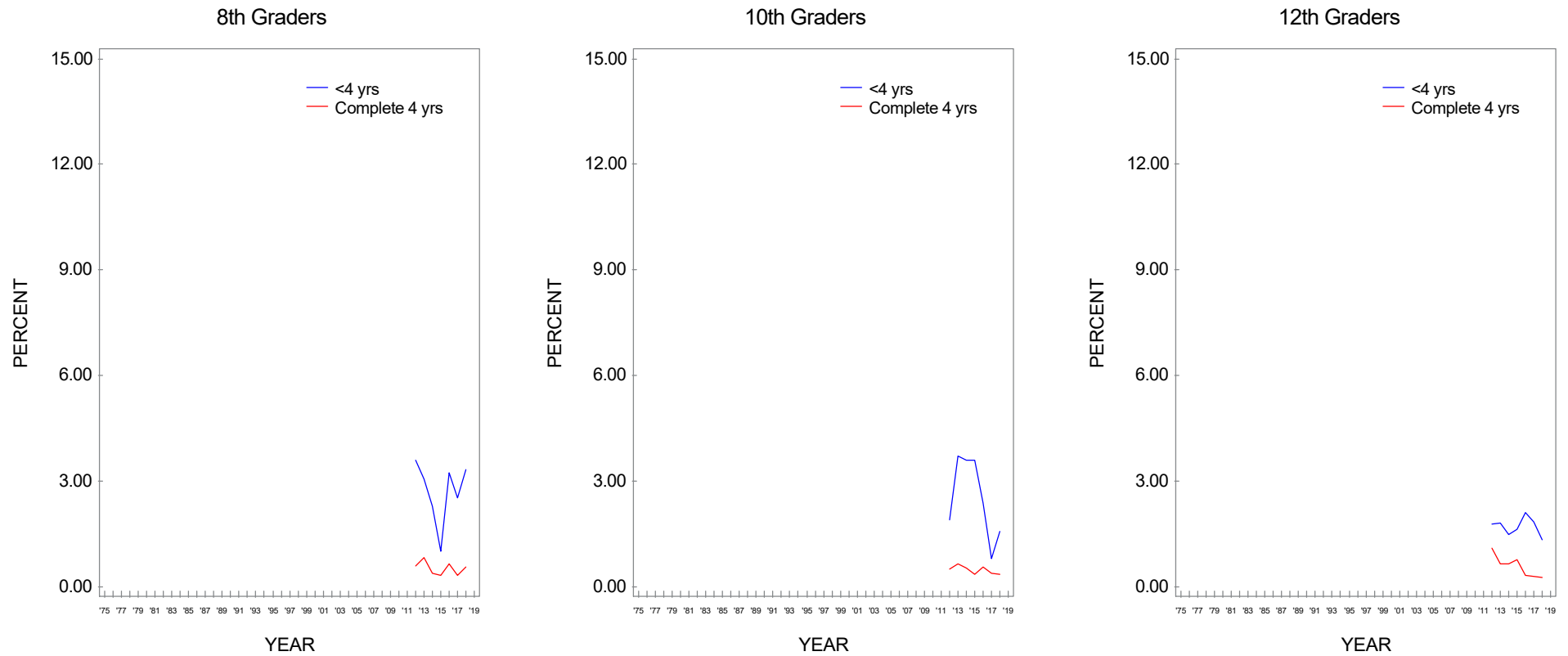
Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2019.

FIGURE 171
Bath Salts (Synthetic Stimulants):* Trends in Annual Prevalence by Region
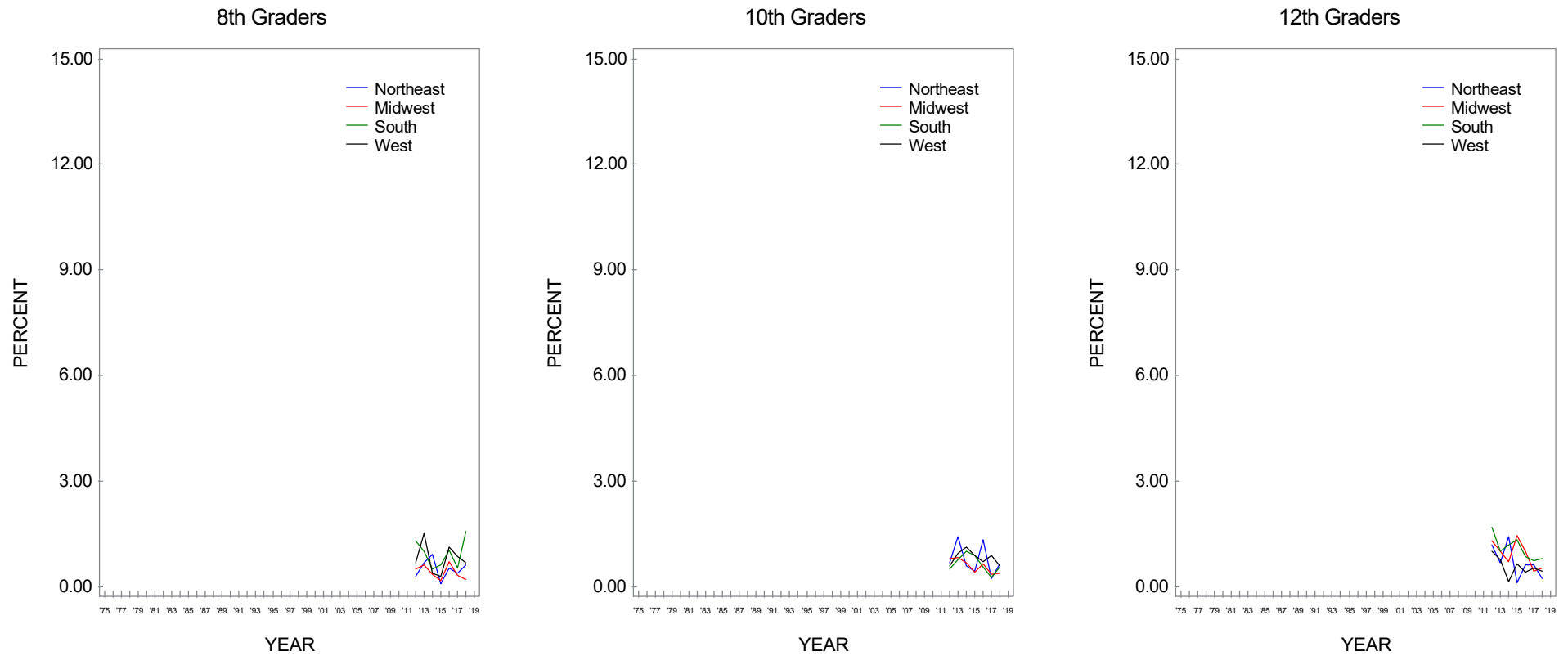
Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2019.

FIGURE 172

Bath Salts (Synthetic Stimulants):* Trends in Annual Prevalence by Population Density
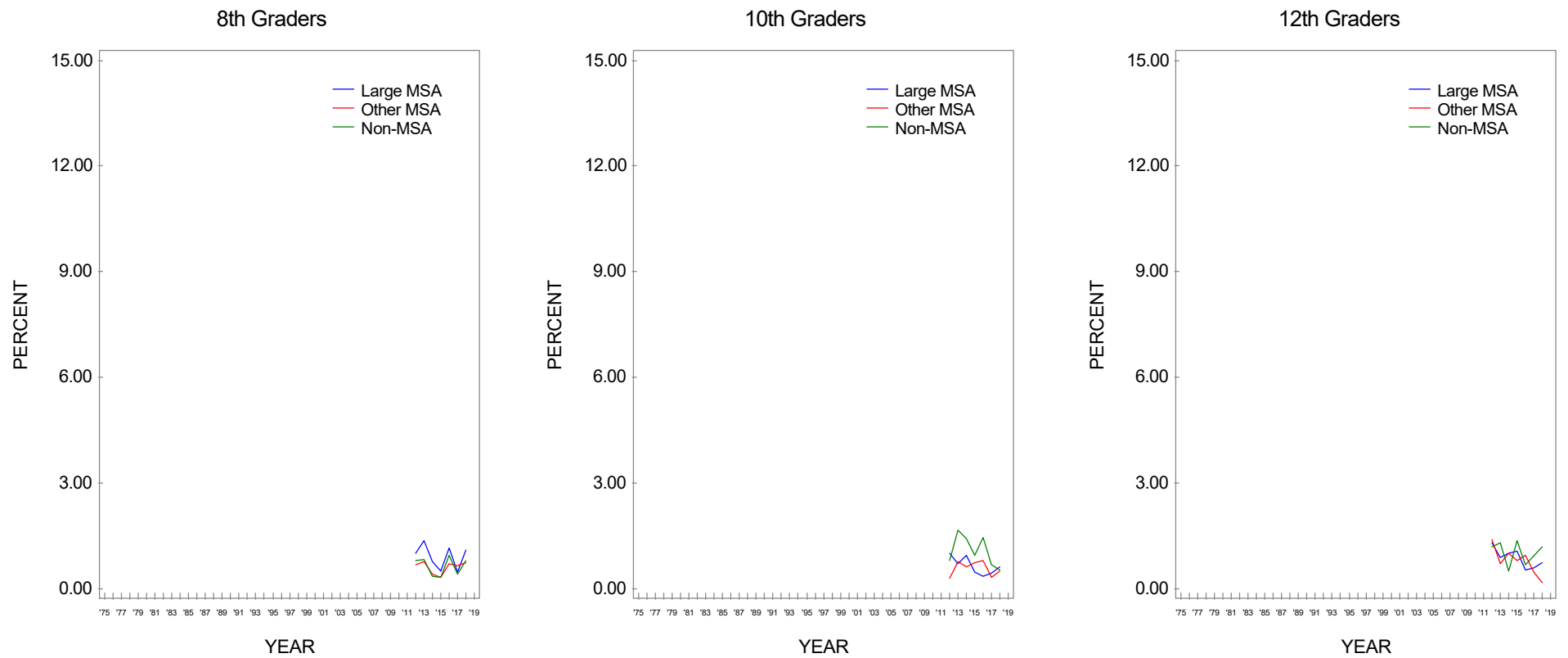
Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued in 2019.

FIGURE 173
Bath Salts (Synthetic Stimulants):* Trends in Annual Prevalence by Average Education Level of Parents*
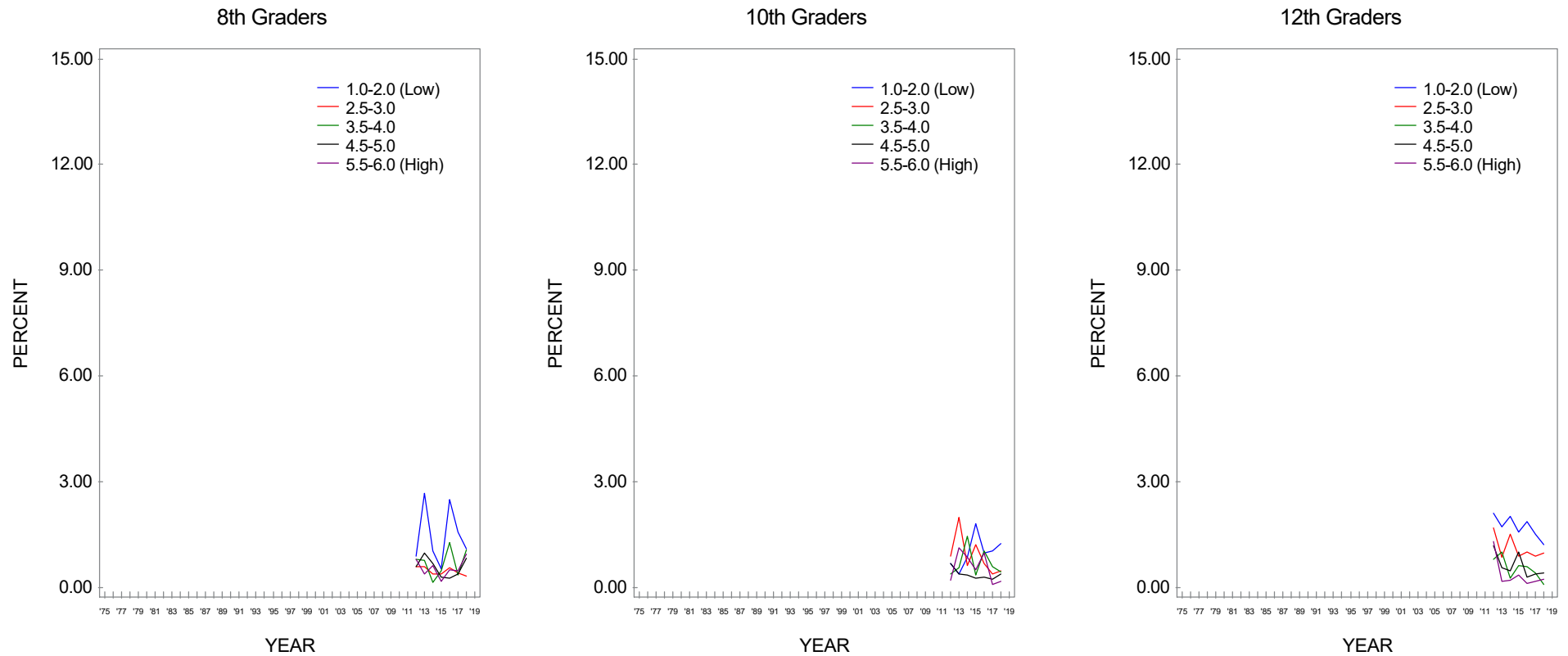
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

*Question discontinued in 2019.

FIGURE 174
Bath Salts (Synthetic Stimulants):* Trends in Annual Prevalence by Race/Ethnicity**
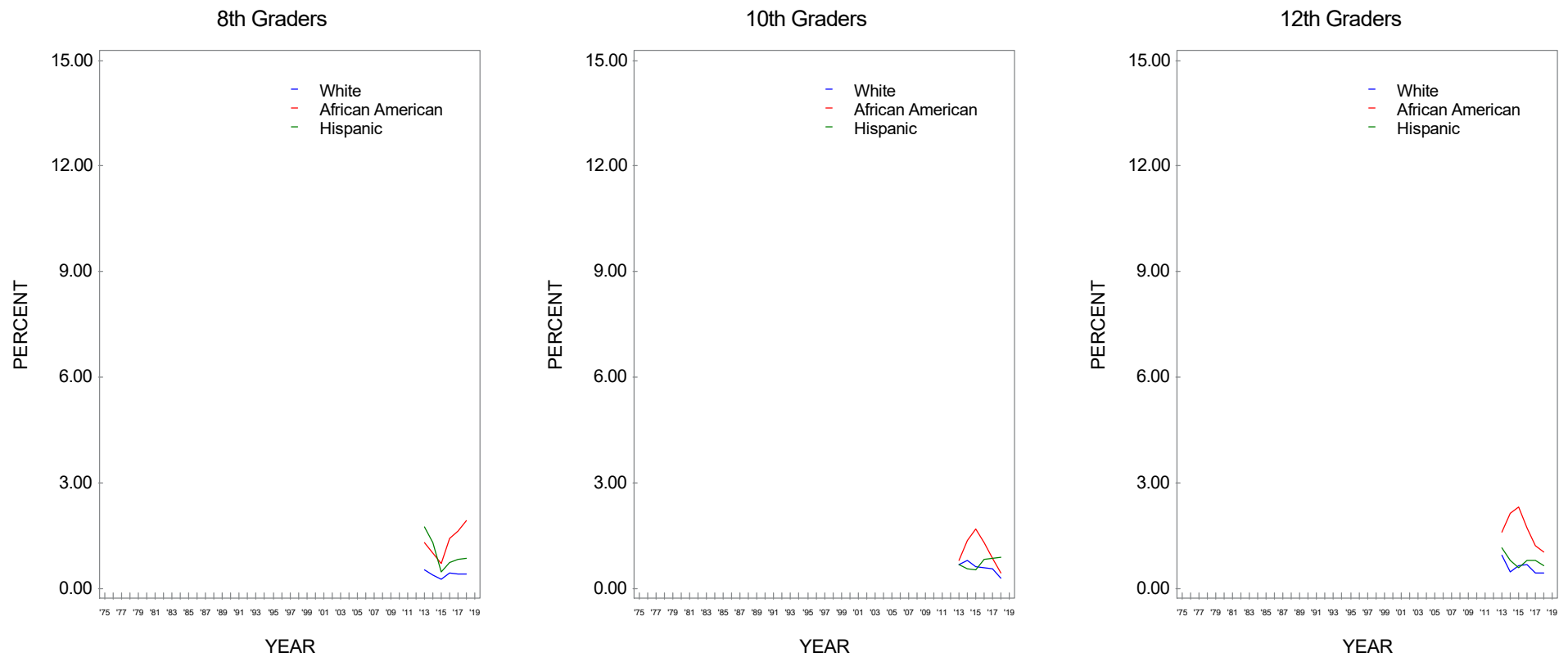
FIGURE 175
Sedatives (Barbiturates): Trends in Annual Prevalence by Gender

12th Graders
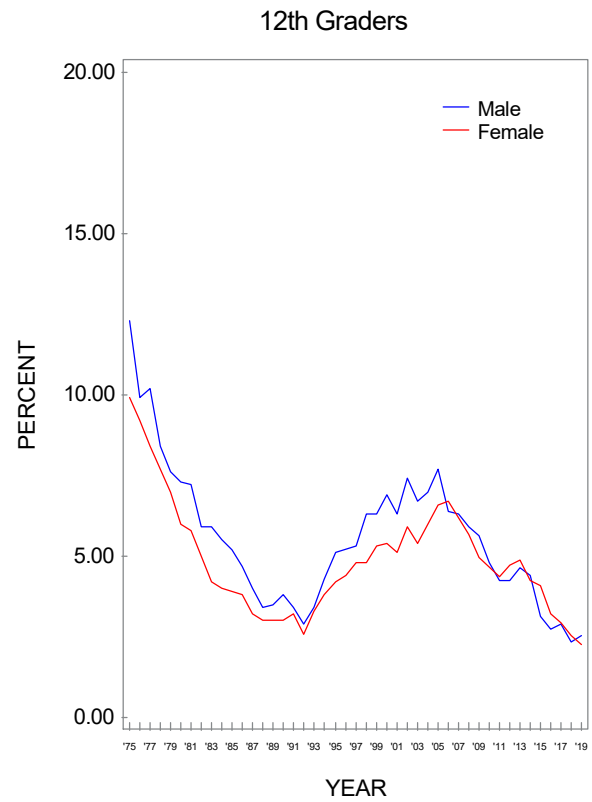
FIGURE 176
Sedatives (Barbiturates): Trends in Annual Prevalence by College Plans

12th Graders
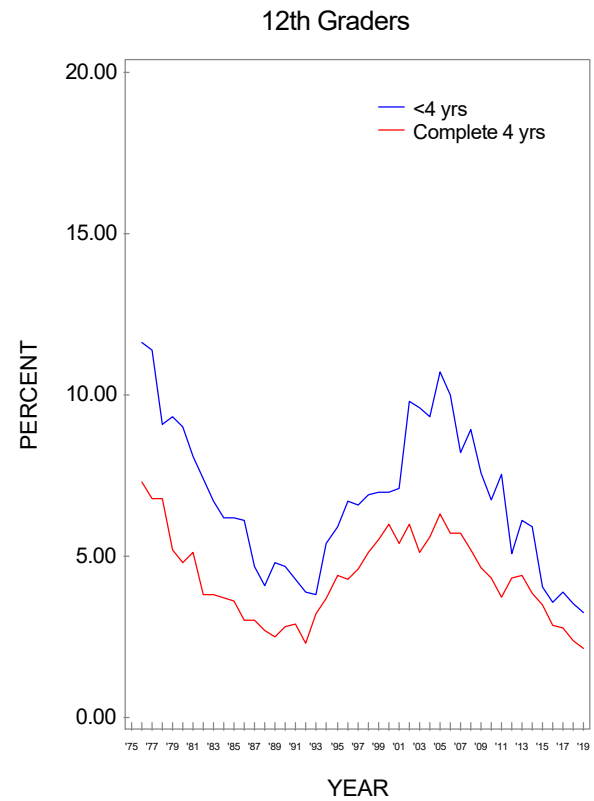
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 177
Sedatives (Barbiturates): Trends in Annual Prevalence by Region

12th Graders
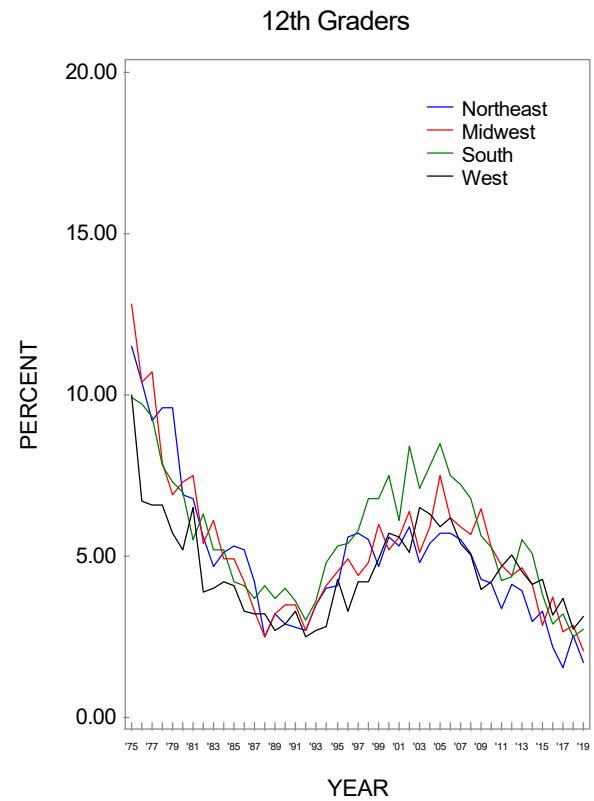
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 178
Sedatives (Barbiturates): Trends in Annual Prevalence by Population Density

12th Graders
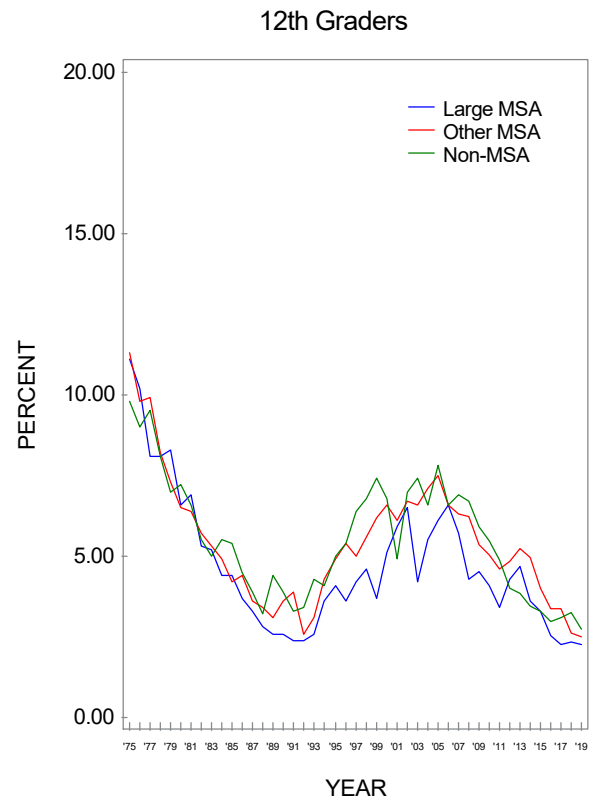
FIGURE 179

Sedatives (Barbiturates): Trends in Annual Prevalence by Average Education Level of Parents*

12th Graders
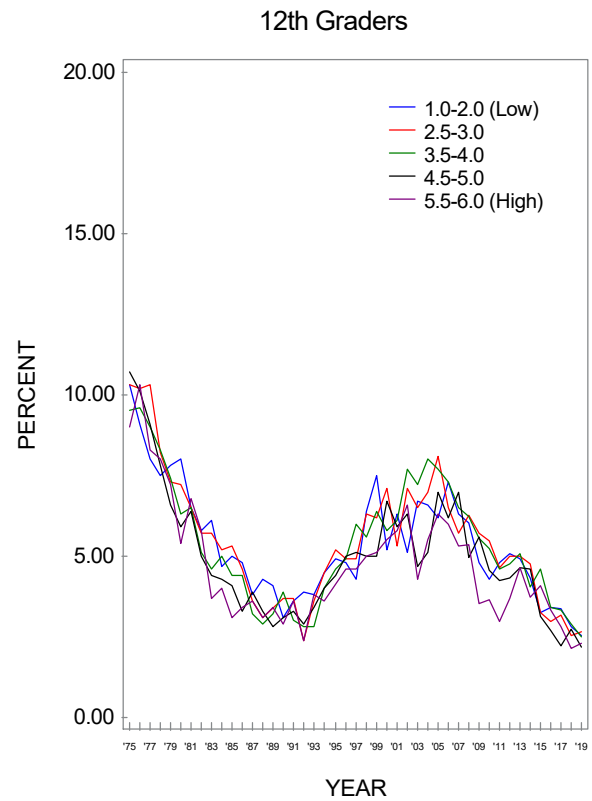
FIGURE 180
Sedatives (Barbiturates): Trends in Annual Prevalence by Race/Ethnicity*
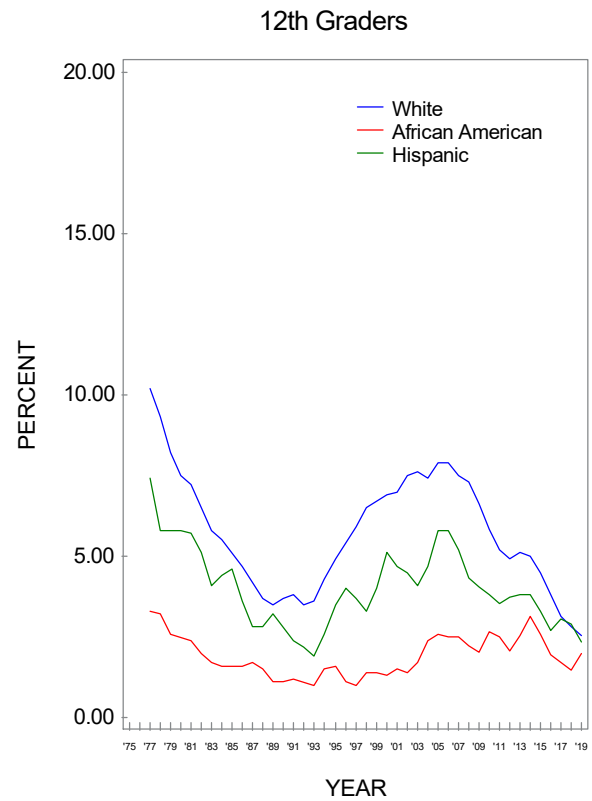
12th Graders

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 181
Tranquilizers:* Trends in Annual Prevalence by Gender
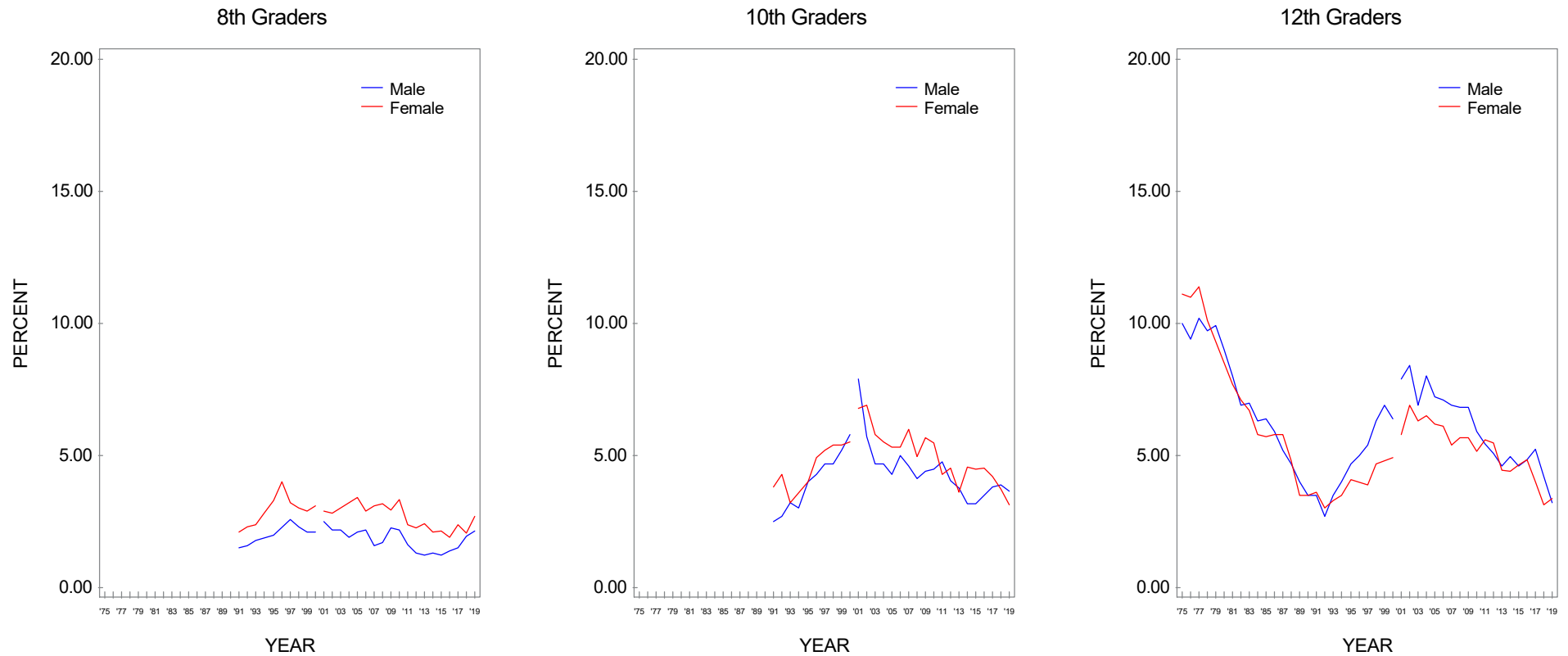
Source.   The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on tranquilizer use was introduced in which Miltown was replaced with Xanax.

FIGURE 182
Tranquilizers:* Trends in Annual Prevalence by College Plans
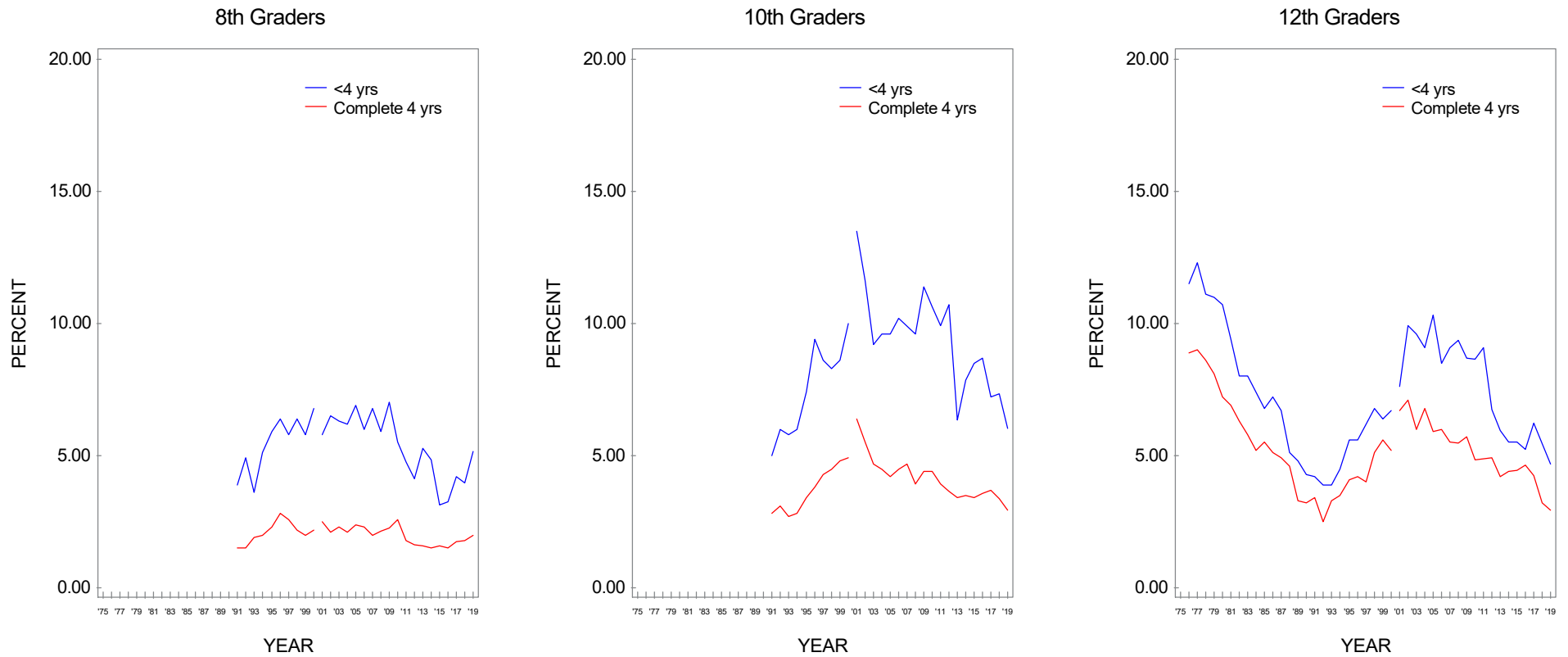
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on tranquilizer use was introduced in which Miltown was replaced with Xanax.

FIGURE 183
Tranquilizers:* Trends in Annual Prevalence by Region
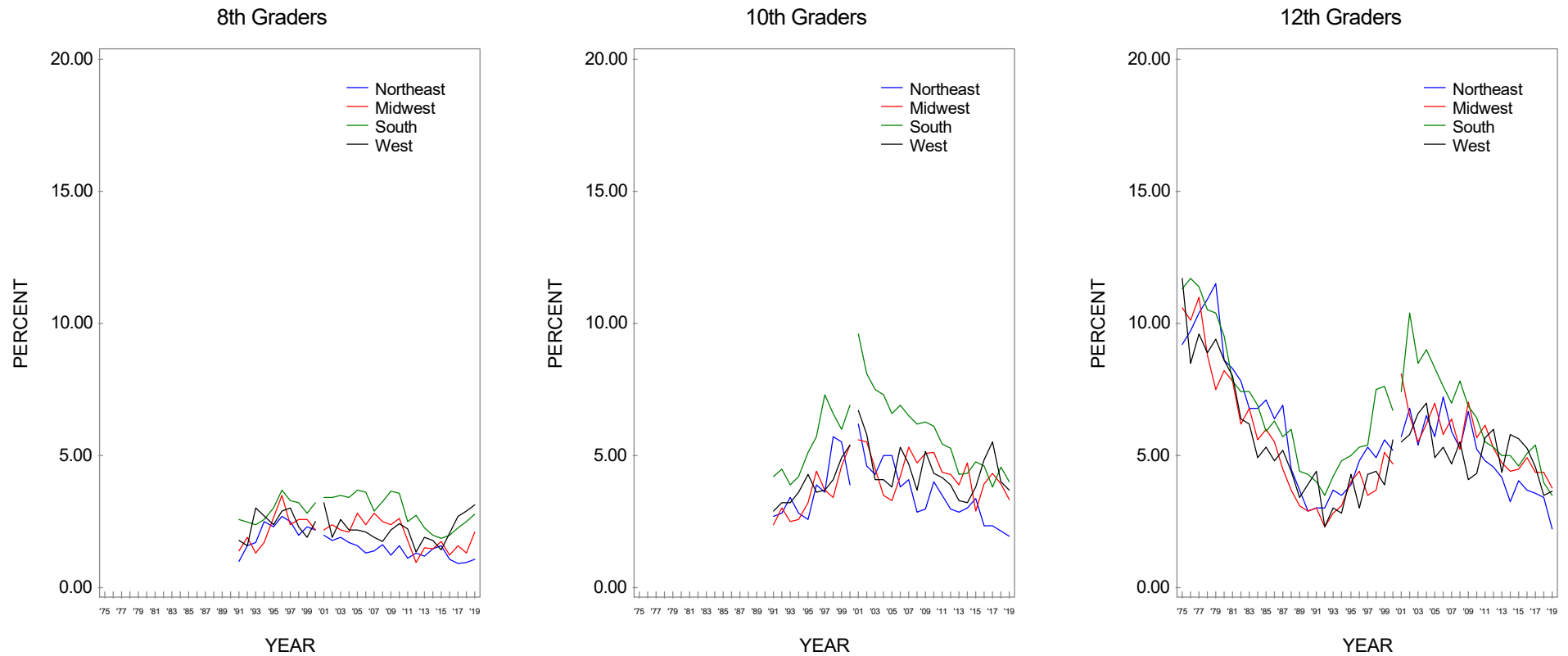
8th Graders | 10th Graders | 12th Graders

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

*Beginning in 2001, a revised set of questions on tranquilizer use was introduced in which Miltown was replaced with Xanax.

FIGURE 184
Tranquilizers:* Trends in Annual Prevalence by Population Density
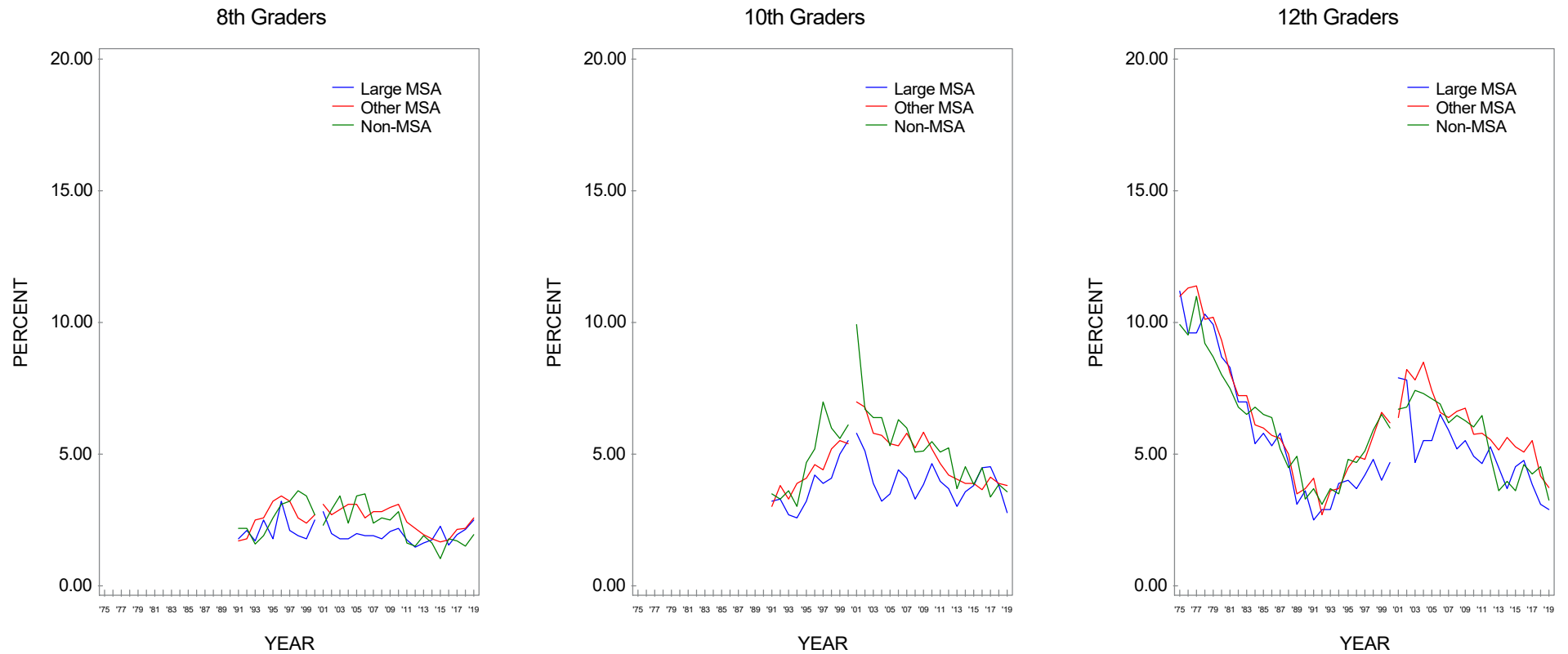
Source.   The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on tranquilizer use was introduced in which Miltown was replaced with Xanax.

FIGURE 185

Tranquilizers:* Trends in Annual Prevalence by Average Education Level of Parents**
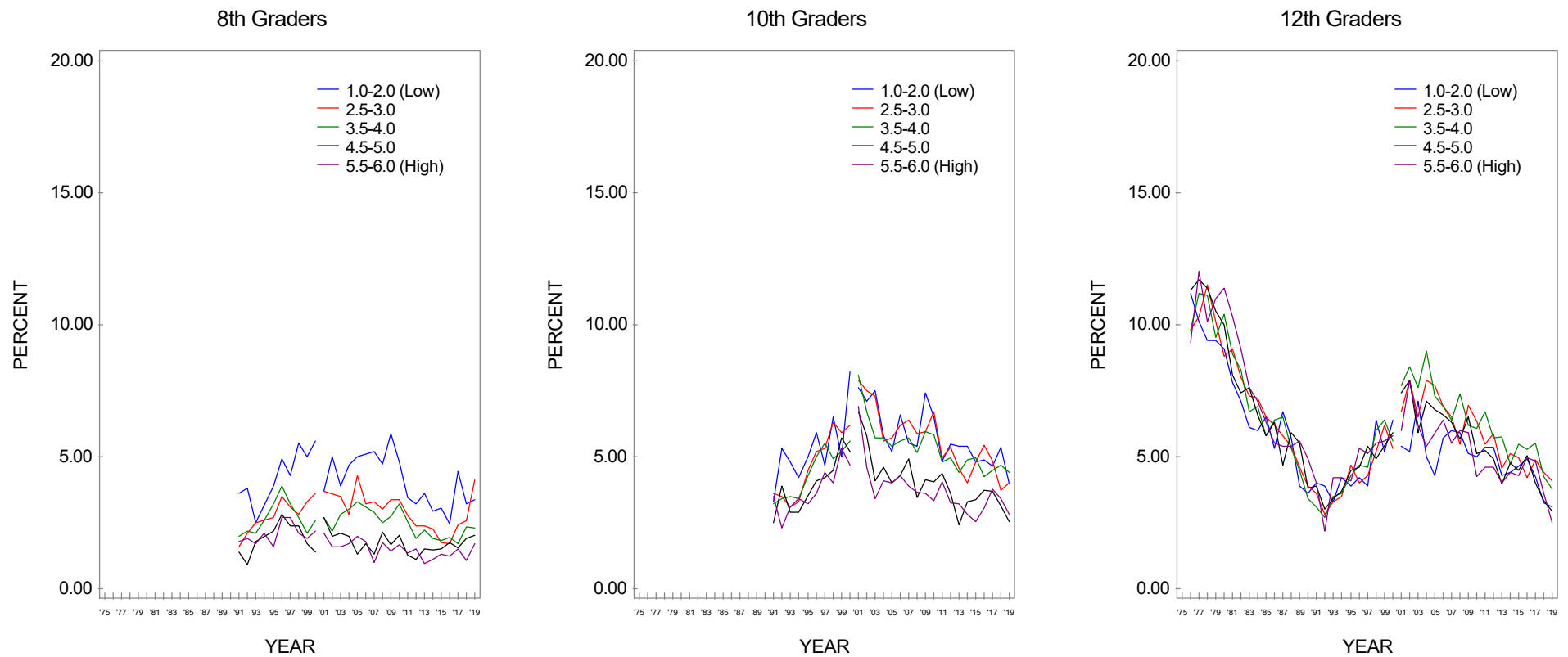
Source.   The Monitoring the Future study, the University of Michigan.

*Beginning in 2001, a revised set of questions on tranquilizer use was introduced in which Miltown was replaced with Xanax.

**Parental education is an average score of mother's education and father's education.

FIGURE 186
Tranquilizers:* Trends in Annual Prevalence by Race/Ethnicity**
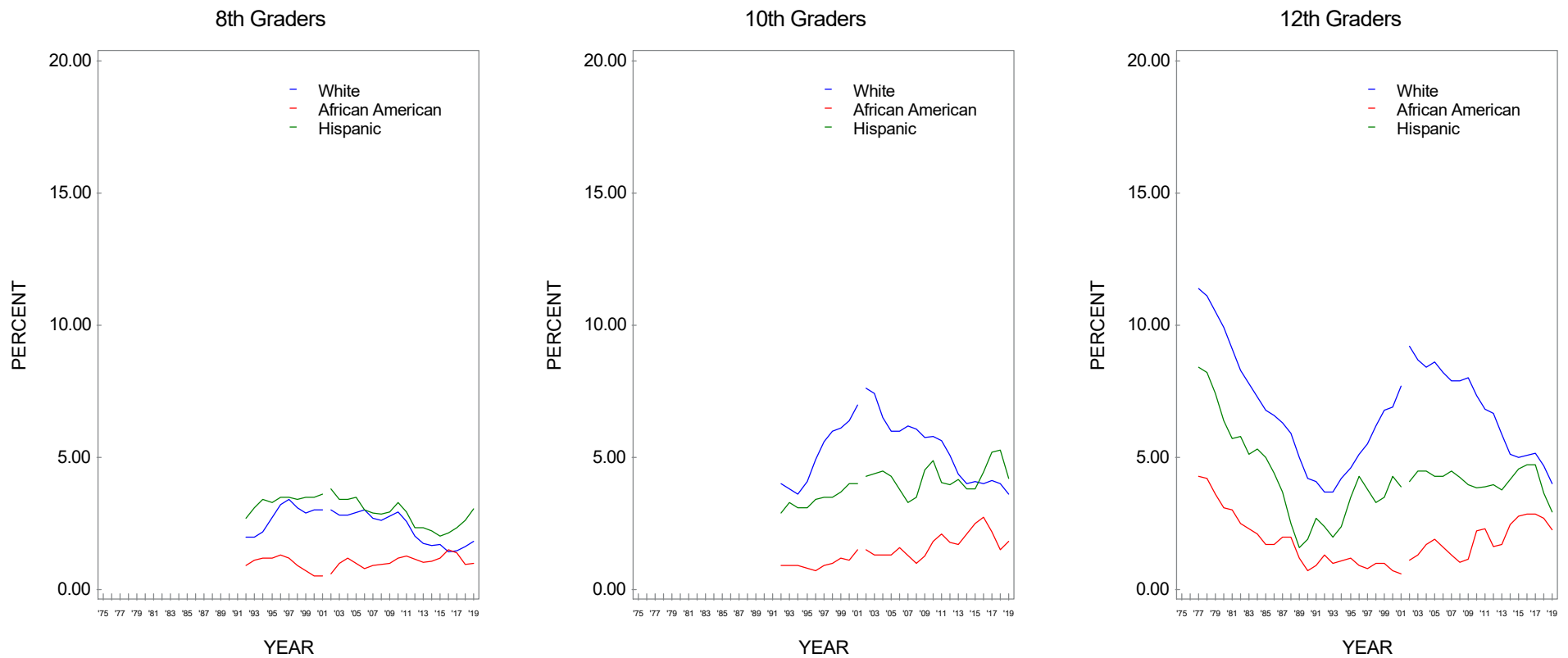
FIGURE 187

Any Prescription Drug:* Trends in Annual Prevalence by Gender
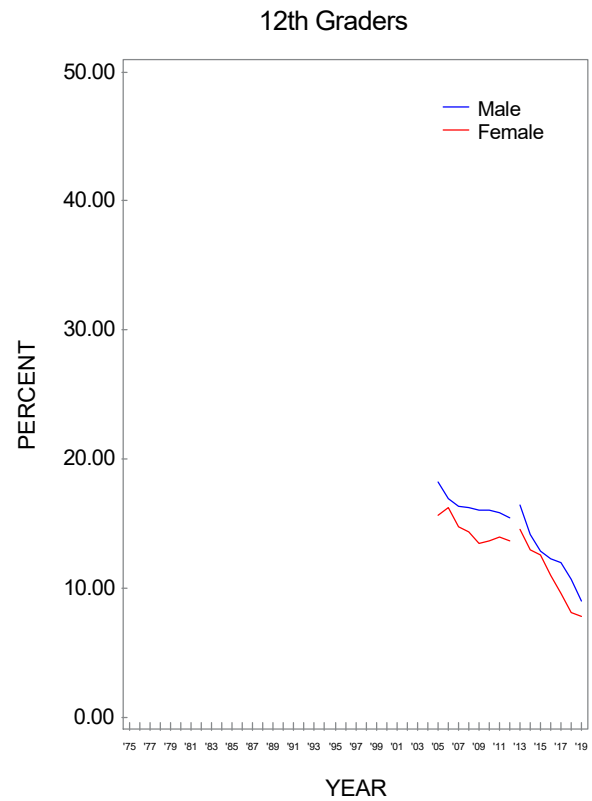
12th Graders

FIGURE 188
Any Prescription Drug:* Trends in Annual Prevalence by College Plans
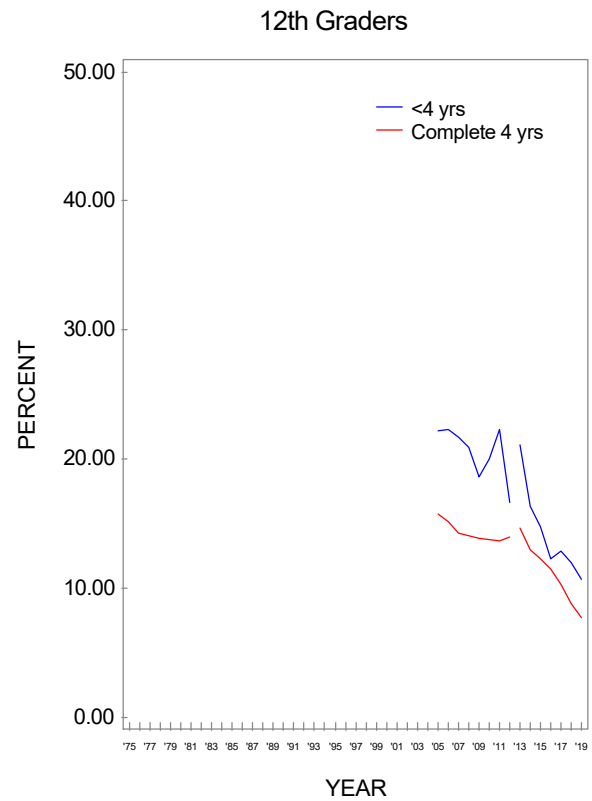
12th Graders

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

*The use of any prescription drug includes use of any of the following: amphetamines, sedatives (barbiturates), narcotics other than heroin, or tranquilizers without a doctor telling you to use them. Beginning in 2013, a revised set of questions on amphetamine use was introduced

FIGURE 189
Any Prescription Drug:* Trends in Annual Prevalence by Region
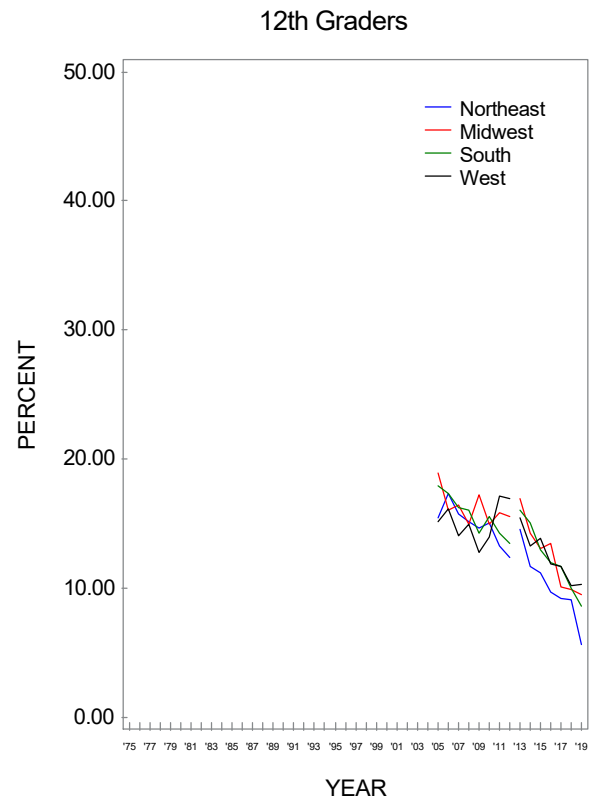
12th Graders

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

*The use of any prescription drug includes use of any of the following: amphetamines, sedatives (barbiturates), narcotics other than heroin, or tranquilizers without a doctor telling you to use them. Beginning in 2013, a revised set of questions on amphetamine use was introduced

FIGURE 190
Any Prescription Drug:* Trends in Annual Prevalence by Population Density
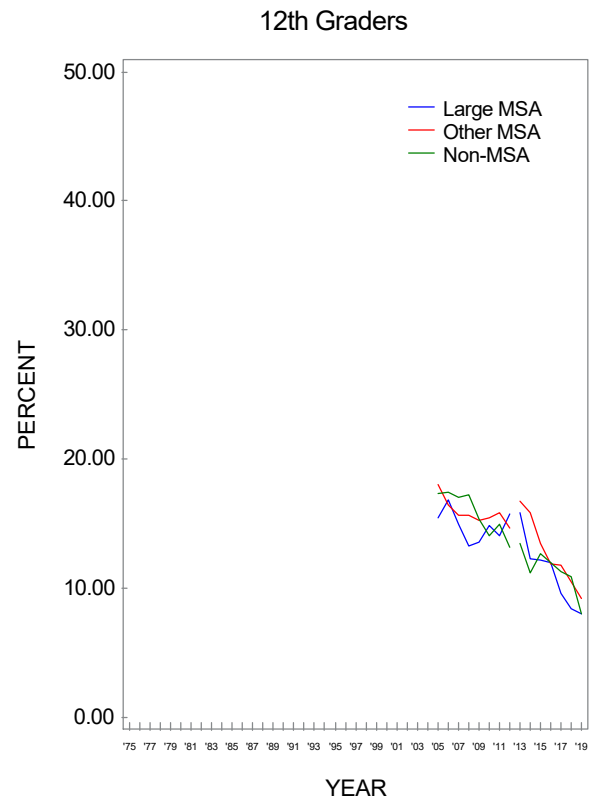
12th Graders

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

*The use of any prescription drug includes use of any of the following: amphetamines, sedatives (barbiturates), narcotics other than heroin, or tranquilizers without a doctor telling you to use them. Beginning in 2013, a revised set of questions on amphetamine use was introduced

FIGURE 191
Any Prescription Drug:* Trends in Annual Prevalence by Average Education Level of Parents**
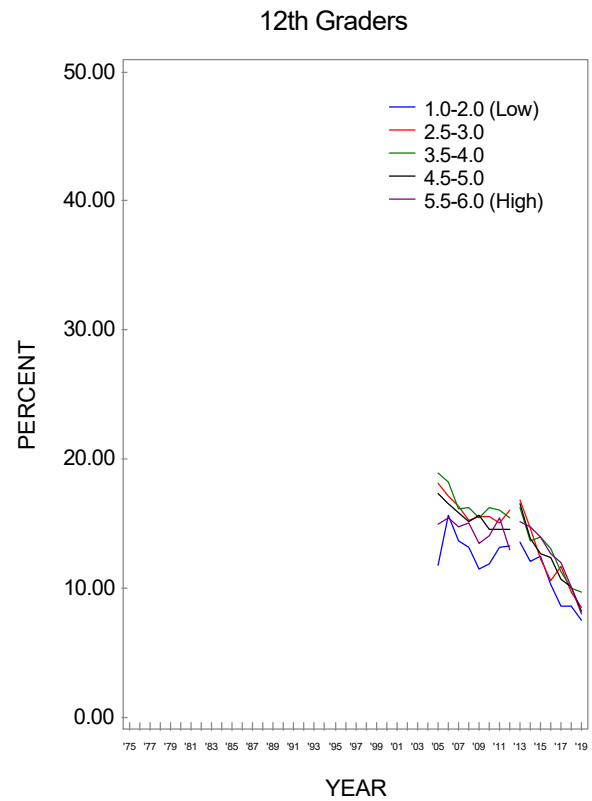
12th Graders

Legend:
- 1.0-2.0 (Low)
- 2.5-3.0
- 3.5-4.0
- 4.5-5.0
- 5.5-6.0 (High)

Y-axis: PERCENT (0.00 to 50.00)
X-axis: YEAR ('75 to '19)

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

*The use of any prescription drug includes use of any of the following: amphetamines, sedatives (barbiturates), narcotics other than heroin, or tranquilizers without a doctor telling you to use them. Beginning in 2013, a revised set of questions on amphetamine use was introduced

**Parental education is an average score of mother's education and father's education.

FIGURE 192
Any Prescription Drug:* Trends in Annual Prevalence by Race/Ethnicity**
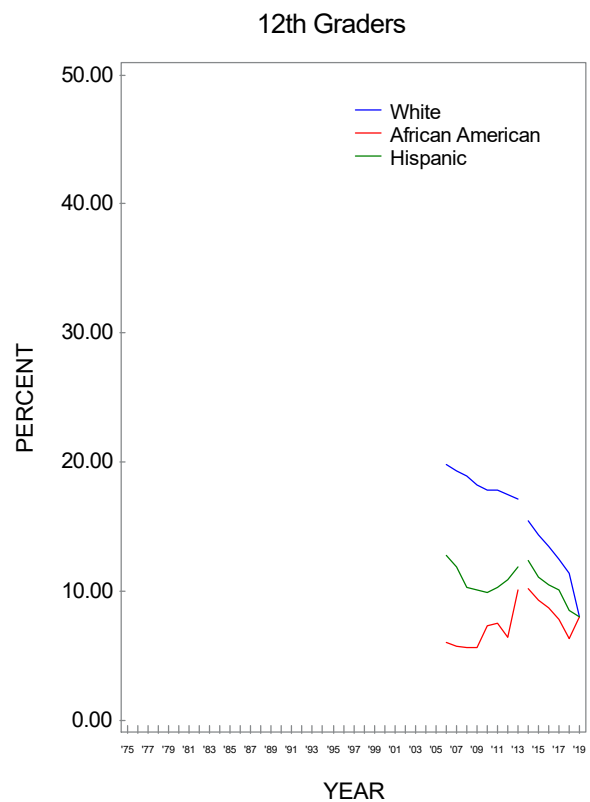
12th Graders

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

*The use of any prescription drug includes use of any of the following: amphetamines, sedatives (barbiturates), narcotics other than heroin, or tranquilizers without a doctor telling you to use them. Beginning in 2013, a revised set of questions on amphetamine use was introduced

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 193

Over-the-Counter Cough/Cold Medicines:* Trends in Annual Prevalence by Gender
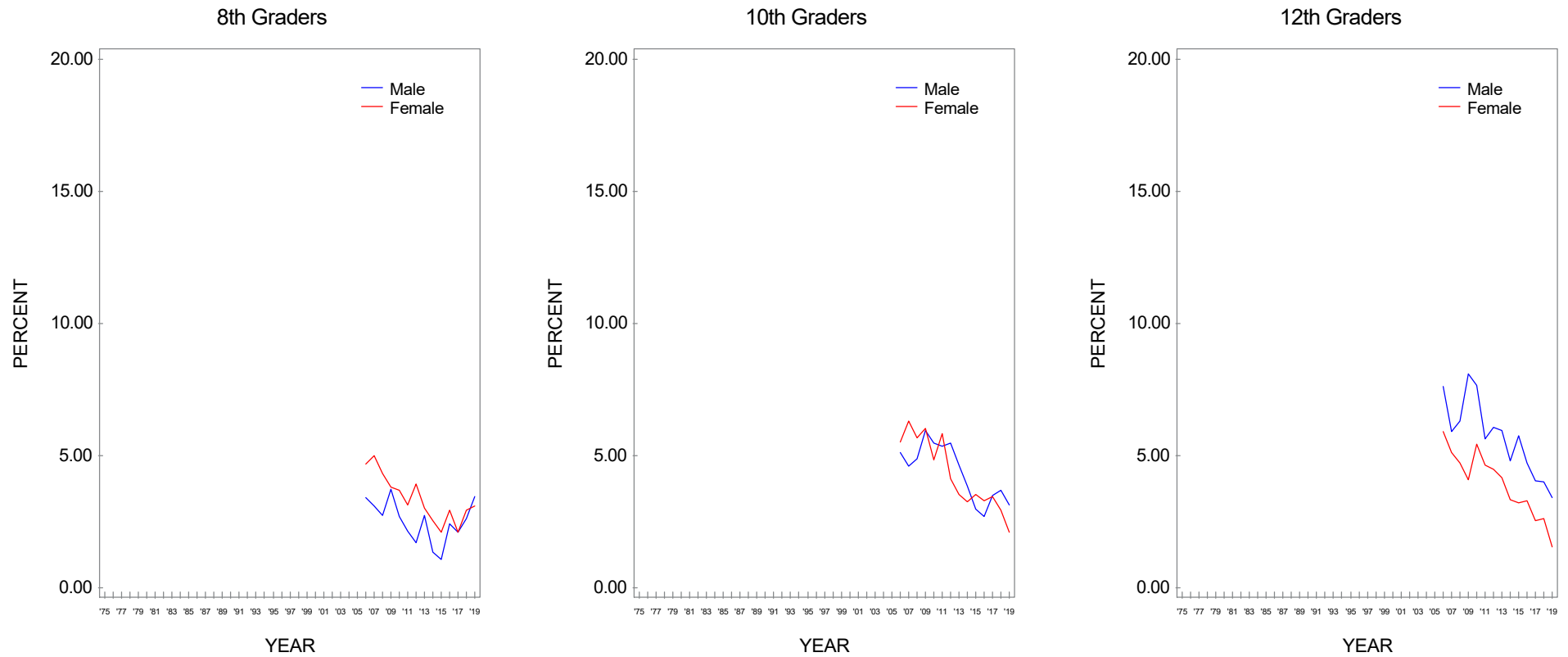
Source. The Monitoring the Future study, the University of Michigan.

*Taken to get high.

FIGURE 194
Over-the-Counter Cough/Cold Medicines:* Trends in Annual Prevalence by College Plans
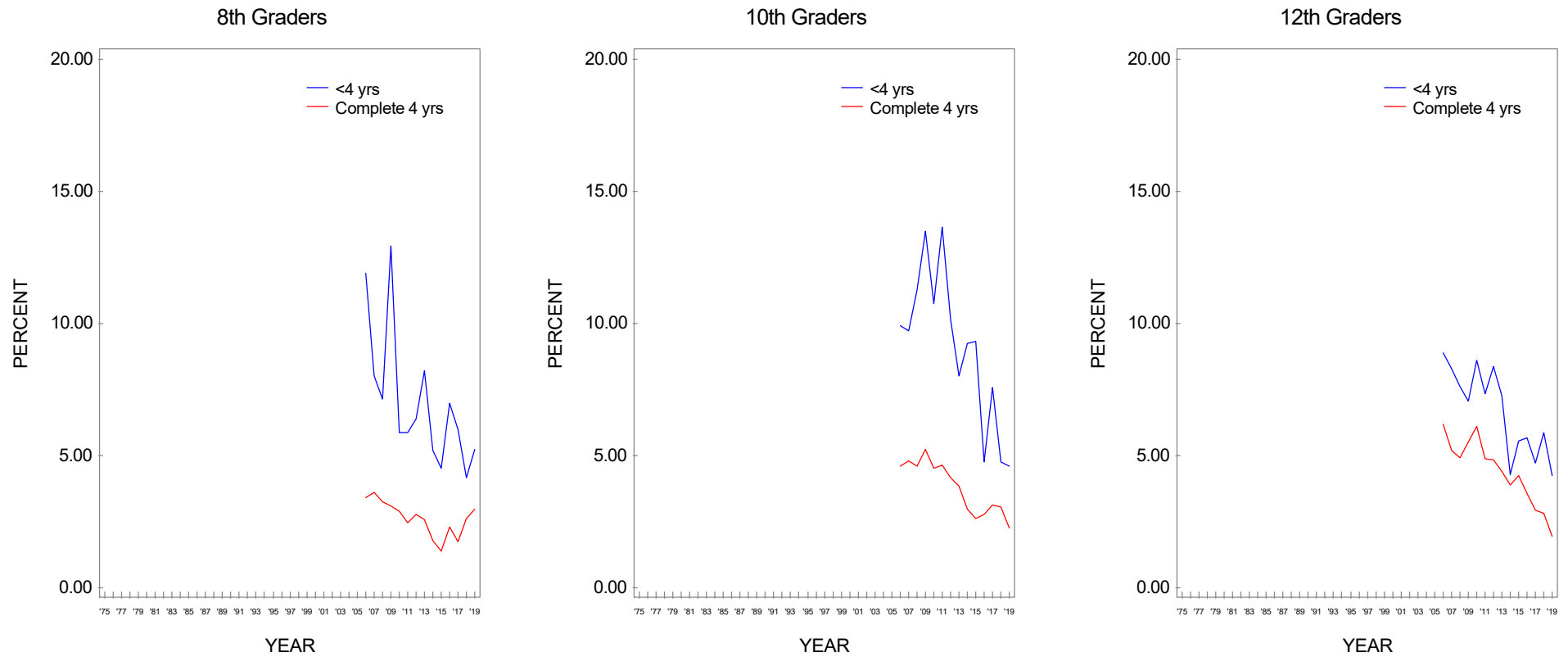
Source.   The Monitoring the Future study, the University of Michigan.
*Taken to get high.

FIGURE 195

Over-the-Counter Cough/Cold Medicines:* Trends in Annual Prevalence by Region
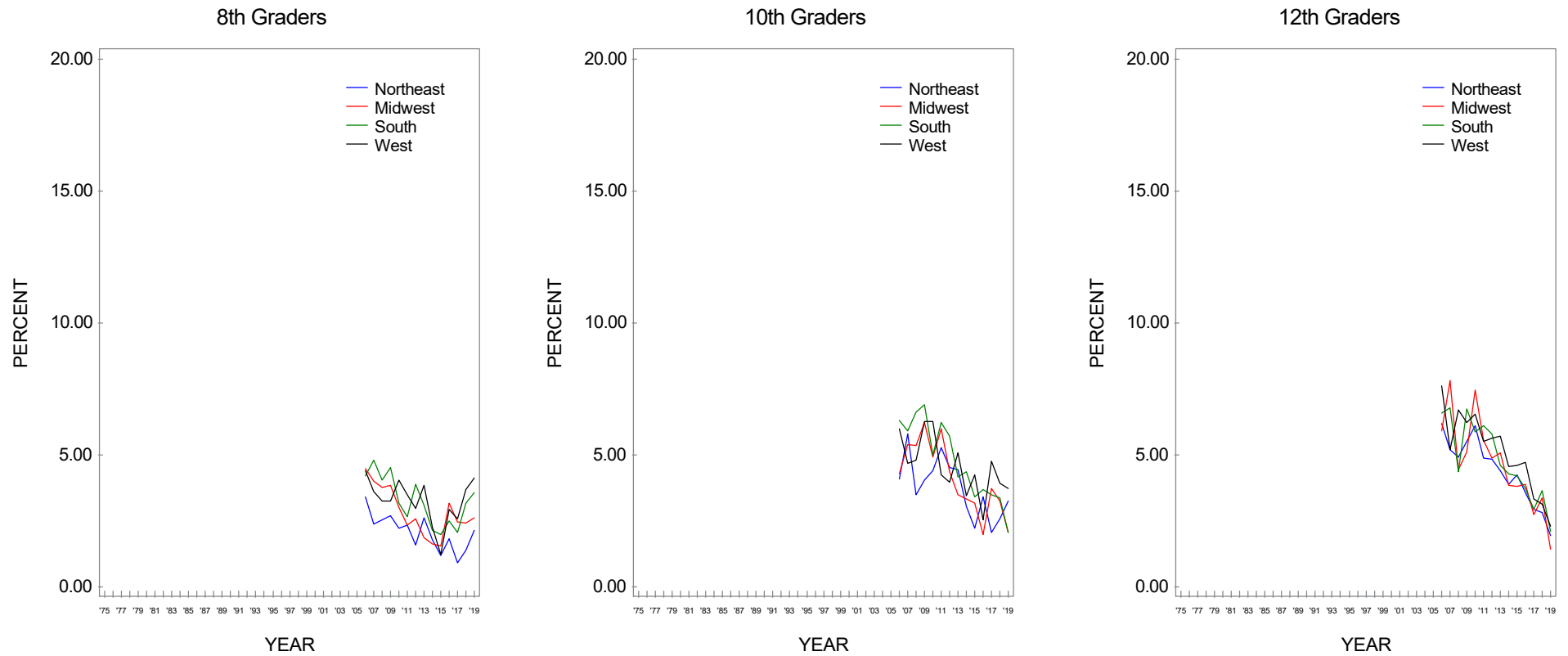
Source. The Monitoring the Future study, the University of Michigan.
*Taken to get high.

FIGURE 196

Over-the-Counter Cough/Cold Medicines:* Trends in Annual Prevalence by Population Density
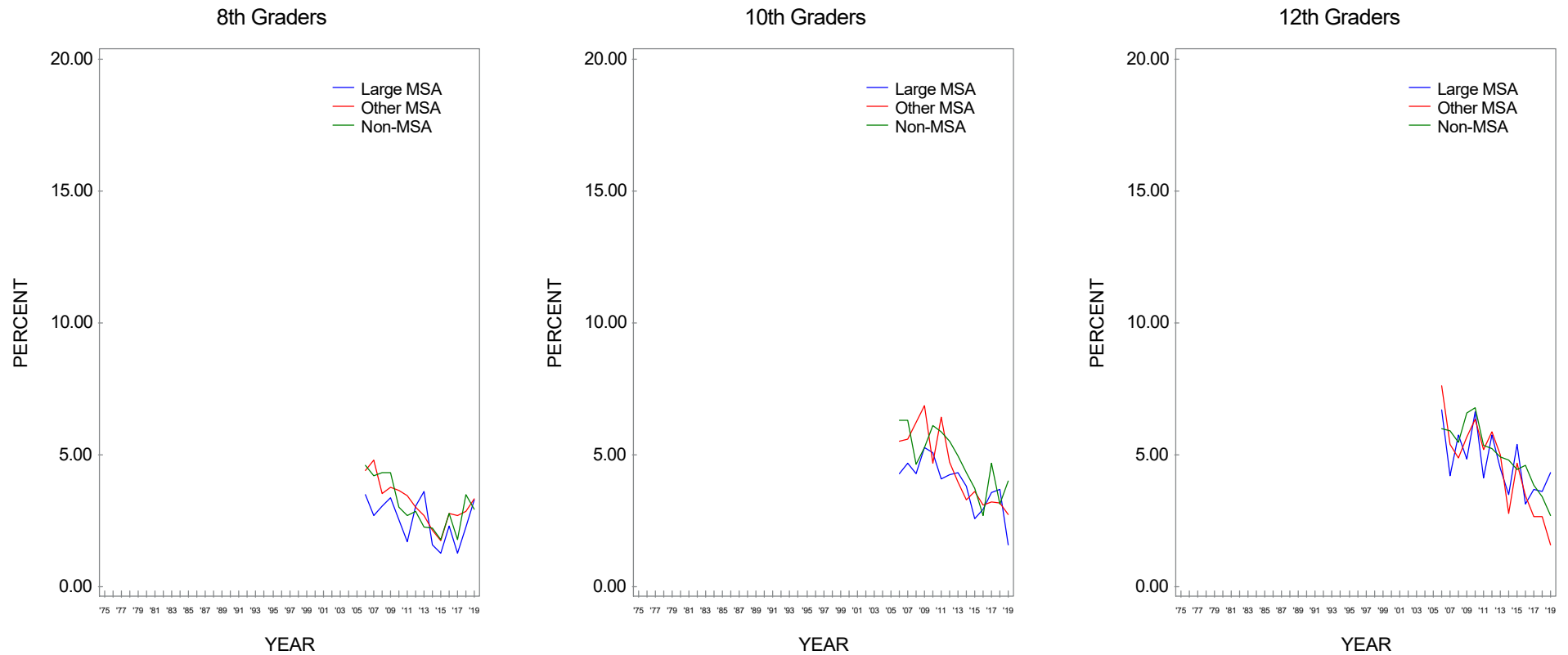
Source. The Monitoring the Future study, the University of Michigan.
*Taken to get high.

**FIGURE 197**

Over-the-Counter Cough/Cold Medicines:* Trends in Annual Prevalence by Average Education Level of Parents**
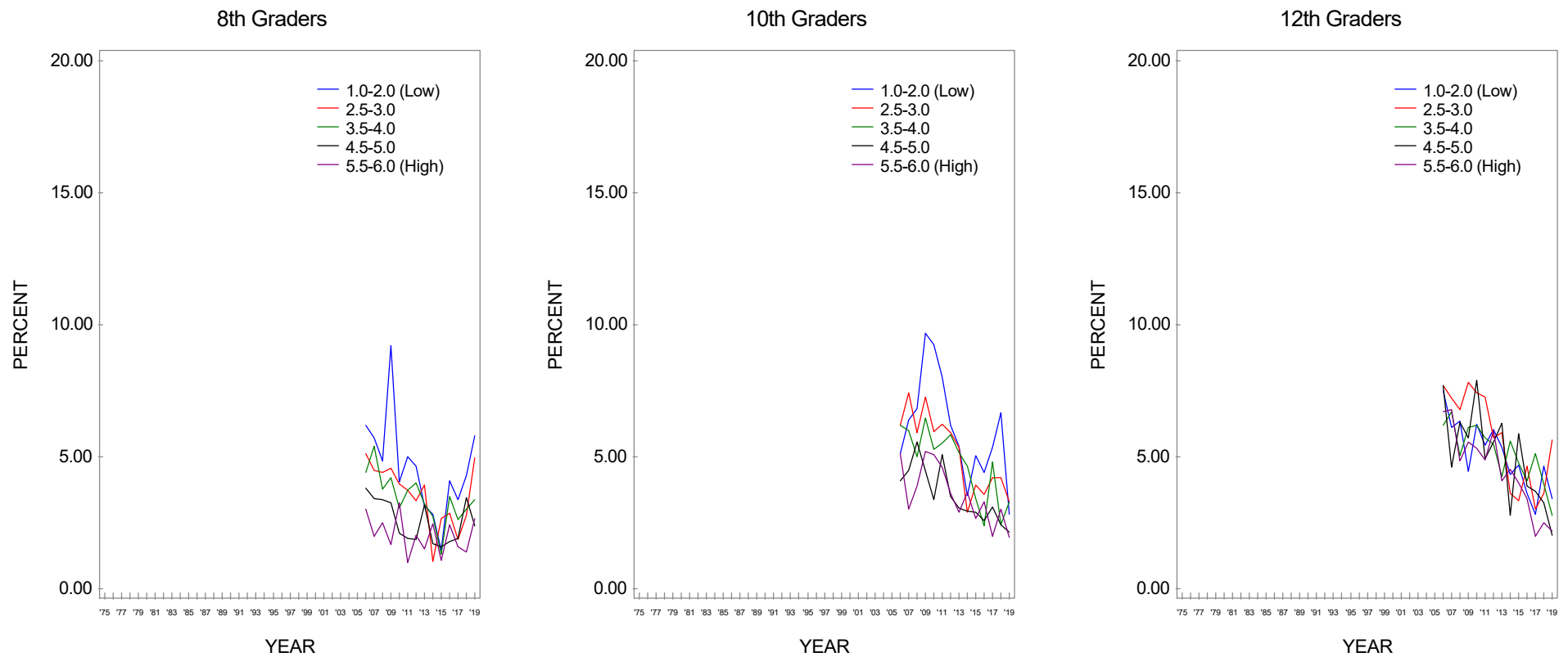
Source. The Monitoring the Future study, the University of Michigan.

*Taken to get high.

**Parental education is an average score of mother's education and father's education.

FIGURE 198
Over-the-Counter Cough/Cold Medicines:* Trends in Annual Prevalence by Race/Ethnicity**

8th Graders

10th Graders

12th Graders
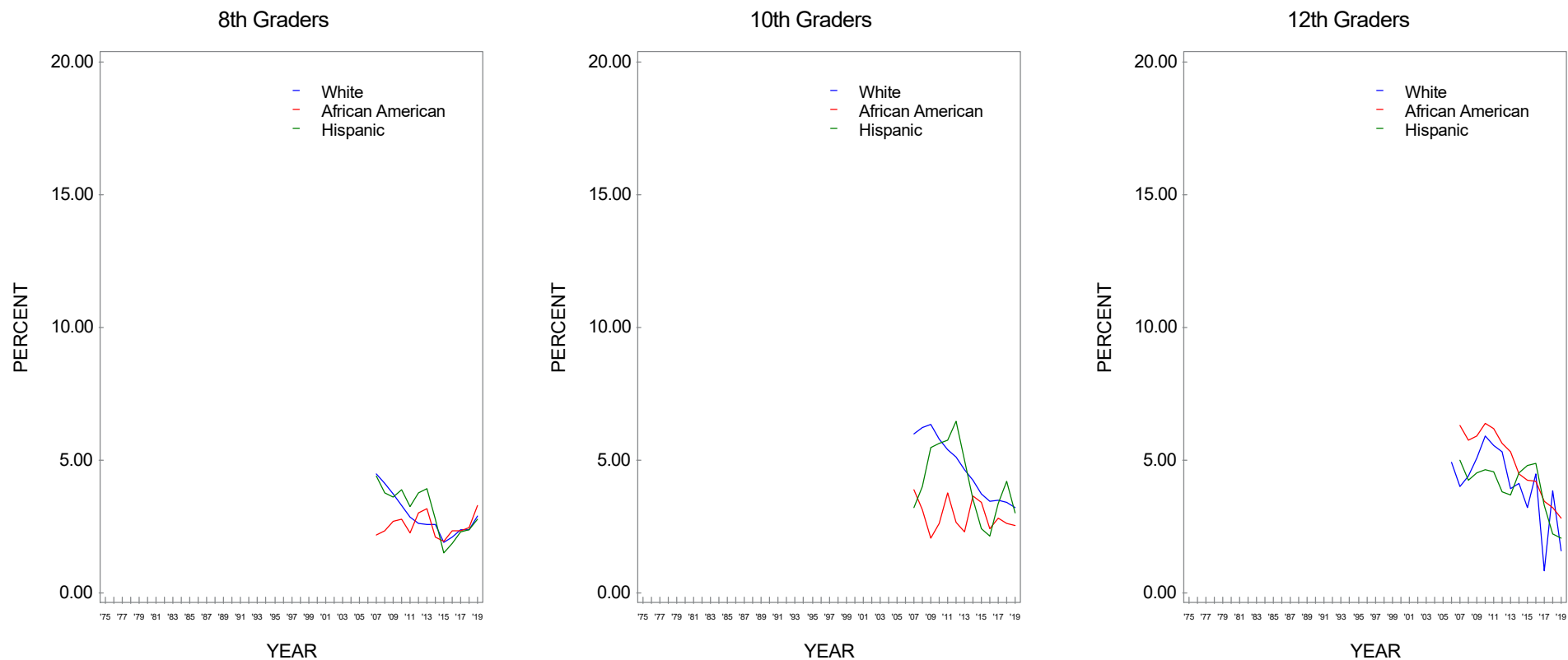
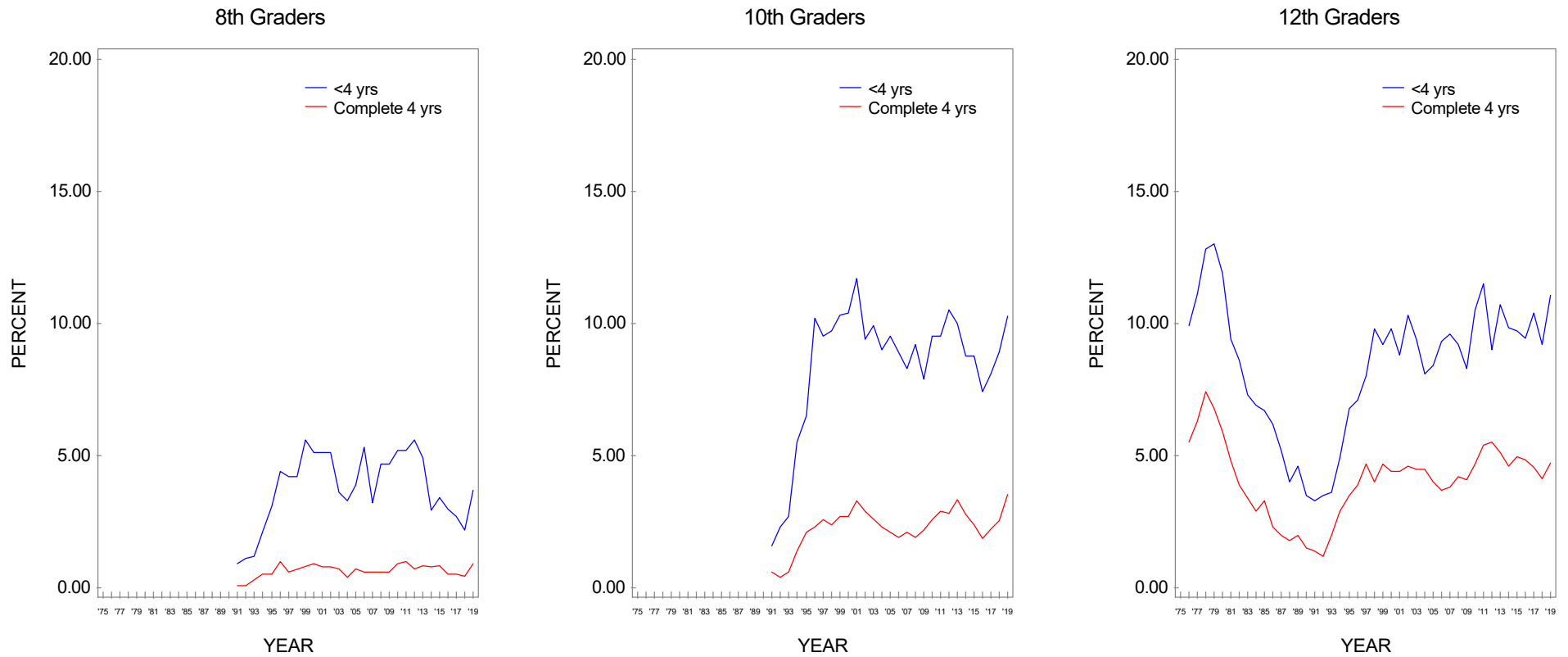*Source.* The Monitoring the Future study, the University of Michigan.

*Taken to get high.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 199
Rohypnol:* Trends in Annual Prevalence by Gender
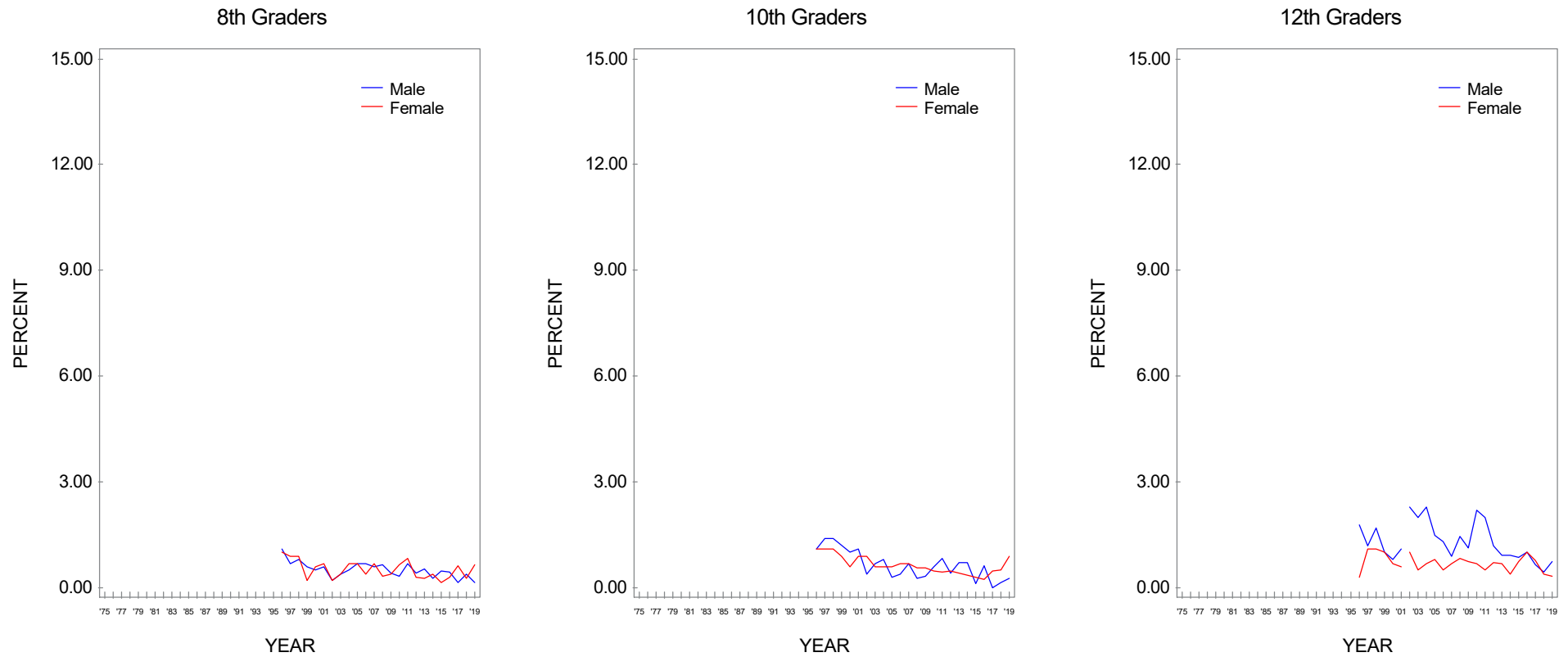
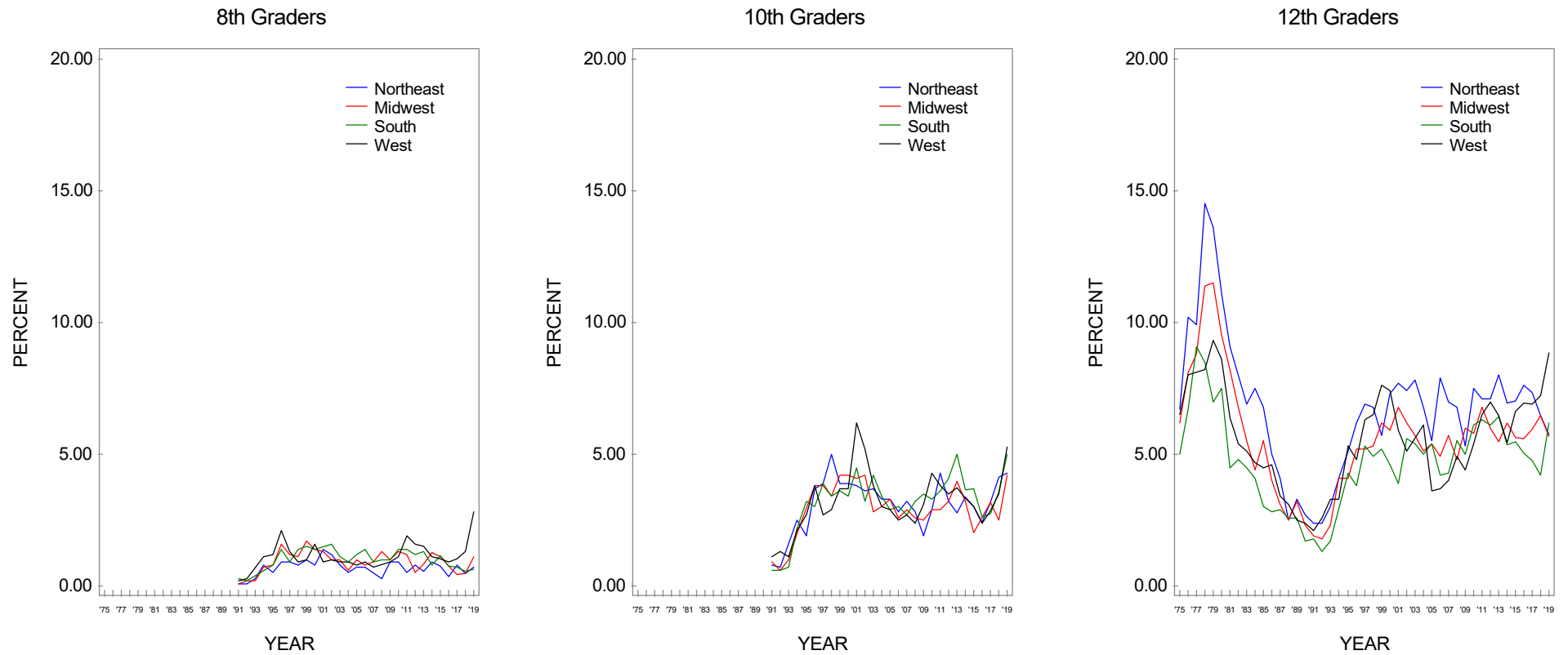Source. The Monitoring the Future study, the University of Michigan.

*For 12th grade only, the 2001 and 2002 data are not comparable due to changes in the questionnaire forms.

FIGURE 200
Rohypnol:* Trends in Annual Prevalence by College Plans
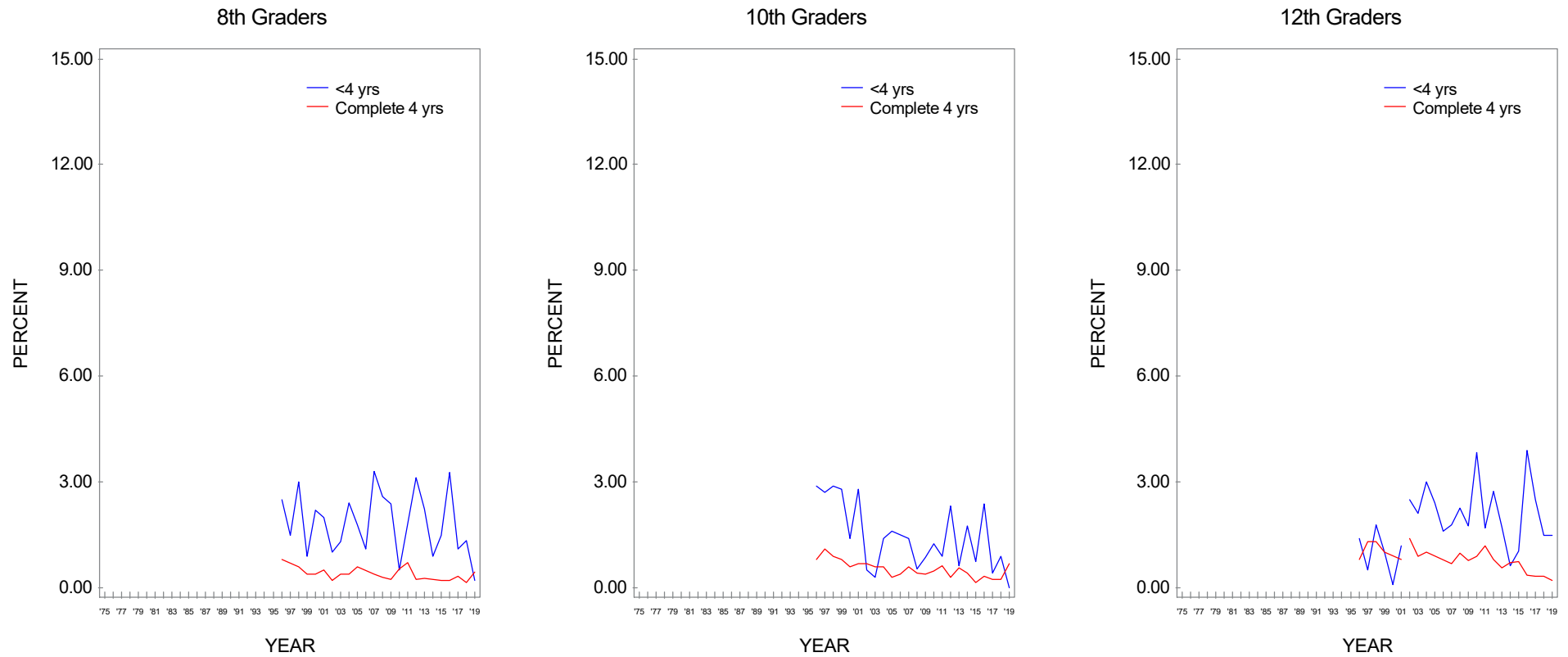
Source. The Monitoring the Future study, the University of Michigan.

*For 12th grade only, the 2001 and 2002 data are not comparable due to changes in the questionnaire forms.

FIGURE 201
Rohypnol:* Trends in Annual Prevalence by Region
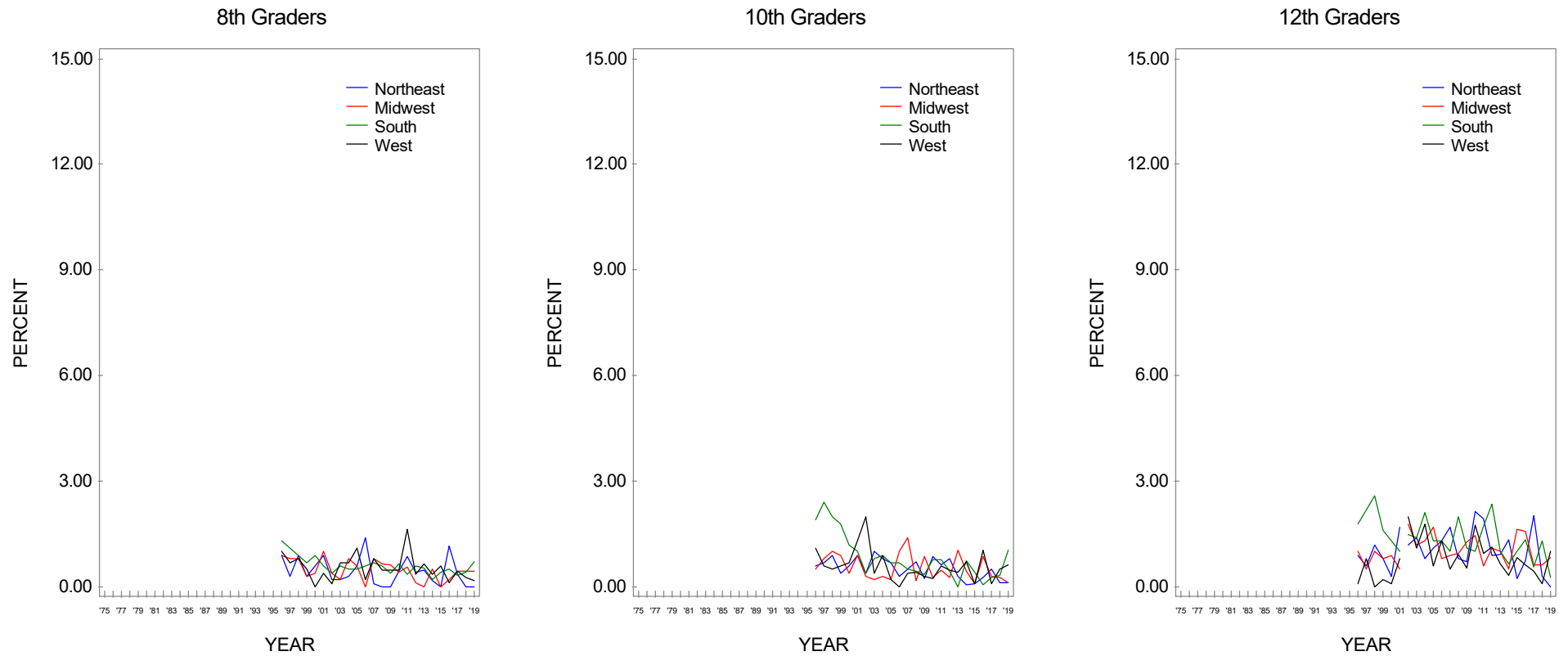
8th Graders / 10th Graders / 12th Graders

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

*For 12th grade only, the 2001 and 2002 data are not comparable due to changes in the questionnaire forms.

FIGURE 202
Rohypnol:* Trends in Annual Prevalence by Population Density
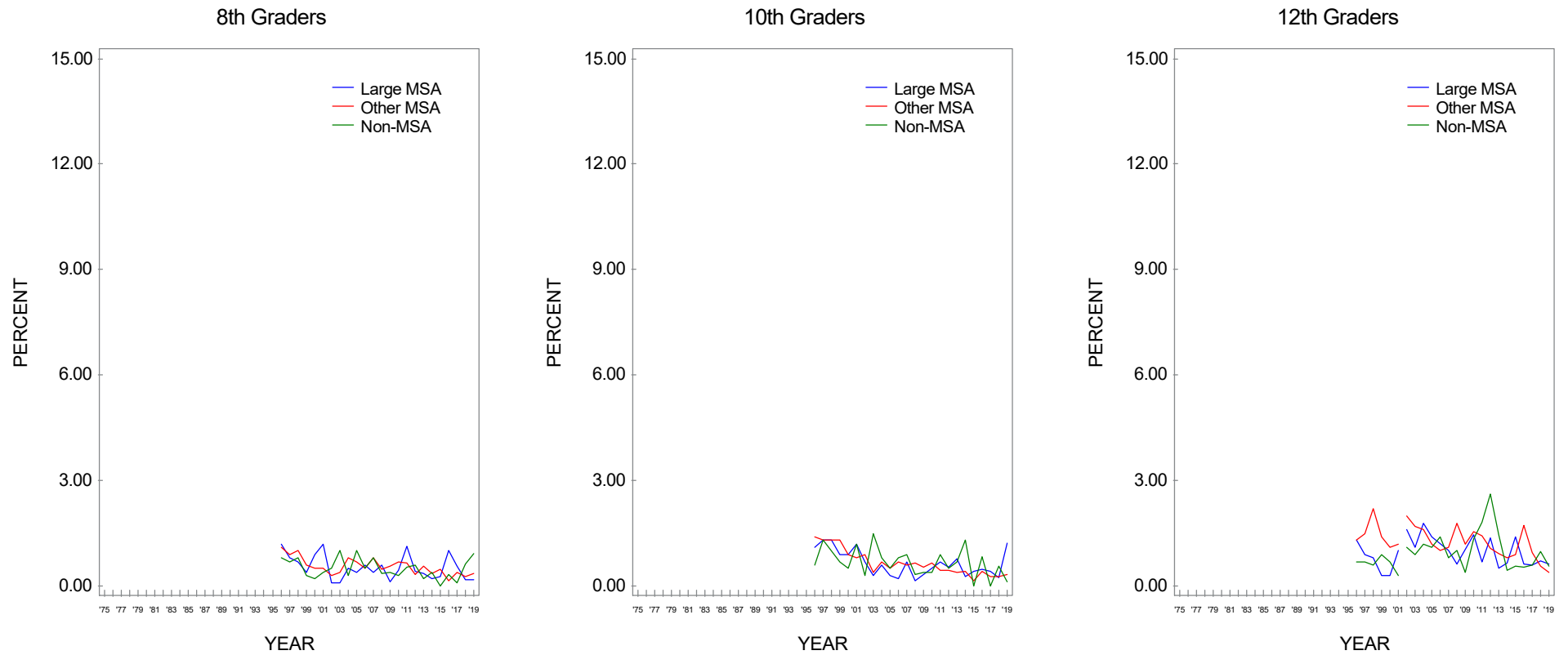
Source.   The Monitoring the Future study, the University of Michigan.

*For 12th grade only, the 2001 and 2002 data are not comparable due to changes in the questionnaire forms.

FIGURE 203
Rohypnol:* Trends in Annual Prevalence by Average Education Level of Parents**
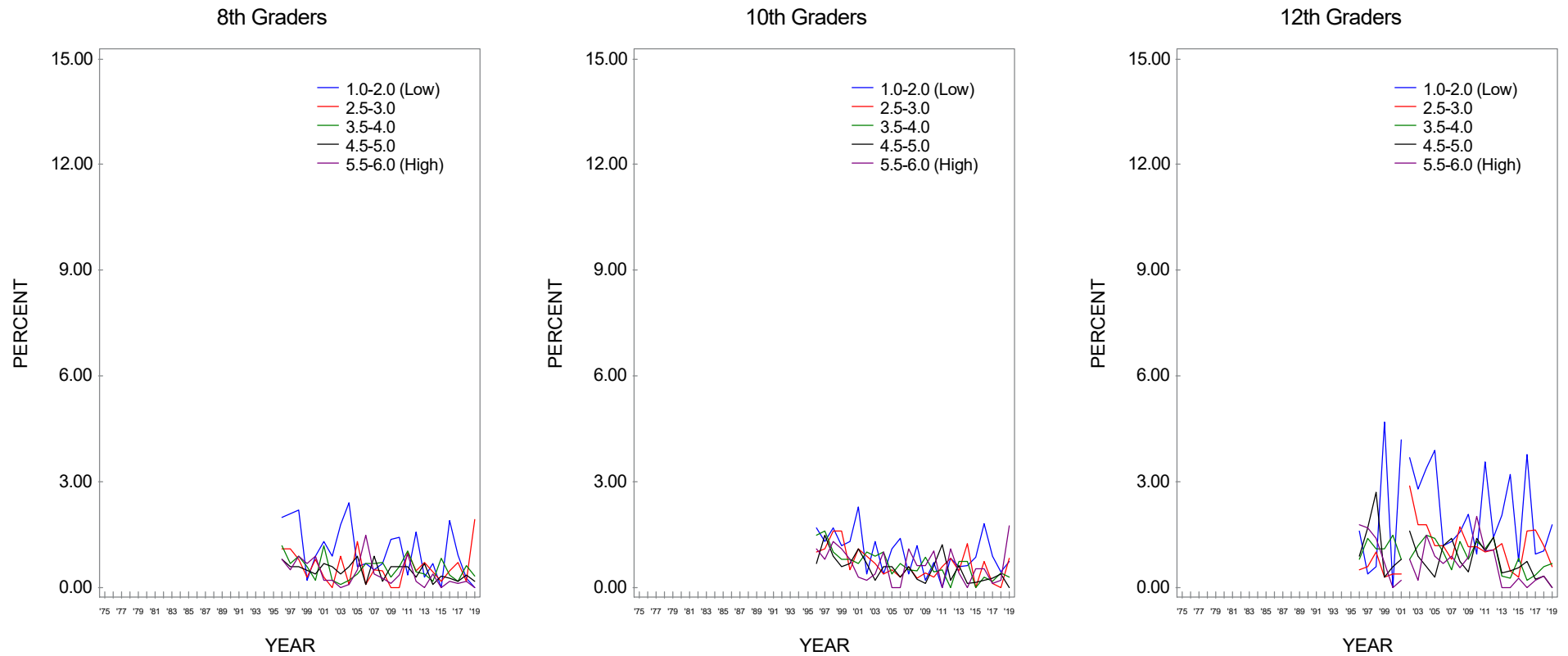
FIGURE 204
Rohypnol:* Trends in Annual Prevalence by Race/Ethnicity**
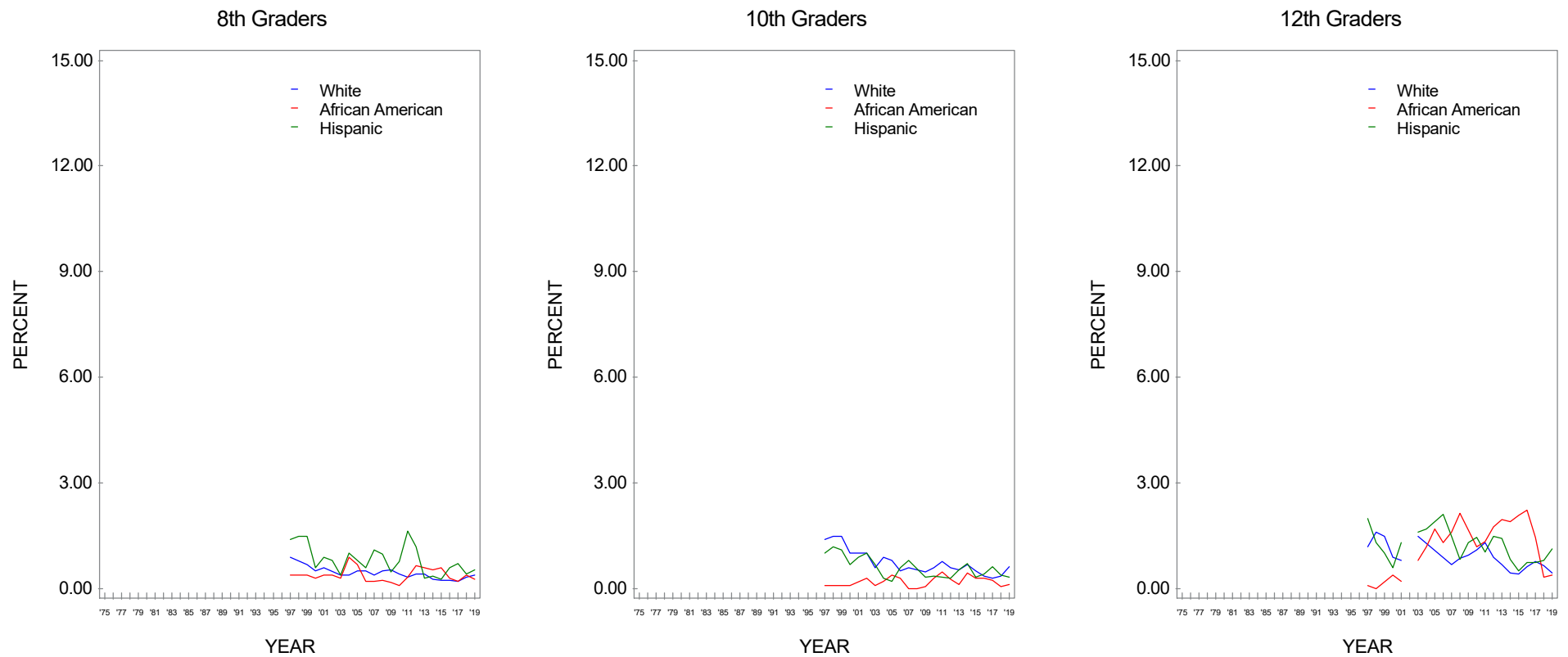
Source.   The Monitoring the Future study, the University of Michigan.

*For 12th grade only, the 2001 and 2002 data are not comparable due to changes in the questionnaire forms.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 205
Alcohol:* Trends in 30-Day Prevalence by Gender
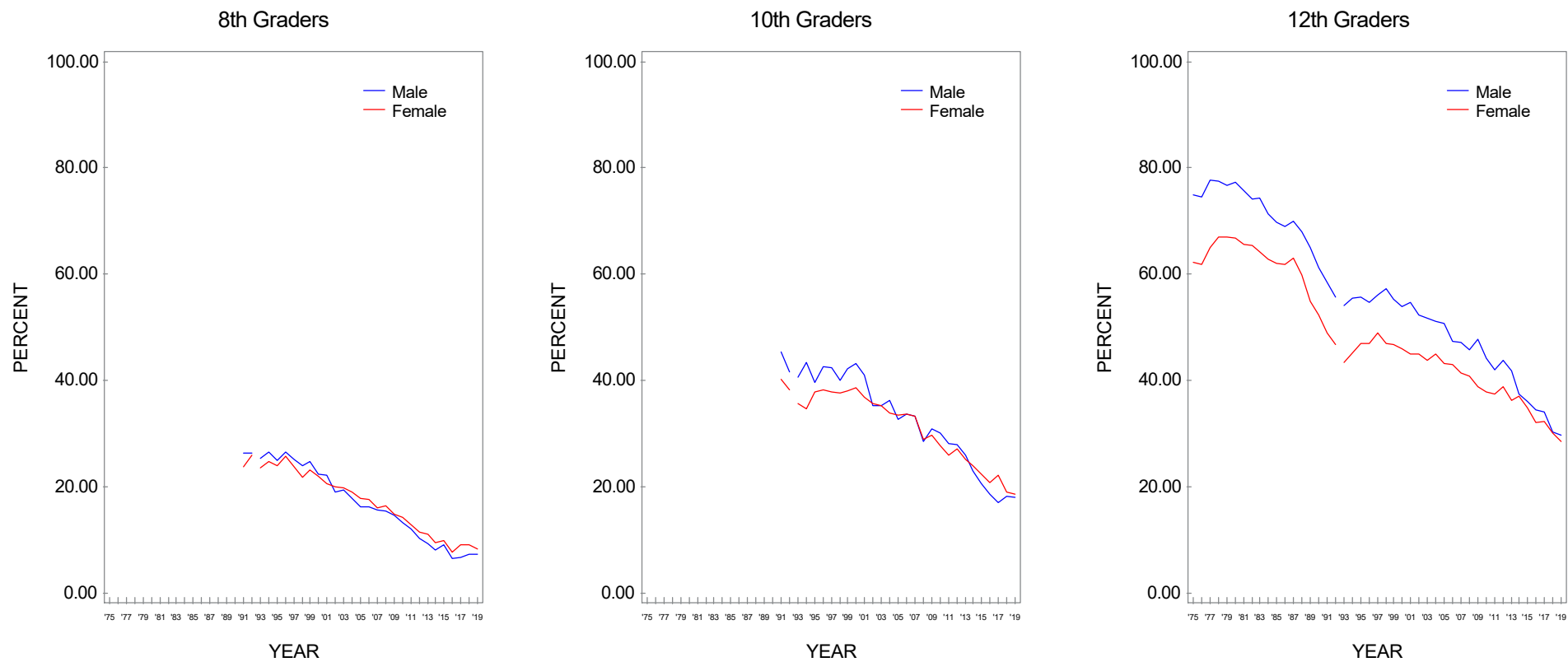
FIGURE 206
Alcohol:* Trends in 30-Day Prevalence by College Plans
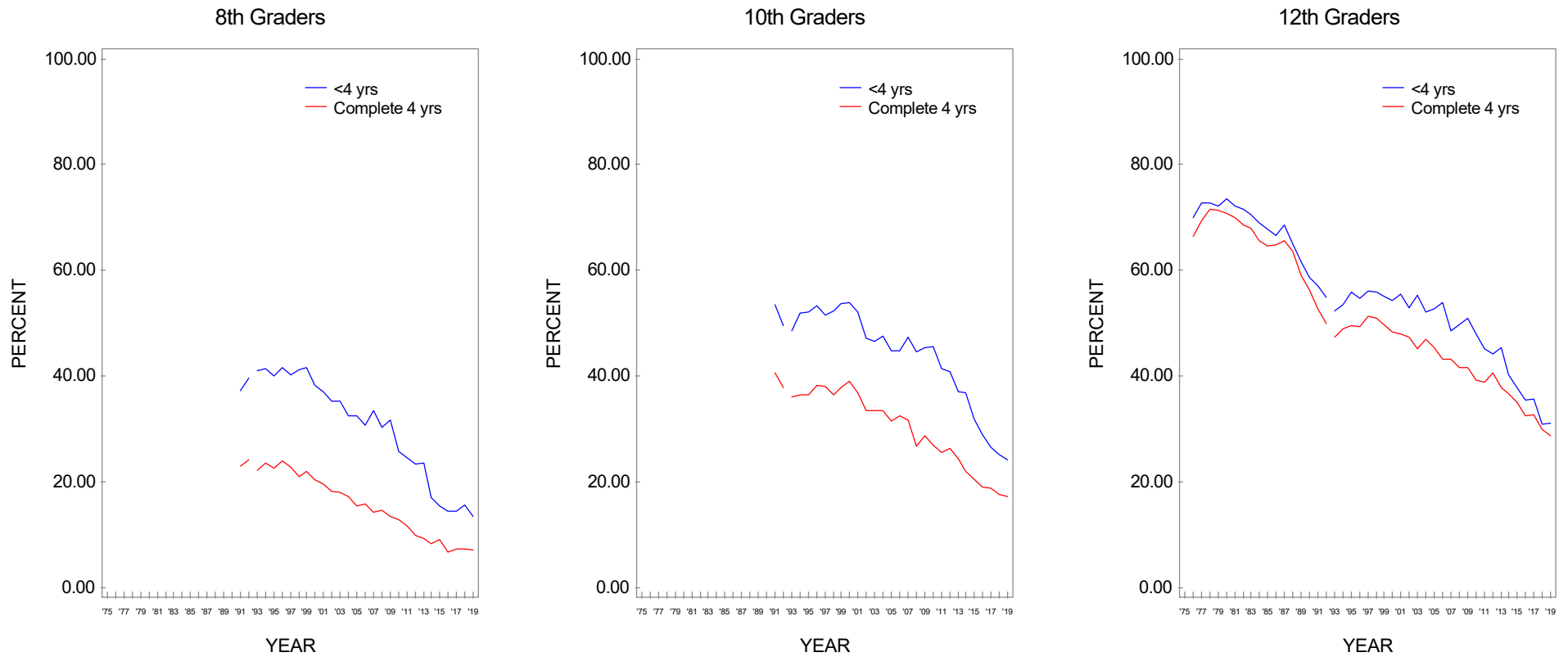
8th Graders

10th Graders

12th Graders

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

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 207
Alcohol:* Trends in 30-Day Prevalence by Region
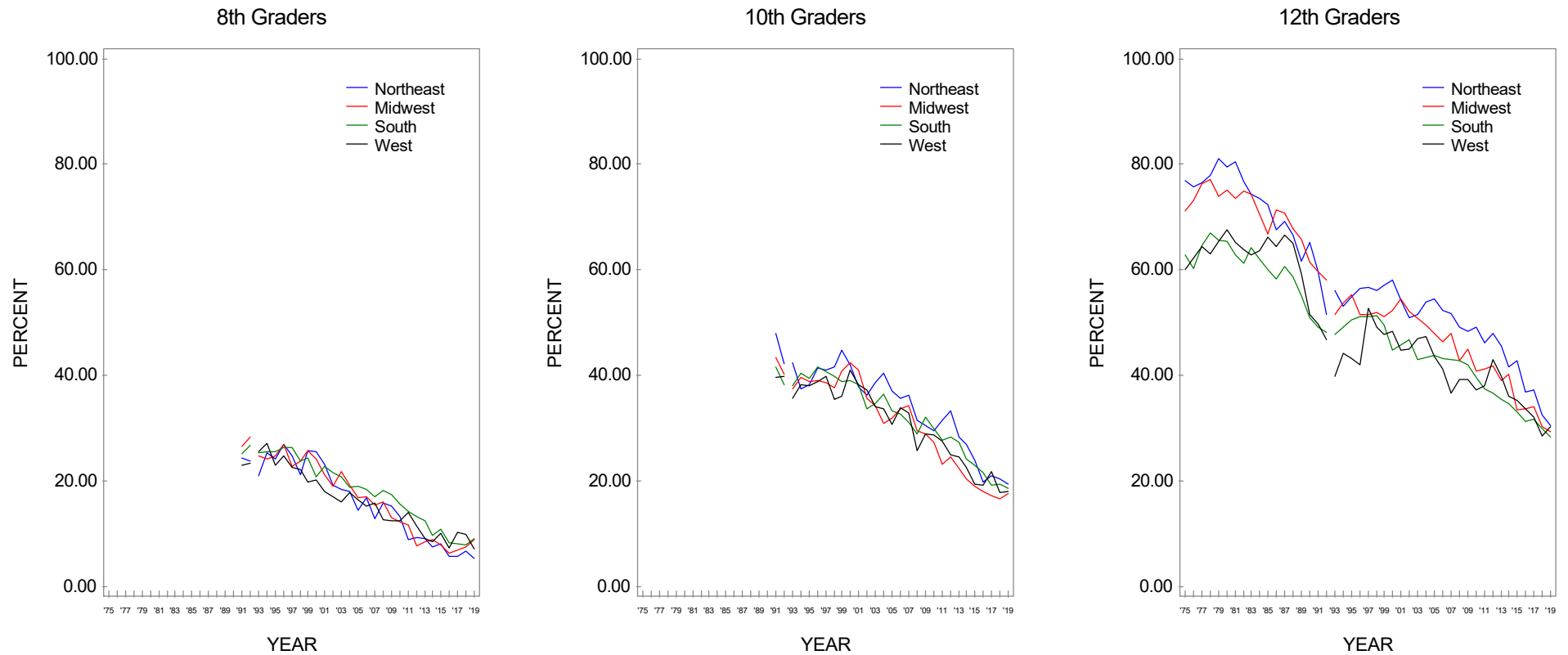
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 208
Alcohol:* Trends in 30-Day Prevalence by Population Density
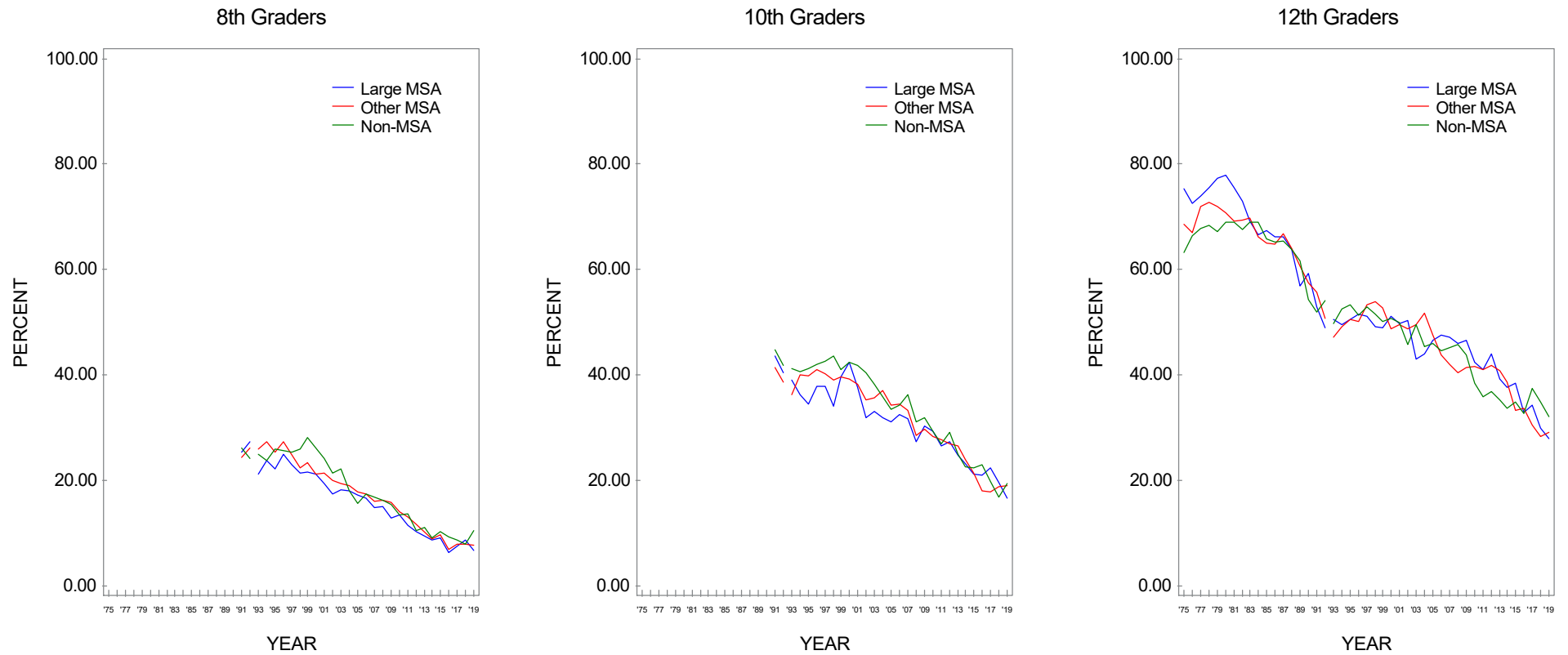
8th Graders

Large MSA
Other MSA
Non-MSA

10th Graders

Large MSA
Other MSA
Non-MSA

12th Graders

Large MSA
Other MSA
Non-MSA

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

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 209
Alcohol:* Trends in 30-Day Prevalence by Average Education Level of Parents**
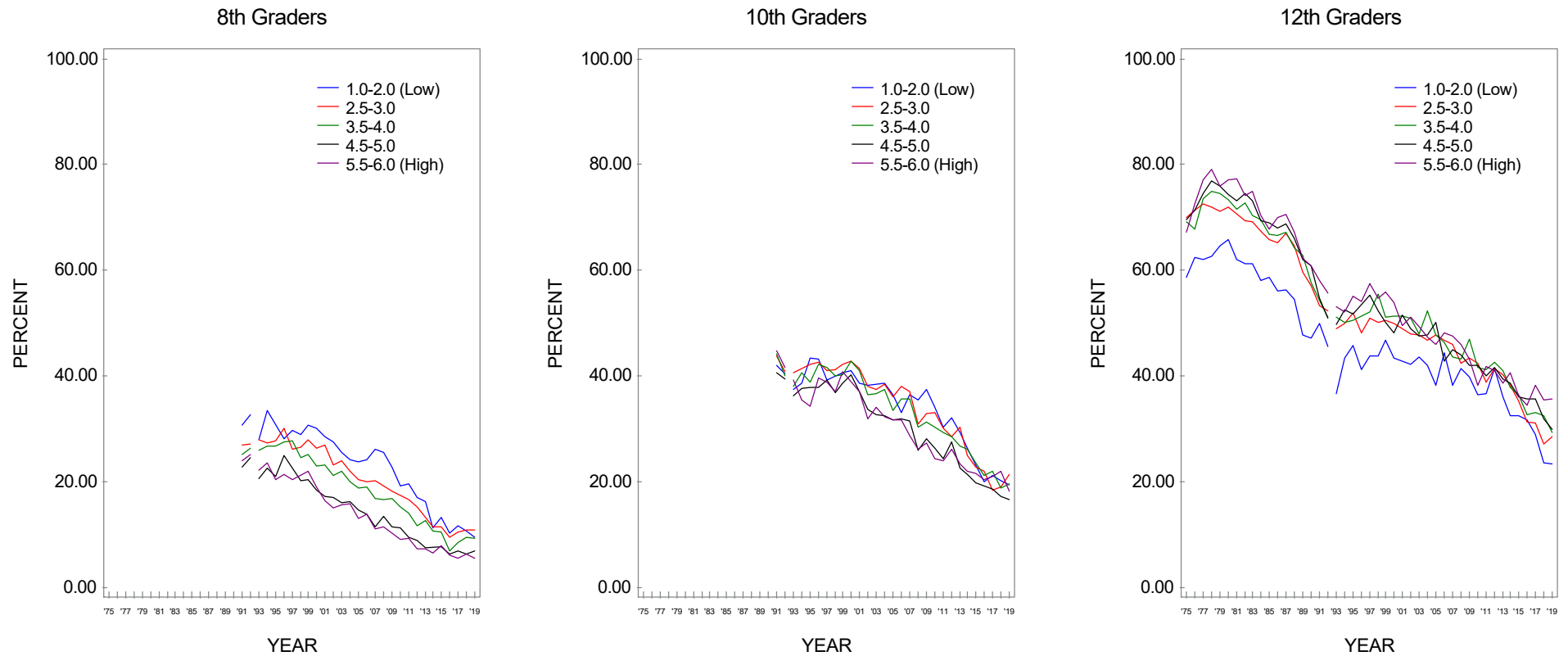
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

**Parental education is an average score of mother's education and father's education.

FIGURE 210
Alcohol:* Trends in 30-Day Prevalence by Race/Ethnicity**
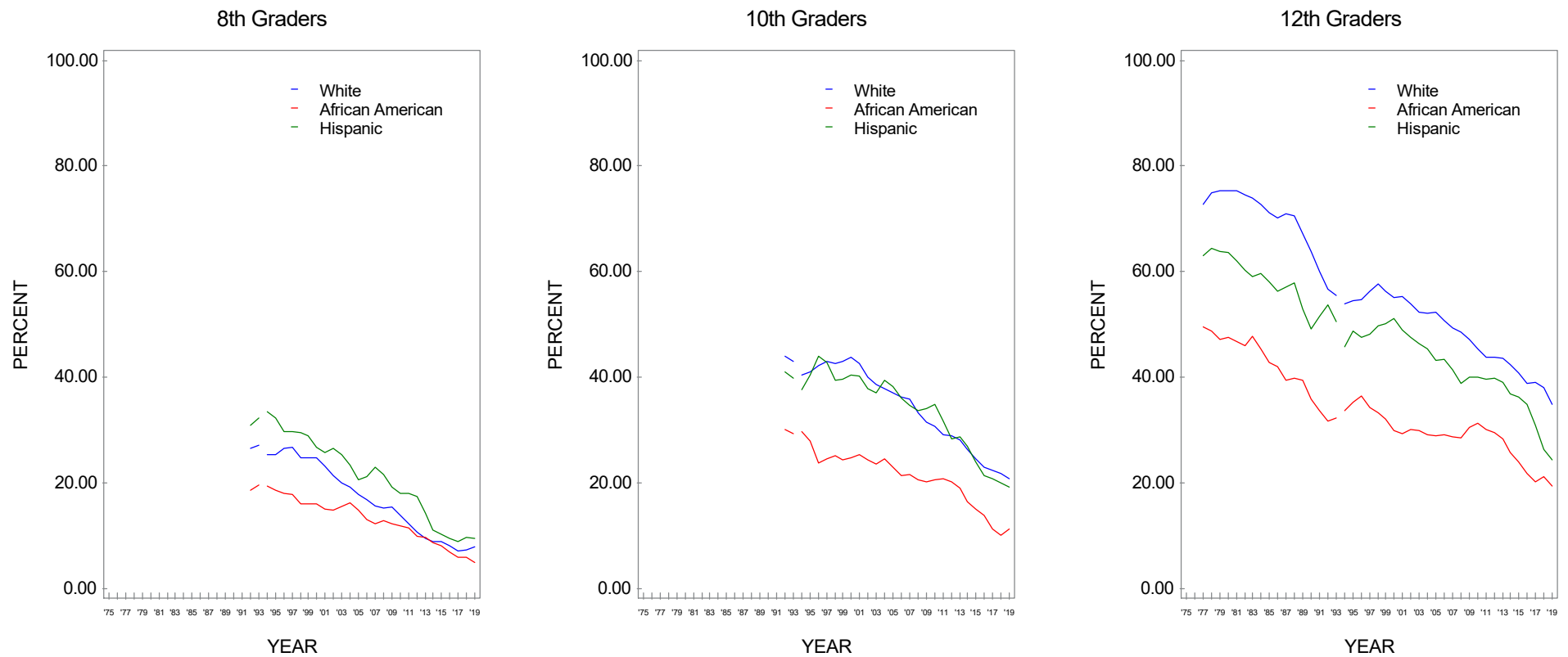
*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 211
Alcohol:* Trends in Daily Prevalence by Gender
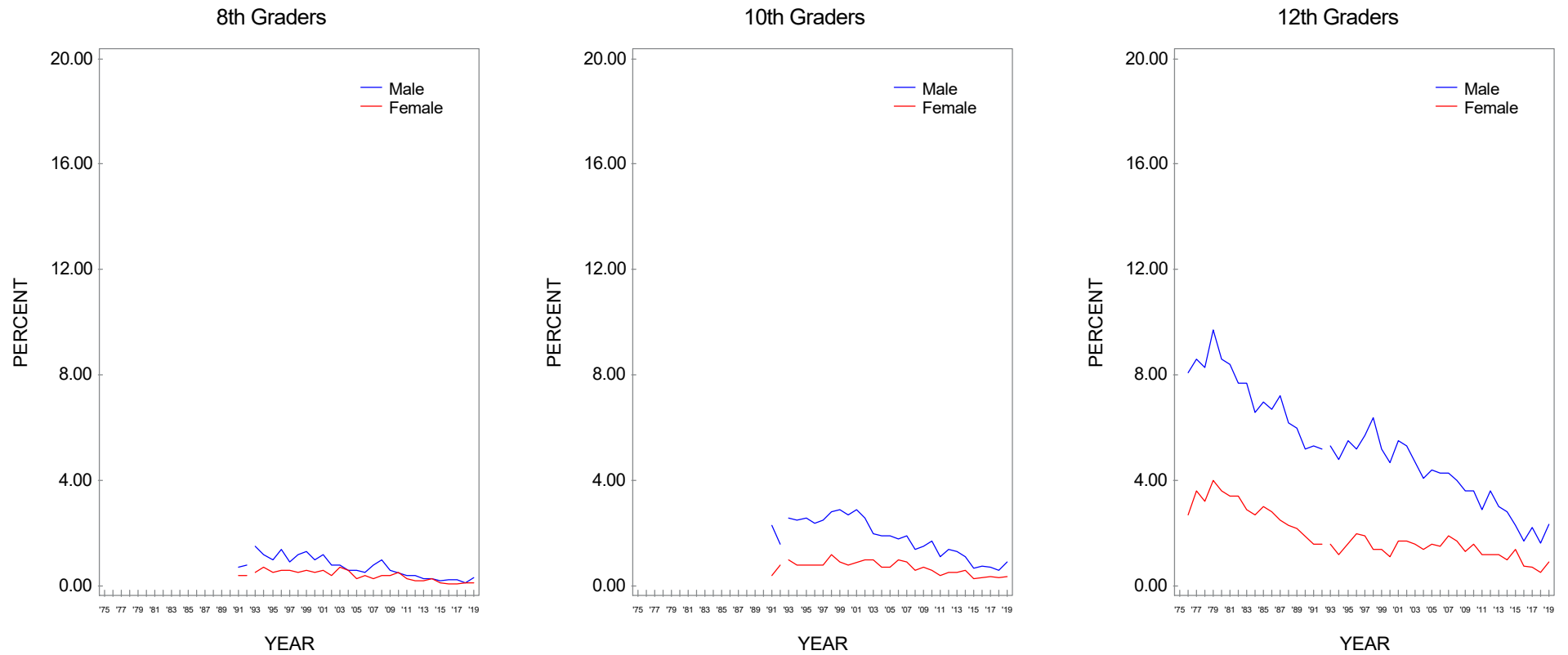
Source.   The Monitoring the Future study, the University of Michigan.

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 212
Alcohol:* Trends in Daily Prevalence by College Plans
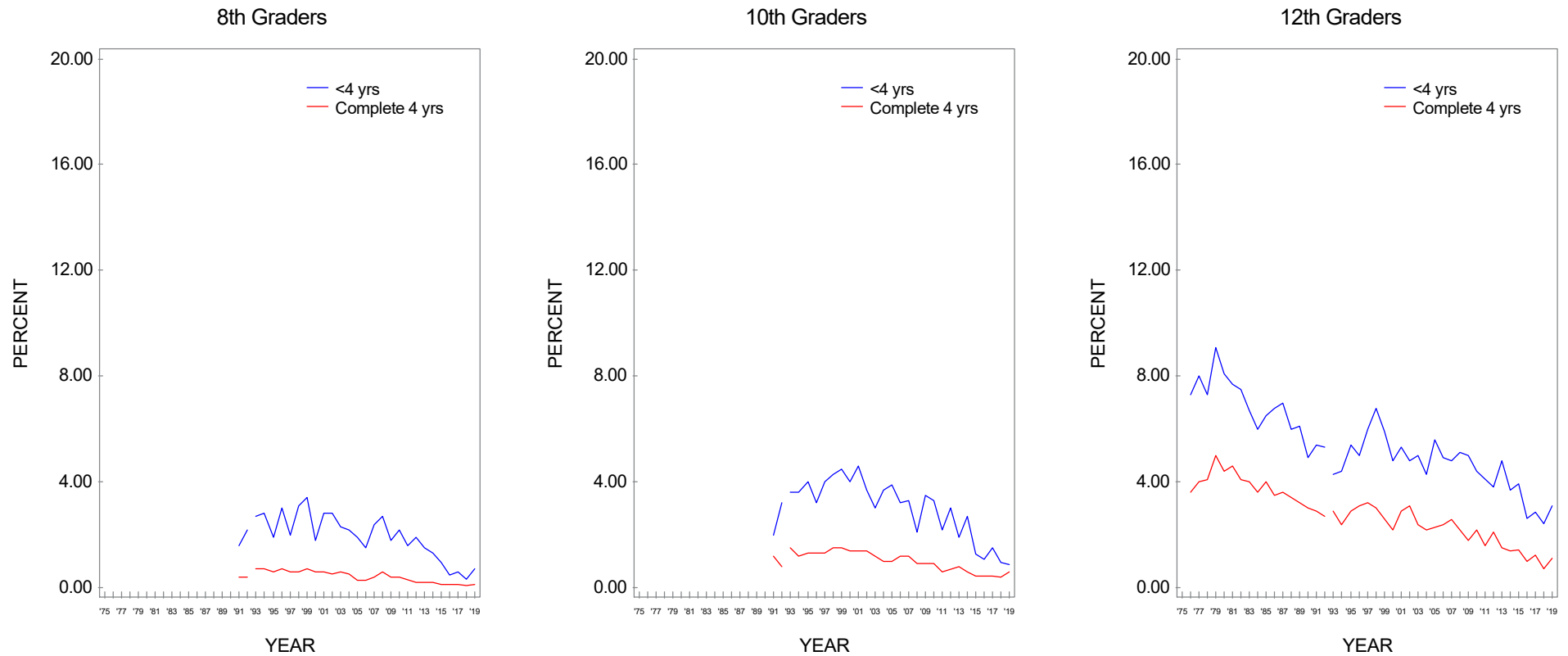
Source. The Monitoring the Future study, the University of Michigan.
*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 213
Alcohol:* Trends in Daily Prevalence by Region
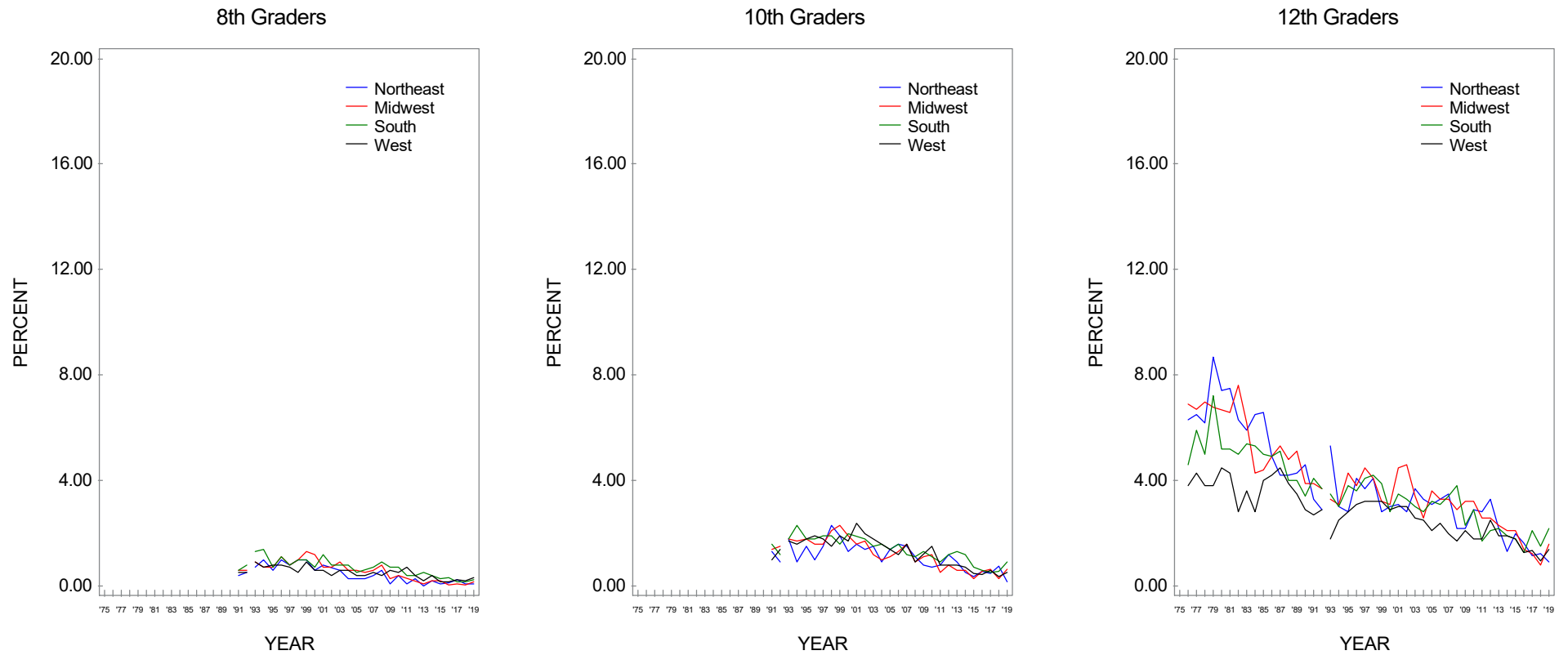
8th Graders

PERCENT

- Northeast
- Midwest
- South
- West

YEAR

10th Graders

PERCENT

- Northeast
- Midwest
- South
- West

YEAR

12th Graders

PERCENT

- Northeast
- Midwest
- South
- West

YEAR

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

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 214
Alcohol:* Trends in Daily Prevalence by Population Density
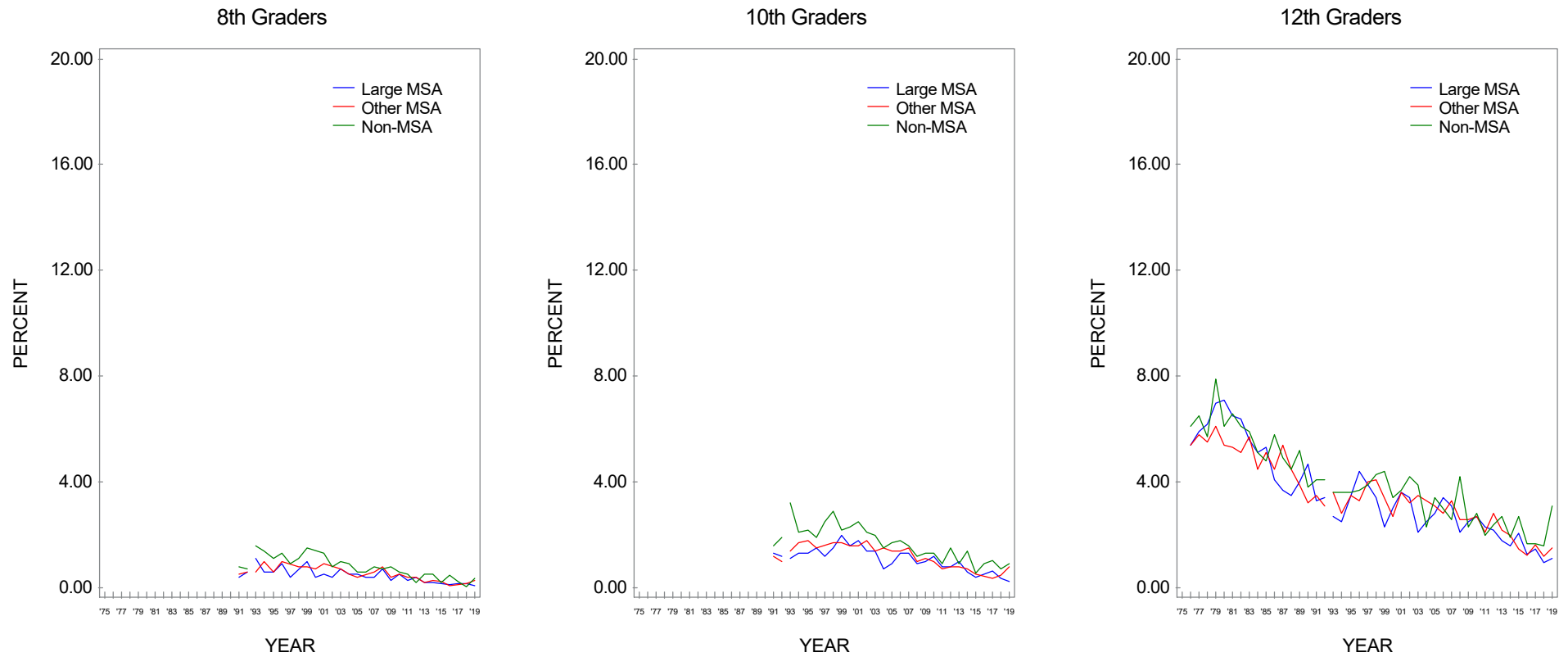
8th Graders

10th Graders

12th Graders

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

FIGURE 215
Alcohol:* Trends in Daily Prevalence by Average Education Level of Parents**

FIGURE 216
Alcohol:* Trends in Daily Prevalence by Race/Ethnicity**
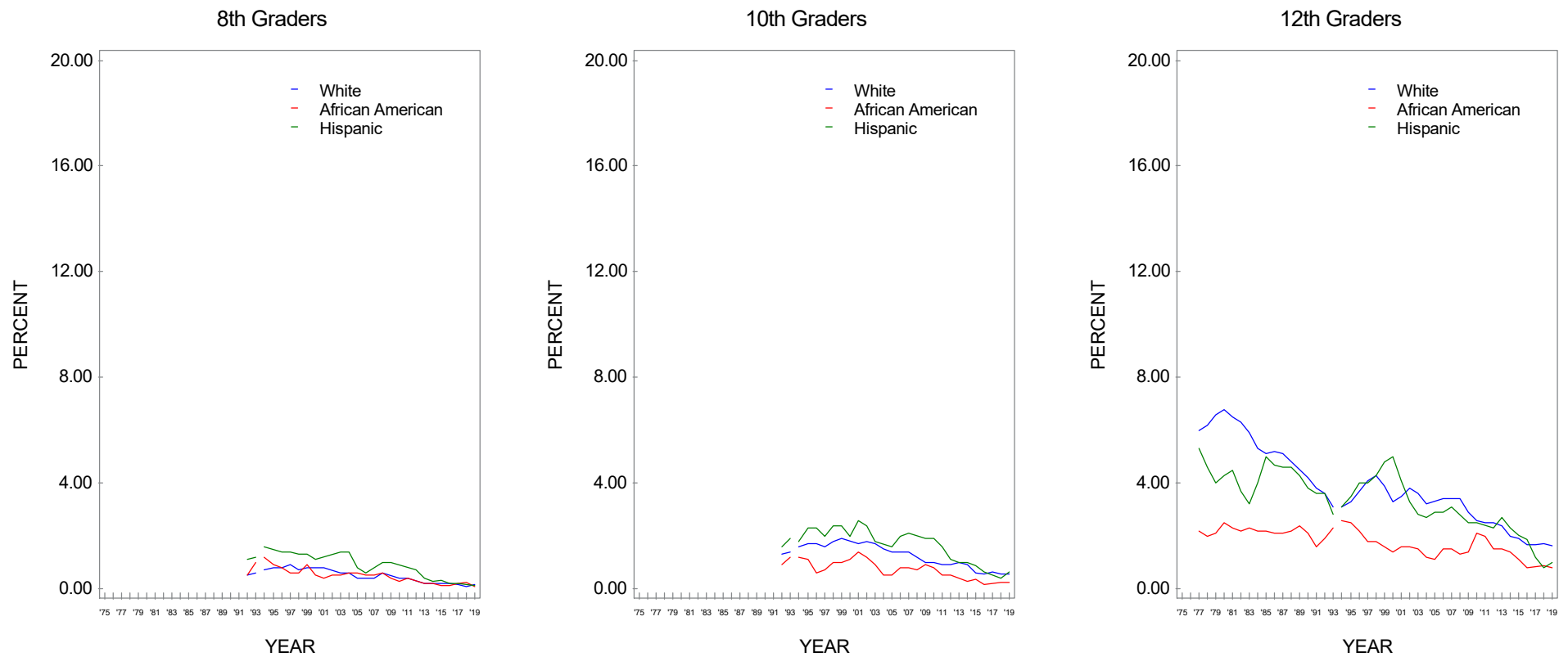
Source. The Monitoring the Future study, the University of Michigan.

*Beginning in 1993, a revised set of questions on alcohol use was introduced that indicated that a drink meant more than a few sips.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 217

Alcohol: Trends in 30-Day Prevalence of Having Been Drunk by Gender
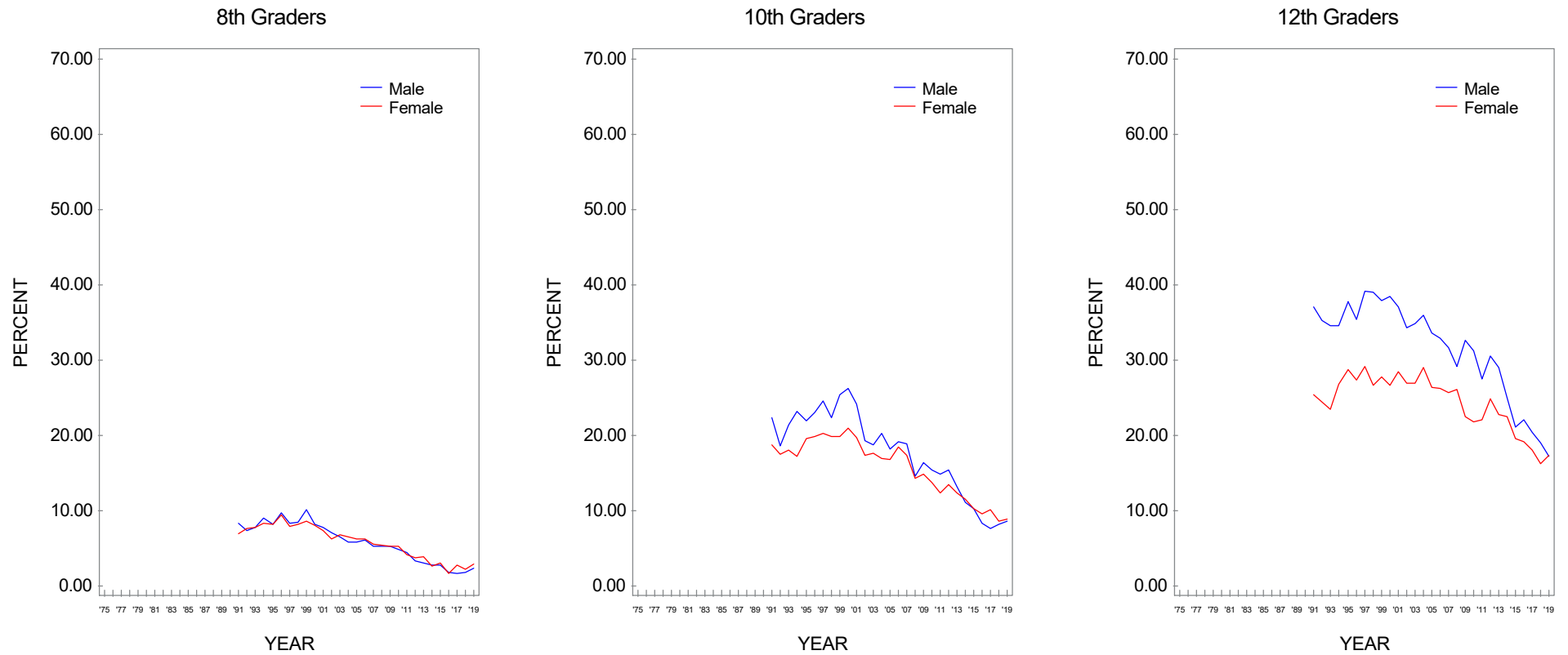
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 218
Alcohol: Trends in 30-Day Prevalence of Having Been Drunk by College Plans
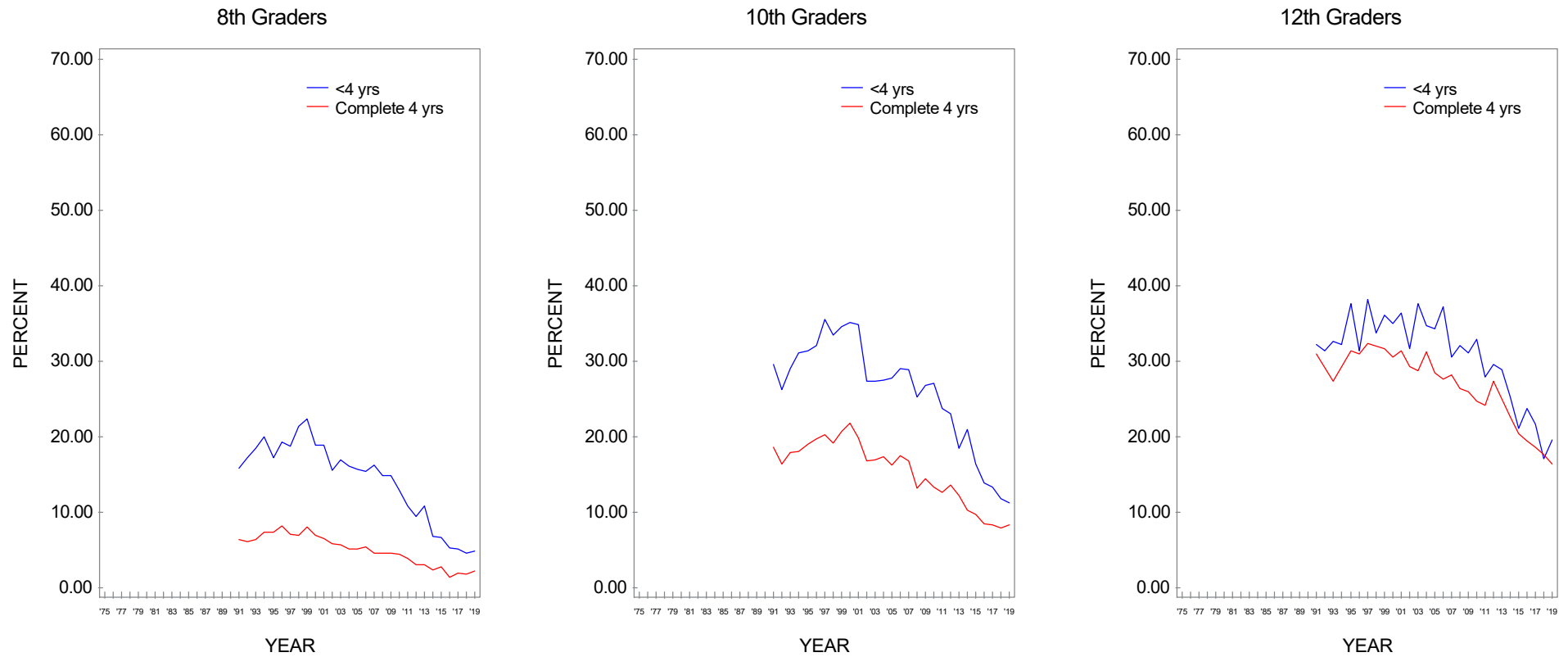
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 219
Alcohol: Trends in 30-Day Prevalence of Having Been Drunk by Region
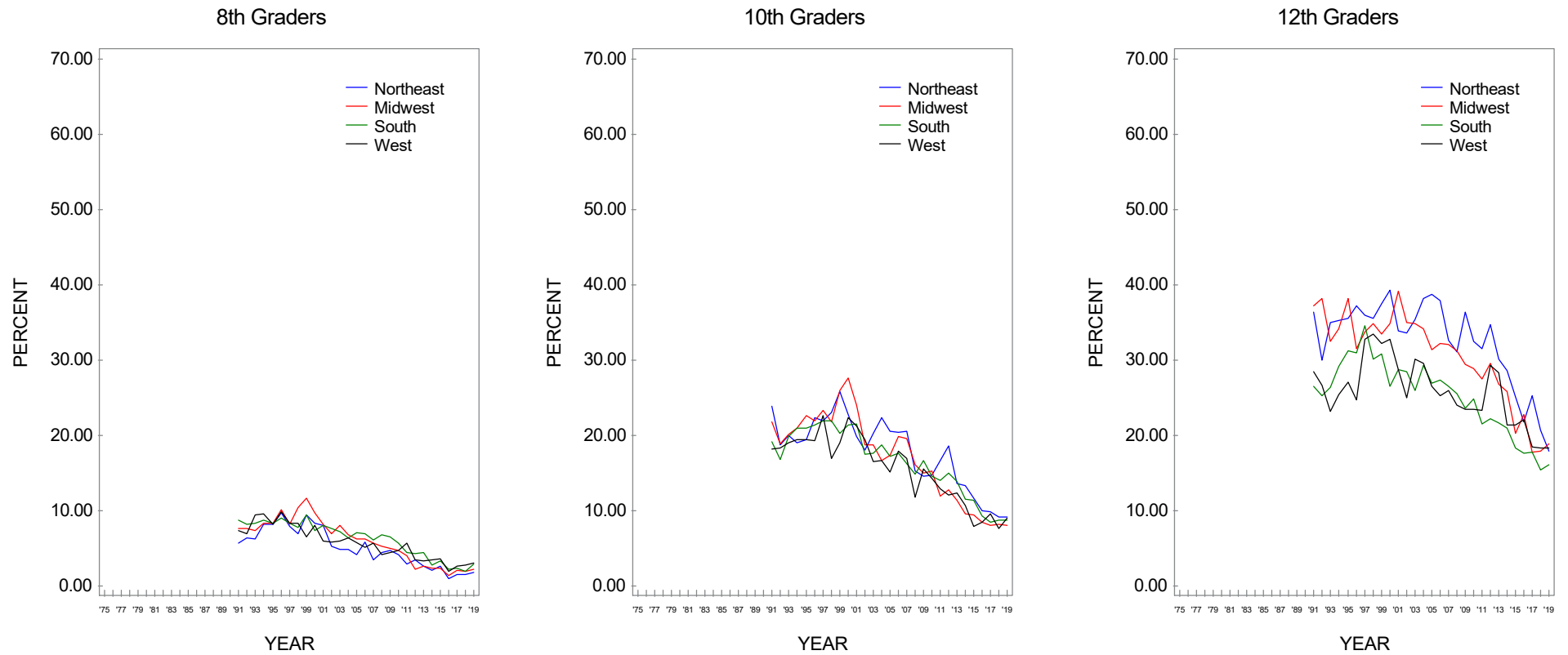
FIGURE 220
Alcohol: Trends in 30-Day Prevalence of Having Been Drunk by Population Density

8th Graders

10th Graders

12th Graders
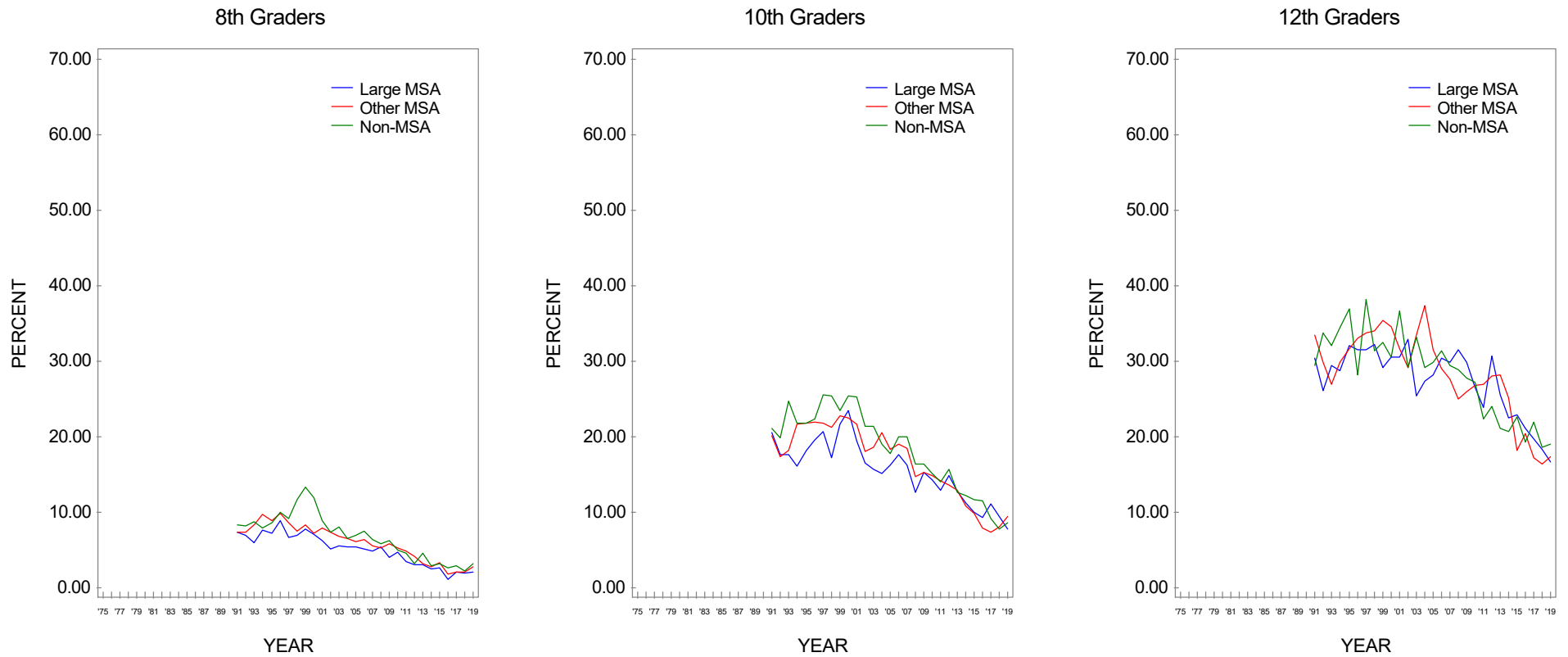
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 221

Alcohol: Trends in 30-Day Prevalence of Having Been Drunk by Average Education Level of Parents*
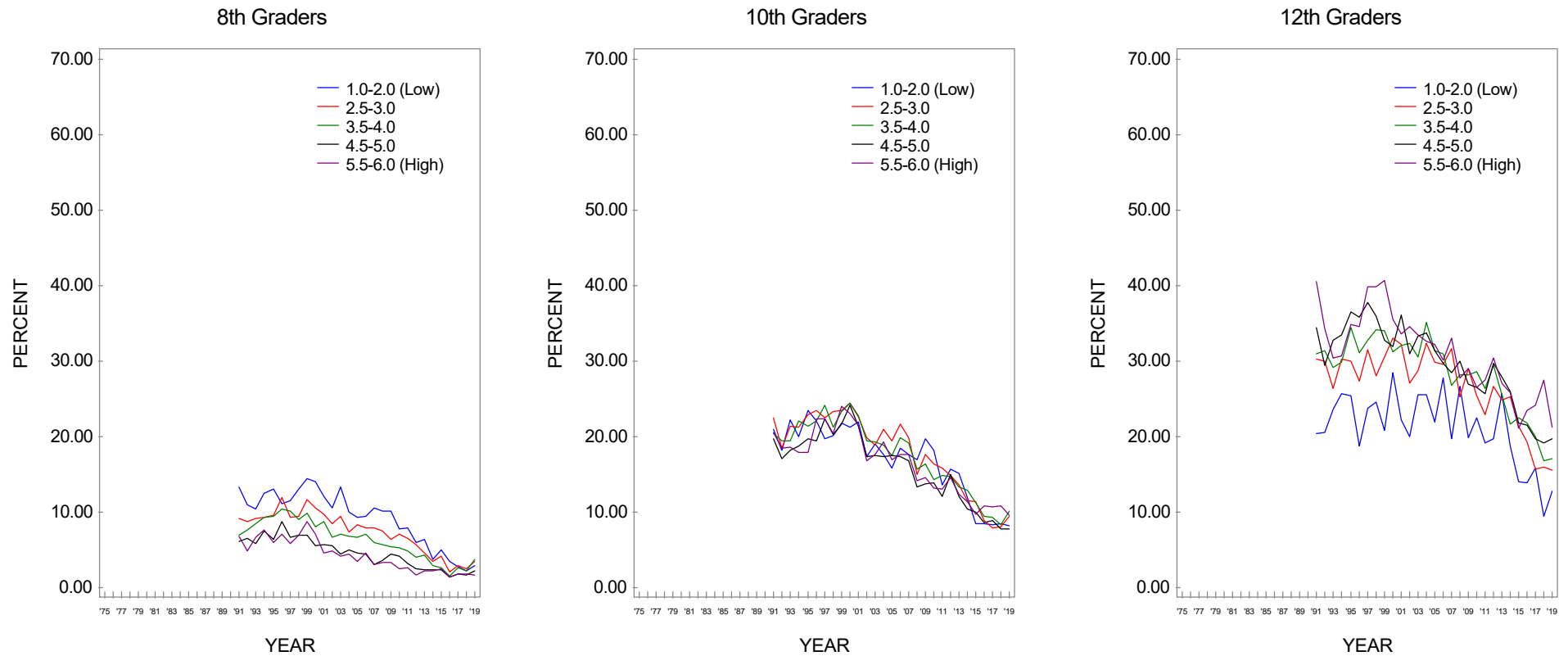
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 222
Alcohol: Trends in 30-Day Prevalence of Having Been Drunk by Race/Ethnicity*
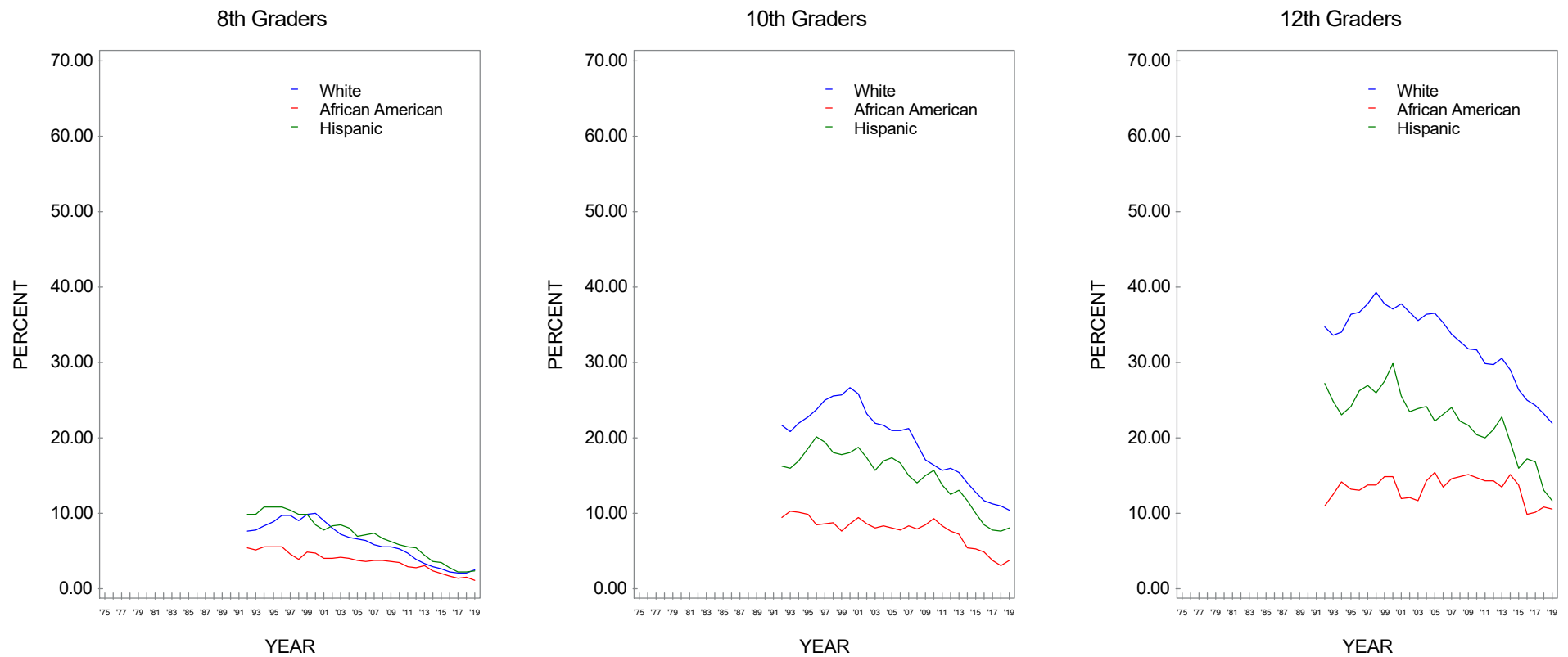
FIGURE 223
Binge Drinking: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Gender
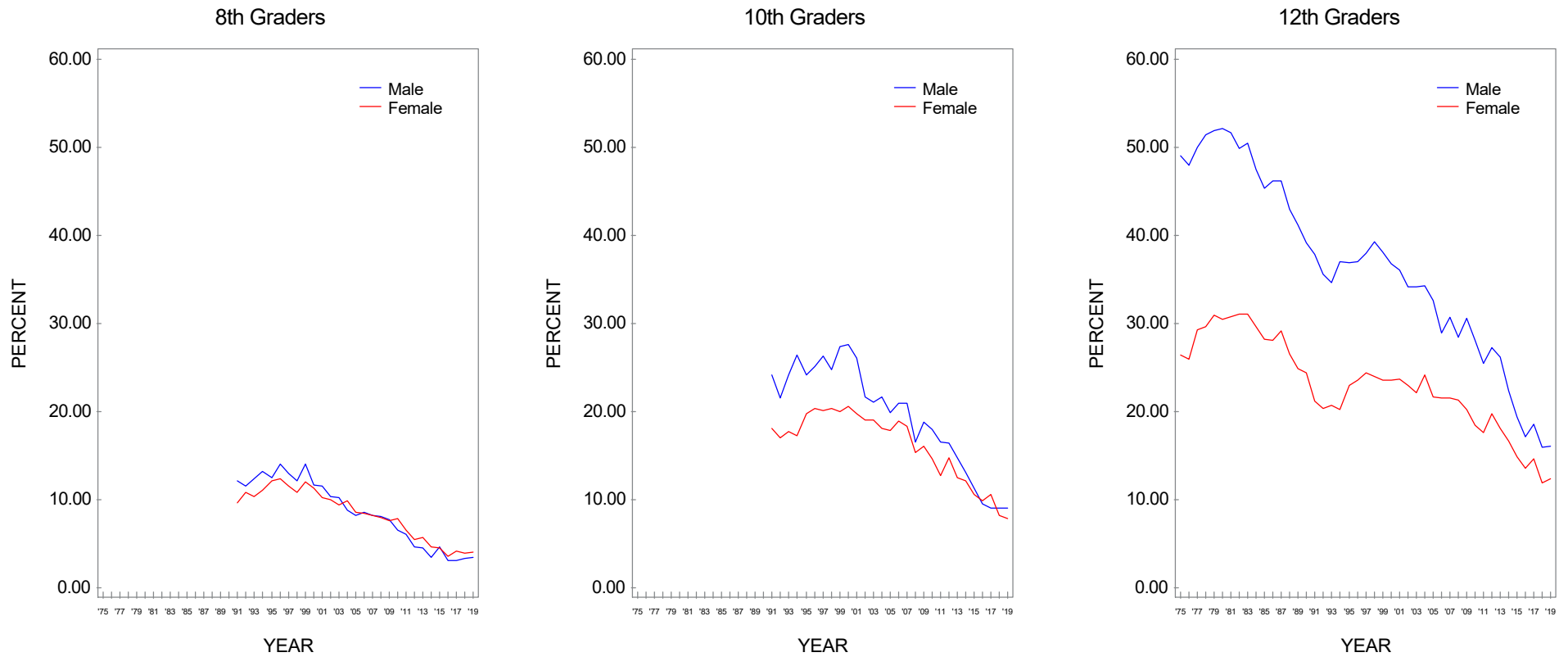
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 224
Binge Drinking: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by College Plans
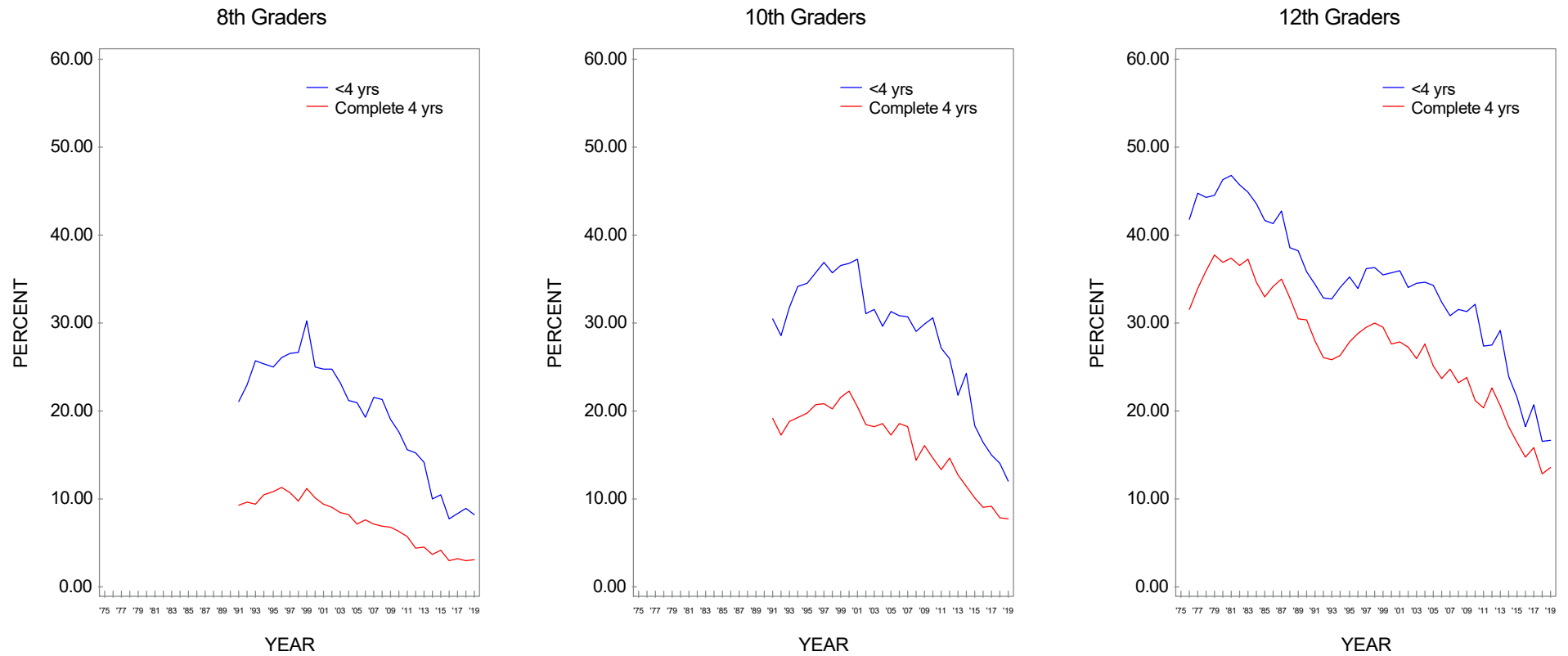
FIGURE 225
Binge Drinking: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Region

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

225
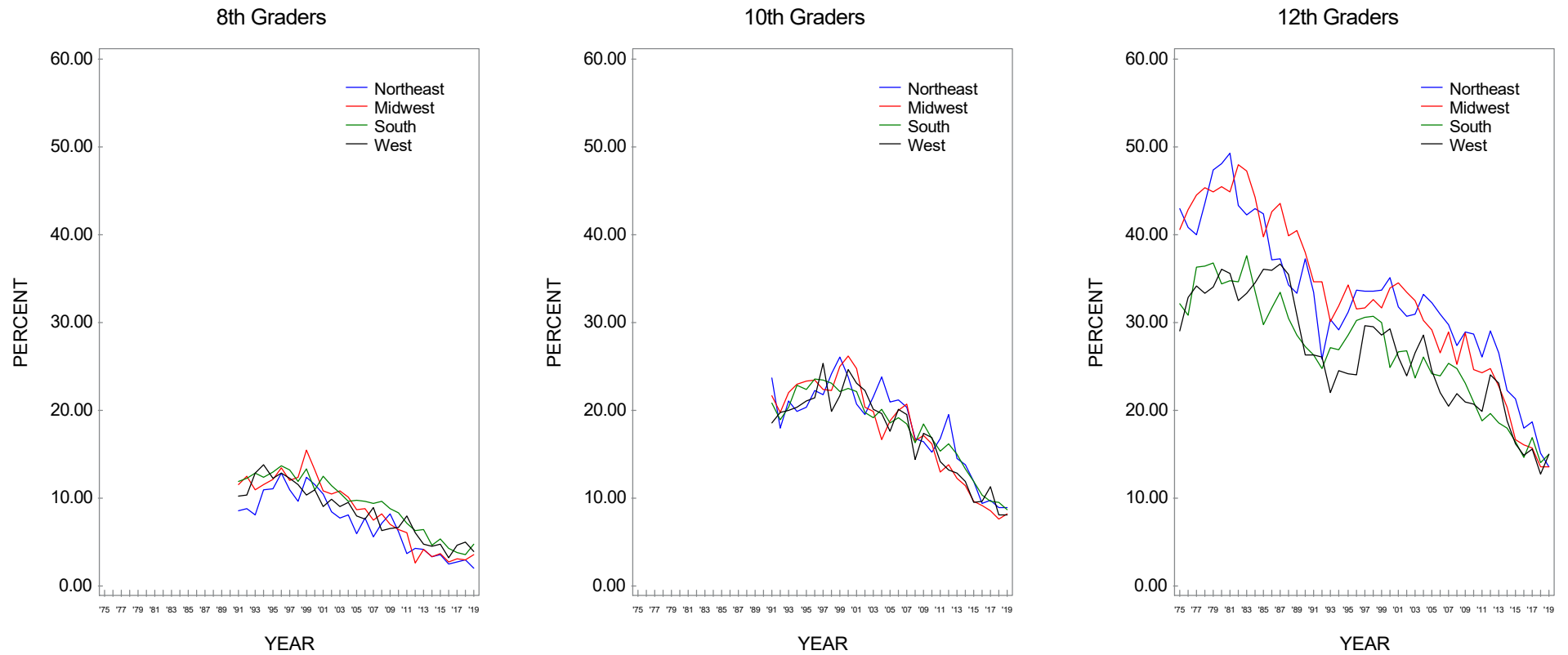
FIGURE 226
Binge Drinking: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Population Density
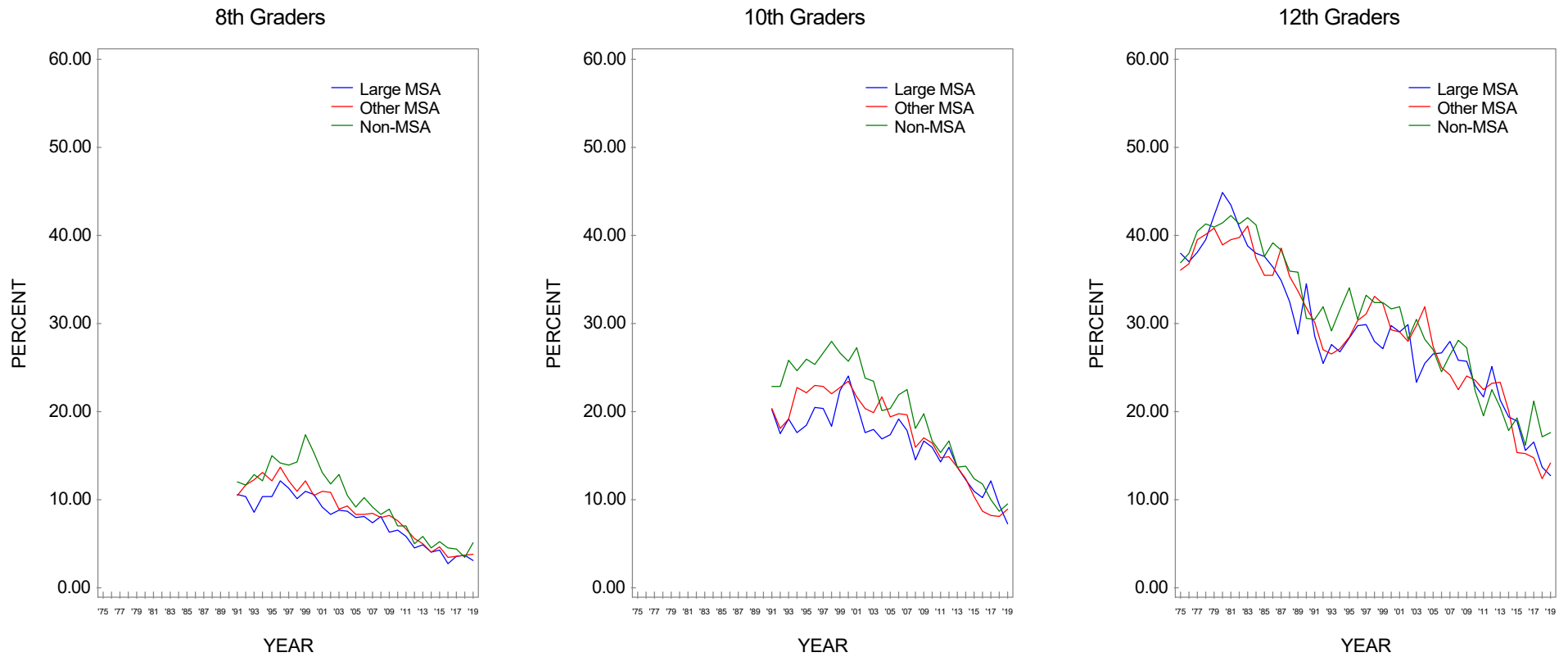
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 227

Binge Drinking: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Average Education Level of Parents*
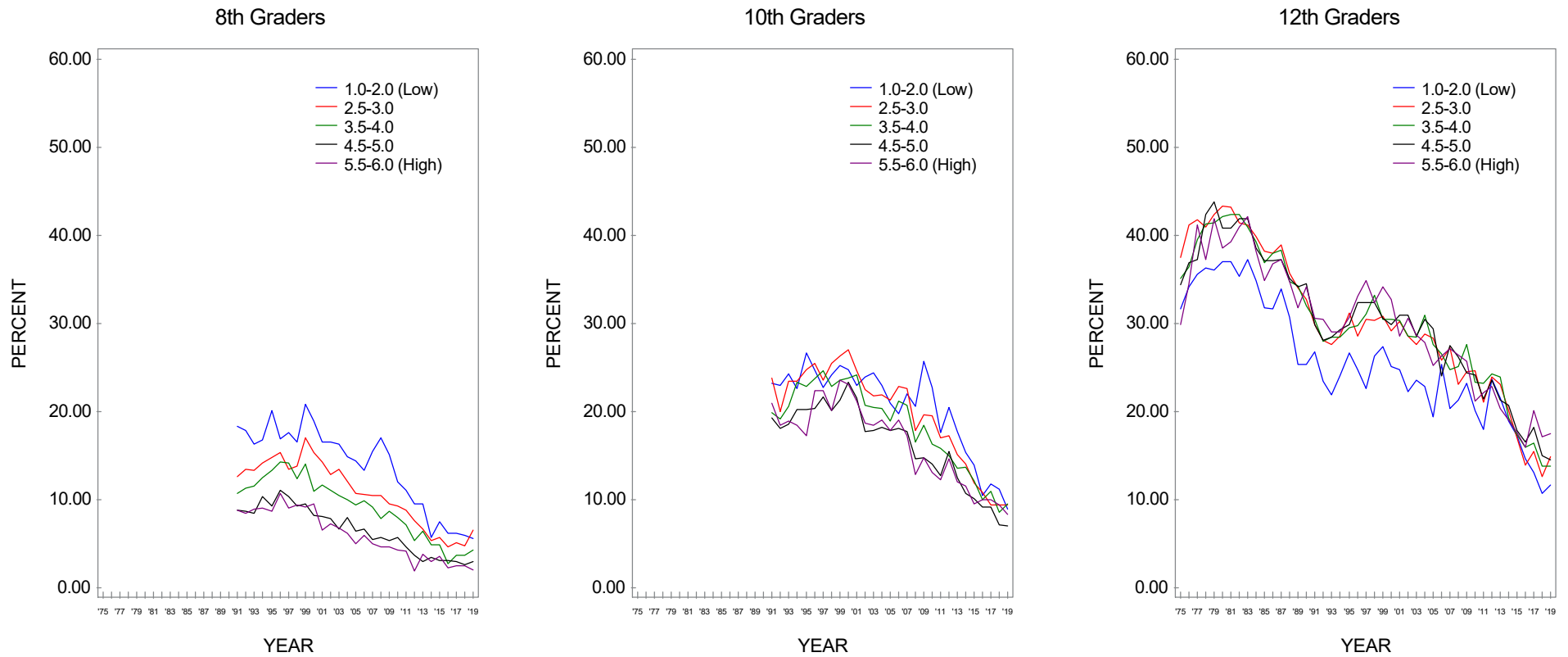
FIGURE 228
Binge Drinking: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Race/Ethnicity*
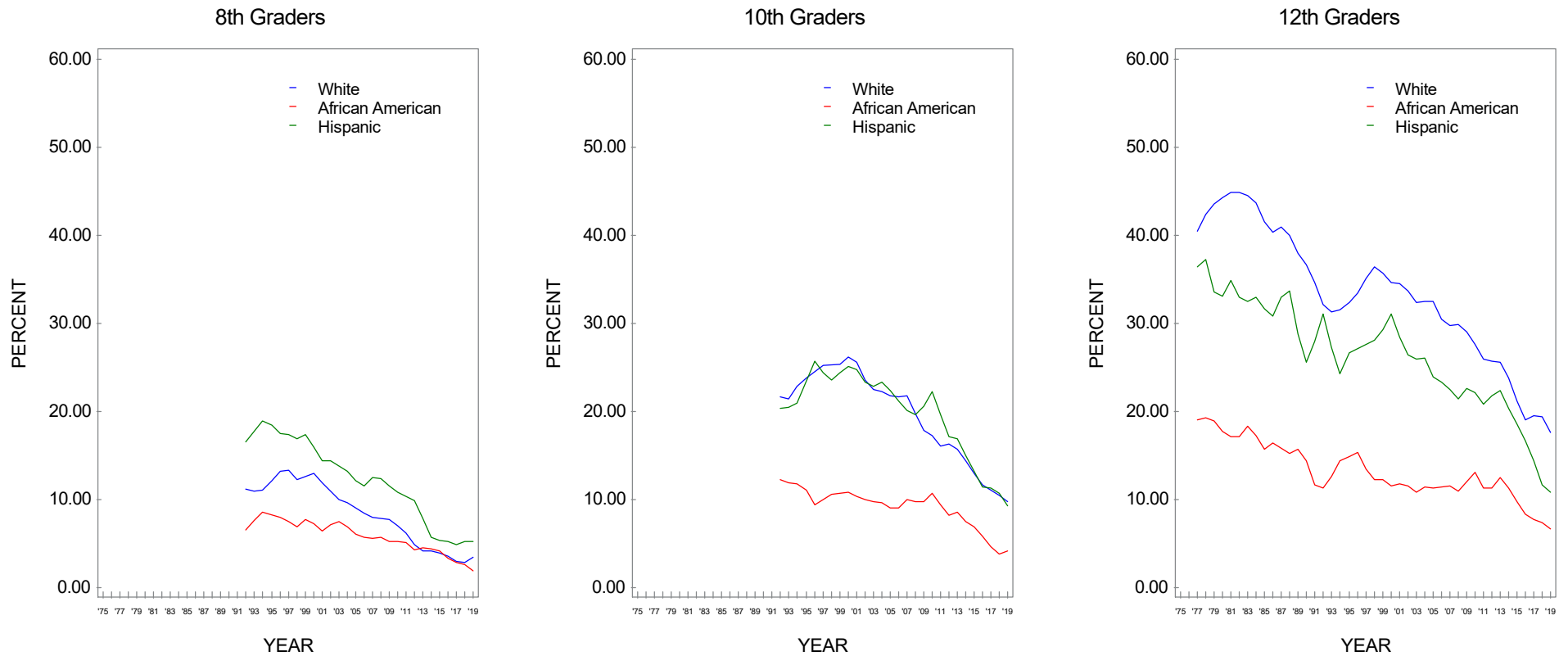
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 229
Binge Drinking: Trends in 2-Week Prevalence of 10 or More Drinks in a Row by Gender

12th Graders
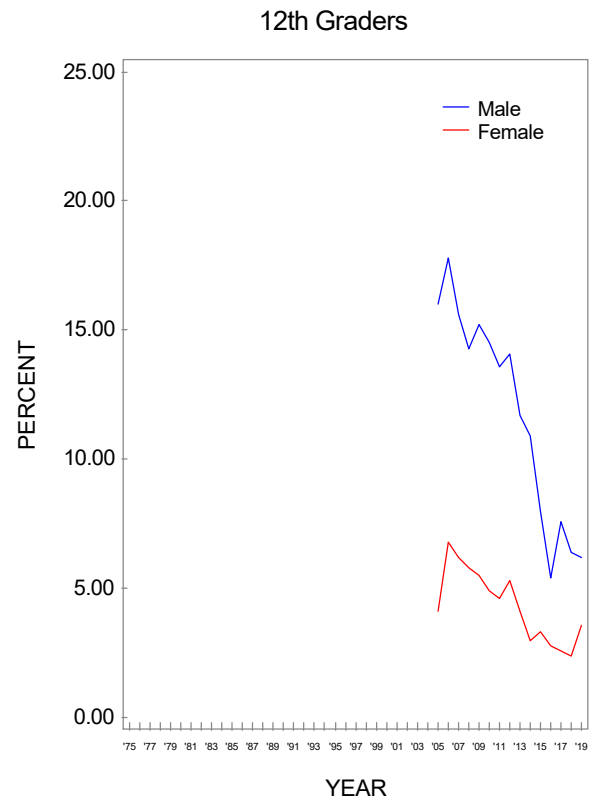
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 230

Binge Drinking: Trends in 2-Week Prevalence of 10 or More Drinks in a Row by College Plans

12th Graders
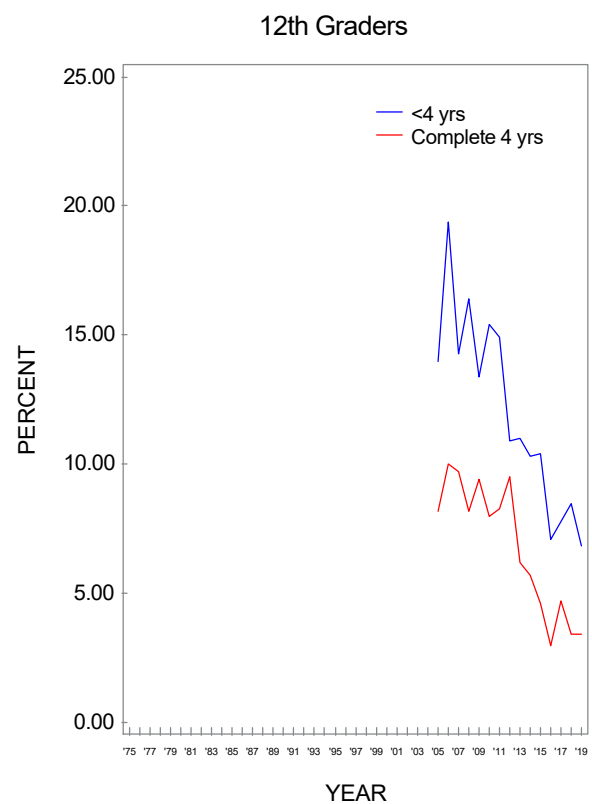
FIGURE 231

Binge Drinking: Trends in 2-Week Prevalence of 10 or More Drinks in a Row by Region
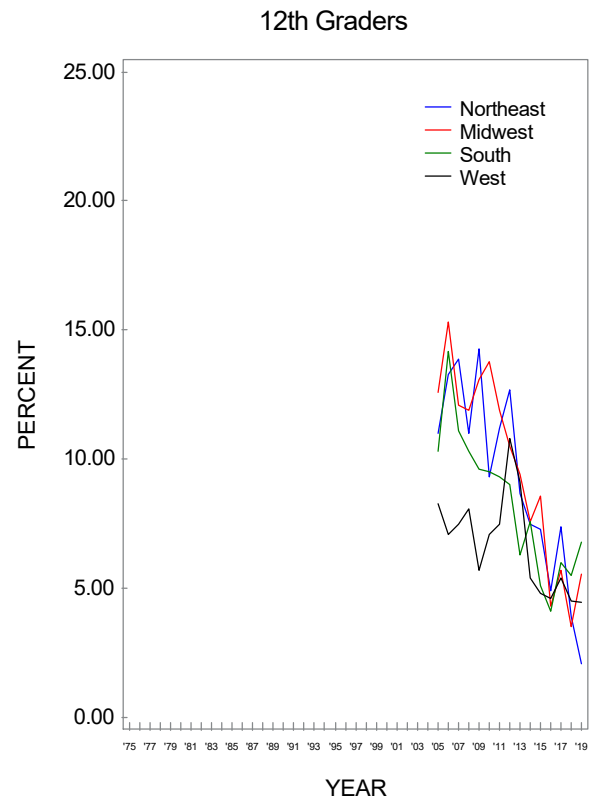
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 232
Binge Drinking: Trends in 2-Week Prevalence of 10 or More Drinks in a Row by Population Density
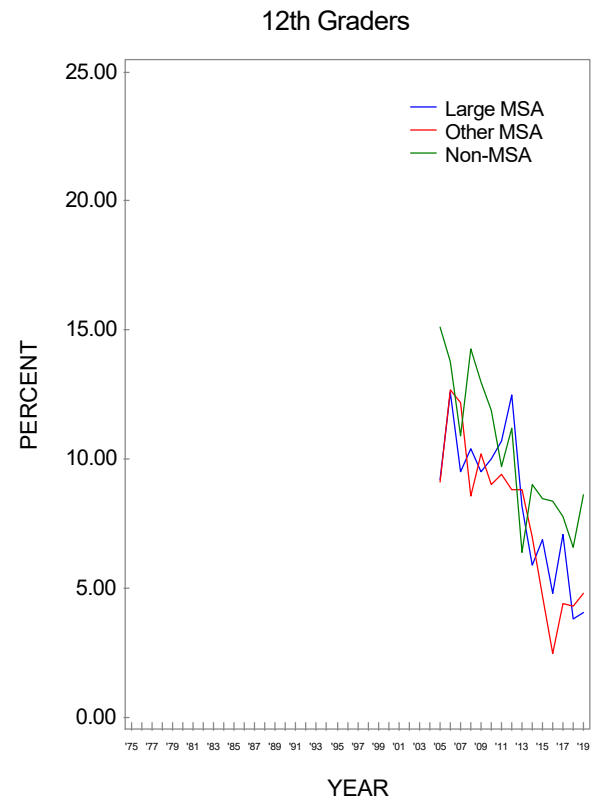
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 233

Binge Drinking: Trends in 2-Week Prevalence of 10 or More Drinks in a Row by Average Education Level of Parents*

12th Graders
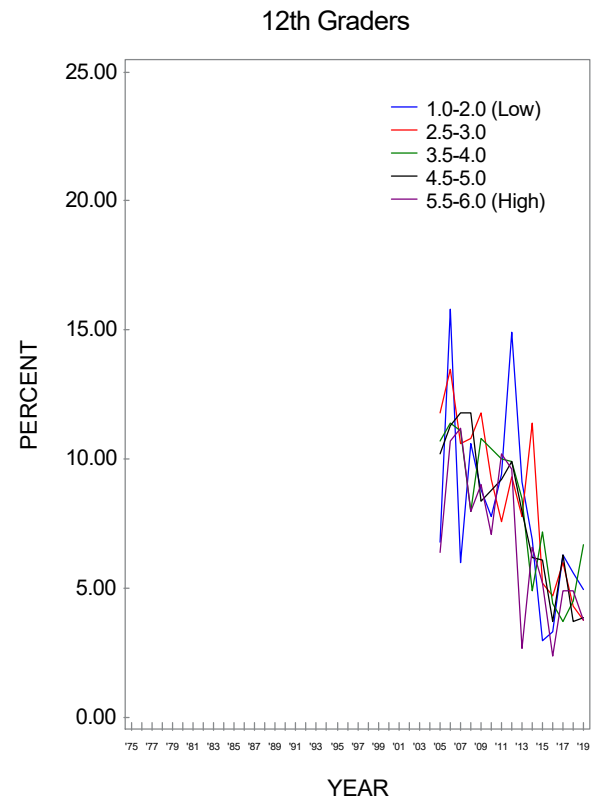
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 234
Binge Drinking: Trends in 2-Week Prevalence of 10 or More Drinks in a Row by Race/Ethnicity*
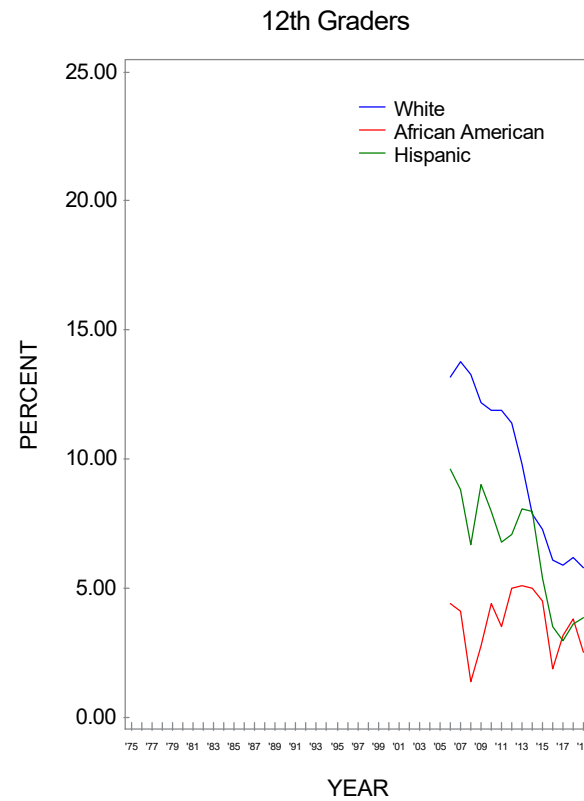
12th Graders

FIGURE 235
Binge Drinking: Trends in 2-Week Prevalence of 15 or More Drinks in a Row by Gender

12th Graders
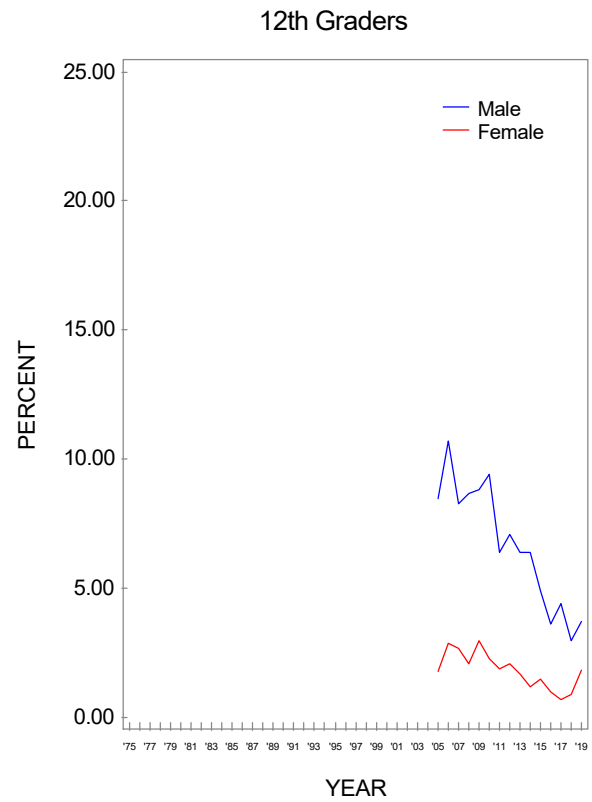
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 236

Binge Drinking: Trends in 2-Week Prevalence of 15 or More Drinks in a Row by College Plans

12th Graders
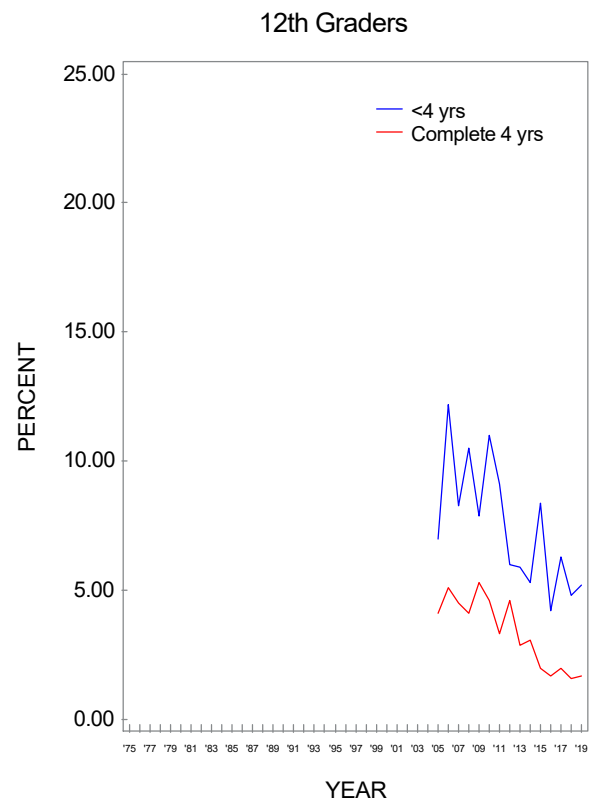
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 237
Binge Drinking: Trends in 2-Week Prevalence of 15 or More Drinks in a Row by Region

12th Graders
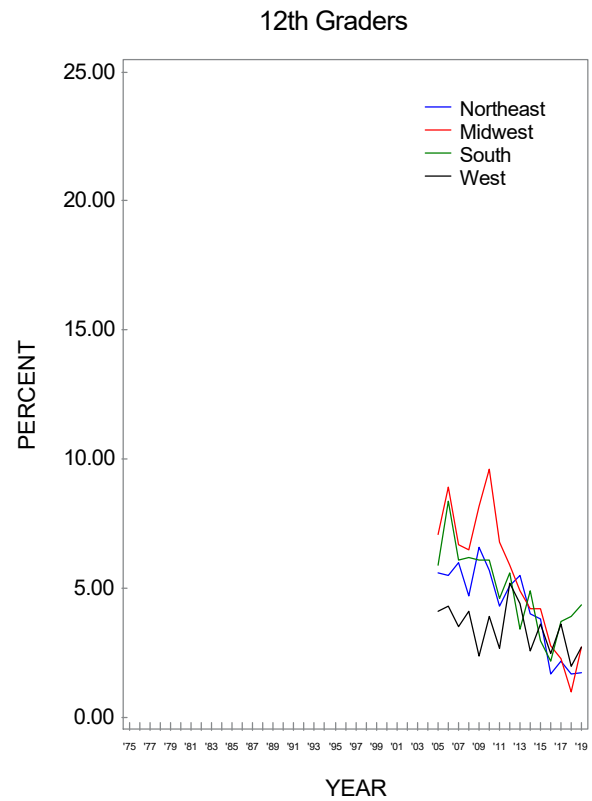
FIGURE 238
Binge Drinking: Trends in 2-Week Prevalence of 15 or More Drinks in a Row by Population Density

12th Graders
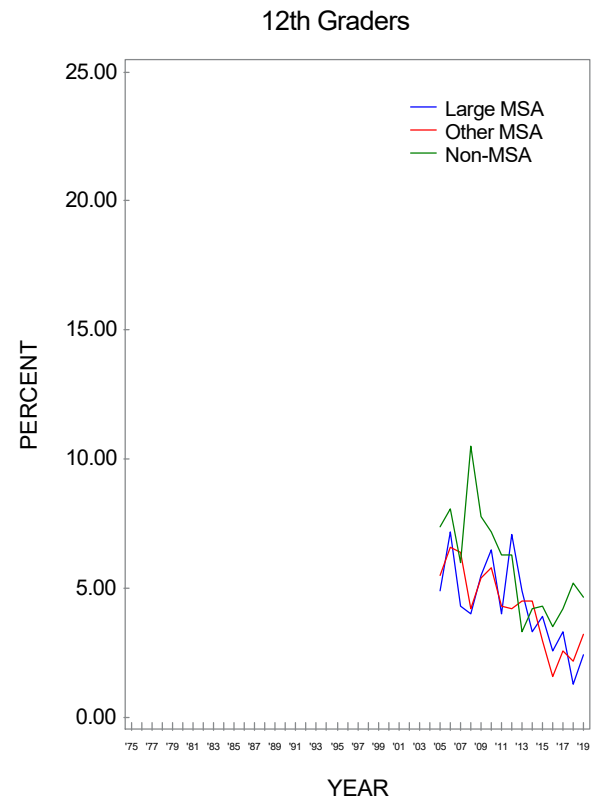
FIGURE 239

Binge Drinking: Trends in 2-Week Prevalence of 15 or More Drinks in a Row by Average Education Level of Parents*

12th Graders
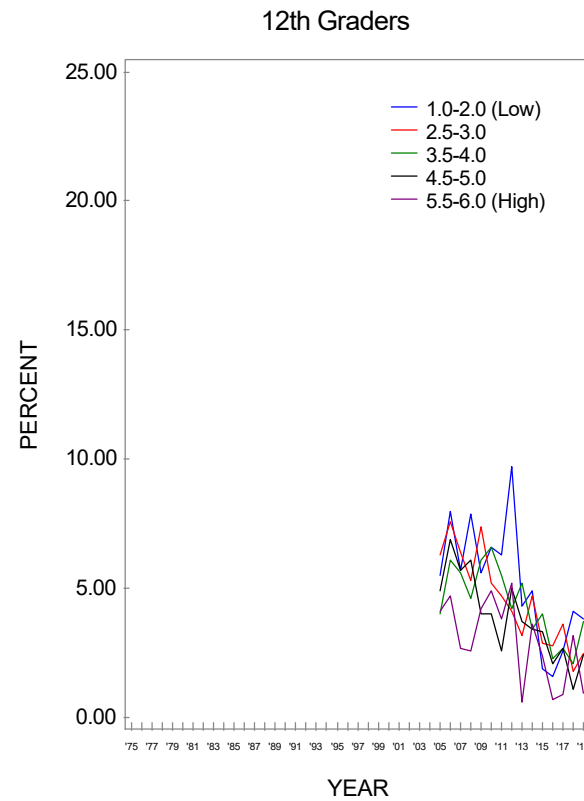
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 240
Binge Drinking: Trends in 2-Week Prevalence of 15 or More Drinks in a Row by Race/Ethnicity*
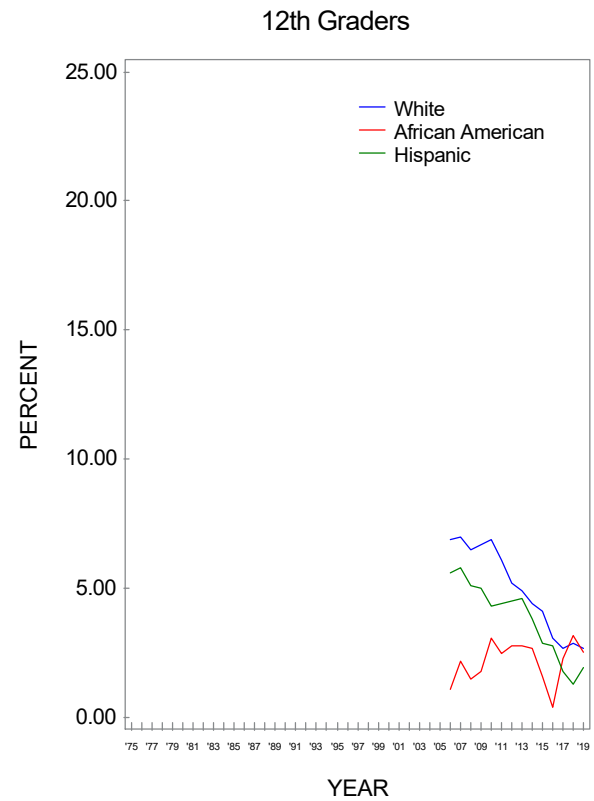
12th Graders

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 241
Beer: Trends in 30-Day Prevalence by Gender
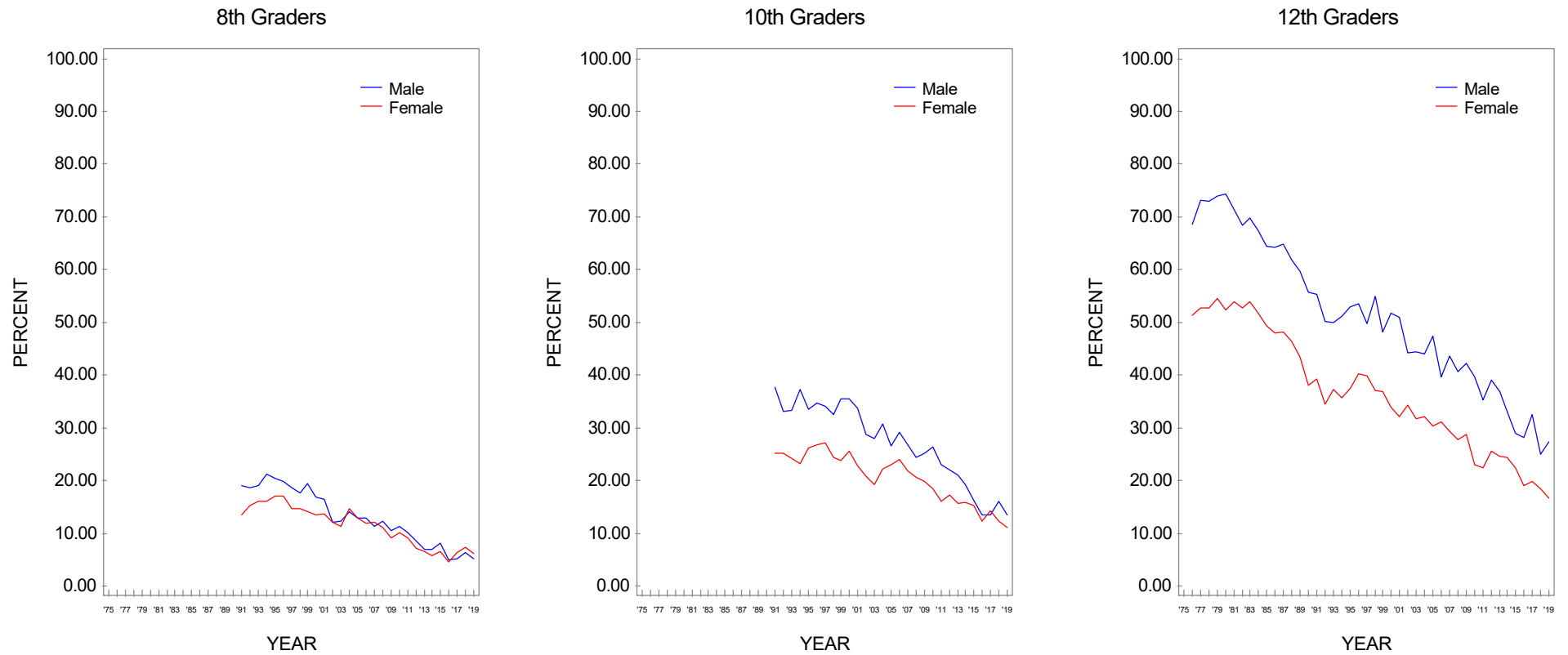
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 242
Beer: Trends in 30-Day Prevalence by College Plans
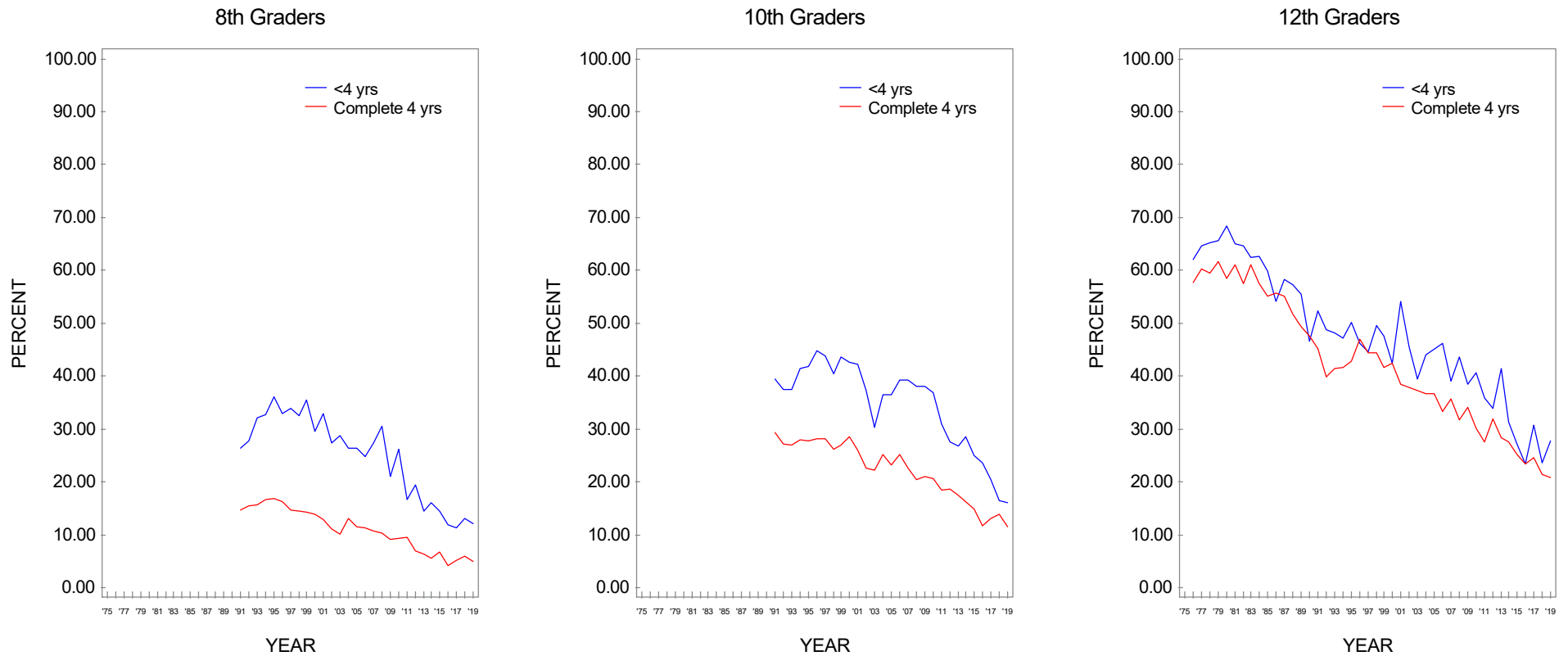
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 243
Beer: Trends in 30-Day Prevalence by Region

8th Graders
10th Graders
12th Graders
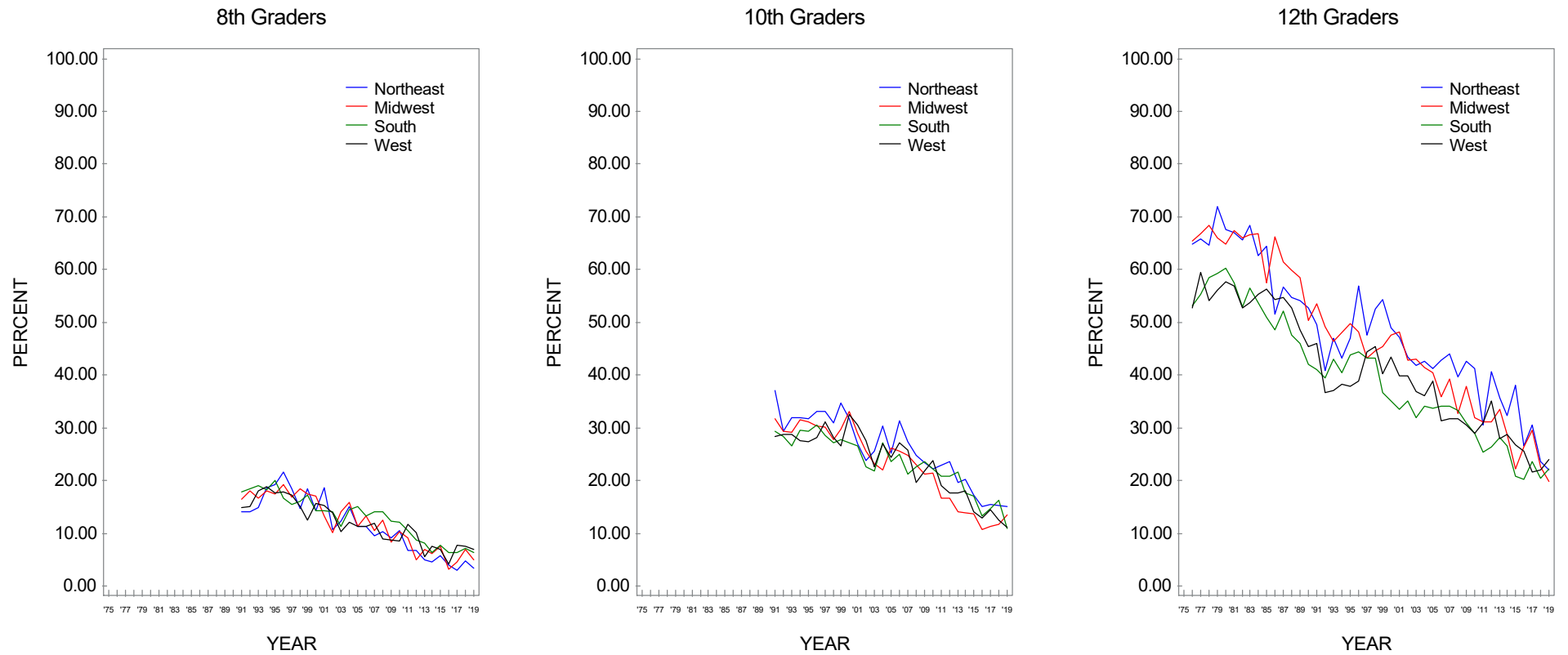
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 244
Beer: Trends in 30-Day Prevalence by Population Density
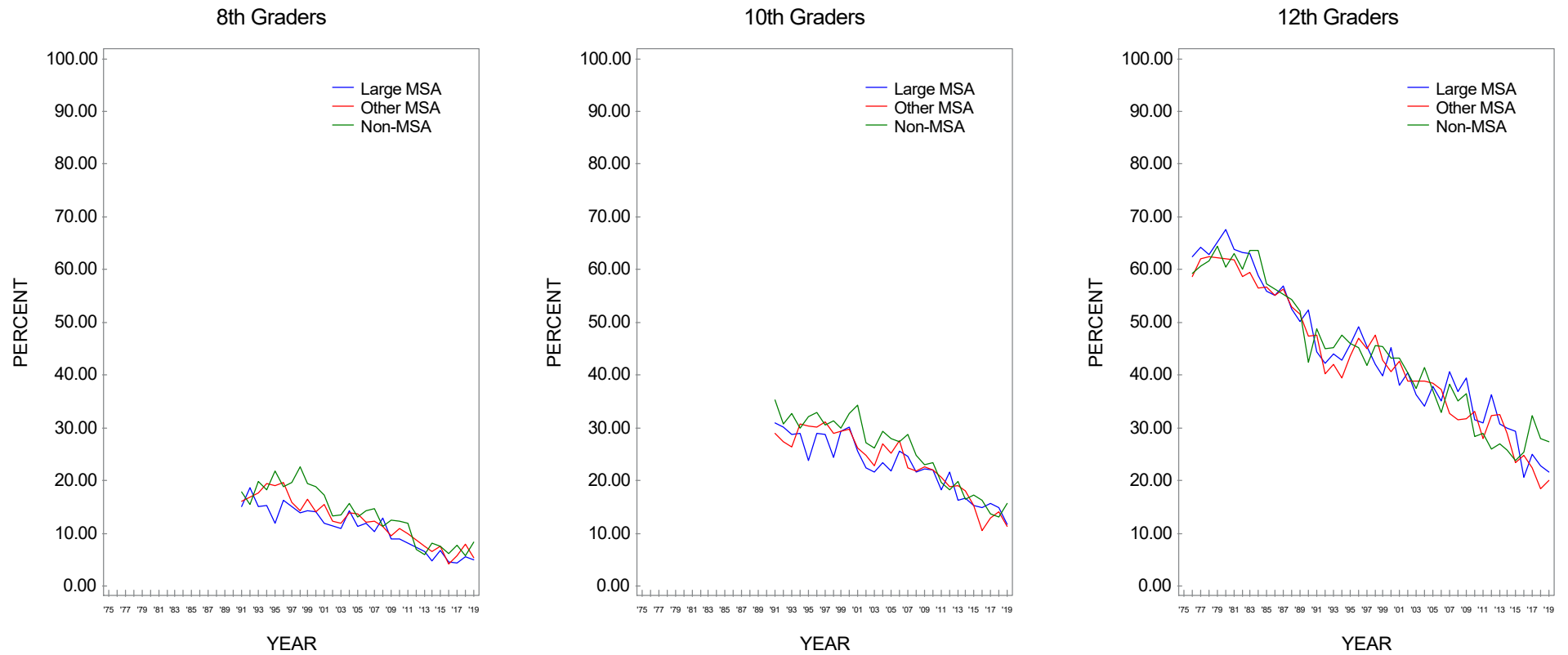
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 245
Beer: Trends in 30-Day Prevalence by Average Education Level of Parents*
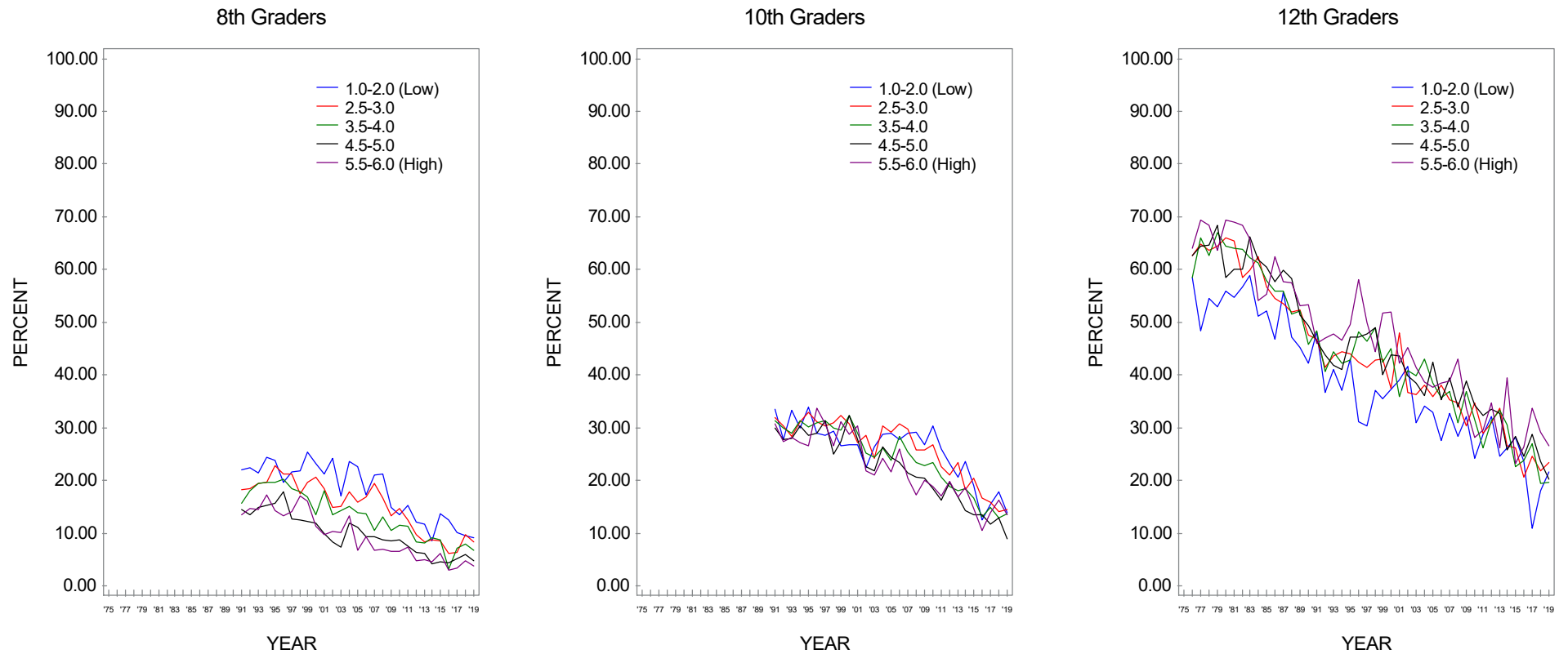
Source.   The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 246
Beer: Trends in 30-Day Prevalence by Race/Ethnicity*
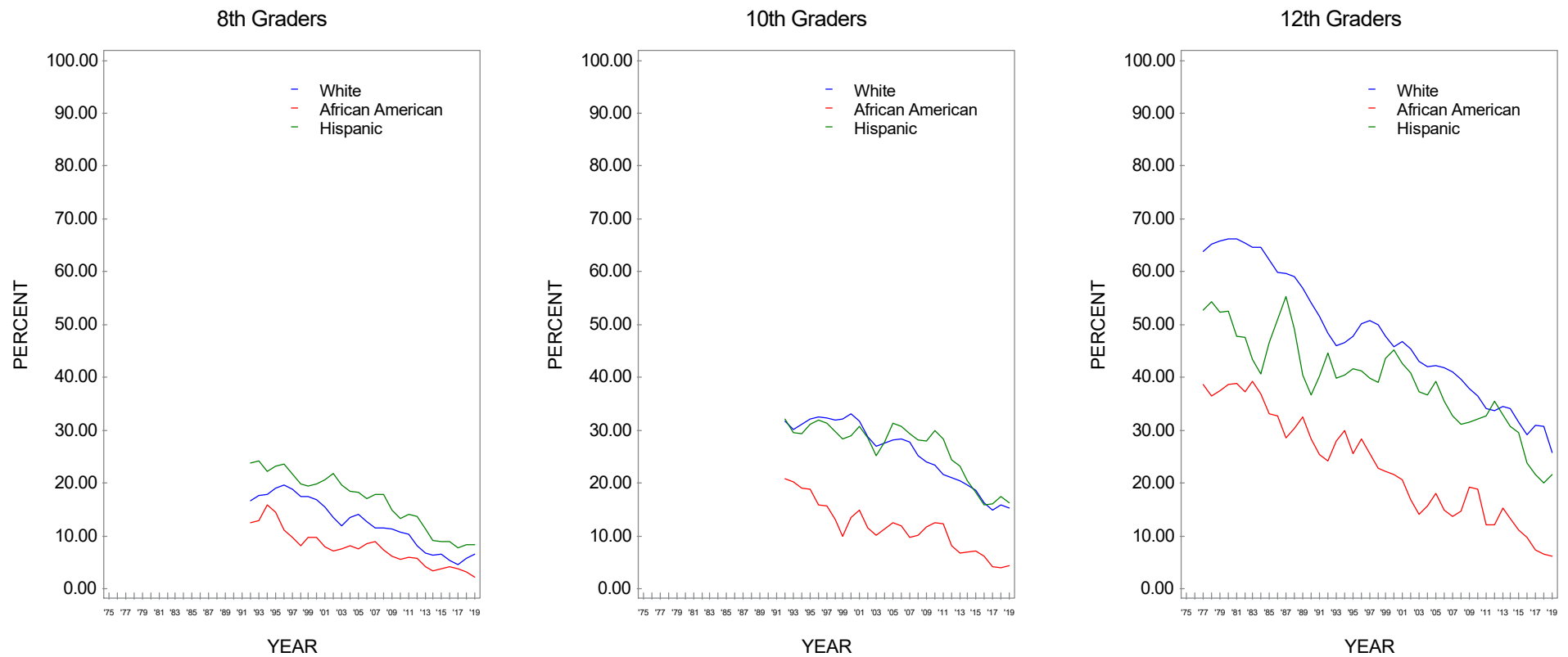
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 247
Beer: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Gender
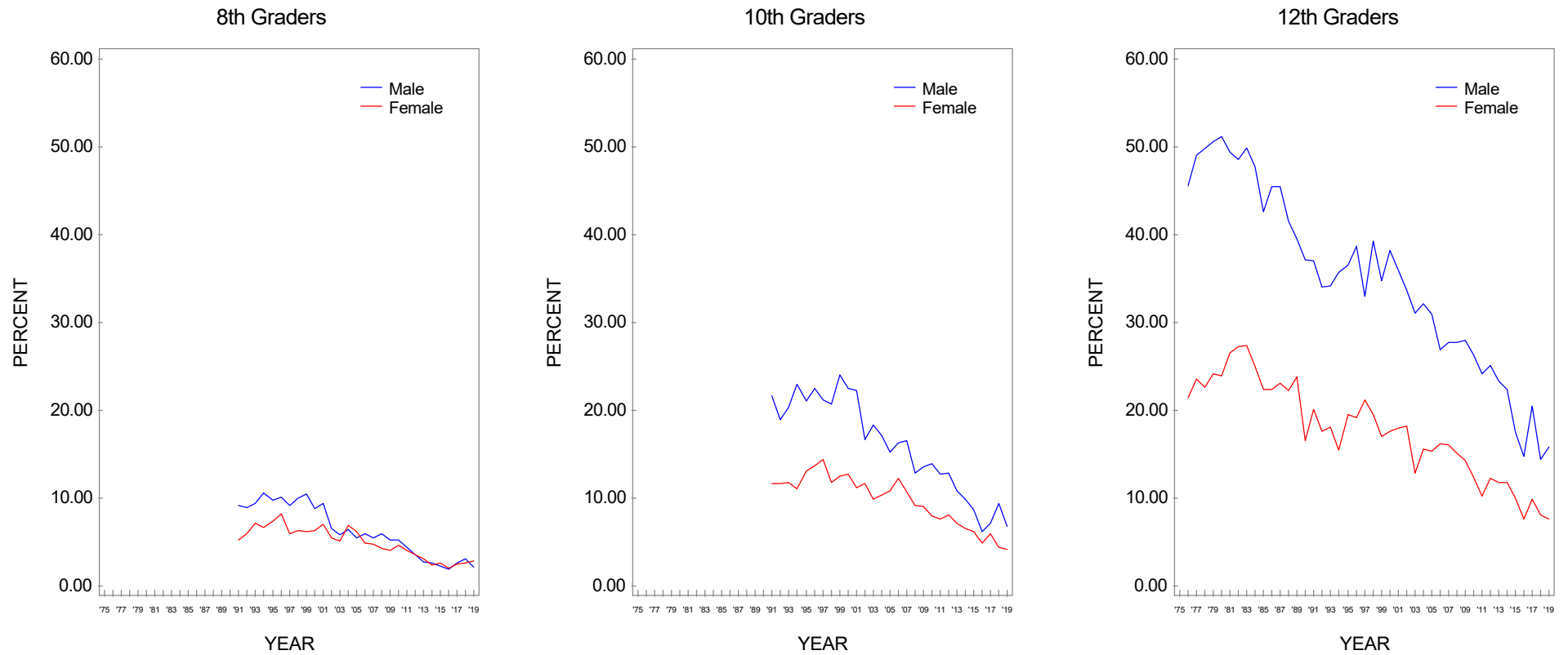
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 248
Beer: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by College Plans
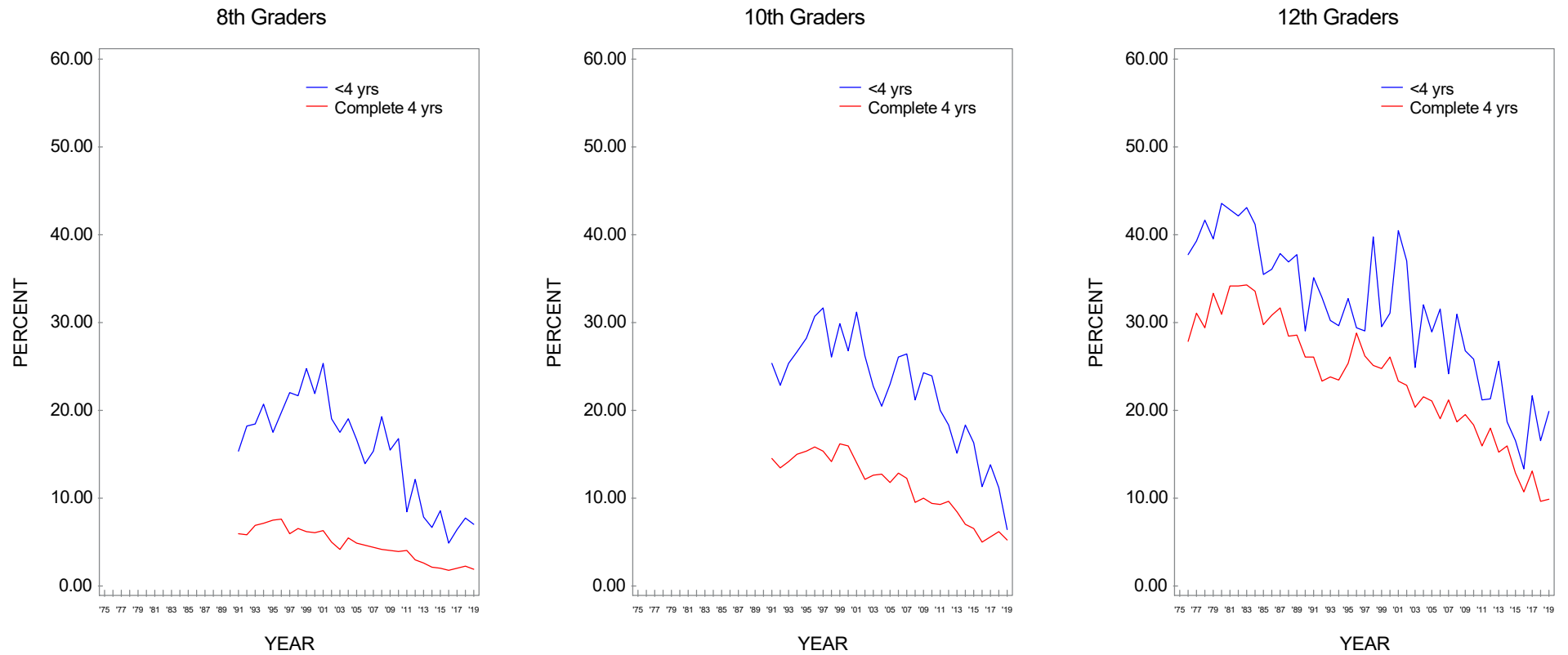
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 249
Beer: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Region
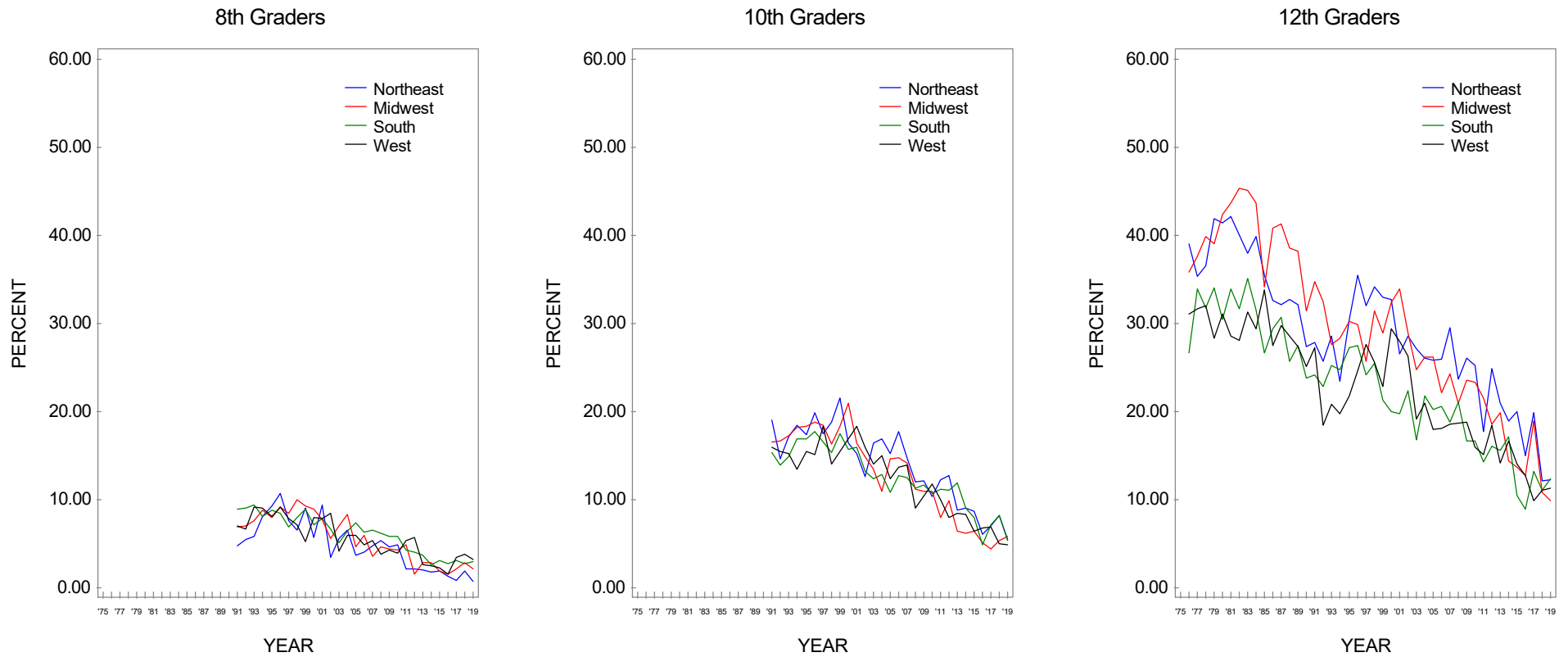
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 250
Beer: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Population Density
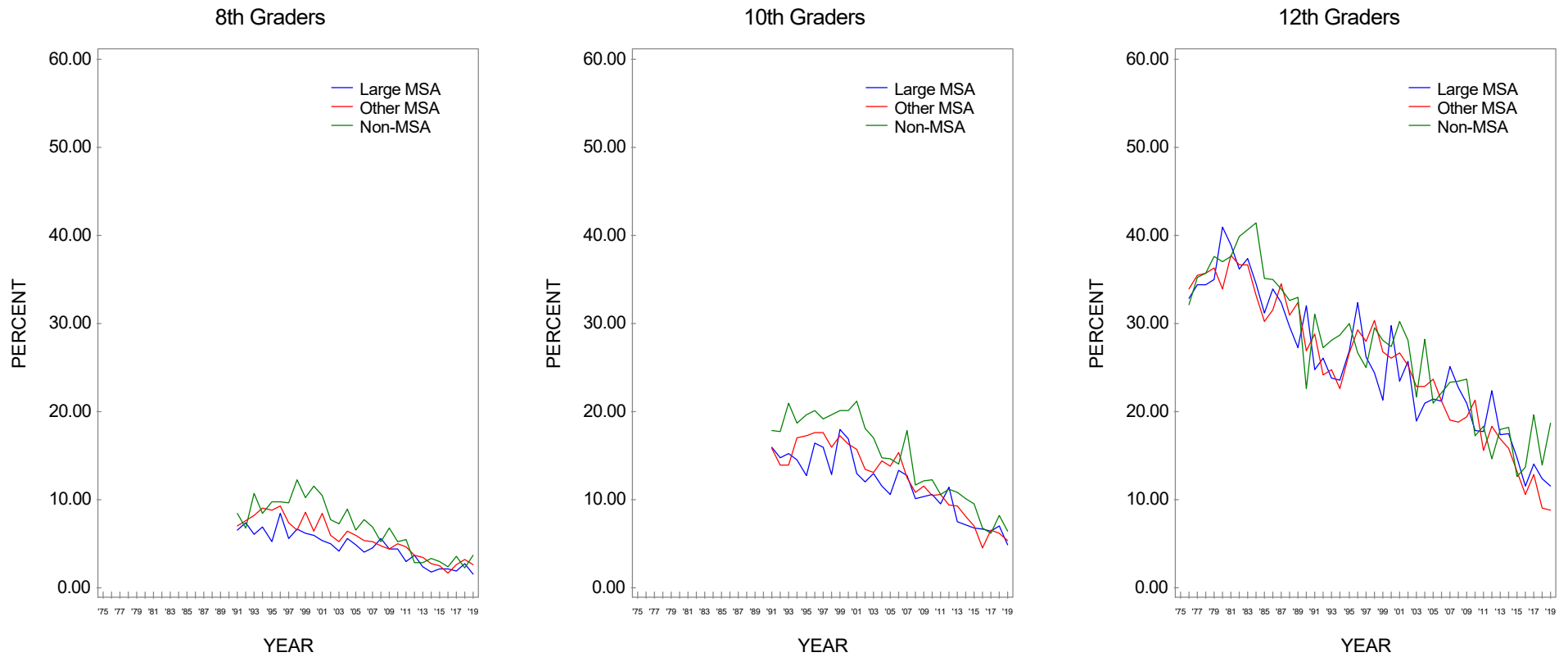
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 251

Beer: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Average Education Level of Parents*
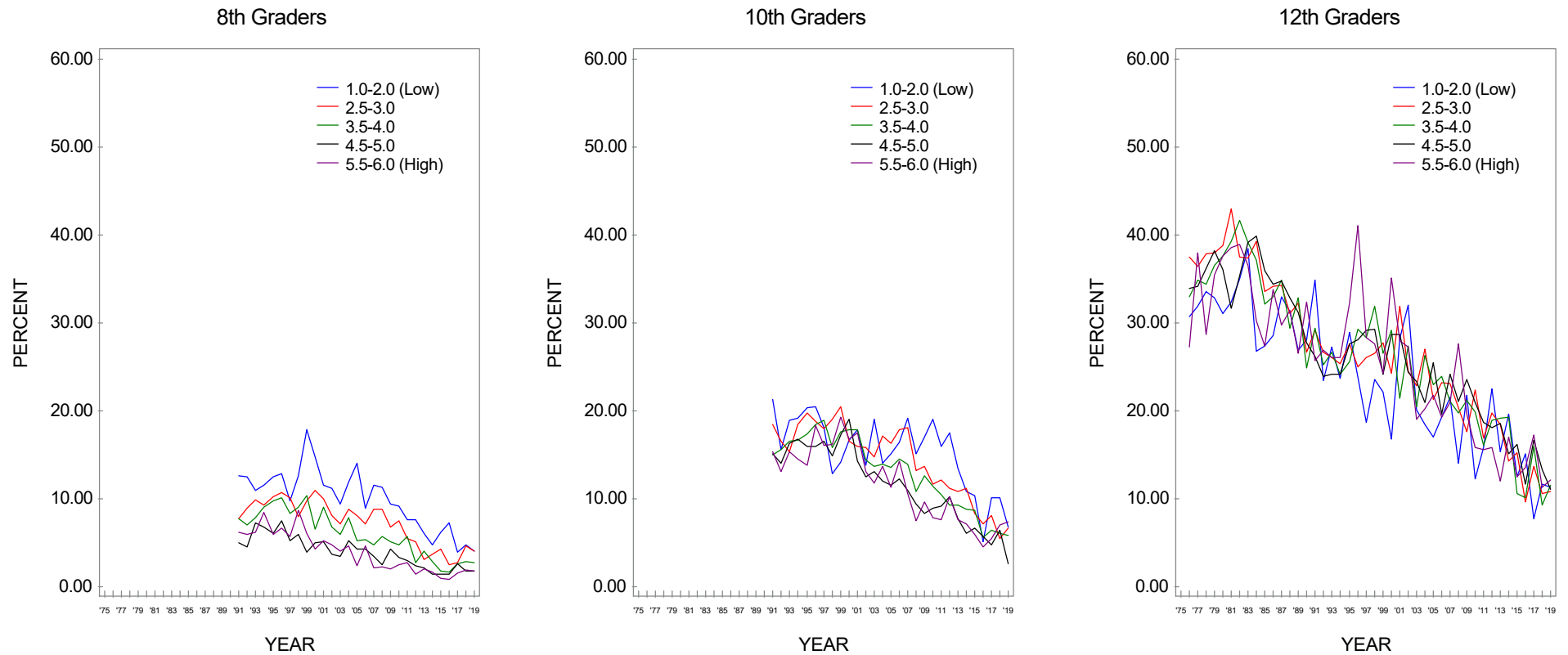
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 252
Beer: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Race/Ethnicity*
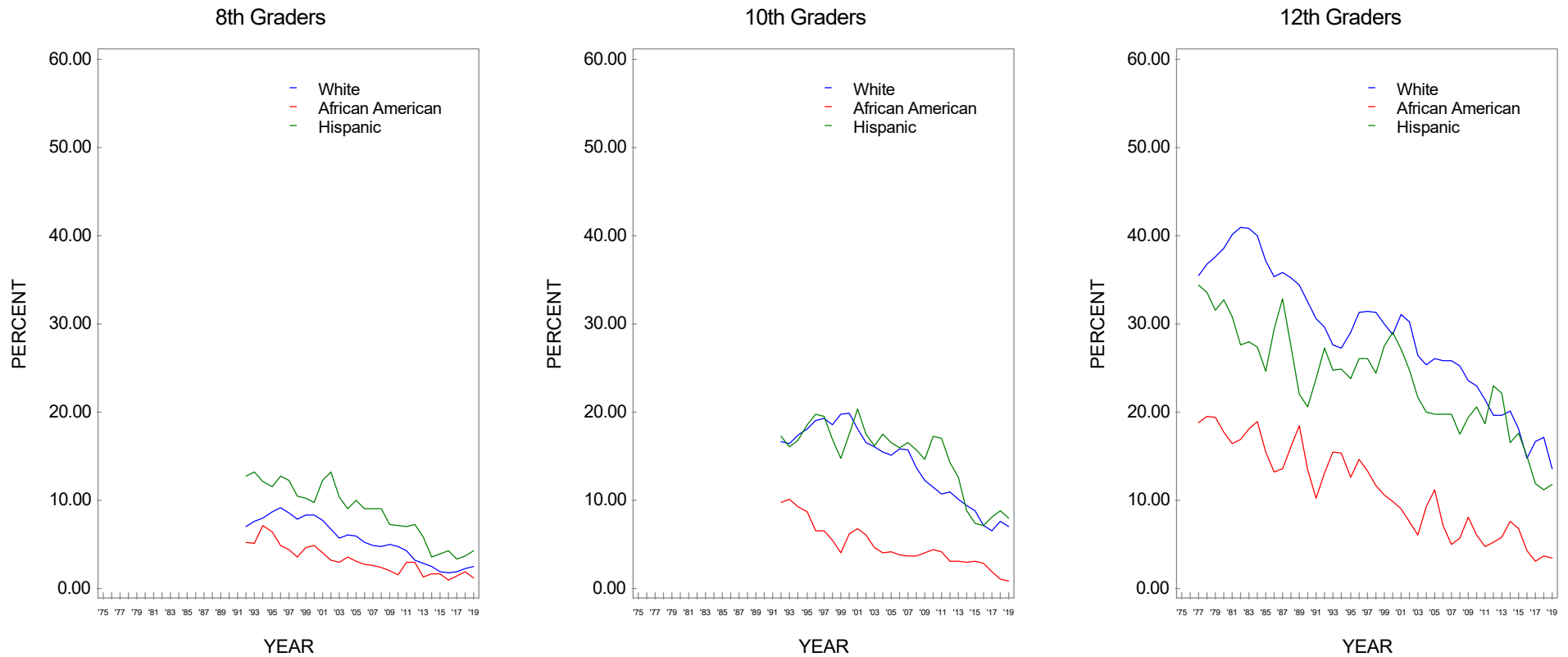
8th Graders

10th Graders

12th Graders

FIGURE 253
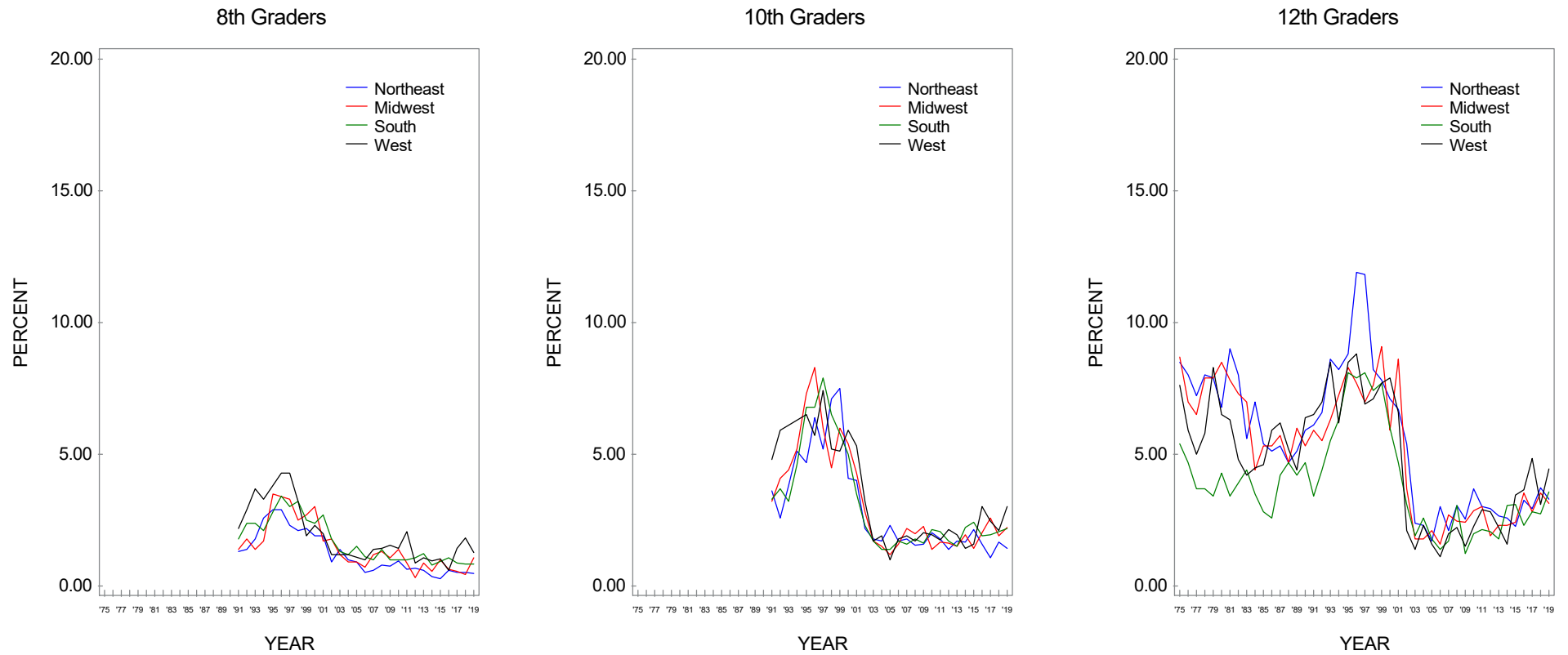## Liquor: Trends in 30-Day Prevalence by Gender

12th Graders
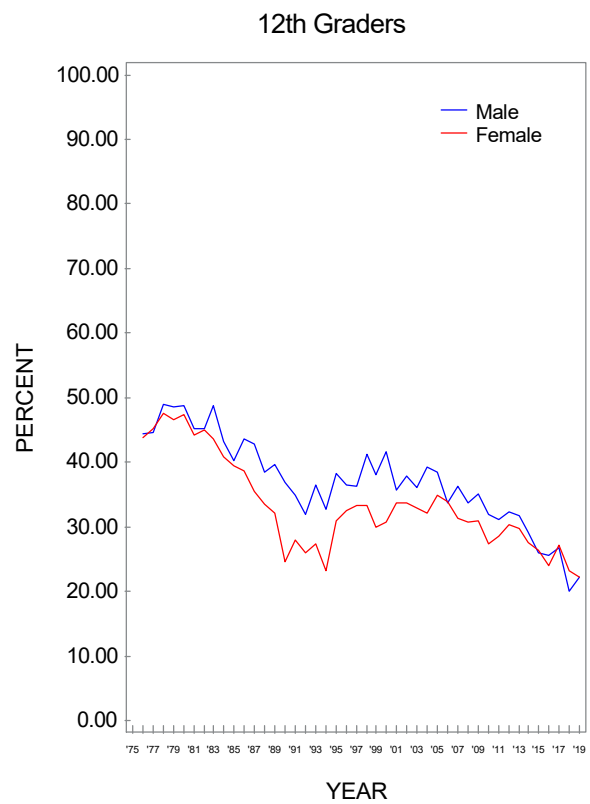
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 254
Liquor: Trends in 30-Day Prevalence by College Plans

## 12th Graders
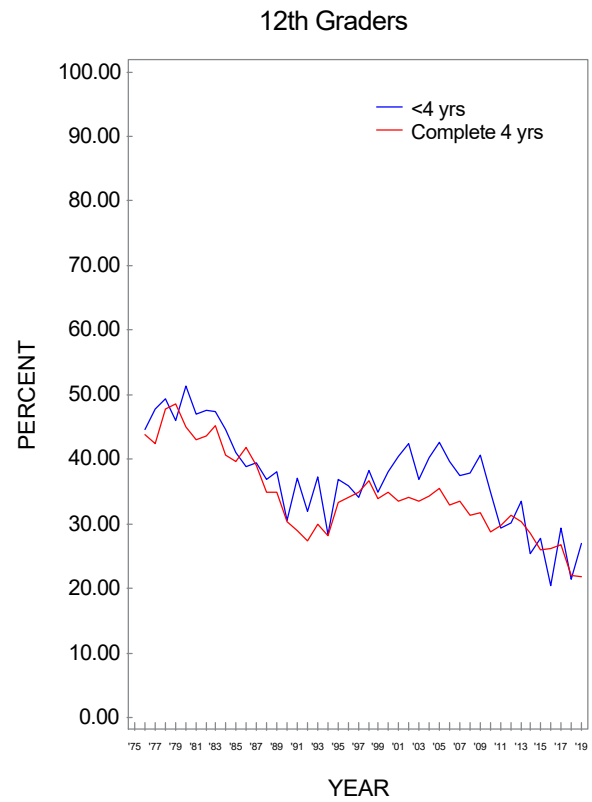
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 255
Liquor: Trends in 30-Day Prevalence by Region

## 12th Graders
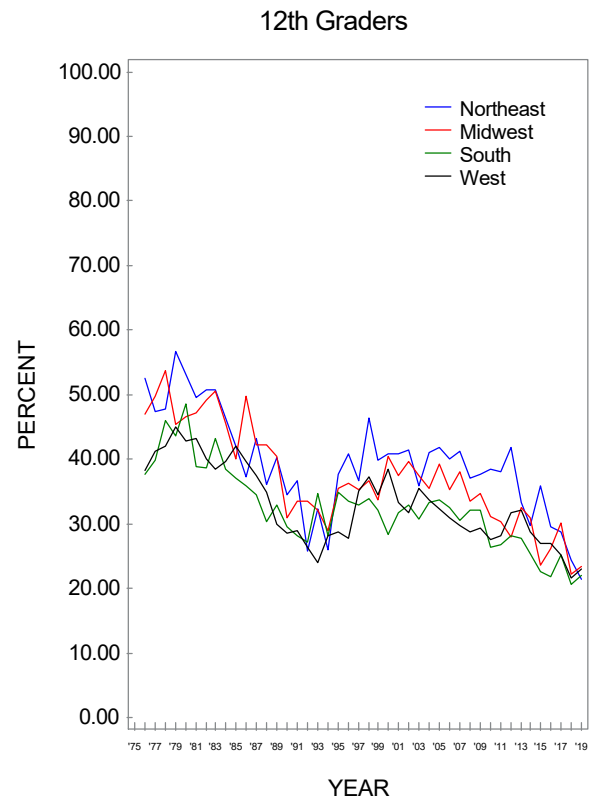
FIGURE 256

Liquor: Trends in 30-Day Prevalence by Population Density

12th Graders
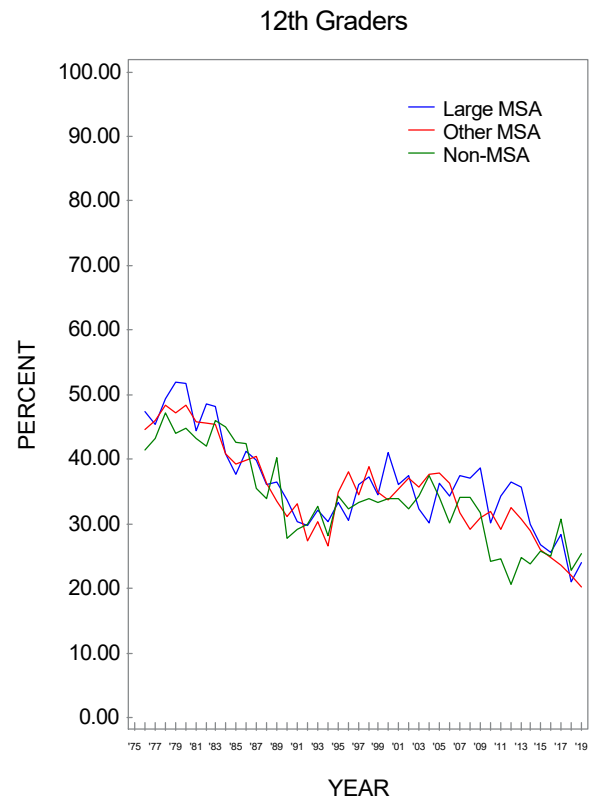
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 257

## Liquor: Trends in 30-Day Prevalence by Average Education Level of Parents*
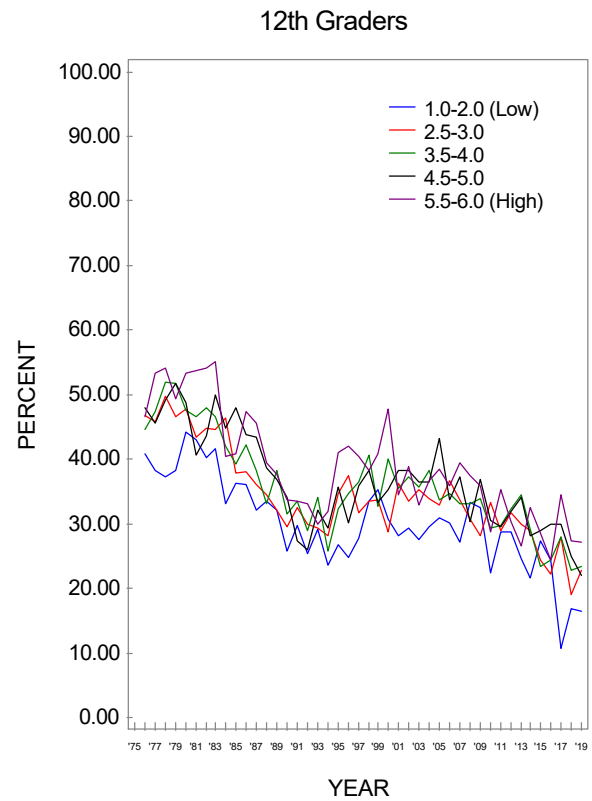
12th Graders

FIGURE 258
Liquor: Trends in 30-Day Prevalence by Race/Ethnicity*
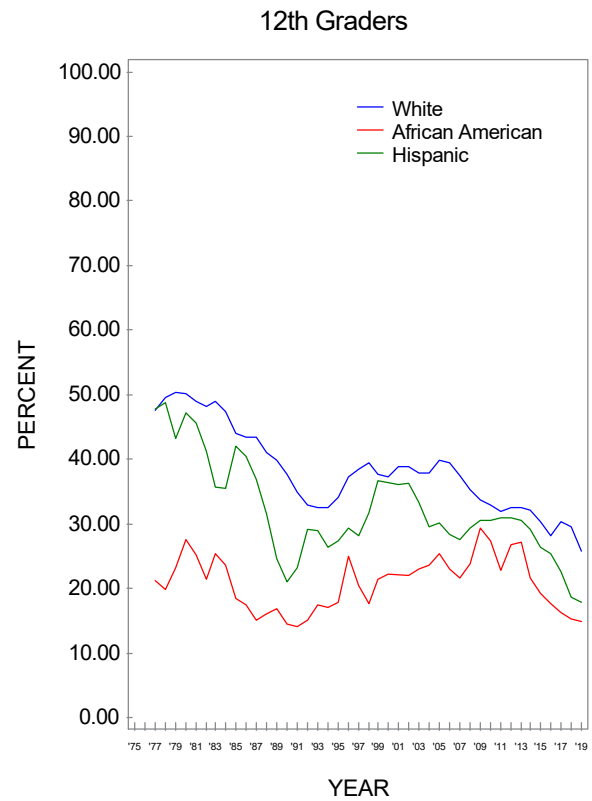
12th Graders

FIGURE 259

Liquor: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Gender

12th Graders
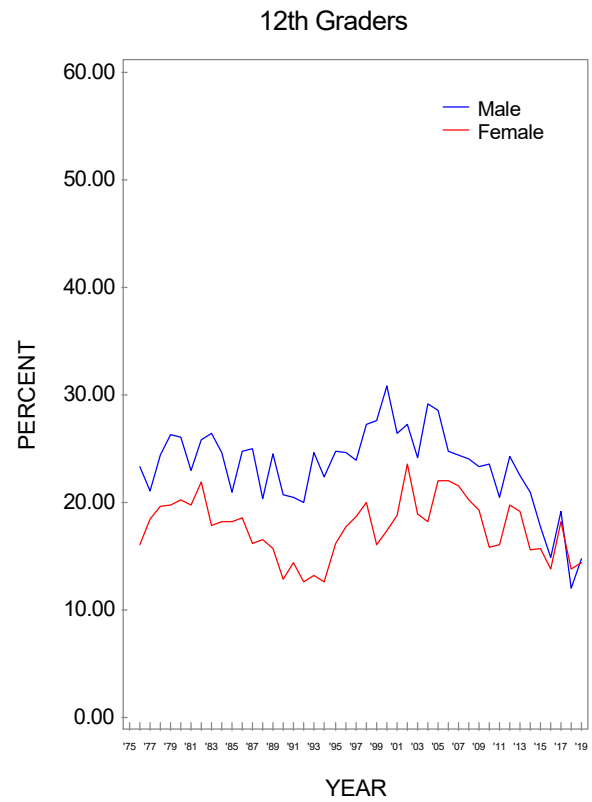
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 260

Liquor: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by College Plans

12th Graders
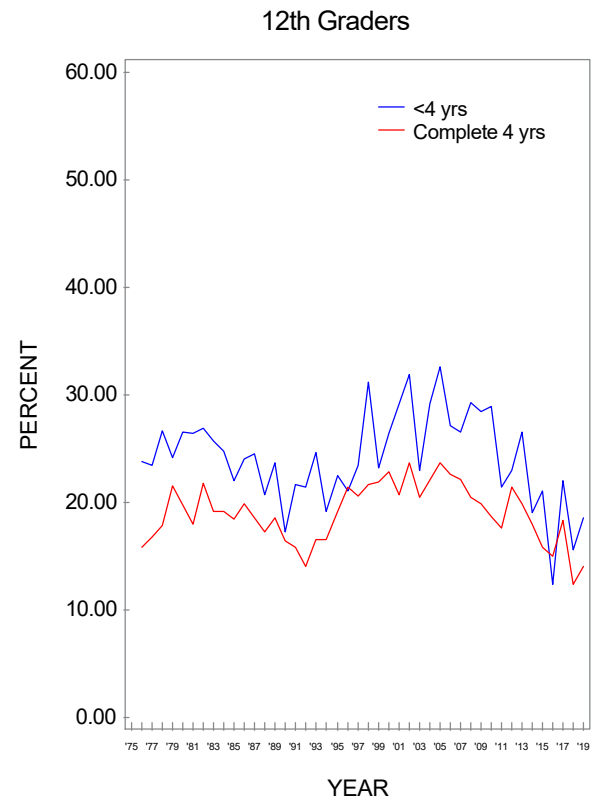
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 261

Liquor: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Region
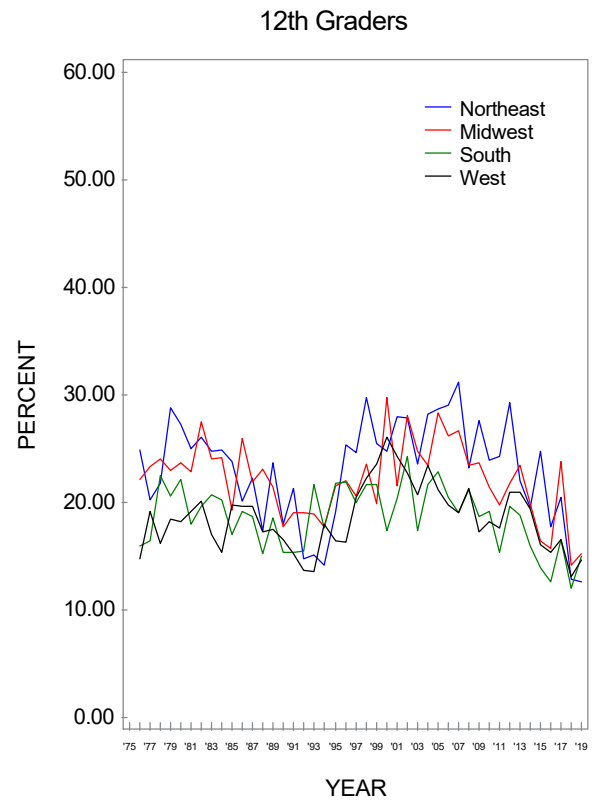
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 262

Liquor: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Population Density

12th Graders
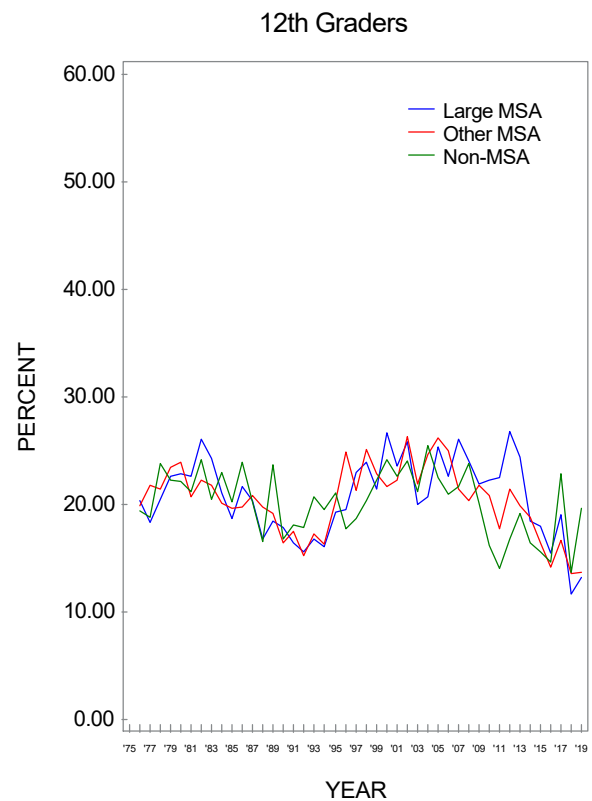
FIGURE 263

Liquor: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Average Education Level of Parents*

12th Graders
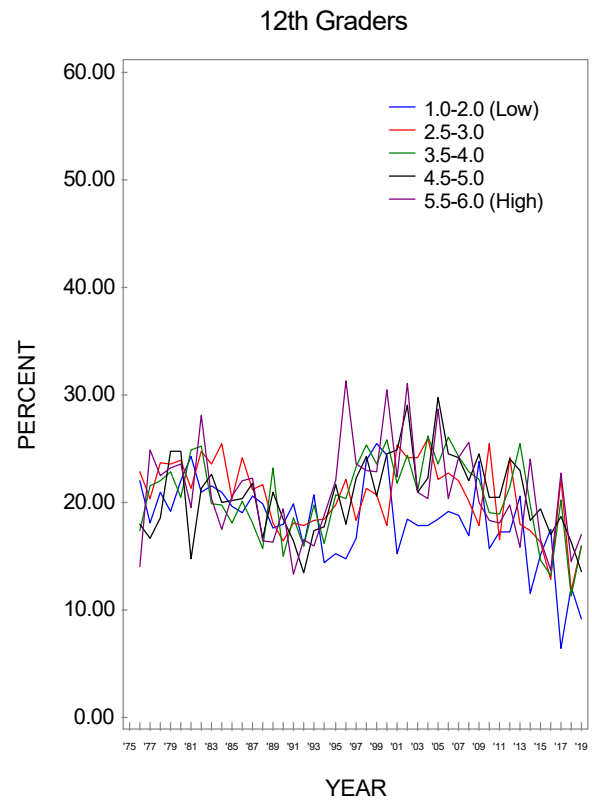
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 264

Liquor: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Race/Ethnicity*
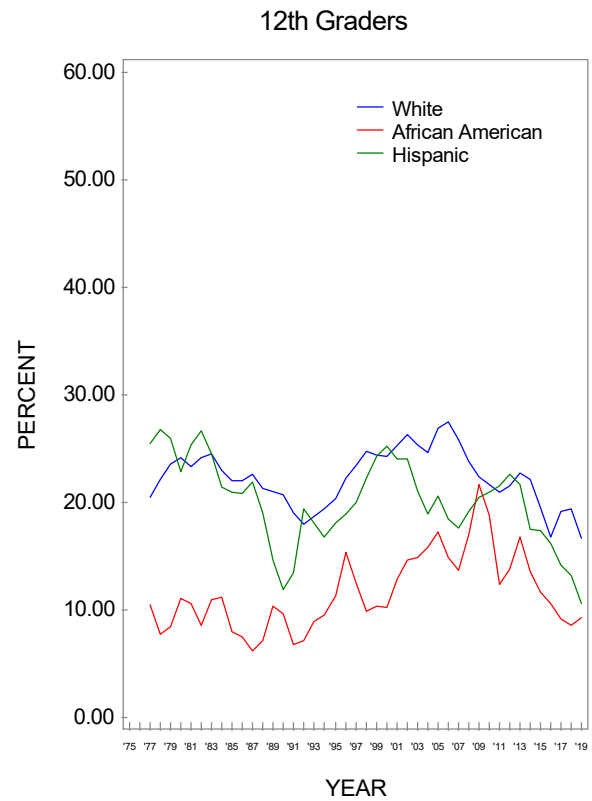
12th Graders

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

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FIGURE 265
Wine:* Trends in 30-Day Prevalence by Gender
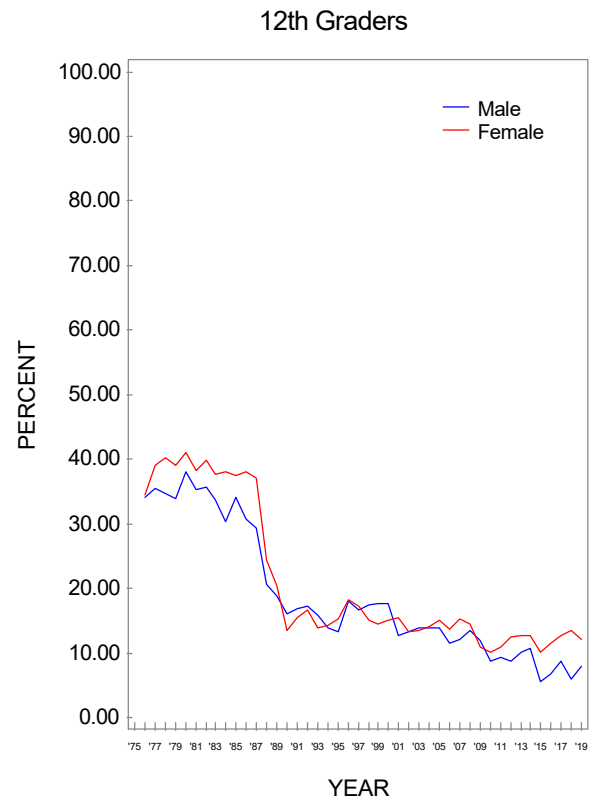
12th Graders

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

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

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FIGURE 266
Wine:* Trends in 30-Day Prevalence by College Plans
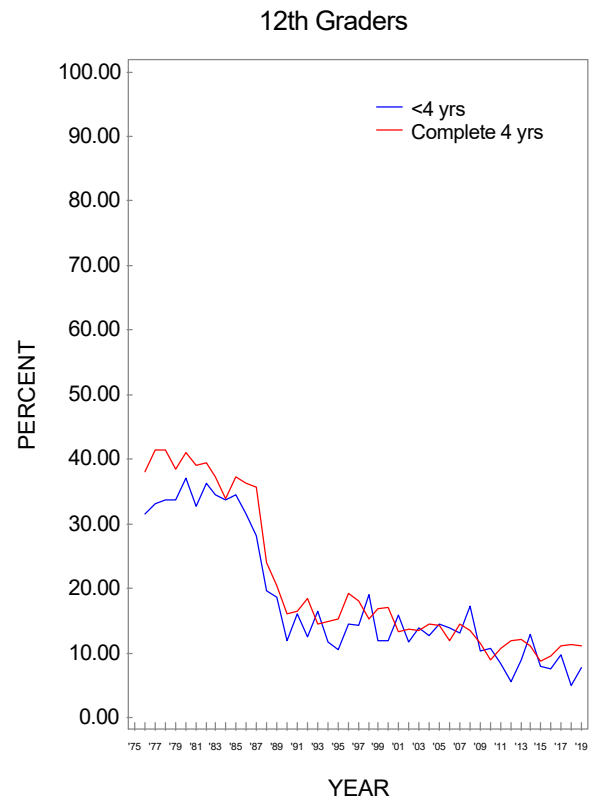
12th Graders

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

FIGURE 267
Wine:* Trends in 30-Day Prevalence by Region
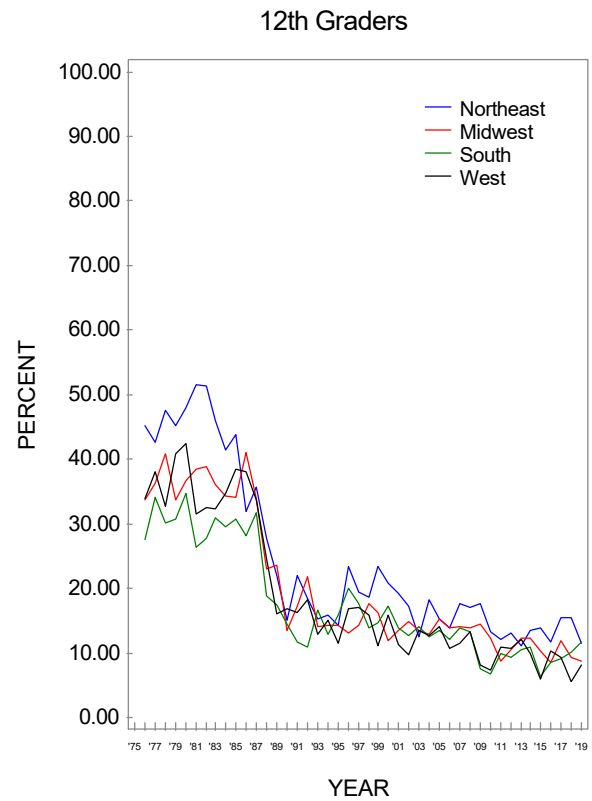
12th Graders

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

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

FIGURE 268
Wine:* Trends in 30-Day Prevalence by Population Density
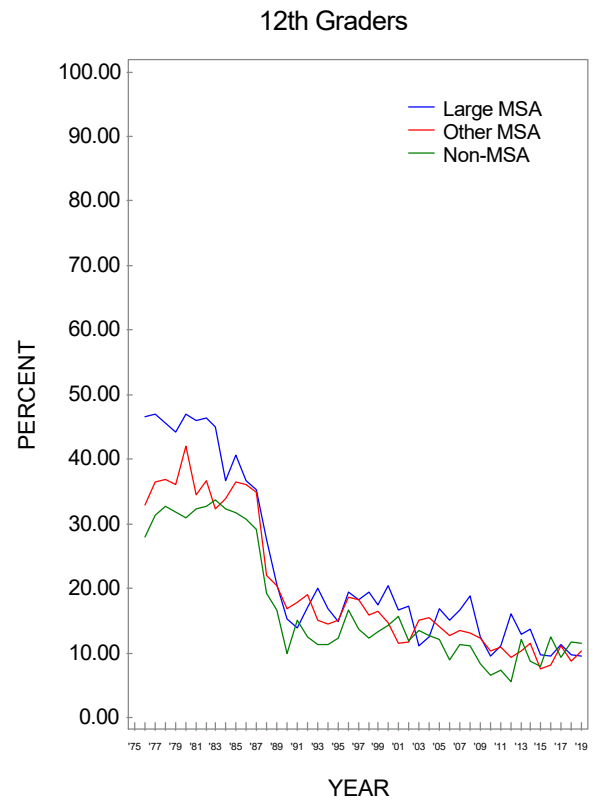
12th Graders

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

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

FIGURE 269
Wine:* Trends in 30-Day Prevalence by Average Education Level of Parents**
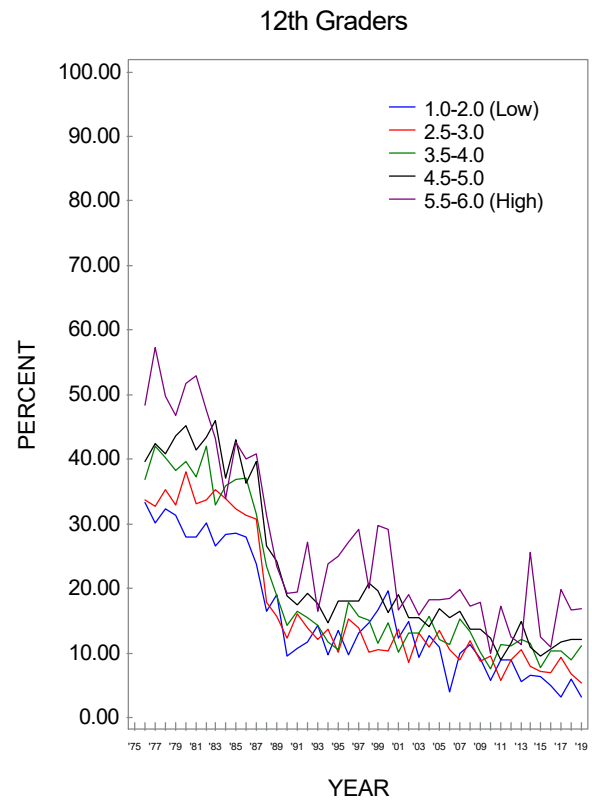
12th Graders

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

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

**Parental education is an average score of mother's education and father's education.

FIGURE 270
Wine:* Trends in 30-Day Prevalence by Race/Ethnicity**
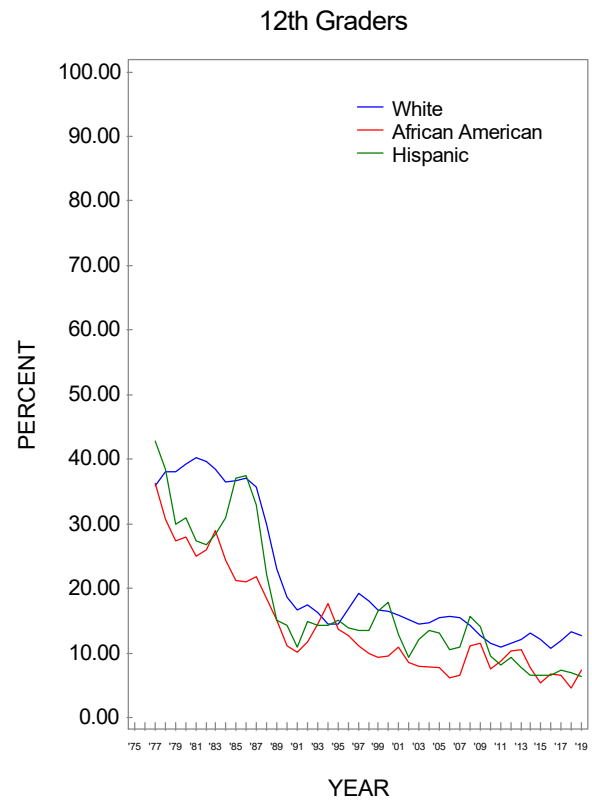
12th Graders

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between
the 1987 and 1988 use rates for wine.
**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes
and thus provide more stable estimates.

FIGURE 271
Wine:* Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Gender
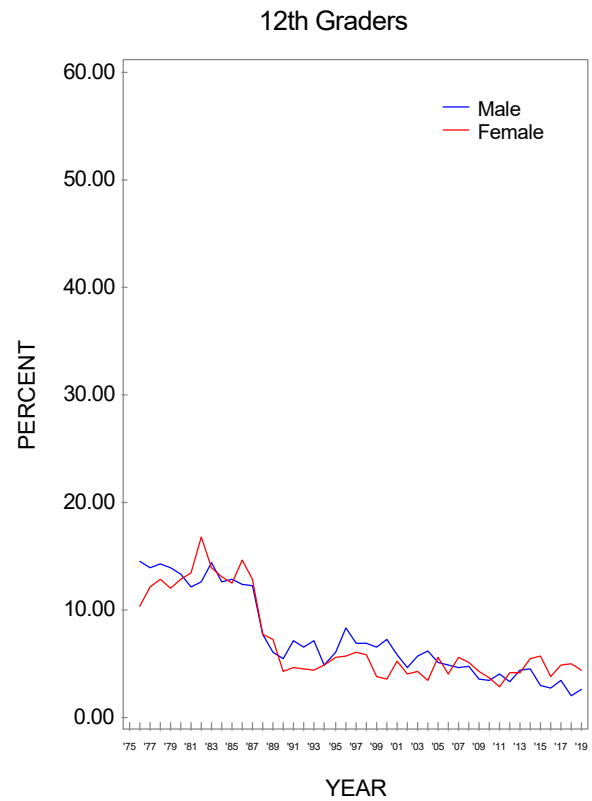
12th Graders

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

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

FIGURE 272
Wine:* Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by College Plans
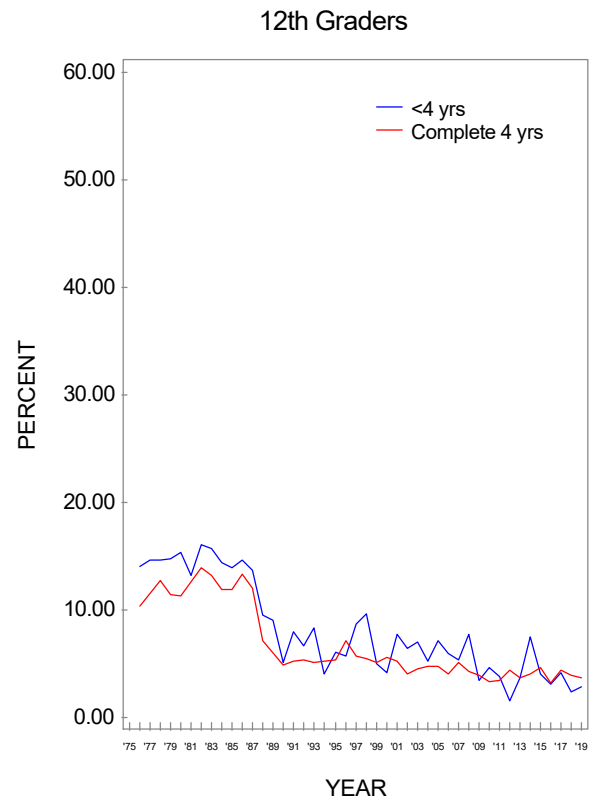
12th Graders

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between
the 1987 and 1988 use rates for wine.

FIGURE 273

Wine:* Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Region
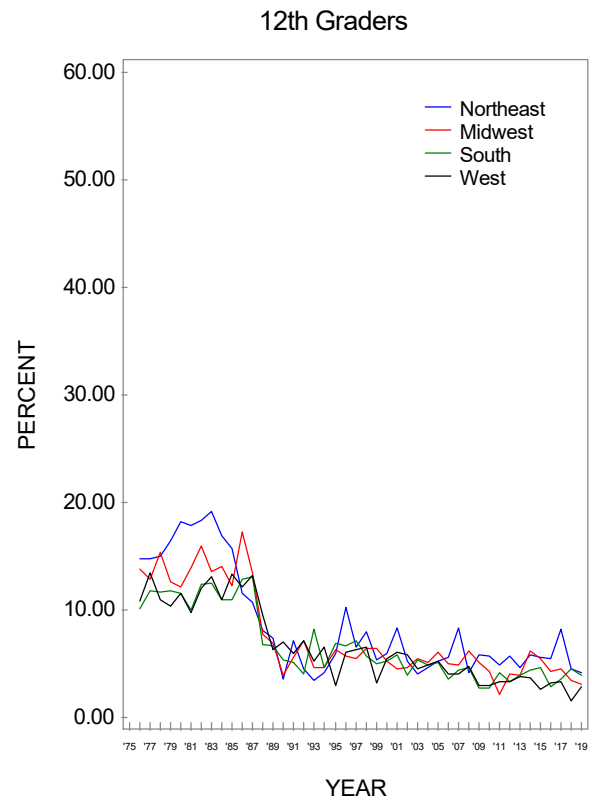
12th Graders

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

FIGURE 274

Wine:* Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Population Density
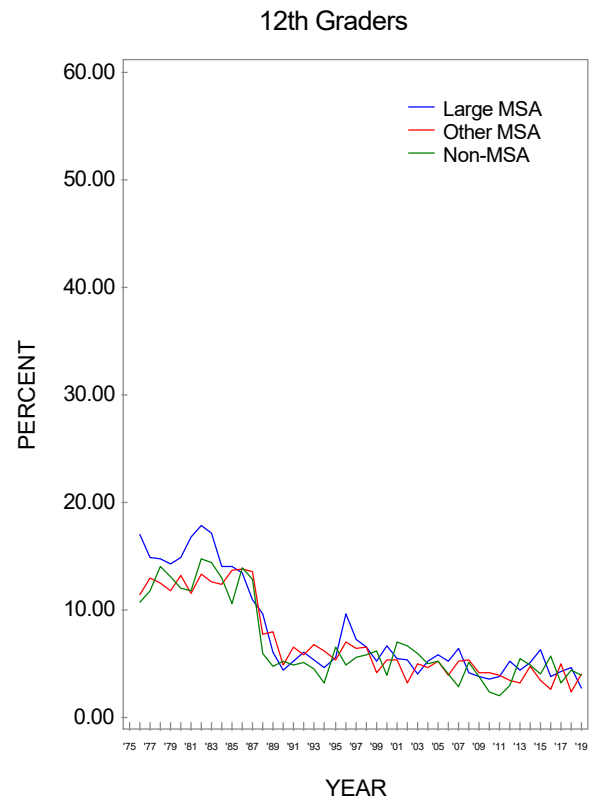
12th Graders

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

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

FIGURE 275
Wine:* Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Average Education Level of Parents**

12th Graders
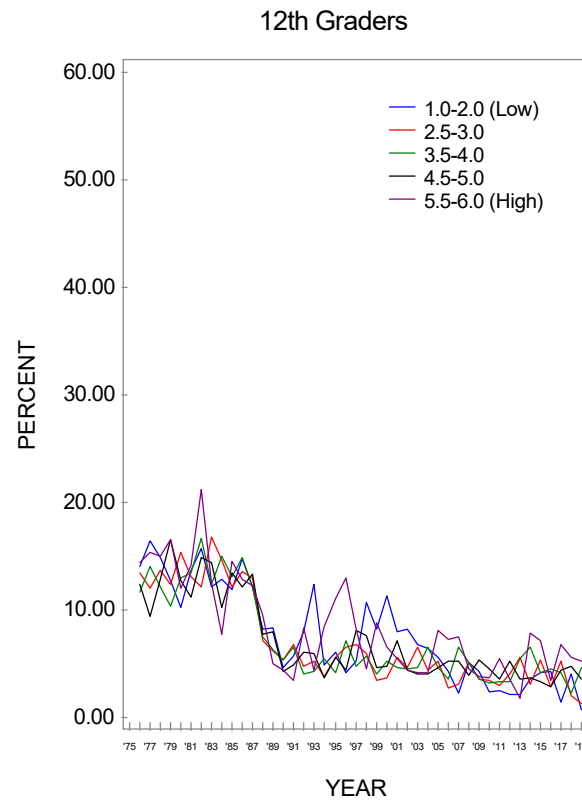
Source. The Monitoring the Future study, the University of Michigan.

*In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

**Parental education is an average score of mother's education and father's education.

FIGURE 276
Wine:* Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Race/Ethnicity**

12th Graders

FIGURE 277
Wine Coolers:* Trends in 30-Day Prevalence by Gender

8th Graders

10th Graders

12th Graders

Source.   The Monitoring the Future study, the University of Michigan.
*Question discontinued for 8th and 10th graders in 2004.

FIGURE 278
Wine Coolers:* Trends in 30-Day Prevalence by College Plans

8th Graders

10th Graders

12th Graders

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

*Question discontinued for 8th and 10th graders in 2004.

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FIGURE 279

Wine Coolers:* Trends in 30-Day Prevalence by Region
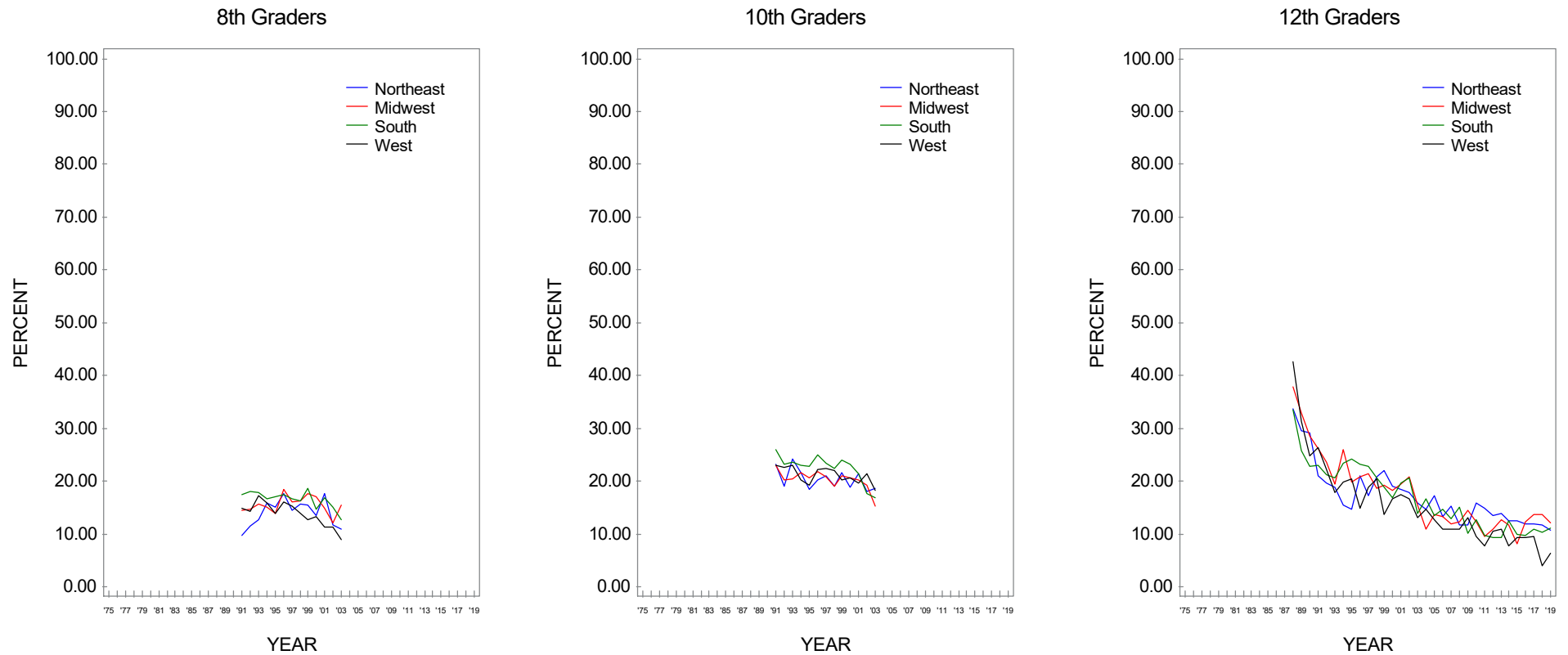
Source. The Monitoring the Future study, the University of Michigan.

*Question discontinued for 8th and 10th graders in 2004.

FIGURE 280
Wine Coolers:* Trends in 30-Day Prevalence by Population Density
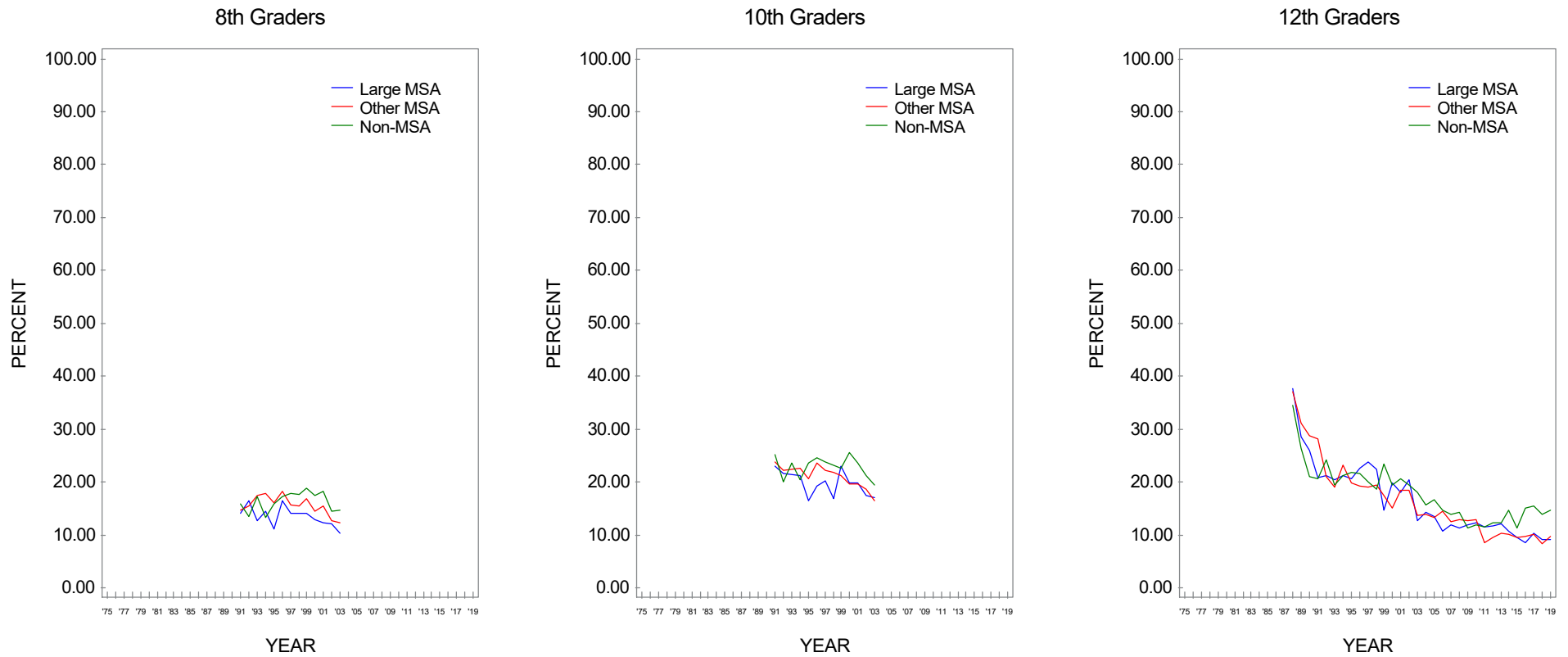
Source. The Monitoring the Future study, the University of Michigan.
*Question discontinued for 8th and 10th graders in 2004.

FIGURE 281
Wine Coolers:* Trends in 30-Day Prevalence by Average Education Level of Parents**
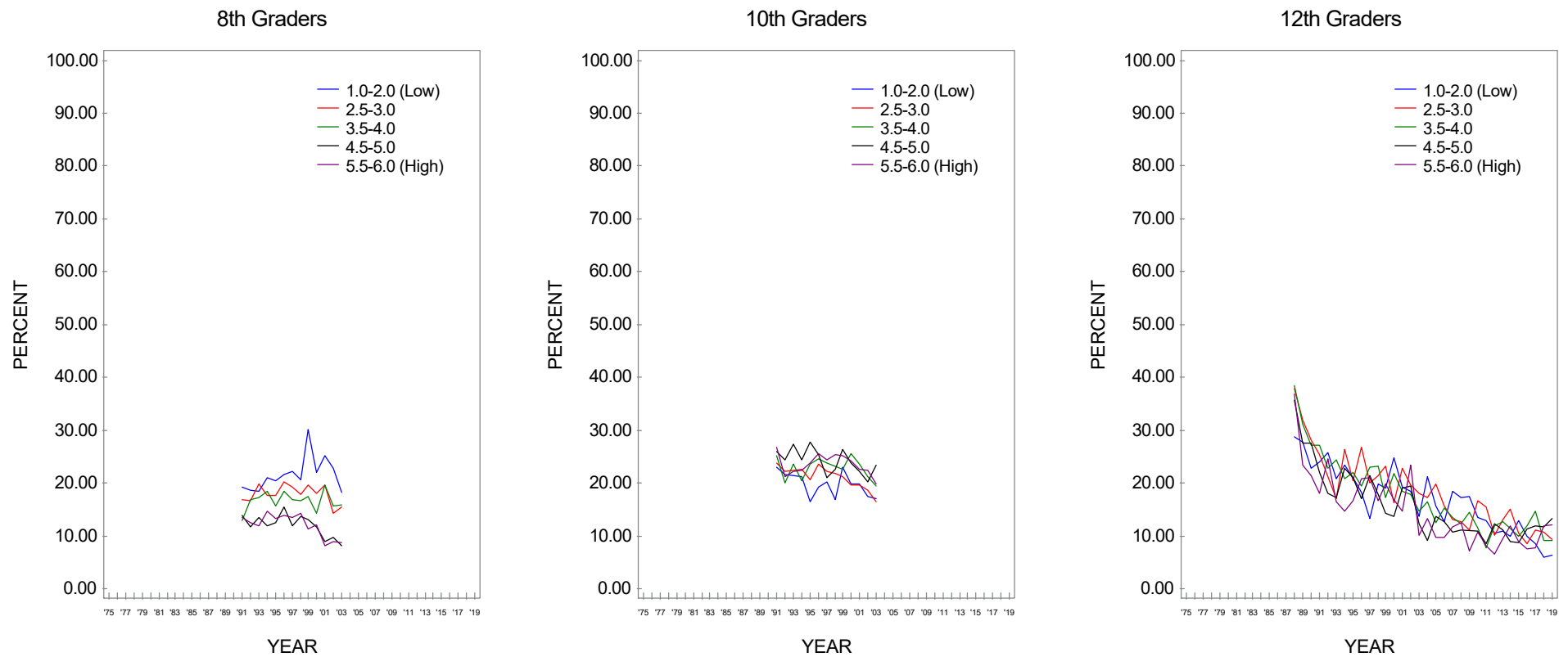
FIGURE 282
Wine Coolers:* Trends in 30-Day Prevalence by Race/Ethnicity**
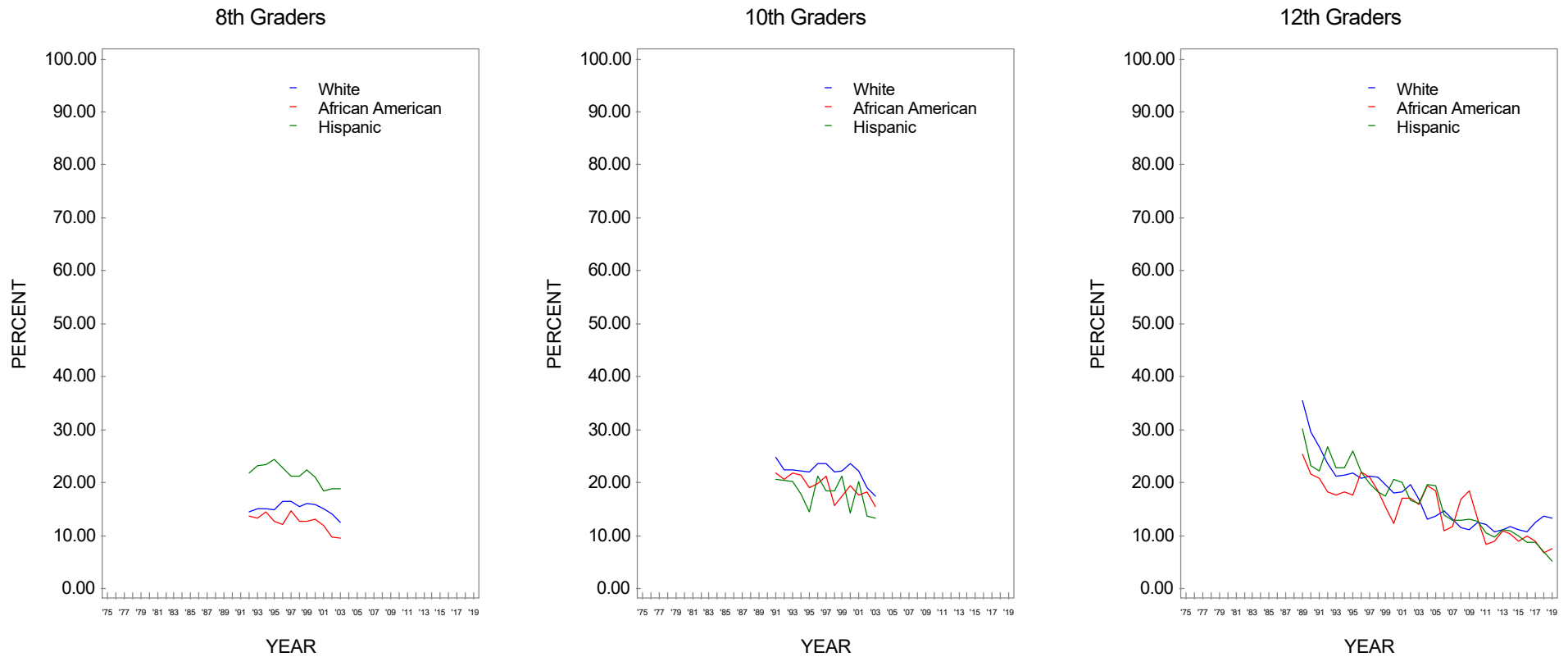
Source. The Monitoring the Future study, the University of Michigan.

*Question discontinued for 8th and 10th graders in 2004.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 283
Wine Coolers: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Gender

12th Graders
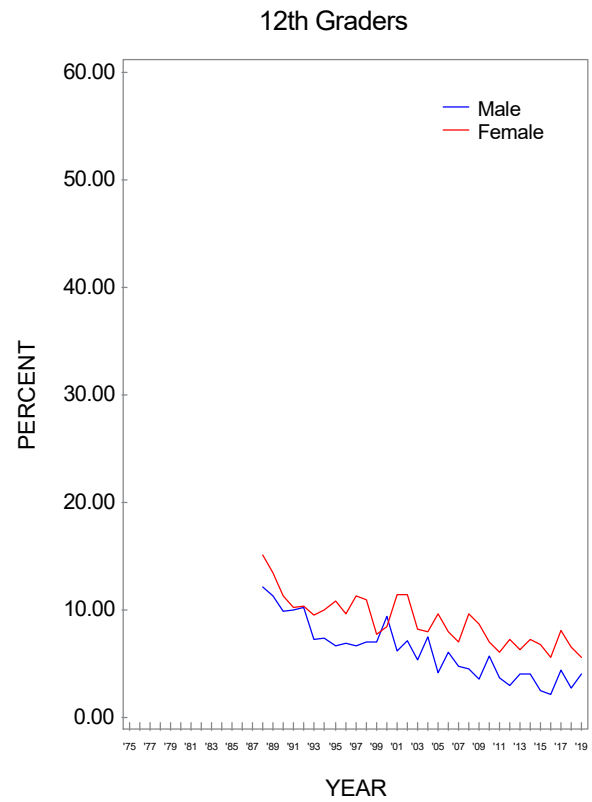
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 284

Wine Coolers: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by College Plans

12th Graders
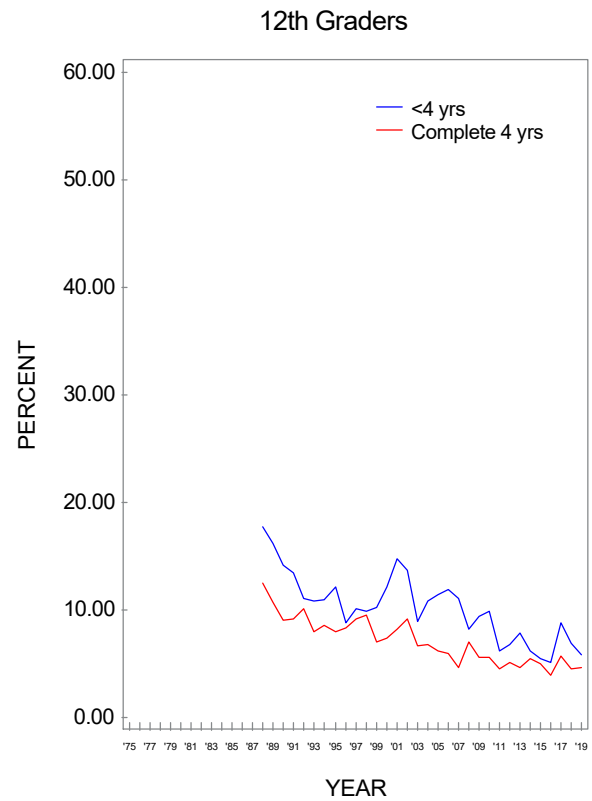
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 285

Wine Coolers: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Region

12th Graders
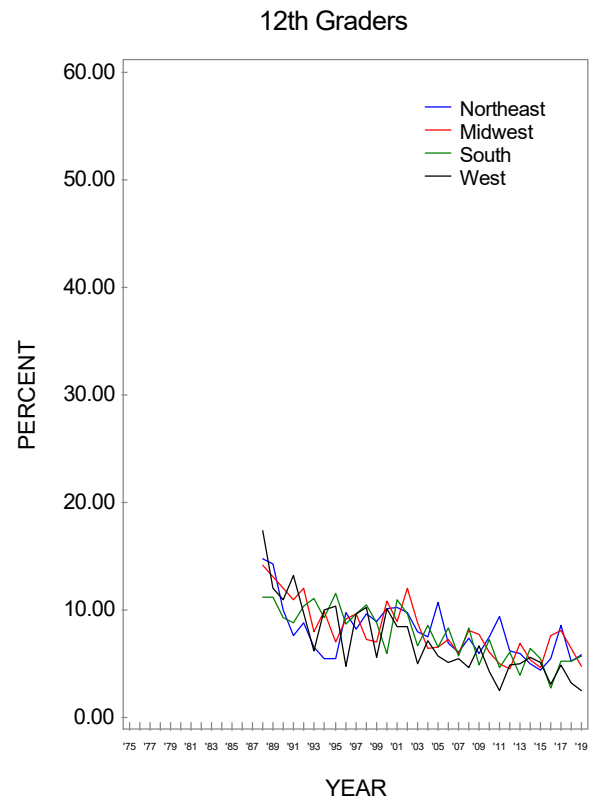
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 286

Wine Coolers: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Population Density

12th Graders
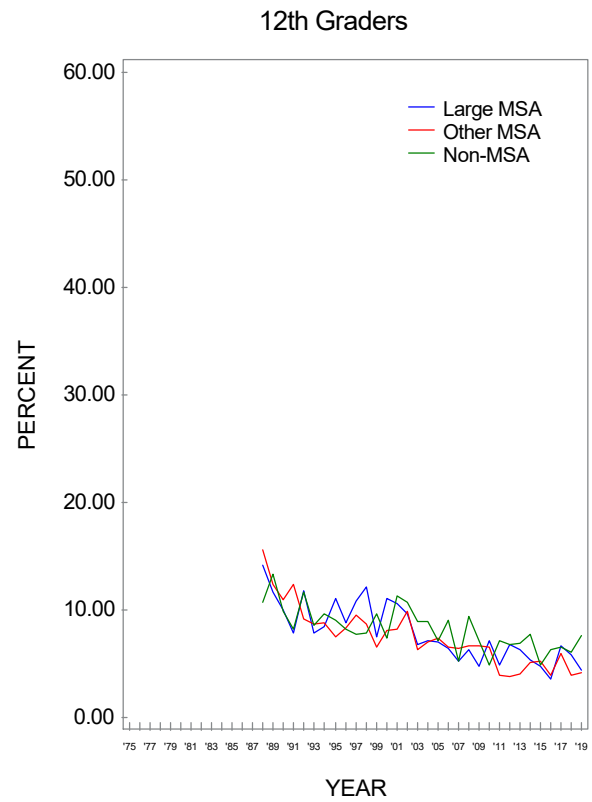
FIGURE 287

Wine Coolers: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Average Education Level of Parents*

12th Graders
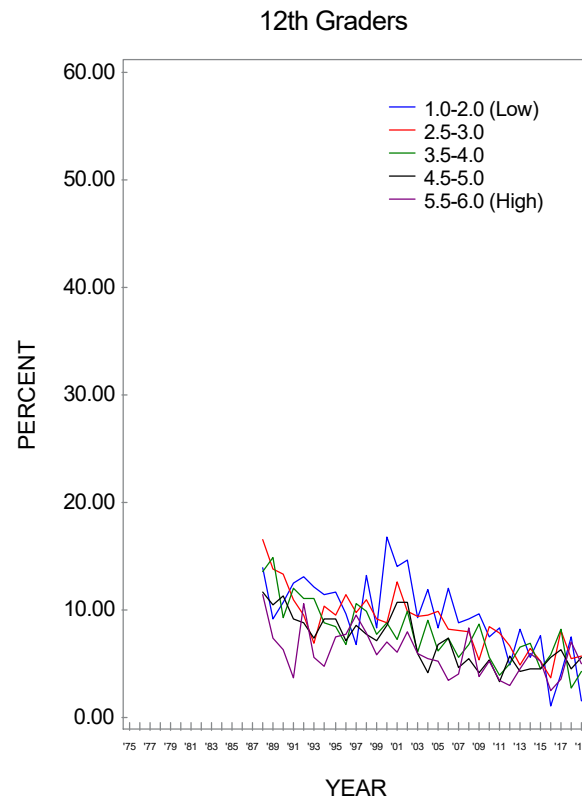
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 288
Wine Coolers: Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row by Race/Ethnicity*

12th Graders
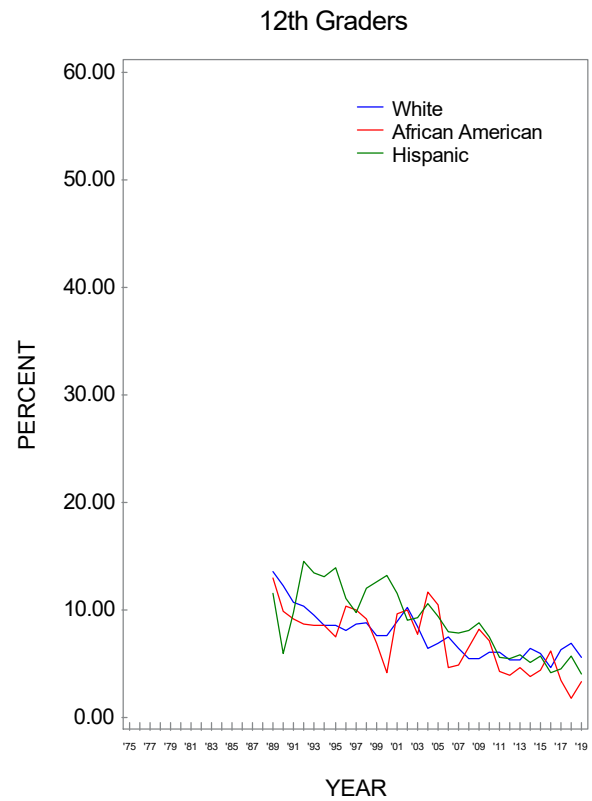
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 289
Flavored Alcoholic Beverages: Trends in 30-Day Prevalence by Gender

8th Graders

10th Graders

12th Graders
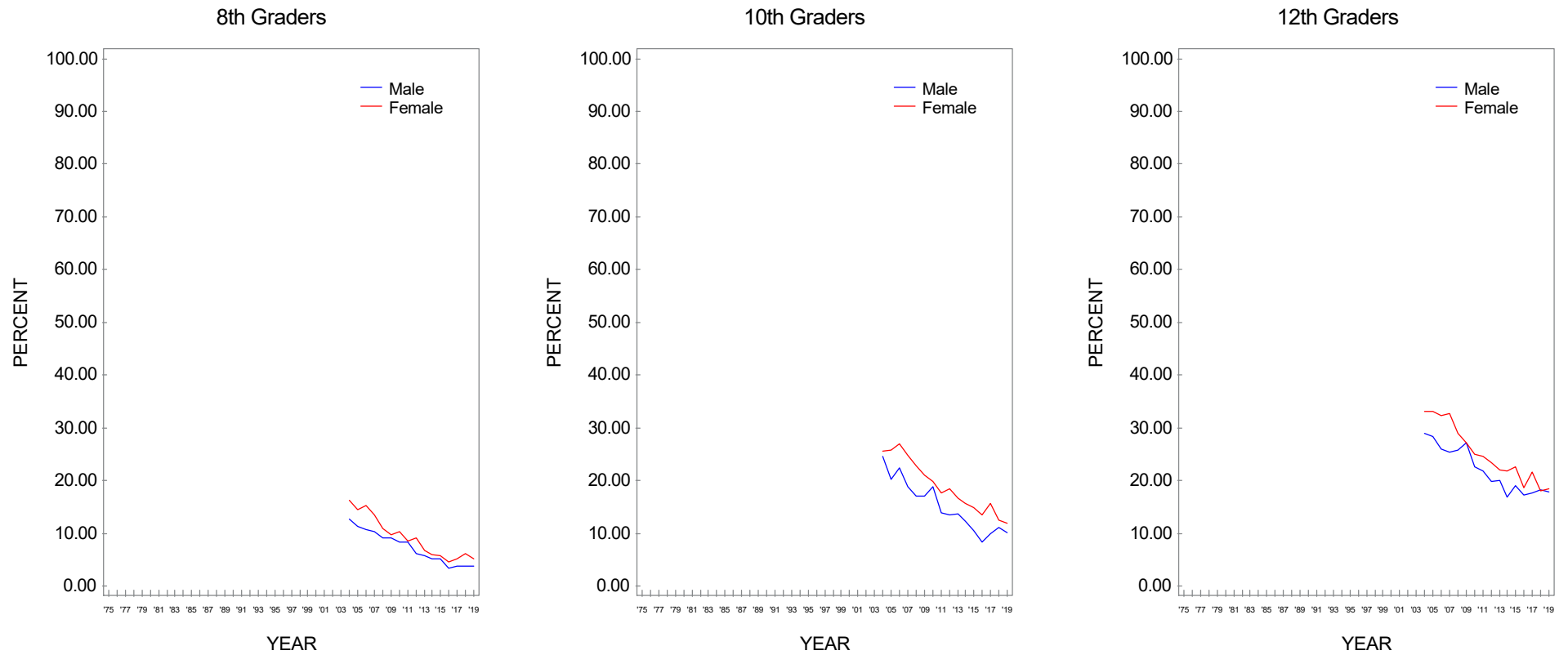
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 290

Flavored Alcoholic Beverages: Trends in 30-Day Prevalence by College Plans

8th Graders

10th Graders

12th Graders
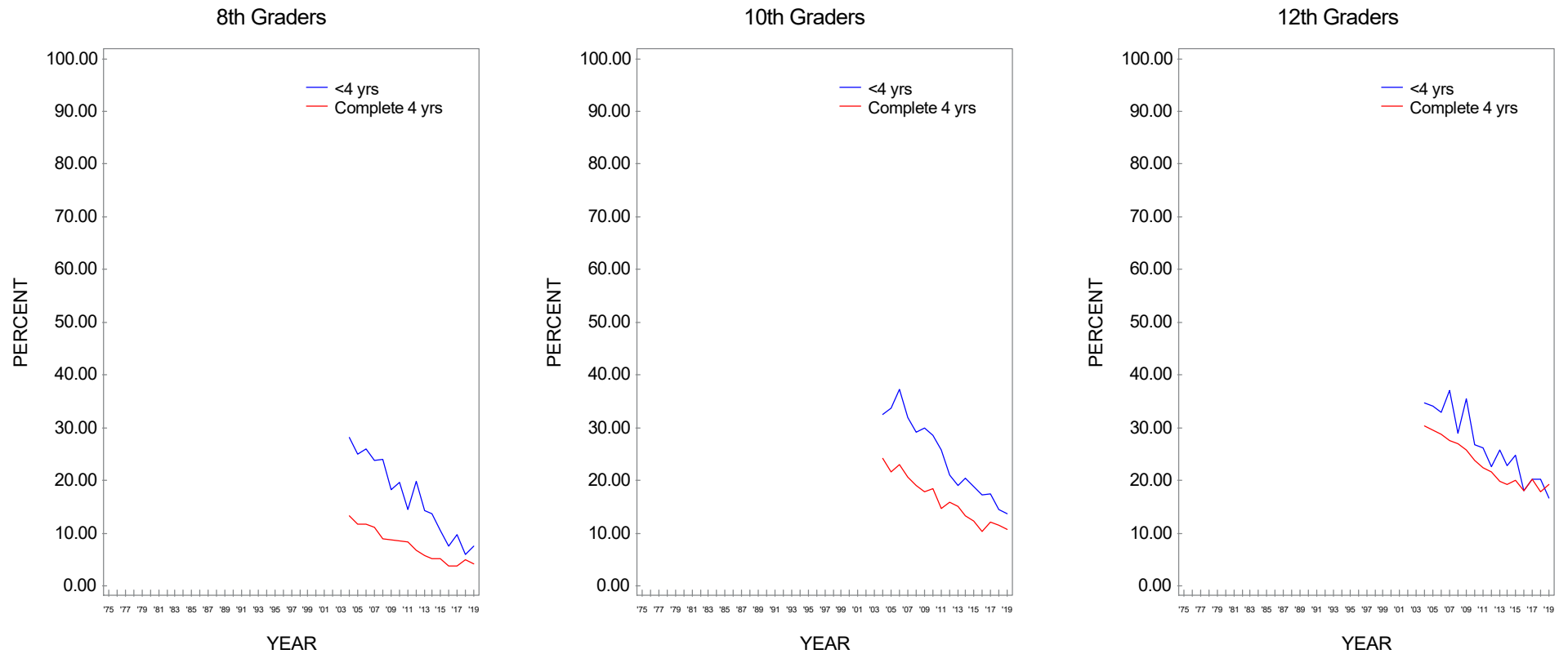
FIGURE 291

Flavored Alcoholic Beverages: Trends in 30-Day Prevalence by Region
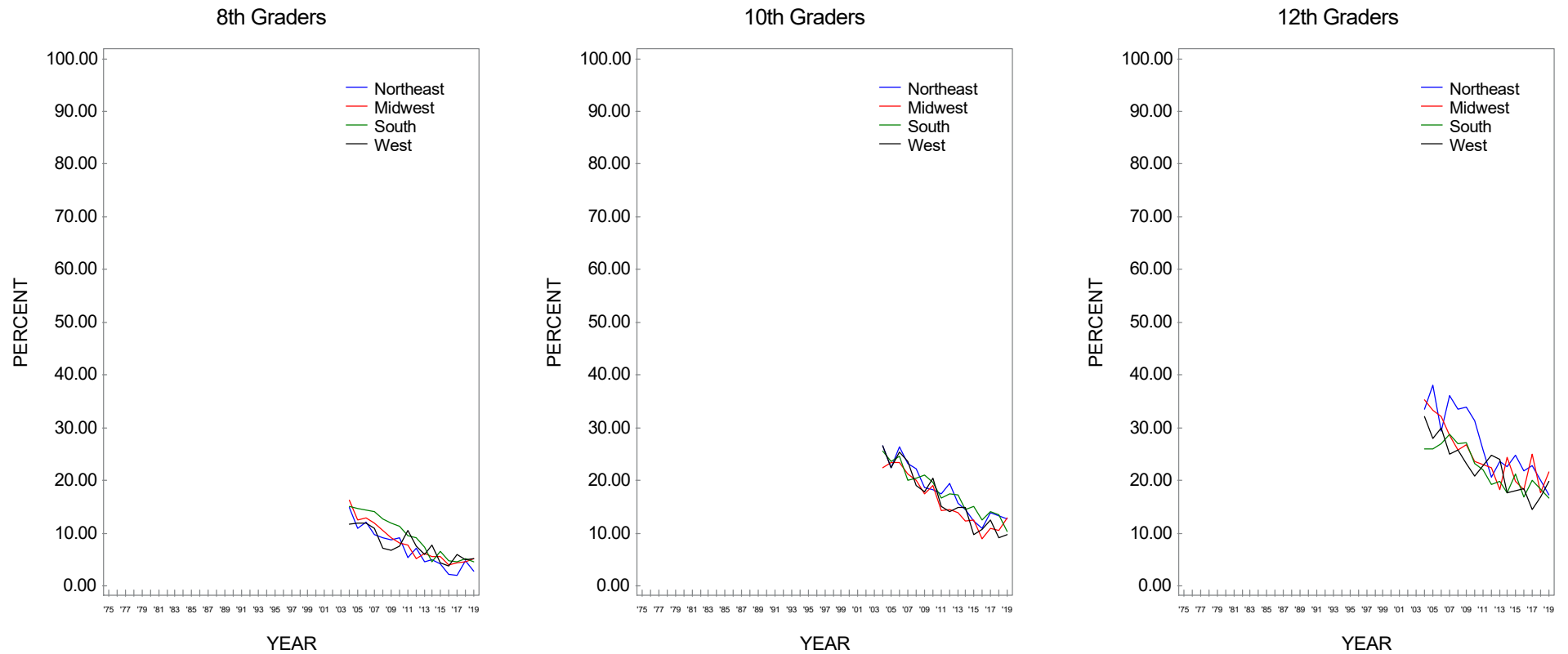
Source. The Monitoring the Future study, the University of Michigan.

8th Graders

10th Graders

12th Graders
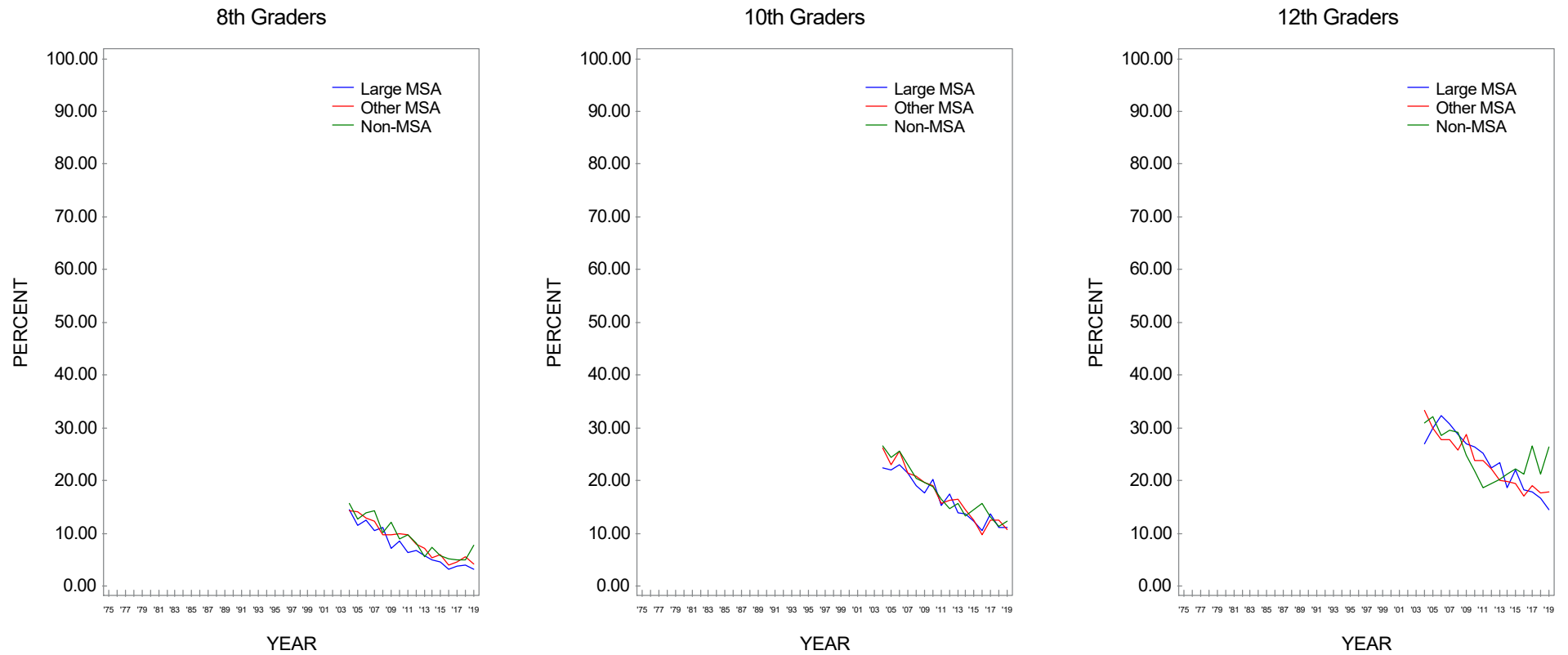
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 293

Flavored Alcoholic Beverages: Trends in 30-Day Prevalence by Average Education Level of Parents*
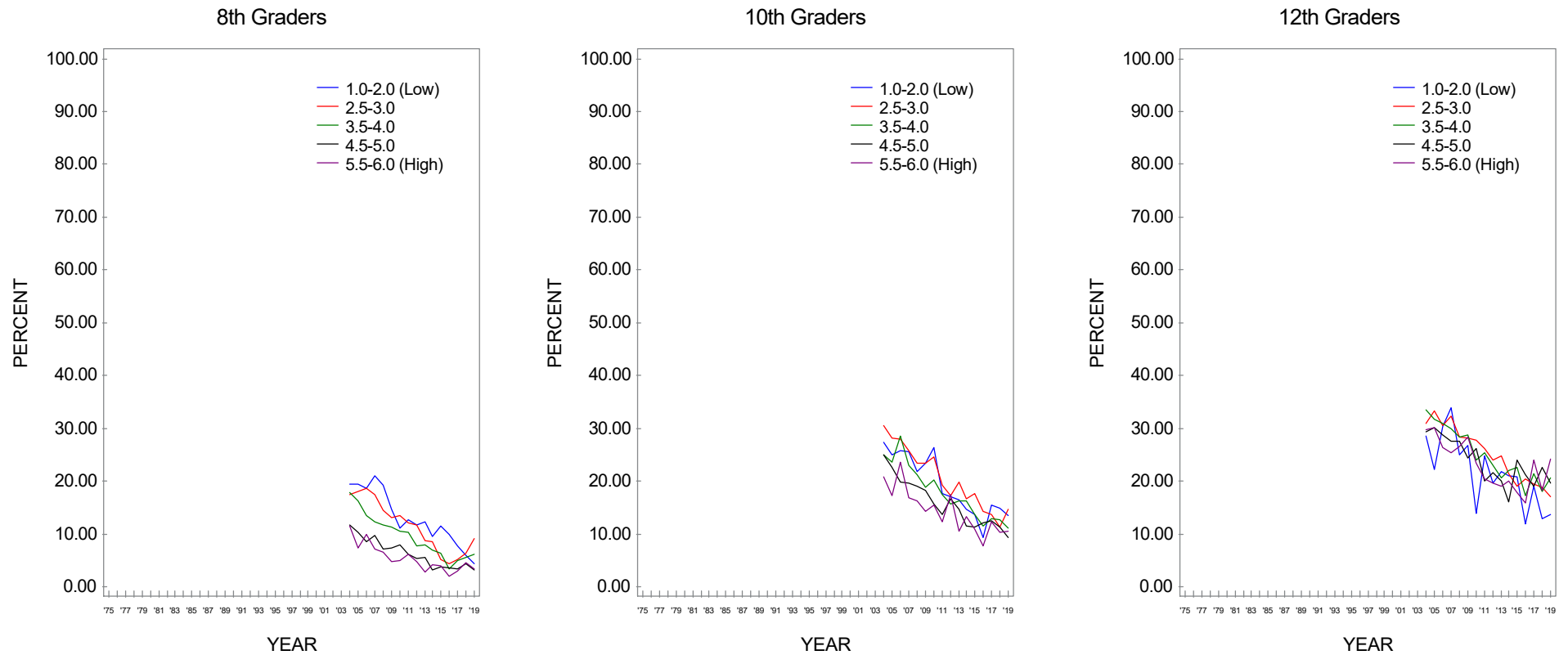
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 294

Flavored Alcoholic Beverages: Trends in 30-Day Prevalence by Race/Ethnicity*
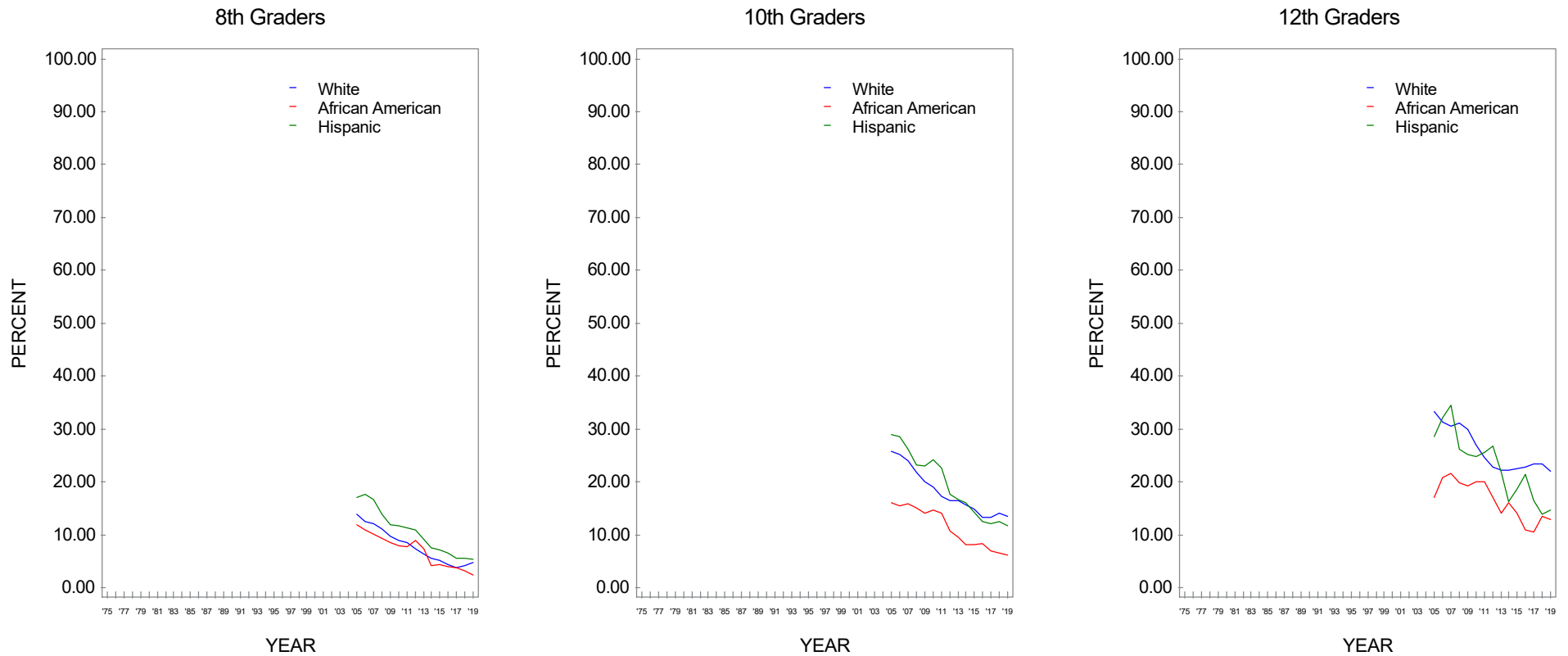
FIGURE 295

FIGURE 295
Alcoholic Beverages containing Caffeine: Trends in Annual Prevalence by Gender
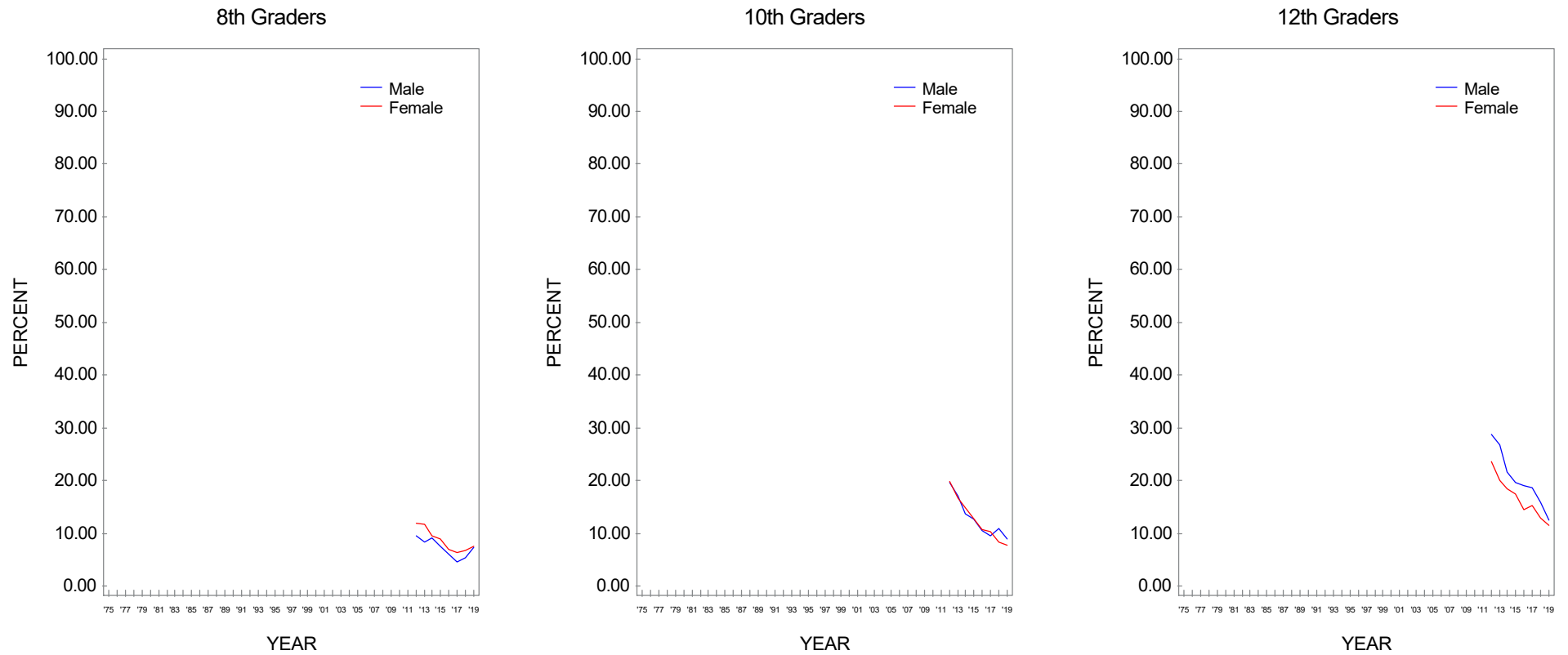
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 296
Alcoholic Beverages containing Caffeine: Trends in Annual Prevalence by College Plans

8th Graders

10th Graders

12th Graders
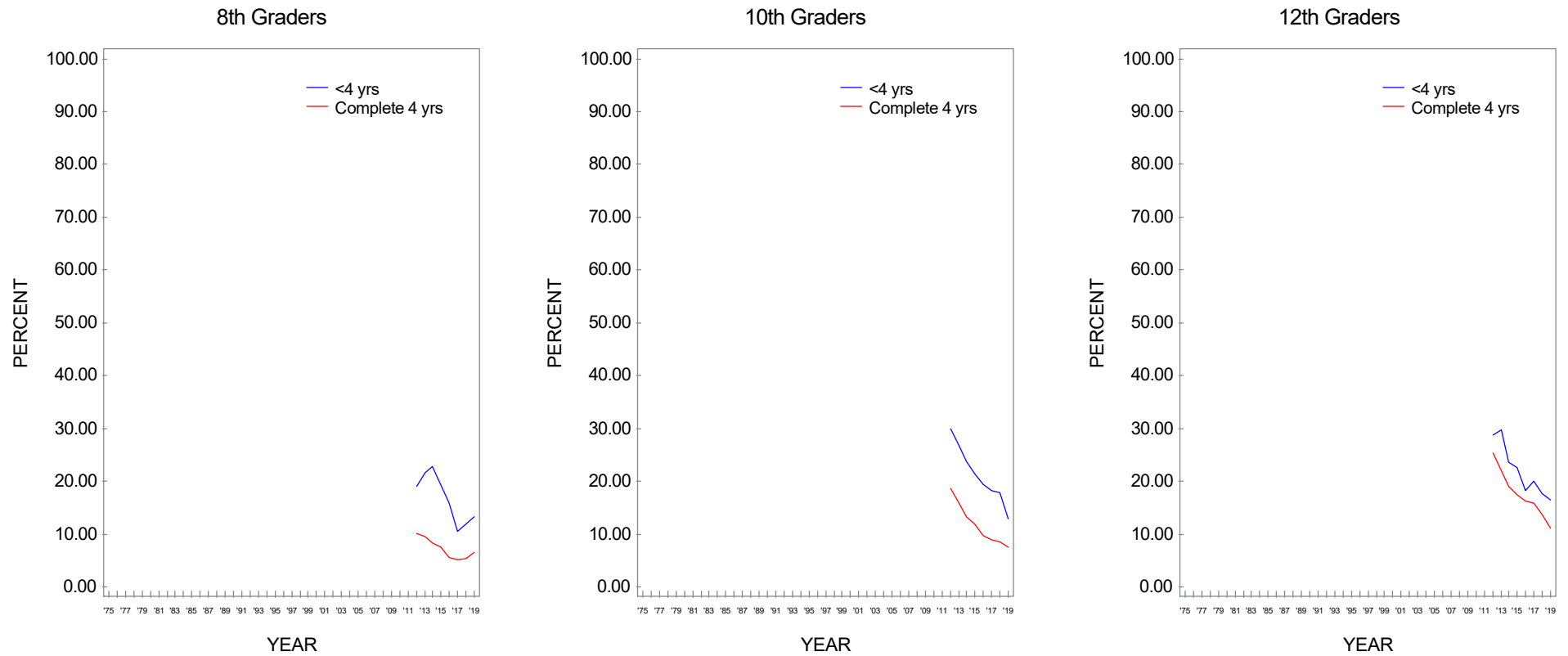
Source. The Monitoring the Future study, the University of Michigan.
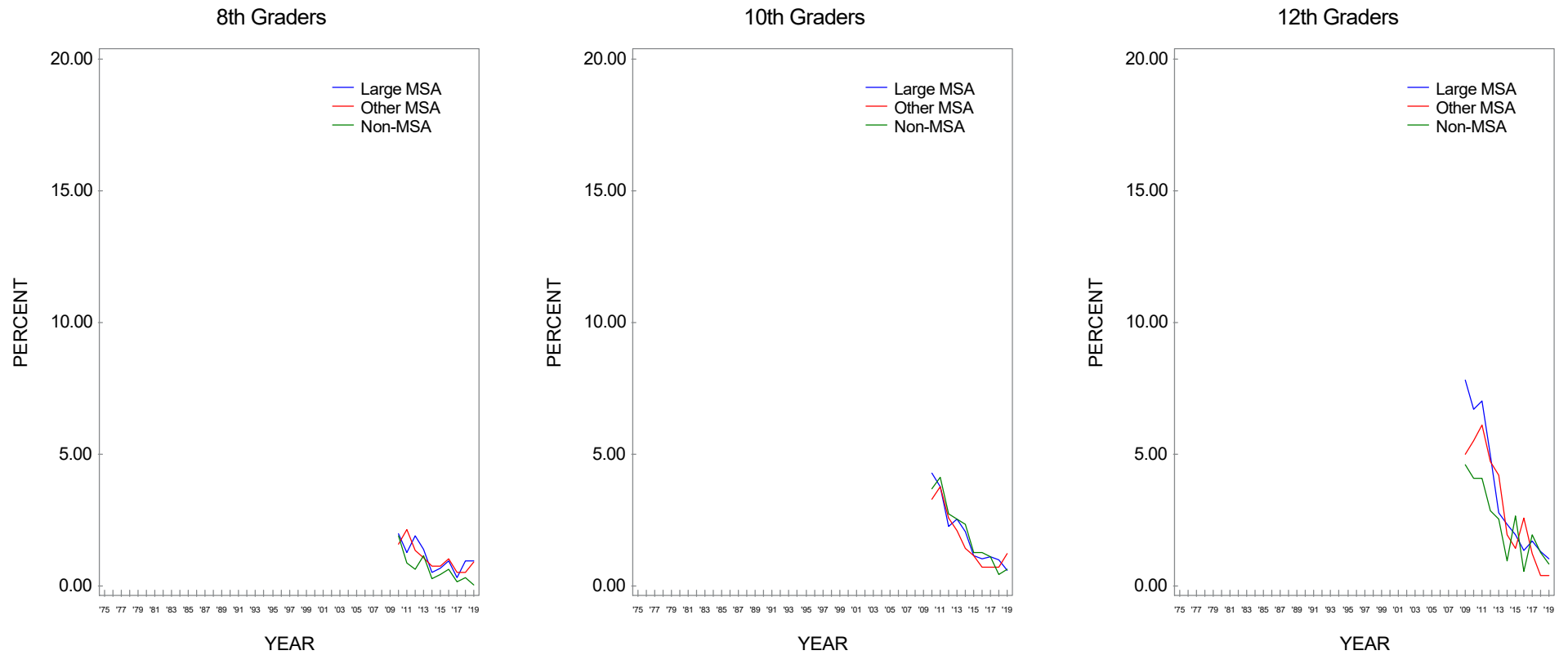
FIGURE 297

Alcoholic Beverages containing Caffeine: Trends in Annual Prevalence by Region
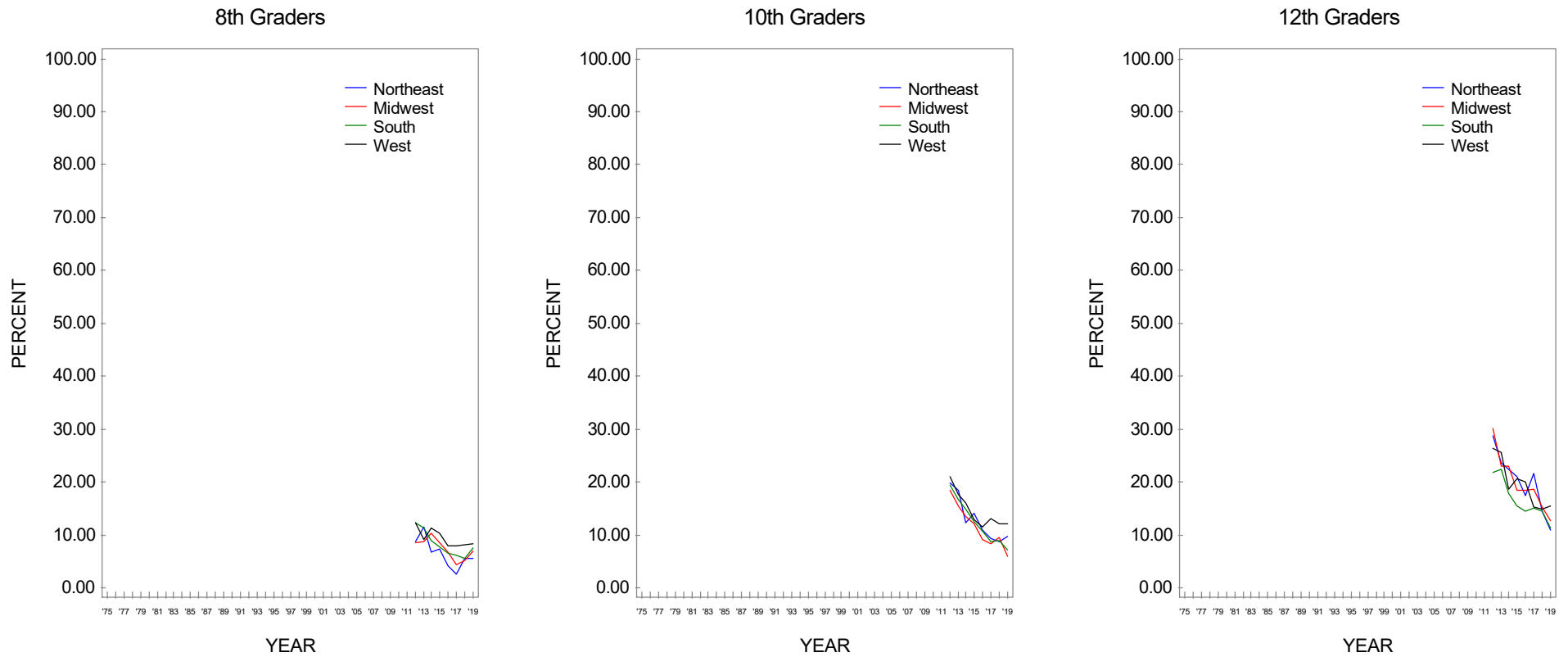
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 298

Alcoholic Beverages containing Caffeine: Trends in Annual Prevalence by Population Density
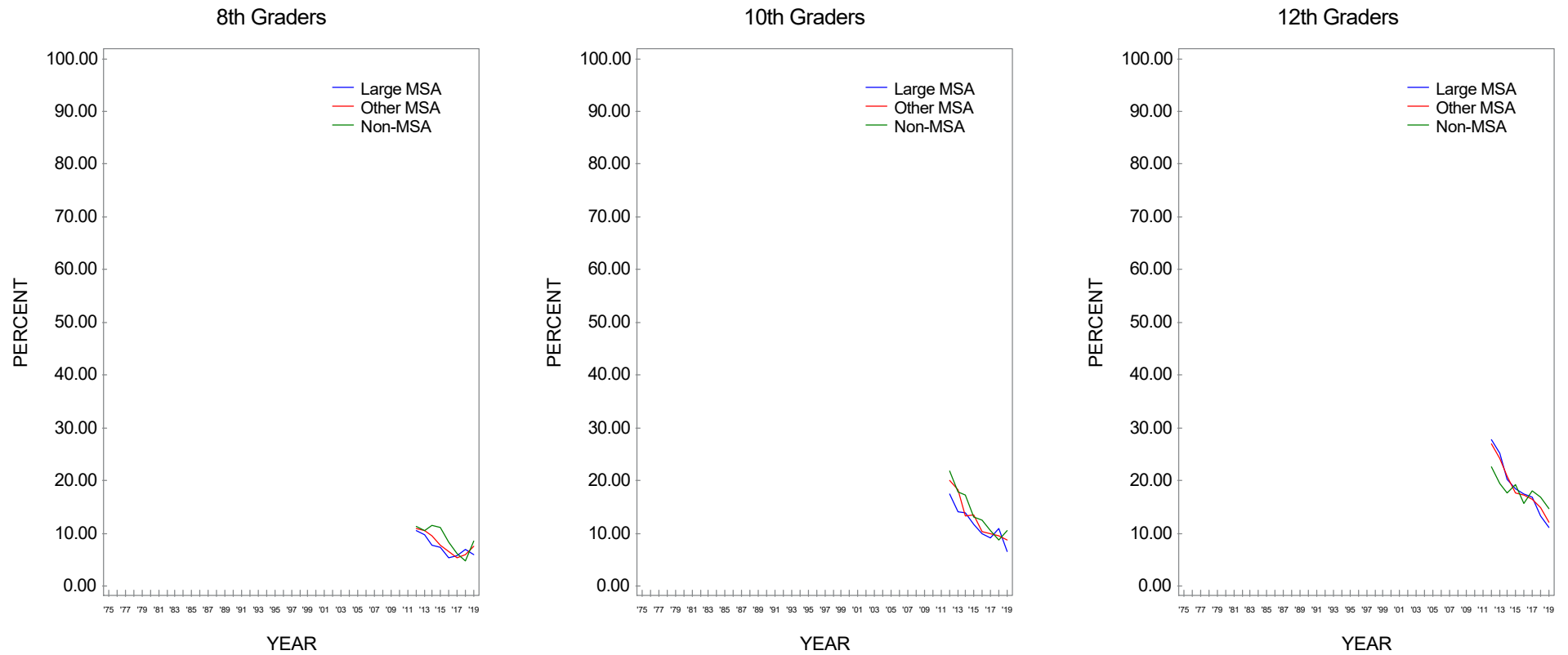
FIGURE 299

Alcoholic Beverages containing Caffeine: Trends in Annual Prevalence by Average Education Level of Parents*
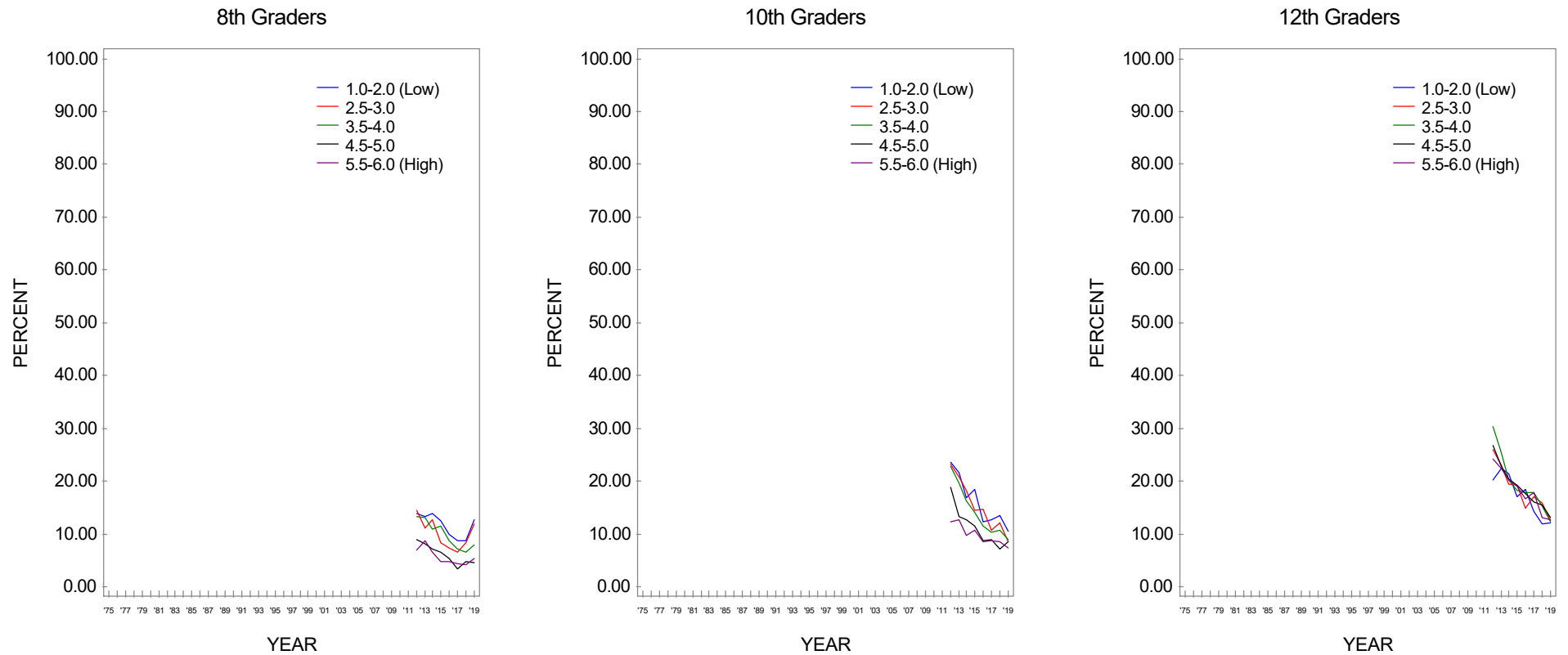
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.
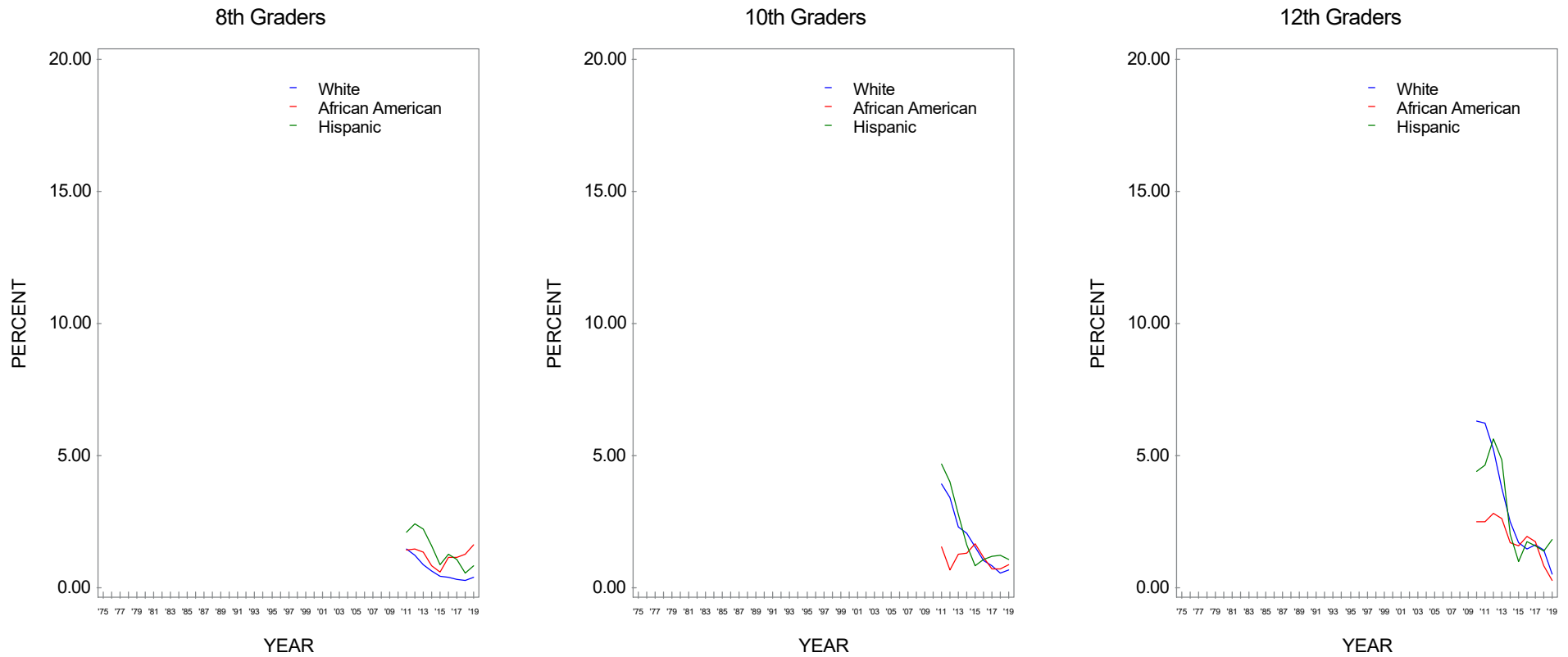
FIGURE 300
Alcoholic Beverages containing Caffeine: Trends in Annual Prevalence by Race/Ethnicity*
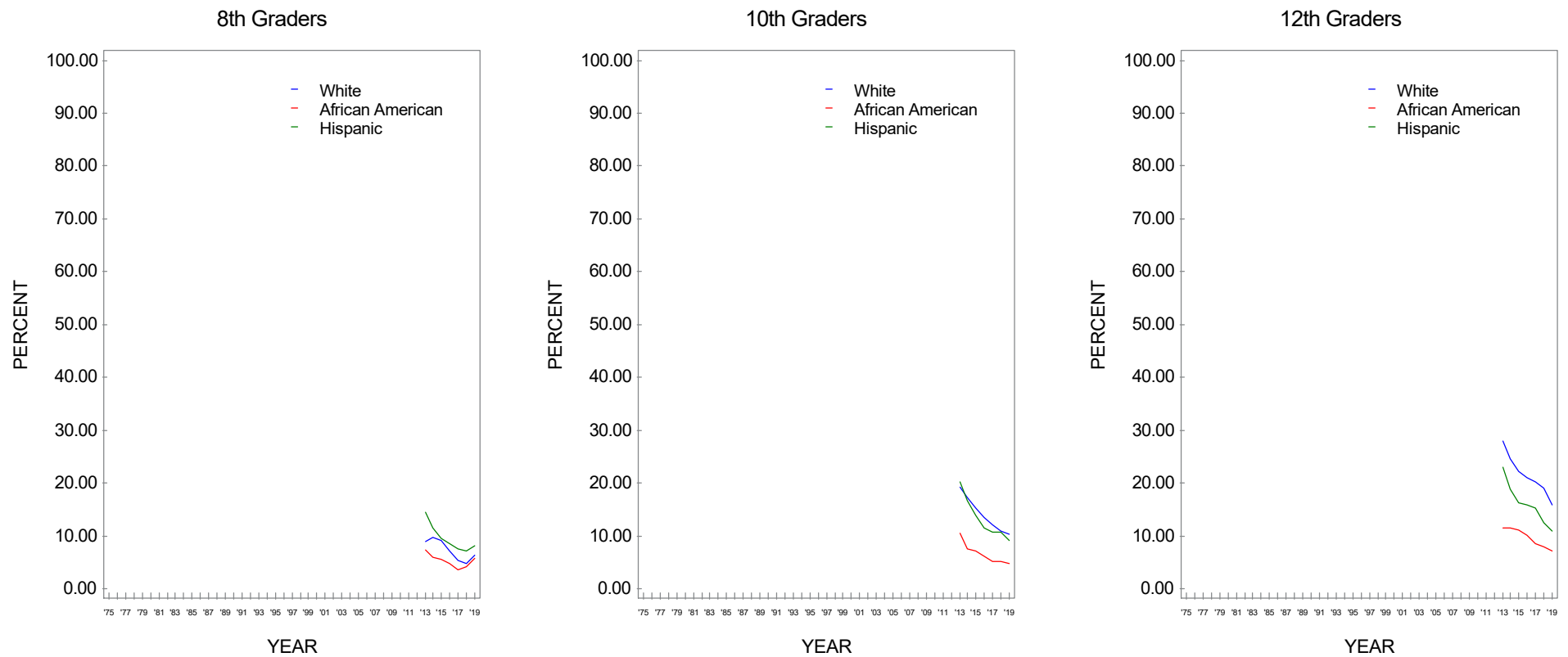
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 301
Cigarettes: Trends in 30-Day Prevalence by Gender

8th Graders

10th Graders

12th Graders
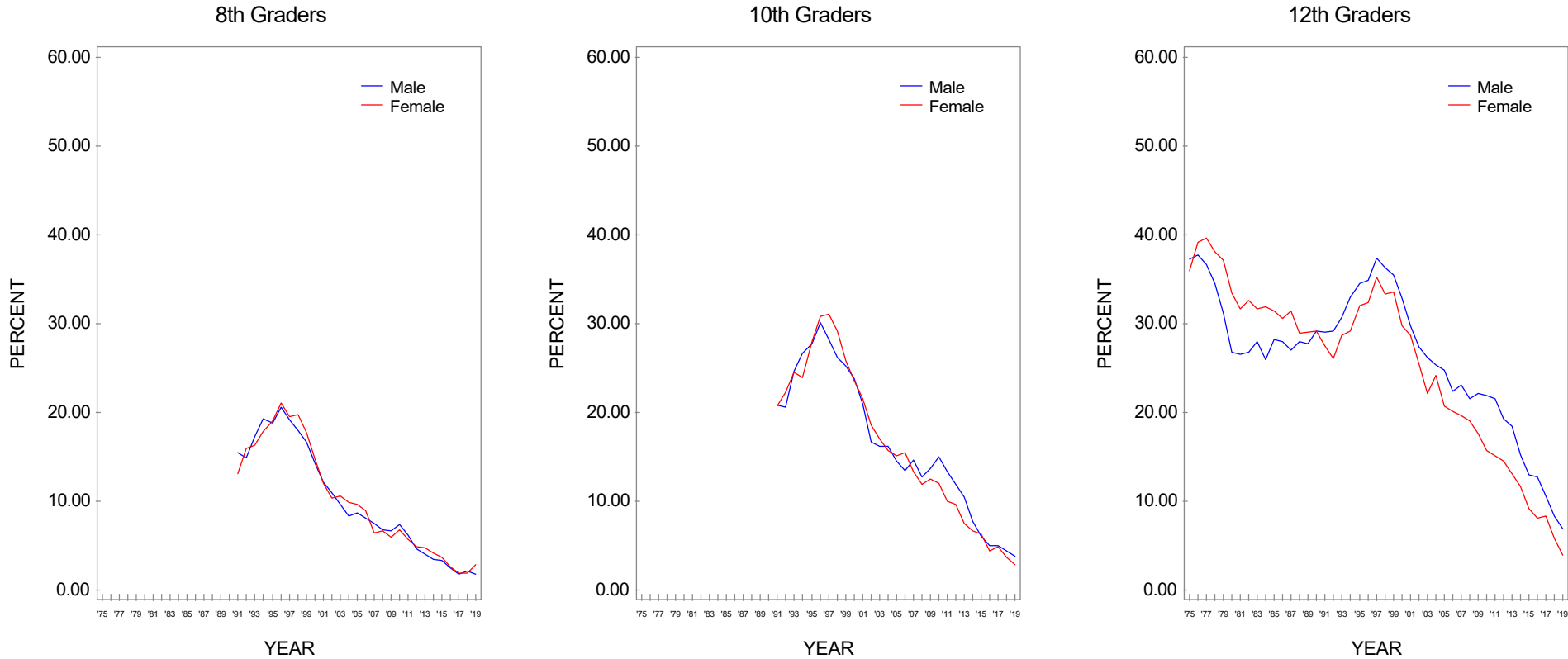
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 302
Cigarettes: Trends in 30-Day Prevalence by College Plans
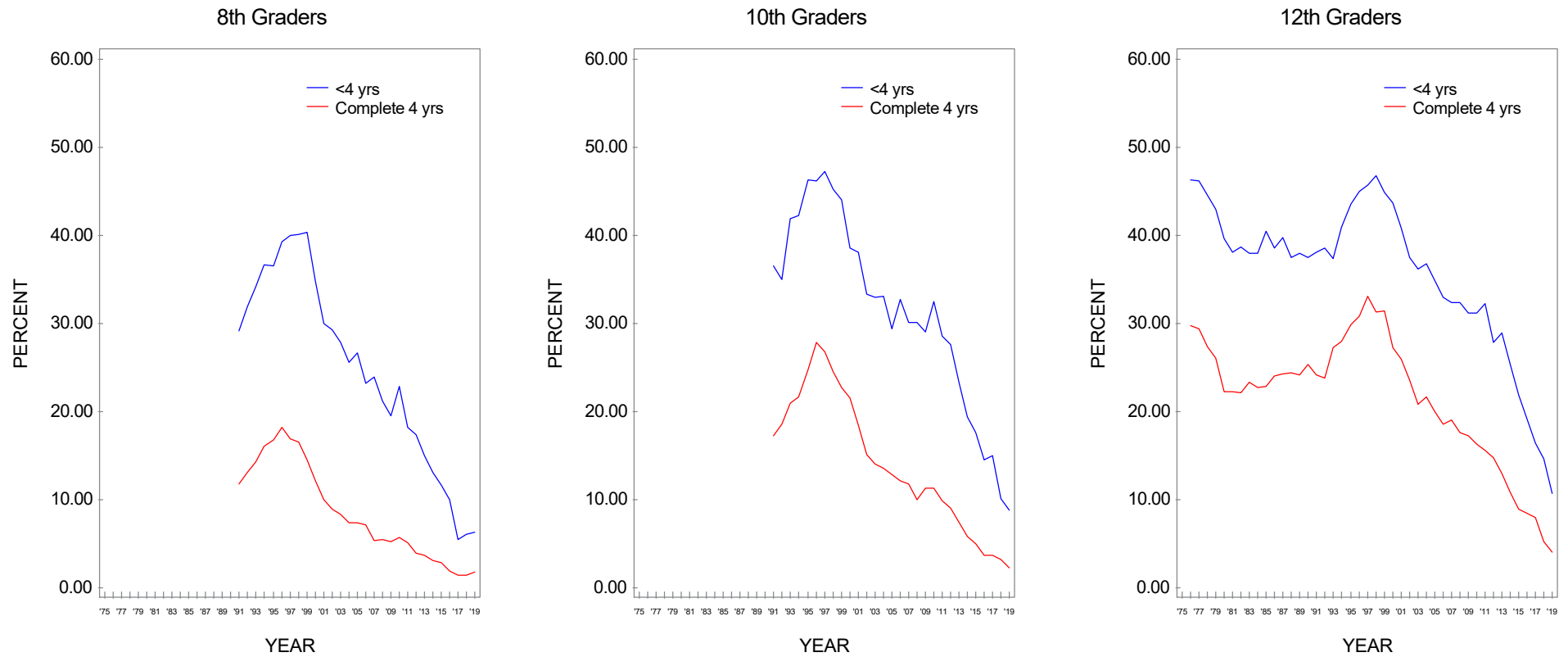
FIGURE 303
Cigarettes: Trends in 30-Day Prevalence by Region
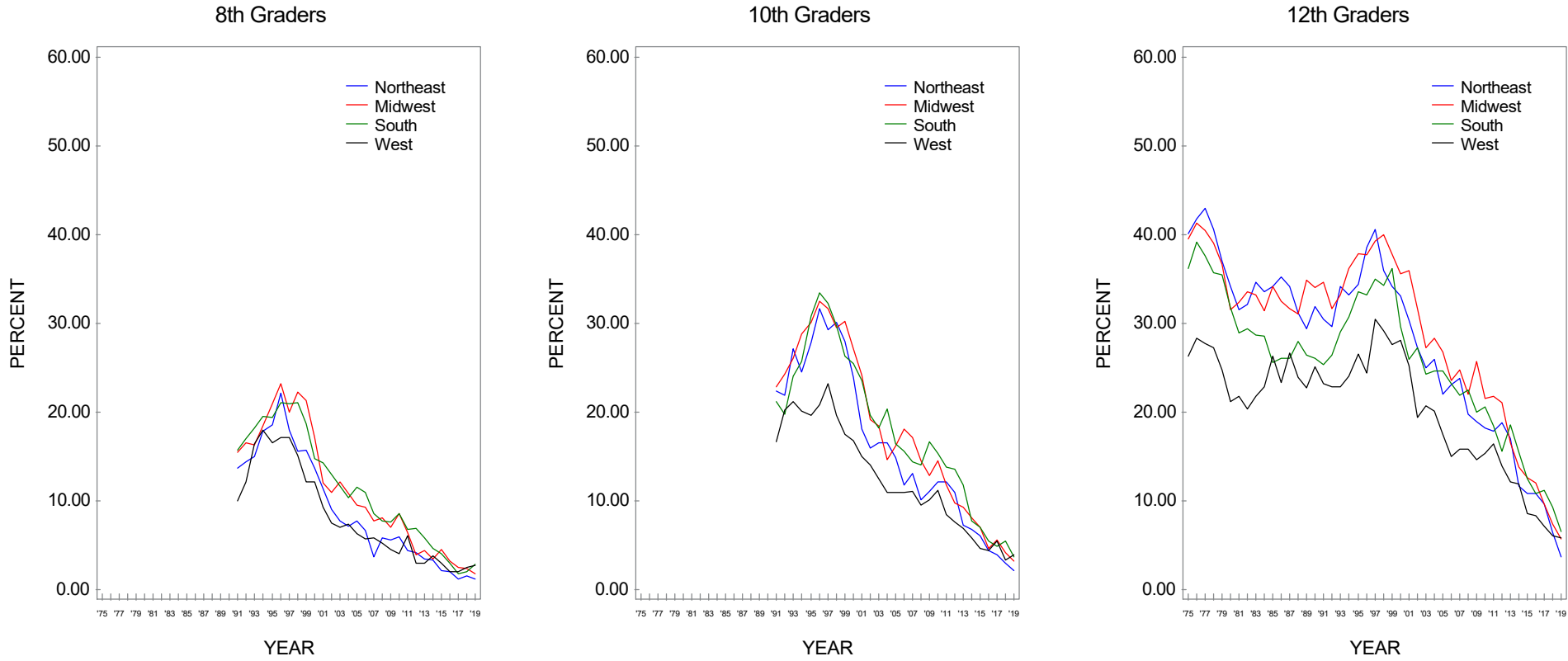
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 304
Cigarettes: Trends in 30-Day Prevalence by Population Density
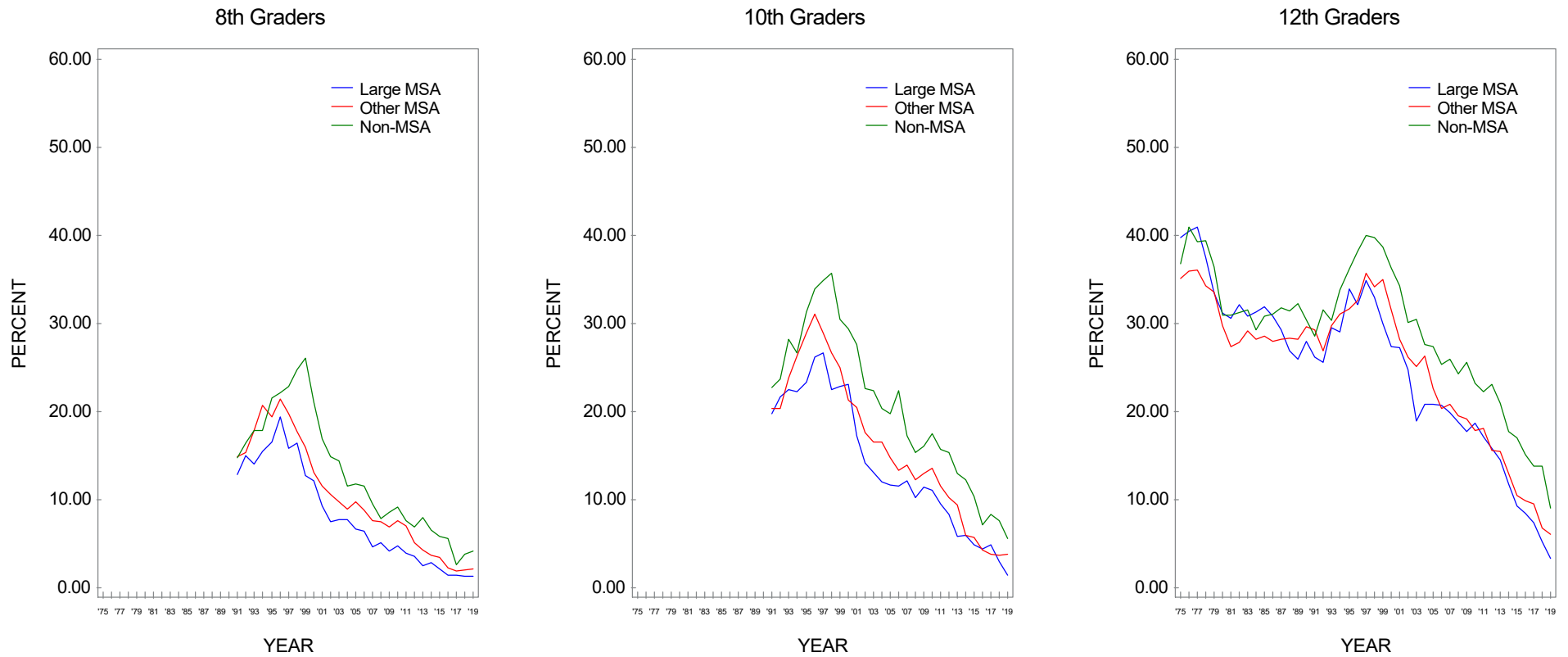
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 305
Cigarettes: Trends in 30-Day Prevalence by Average Education Level of Parents*
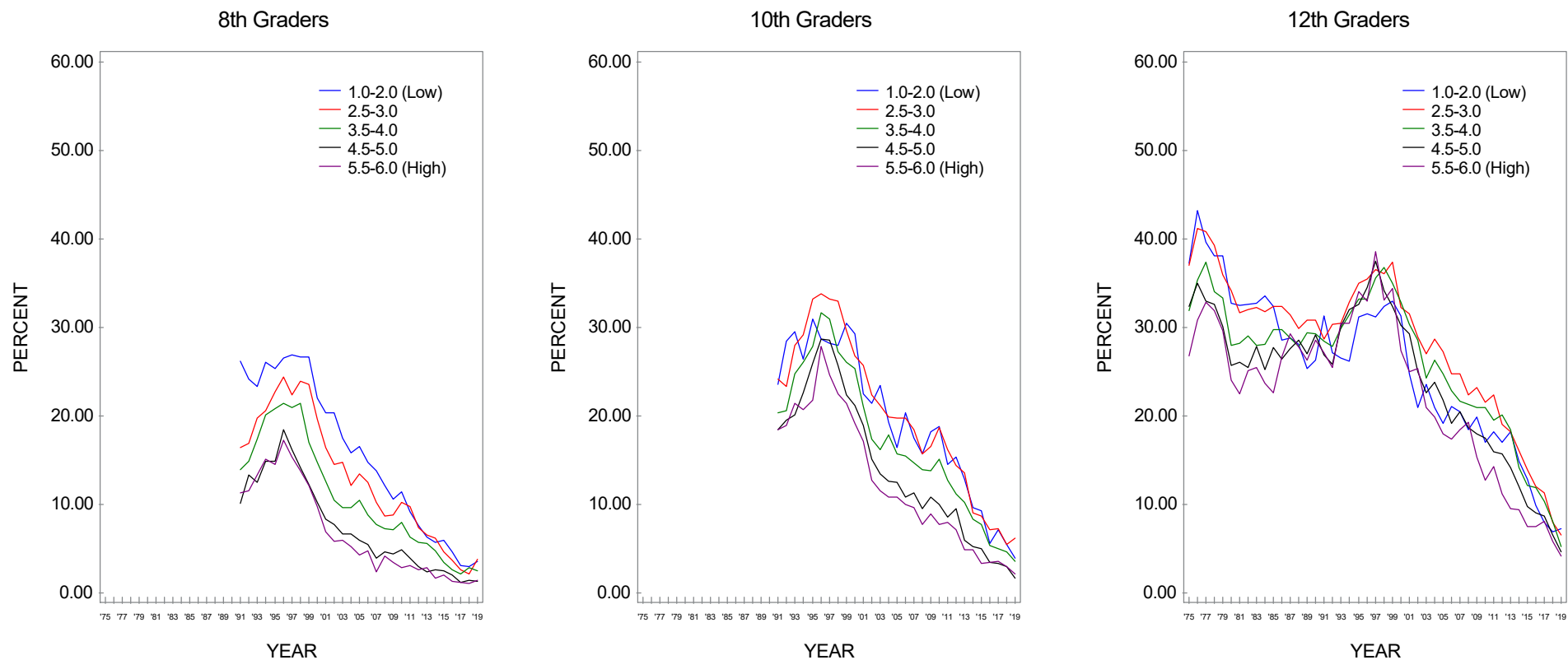
FIGURE 306
Cigarettes: Trends in 30-Day Prevalence by Race/Ethnicity*
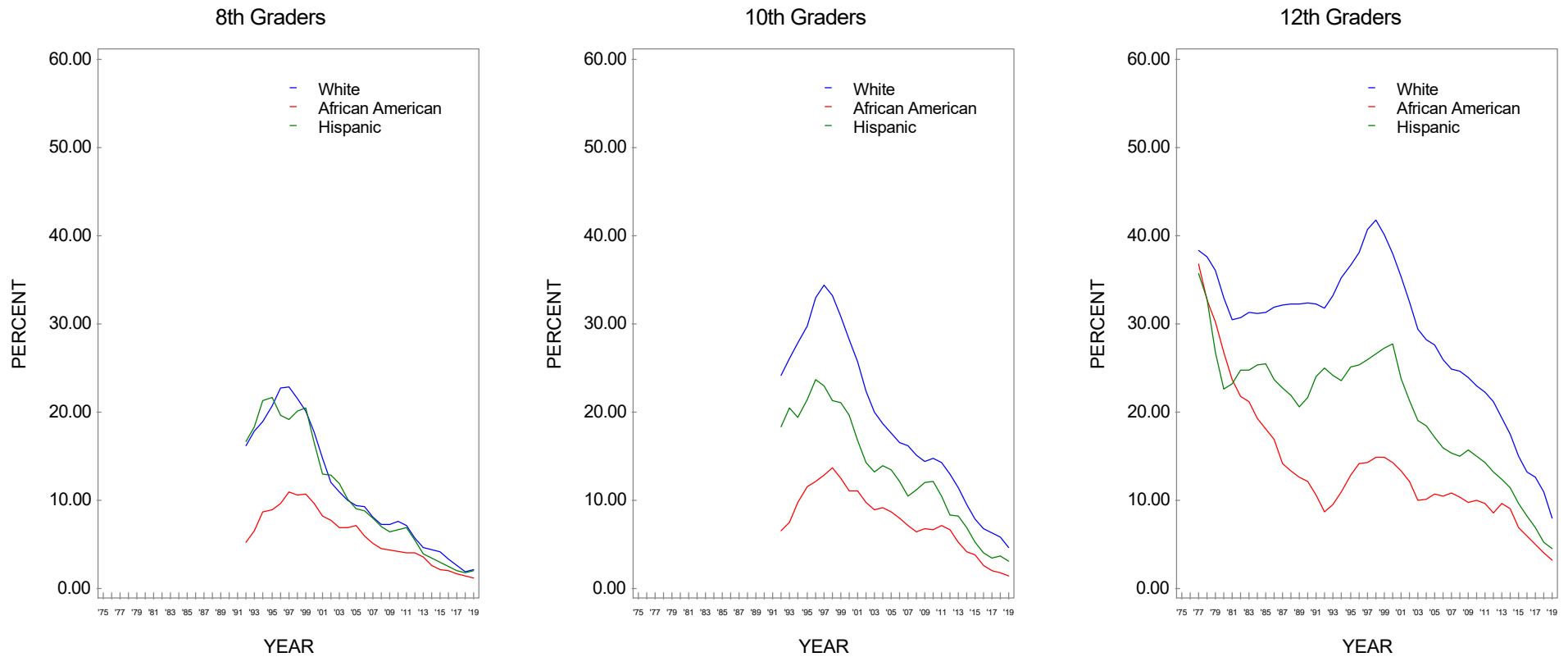
FIGURE 307
Cigarettes: Trends in 30-Day Prevalence of Daily Use by Gender

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

307
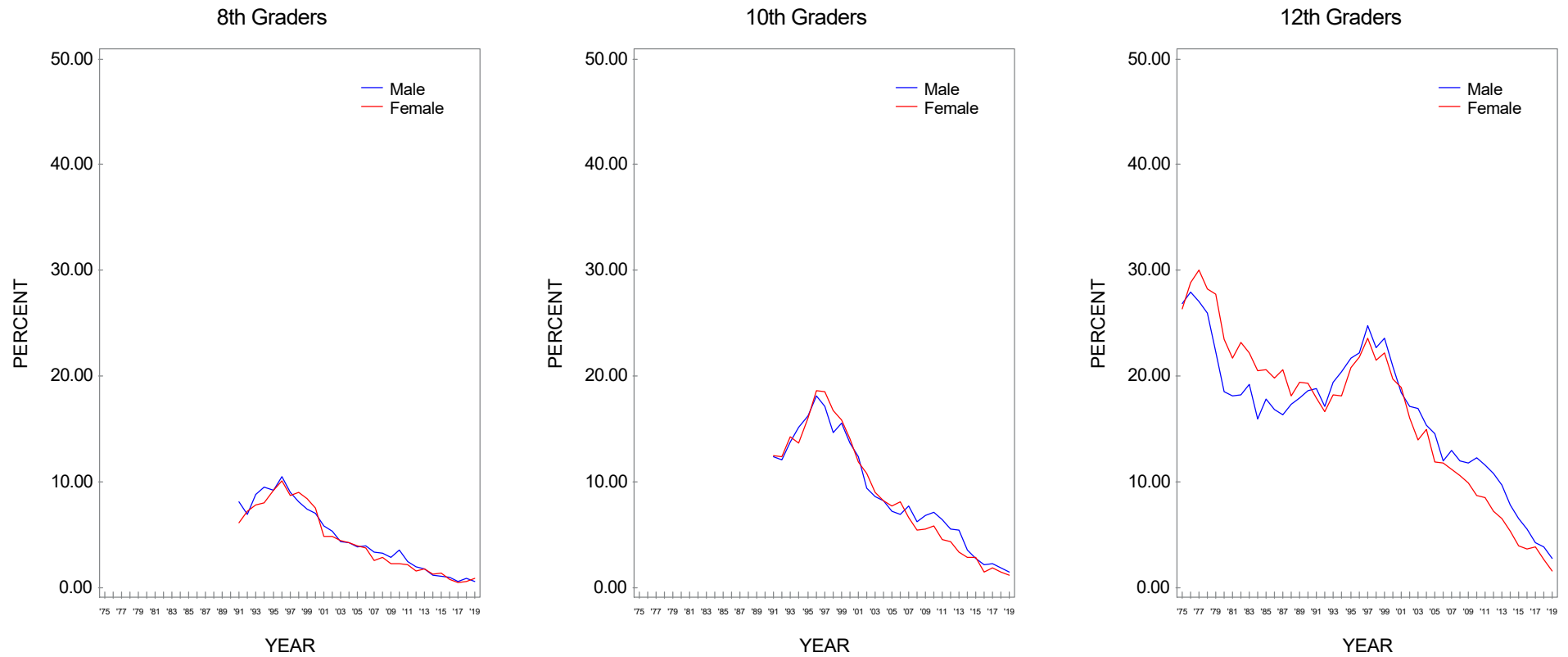
FIGURE 308
Cigarettes: Trends in 30-Day Prevalence of Daily Use by College Plans
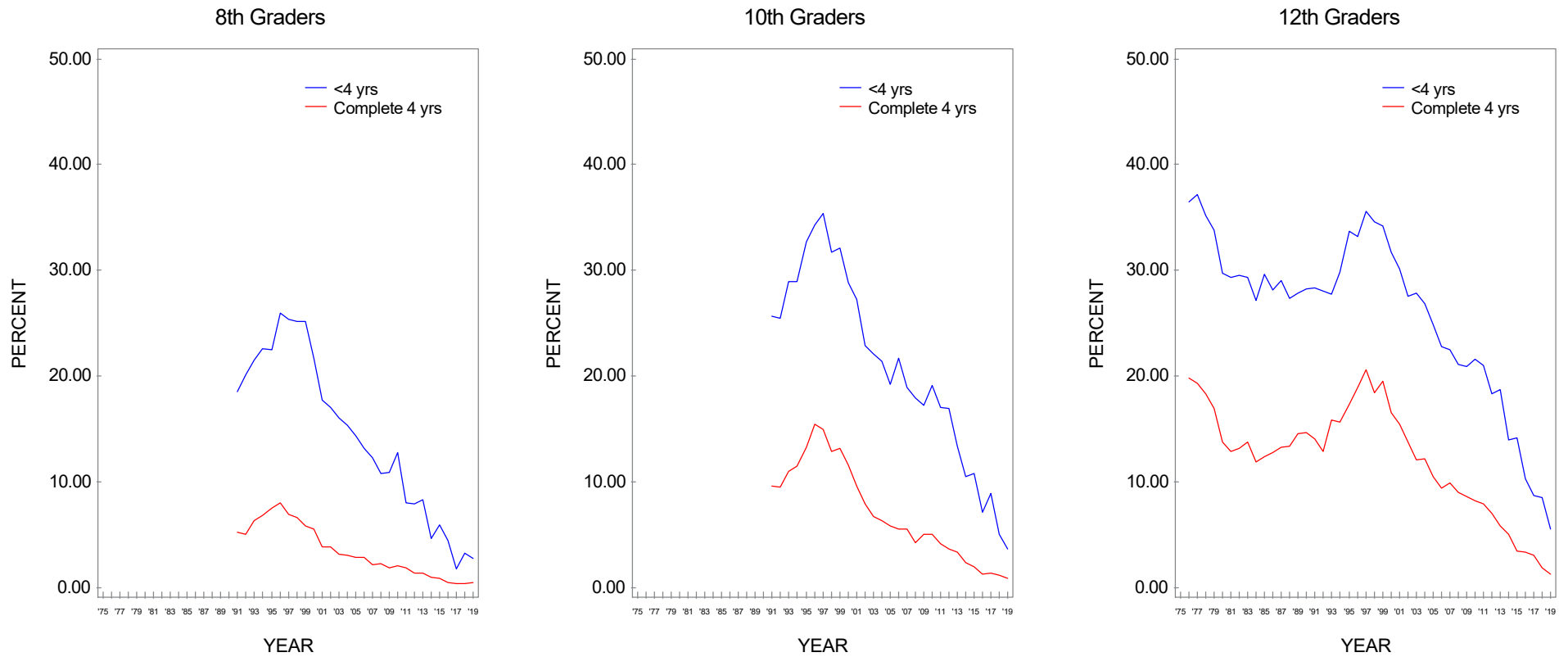
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 309
Cigarettes: Trends in 30-Day Prevalence of Daily Use by Region
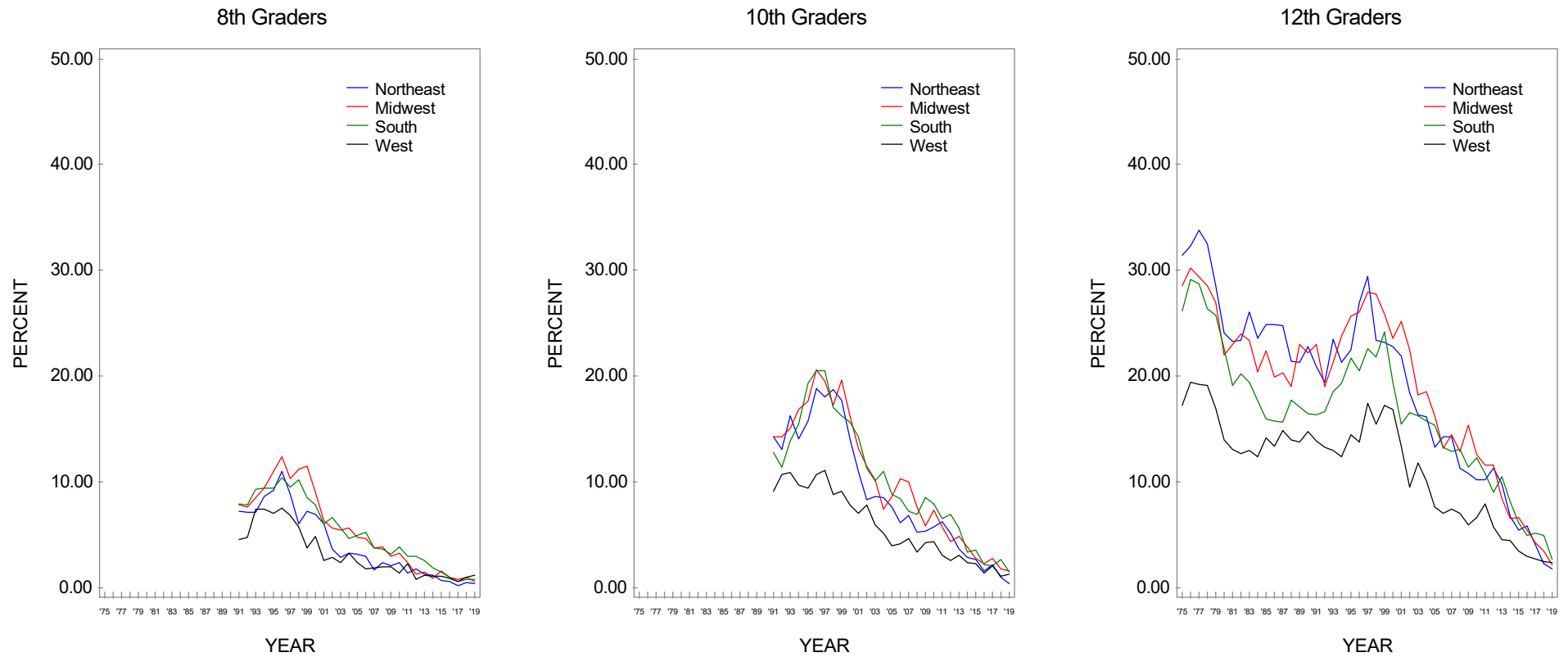
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 310
Cigarettes: Trends in 30-Day Prevalence of Daily Use by Population Density
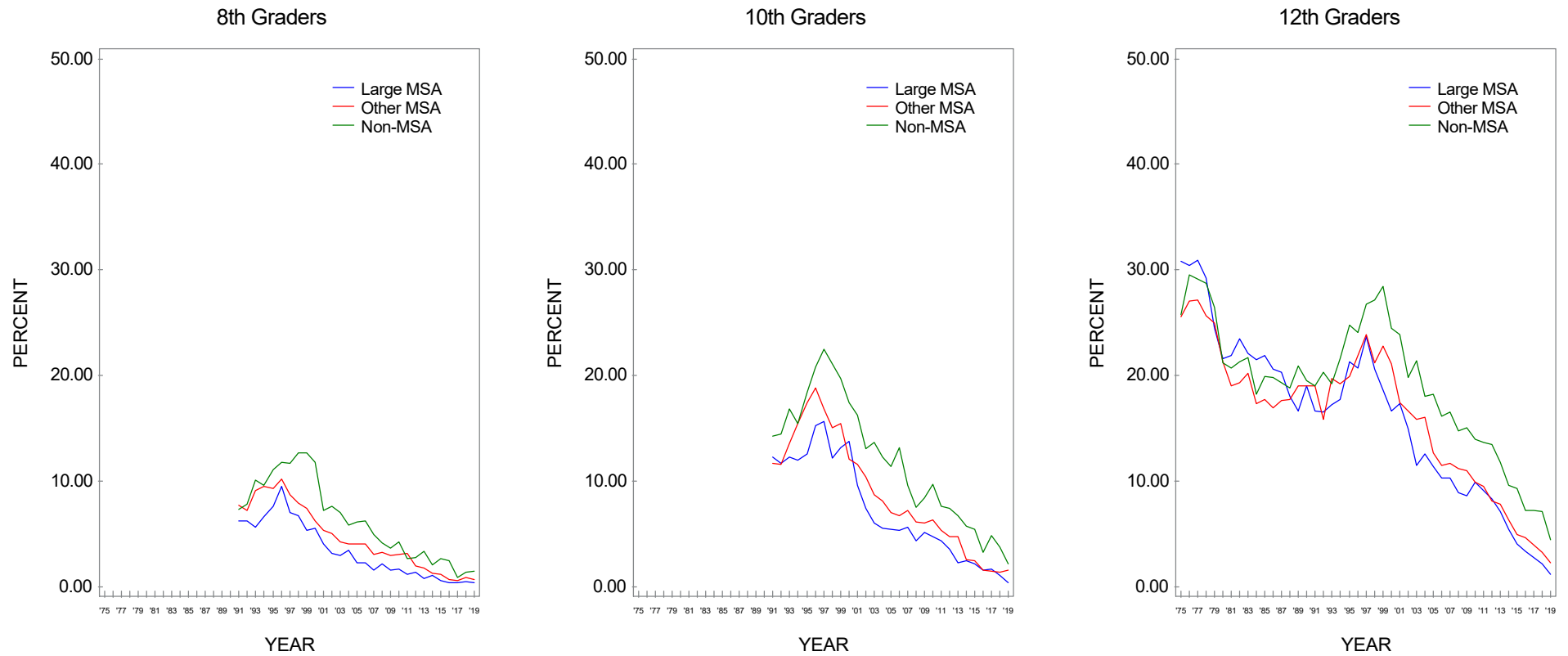
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 311

Cigarettes: Trends in 30-Day Prevalence of Daily Use by Average Education Level of Parents*
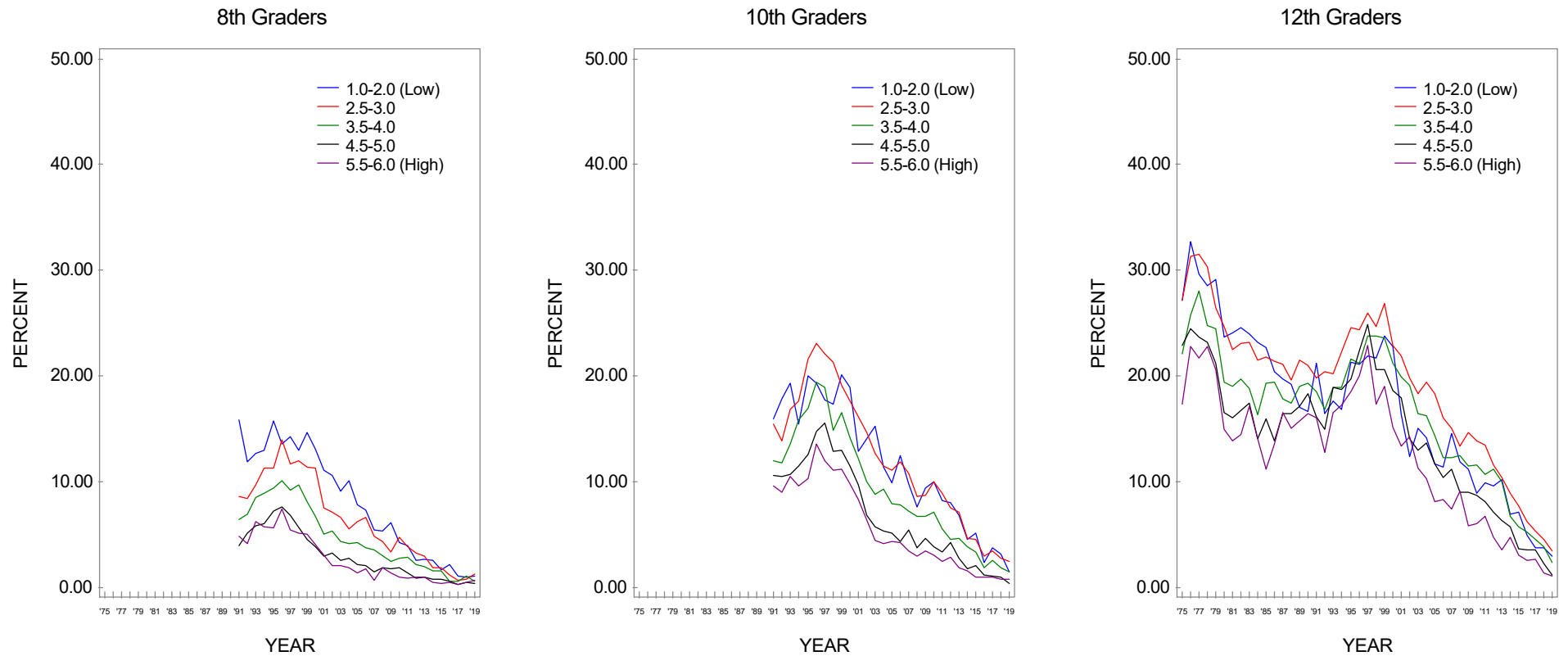
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 312
Cigarettes: Trends in 30-Day Prevalence of Daily Use by Race/Ethnicity*
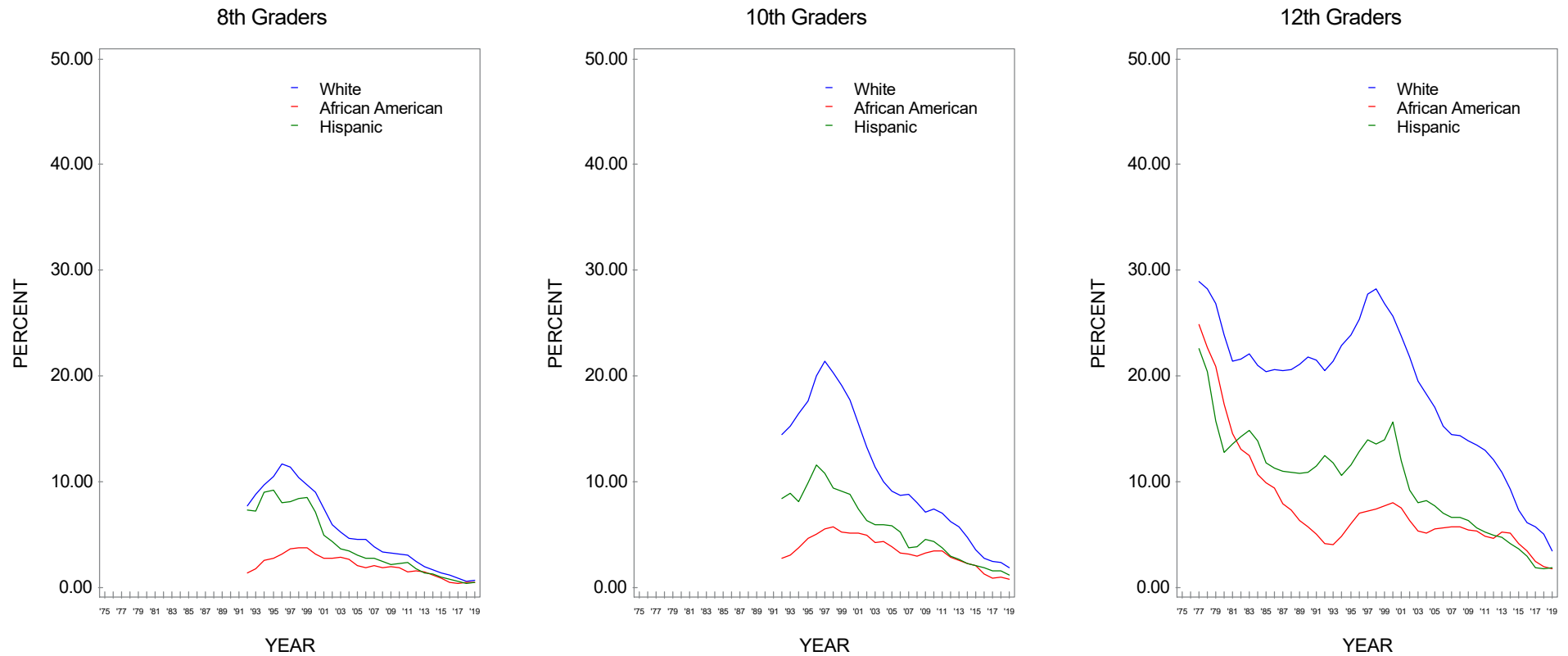
FIGURE 313
Cigarettes: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Gender
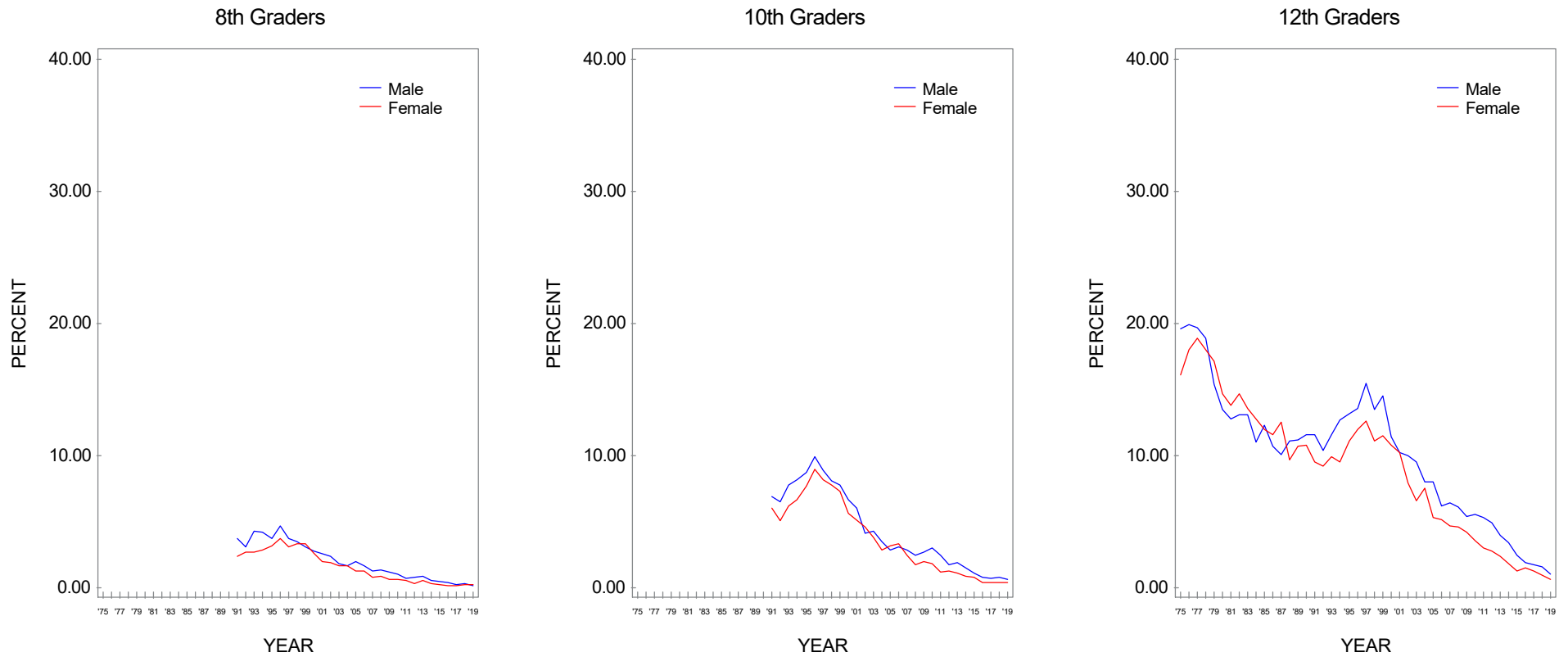
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 314

Cigarettes: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by College Plans
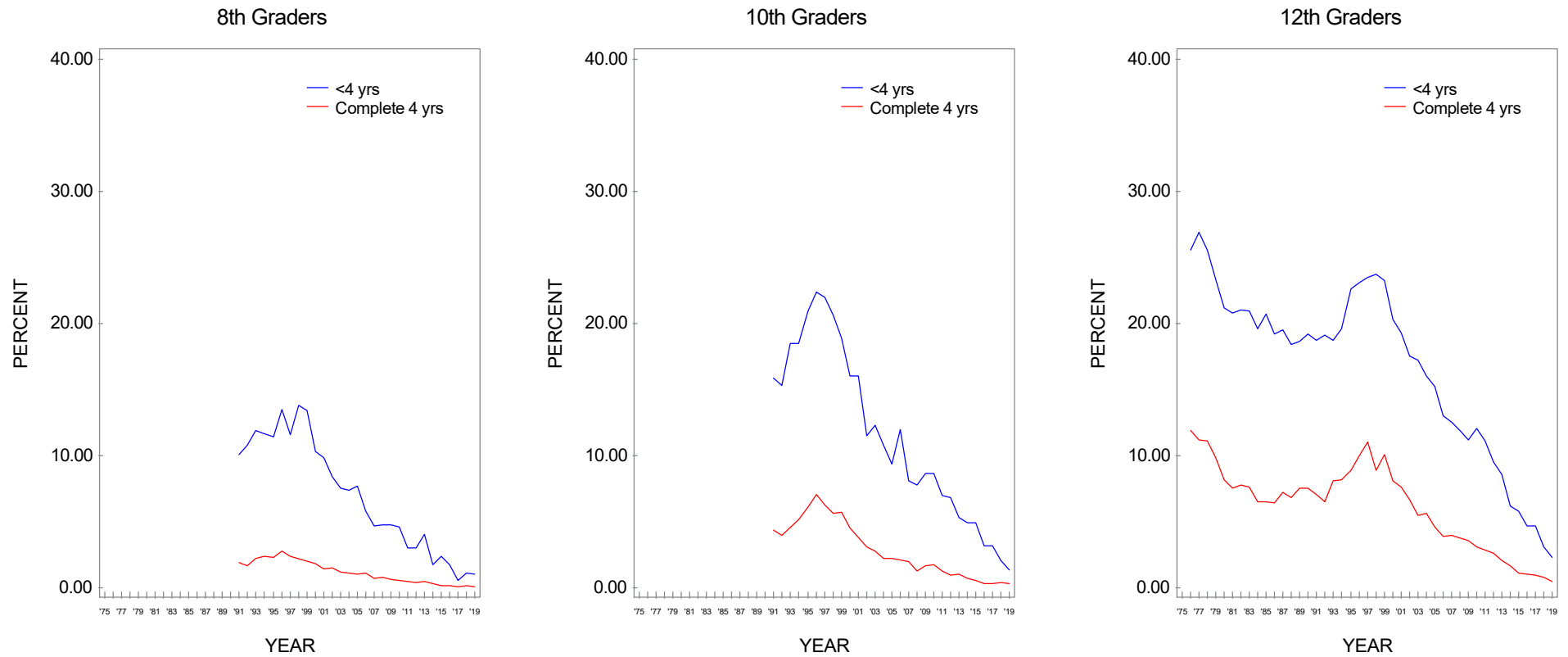
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 315
Cigarettes: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Region
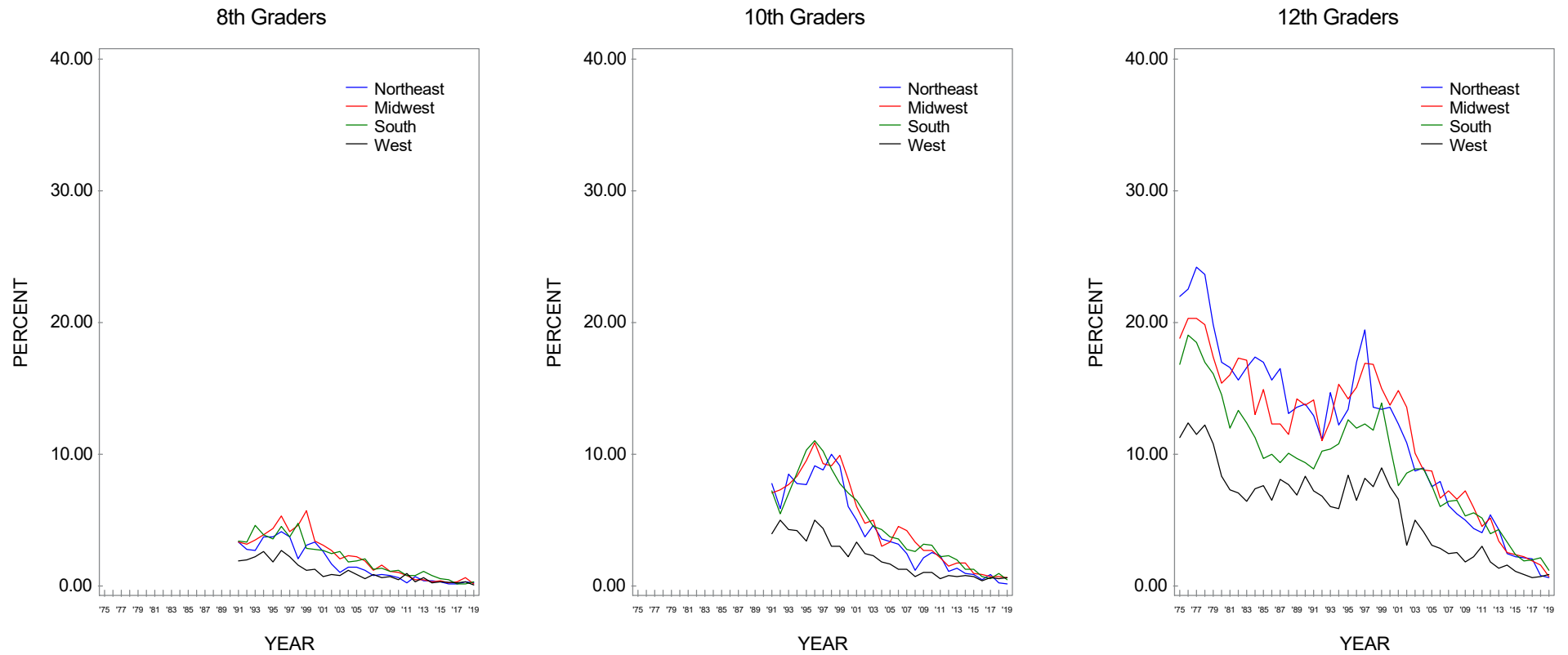
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 316
Cigarettes: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Population Density
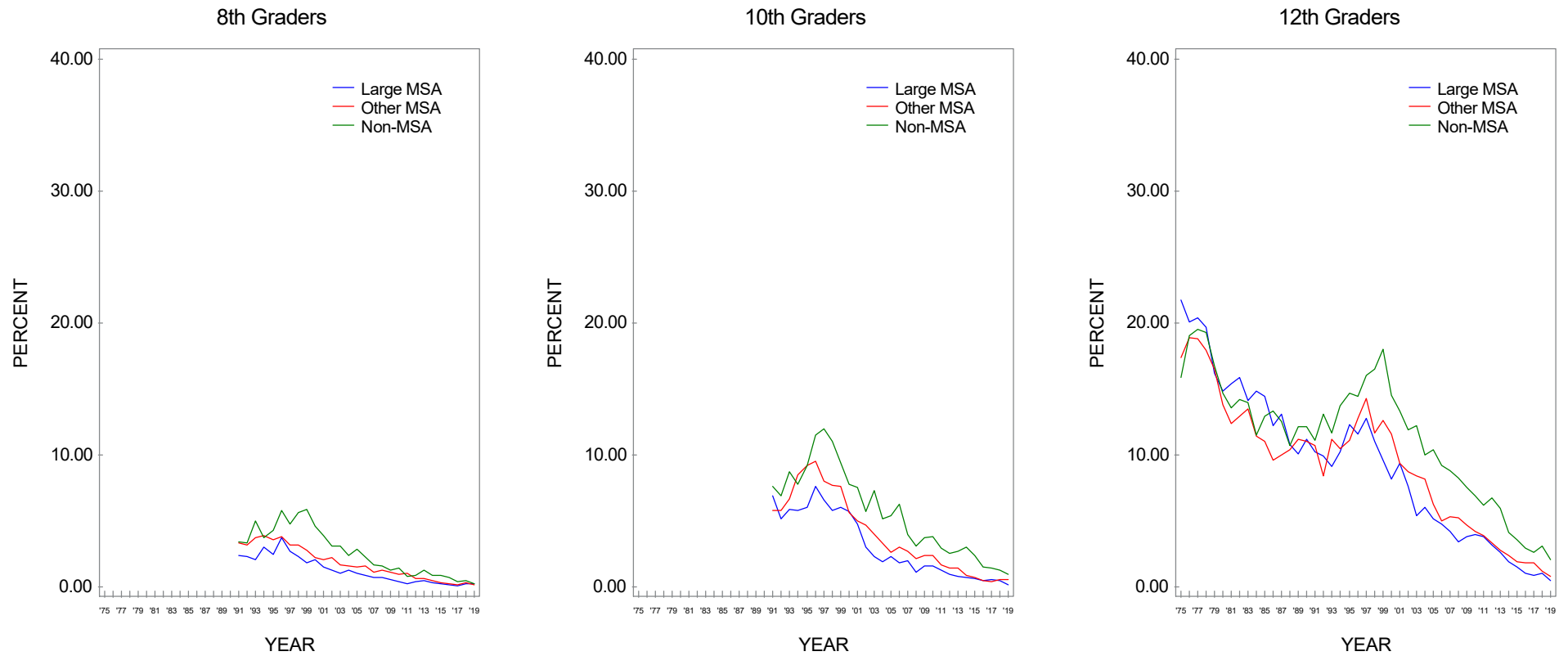
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 317
**Cigarettes: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Average Education Level of Parents***
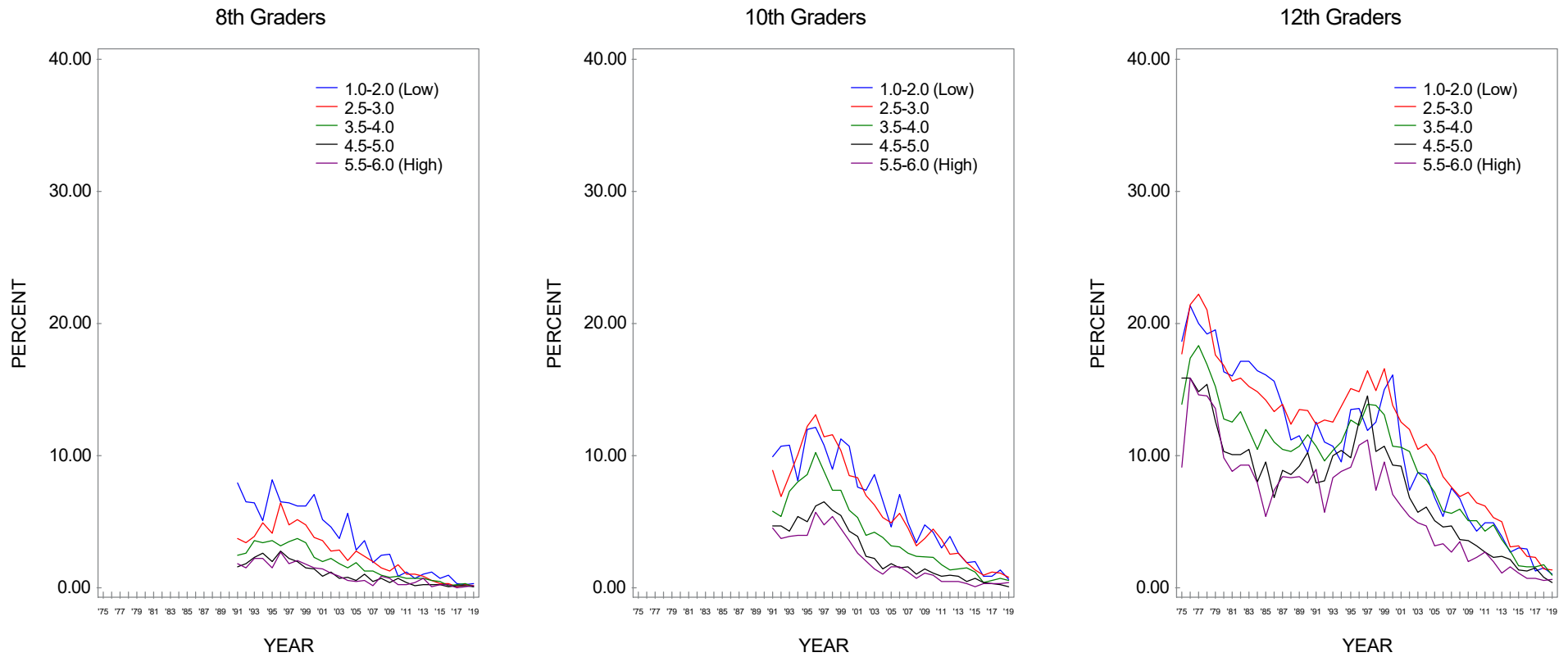
Source. The Monitoring the Future study, the University of Michigan.
*Parental education is an average score of mother's education and father's education.

FIGURE 318
Cigarettes: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Race/Ethnicity*
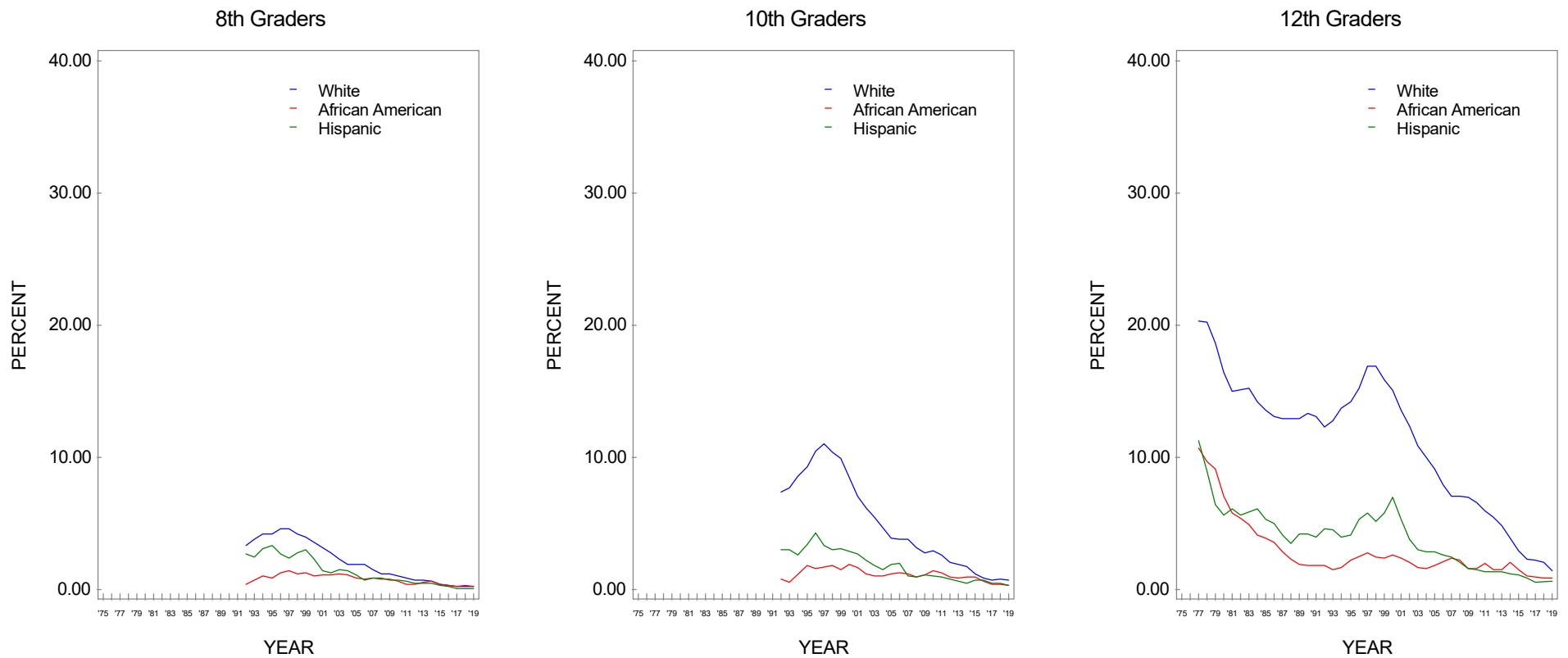
FIGURE 319

Tobacco using a Hookah: Trends in Annual Prevalence by Gender

12th Graders
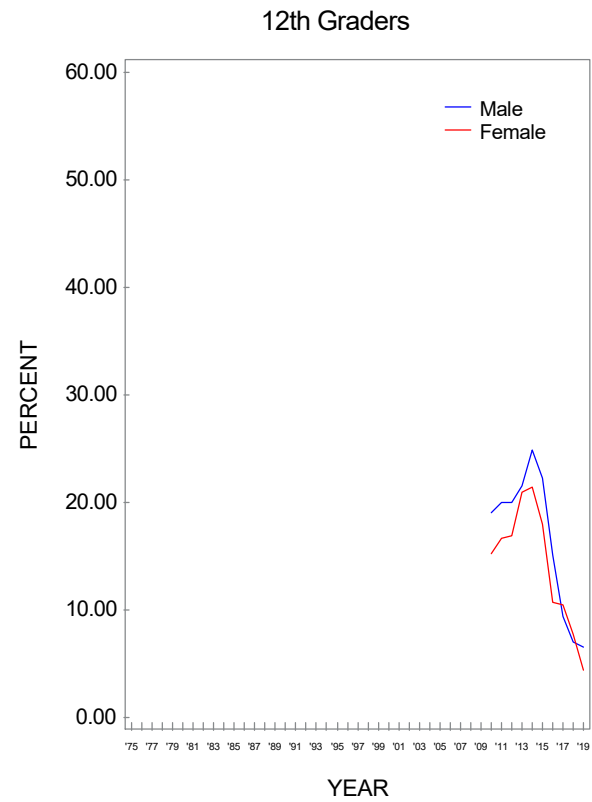
FIGURE 320

Tobacco using a Hookah: Trends in Annual Prevalence by College Plans

12th Graders
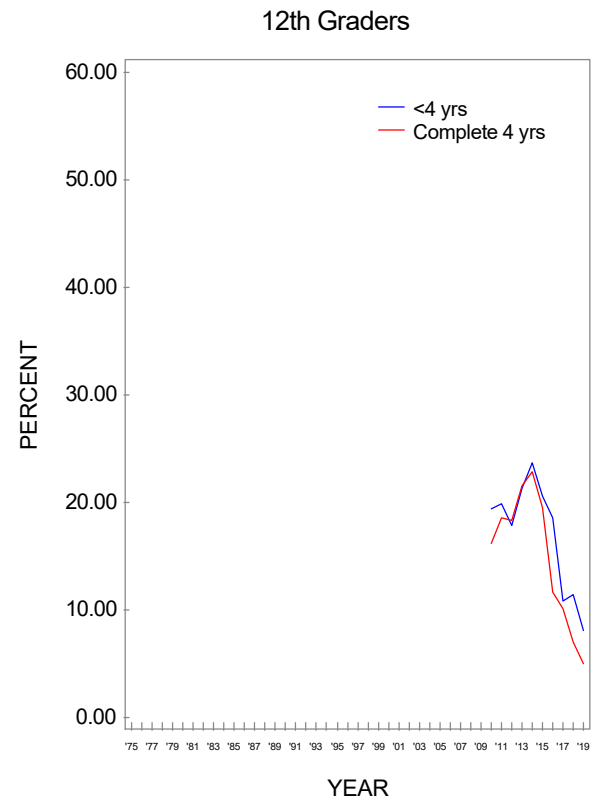
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 321

Tobacco using a Hookah: Trends in Annual Prevalence by Region

12th Graders
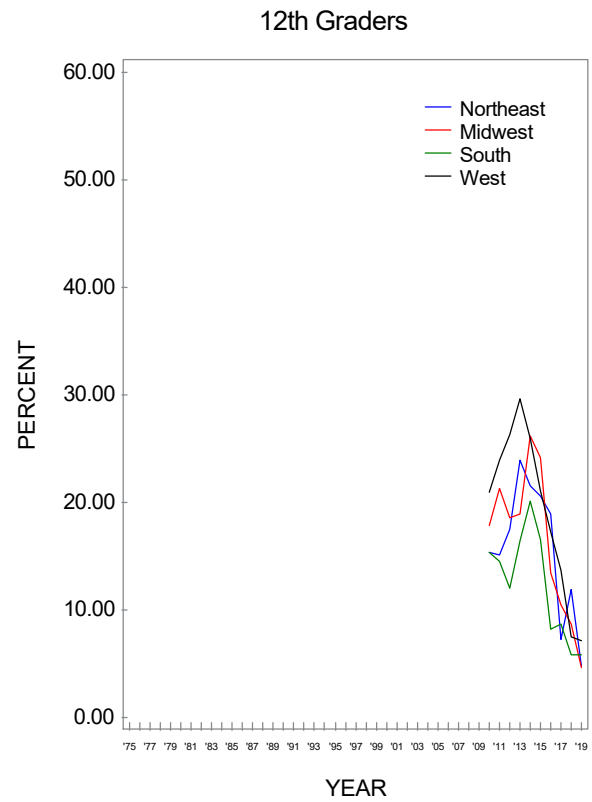
FIGURE 322

Tobacco using a Hookah: Trends in Annual Prevalence by Population Density

12th Graders
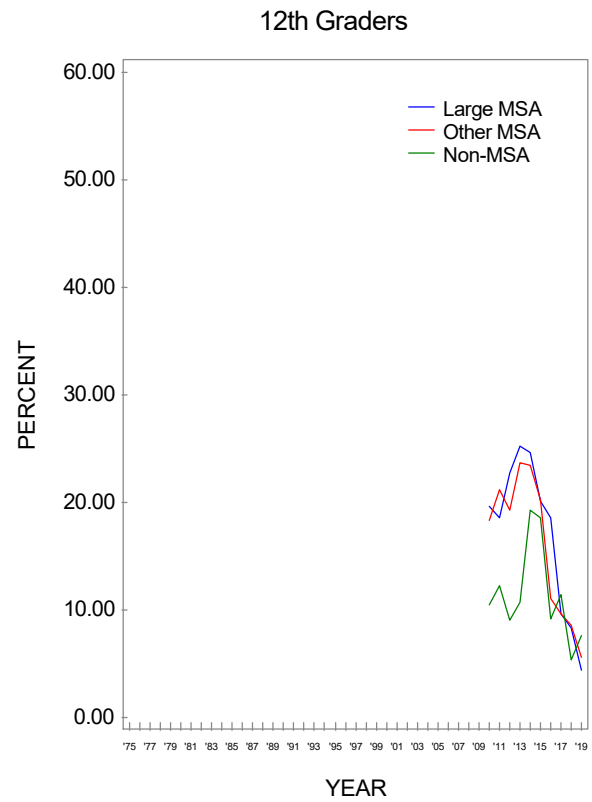
FIGURE 323

Tobacco using a Hookah: Trends in Annual Prevalence by Average Education Level of Parents*
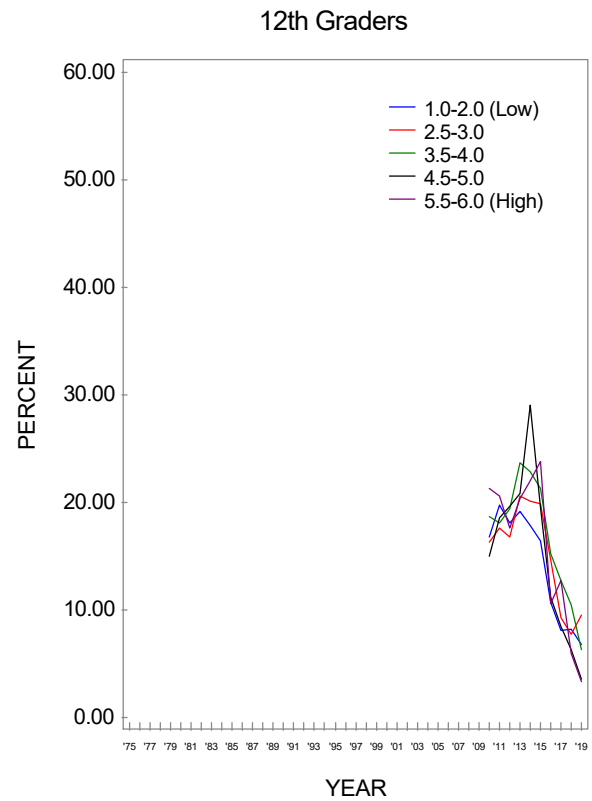
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 324
Tobacco using a Hookah: Trends in Annual Prevalence by Race/Ethnicity*
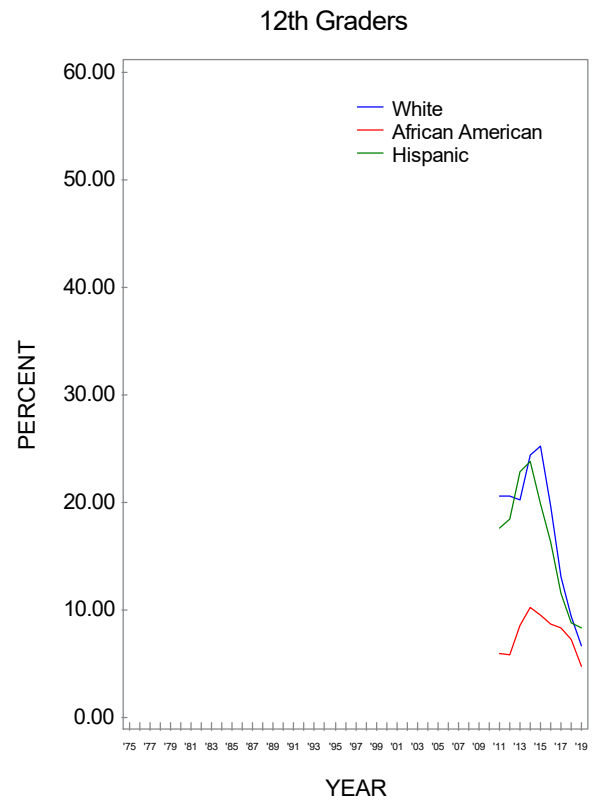
12th Graders

FIGURE 325
Small Cigars*: Trends in Annual Prevalence by Gender
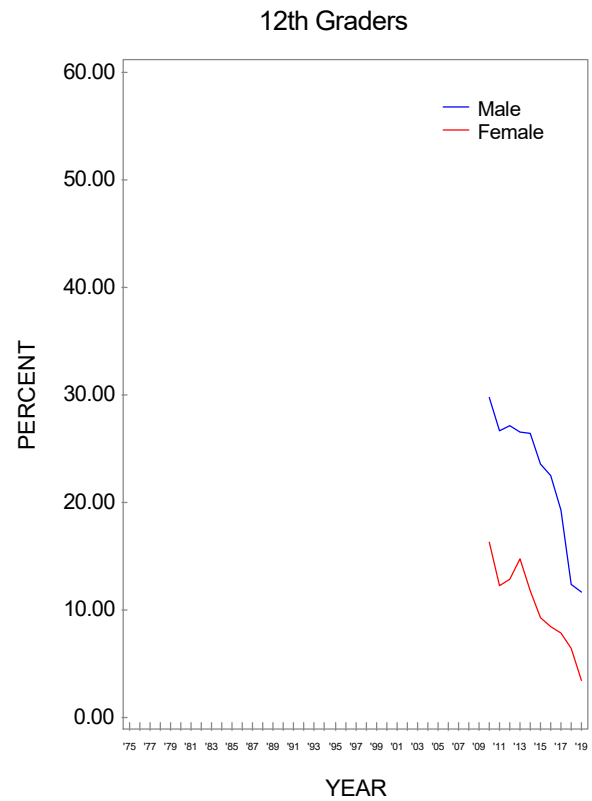
12th Graders

*Question text is: During the last 12 months, on how many occasions have you smoked small cigars?

FIGURE 326
Small Cigars: Trends in Annual Prevalence by College Plans

12th Graders
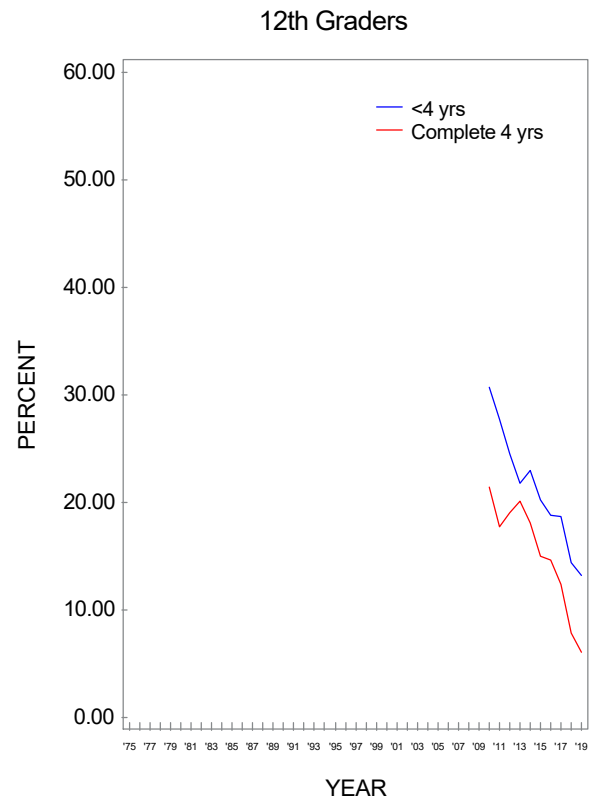
FIGURE 327
Small Cigars: Trends in Annual Prevalence by Region

12th Graders
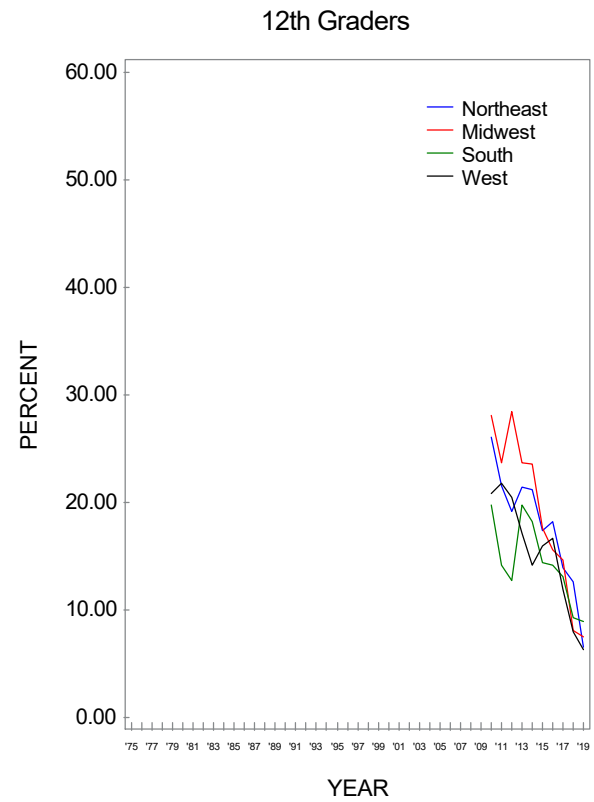
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 328
Small Cigars: Trends in Annual Prevalence by Population Density

12th Graders
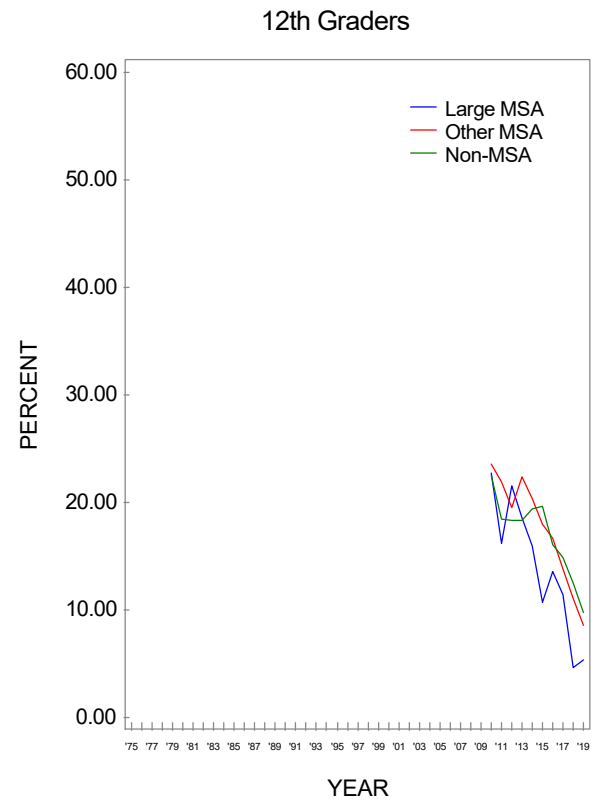
FIGURE 329
Small Cigars: Trends in Annual Prevalence by Average Education Level of Parents*
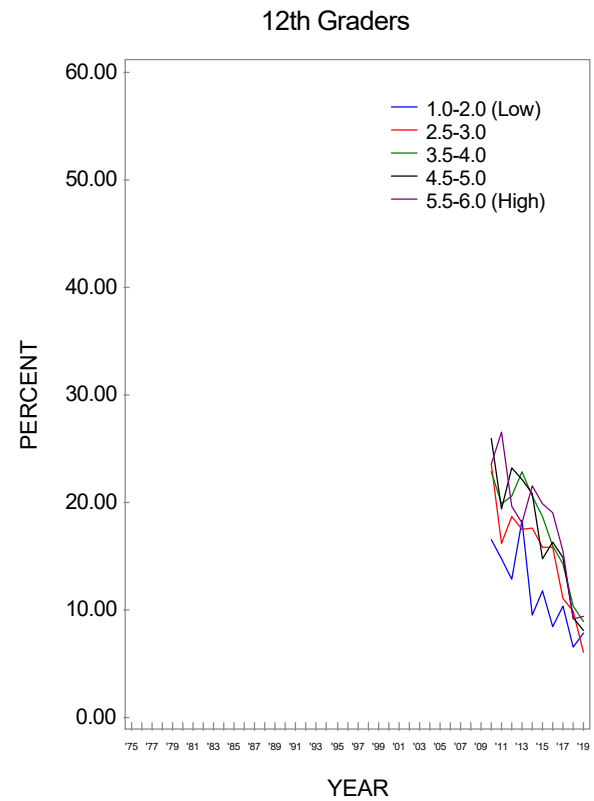
12th Graders

FIGURE 330
Small Cigars: Trends in Annual Prevalence by Race/Ethnicity*
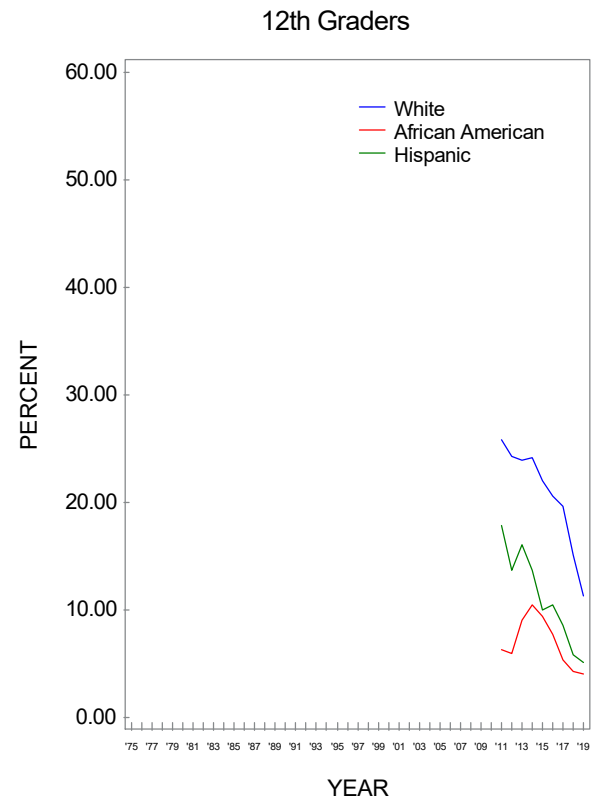
12th Graders

FIGURE 331
Flavored Little Cigars*: Trends in 30-Day Prevalence by Gender
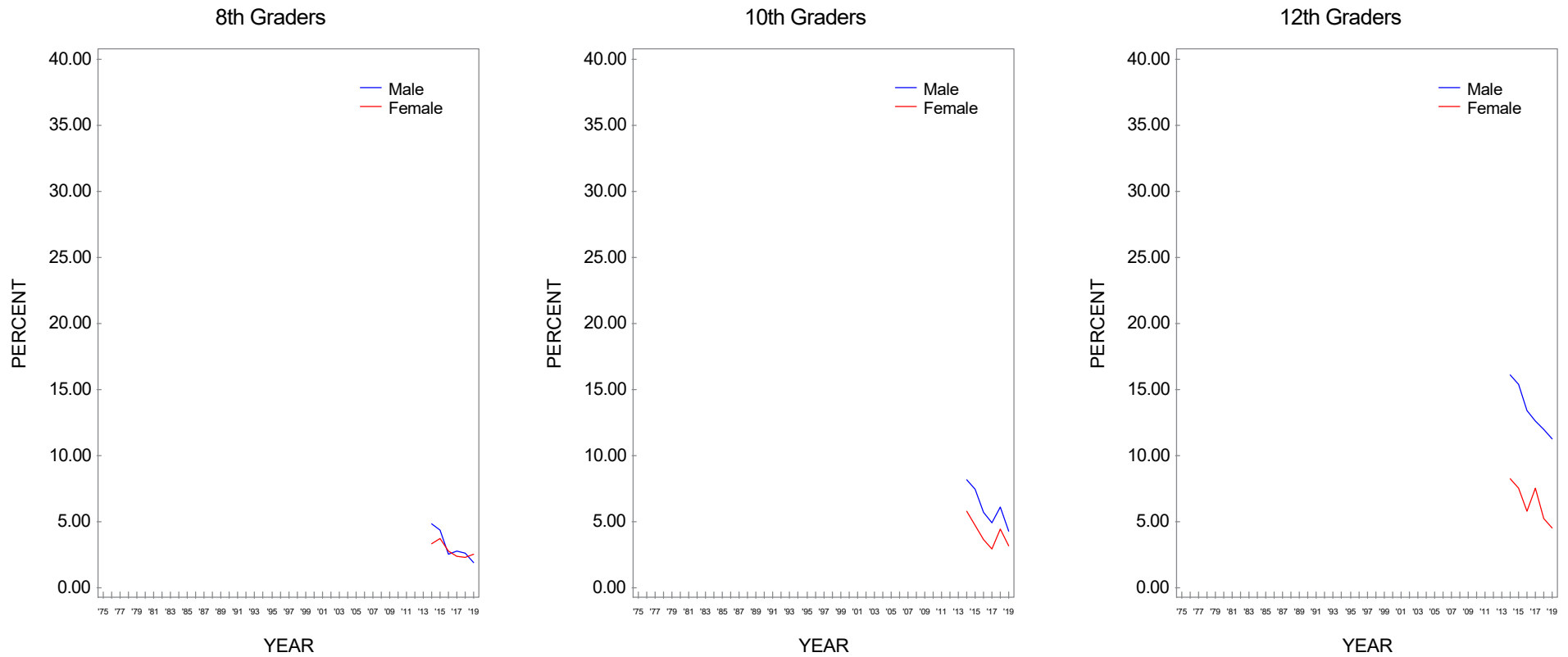
Source. The Monitoring the Future study, the University of Michigan.

*Question text is: During the last 30 days, on how many days (if any) have you smoked flavored little cigars or cigarillos?

FIGURE 332
Flavored Little Cigars: Trends in 30-Day Prevalence by College Plans

8th Graders | 10th Graders | 12th Graders
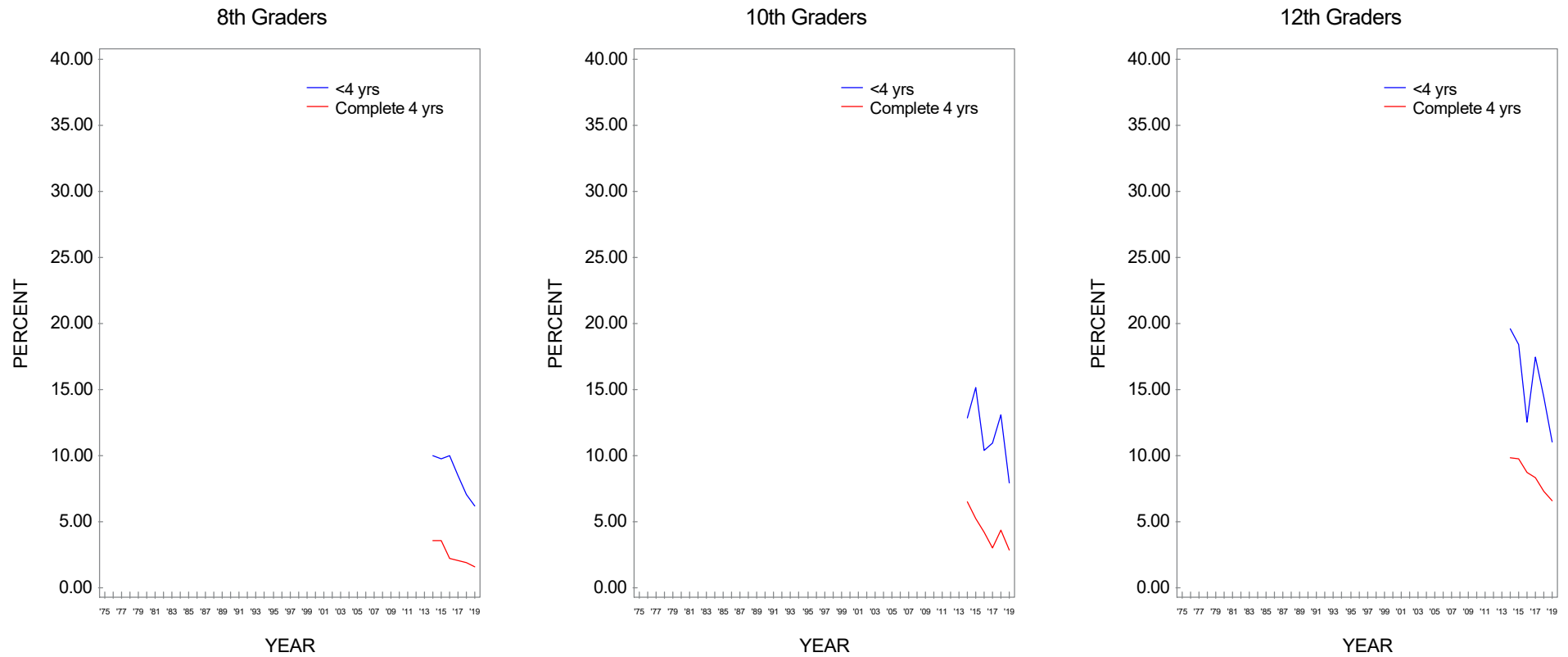
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 333
Flavored Little Cigars: Trends in 30-Day Prevalence by Region
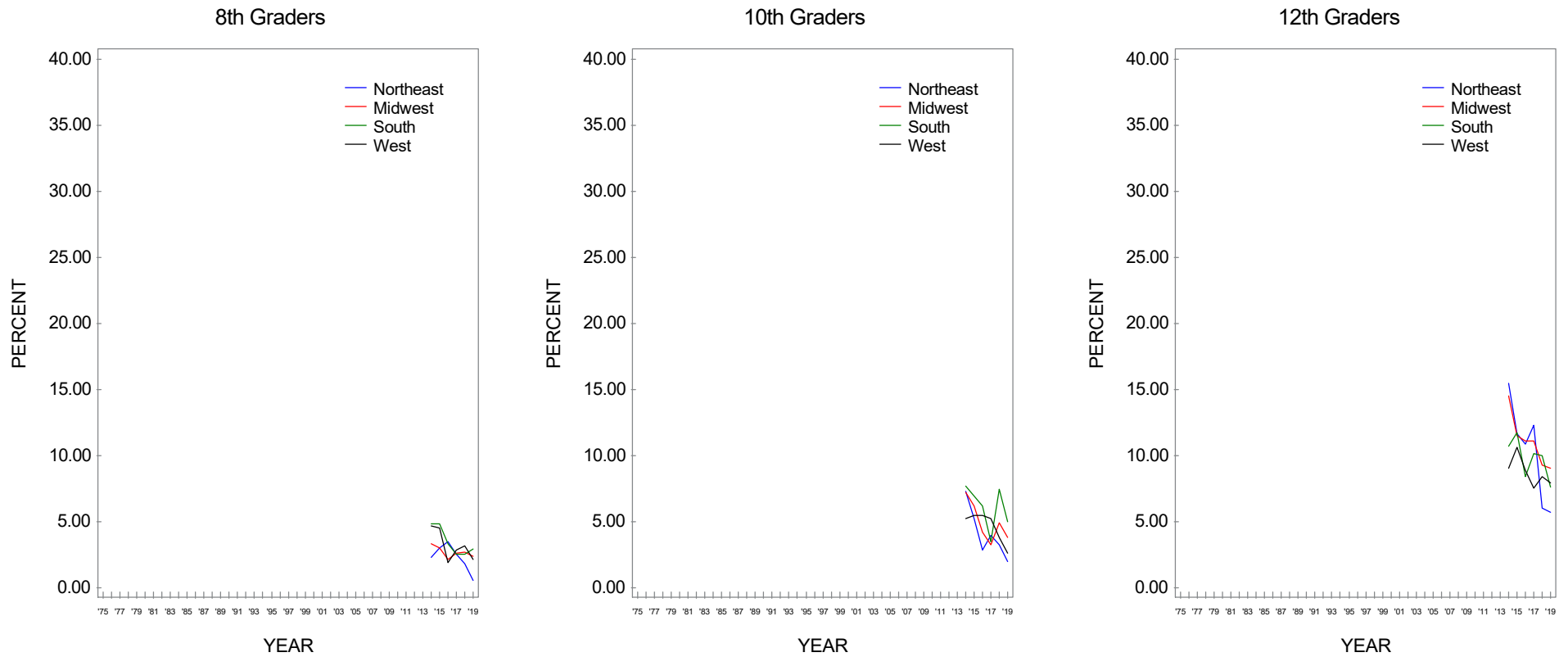
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 334

Flavored Little Cigars: Trends in 30-Day Prevalence by Population Density
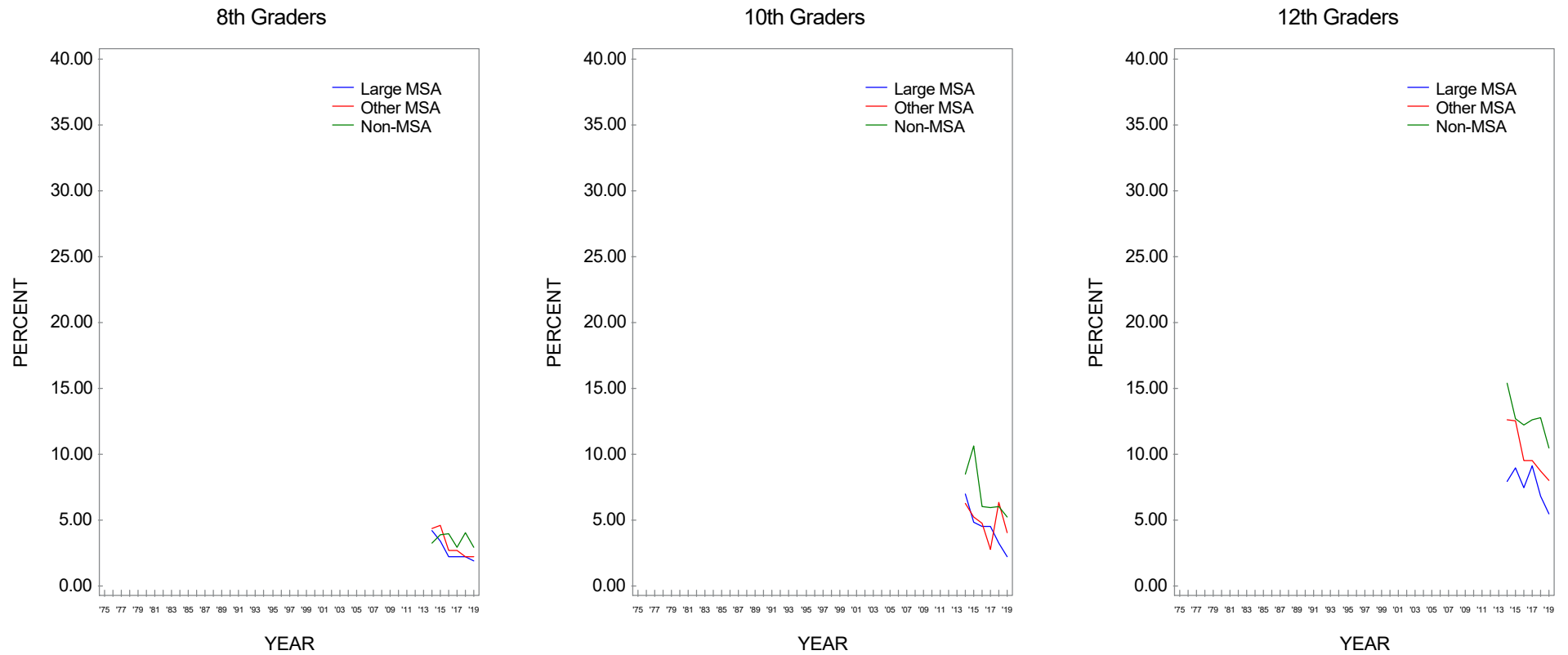
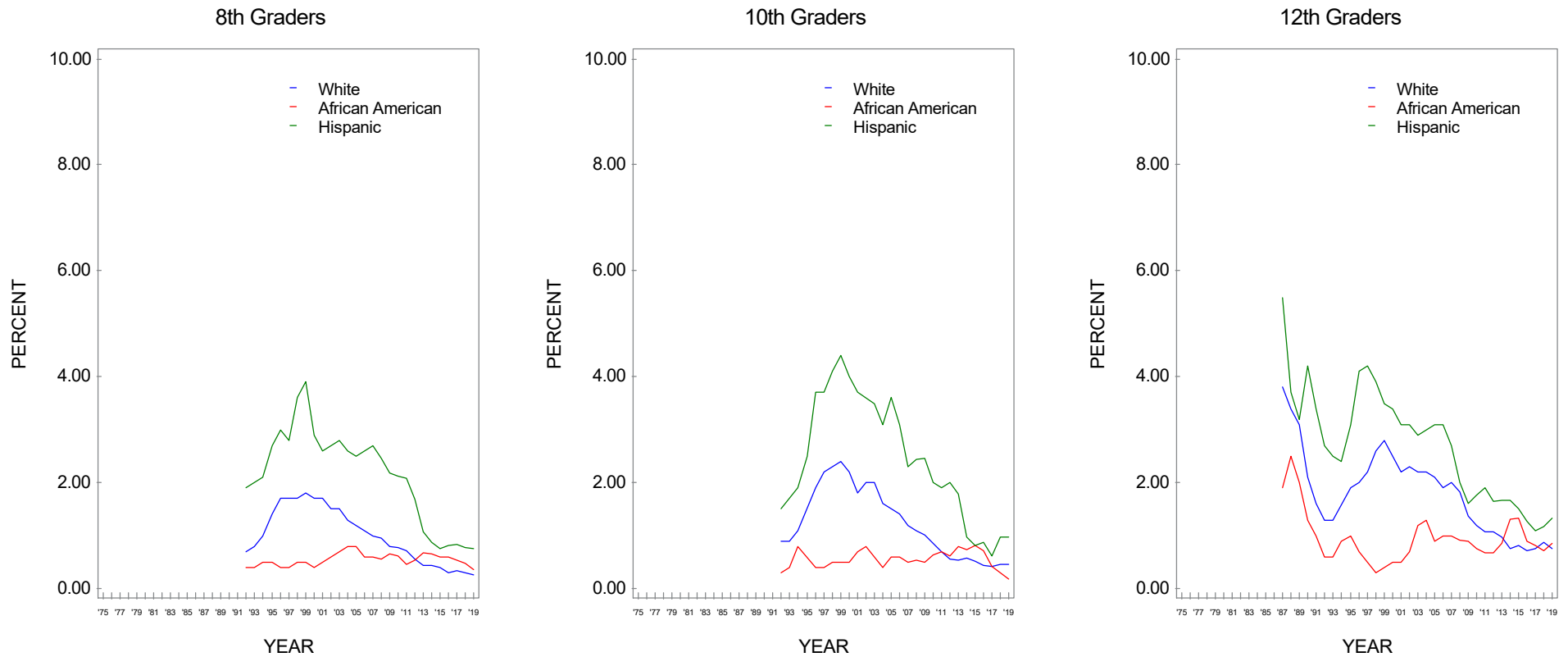Source. The Monitoring the Future study, the University of Michigan.

FIGURE 335
Flavored Little Cigars: Trends in 30-Day Prevalence by Average Education Level of Parents*
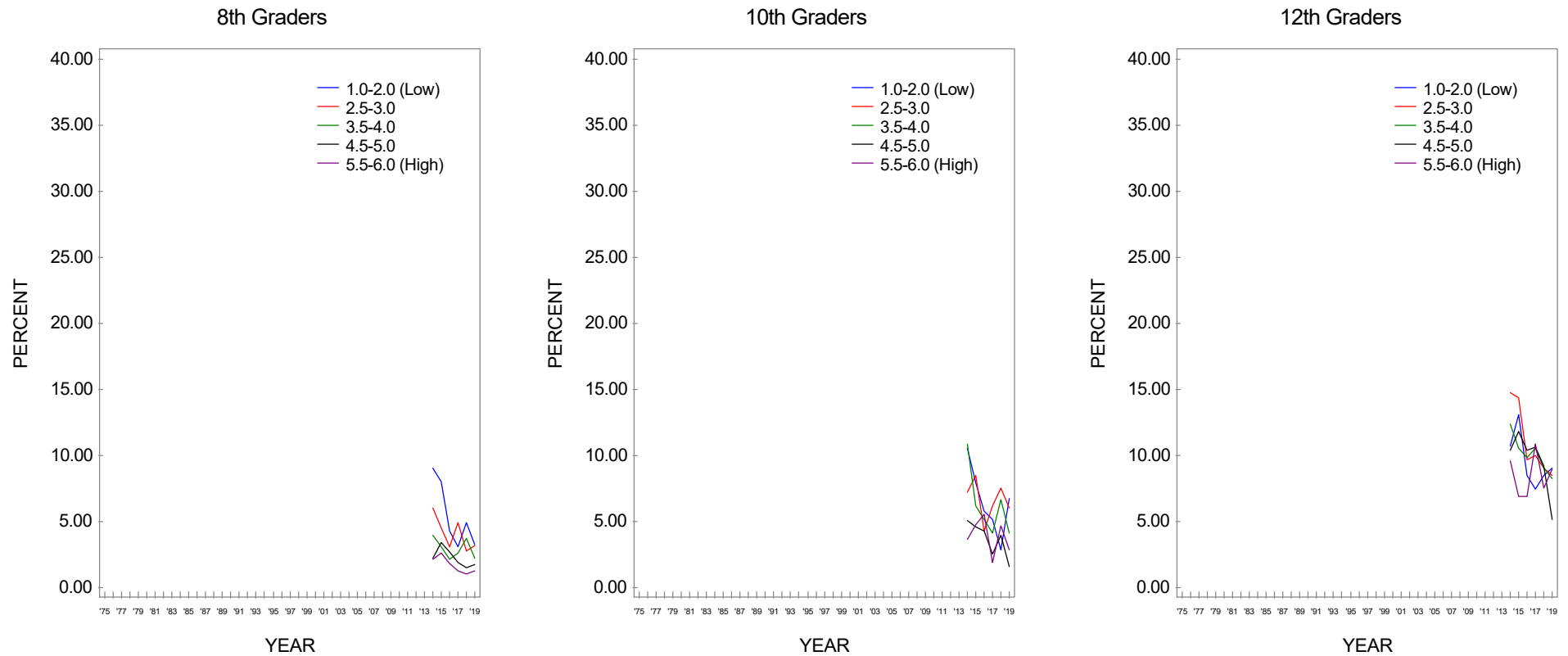
FIGURE 336
Flavored Little Cigars: Trends in 30-Day Prevalence by Race/Ethnicity*
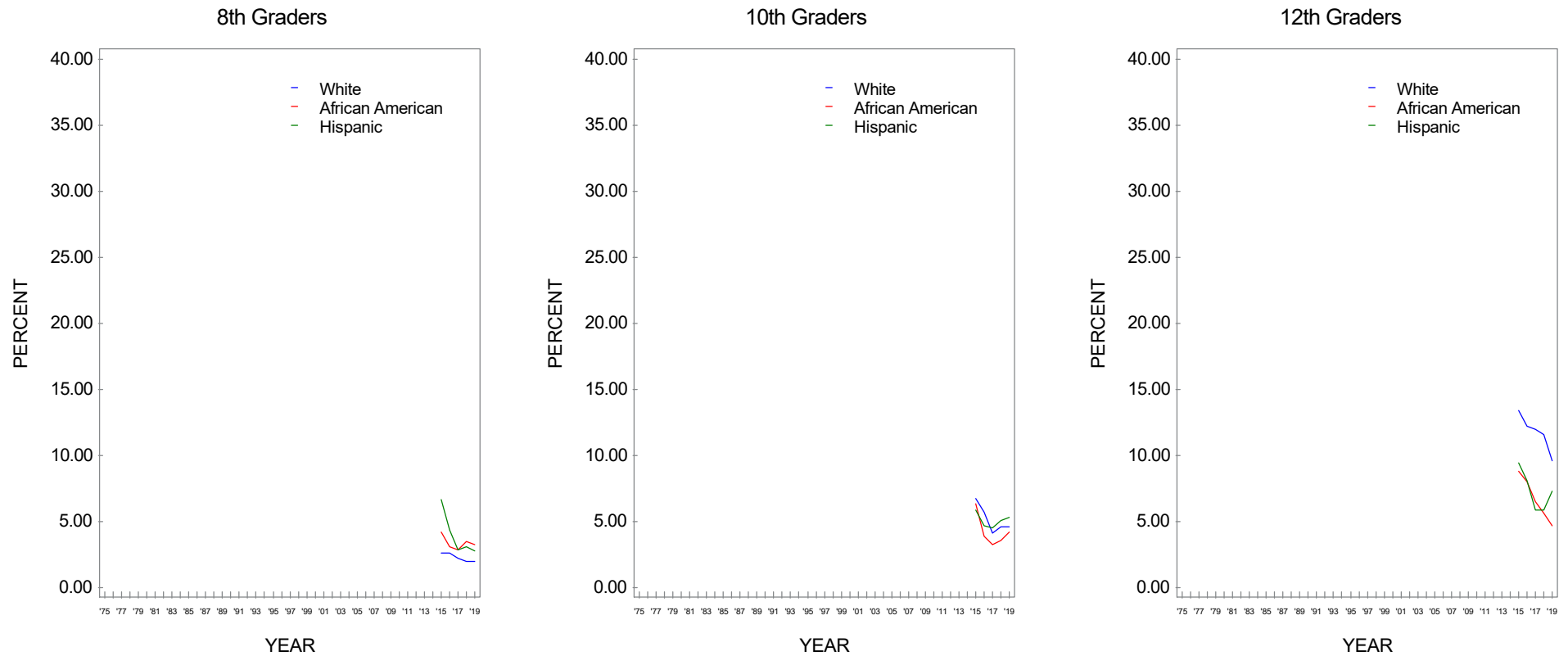
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 337
Regular Little Cigars*: Trends in 30-Day Prevalence by Gender
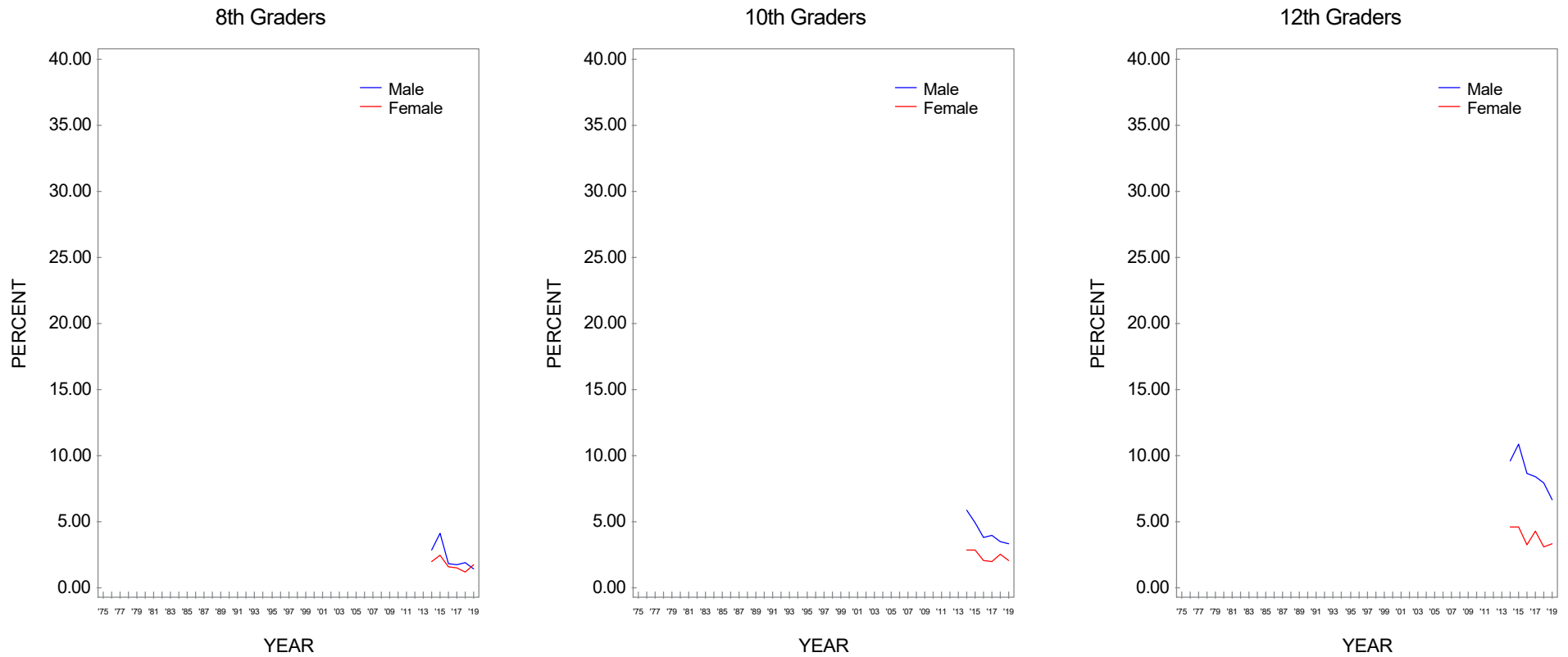
Source. The Monitoring the Future study, the University of Michigan.

*Question text is: During the last 30 days, on how many days (if any) have you smoked regular little cigars or cigarillos?

FIGURE 338
Regular Little Cigars: Trends in 30-Day Prevalence by College Plans

8th Graders

10th Graders

12th Graders
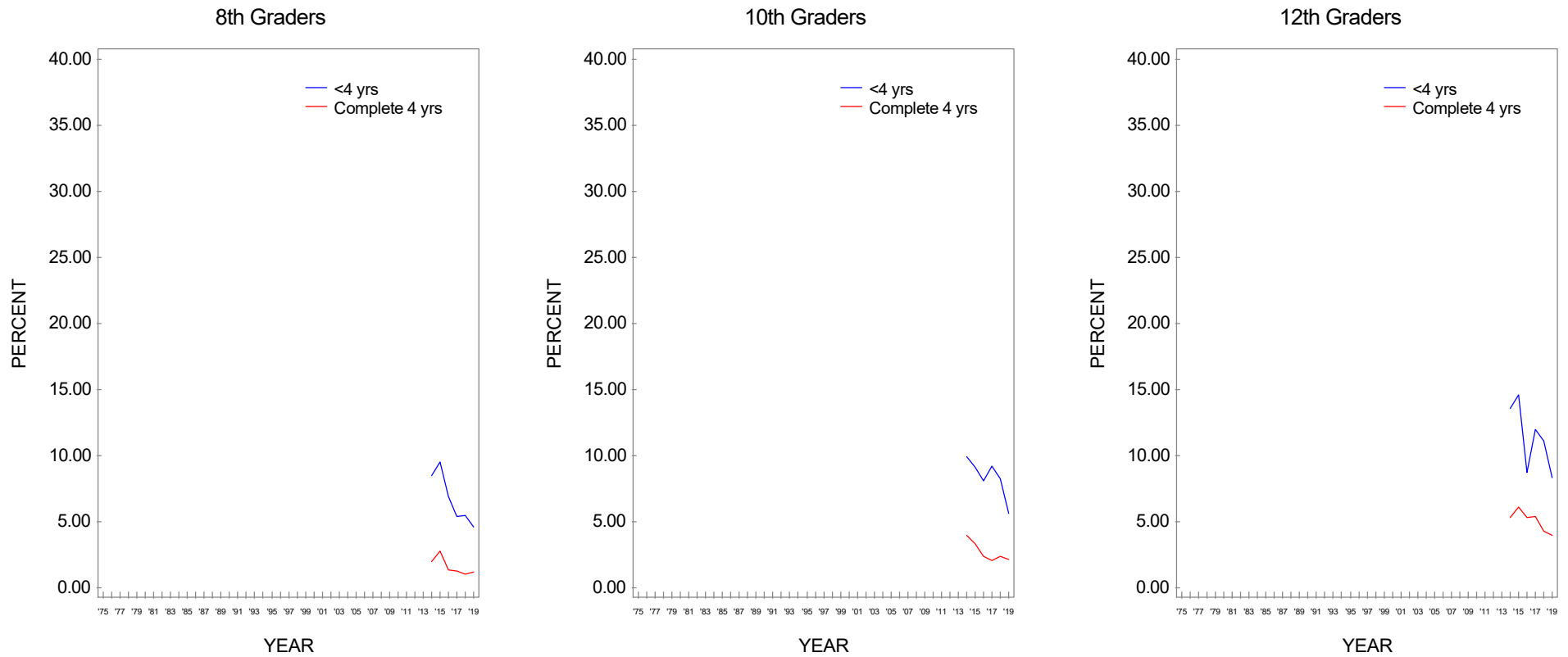
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 339
Regular Little Cigars: Trends in 30-Day Prevalence by Region

8th Graders

10th Graders

12th Graders
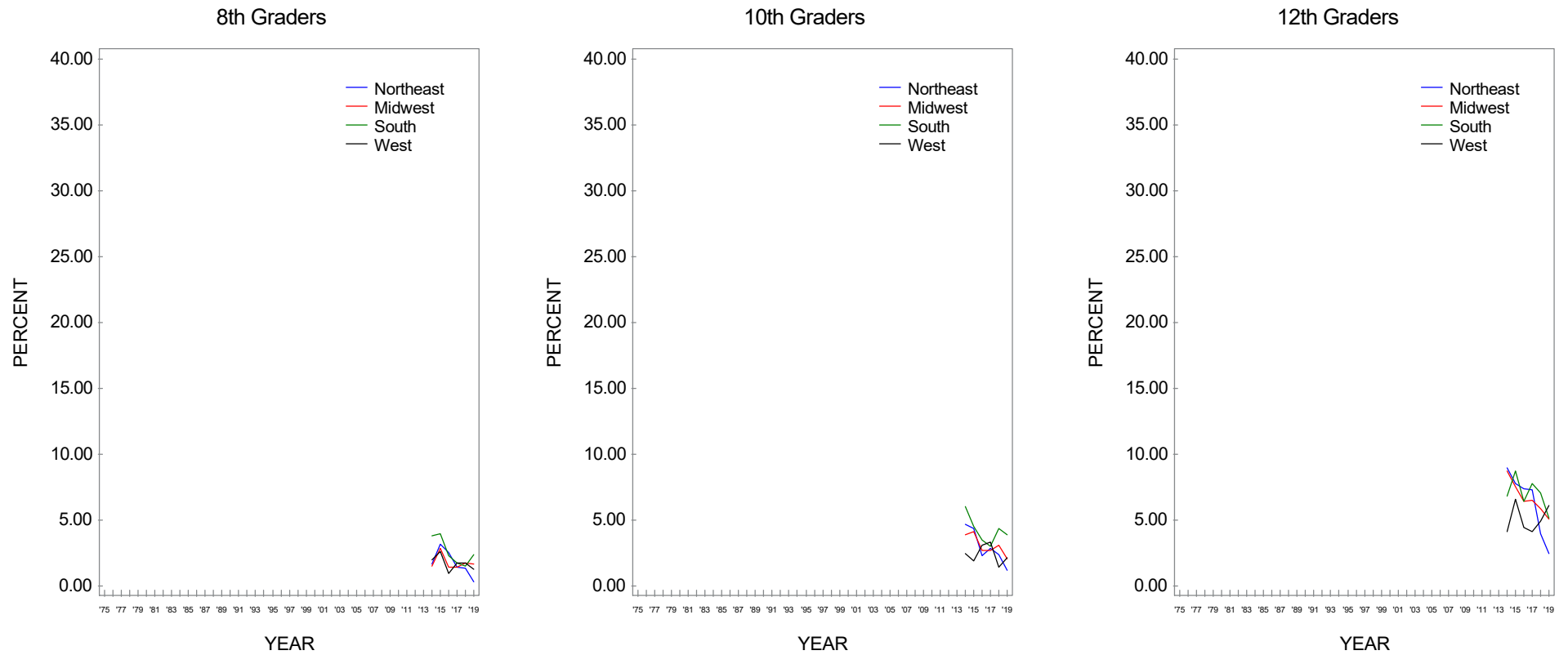
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 340
Regular Little Cigars: Trends in 30-Day Prevalence by Population Density
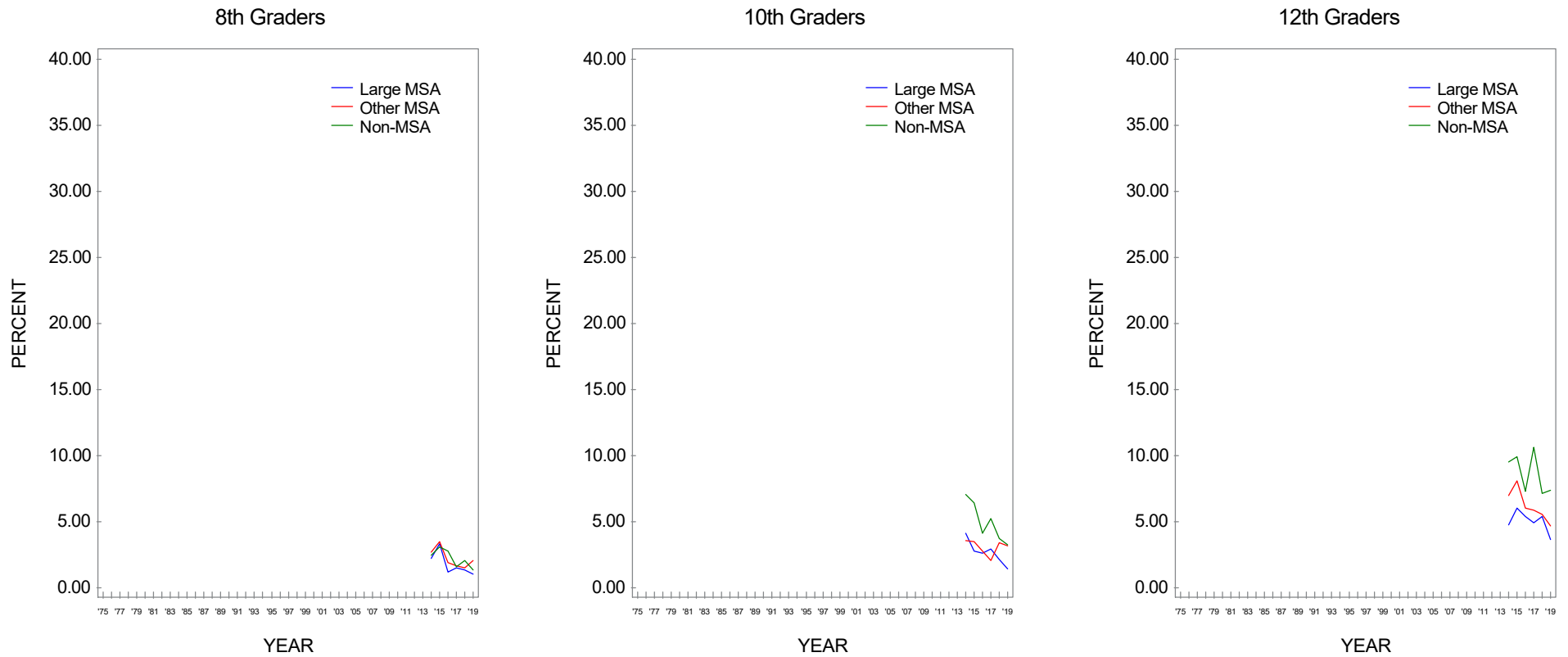
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 341

Regular Little Cigars: Trends in 30-Day Prevalence by Average Education Level of Parents*
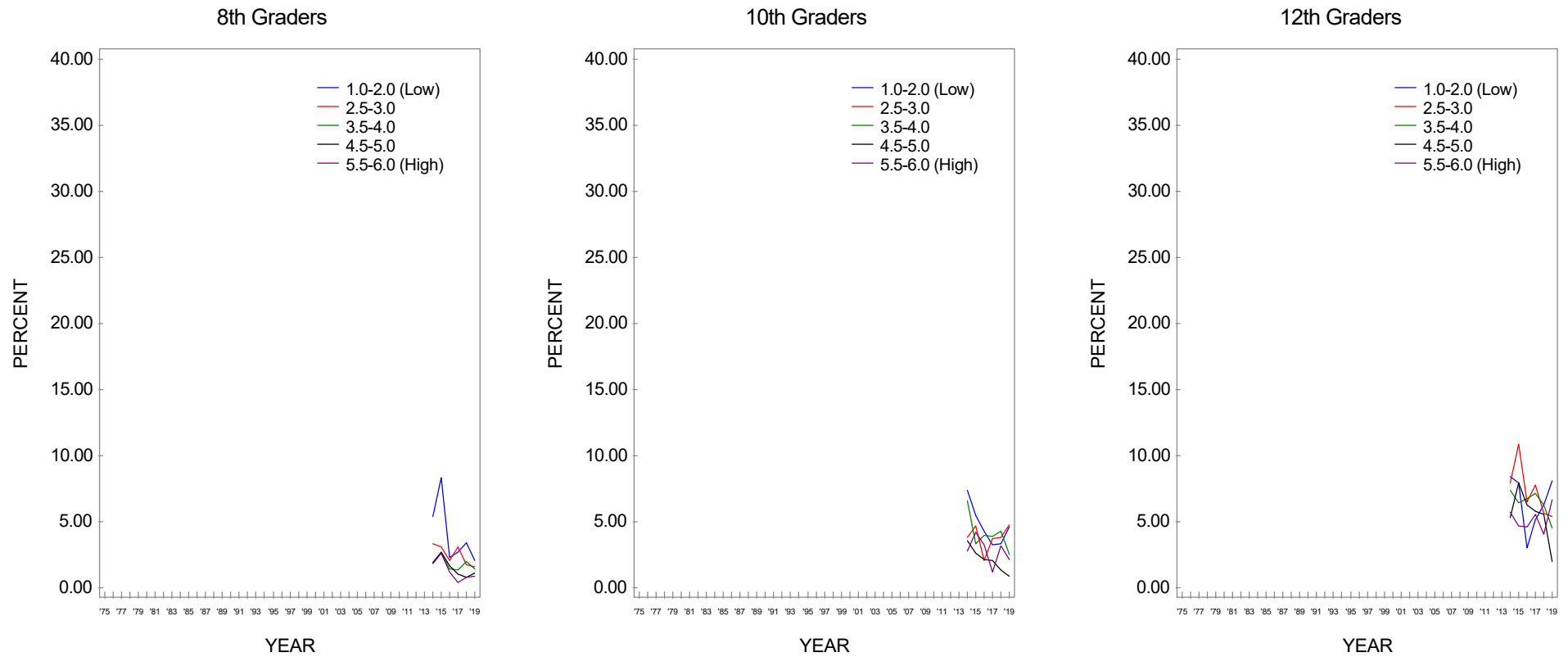
FIGURE 342
Regular Little Cigars: Trends in 30-Day Prevalence by Race/Ethnicity*
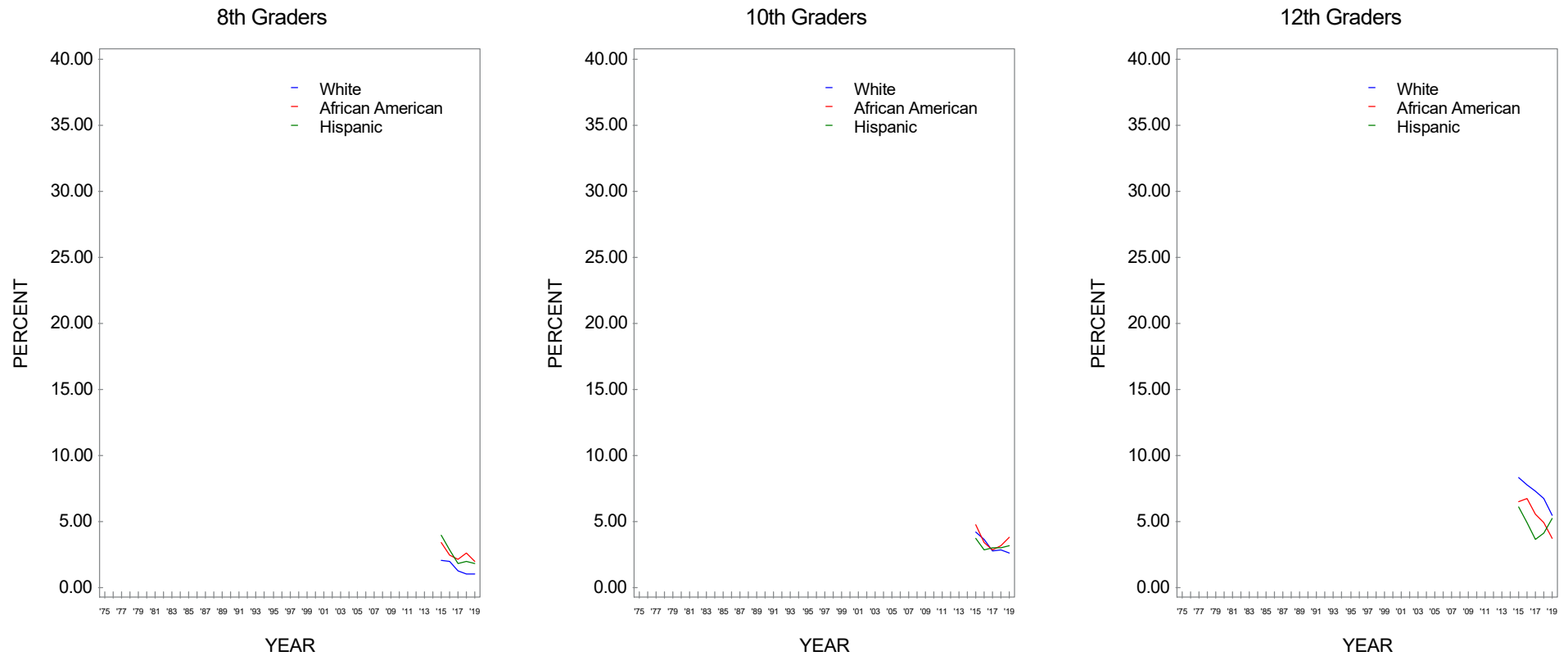
8th Graders

PERCENT

- White
- African American
- Hispanic

YEAR

10th Graders

PERCENT

- White
- African American
- Hispanic

YEAR

12th Graders

PERCENT

- White
- African American
- Hispanic

YEAR

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 343
Large Cigars: Trends in 30-Day Prevalence by Gender

8th Graders

10th Graders

12th Graders
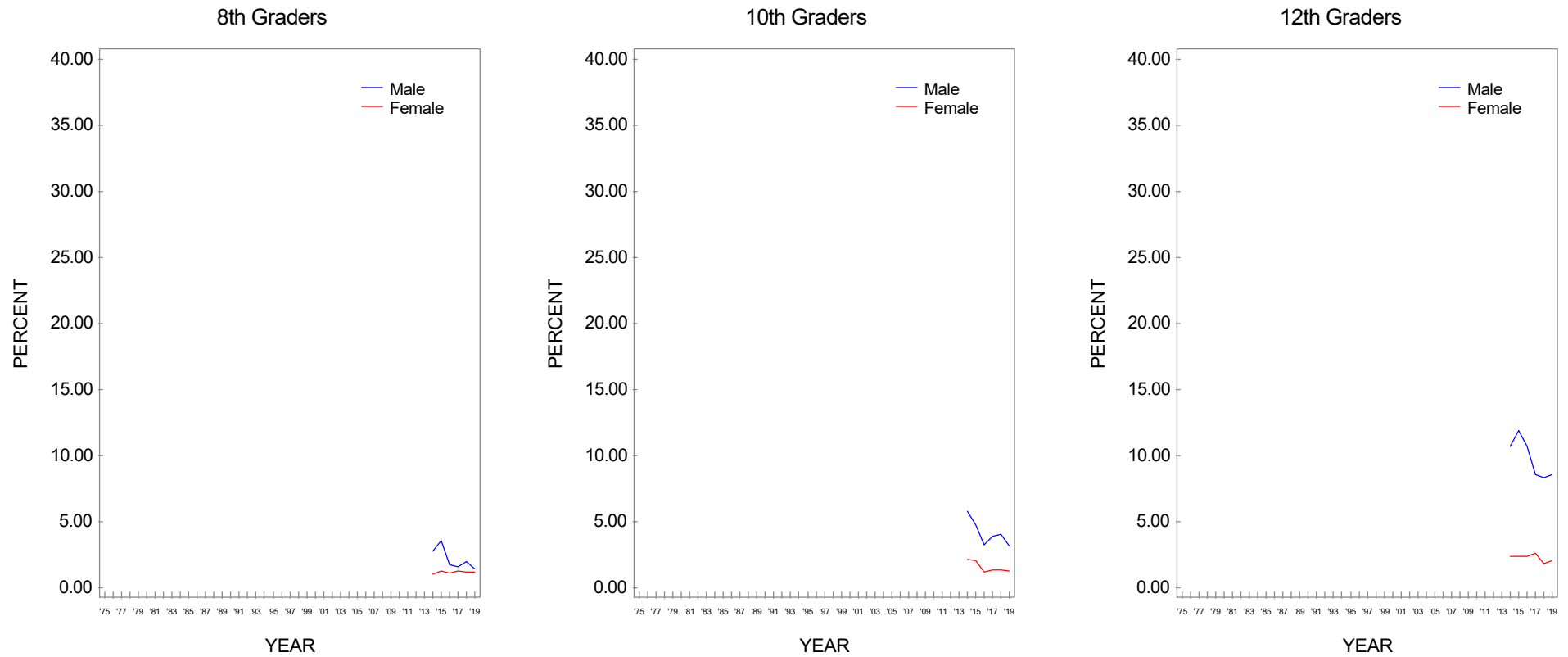
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 344
Large Cigars: Trends in 30-Day Prevalence by College Plans
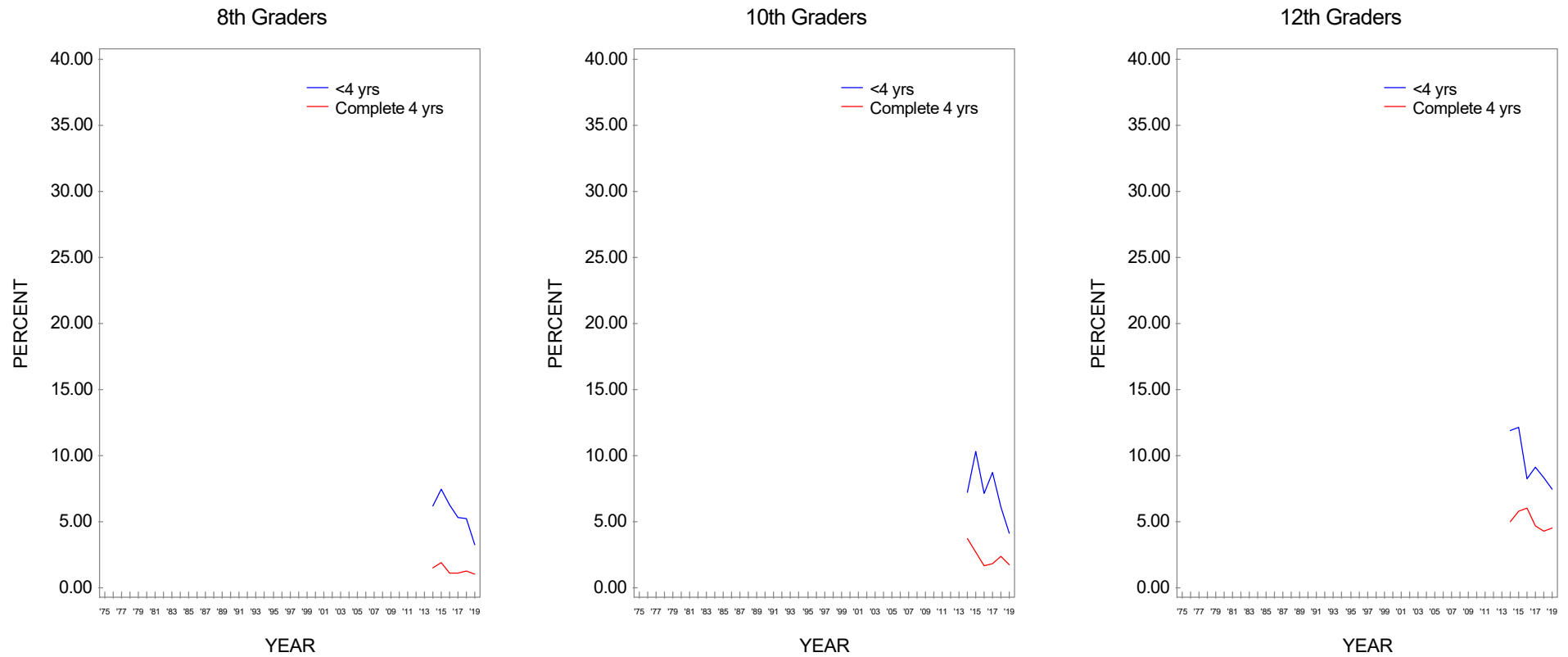
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 345
Large Cigars: Trends in 30-Day Prevalence by Region

8th Graders

10th Graders

12th Graders
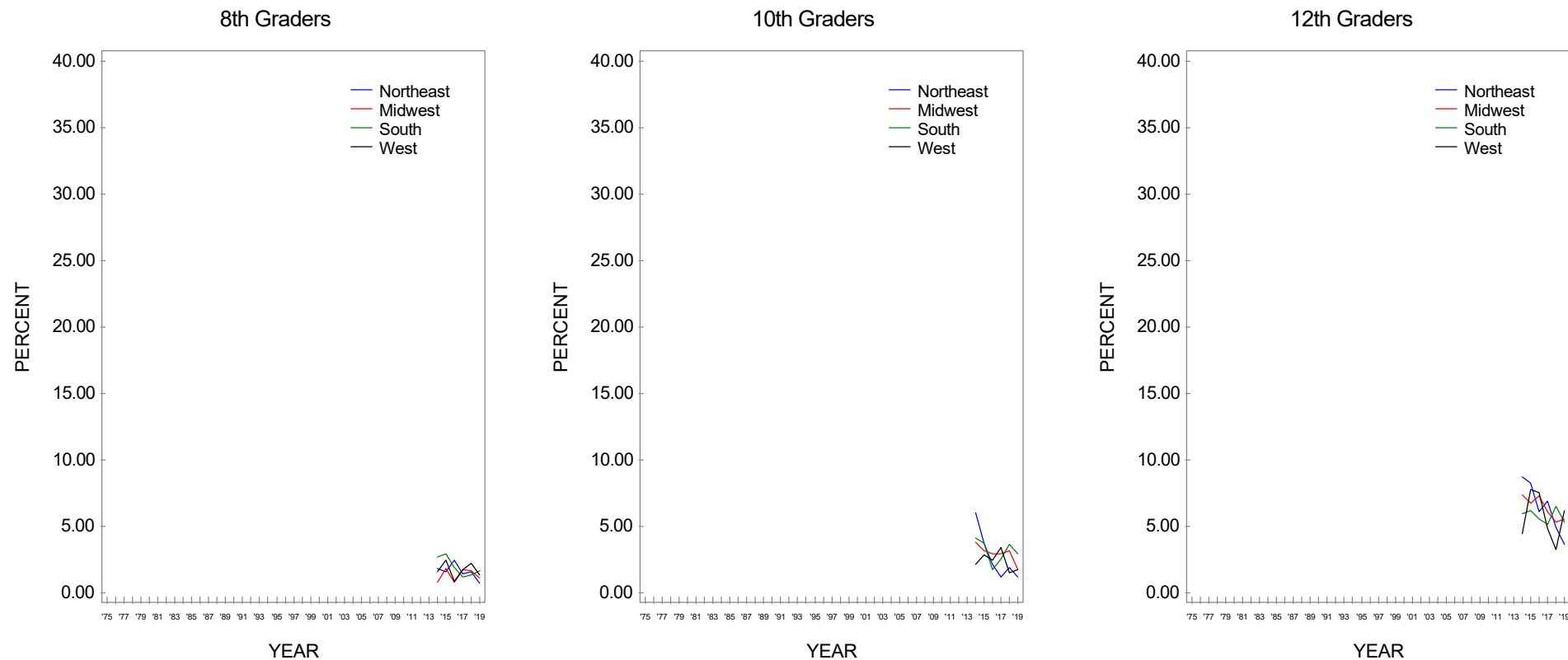
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 346
Large Cigars: Trends in 30-Day Prevalence by Population Density
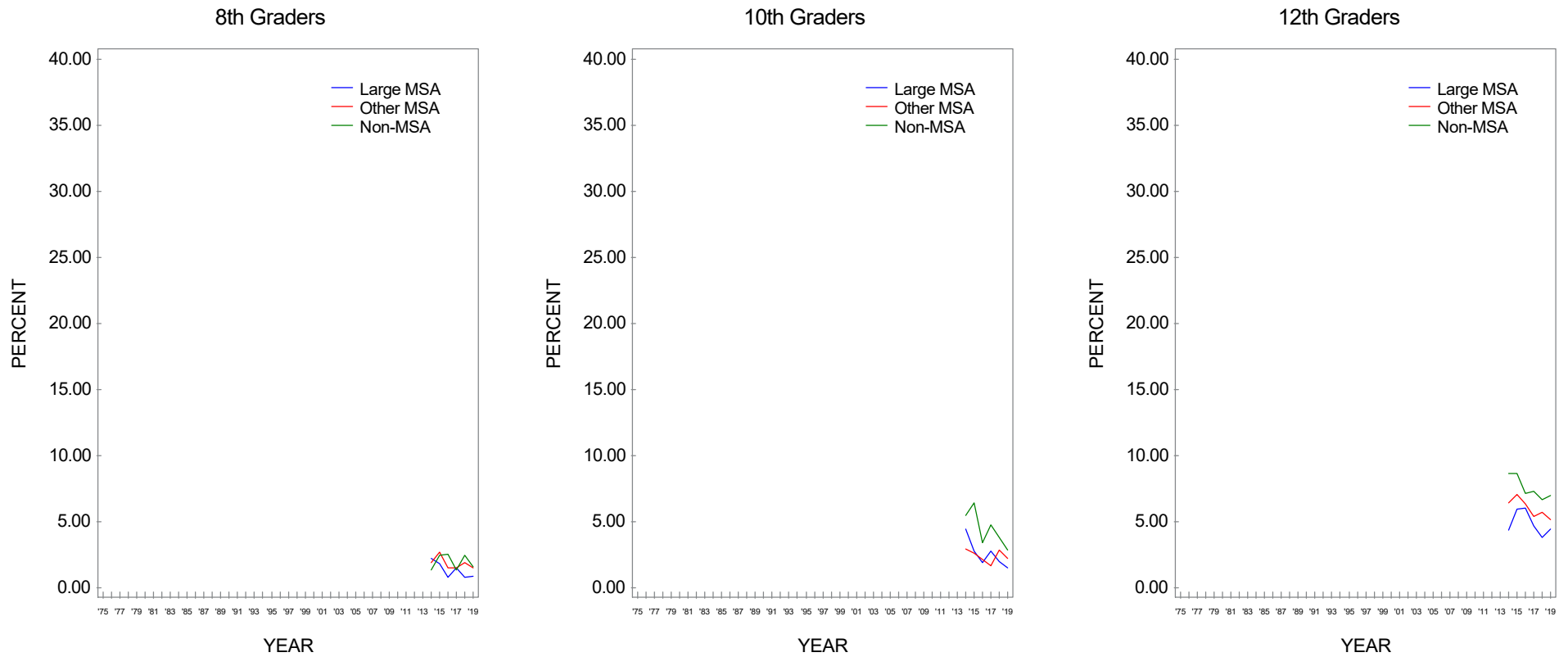
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 347
Large Cigars: Trends in 30-Day Prevalence by Average Education Level of Parents*
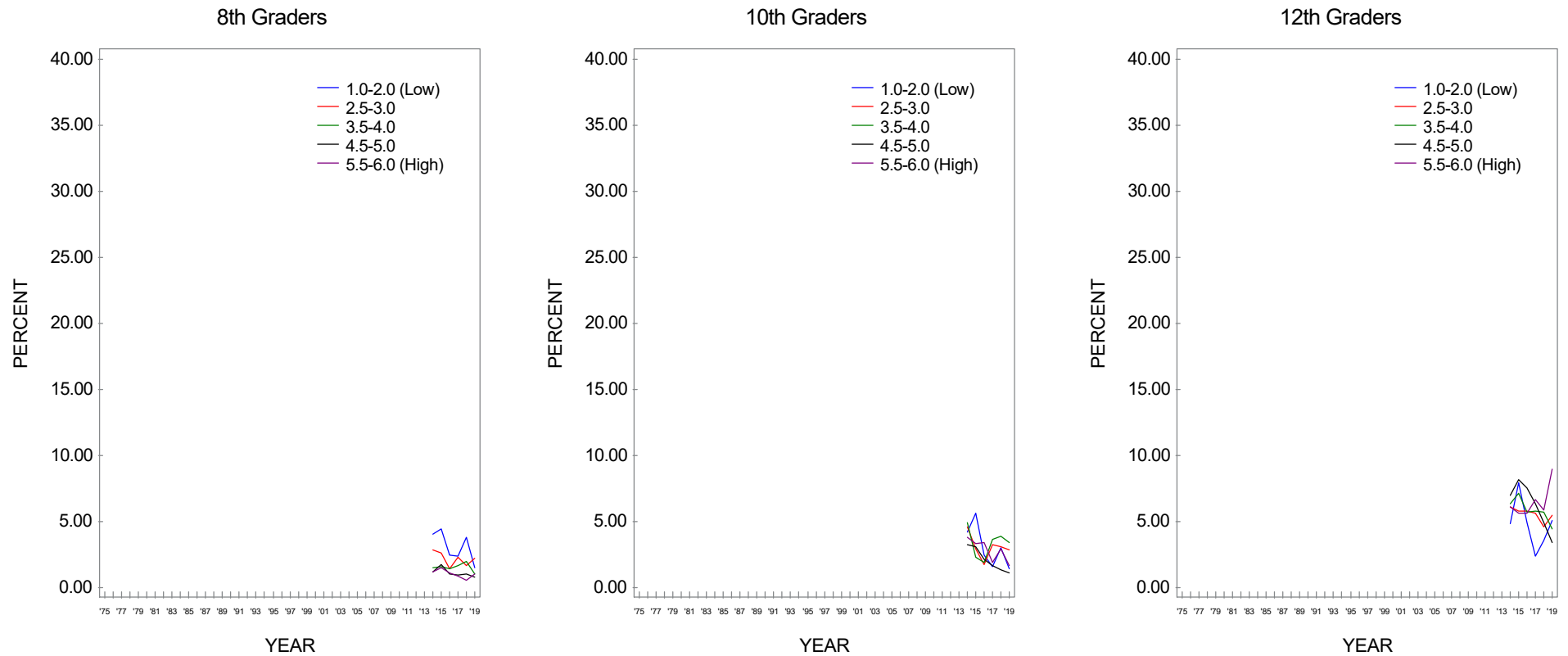
Source. The Monitoring the Future study, the University of Michigan.
*Parental education is an average score of mother's education and father's education.

FIGURE 348

Large Cigars: Trends in 30-Day Prevalence by Race/Ethnicity*
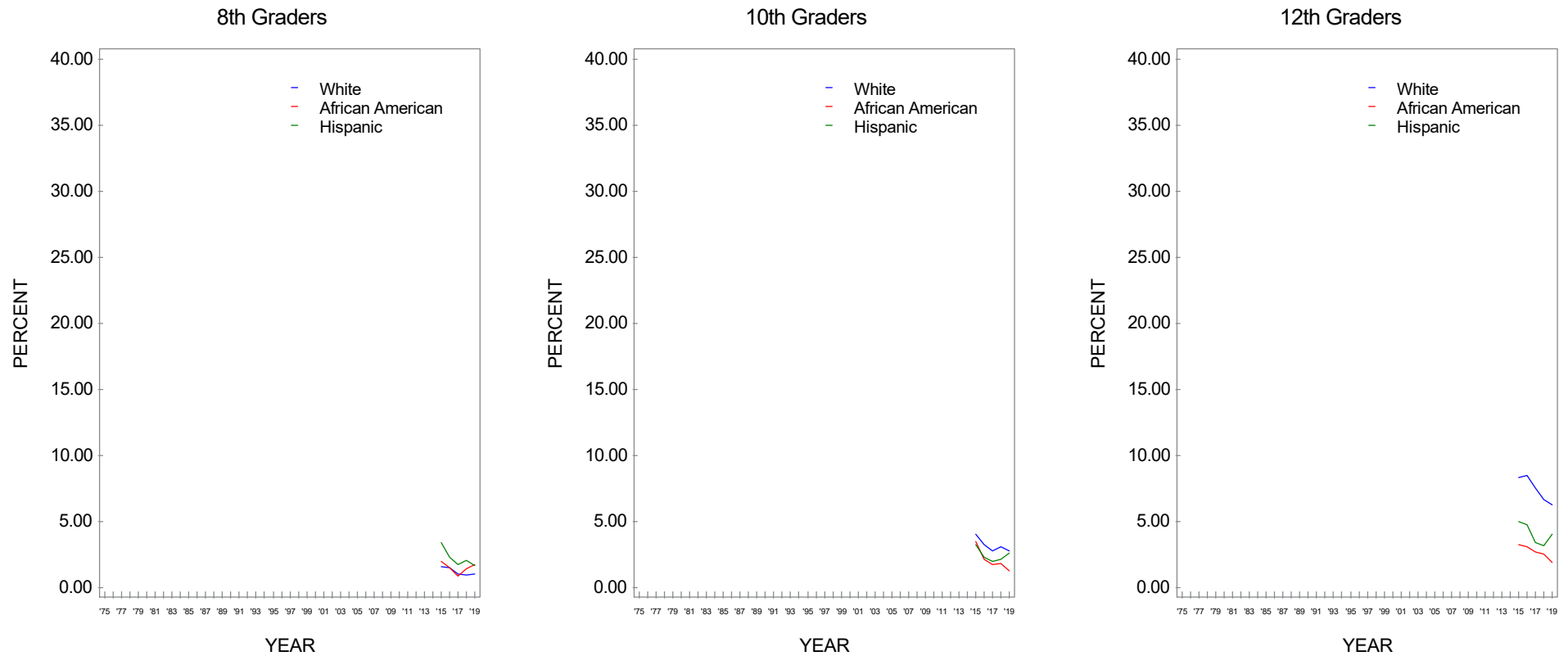
8th Graders

10th Graders

12th Graders

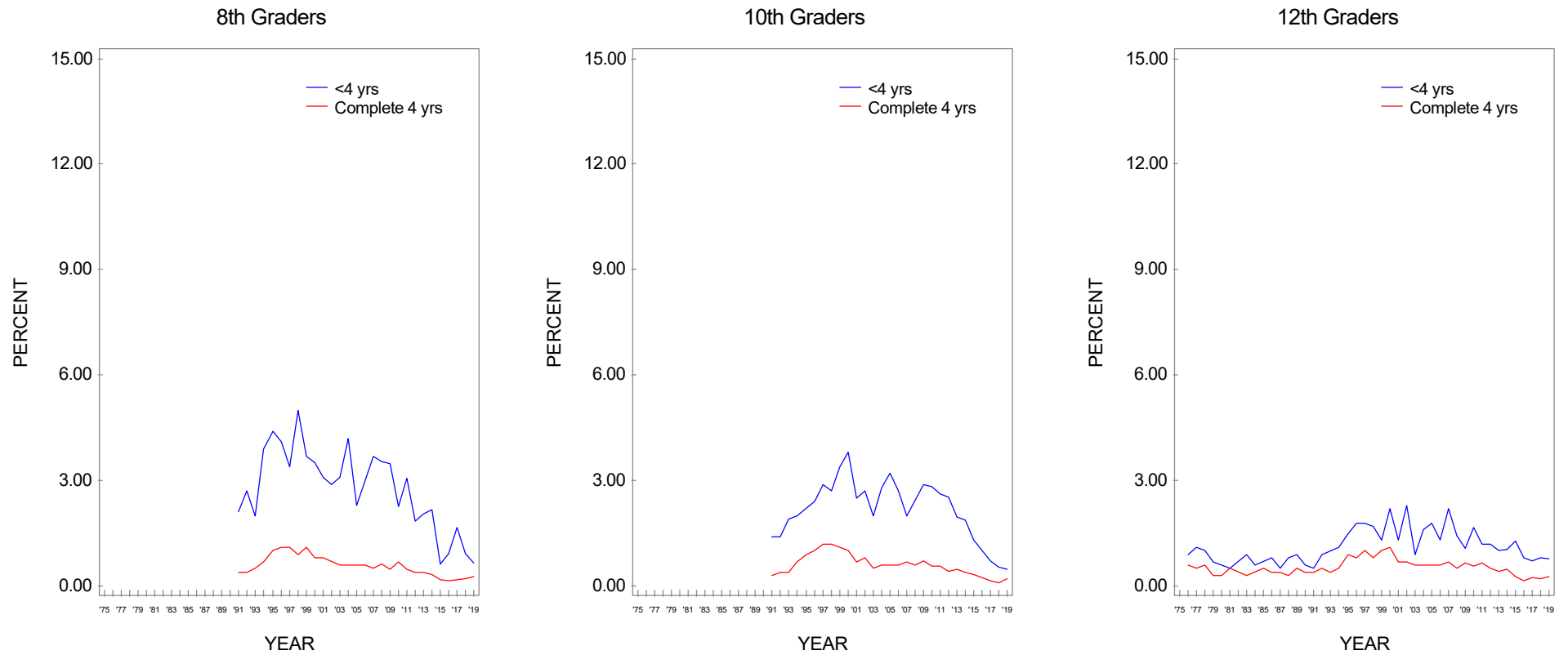*Source.* The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 349
Any Vaping*: Trends in 30-Day Prevalence by Gender
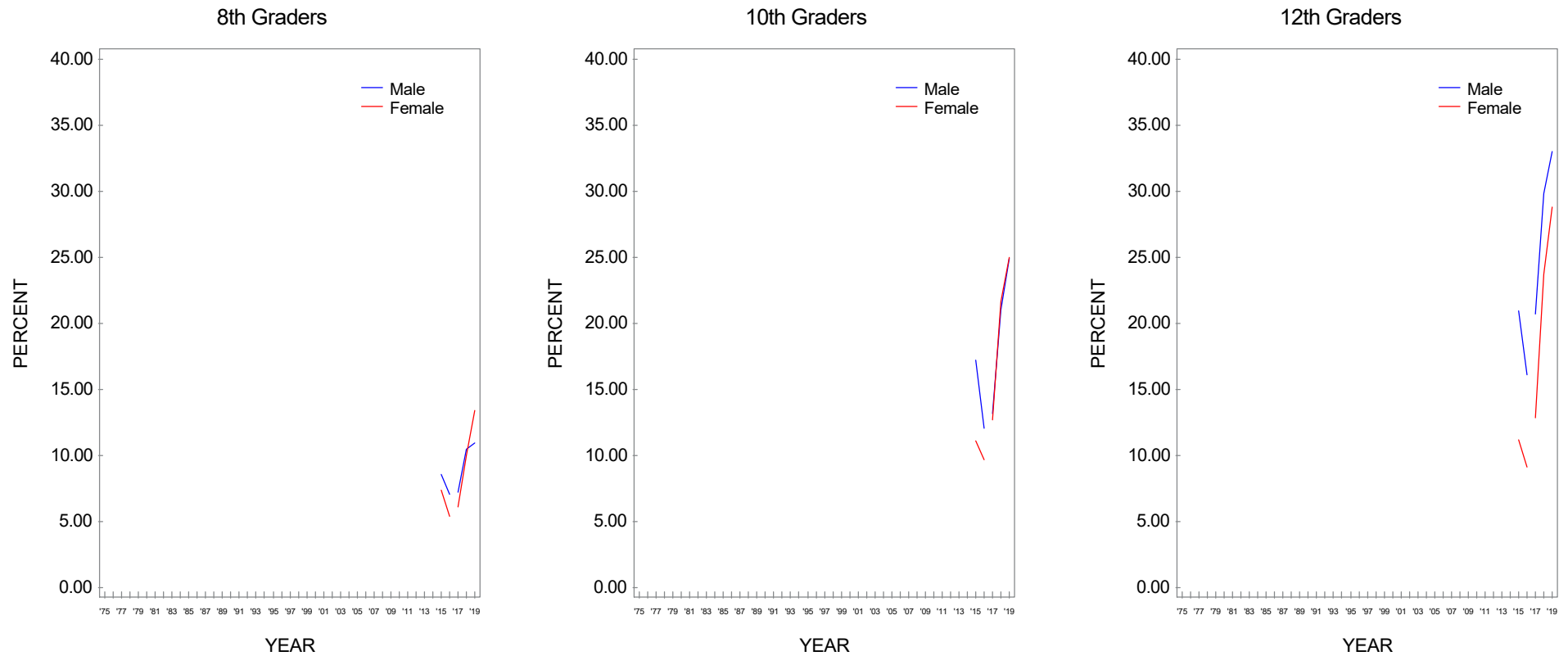
8th Graders | 10th Graders | 12th Graders

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

*In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and vaping just flavoring. Beginning in 2017, data presented are based on these new questions showing vaping of any of those substances.

FIGURE 350
Any Vaping*: Trends in 30-Day Prevalence by College Plans
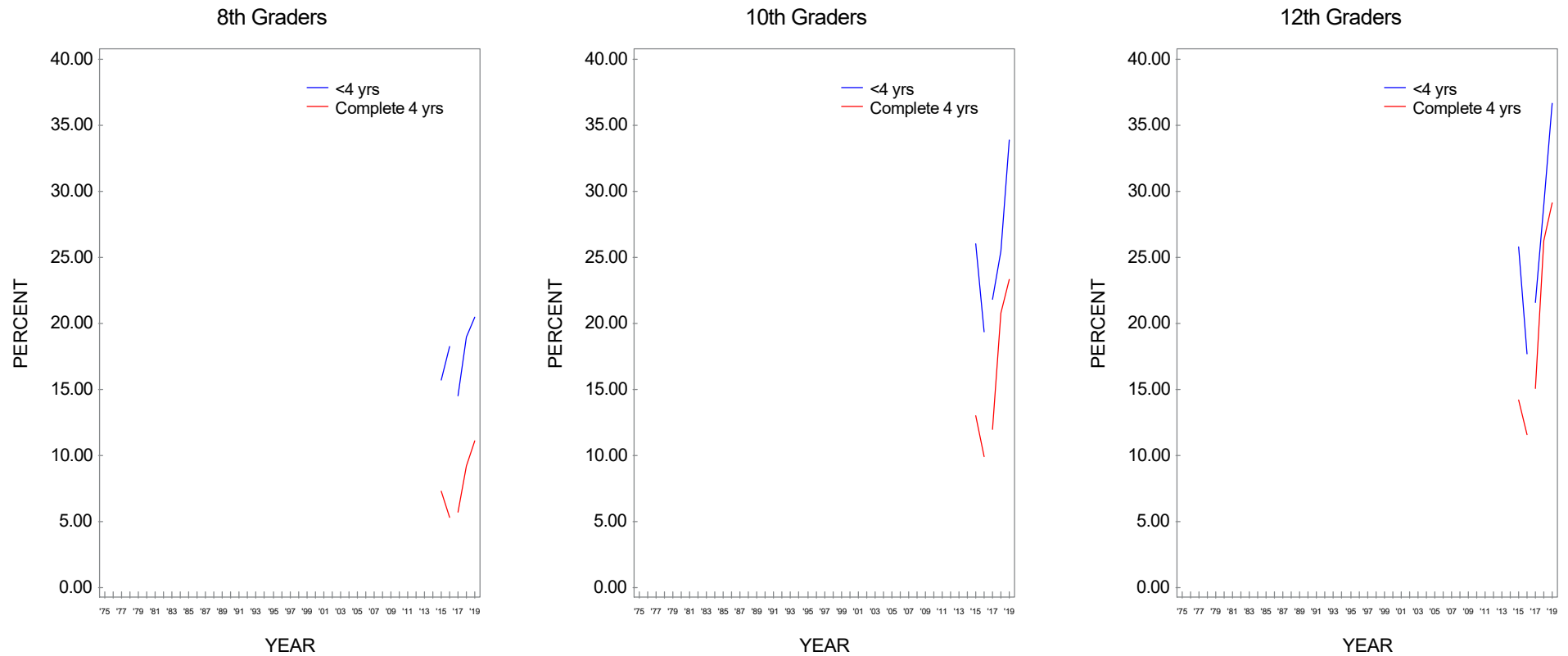
8th Graders
10th Graders
12th Graders

FIGURE 351
Any Vaping*: Trends in 30-Day Prevalence by Region
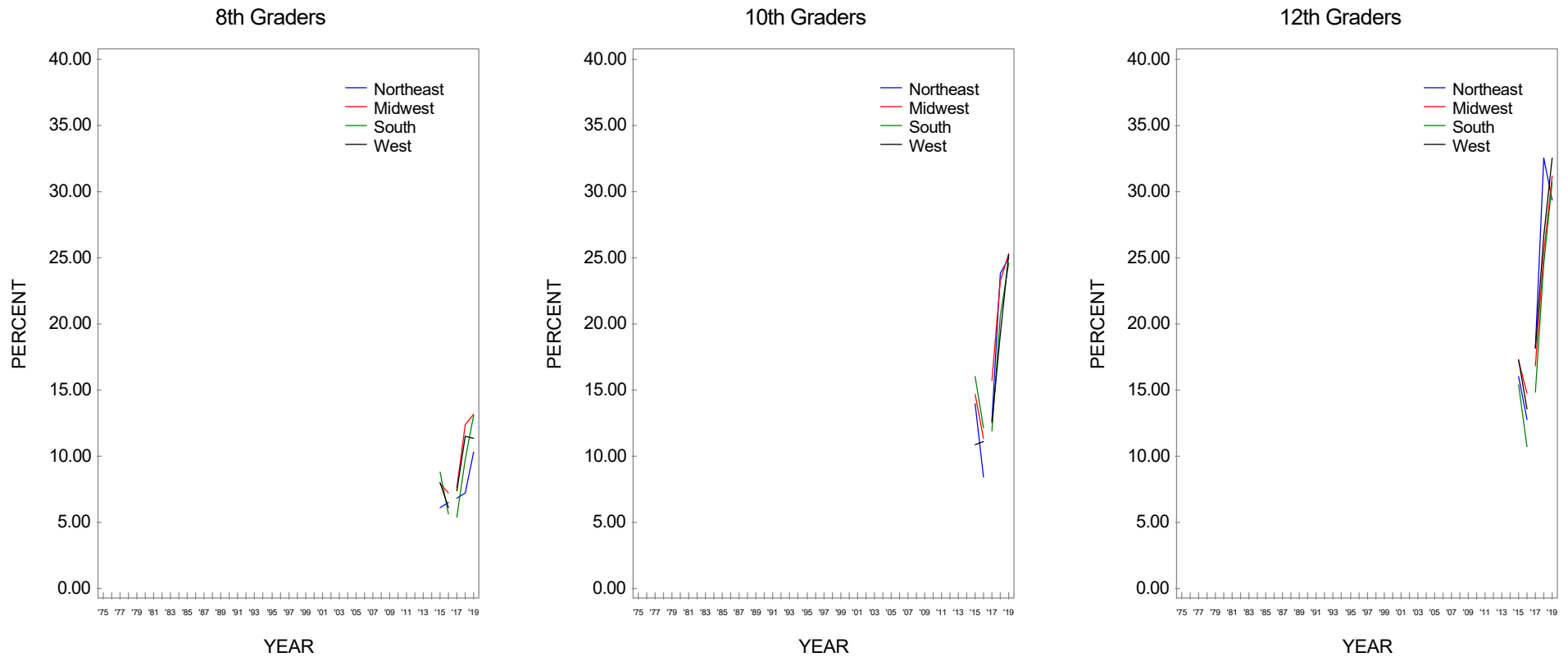
8th Graders | 10th Graders | 12th Graders

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

*In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and vaping just flavoring. Beginning in 2017, data presented are based on these new questions showing vaping of any of those substances.

FIGURE 352
Any Vaping*: Trends in 30-Day Prevalence by Population Density
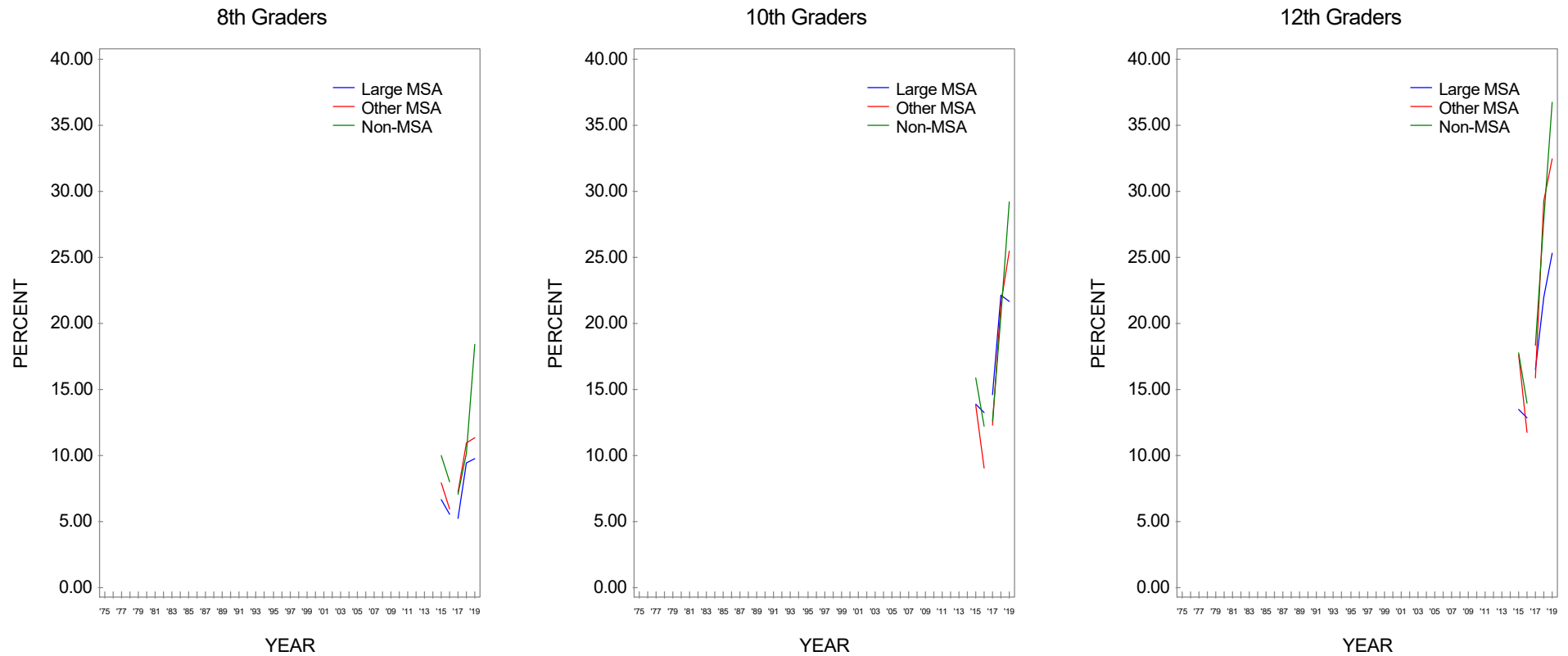
8th Graders · 10th Graders · 12th Graders

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

*In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and vaping just flavoring. Beginning in 2017, data presented are based on these new questions showing vaping of any of those substances.

FIGURE 353
Any Vaping*: Trends in 30-Day Prevalence by Average Education Level of Parents**
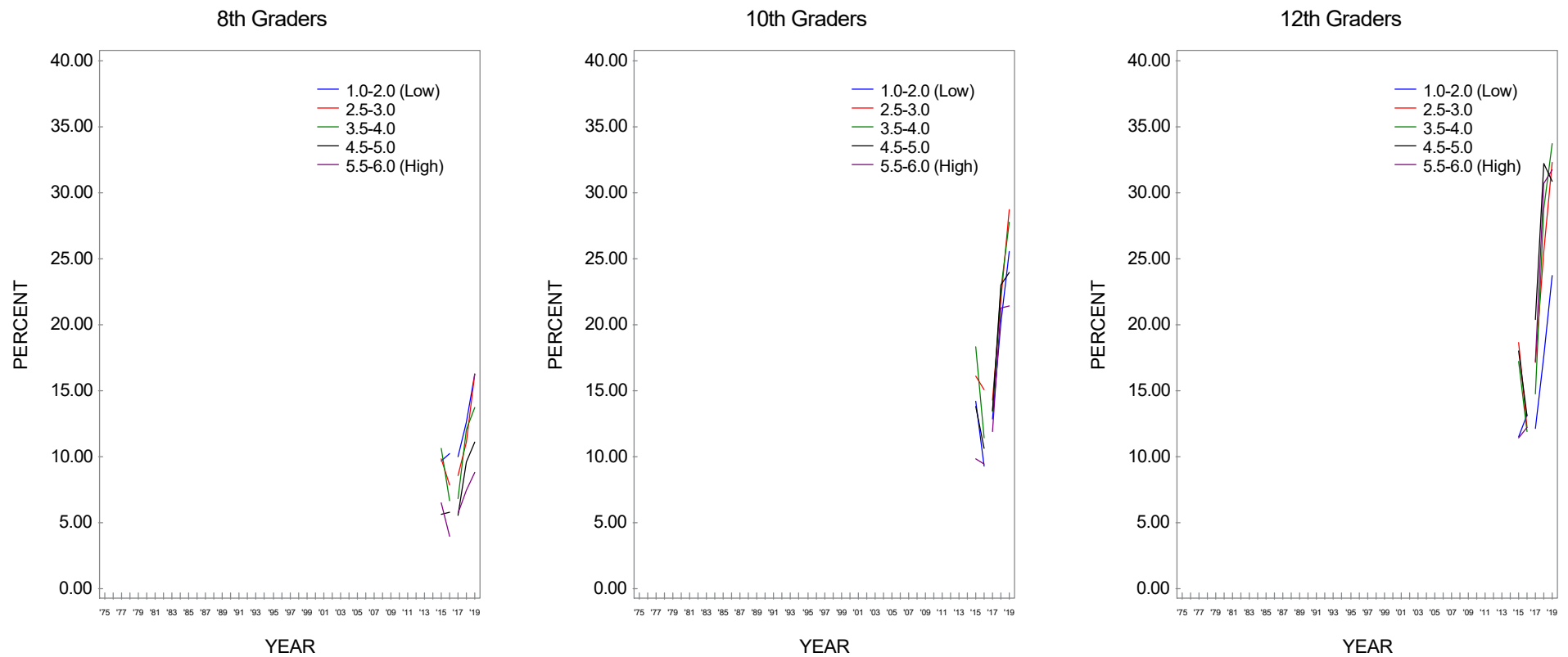
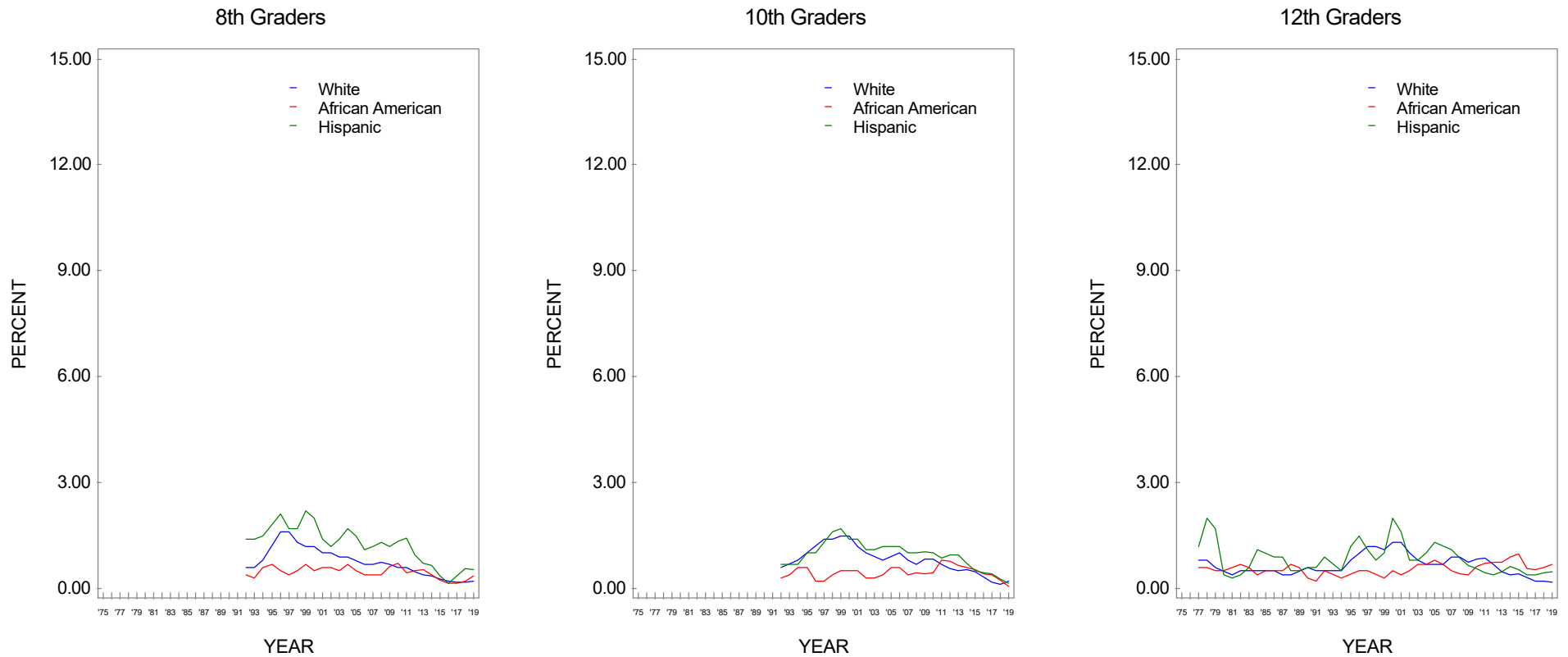*Source.* The Monitoring the Future study, the University of Michigan.

*In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and vaping just flavoring. Beginning in 2017, data presented are based on these new questions showing vaping of any of those substances.

**Parental education is an average score of mother's education and father's education.

FIGURE 354
Any Vaping*: Trends in 30-Day Prevalence by Race/Ethnicity**
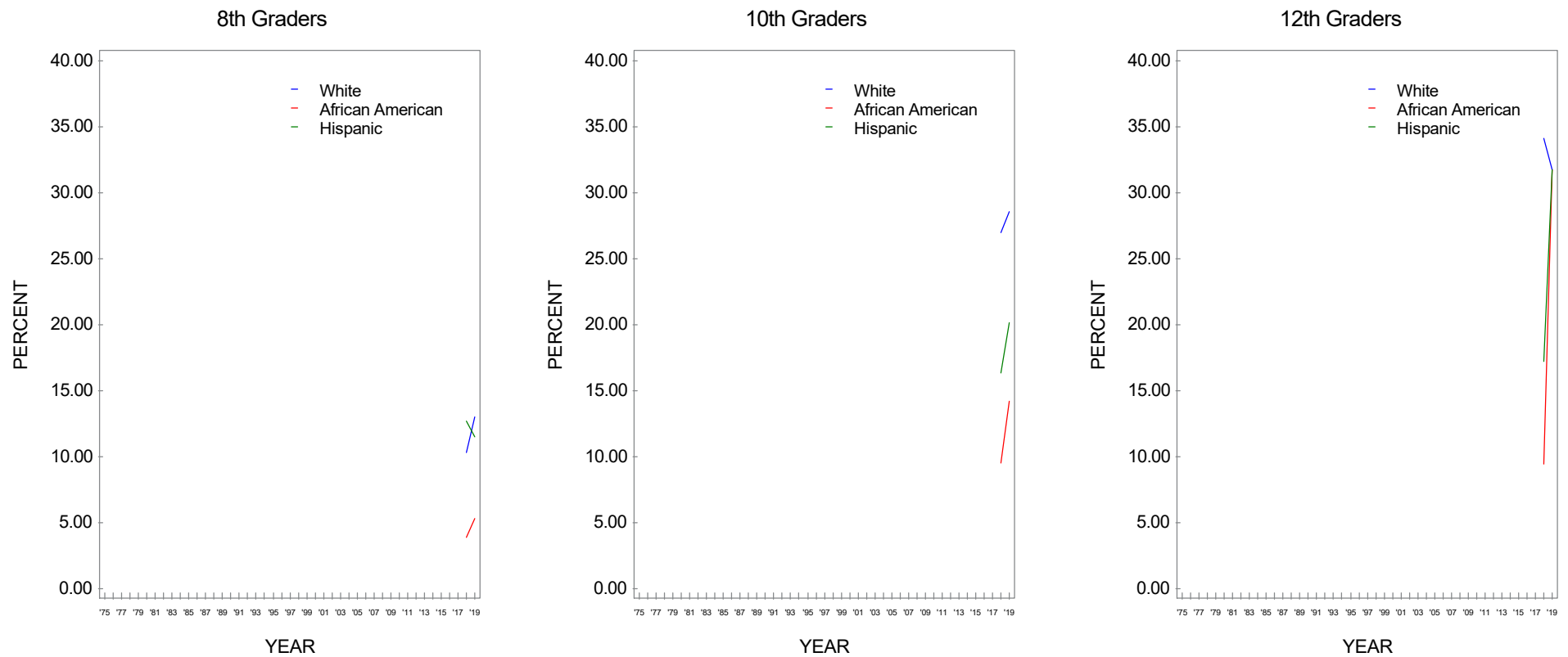
8th Graders

10th Graders

12th Graders

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

*In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and vaping just flavoring. Beginning in 2017, data presented are based on these new questions showing vaping of any of those substances.
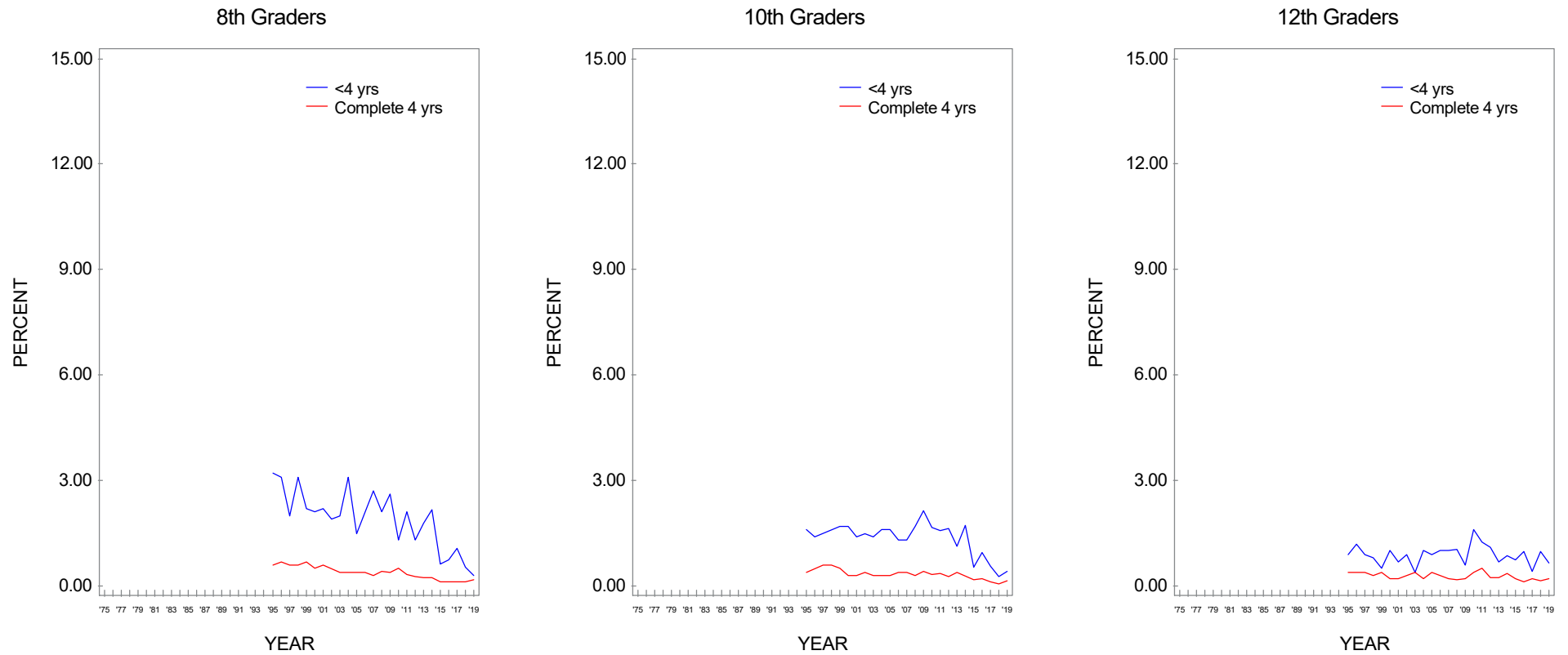
**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 355
Vaping Nicotine: Trends in 30-Day Prevalence by Gender

8th Graders

Male	
Female	

10th Graders

Male	
Female	

12th Graders

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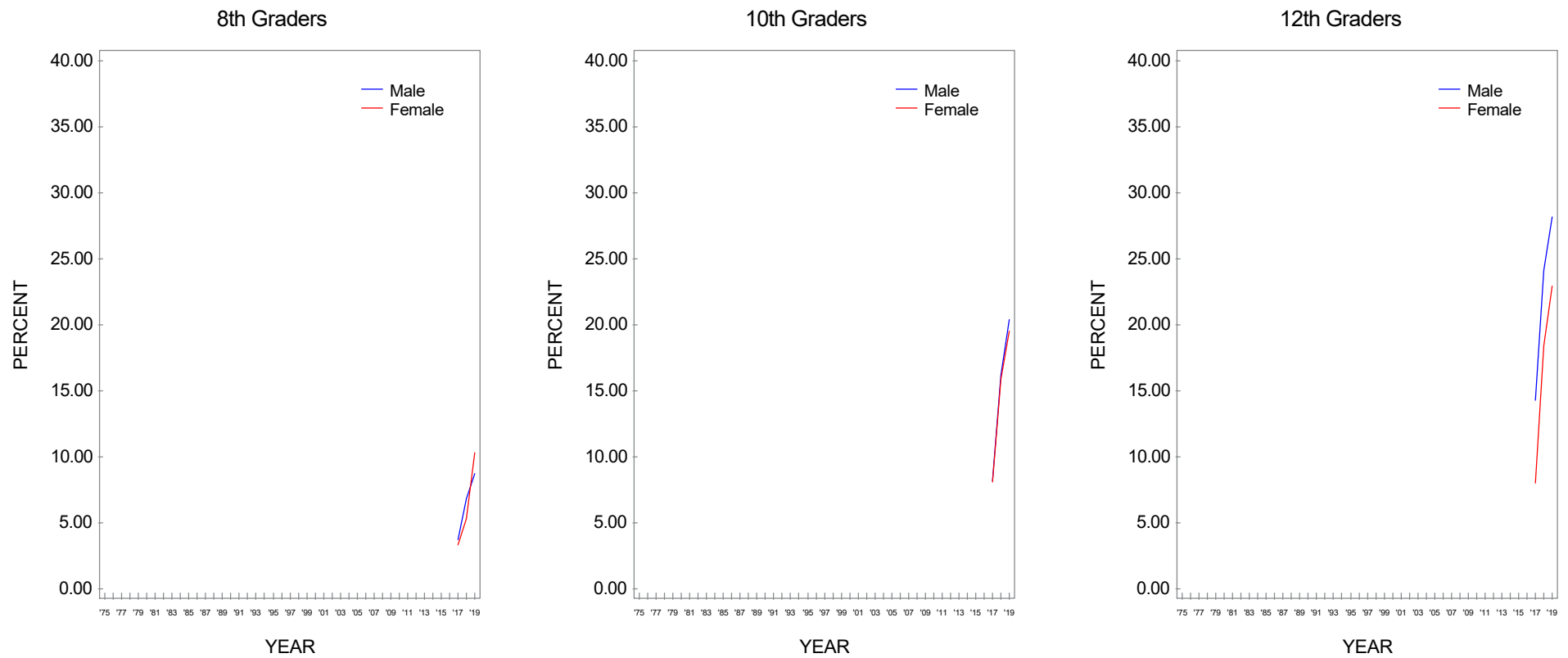
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 356
Vaping Nicotine: Trends in 30-Day Prevalence by College Plans
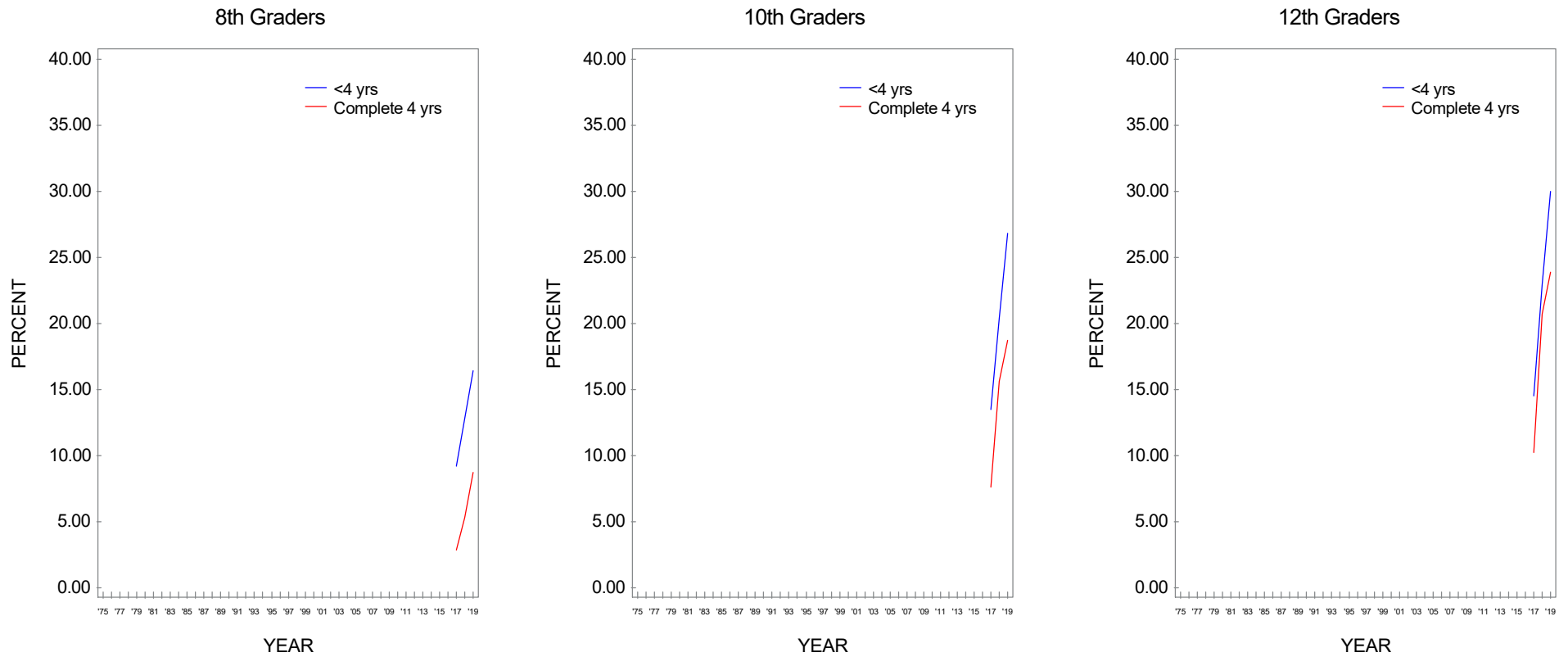
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 357
Vaping Nicotine: Trends in 30-Day Prevalence by Region

8th Graders

Northeast
Midwest
South
West

10th Graders

Northeast
Midwest
South
West

12th Graders

Northeast
Midwest
South
West

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

357
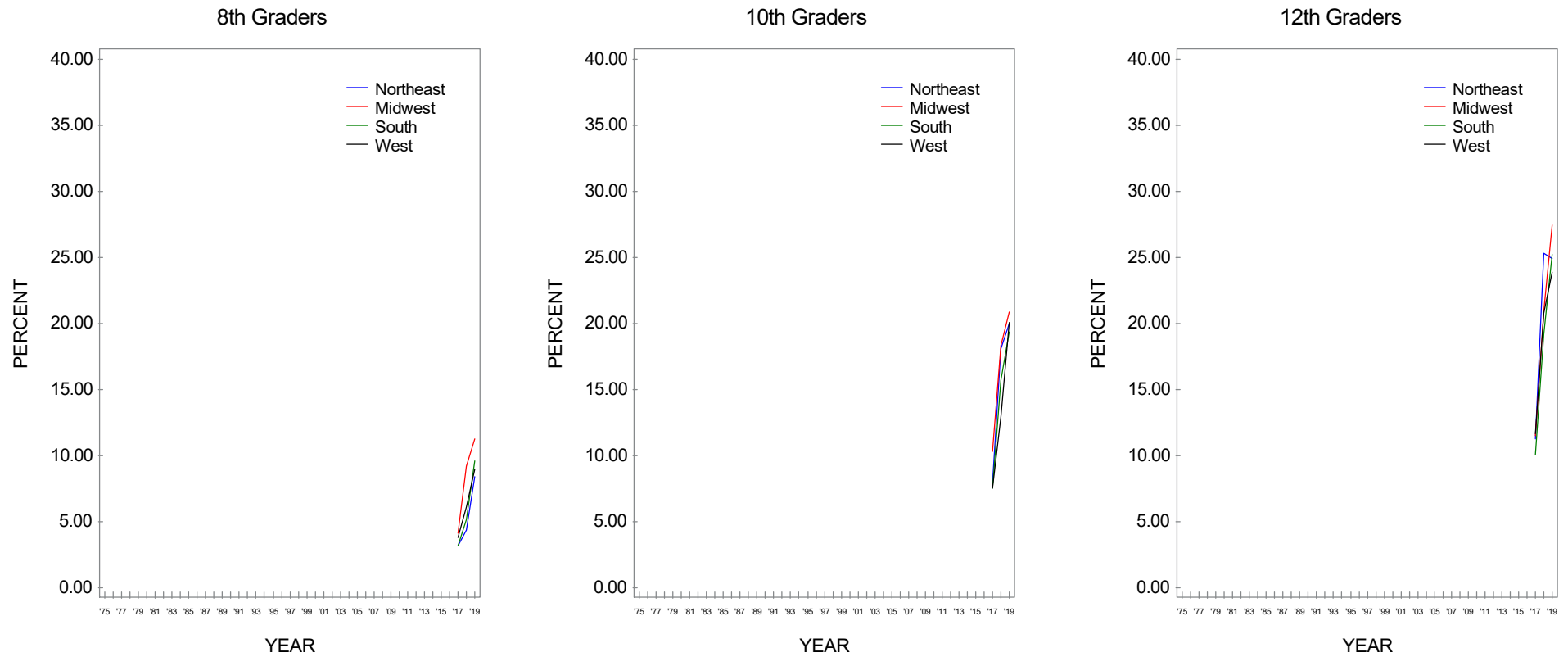
FIGURE 358
Vaping Nicotine: Trends in 30-Day Prevalence by Population Density

8th Graders

Large MSA
Other MSA
Non-MSA

PERCENT

YEAR

10th Graders

Large MSA
Other MSA
Non-MSA

PERCENT

YEAR

12th Graders

Large MSA
Other MSA
Non-MSA

PERCENT

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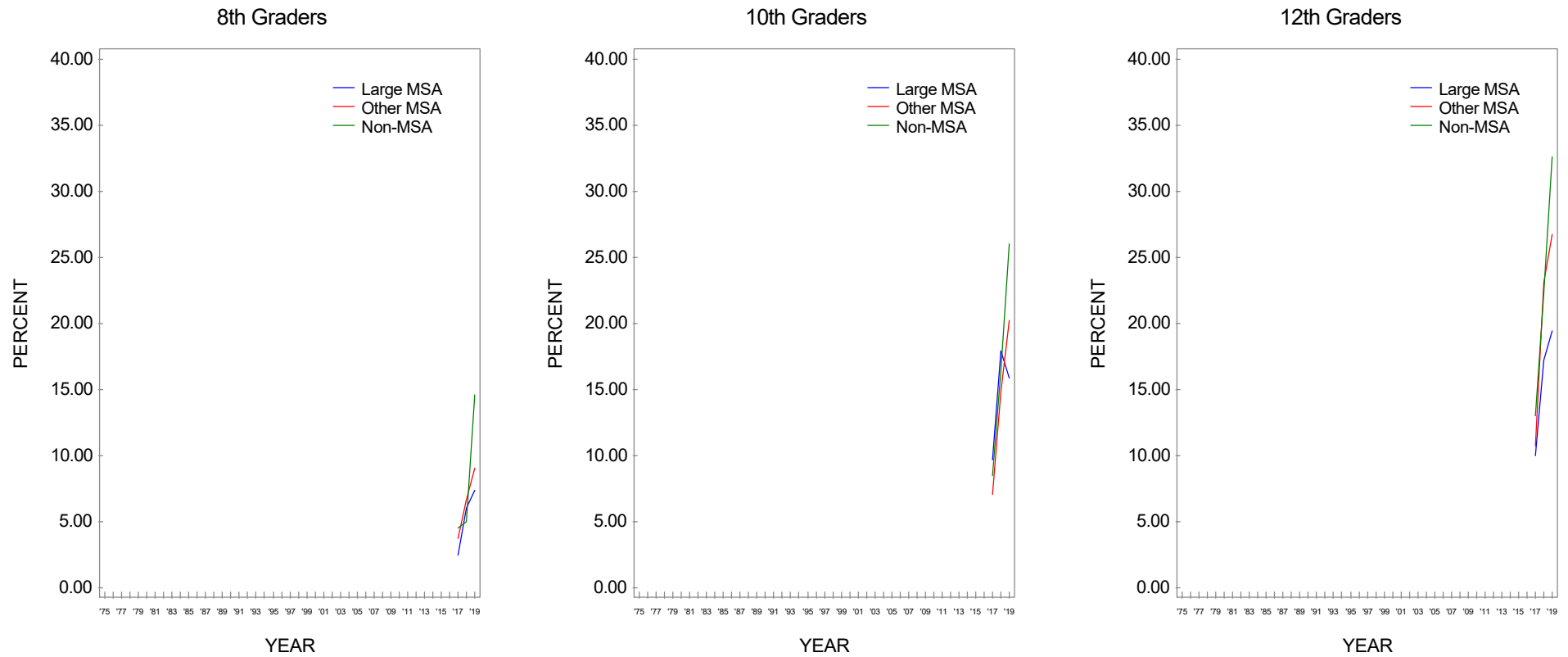
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 359
Vaping Nicotine: Trends in 30-Day Prevalence by Average Education Level of Parents*
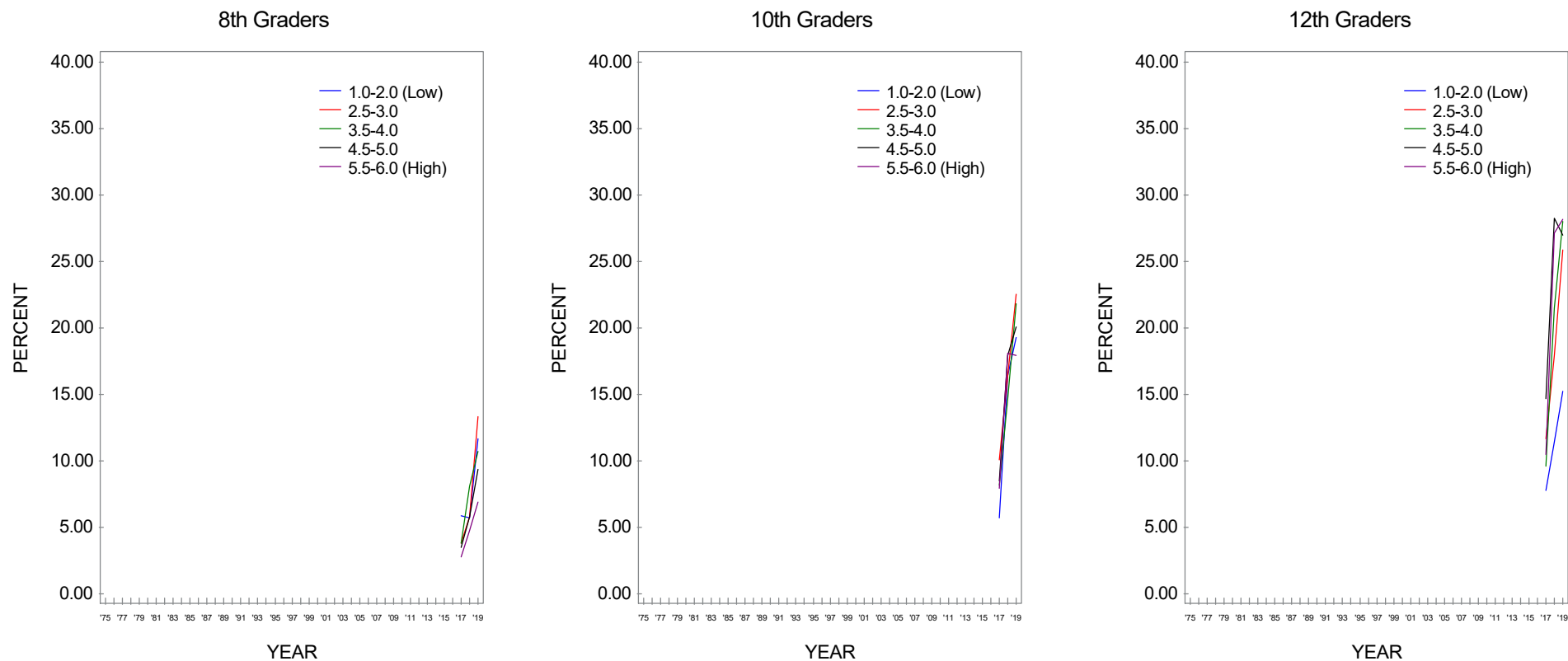
Source.   The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 360
Vaping Nicotine: Trends in 30-Day Prevalence by Race/Ethnicity*
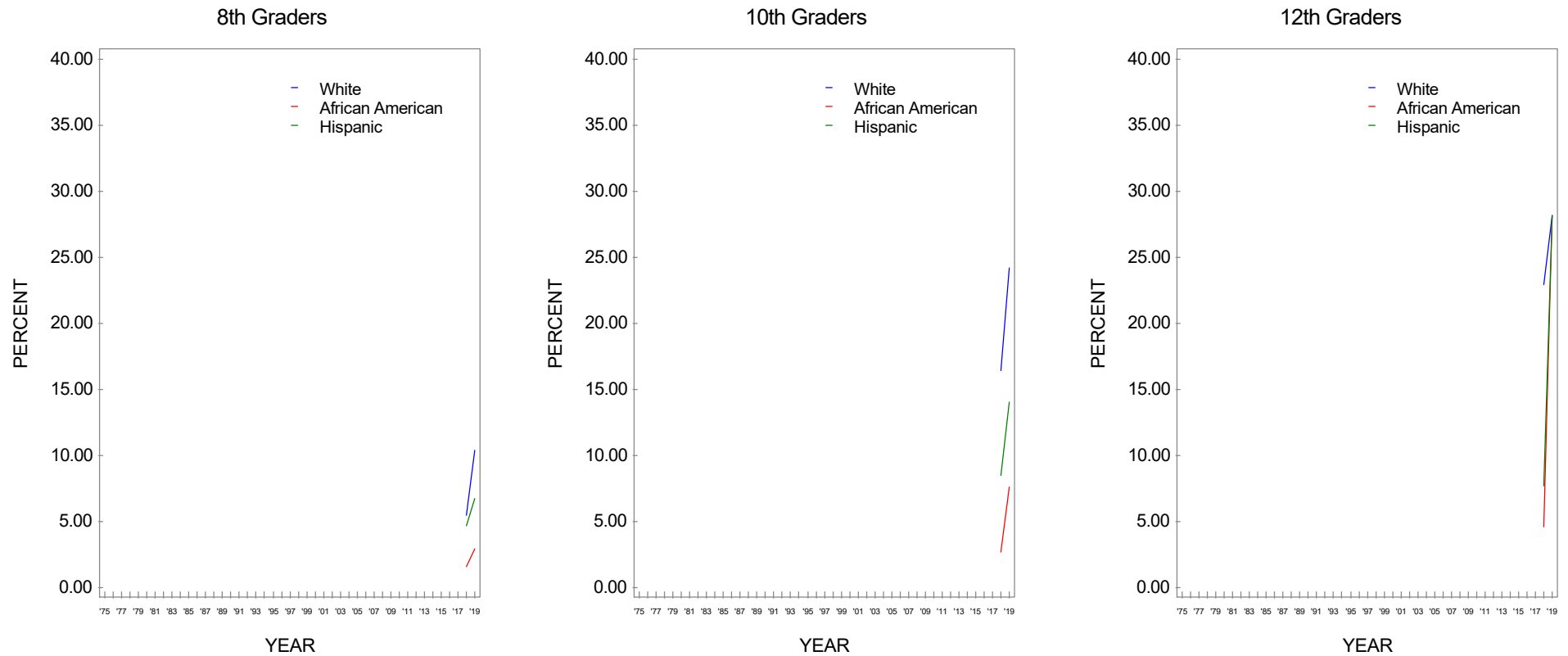
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 361
Vaping Marijuana: Trends in 30-Day Prevalence by Gender
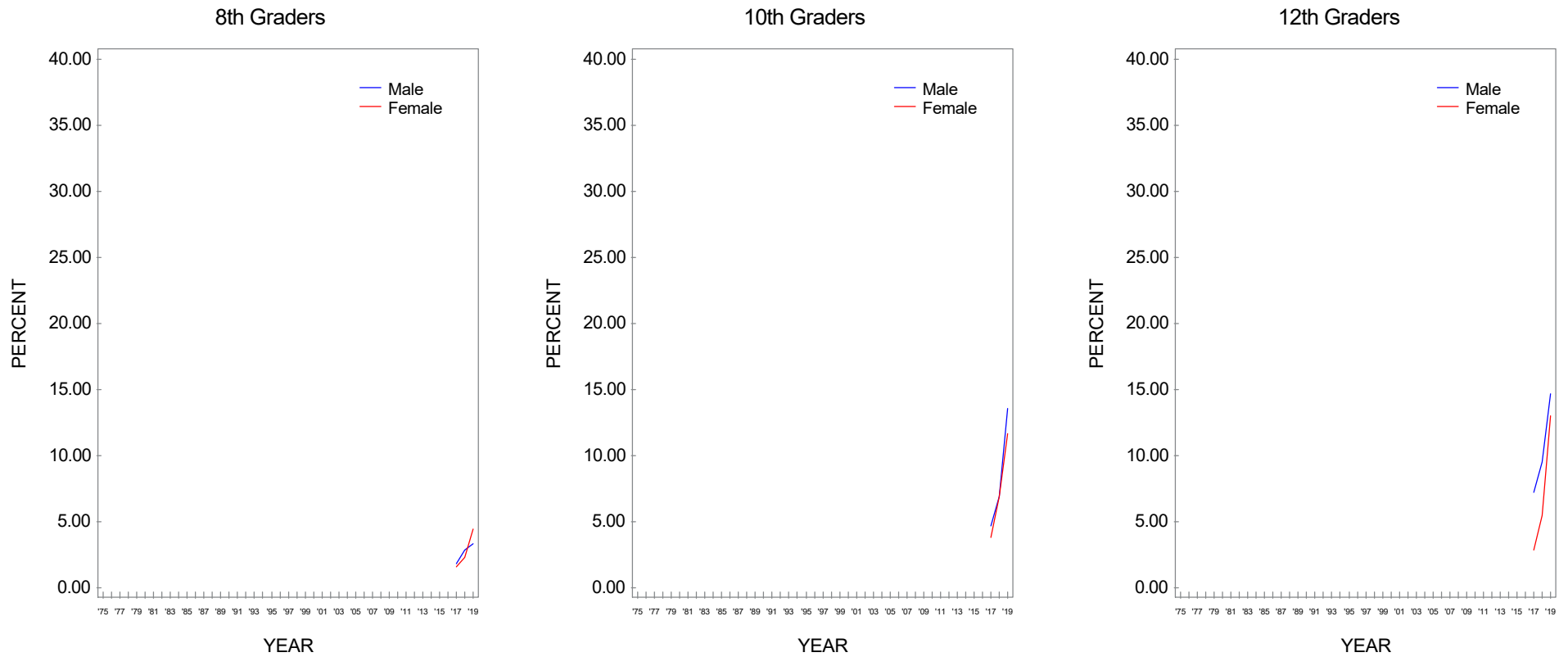
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 362
Vaping Marijuana: Trends in 30-Day Prevalence by College Plans
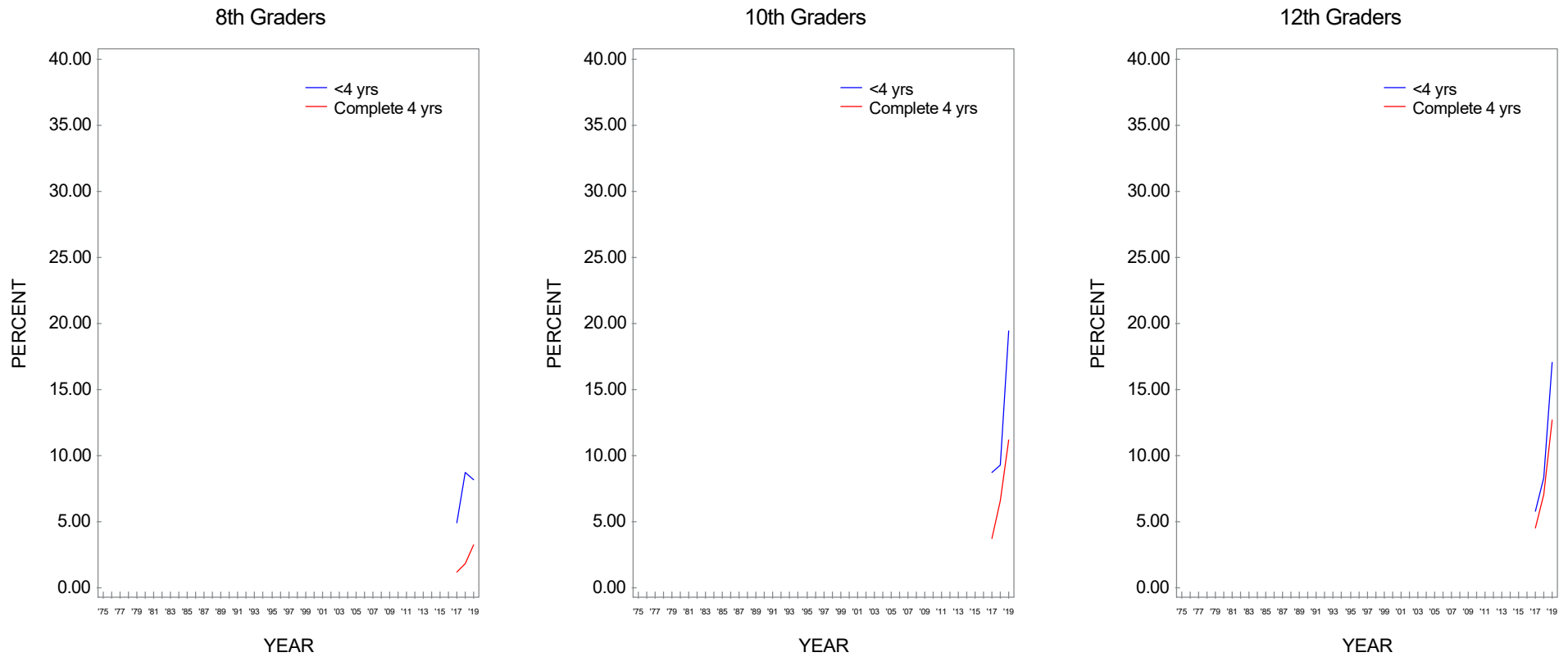
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 363
Vaping Marijuana: Trends in 30-Day Prevalence by Region
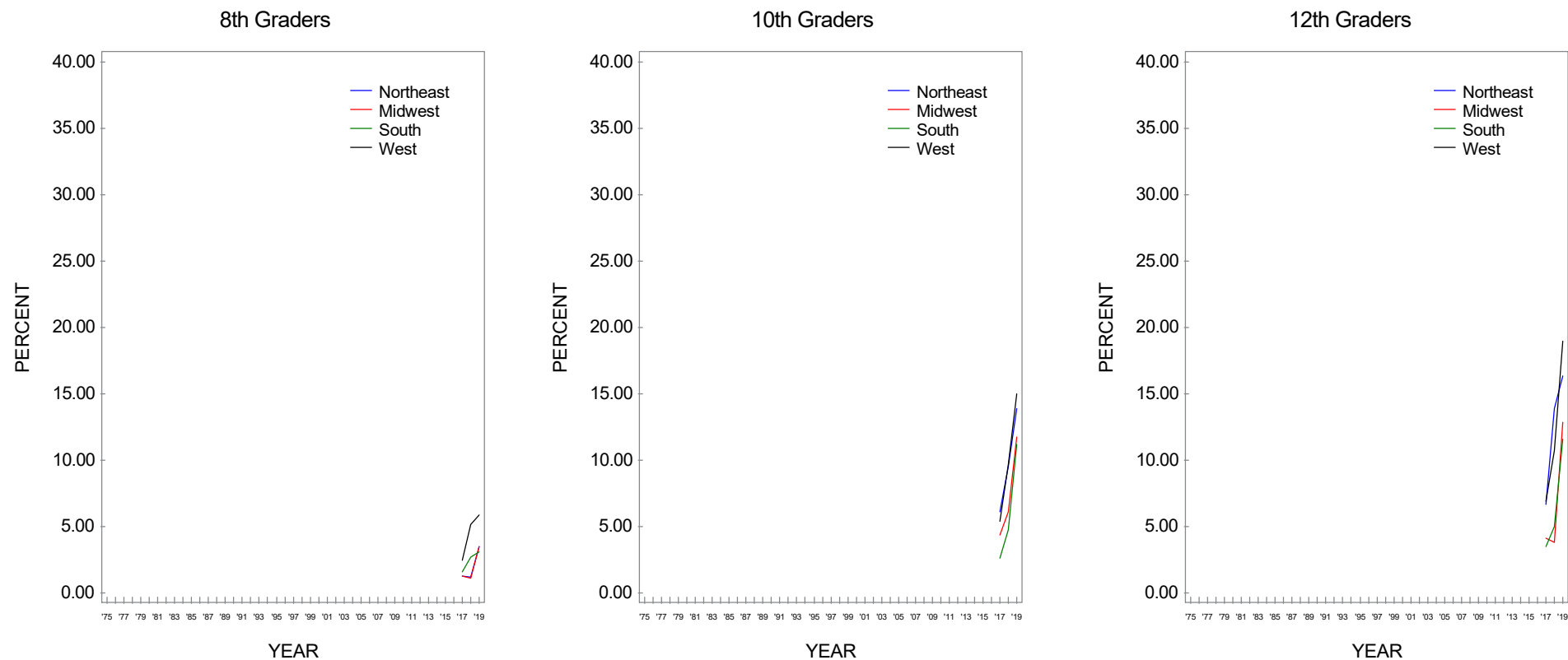
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 364
Vaping Marijuana: Trends in 30-Day Prevalence by Population Density
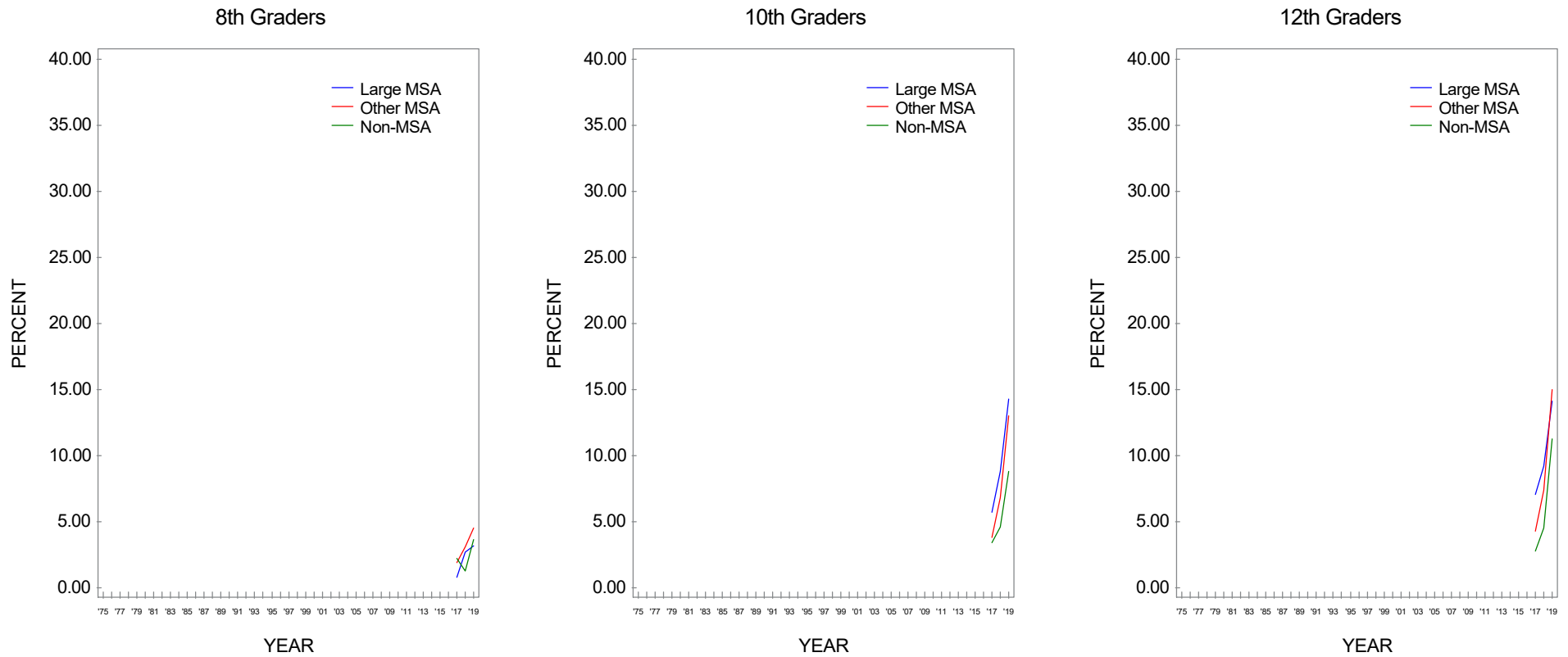
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 365
Vaping Marijuana: Trends in 30-Day Prevalence by Average Education Level of Parents*
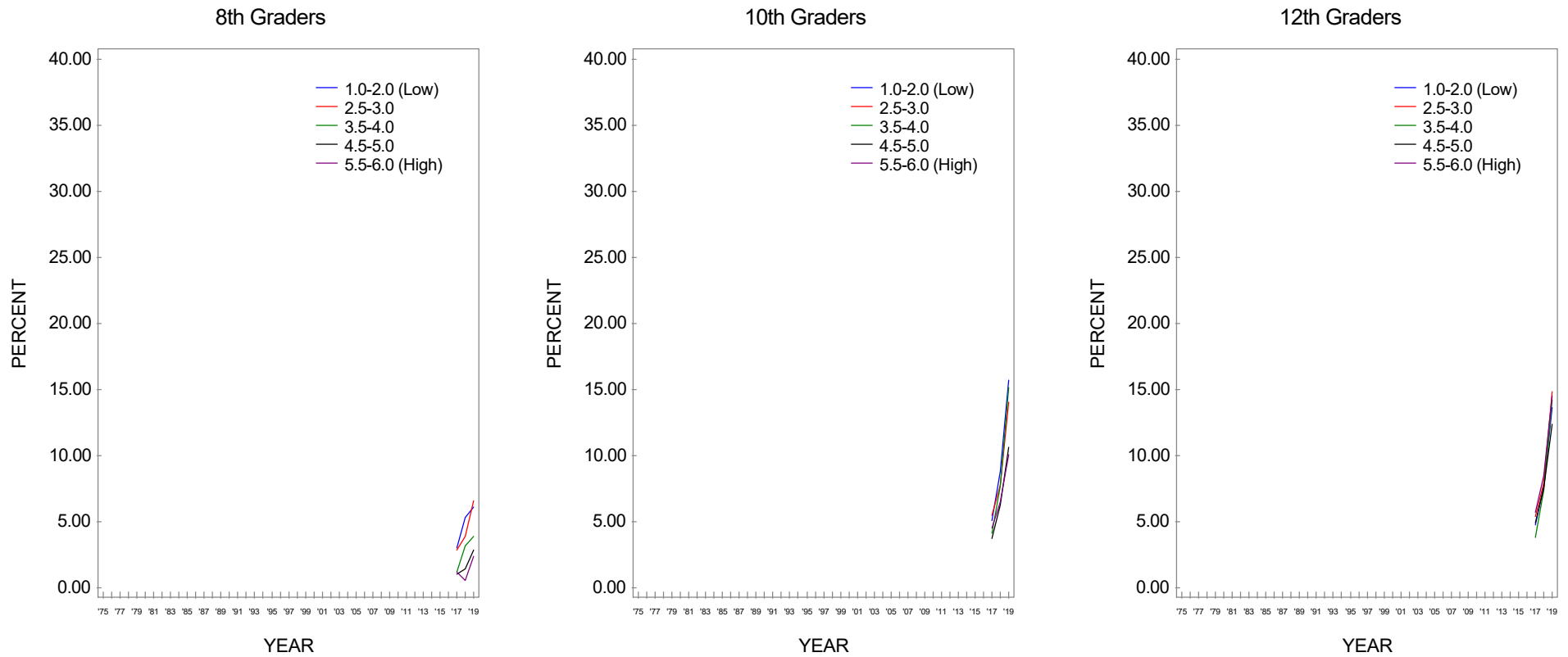
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 366
Vaping Marijuana: Trends in 30-Day Prevalence by Race/Ethnicity*
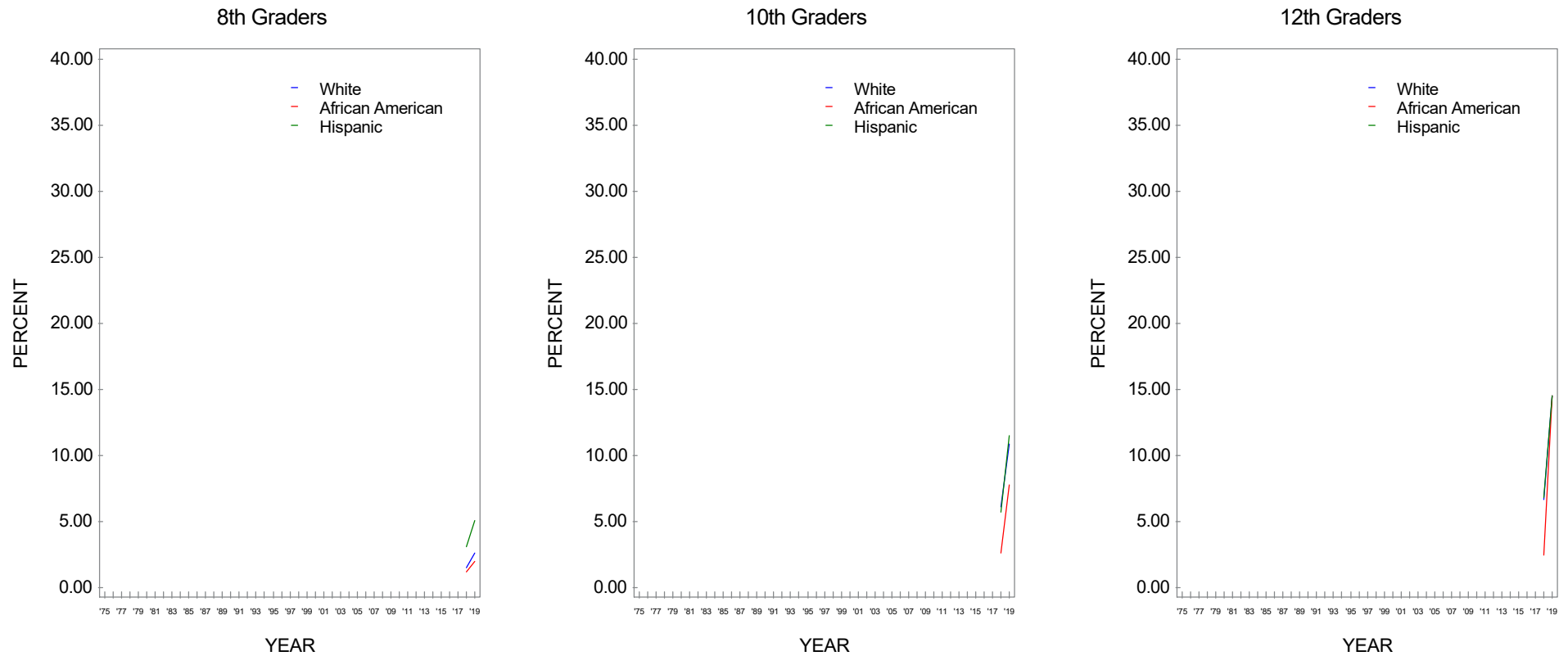
FIGURE 367
Vaping Just Flavoring: Trends in 30-Day Prevalence by Gender
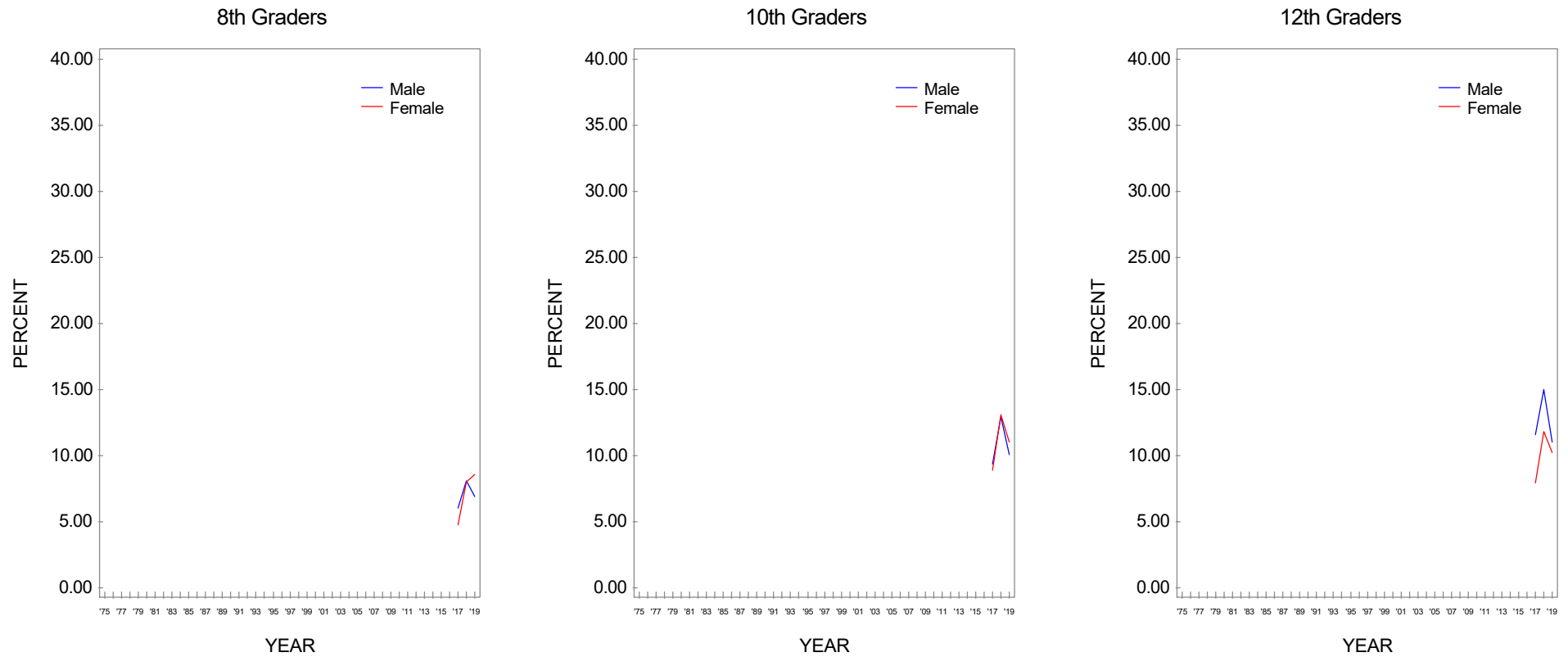
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 368
Vaping Just Flavoring: Trends in 30-Day Prevalence by College Plans

8th Graders

10th Graders

12th Graders
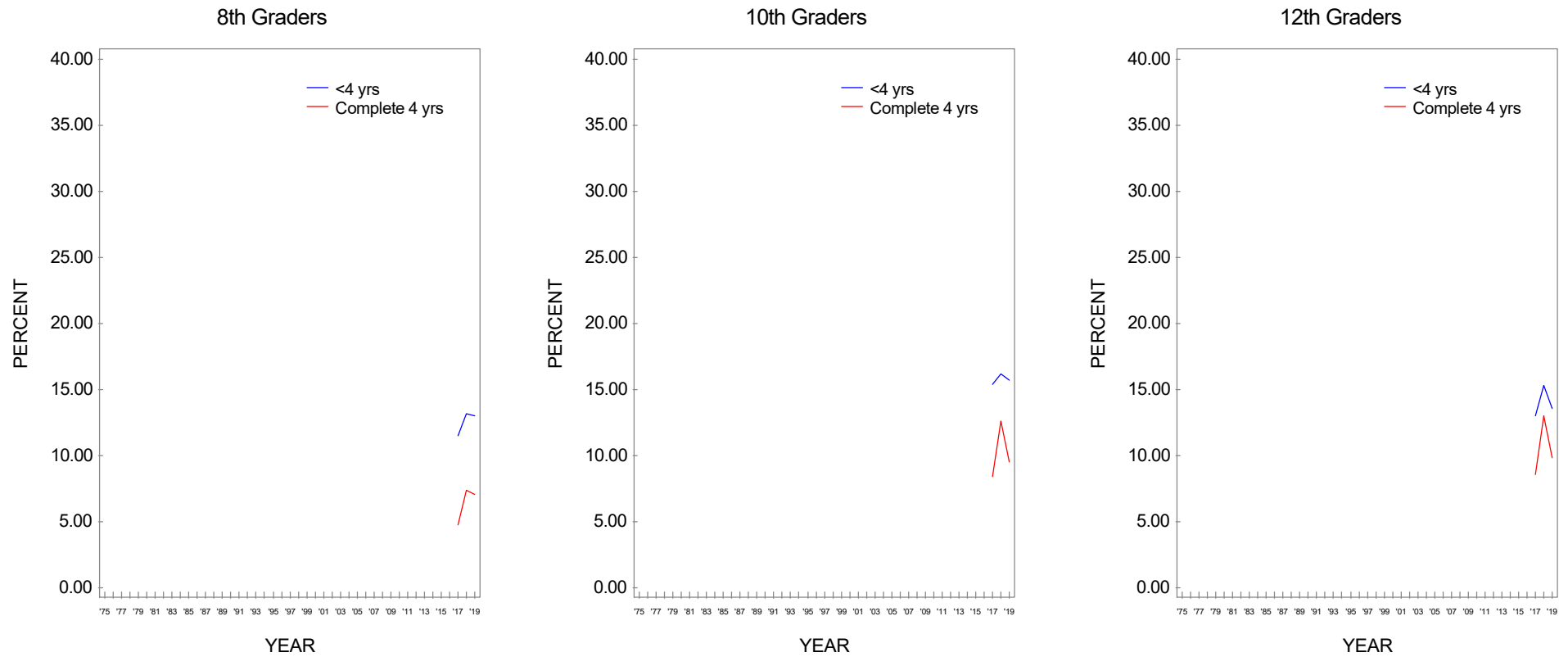
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 369
Vaping Just Flavoring: Trends in 30-Day Prevalence by Region
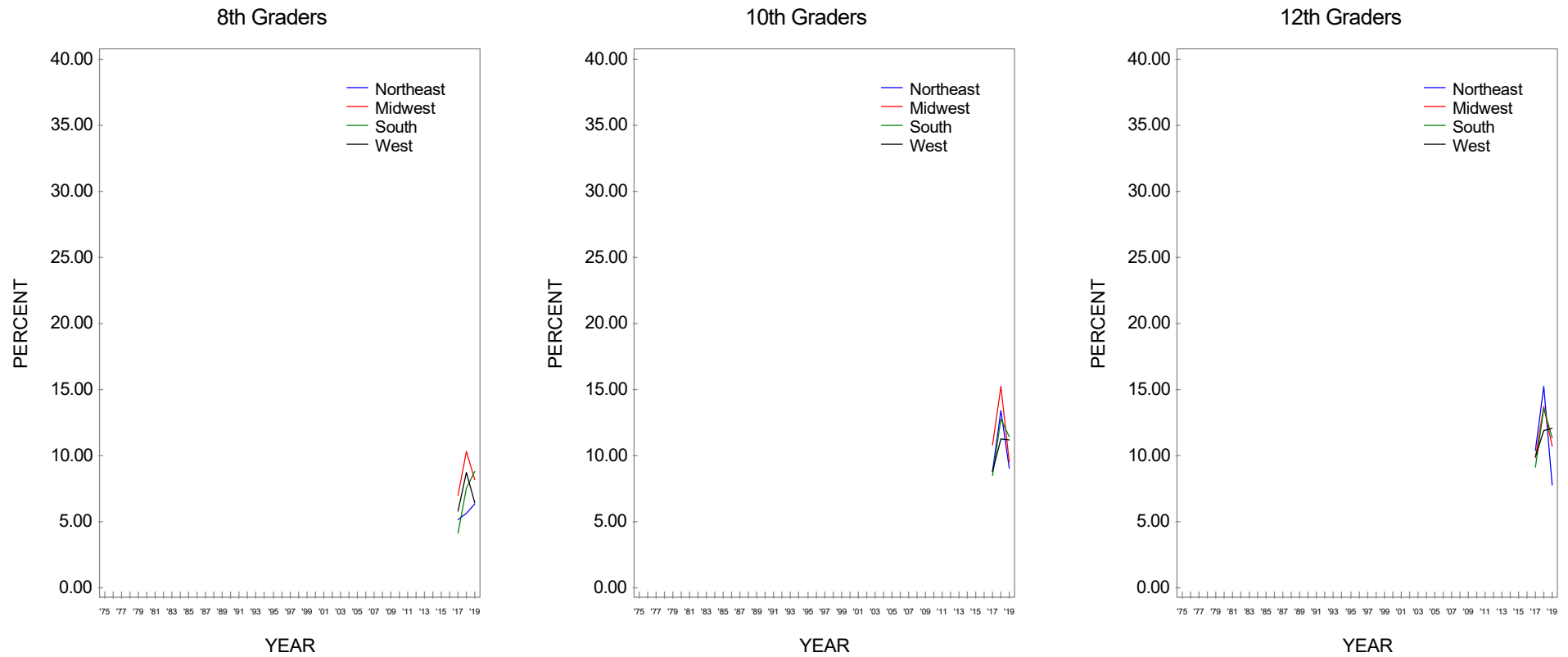
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 370
Vaping Just Flavoring: Trends in 30-Day Prevalence by Population Density
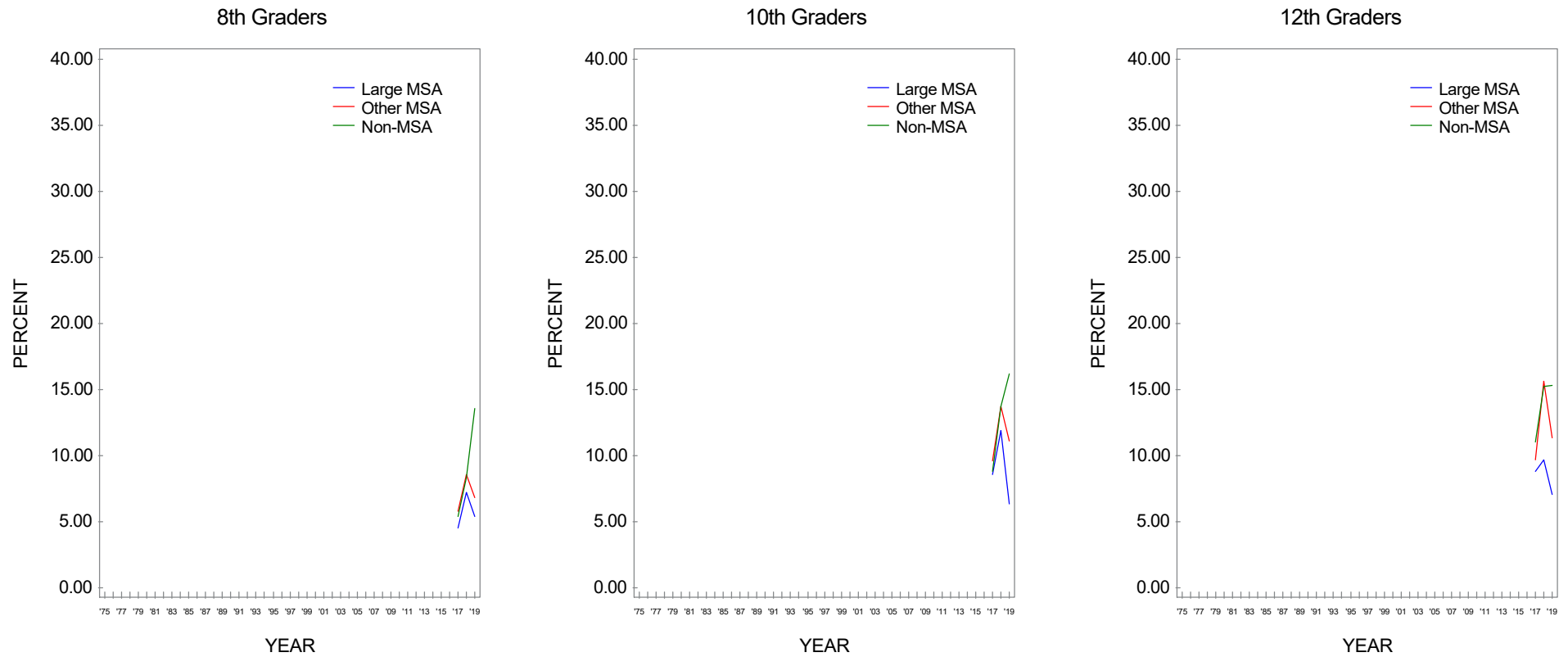
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 371
Vaping Just Flavoring: Trends in 30-Day Prevalence by Average Education Level of Parents*
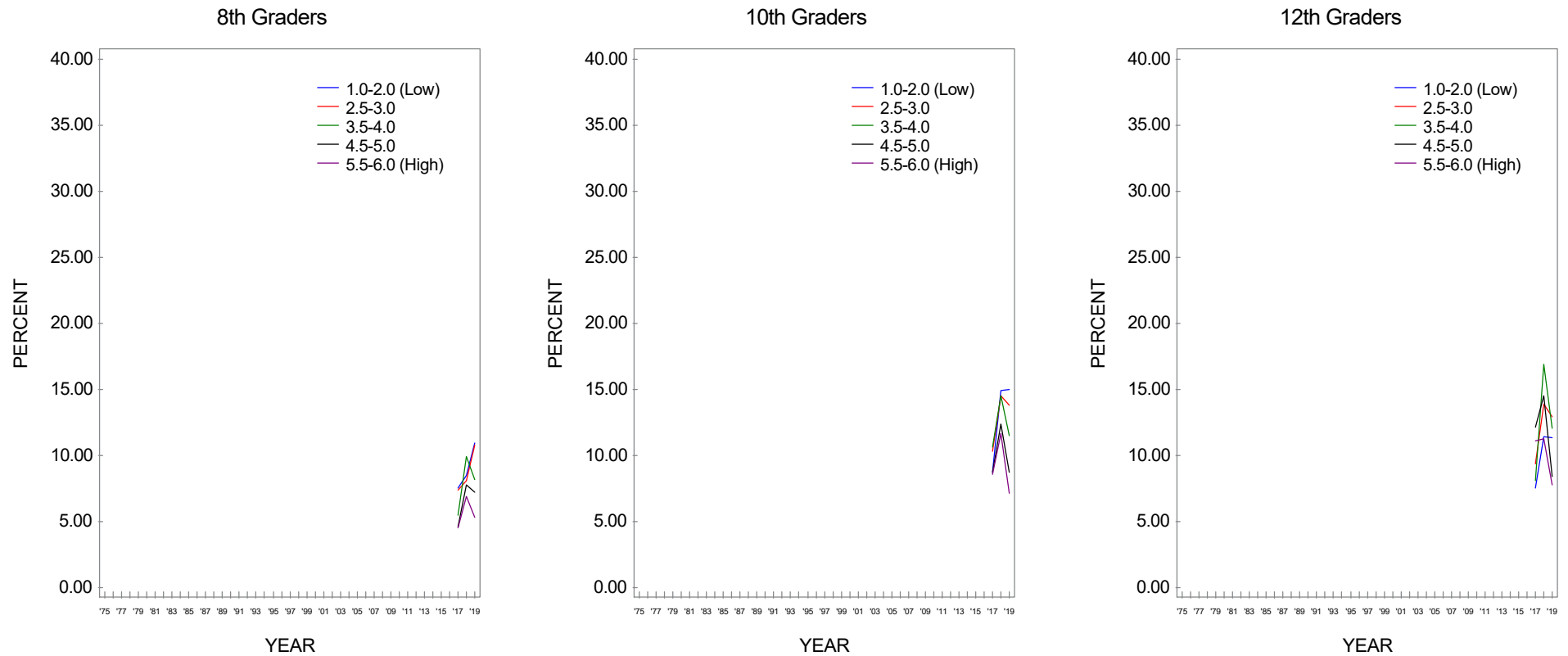
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 372
Vaping Just Flavoring: Trends in 30-Day Prevalence by Race/Ethnicity*
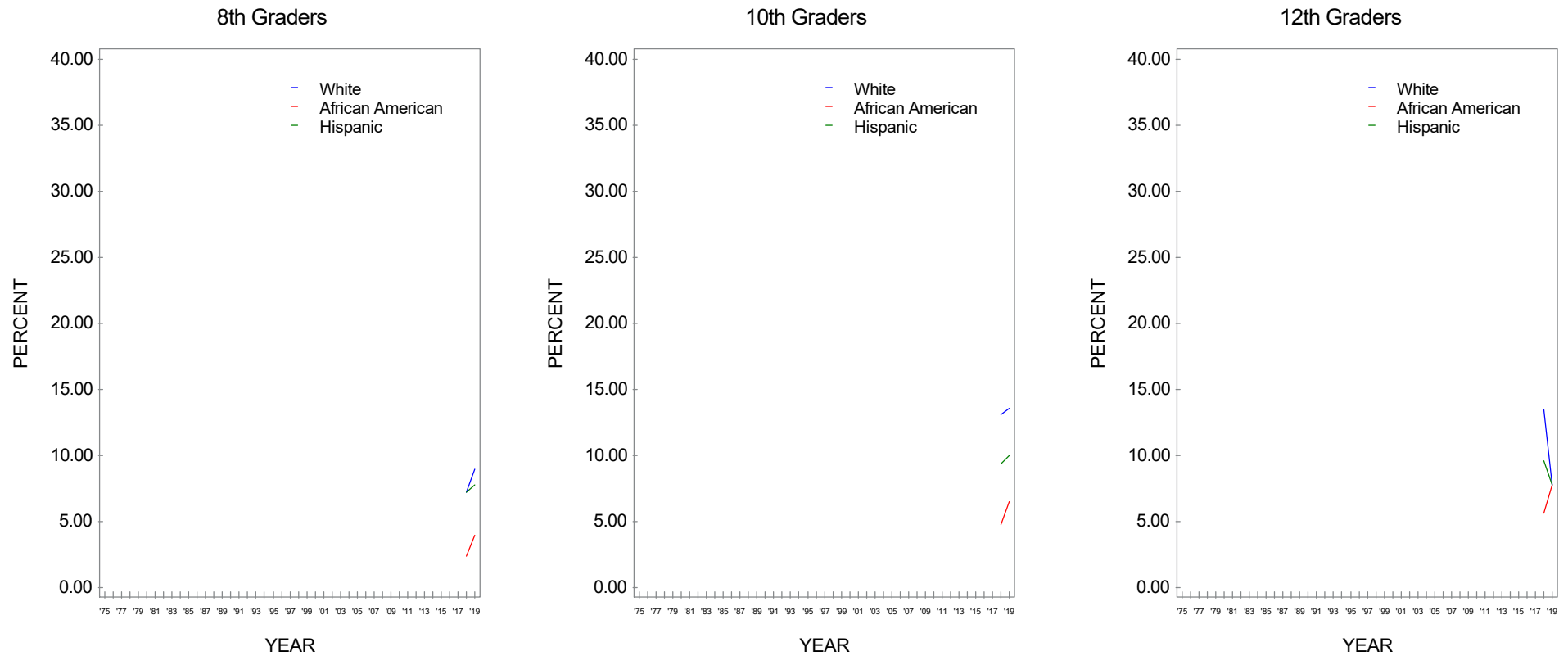
FIGURE 373
Smokeless Tobacco: Trends in 30-Day Prevalence by Gender
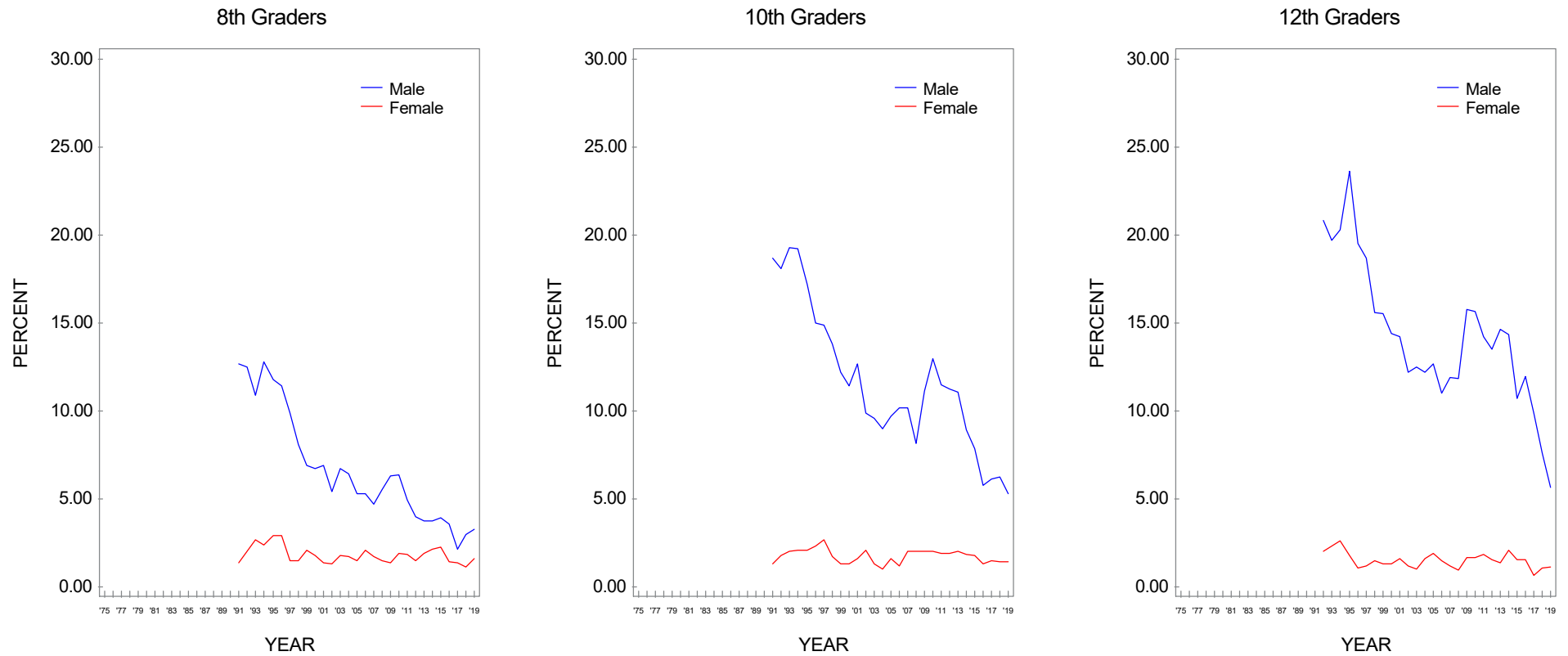
FIGURE 374
Smokeless Tobacco: Trends in 30-Day Prevalence by College Plans
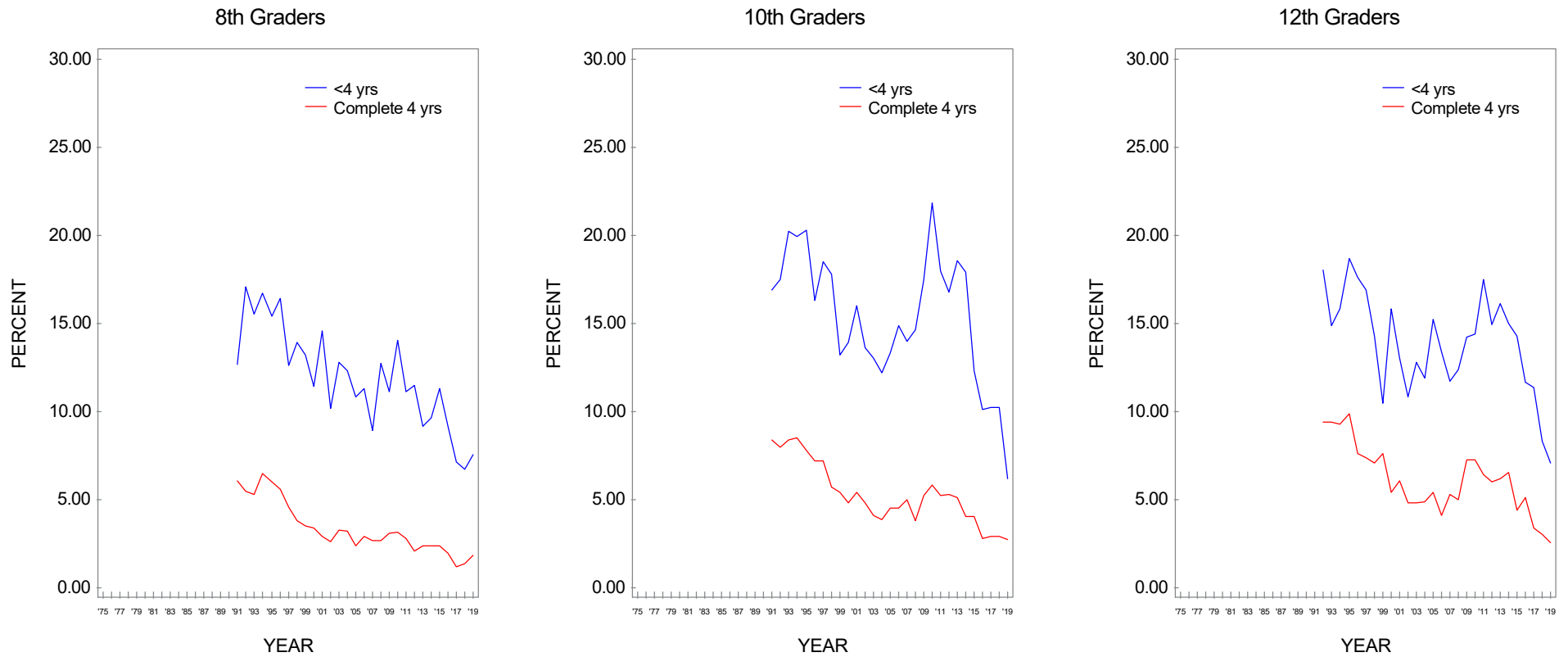
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 375
Smokeless Tobacco: Trends in 30-Day Prevalence by Region
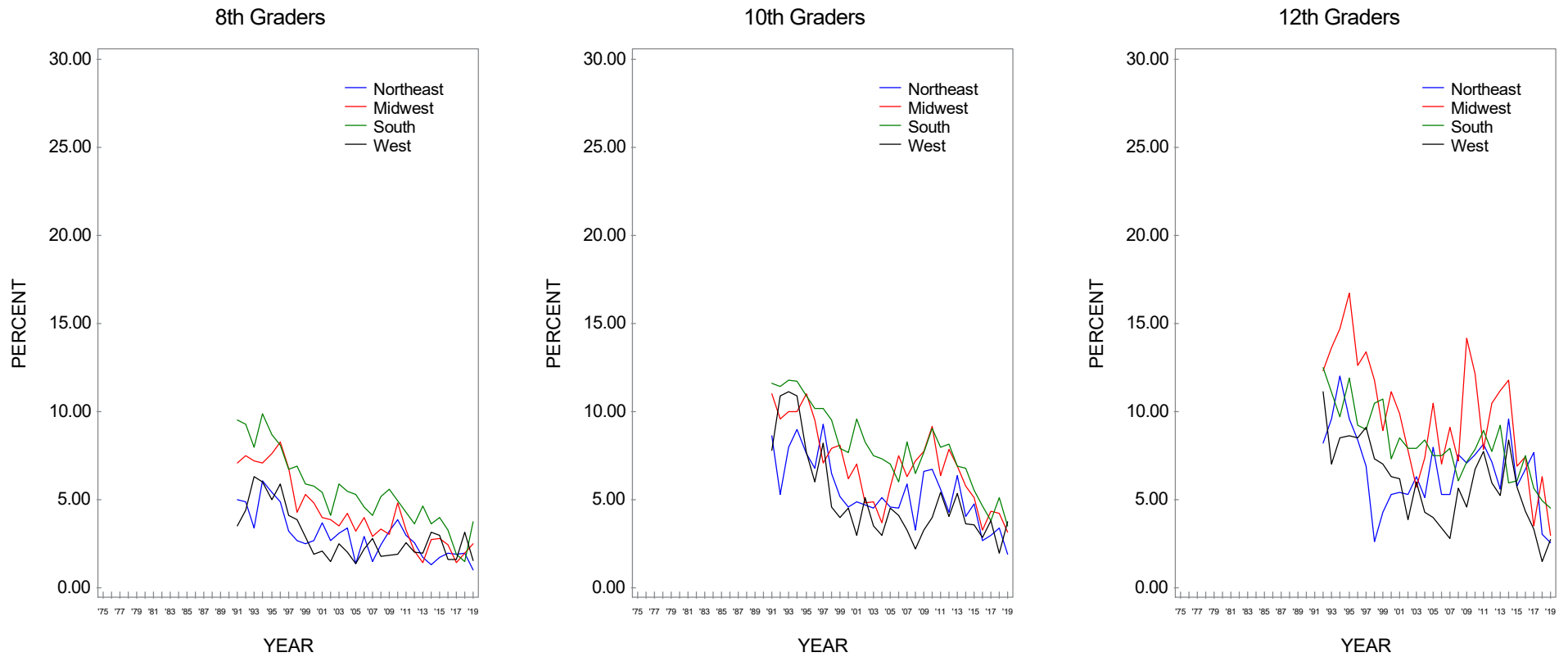
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 376

Smokeless Tobacco: Trends in 30-Day Prevalence by Population Density
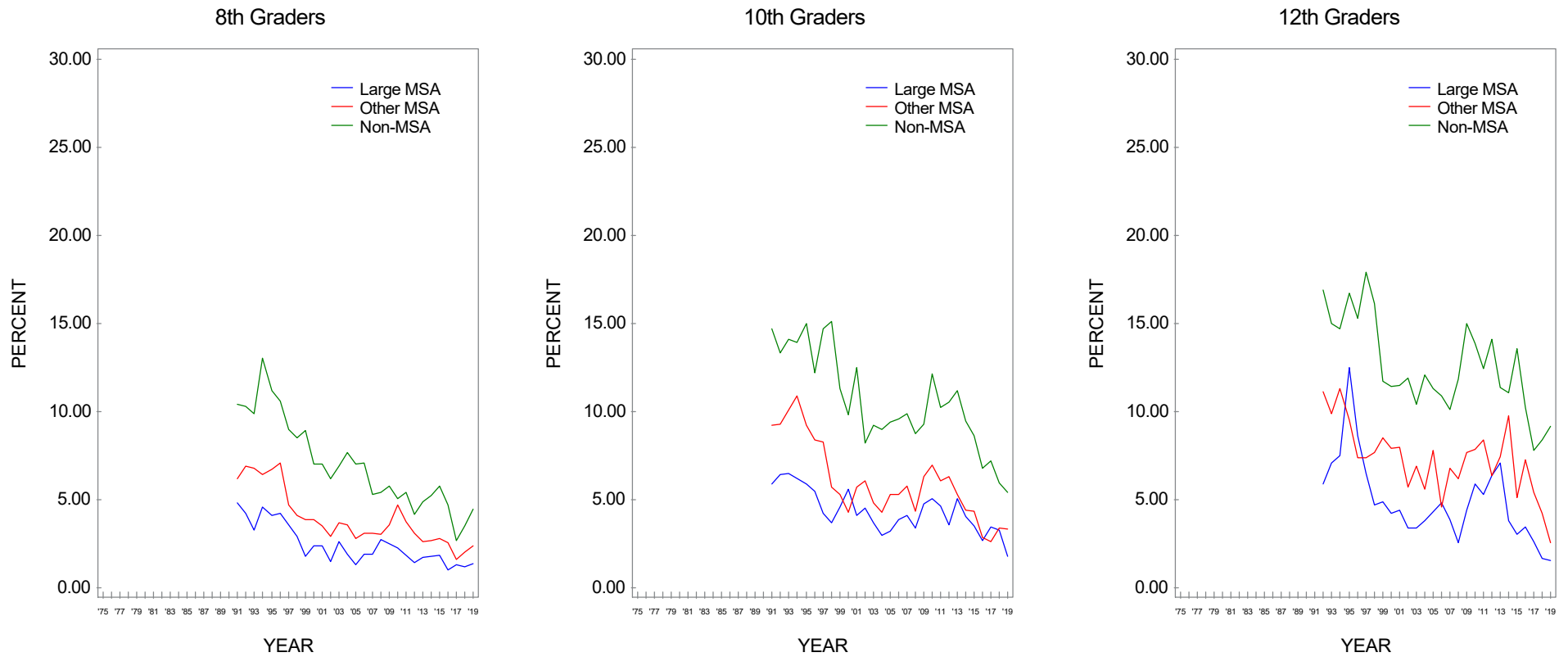
FIGURE 377
Smokeless Tobacco: Trends in 30-Day Prevalence by Average Education Level of Parents*
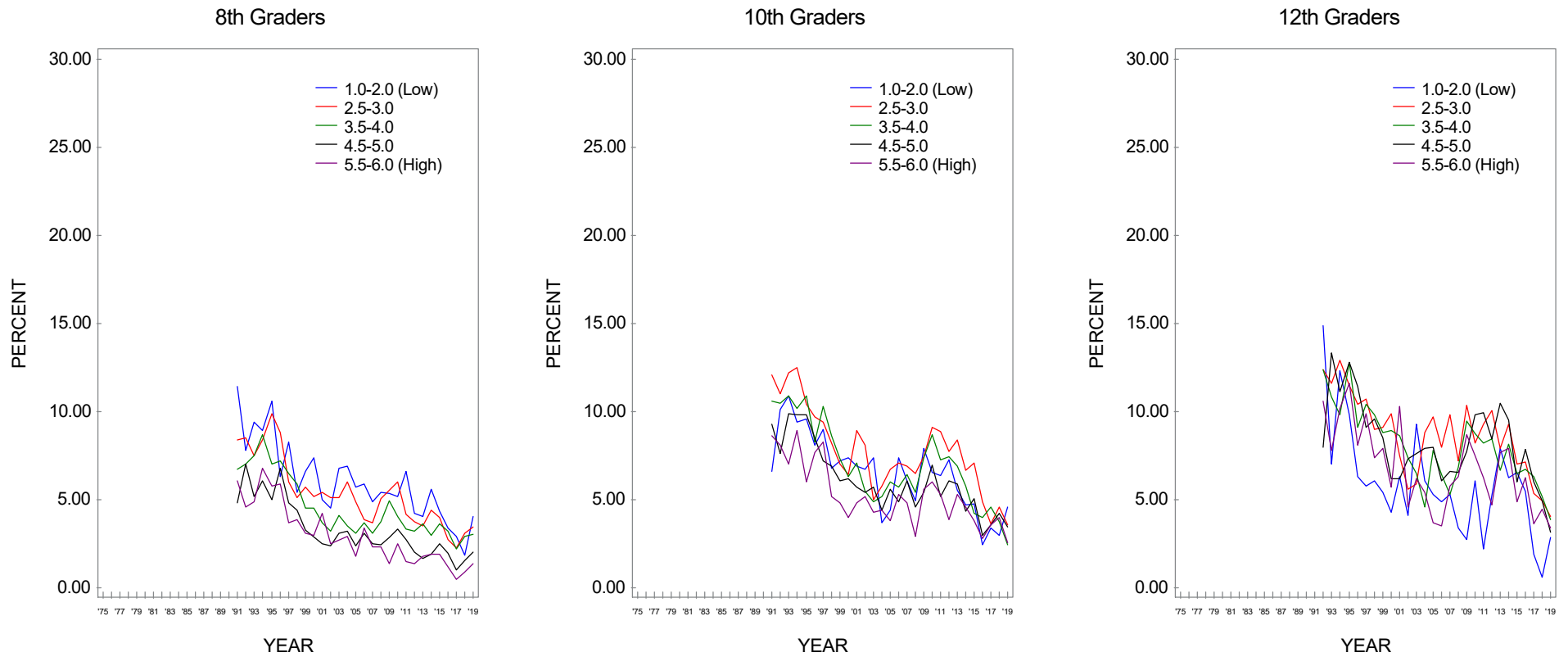
*Parental education is an average score of mother's education and father's education.

FIGURE 378
Smokeless Tobacco: Trends in 30-Day Prevalence by Race/Ethnicity*
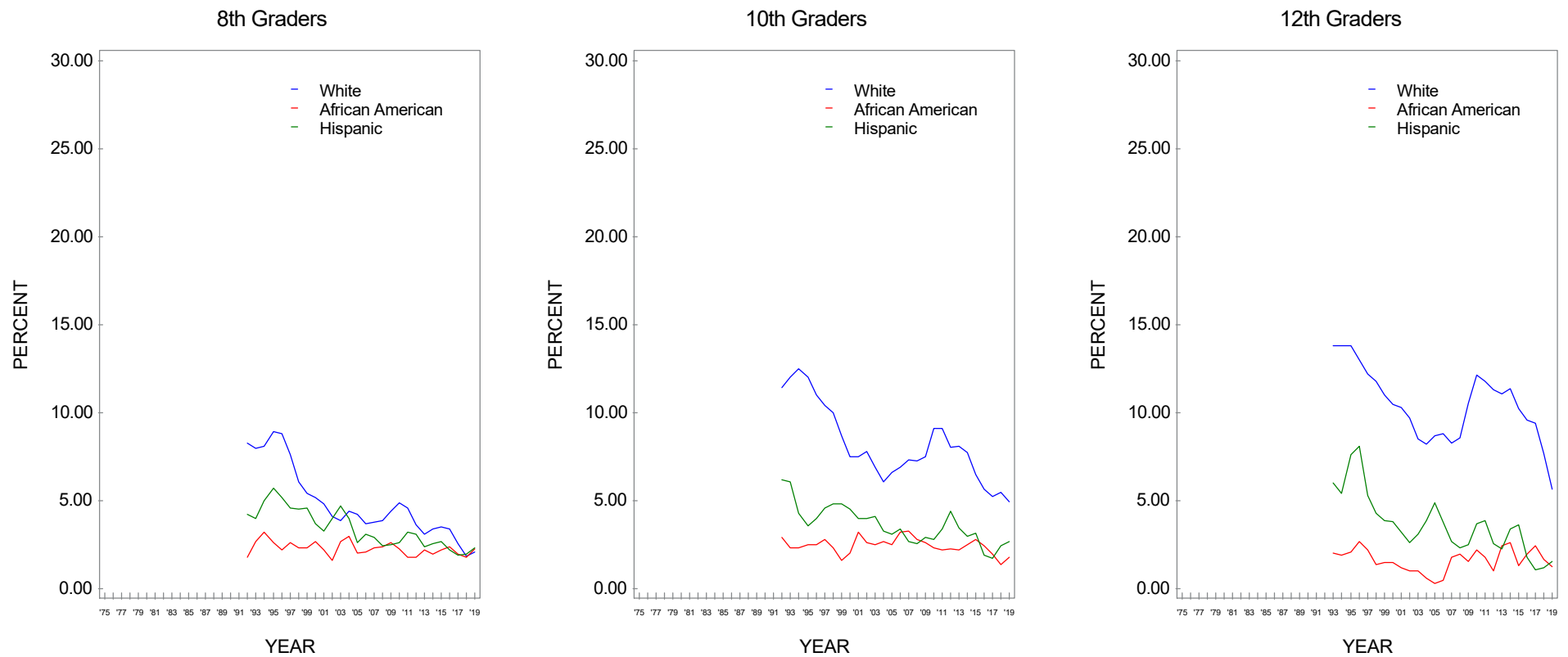
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 379

Smokeless Tobacco: Trends in 30-Day Prevalence of Daily Use by Gender
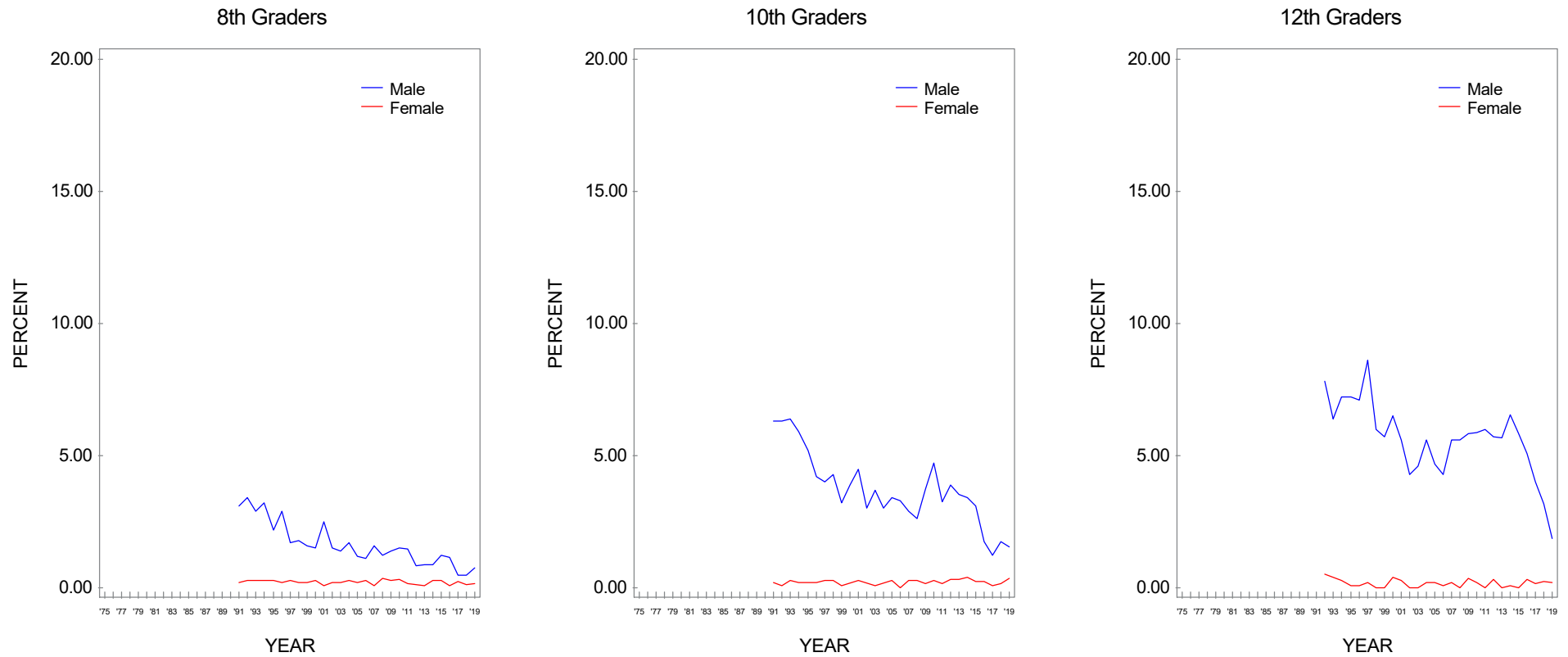
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 380
Smokeless Tobacco: Trends in 30-Day Prevalence of Daily Use by College Plans
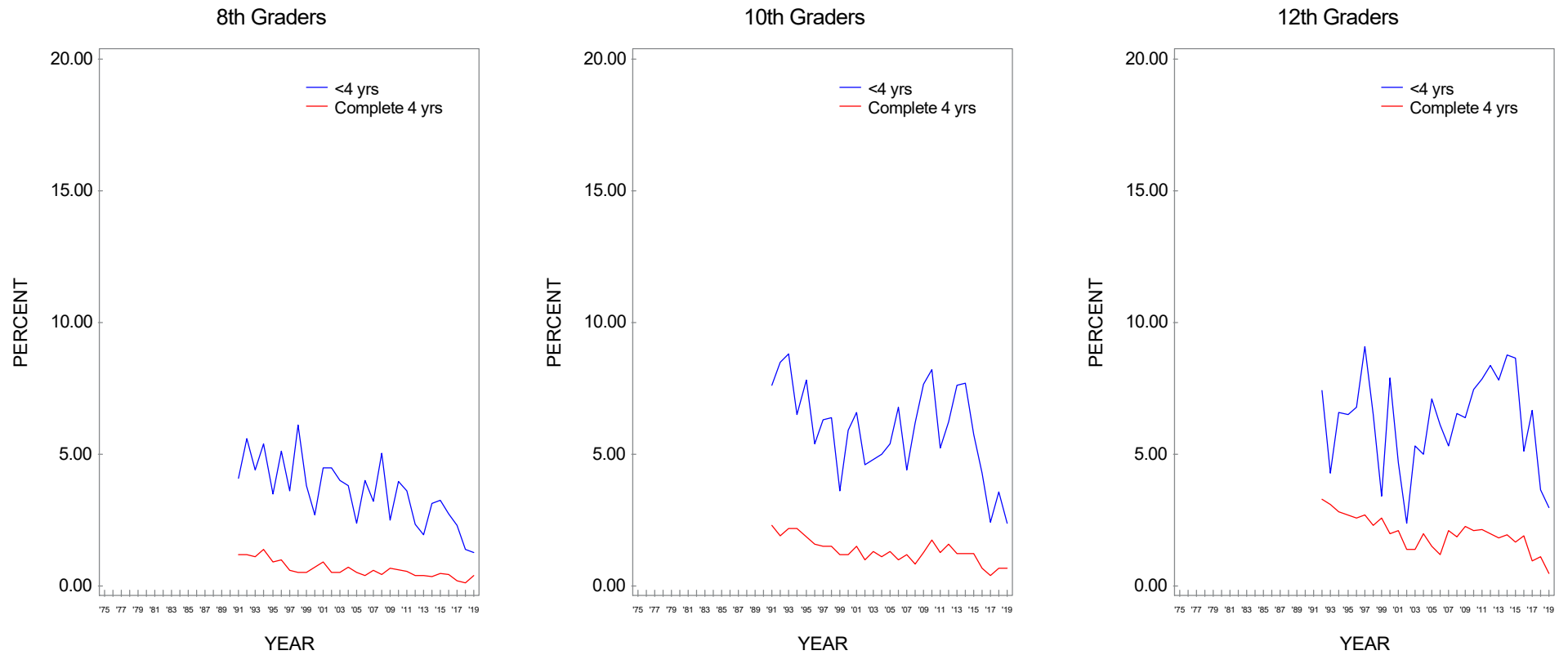
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 381
Smokeless Tobacco: Trends in 30-Day Prevalence of Daily Use by Region
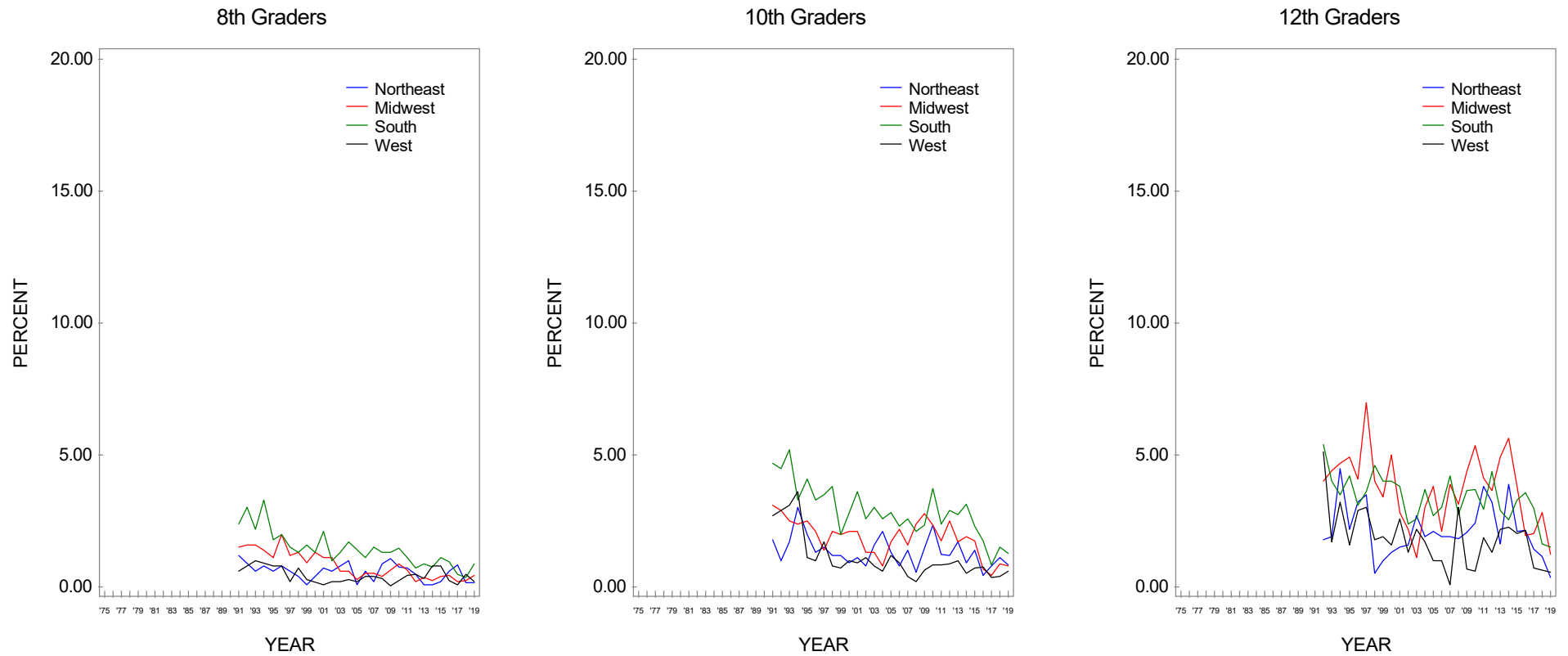
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 382
Smokeless Tobacco: Trends in 30-Day Prevalence of Daily Use by Population Density
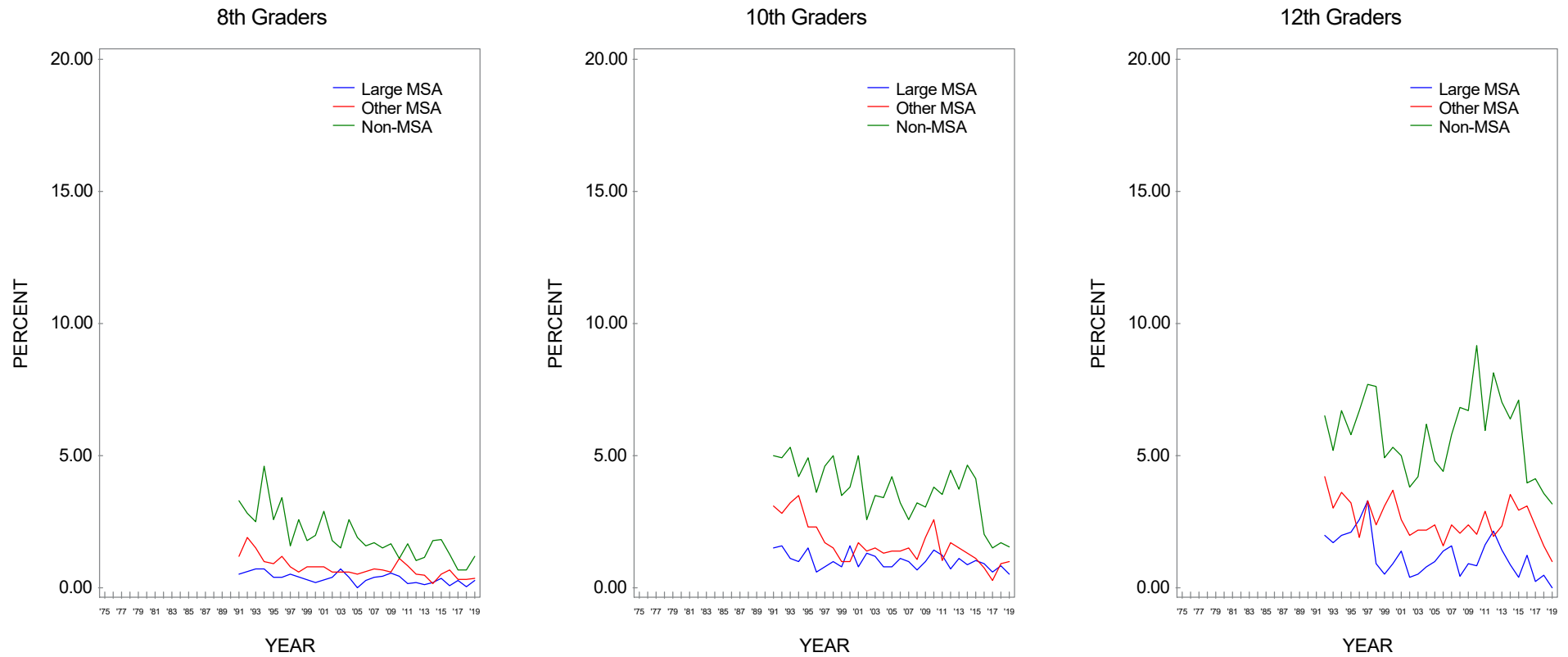
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 383

Smokeless Tobacco: Trends in 30-Day Prevalence of Daily Use by Average Education Level of Parents*
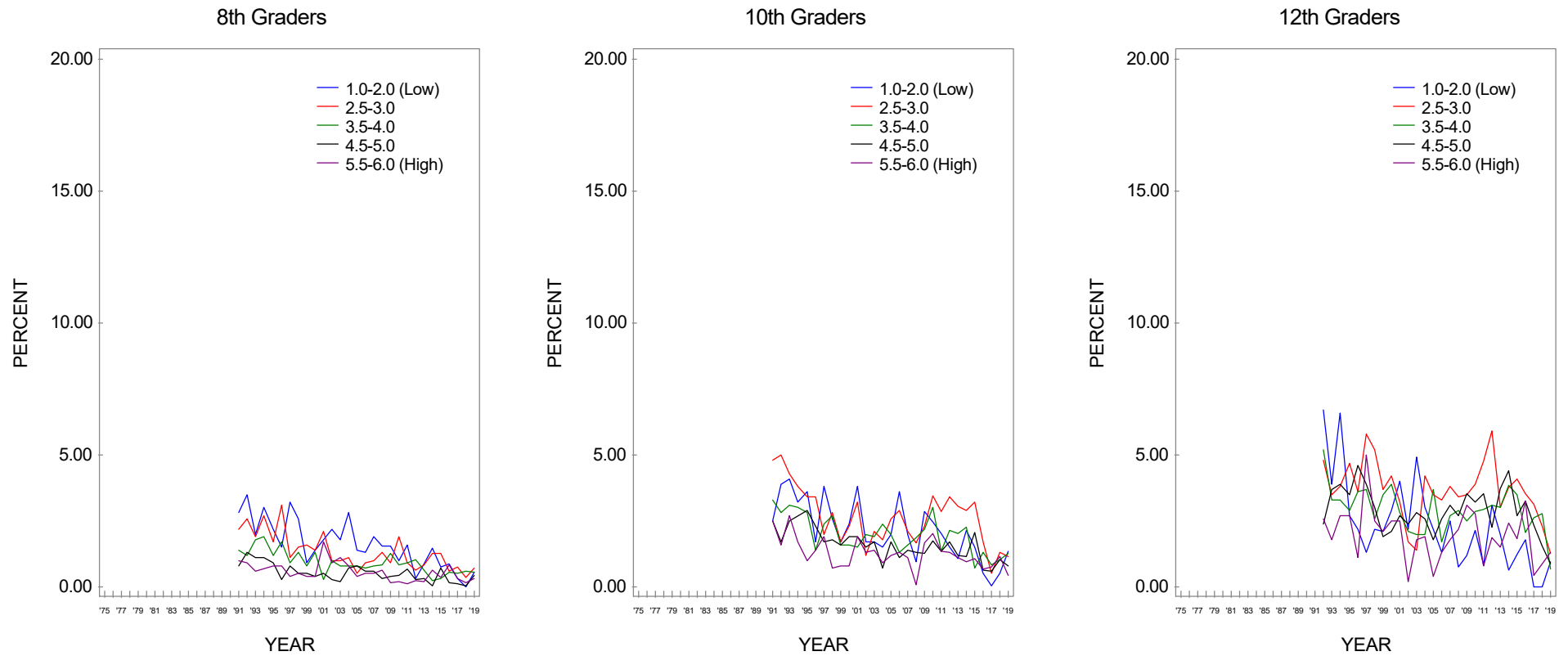
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 384
Smokeless Tobacco: Trends in 30-Day Prevalence of Daily Use by Race/Ethnicity*
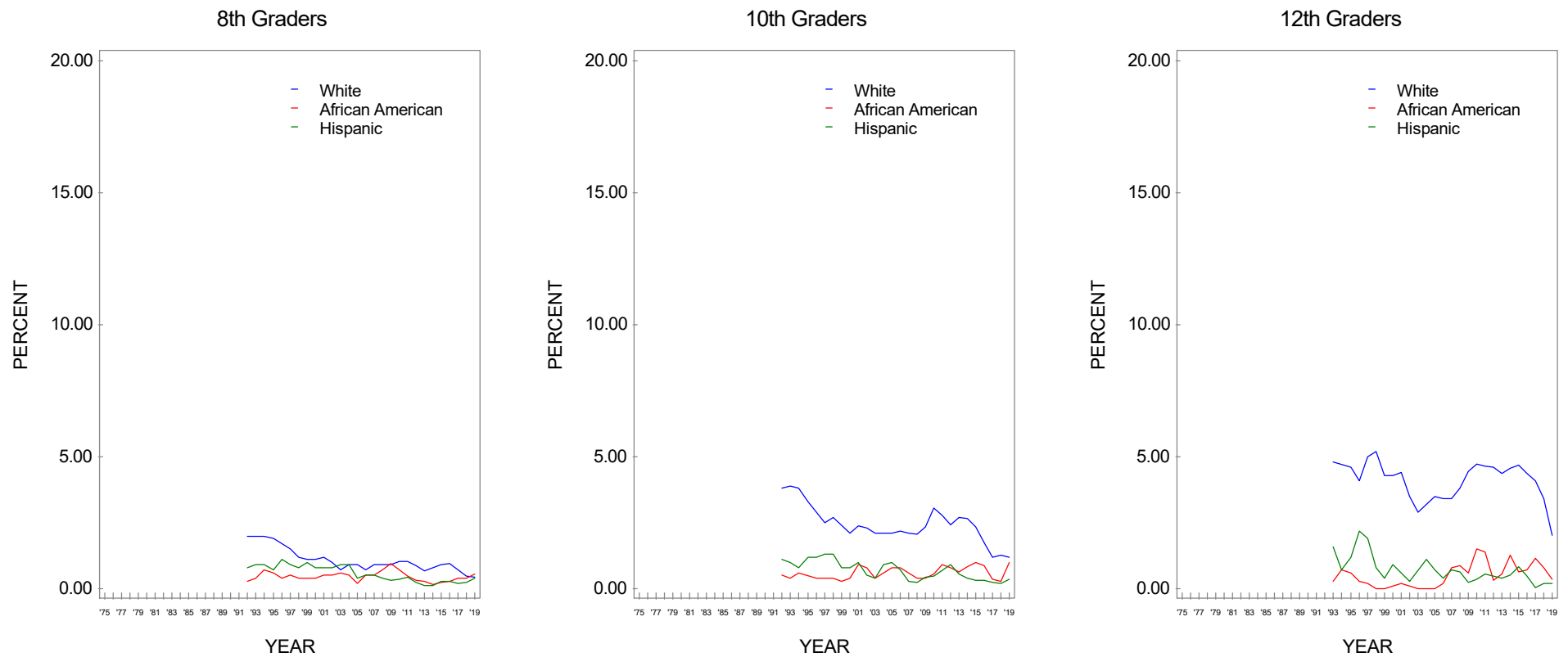
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 385
Dissolvable Tobacco Products: Trends in Annual Prevalence by Gender
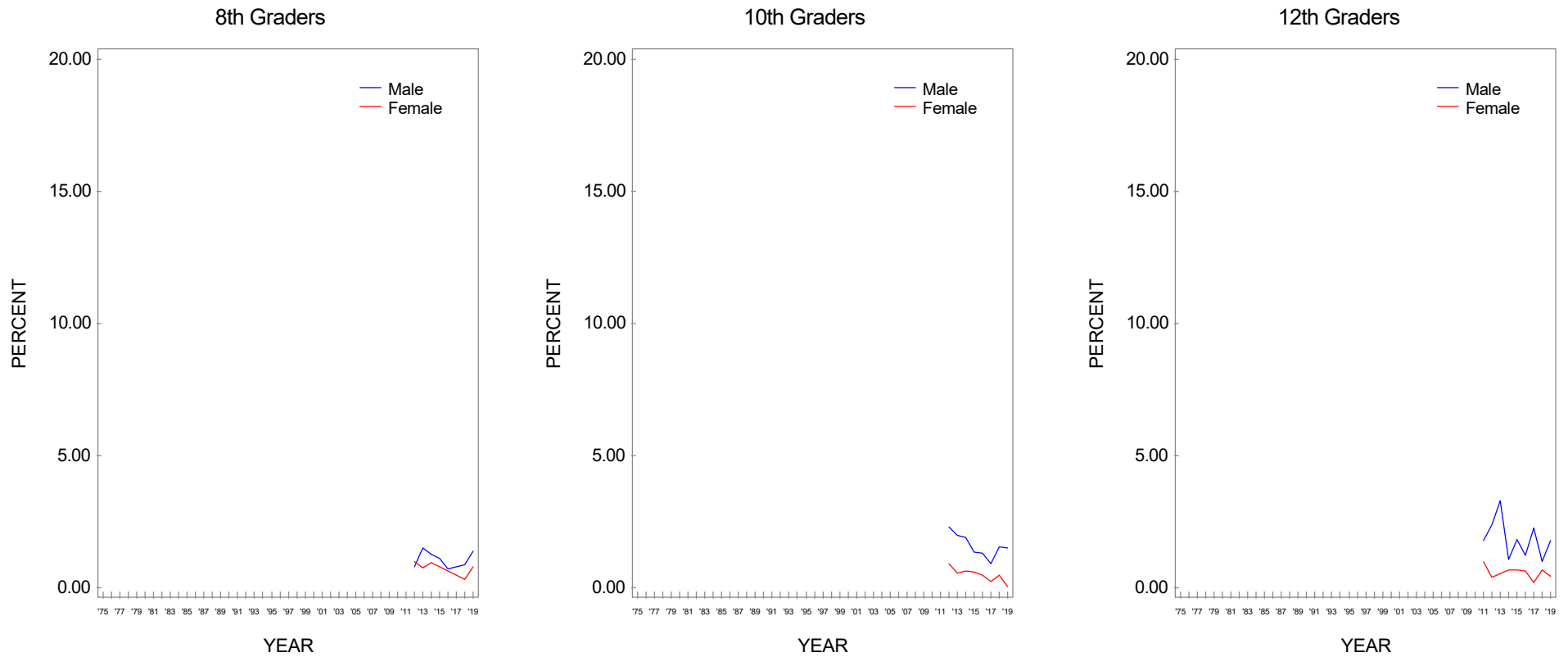
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 386
Dissolvable Tobacco Products: Trends in Annual Prevalence by College Plans
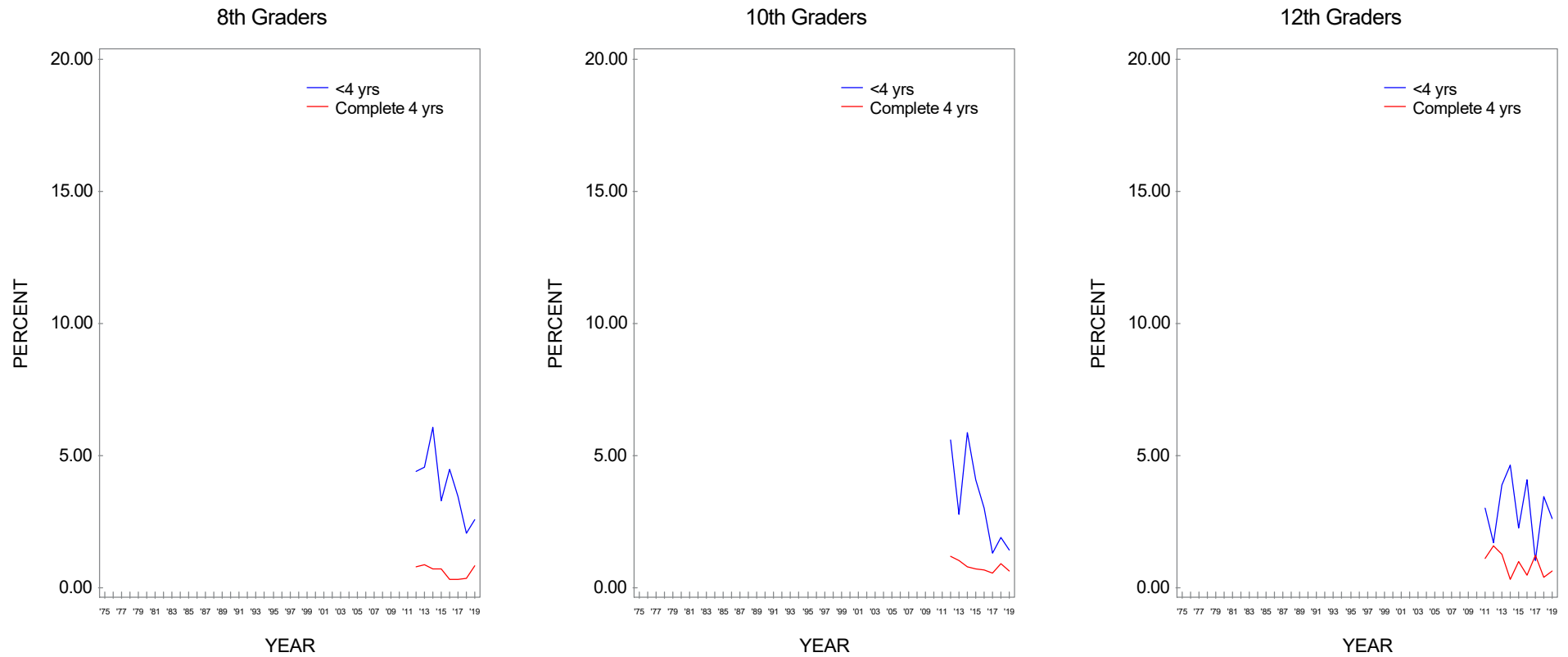
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 387

Dissolvable Tobacco Products: Trends in Annual Prevalence by Region

8th Graders

Legend: Northeast, Midwest, South, West

10th Graders

Legend: Northeast, Midwest, South, West

12th Graders

Legend: Northeast, Midwest, South, West
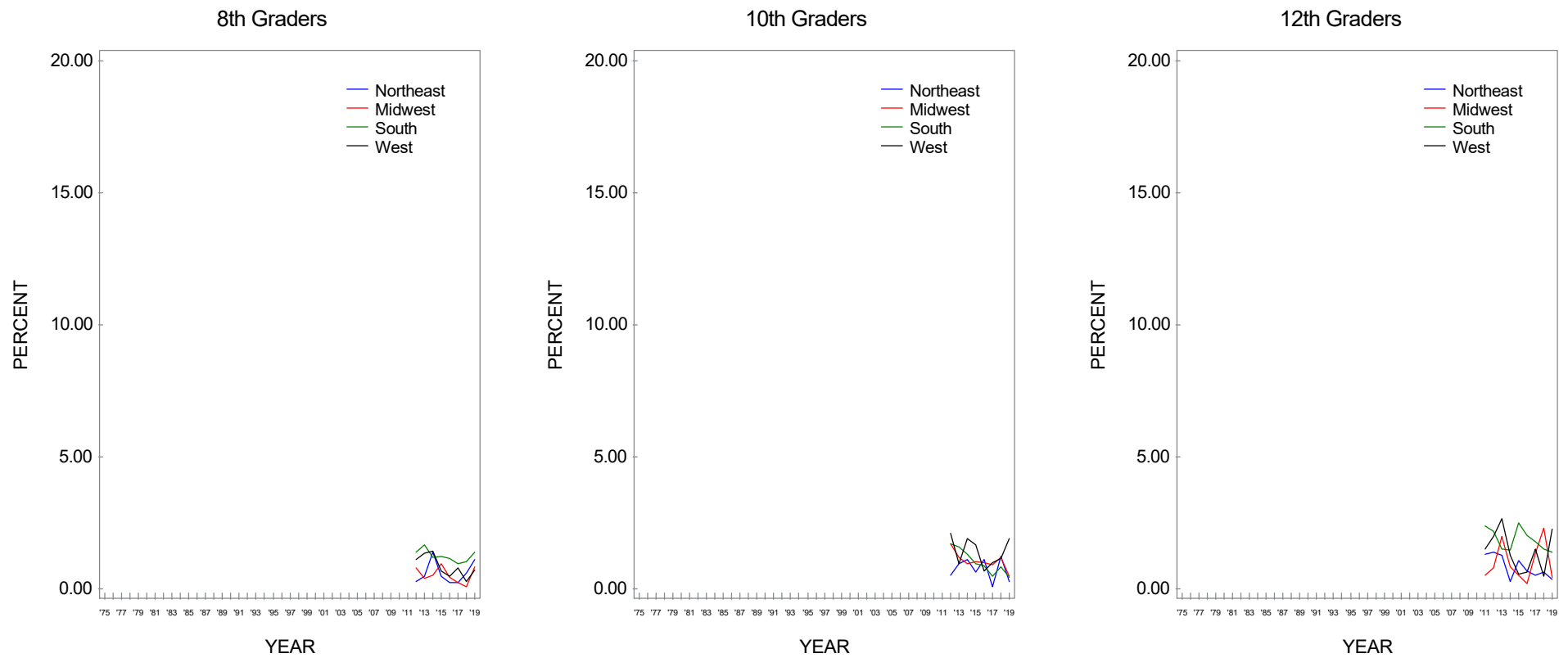
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 388

Dissolvable Tobacco Products: Trends in Annual Prevalence by Population Density
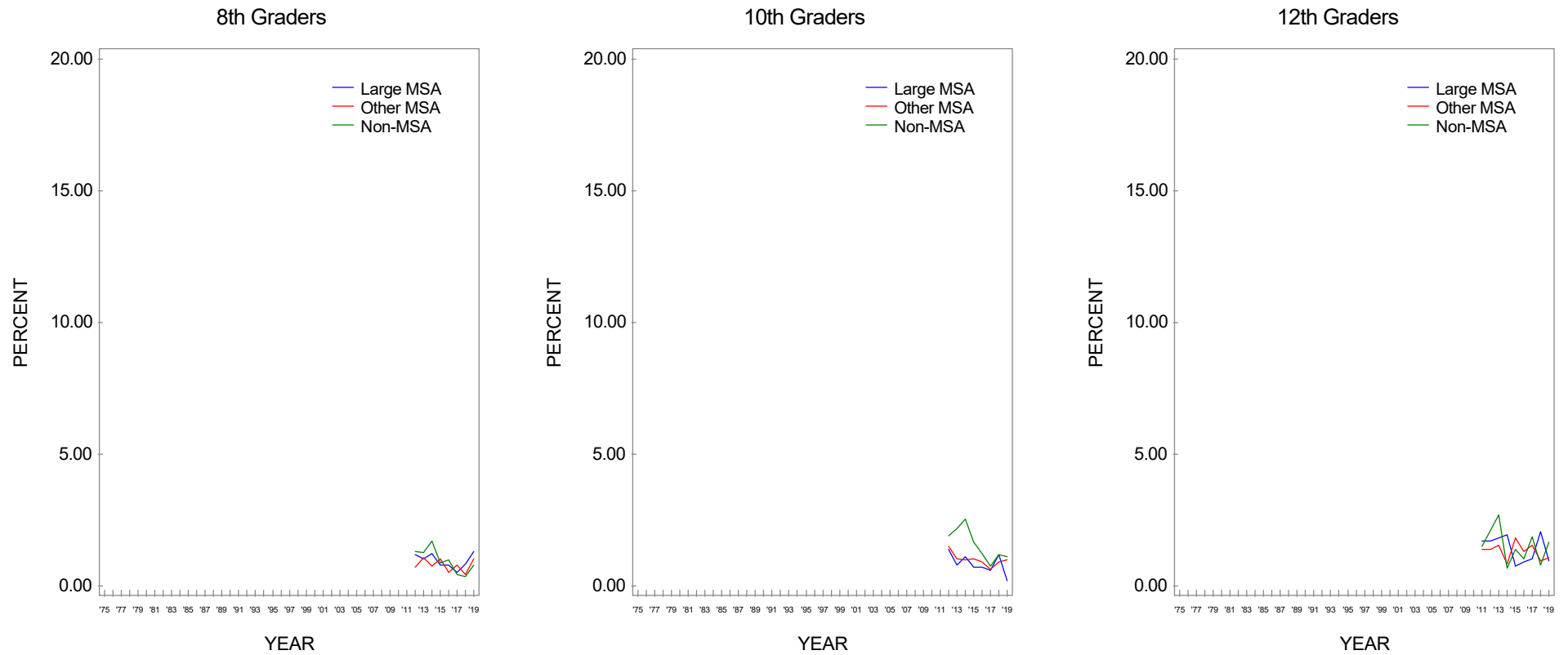
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 389

Dissolvable Tobacco Products: Trends in Annual Prevalence by Average Education Level of Parents*
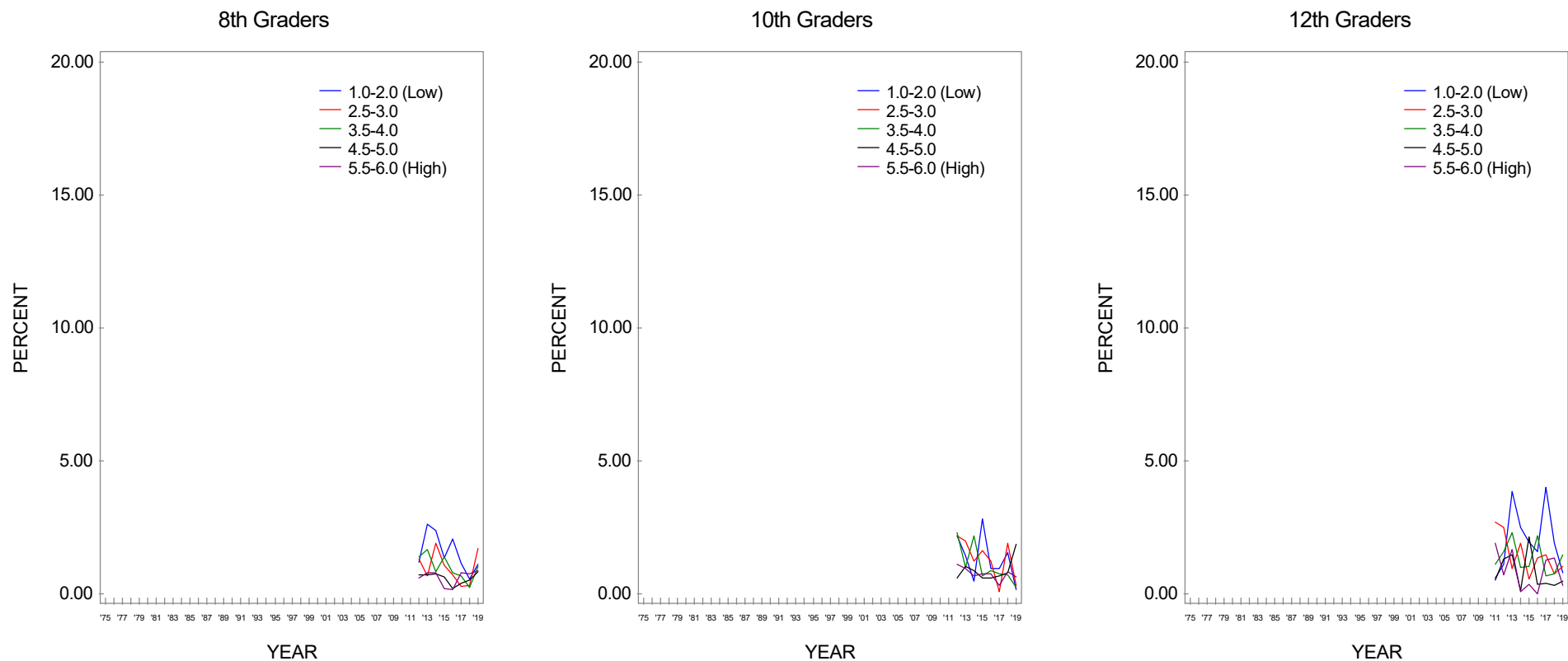
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 390
Dissolvable Tobacco Products: Trends in Annual Prevalence by Race/Ethnicity*
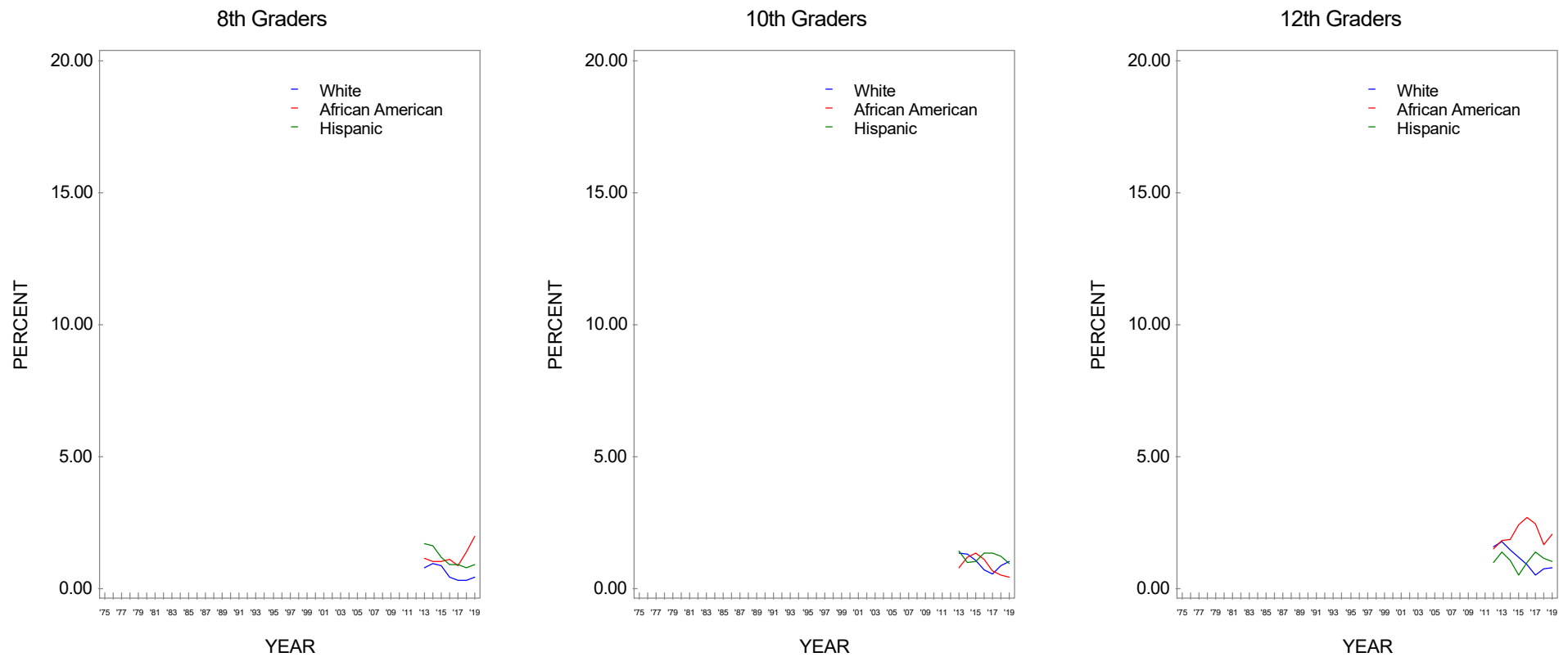
8th Graders

White
African American
Hispanic

PERCENT
YEAR

10th Graders

White
African American
Hispanic

PERCENT
YEAR

12th Graders

White
African American
Hispanic

PERCENT
YEAR

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 391
Snus: Trends in Annual Prevalence by Gender
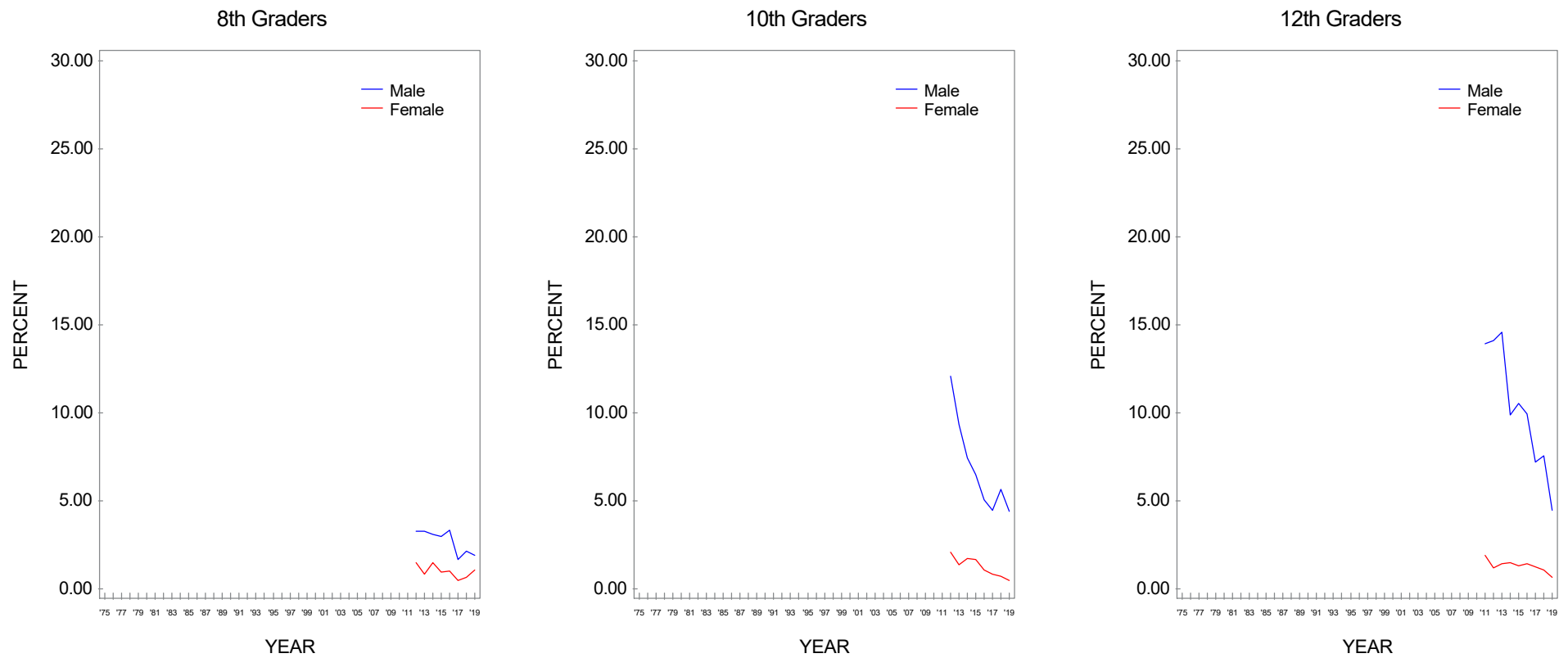
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 392
Snus: Trends in Annual Prevalence by College Plans

8th Graders

10th Graders

12th Graders
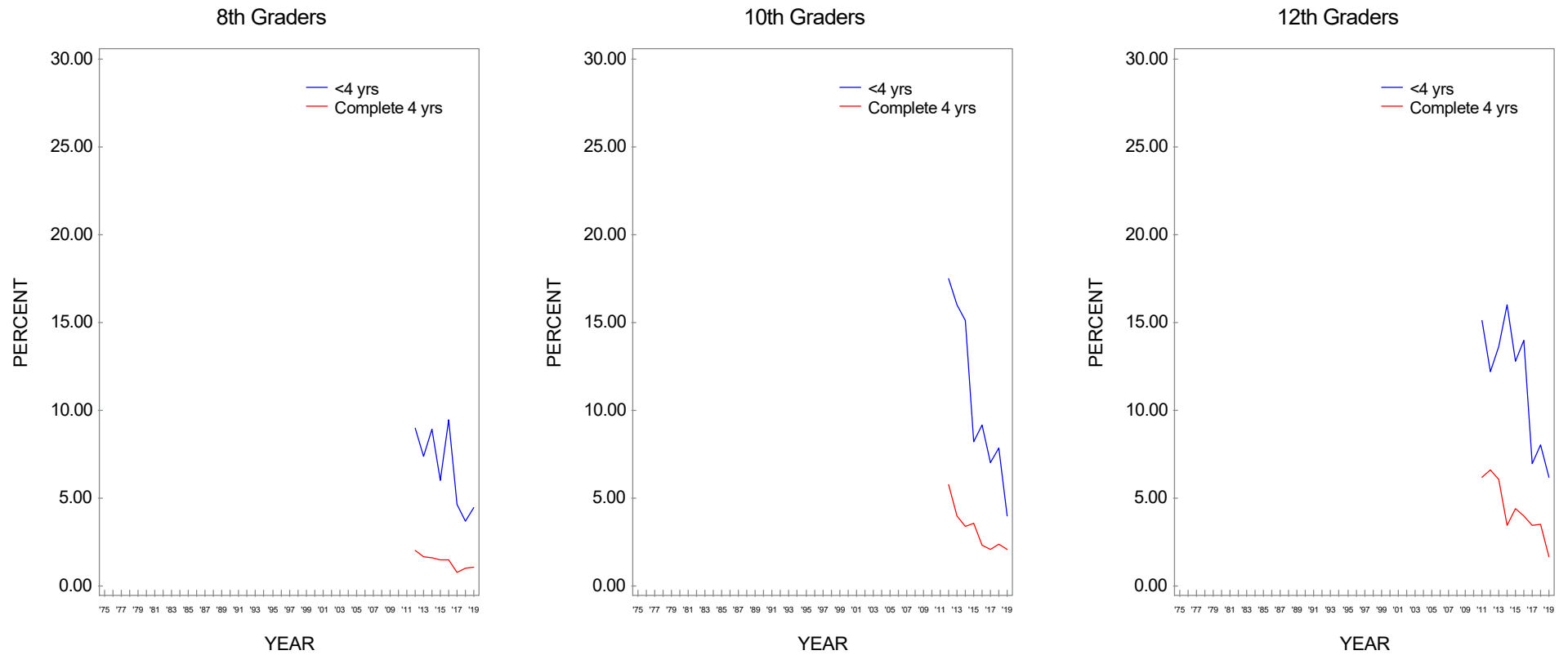
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 393
Snus: Trends in Annual Prevalence by Region
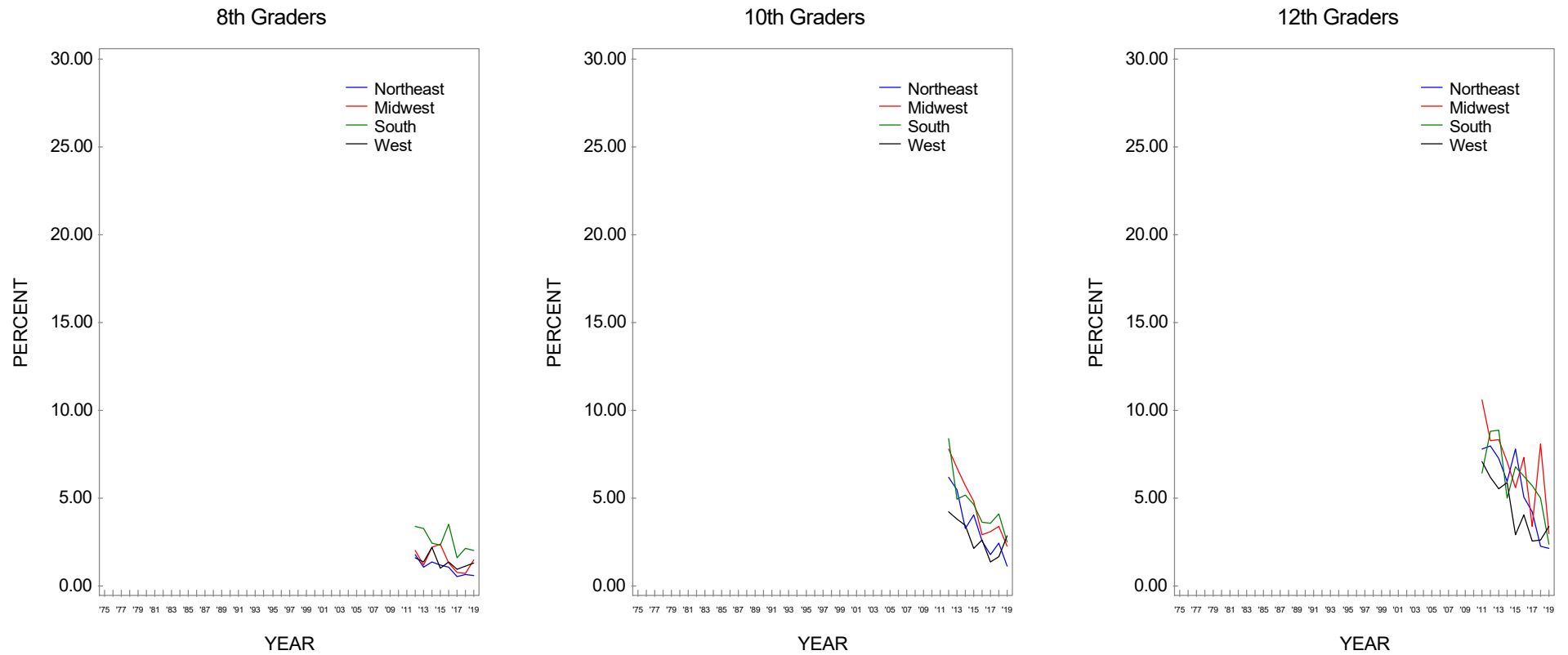
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 394
Snus: Trends in Annual Prevalence by Population Density

8th Graders

PERCENT

— Large MSA
— Other MSA
— Non-MSA

YEAR

10th Graders

PERCENT

— Large MSA
— Other MSA
— Non-MSA

YEAR

12th Graders

PERCENT

— Large MSA
— Other MSA
— Non-MSA

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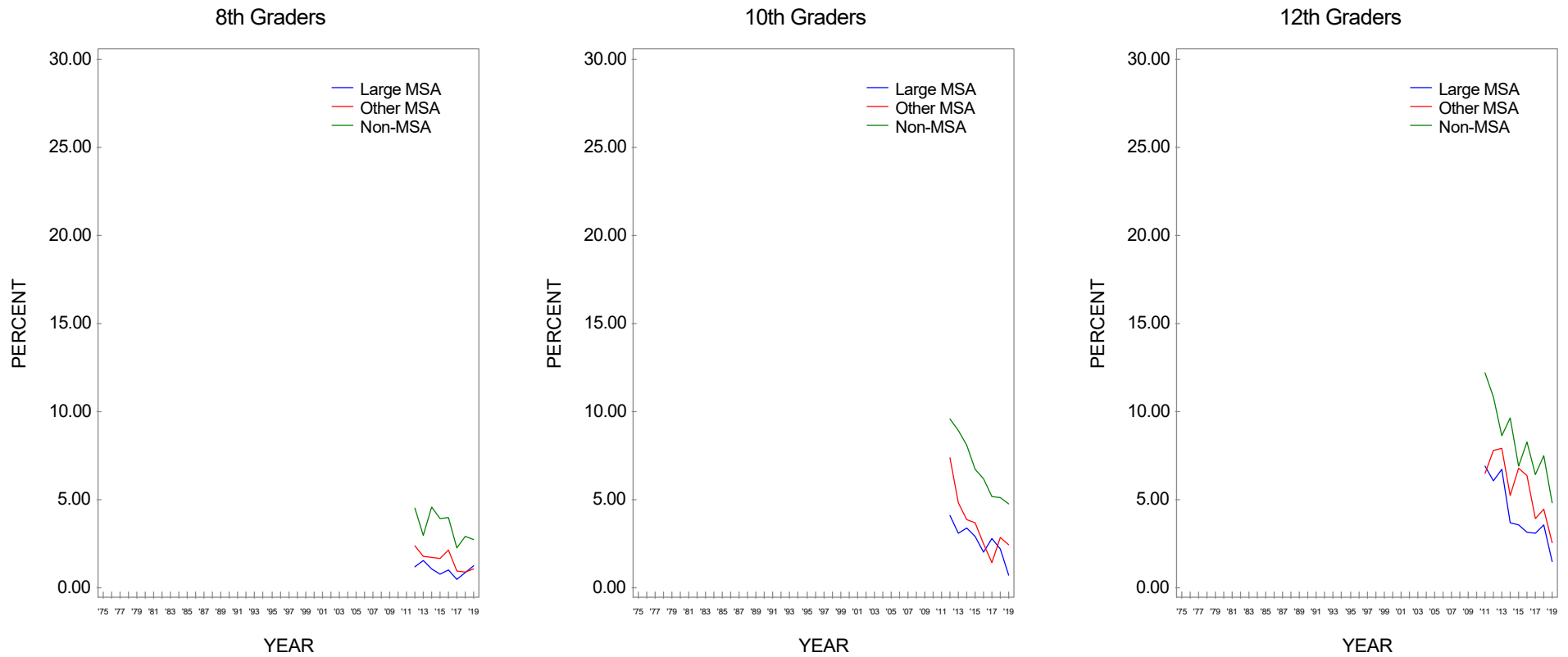
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 395
Snus: Trends in Annual Prevalence by Average Education Level of Parents*
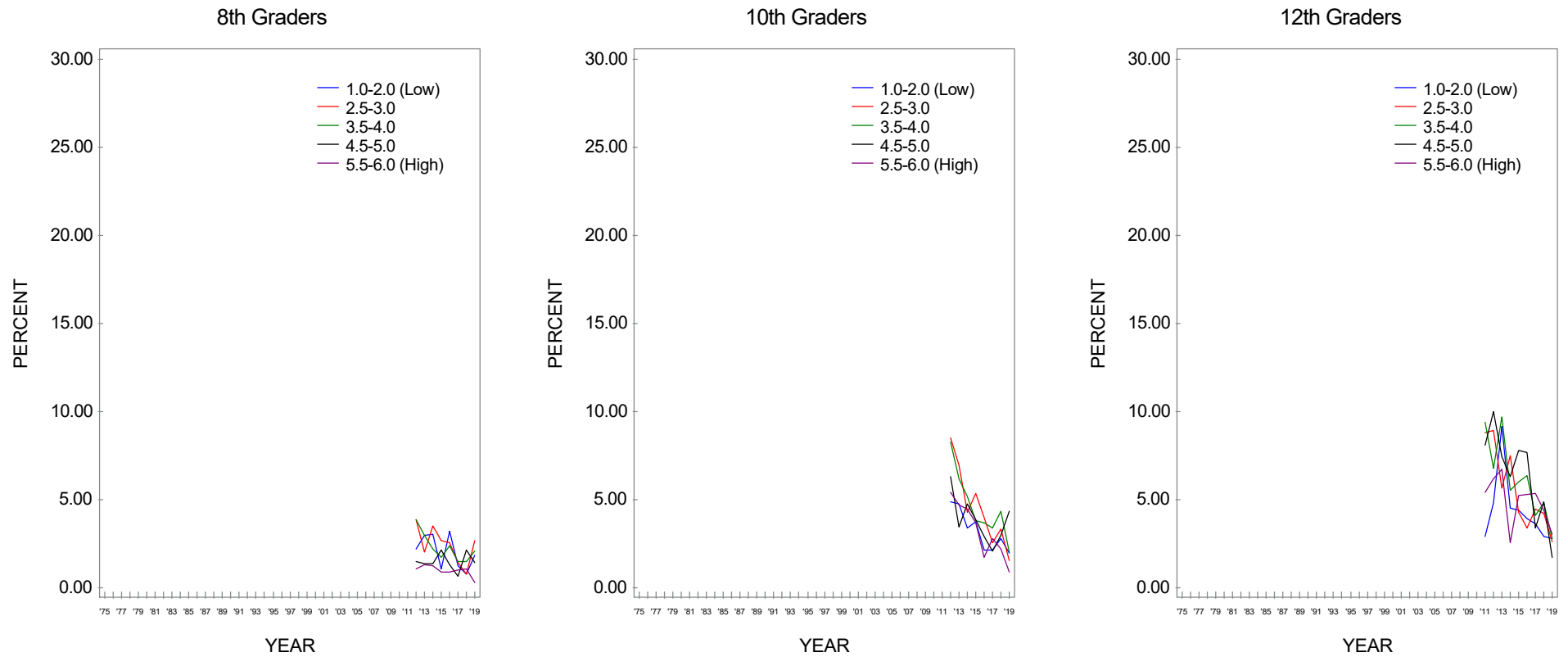
8th Graders

Legend:
- 1.0-2.0 (Low)
- 2.5-3.0
- 3.5-4.0
- 4.5-5.0
- 5.5-6.0 (High)

10th Graders

Legend:
- 1.0-2.0 (Low)
- 2.5-3.0
- 3.5-4.0
- 4.5-5.0
- 5.5-6.0 (High)

12th Graders

Legend:
- 1.0-2.0 (Low)
- 2.5-3.0
- 3.5-4.0
- 4.5-5.0
- 5.5-6.0 (High)

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

*Parental education is an average score of mother's education and father's education.

FIGURE 396
Snus: Trends in Annual Prevalence by Race/Ethnicity*
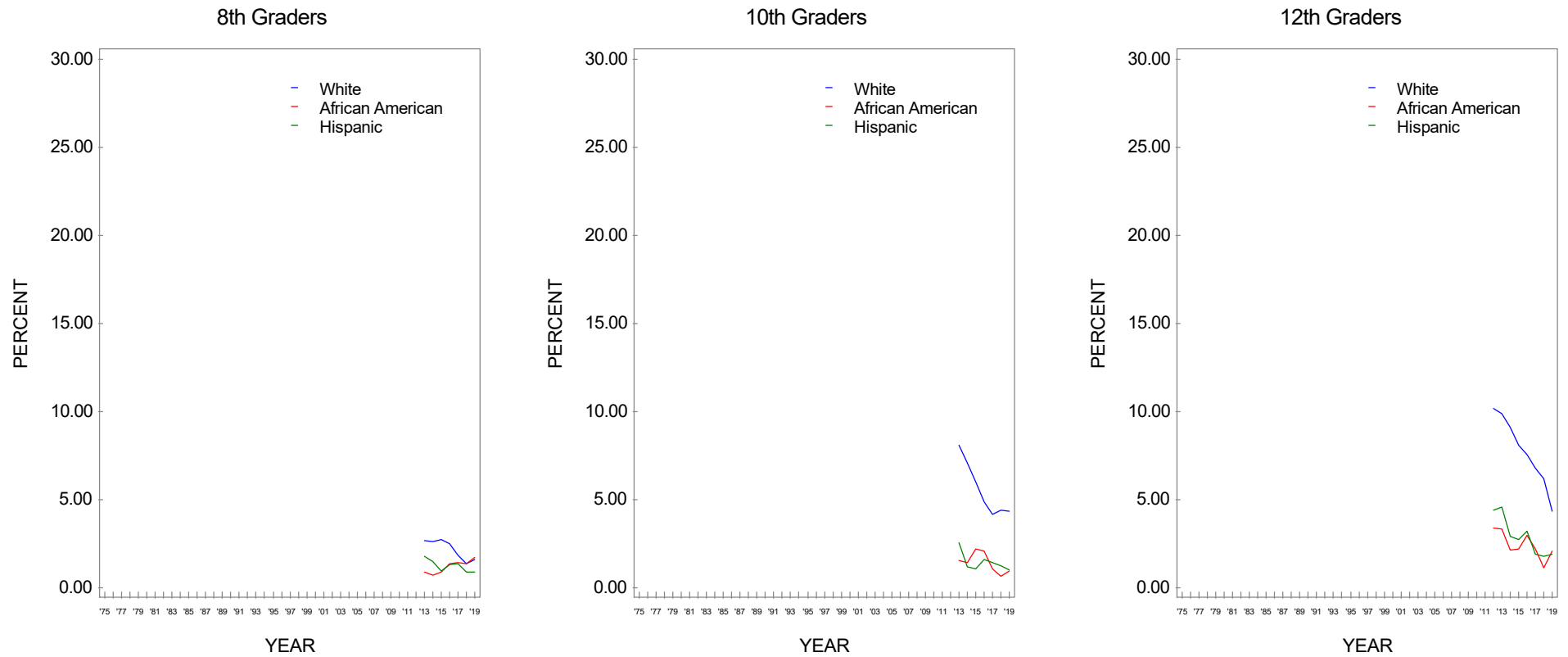
8th Graders — 10th Graders — 12th Graders

Legend: White, African American, Hispanic
Y-axis: PERCENT (0.00 to 30.00)
X-axis: YEAR ('75 to '19)

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

## FIGURE 397
Steroids: Trends in Annual Prevalence by Gender

8th Graders

10th Graders

12th Graders
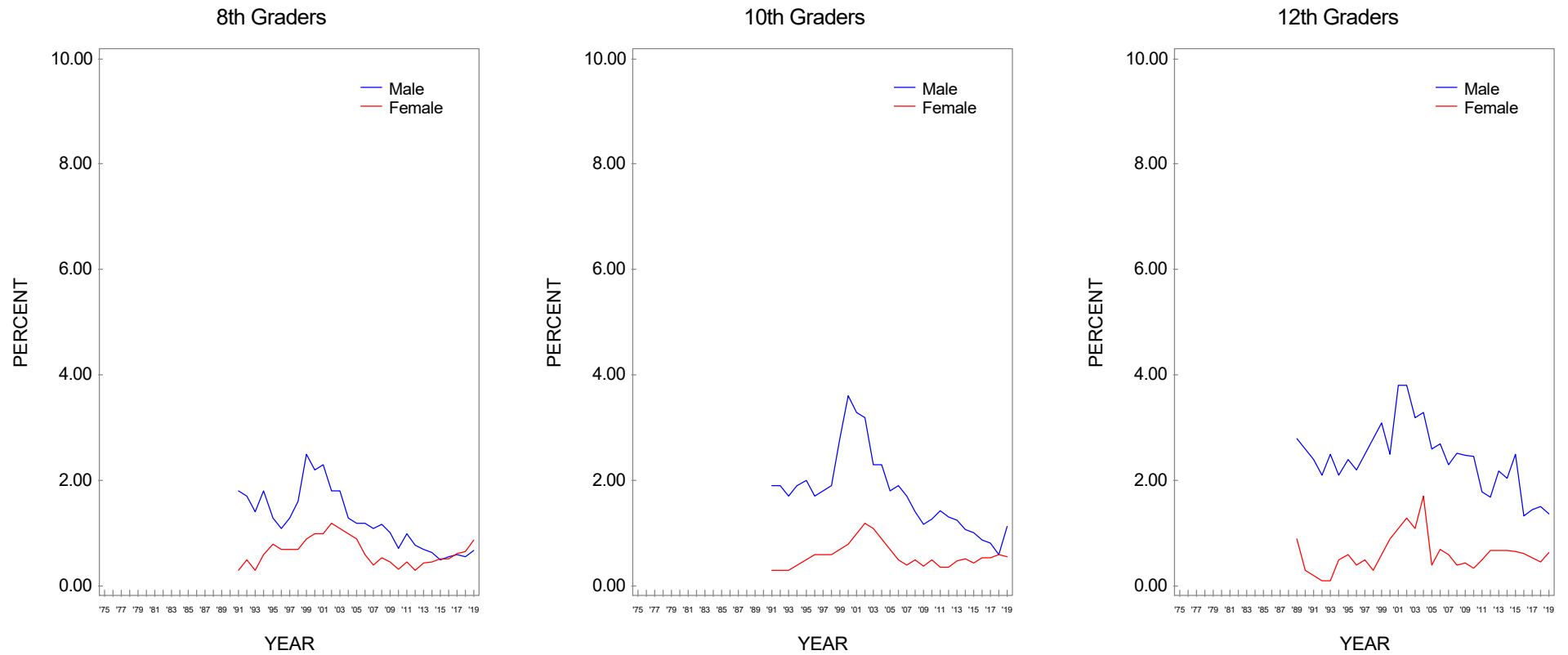
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 398
Steroids: Trends in Annual Prevalence by College Plans
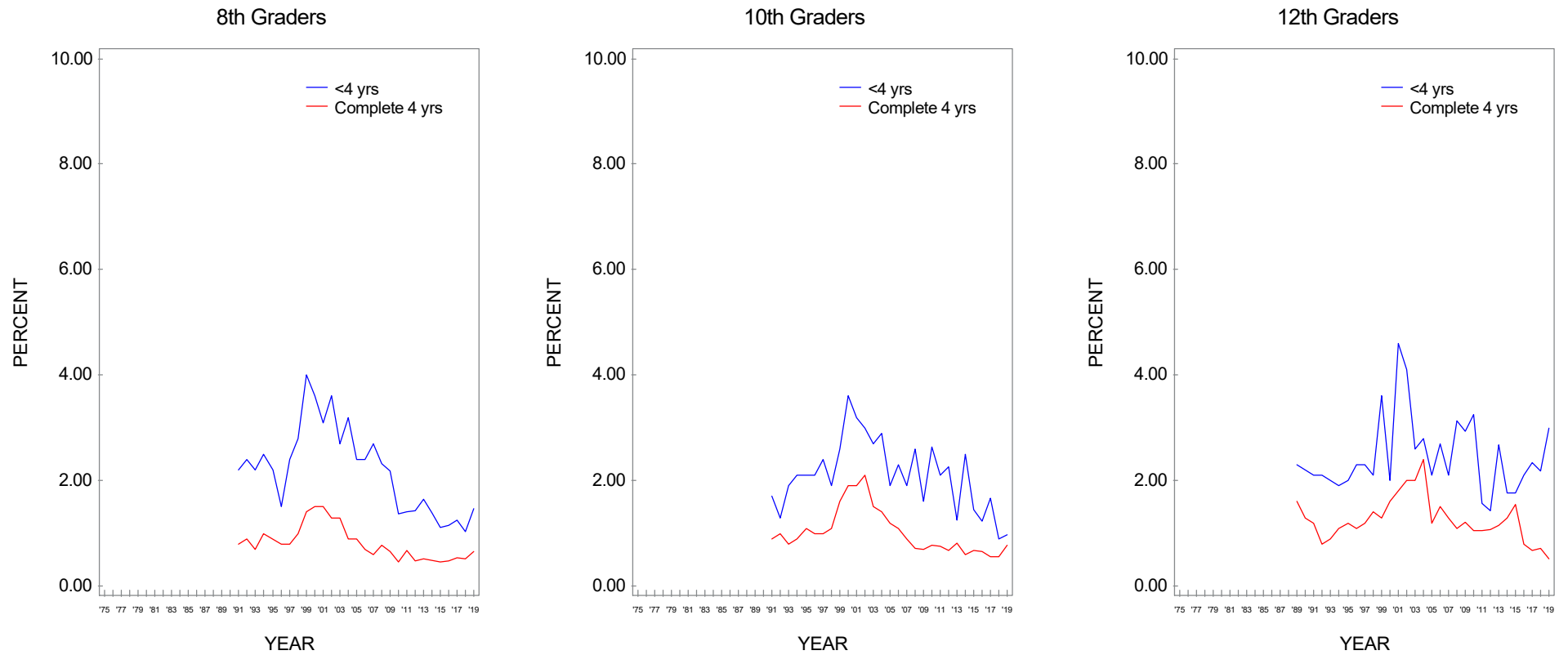
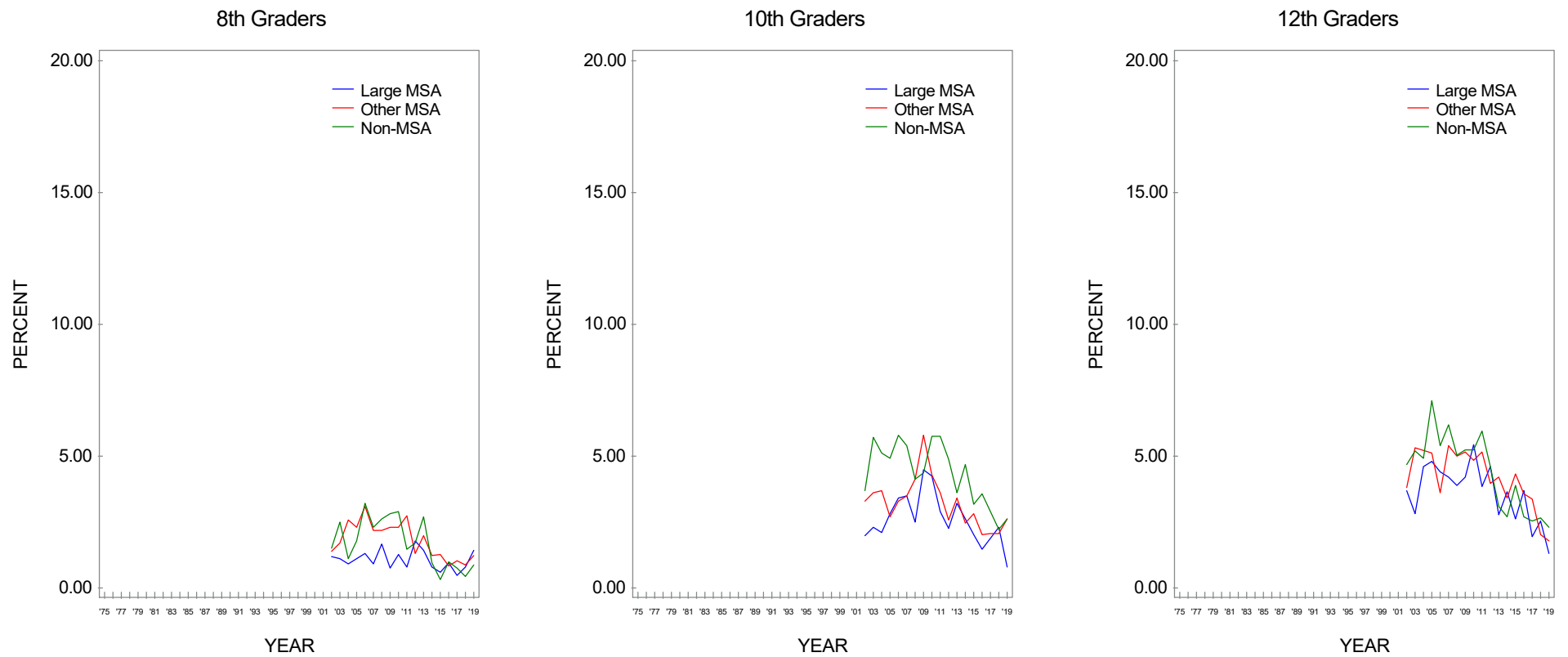*Source.* The Monitoring the Future study, the University of Michigan.

FIGURE 399
Steroids: Trends in Annual Prevalence by Region

8th Graders

10th Graders

12th Graders
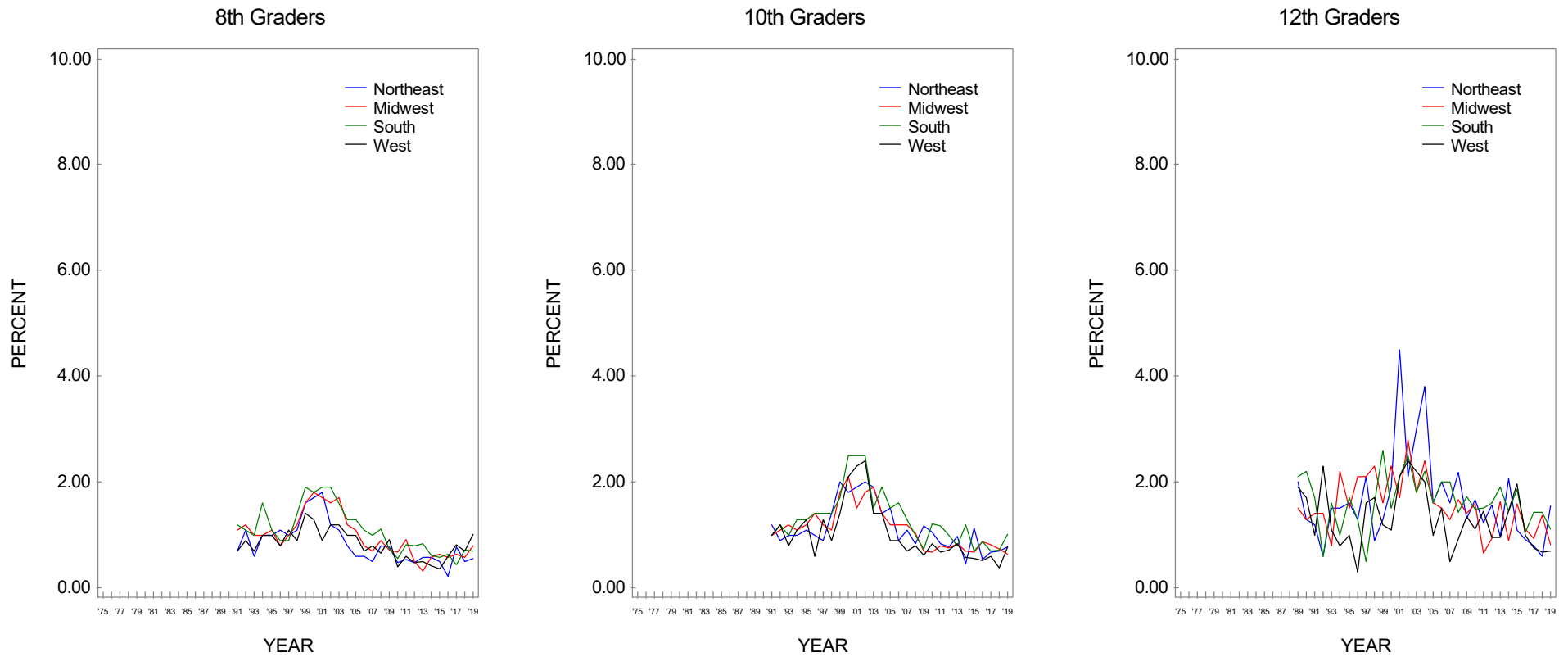
Source. The Monitoring the Future study, the University of Michigan.

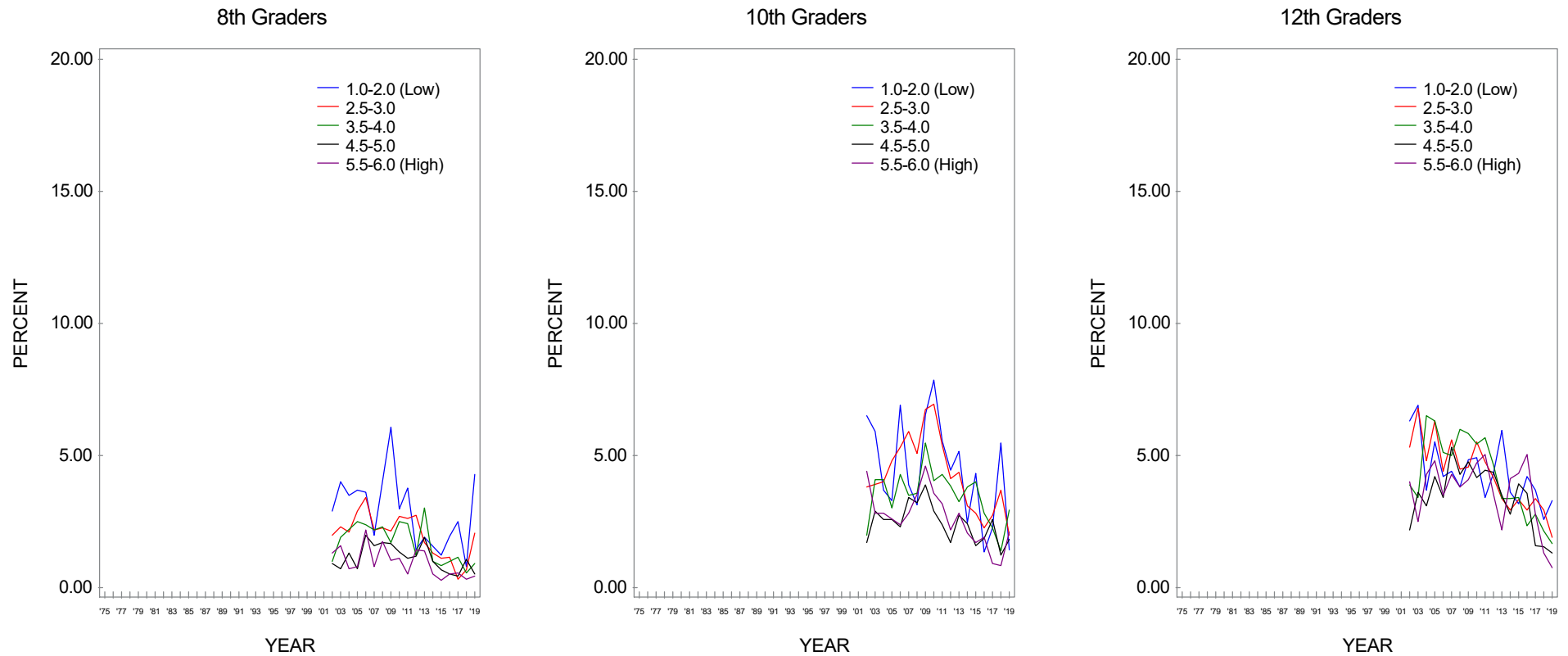# FIGURE 400
Steroids: Trends in Annual Prevalence by Population Density
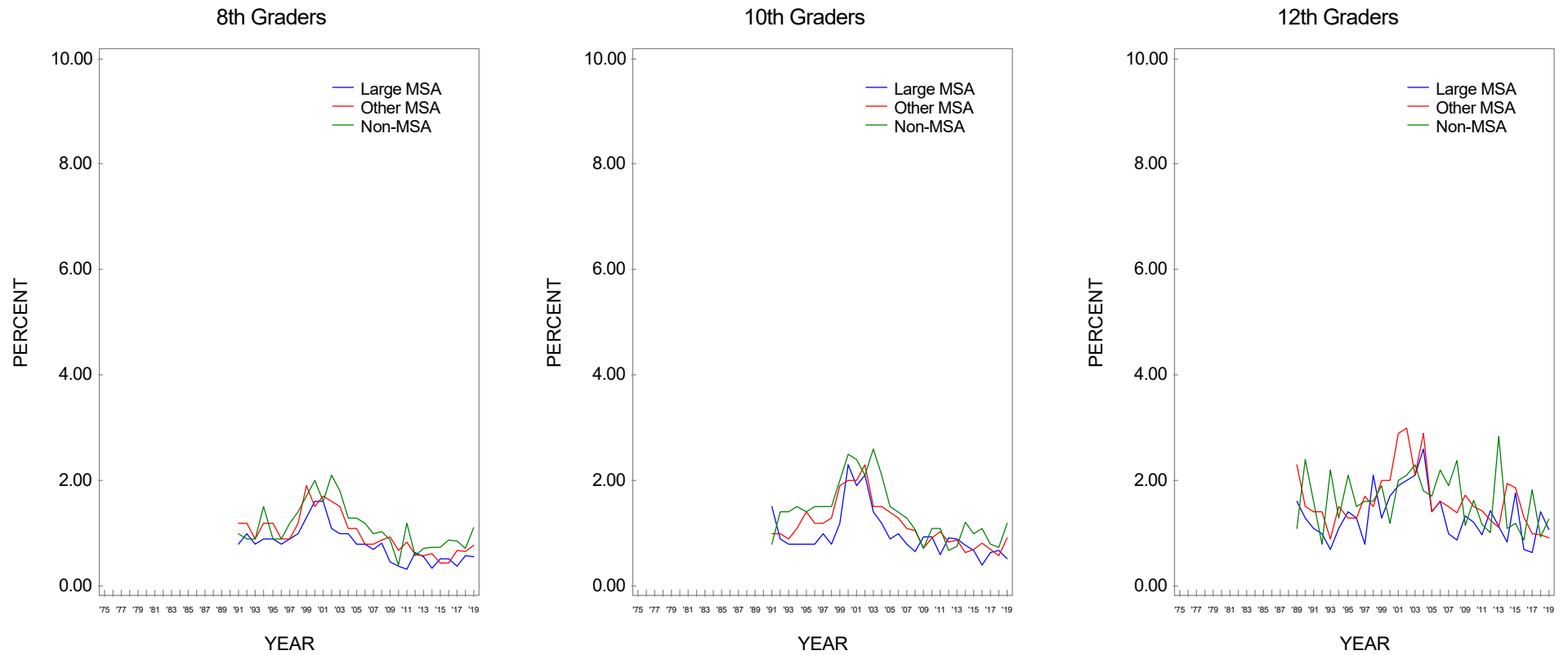
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 401

Steroids: Trends in Annual Prevalence by Average Education Level of Parents*
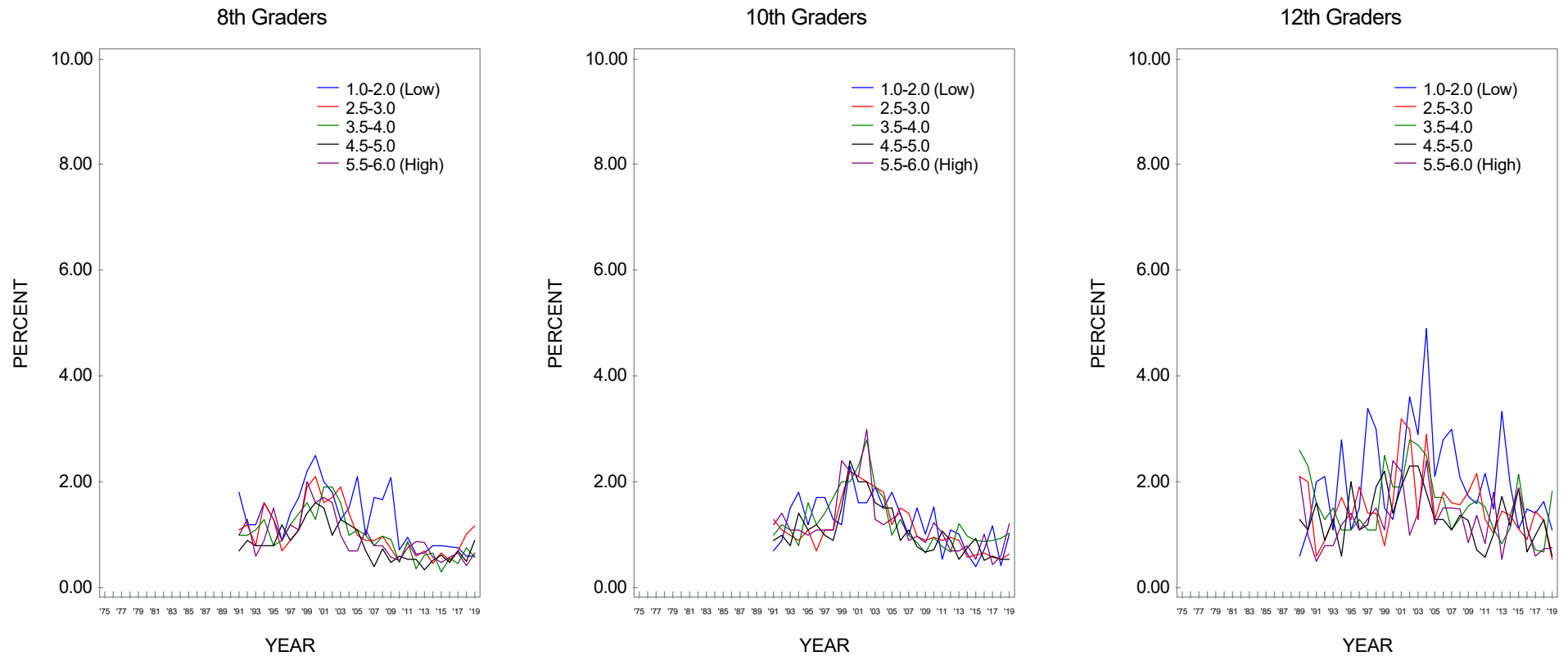
8th Graders | 10th Graders | 12th Graders

Legend:
- 1.0-2.0 (Low)
- 2.5-3.0
- 3.5-4.0
- 4.5-5.0
- 5.5-6.0 (High)

Y-axis: PERCENT (0.00 to 10.00)
X-axis: YEAR ('75 to '19)

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

*Parental education is an average score of mother's education and father's education.

FIGURE 402
Steroids: Trends in Annual Prevalence by Race/Ethnicity*
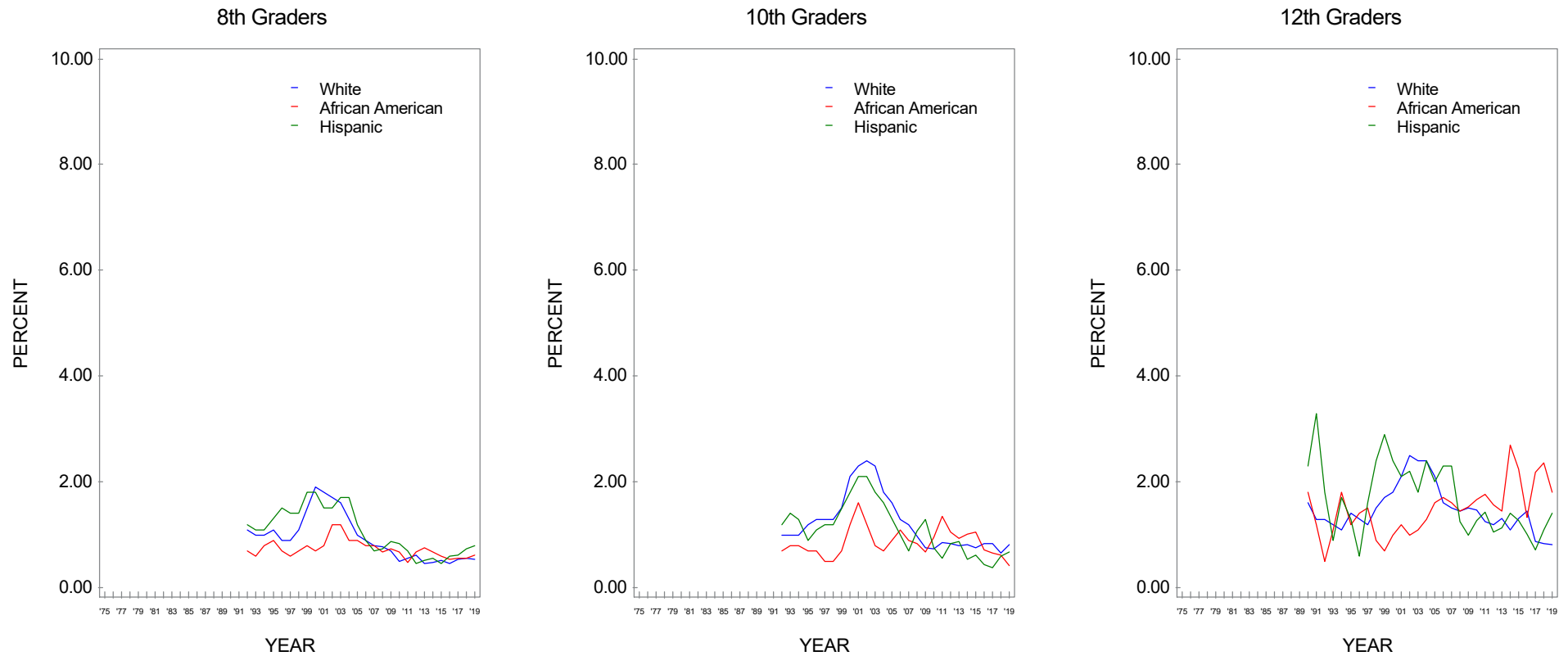
FIGURE 403
Marijuana: Trends in Lifetime Prevalence of Daily Use for Month or More by Gender
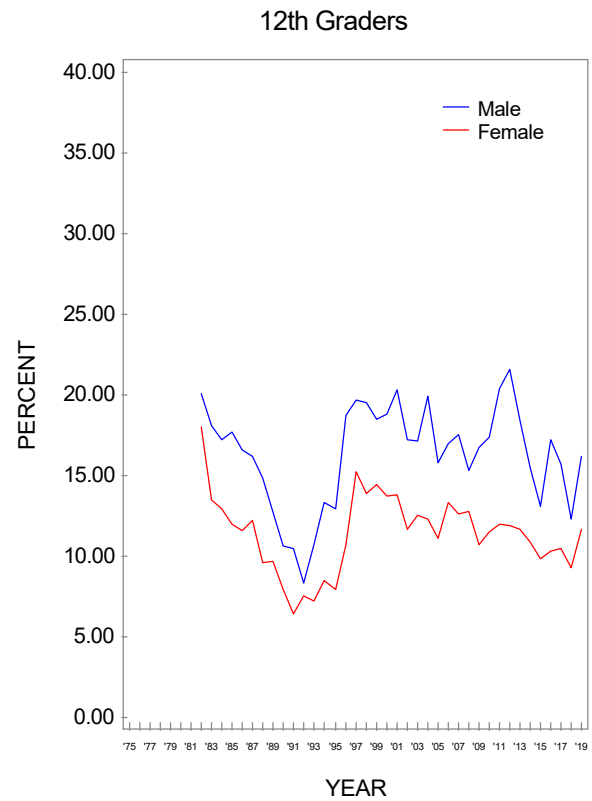
12th Graders

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

12th Graders
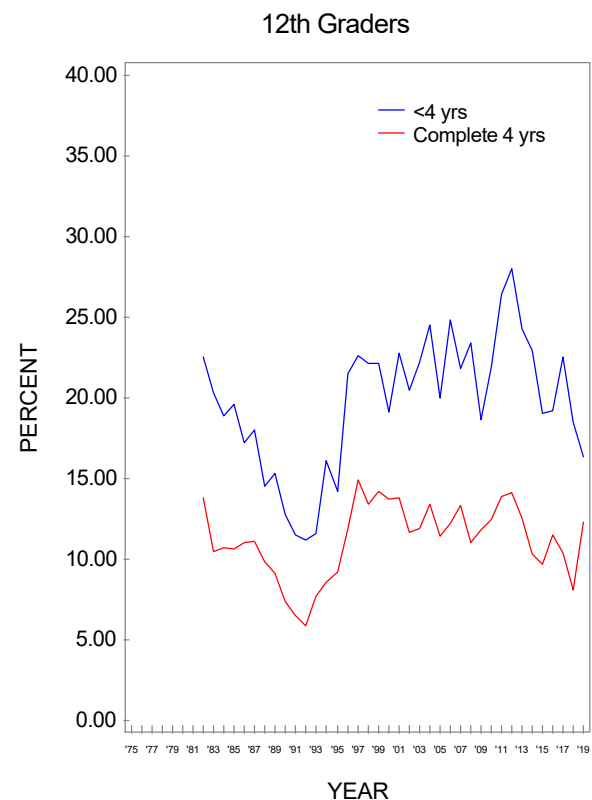
FIGURE 405
Marijuana: Trends in Lifetime Prevalence of Daily Use for Month or More by Region

12th Graders
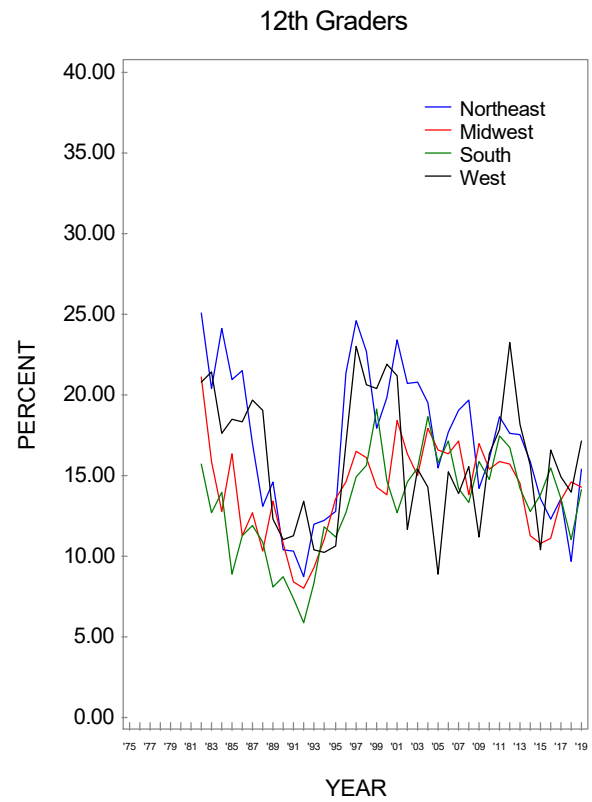
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 406

Marijuana: Trends in Lifetime Prevalence of Daily Use for Month or More by Population Density

12th Graders
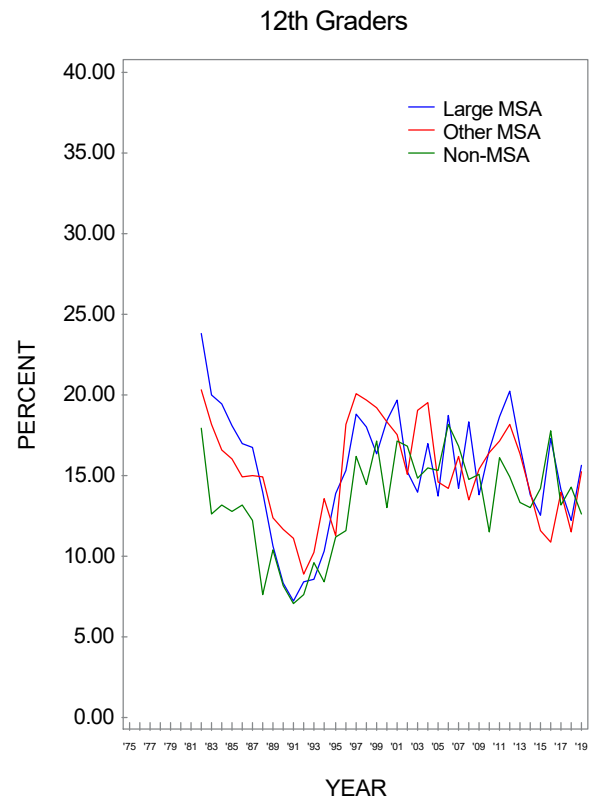
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 407

Marijuana: Trends in Lifetime Prevalence of Daily Use for Month or More by Average Education Level of Parents*
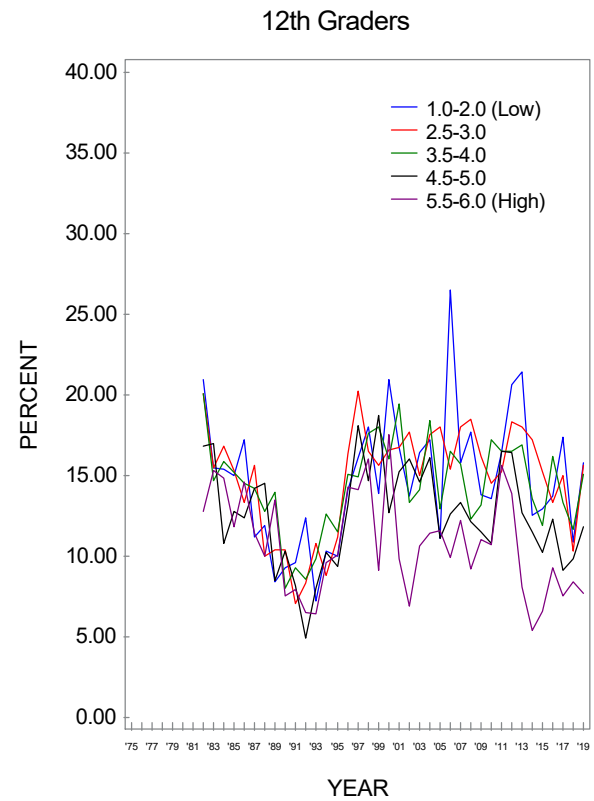
12th Graders

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

*Parental education is an average score of mother's education and father's education.

FIGURE 408

Marijuana: Trends in Lifetime Prevalence of Daily Use for Month or More by Race/Ethnicity*
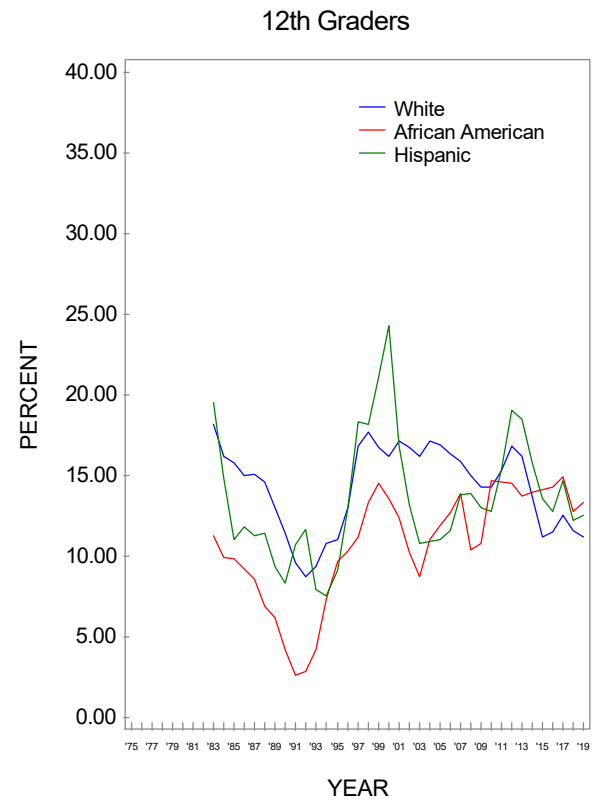

12th Graders

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 409
Nonprescription Diet Pills: Trends in Annual Prevalence by Gender

12th Graders
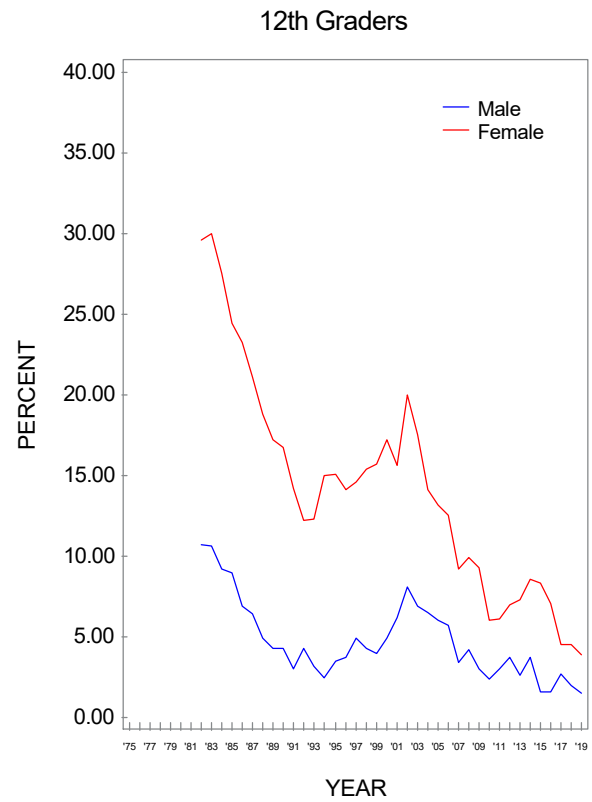
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 410
Nonprescription Diet Pills: Trends in Annual Prevalence by College Plans

12th Graders
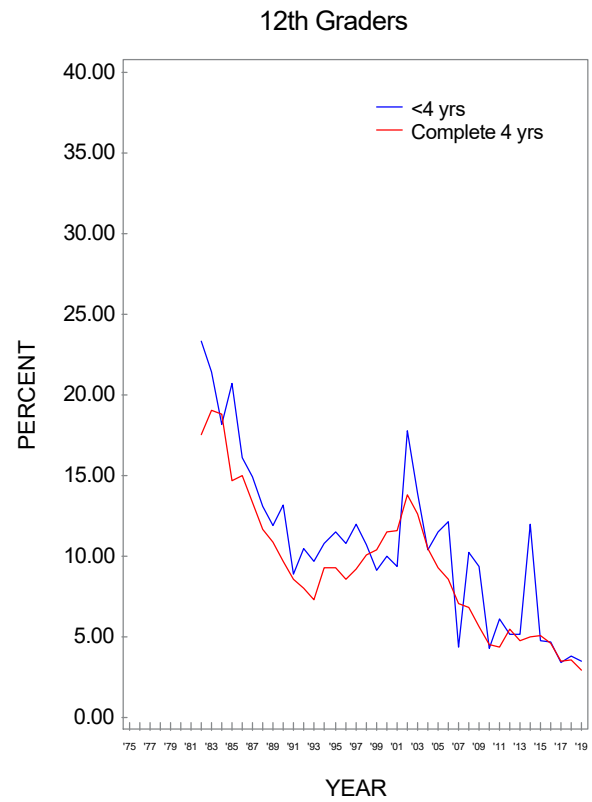
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 411
Nonprescription Diet Pills: Trends in Annual Prevalence by Region

12th Graders
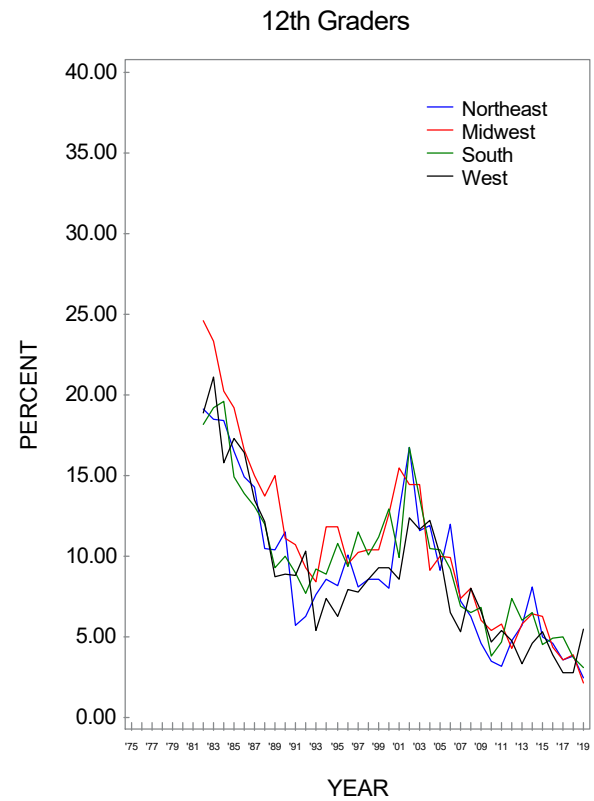
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 412

Nonprescription Diet Pills: Trends in Annual Prevalence by Population Density

12th Graders
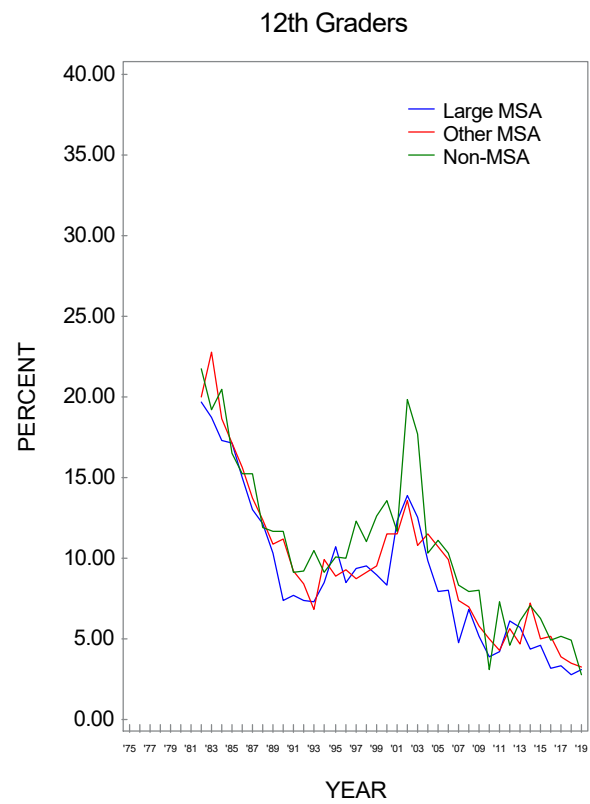
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 413

Nonprescription Diet Pills: Trends in Annual Prevalence by Average Education Level of Parents*

12th Graders
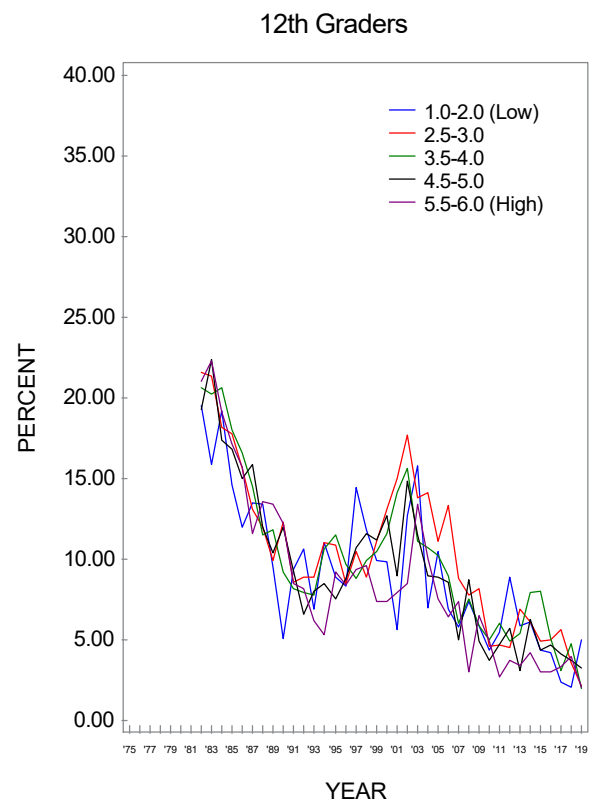
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 414

Nonprescription Diet Pills: Trends in Annual Prevalence by Race/Ethnicity*
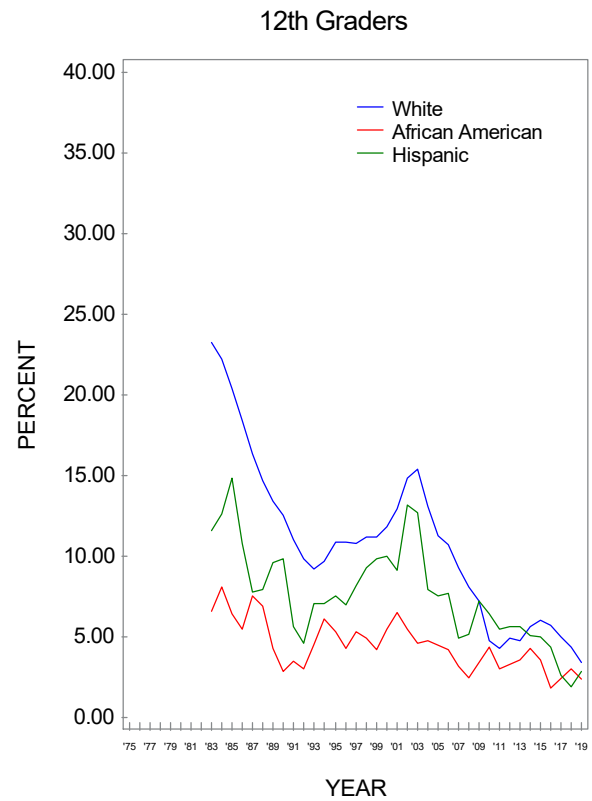
12th Graders

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 415
Nonprescription Stay-Awake Pills: Trends in Annual Prevalence by Gender

12th Graders
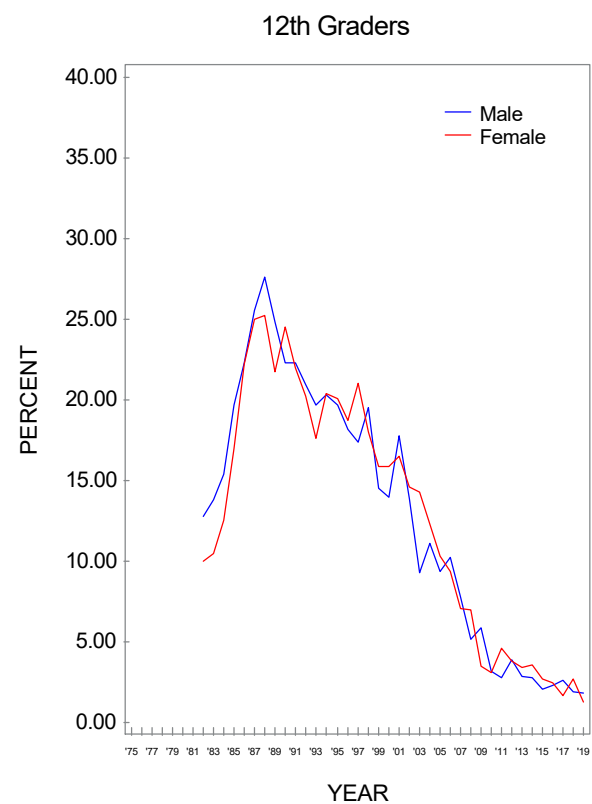
FIGURE 416
Nonprescription Stay-Awake Pills: Trends in Annual Prevalence by College Plans

12th Graders
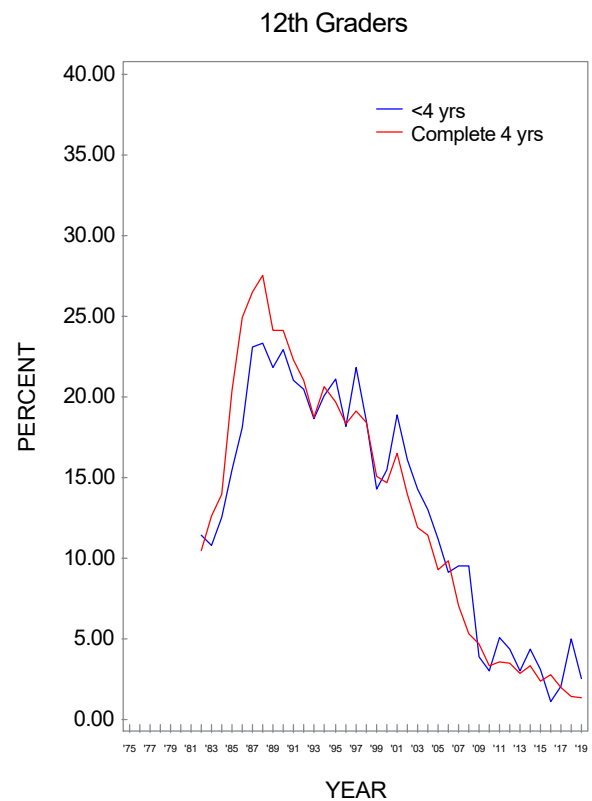
FIGURE 417

Nonprescription Stay-Awake Pills: Trends in Annual Prevalence by Region

12th Graders
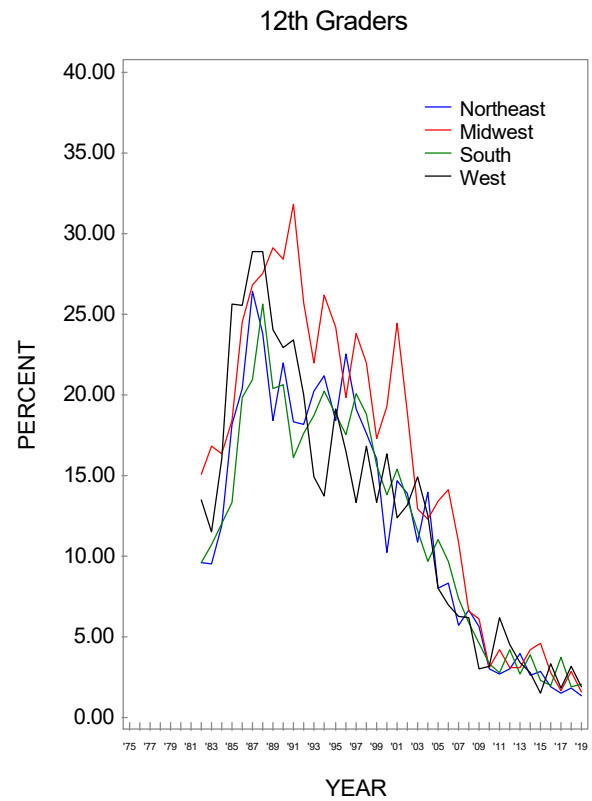
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 418

Nonprescription Stay-Awake Pills: Trends in Annual Prevalence by Population Density

12th Graders
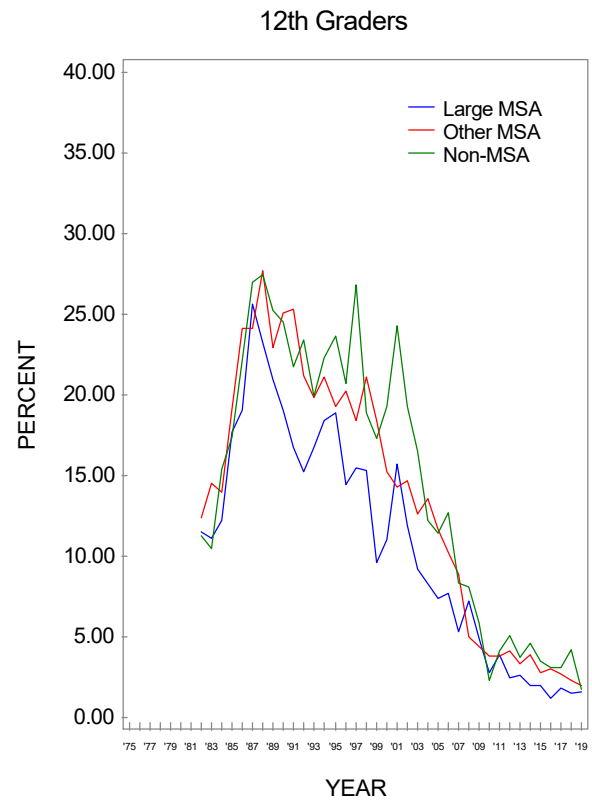
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 419

Nonprescription Stay-Awake Pills: Trends in Annual Prevalence by Average Education Level of Parents*

12th Graders
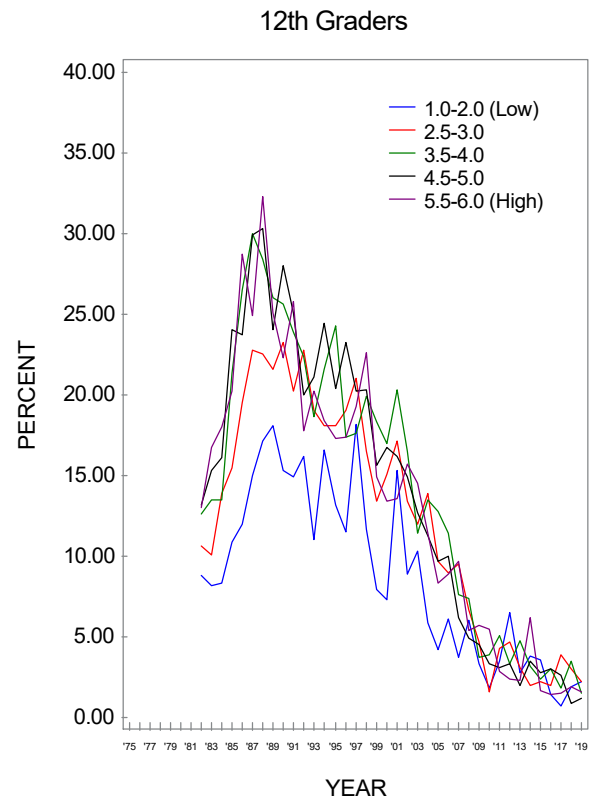
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 420
Nonprescription Stay-Awake Pills: Trends in Annual Prevalence by Race/Ethnicity*
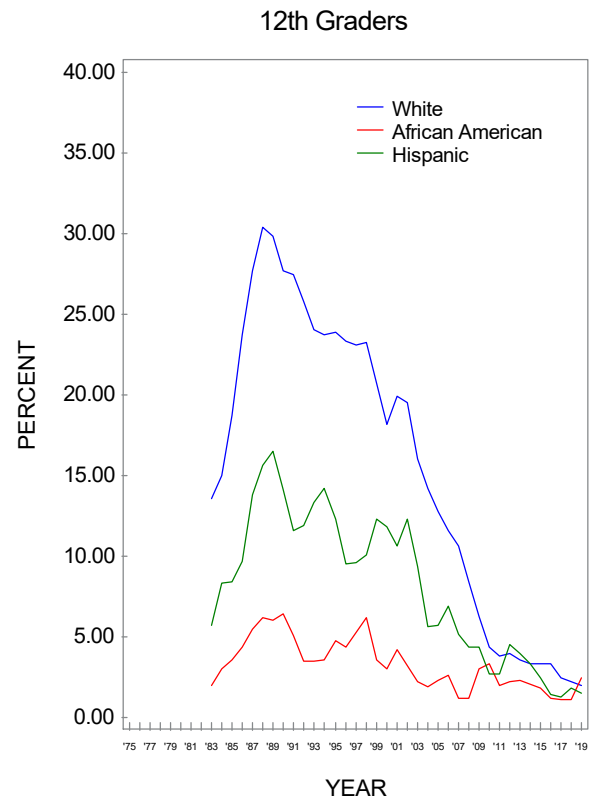
12th Graders

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

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 421
Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Gender
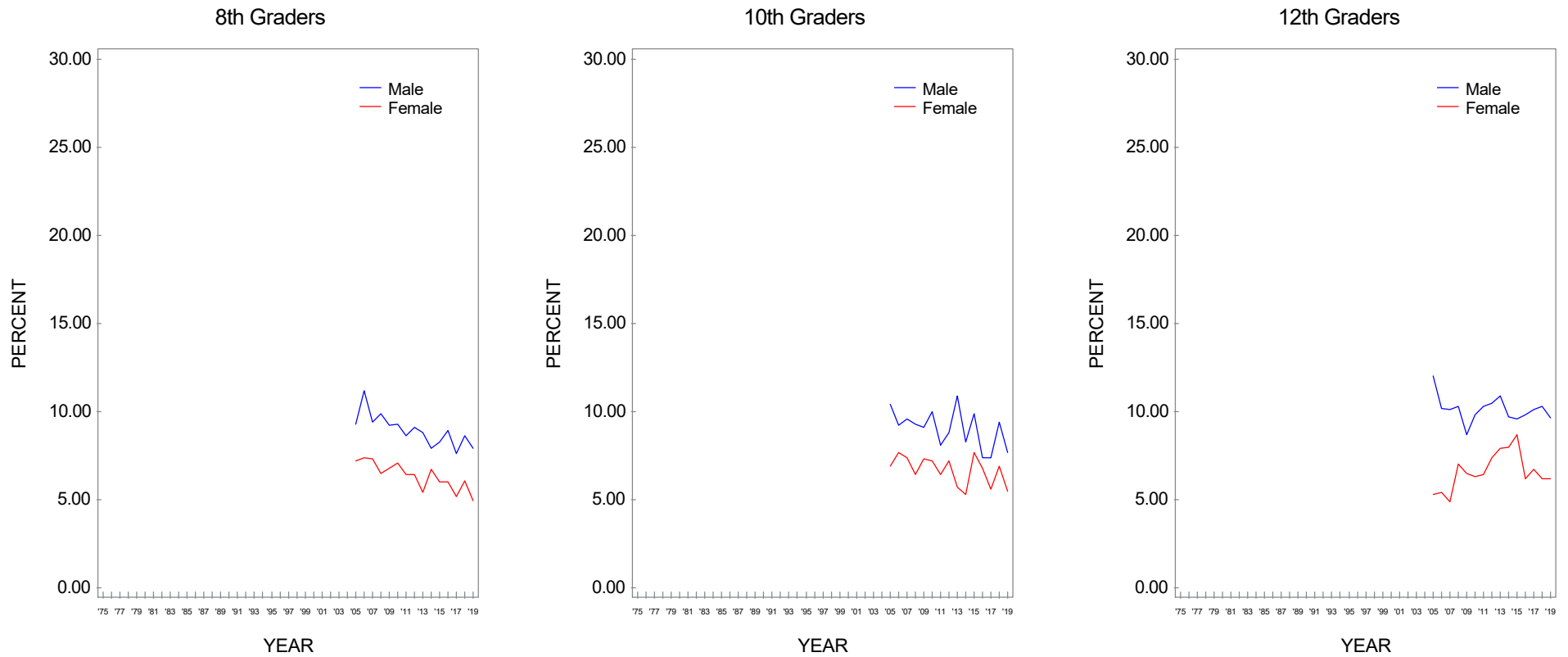
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 422
Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by College Plans
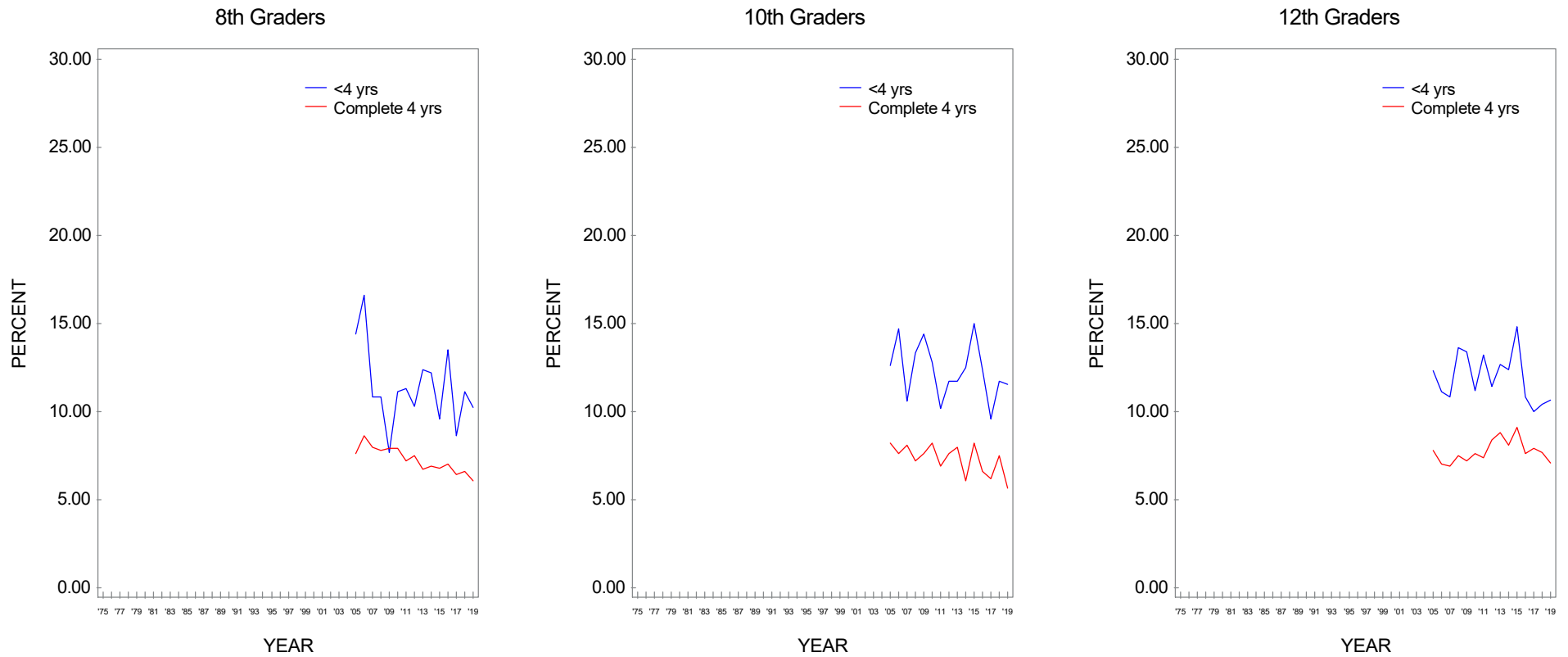
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 423
Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Region
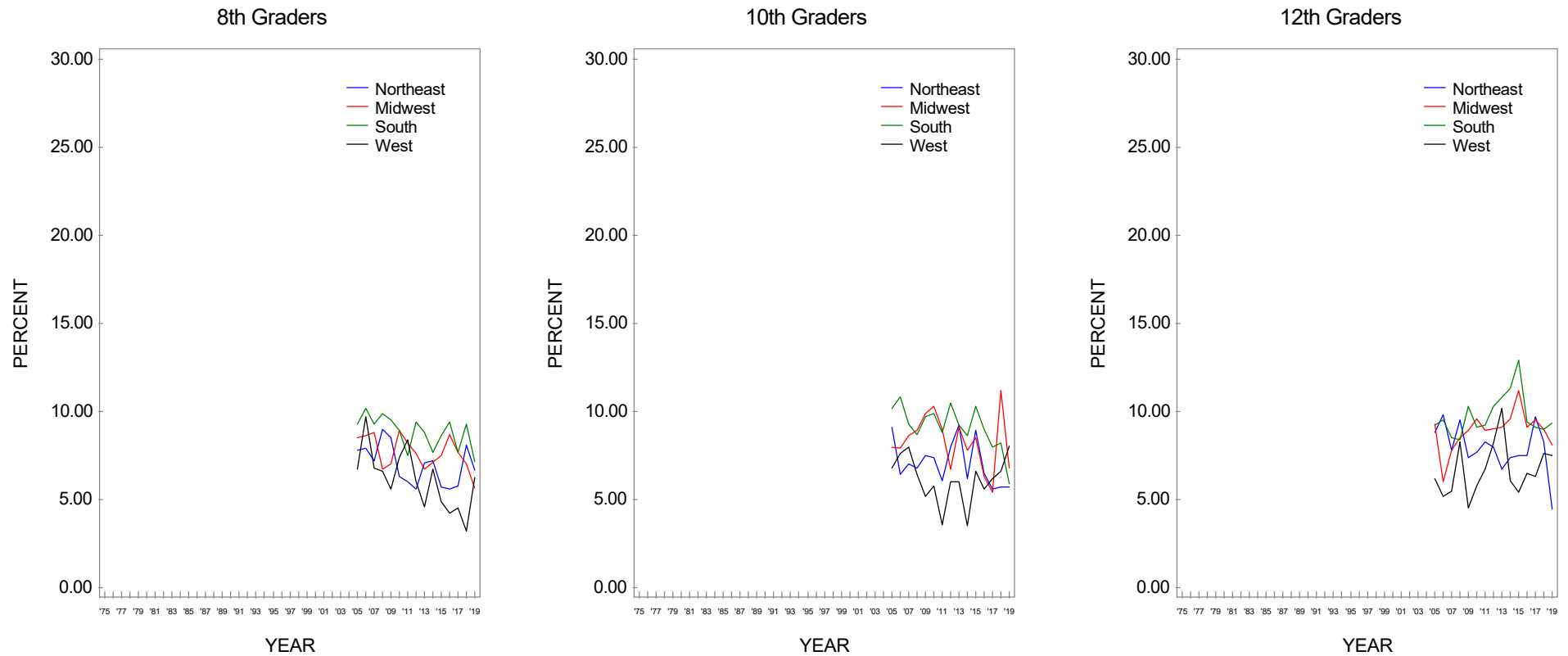
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 424

Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Population Density
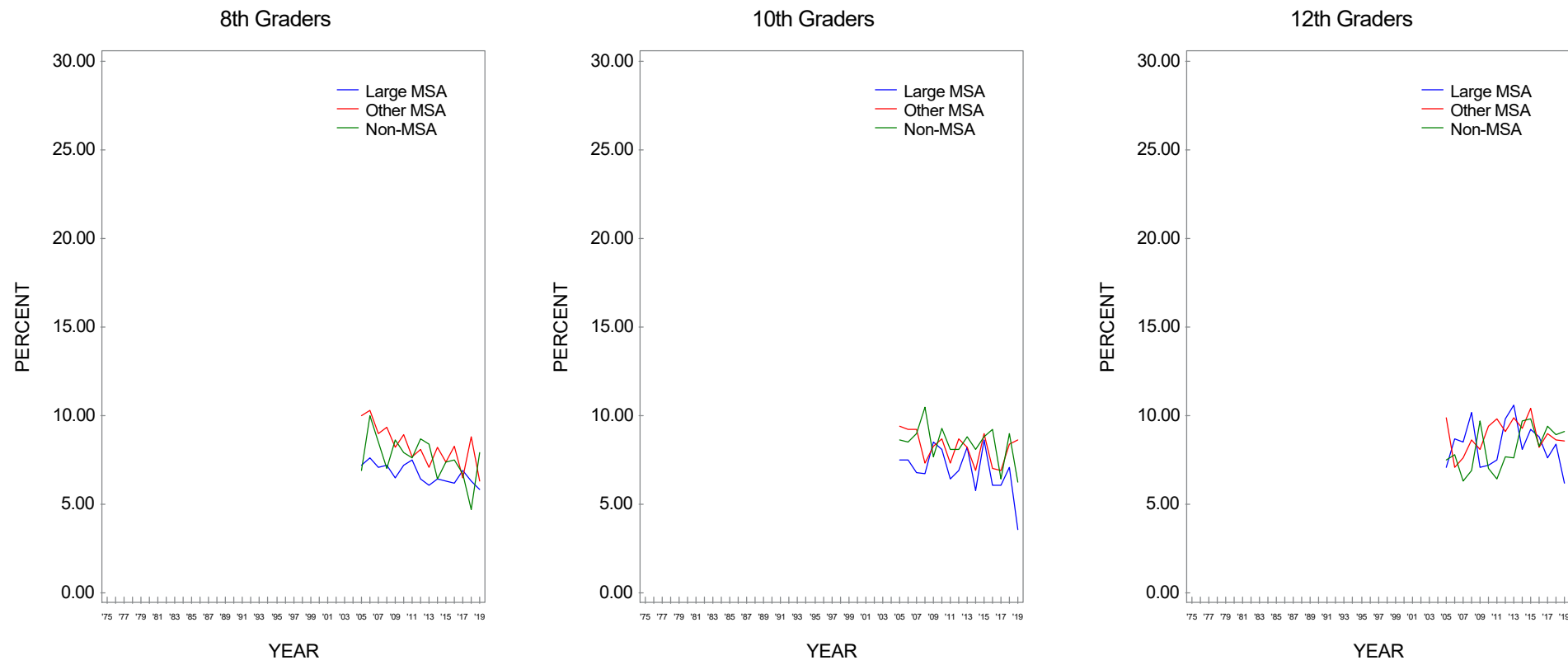
FIGURE 425
Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Average Education Level of Parents*
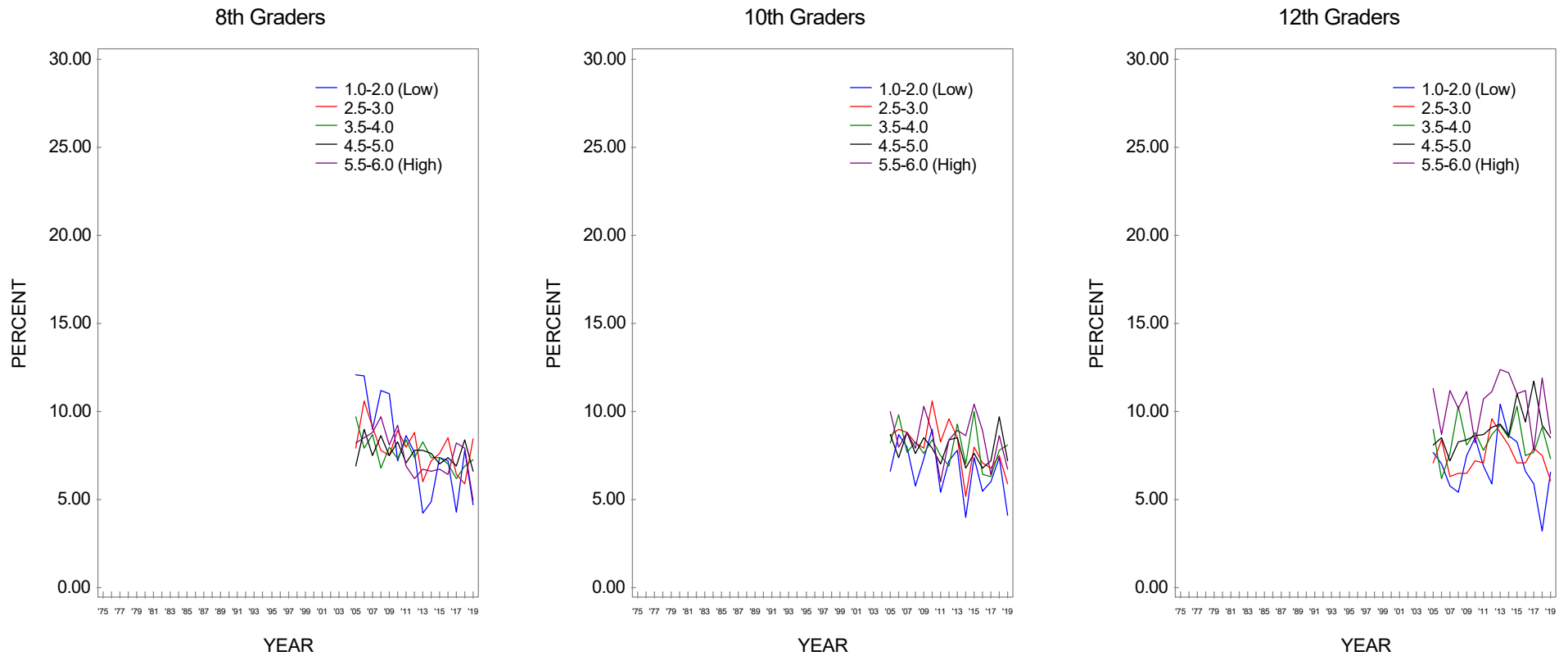
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 426
Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Race/Ethnicity*
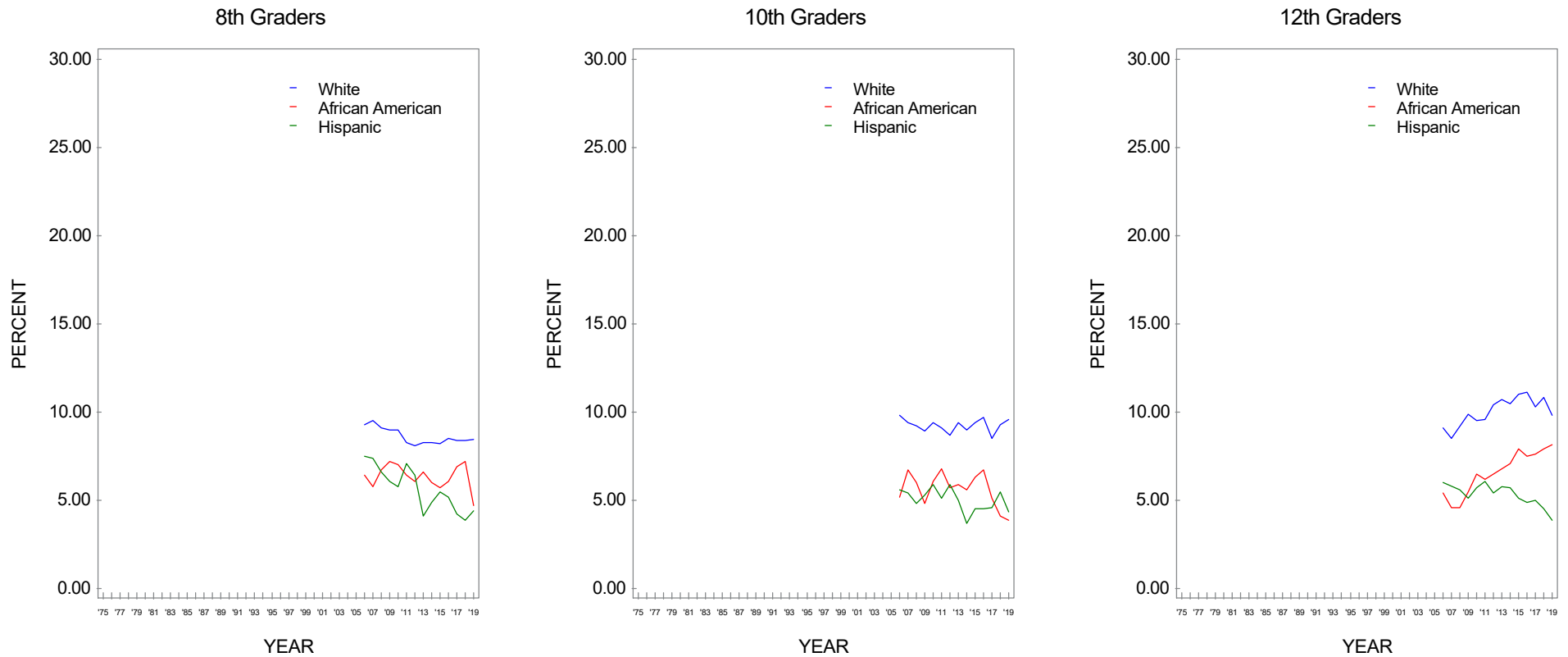
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 427
Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Gender
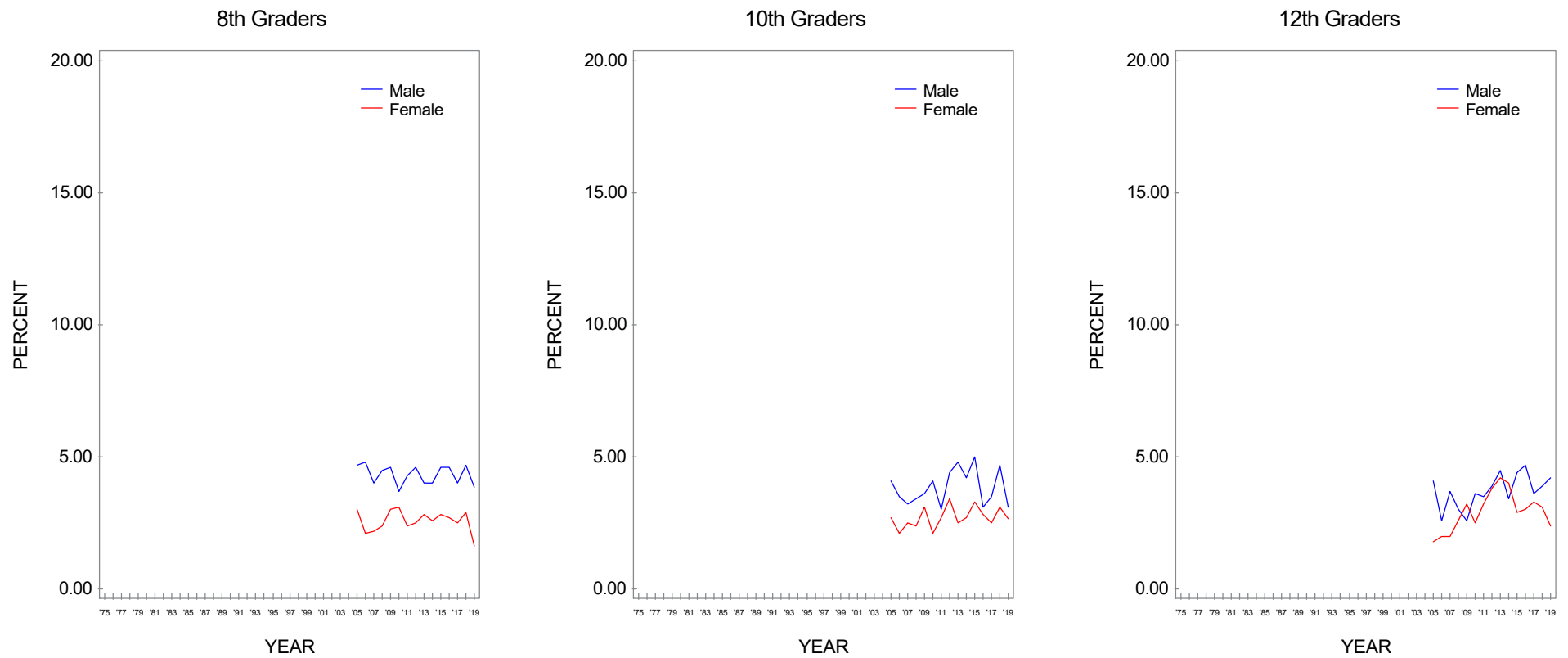
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 428
Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by College Plans

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

428
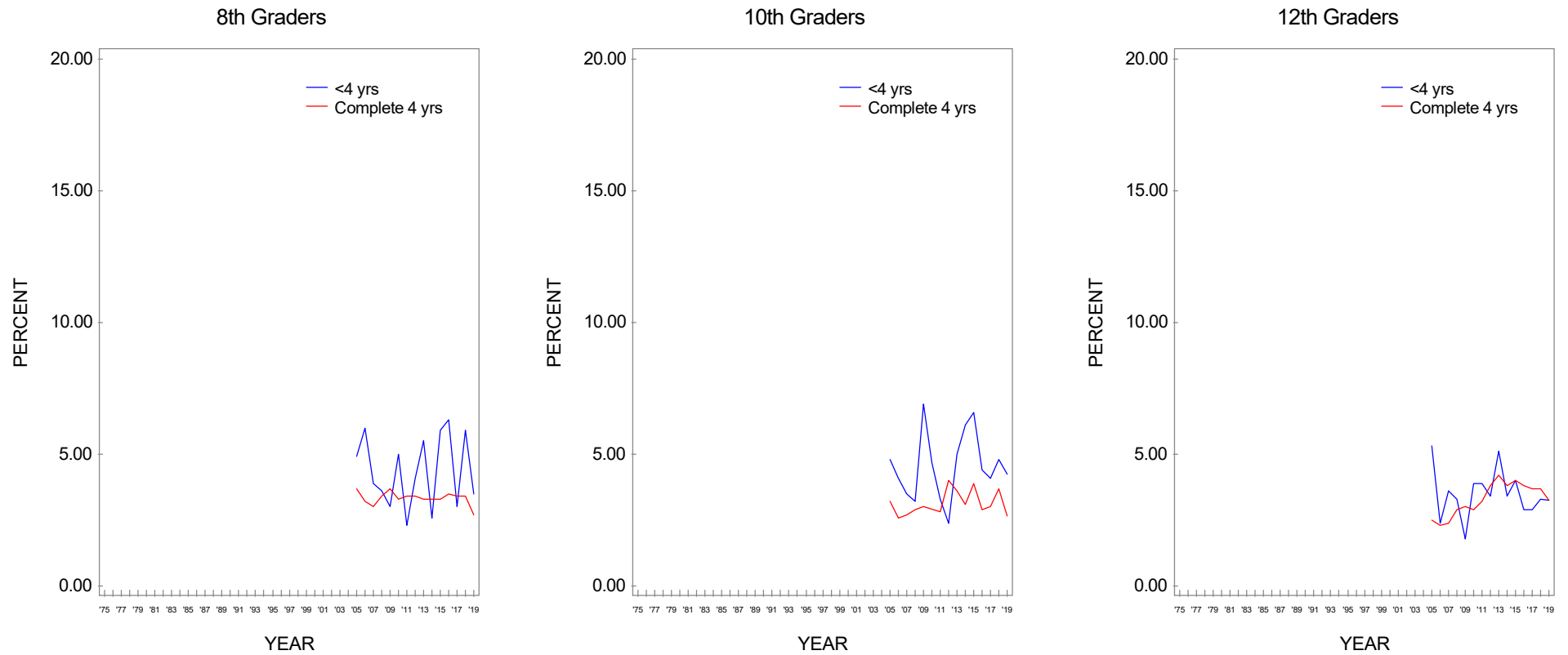
FIGURE 429
Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Region
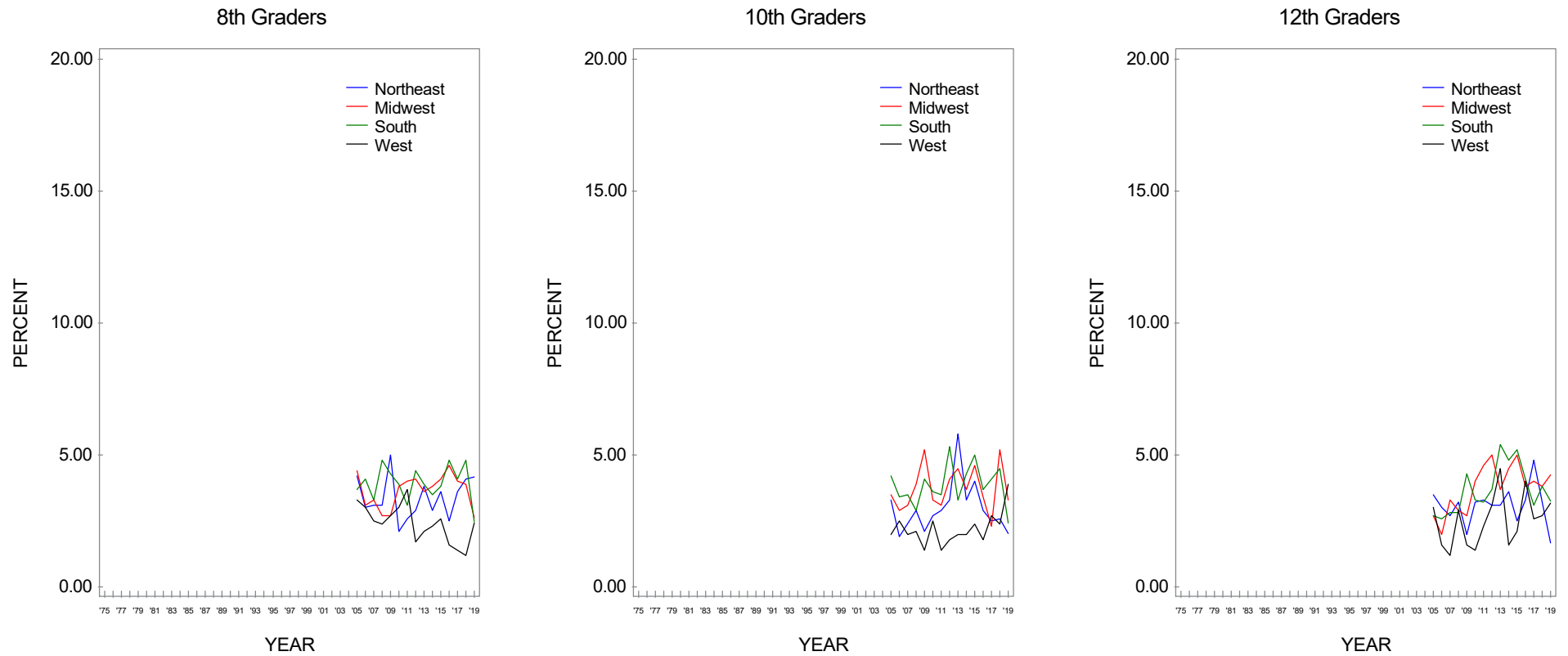
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 430

Stimulant-Type ADHD Drugs: Trends in Curent Prevalence of Legal Use by Population Density
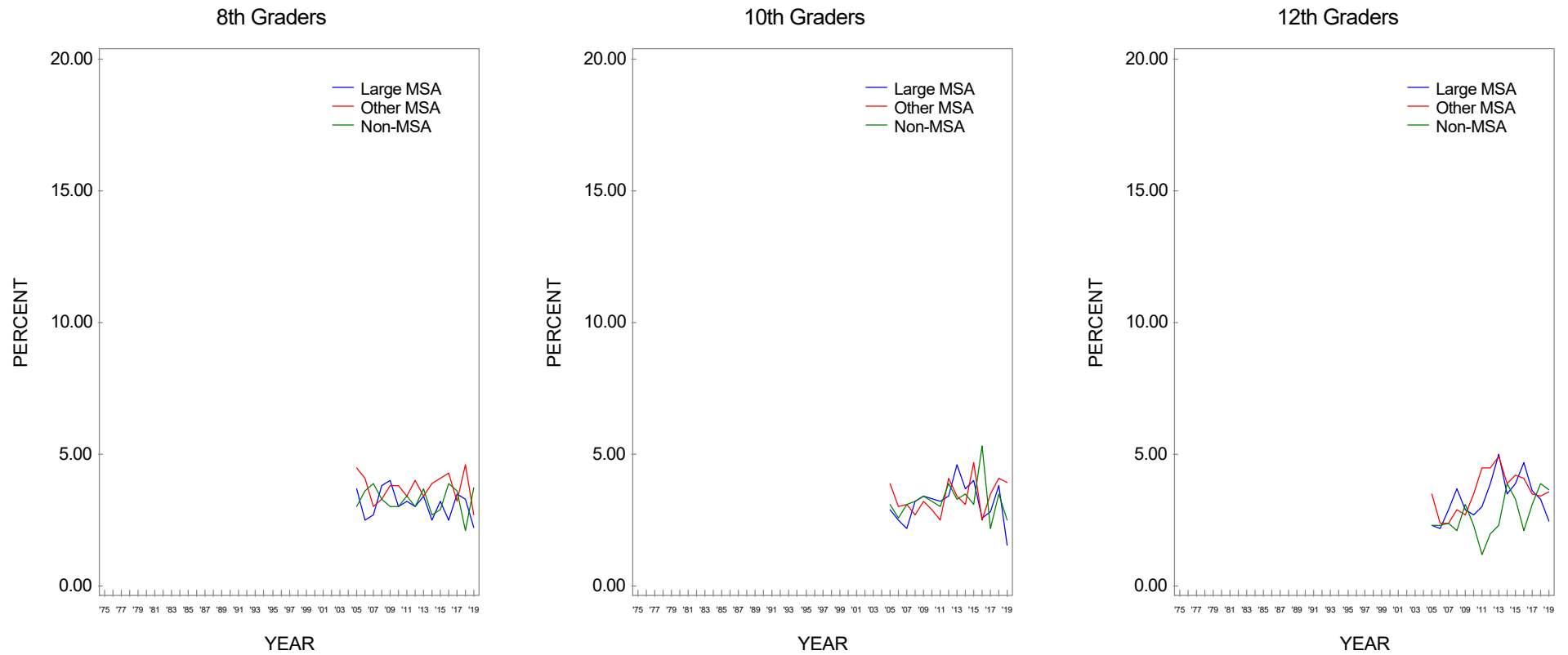
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 431
Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Average Education Level of Parents*
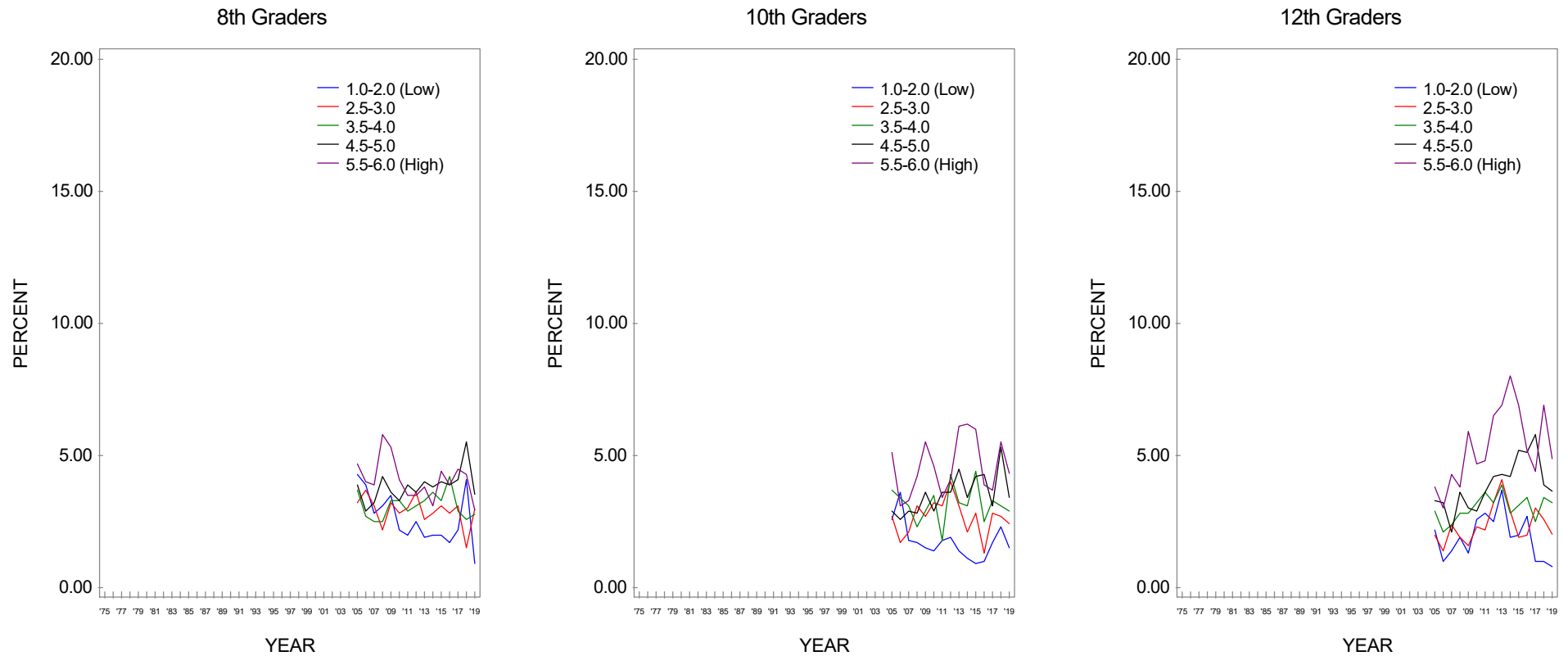
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 432
Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Race/Ethnicity*
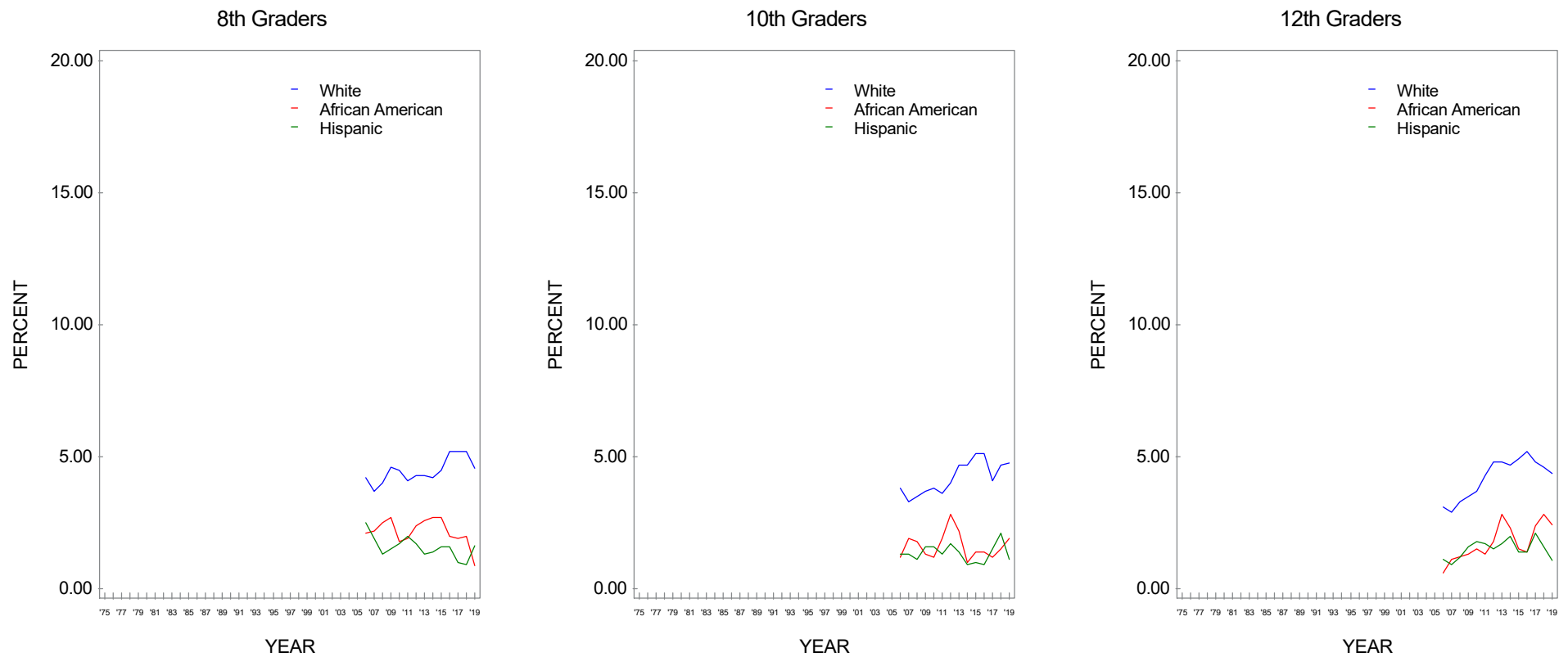
Source. The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 433
Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Gender
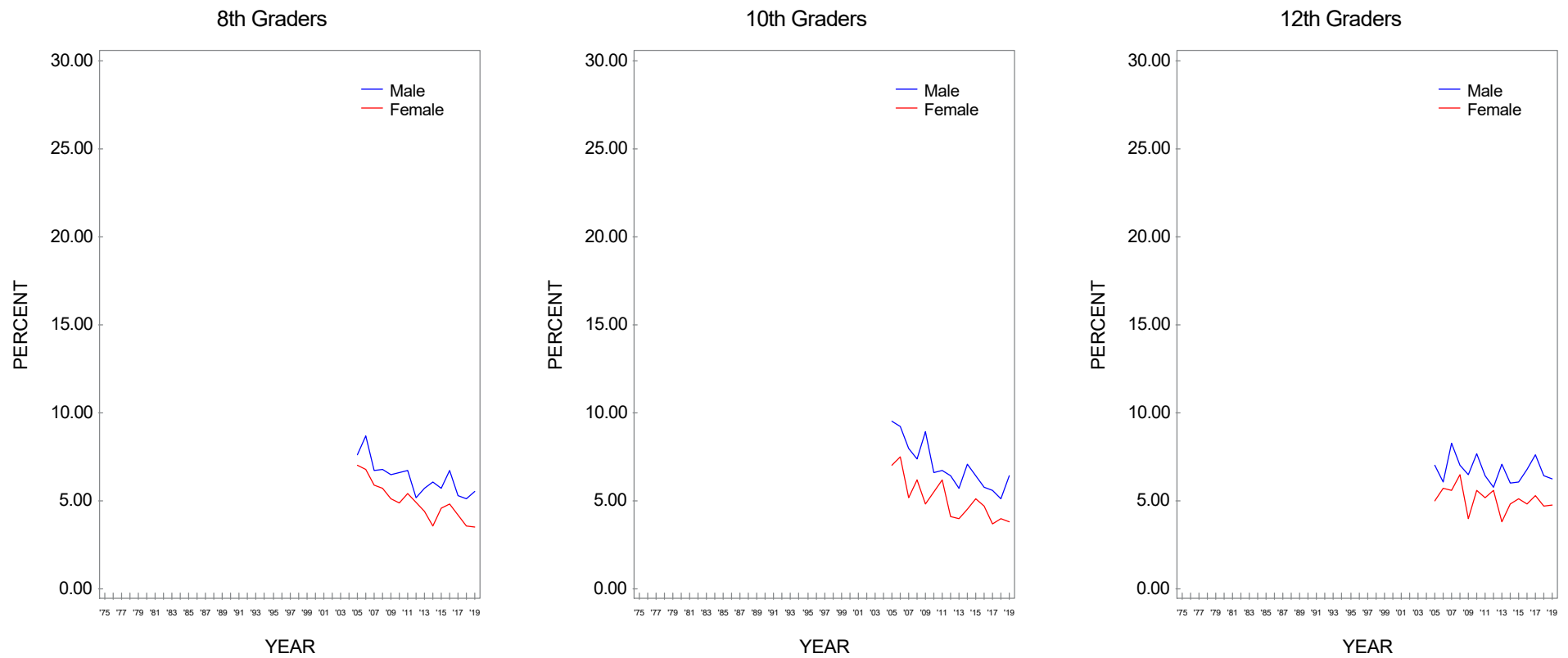
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 434

Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by College Plans
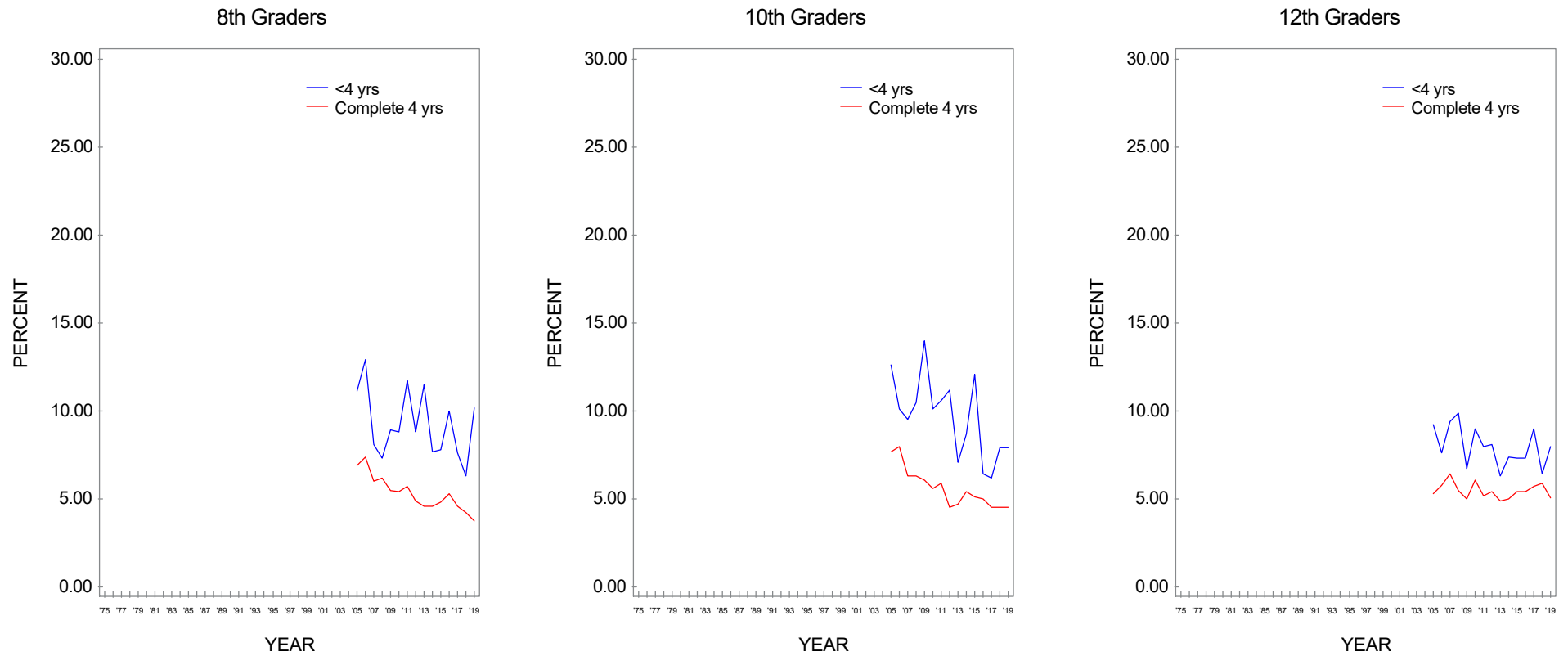
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 435

Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Region
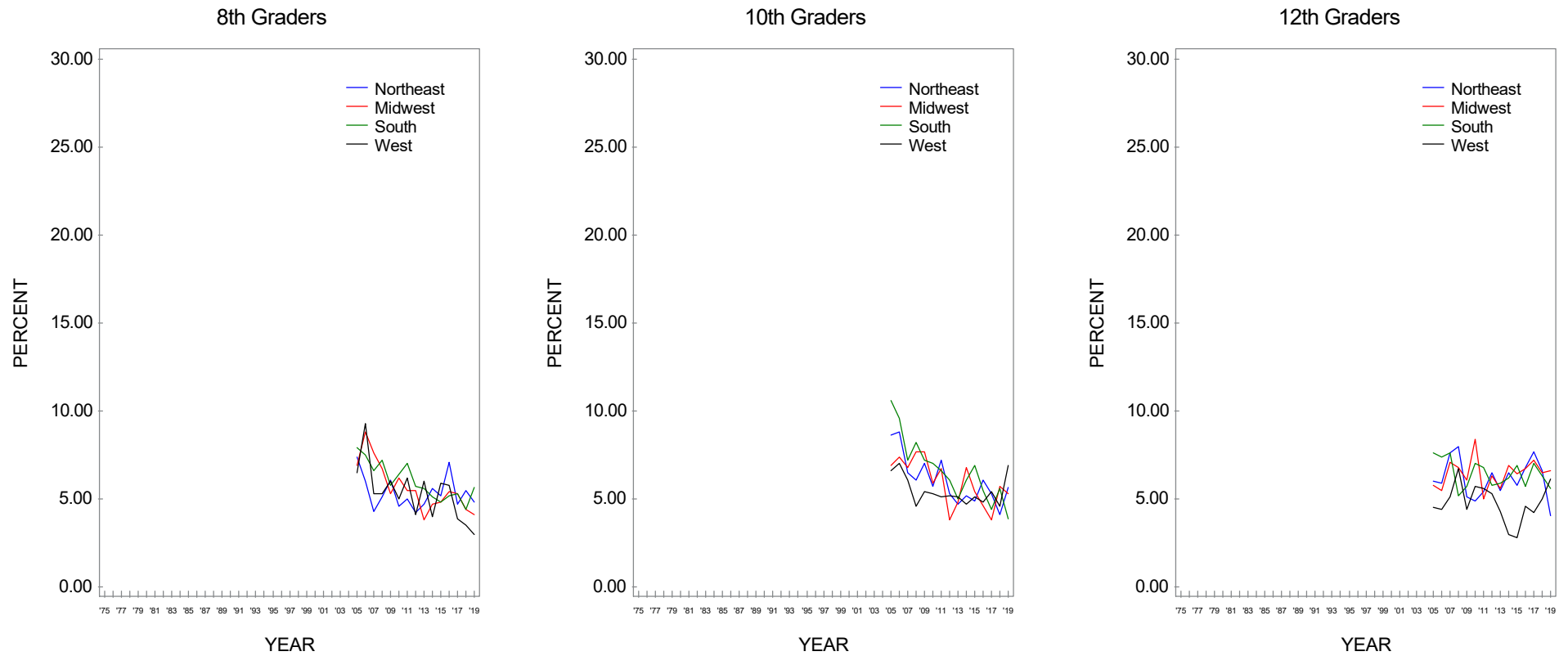
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 436

Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Population Density
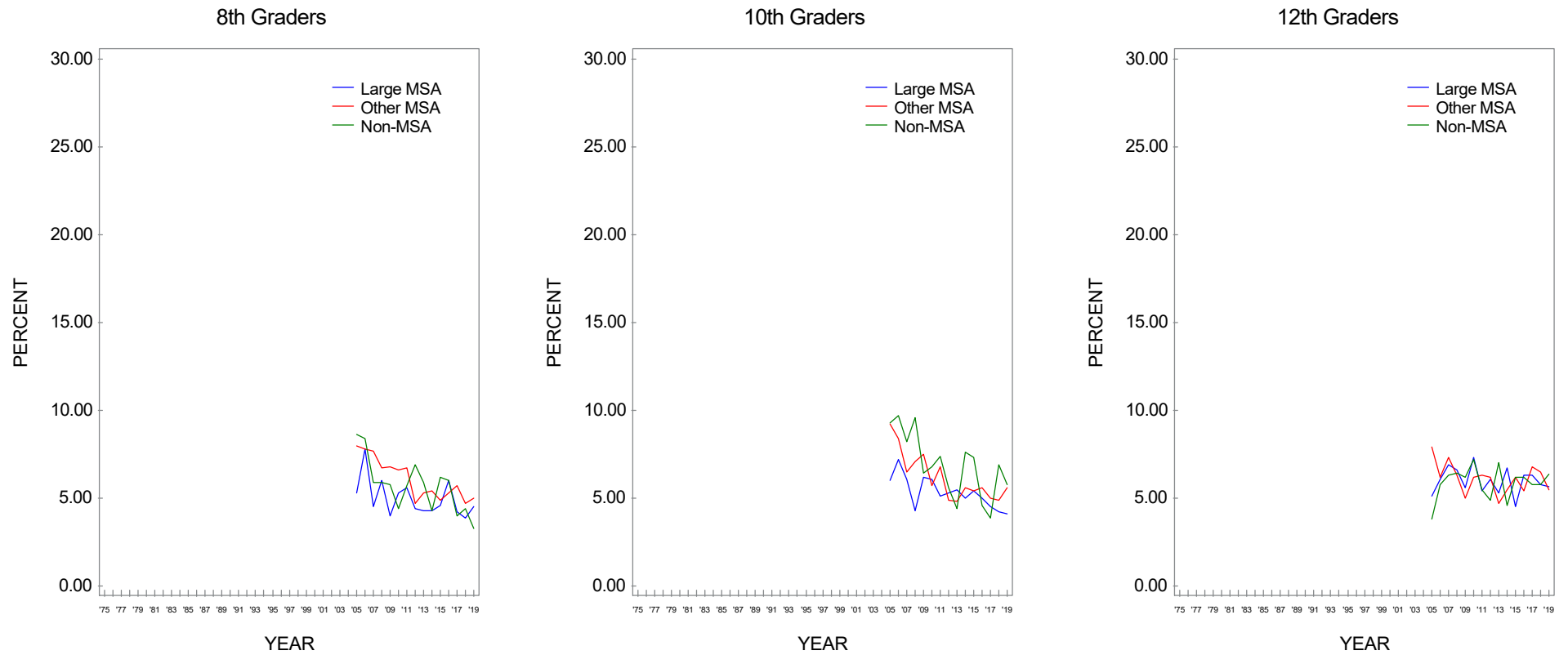
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 437

Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Average Education Level of Parents*
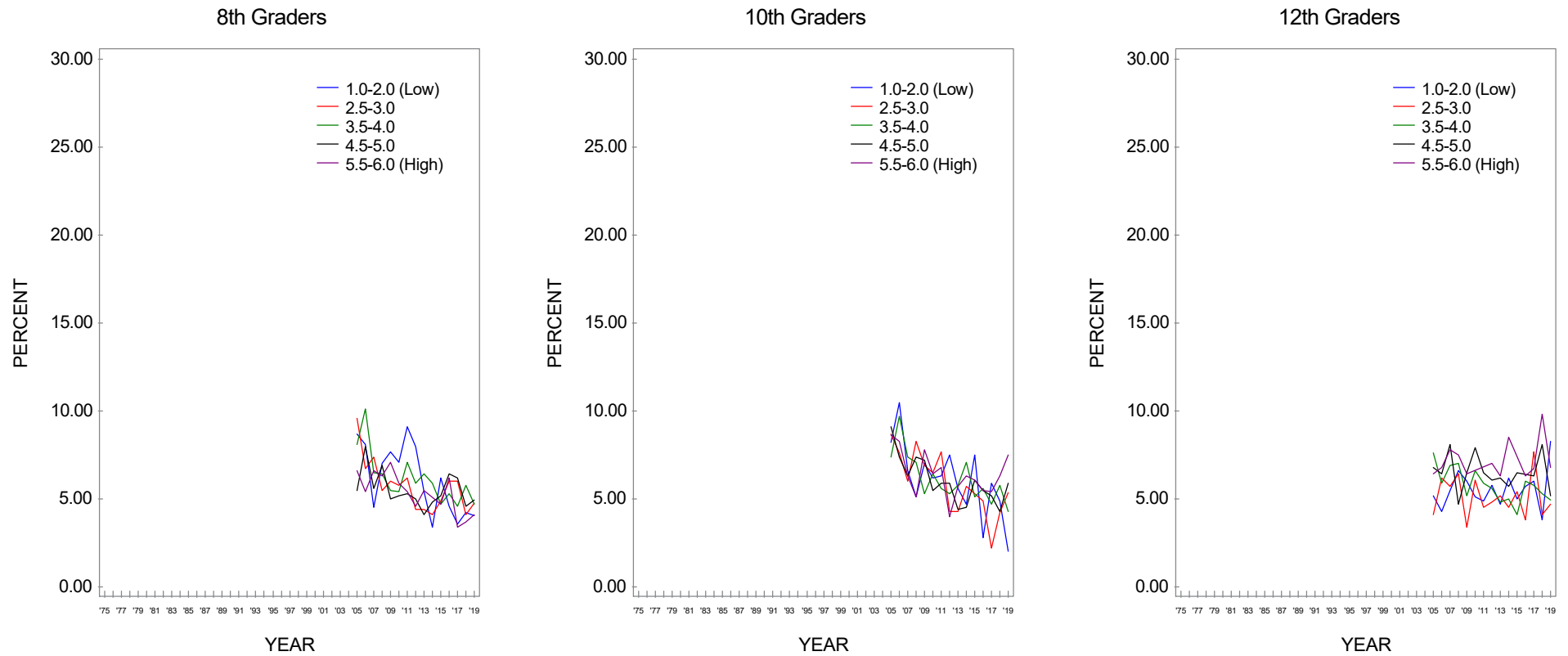
FIGURE 438

Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Race/Ethnicity*
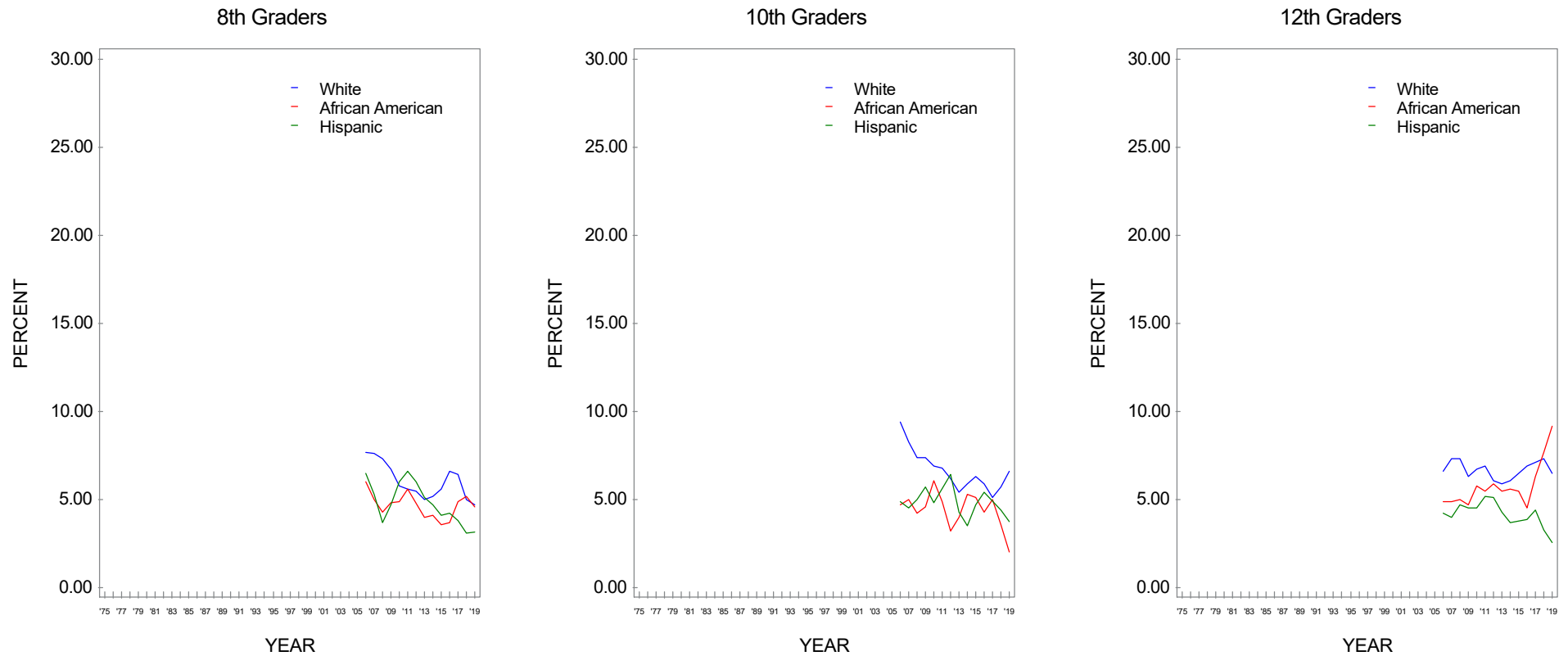
FIGURE 439

Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Gender
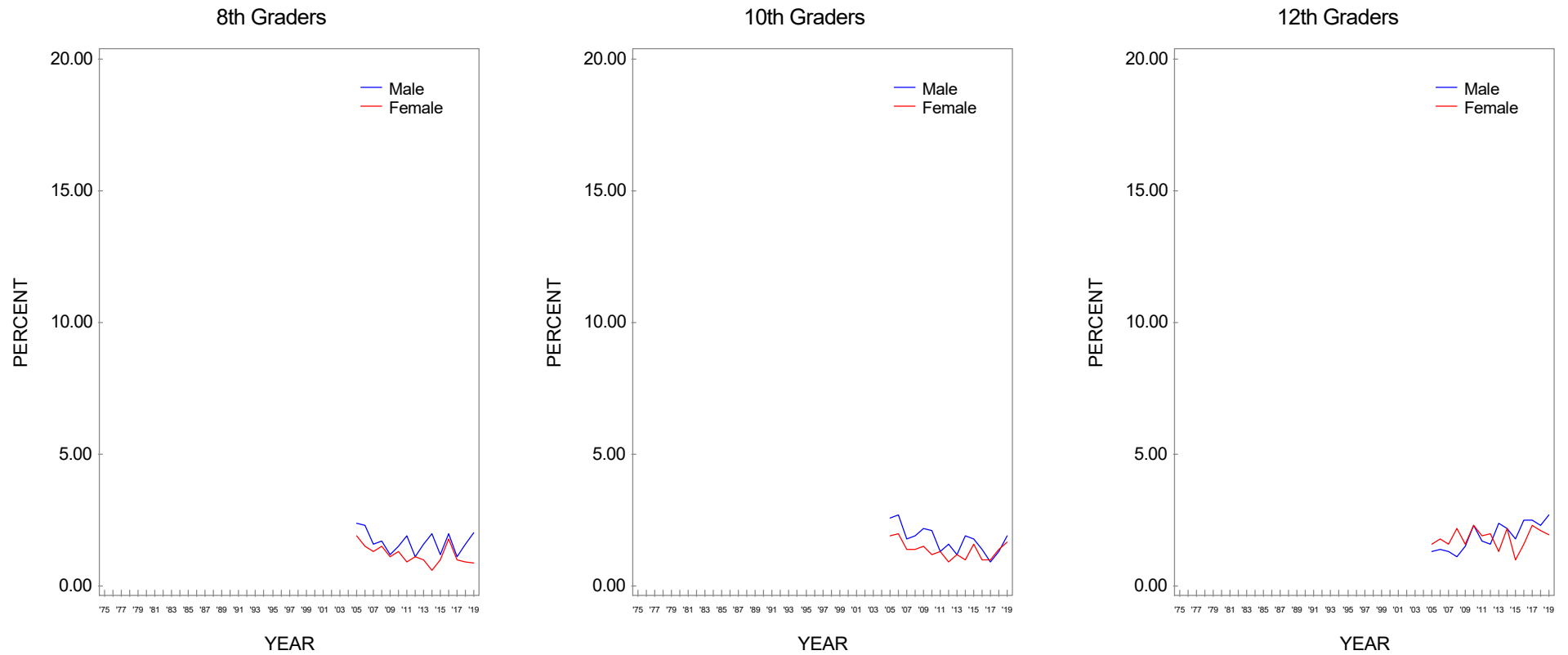
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 440
Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by College Plans
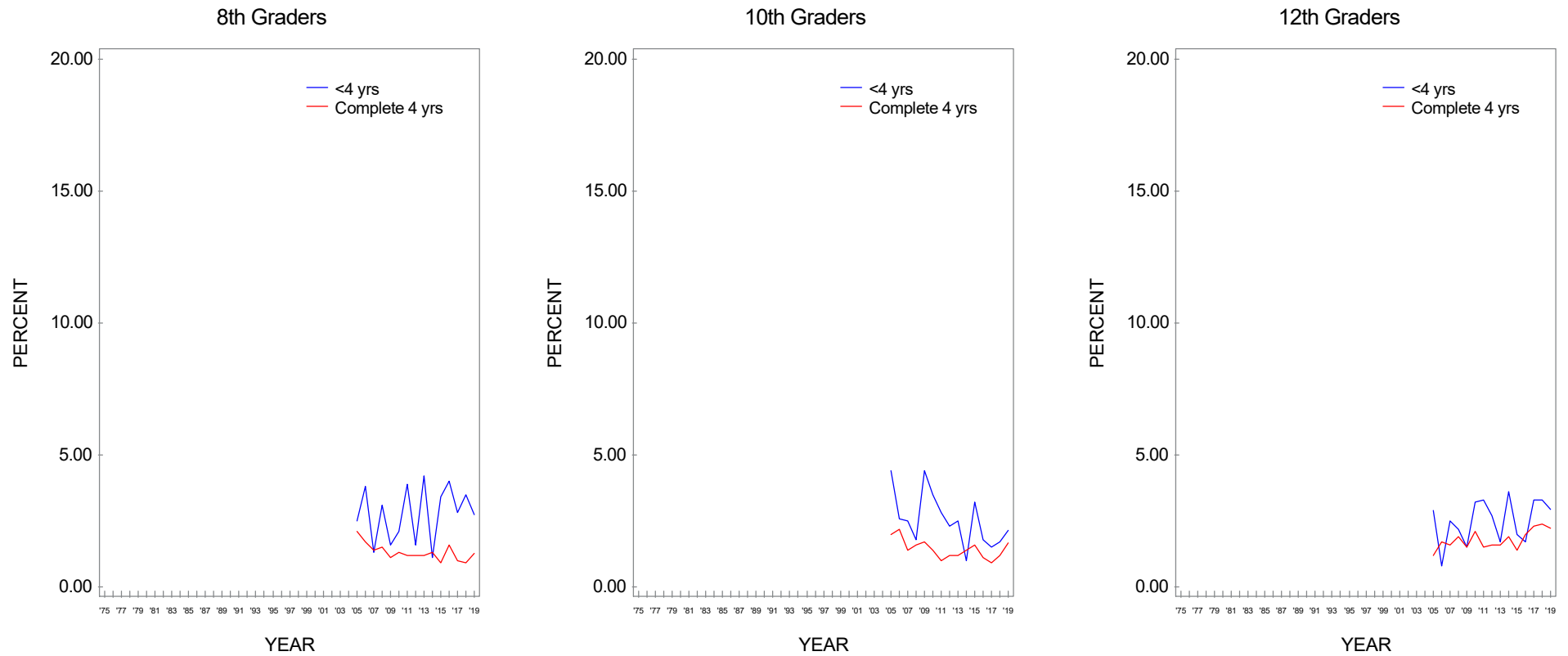
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 441
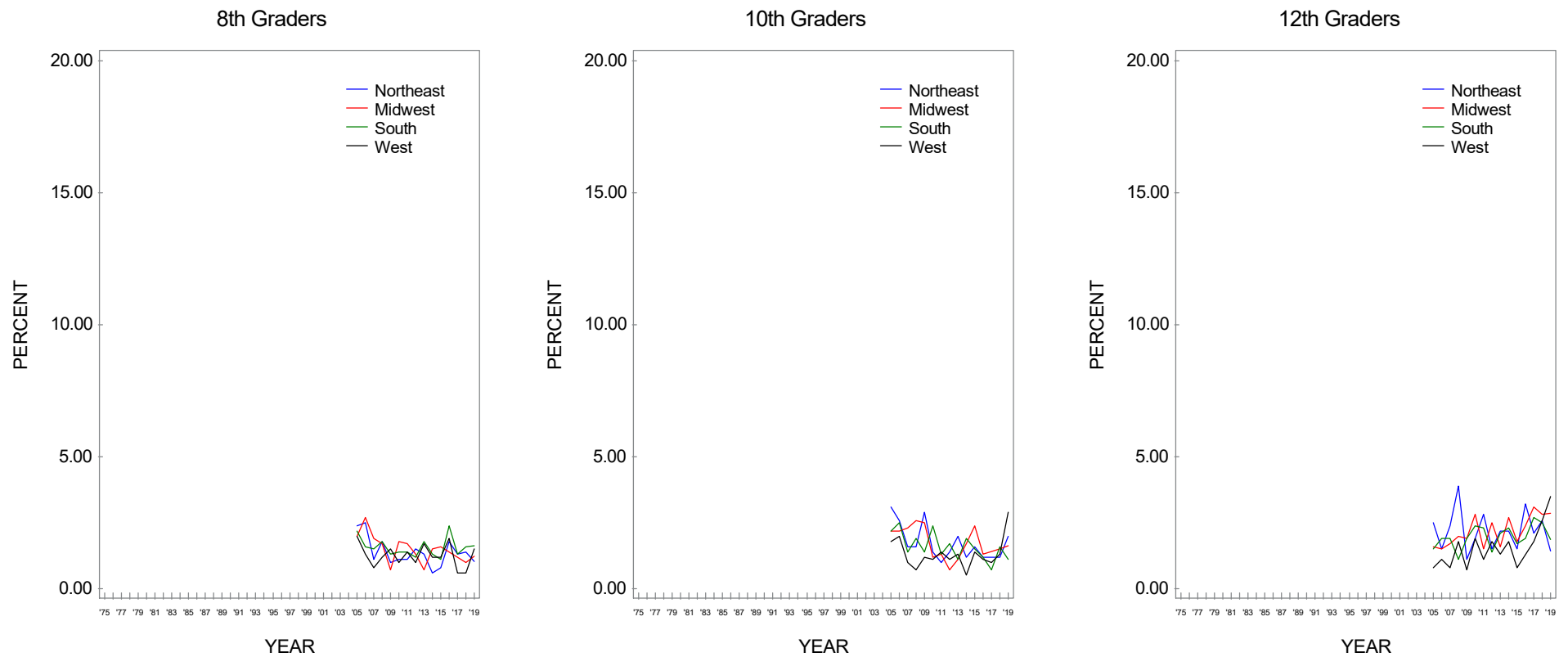
Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Region

FIGURE 442
Non-Stimulant-Type ADHD Drugs: Trends in Curent Prevalence of Legal Use by Population Density
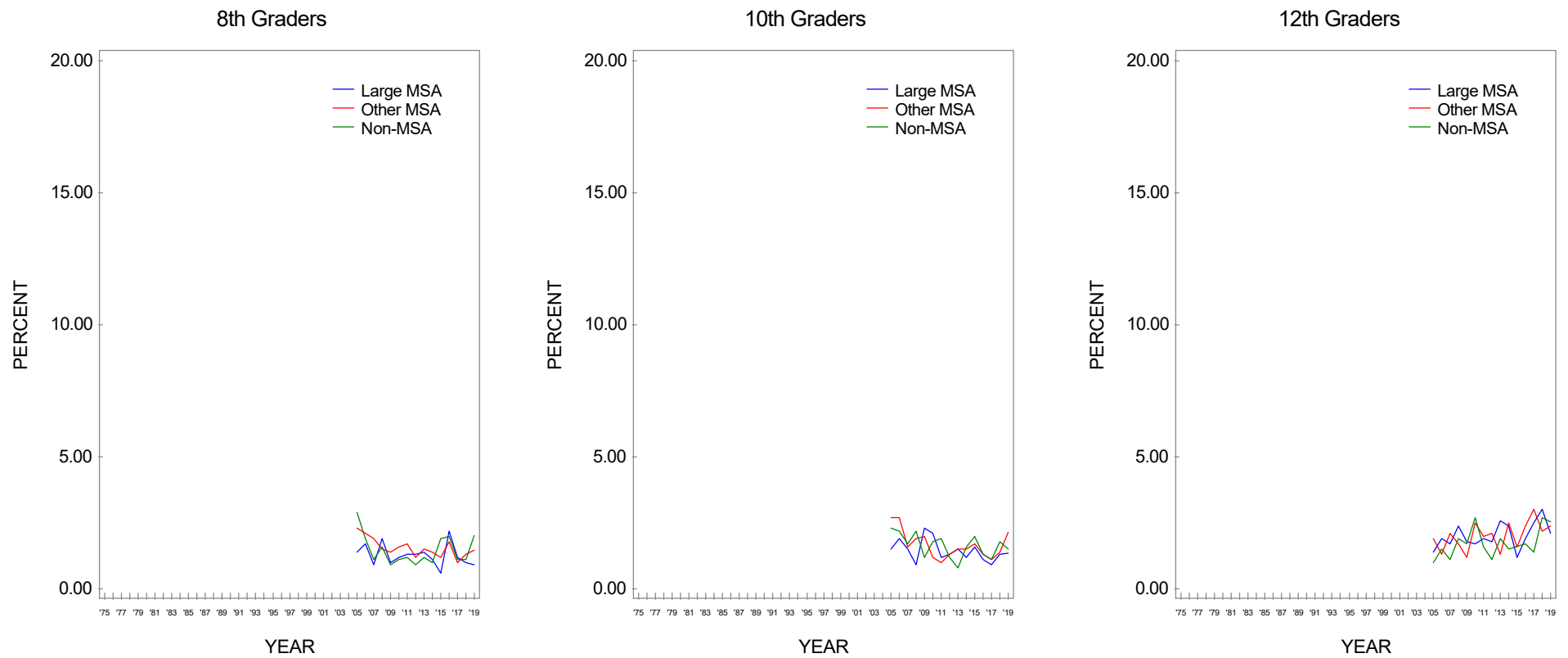
Source.   The Monitoring the Future study, the University of Michigan.

FIGURE 443
Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Average Education Level of Parents*
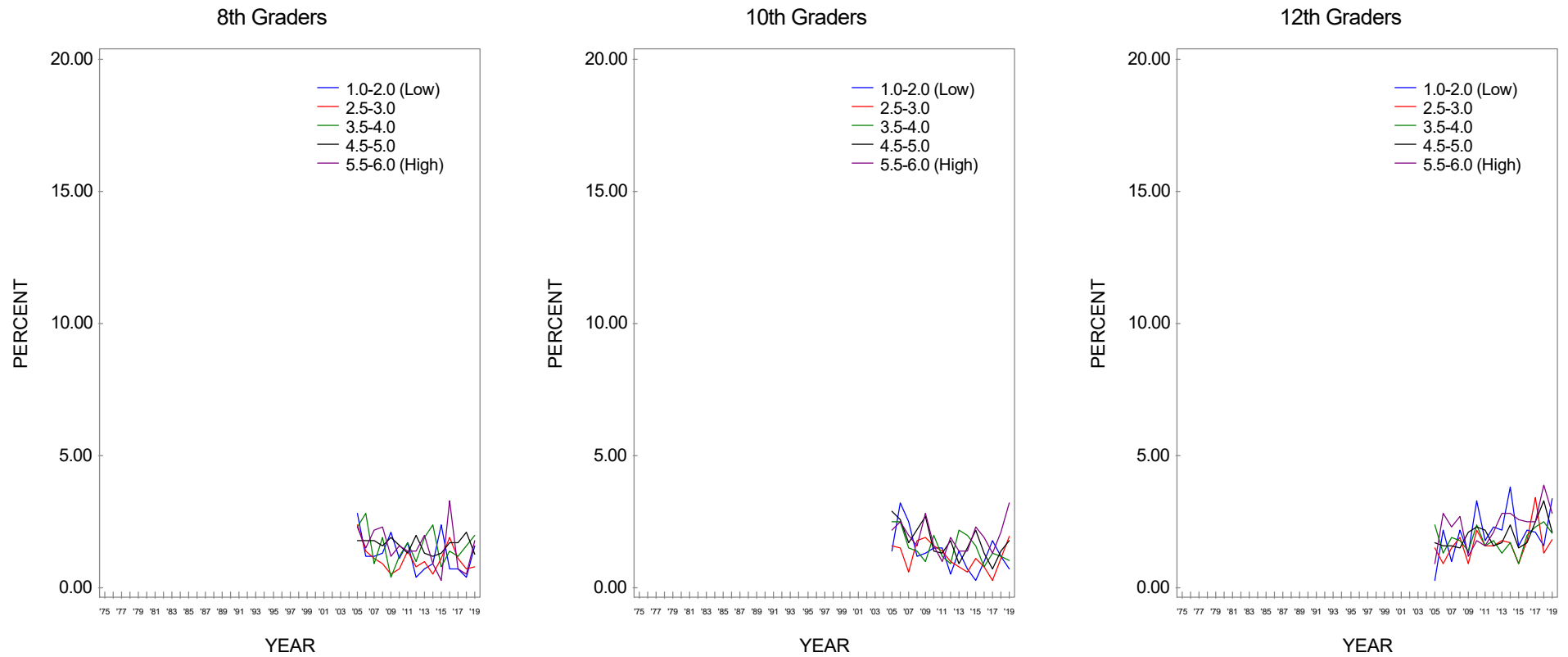
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 444
Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Race/Ethnicity*
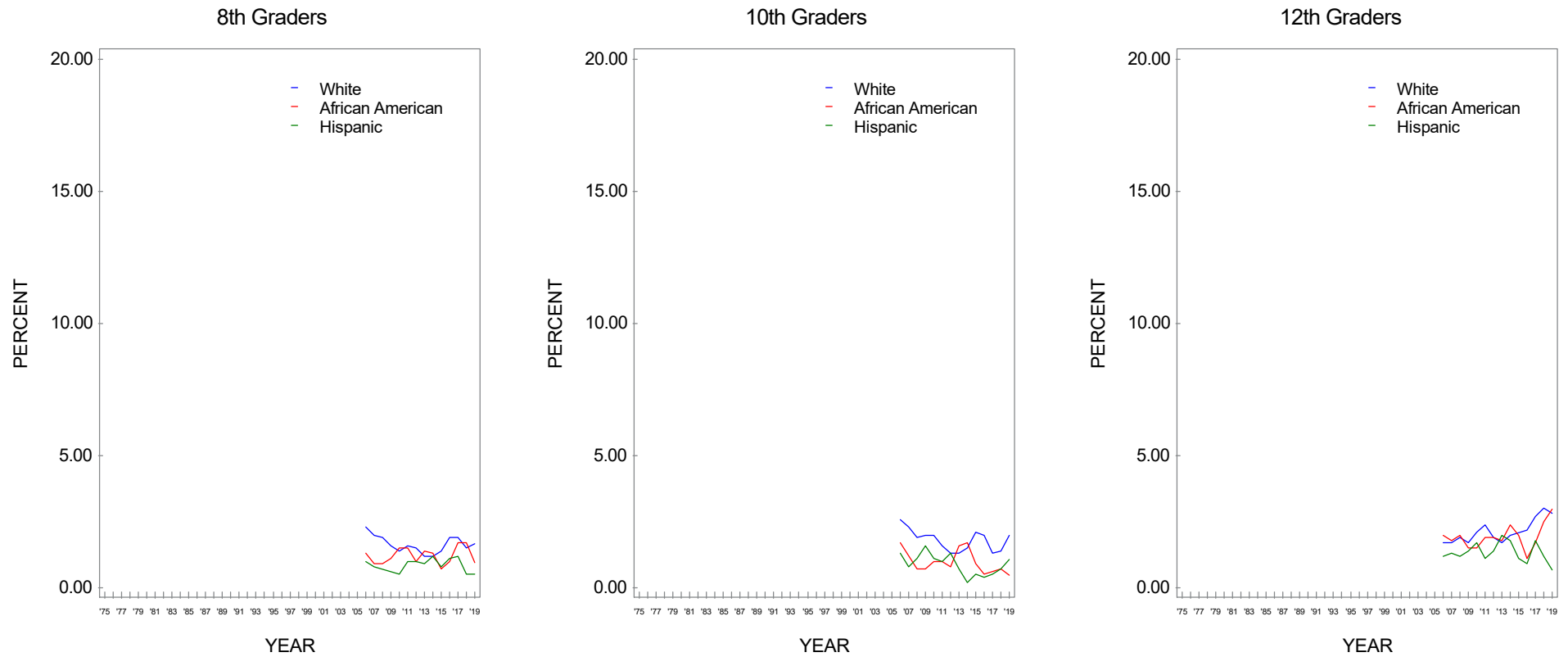
FIGURE 445
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Gender
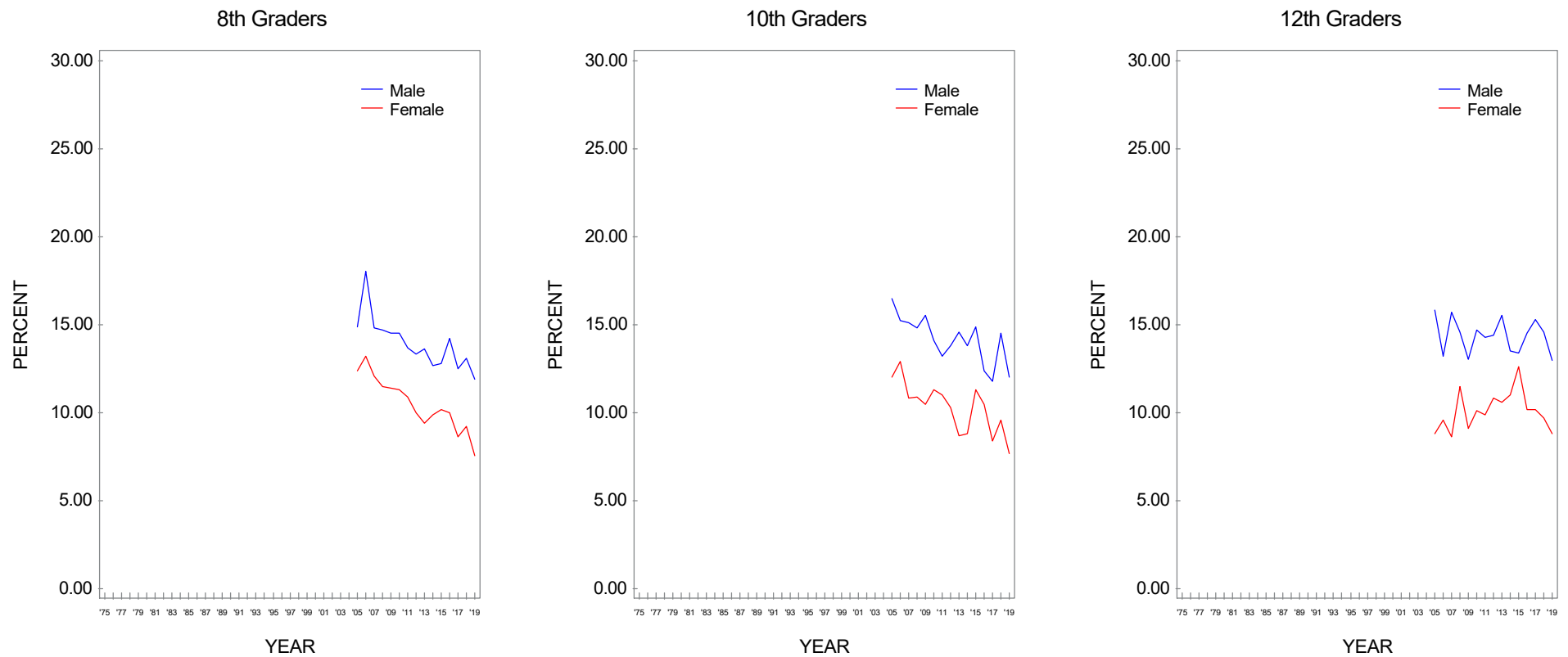
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 446
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by College Plans
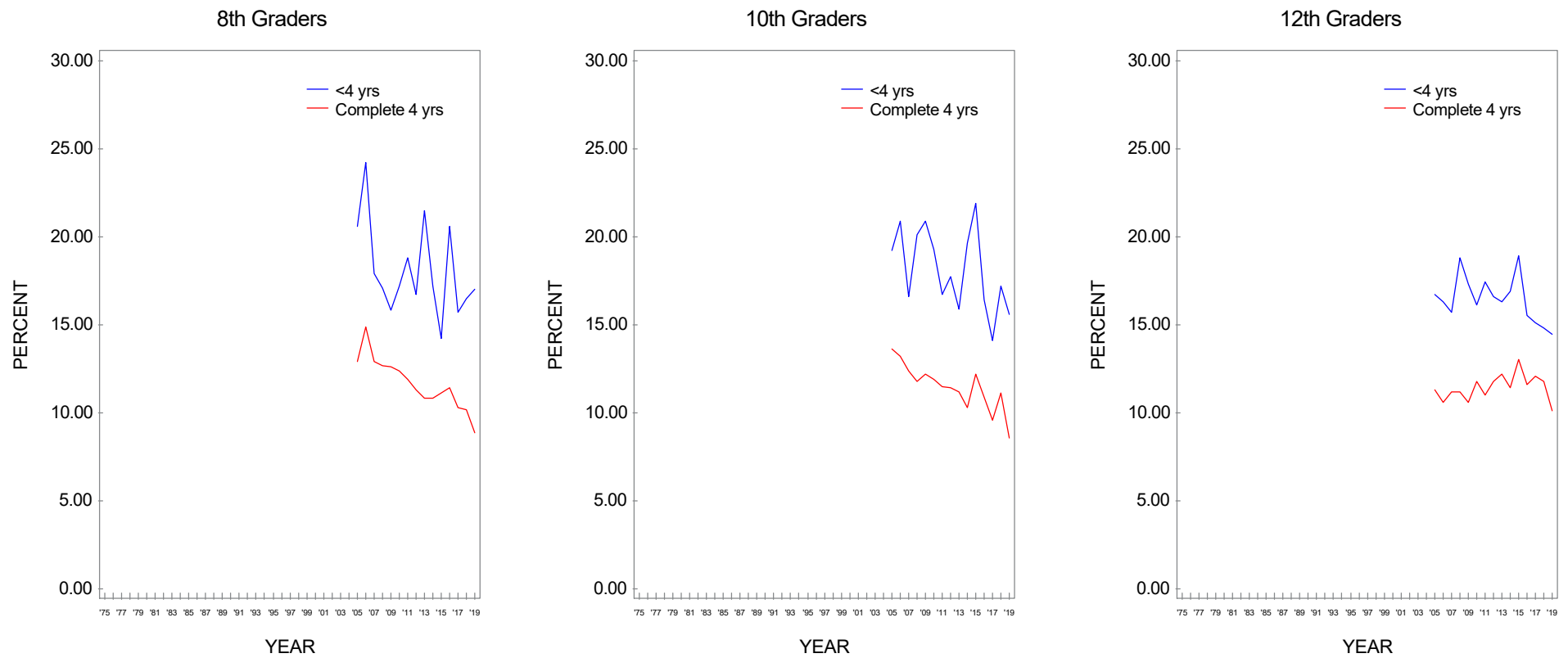
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 447
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Region
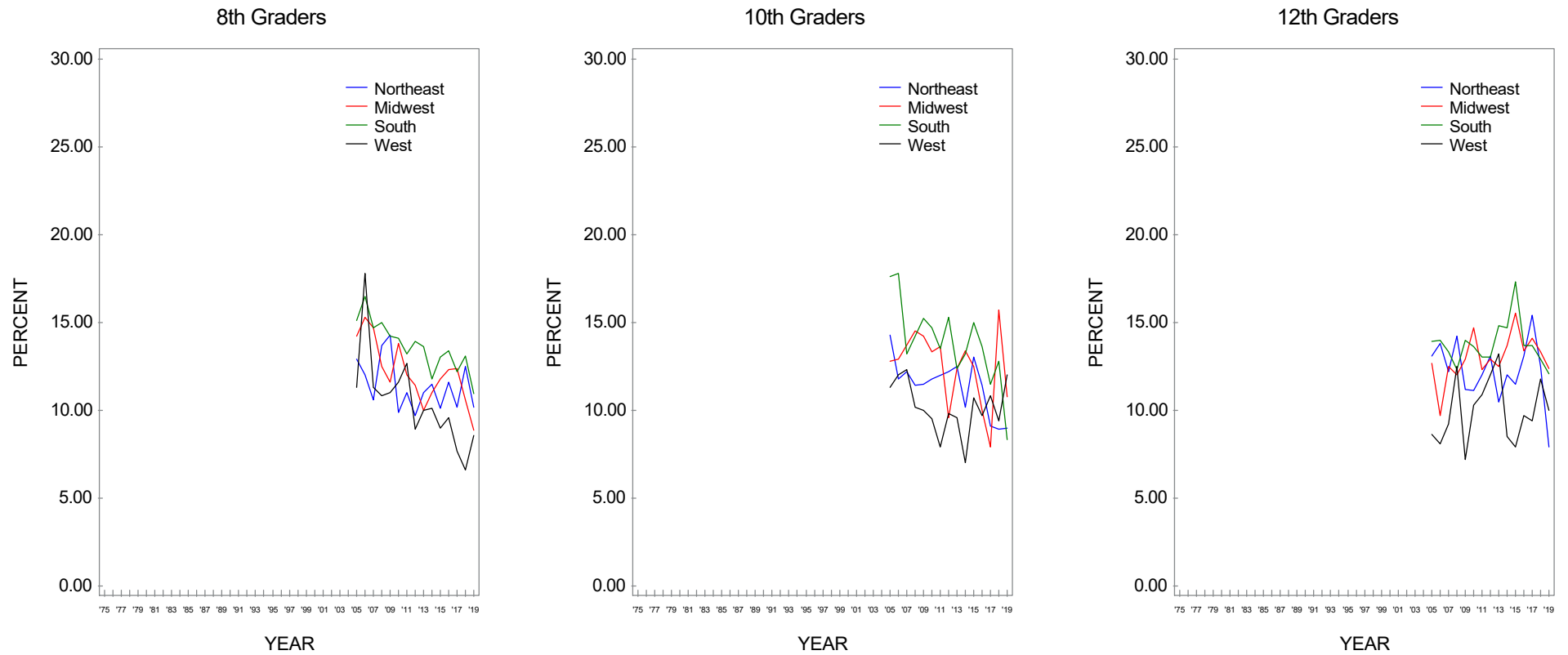
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 448
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Population Density
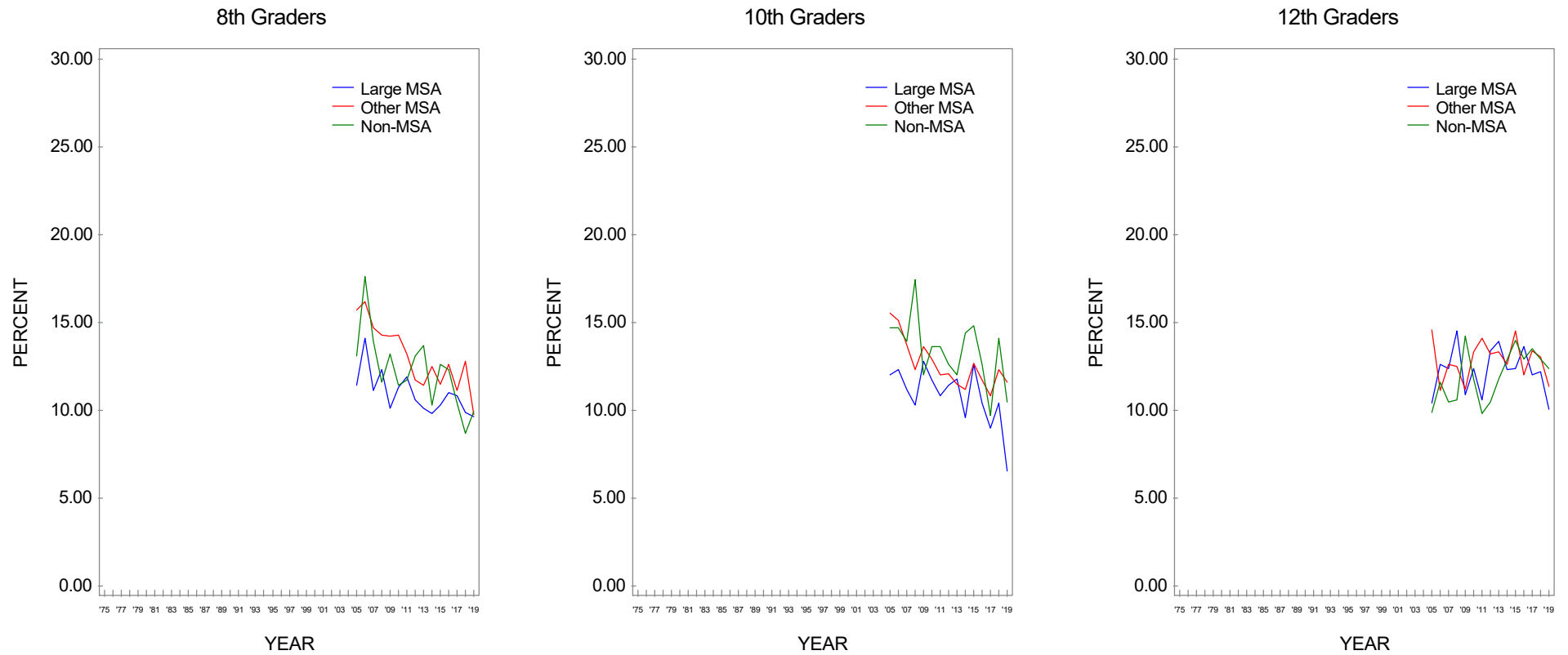
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 449

Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Average Education Level of Parents*
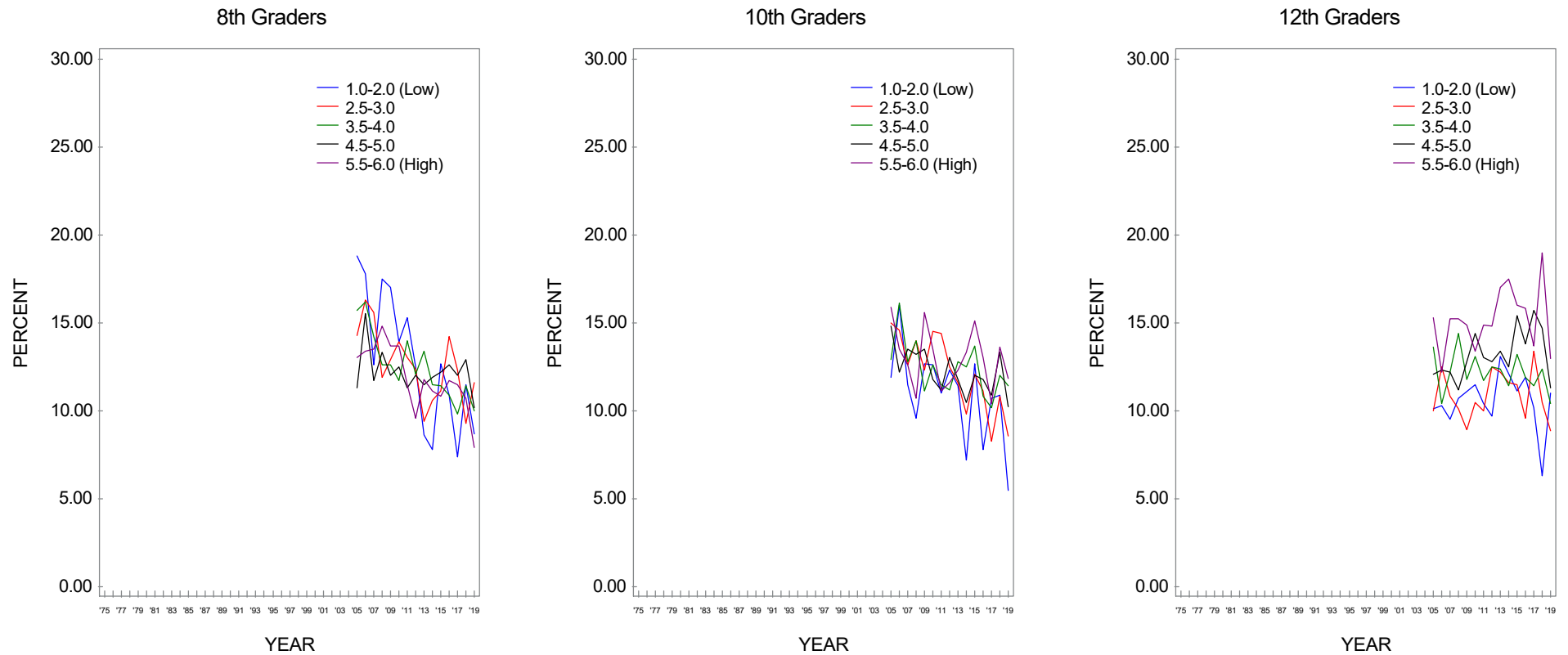
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 450
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Lifetime Prevalence of Legal Use by Race/Ethnicity*
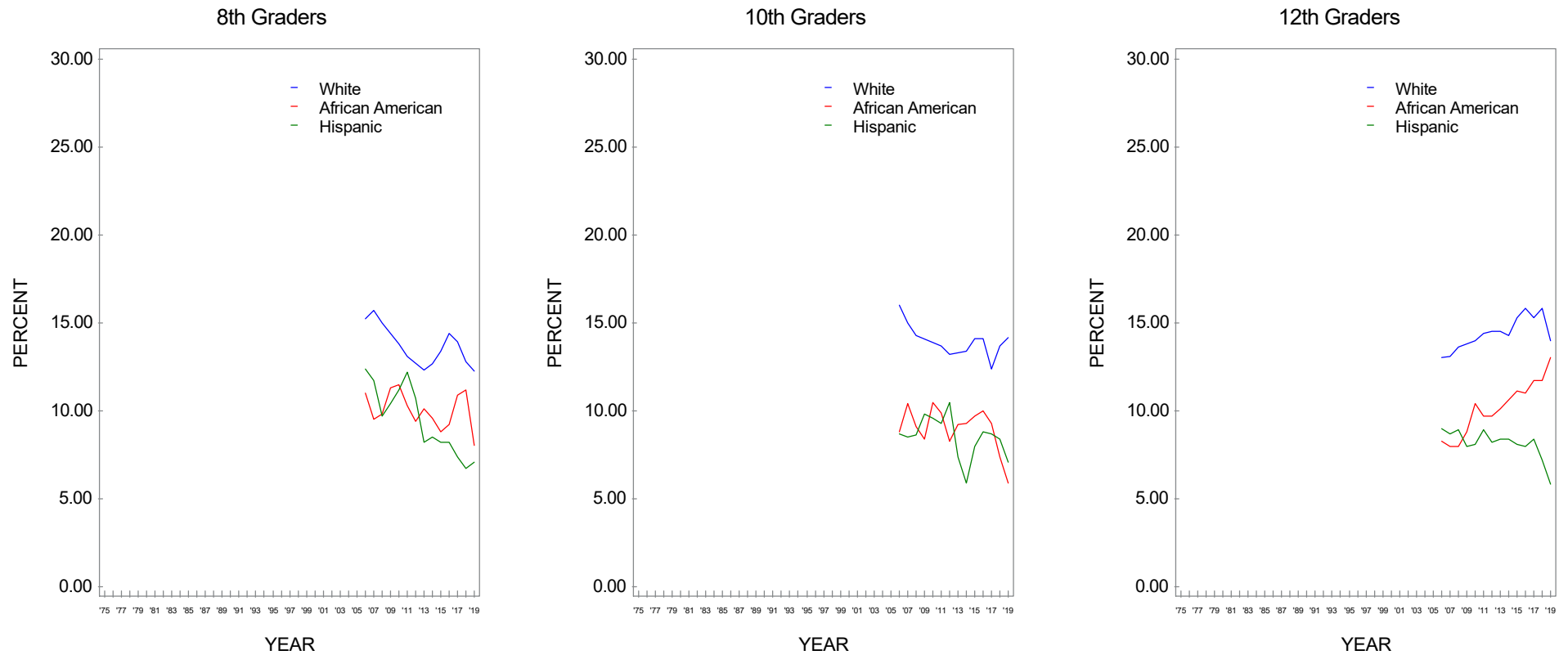
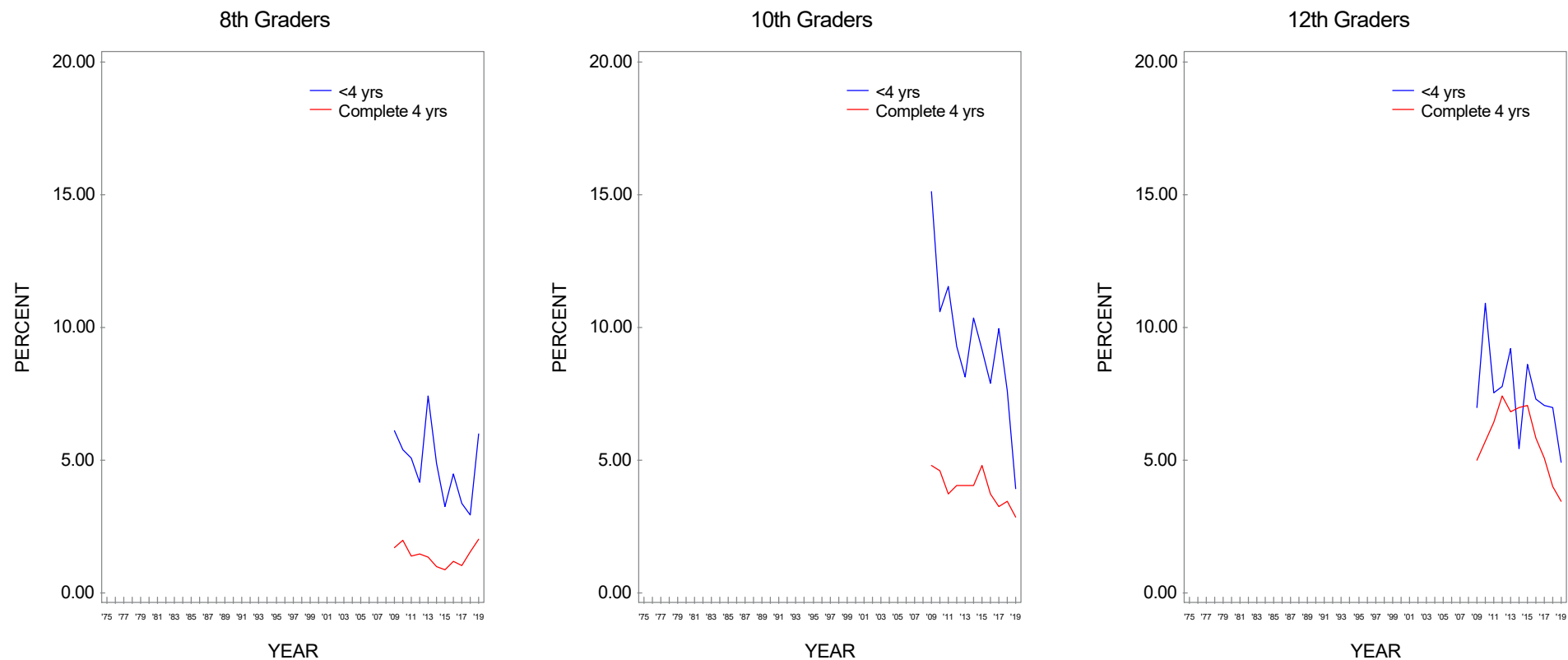*Source.* The Monitoring the Future study, the University of Michigan.

*To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

FIGURE 451
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Gender
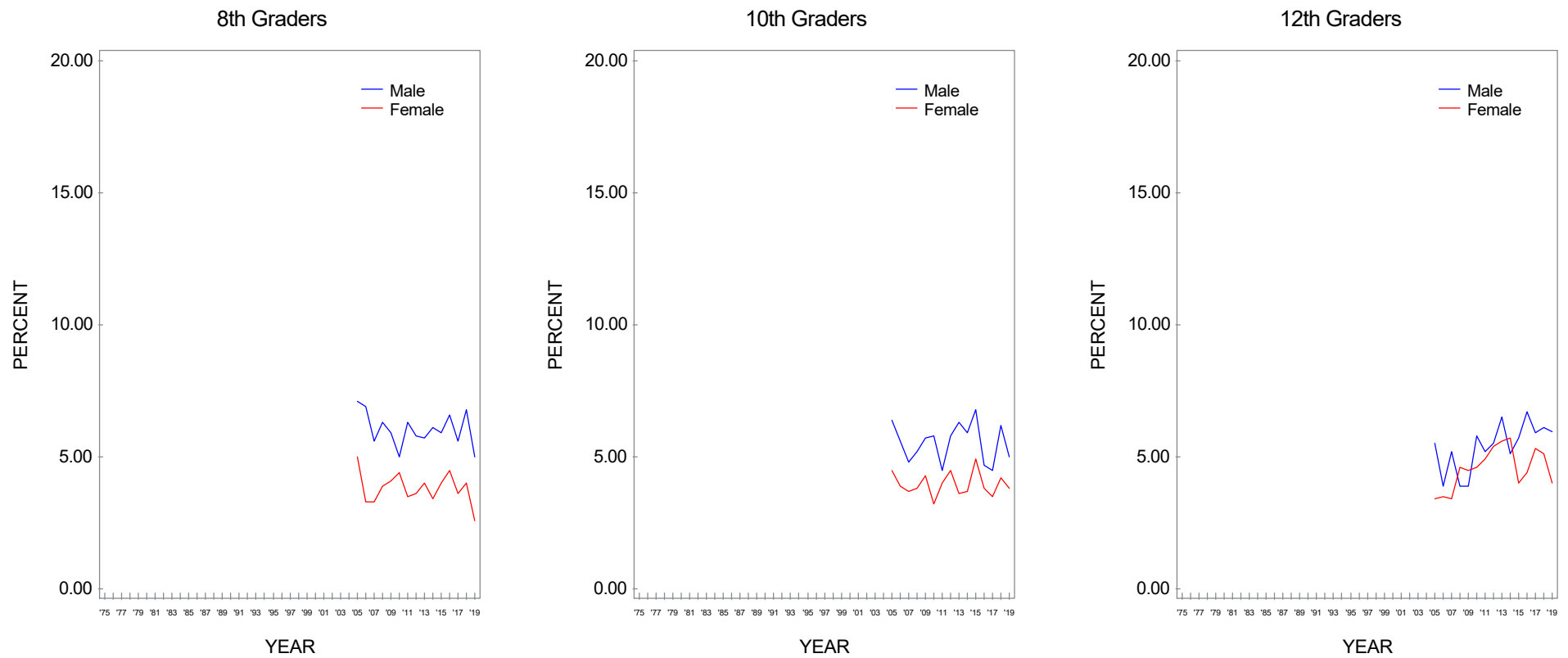
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 452

Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by College Plans
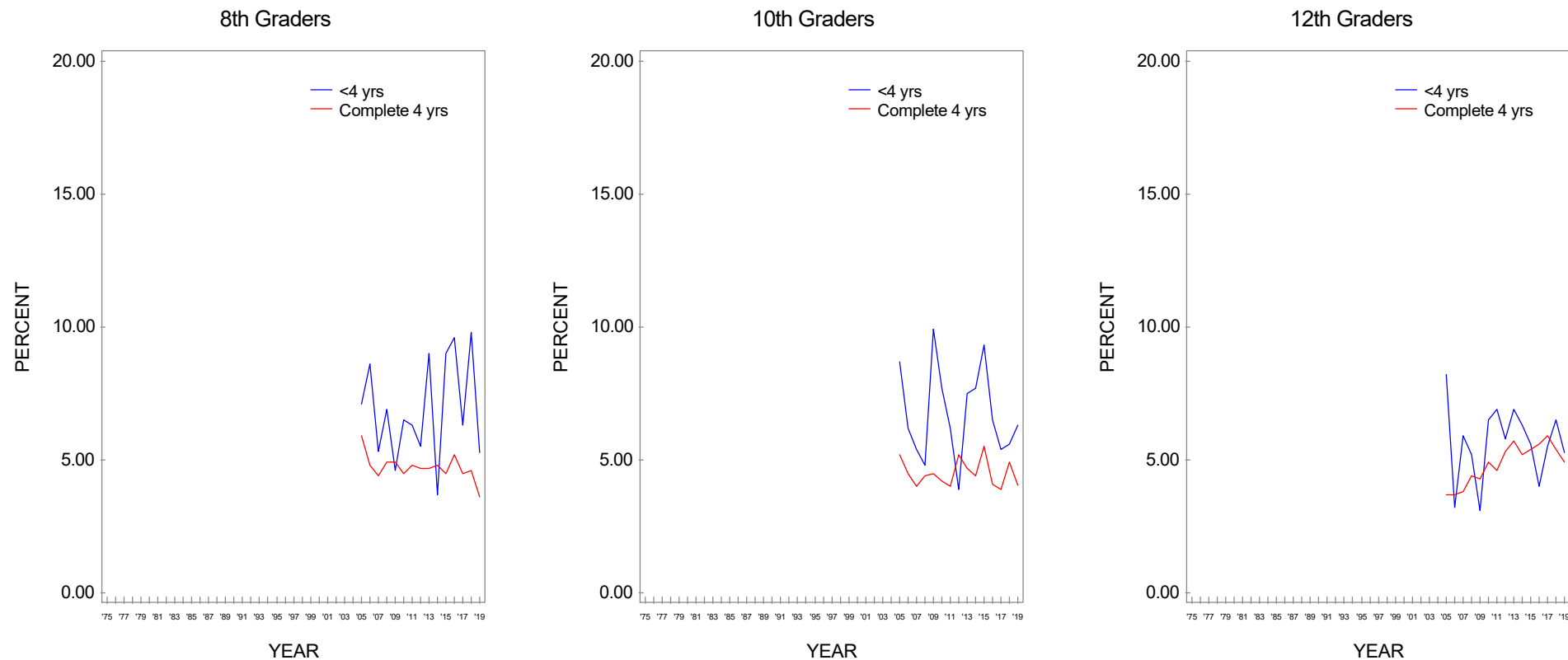
FIGURE 453
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Region
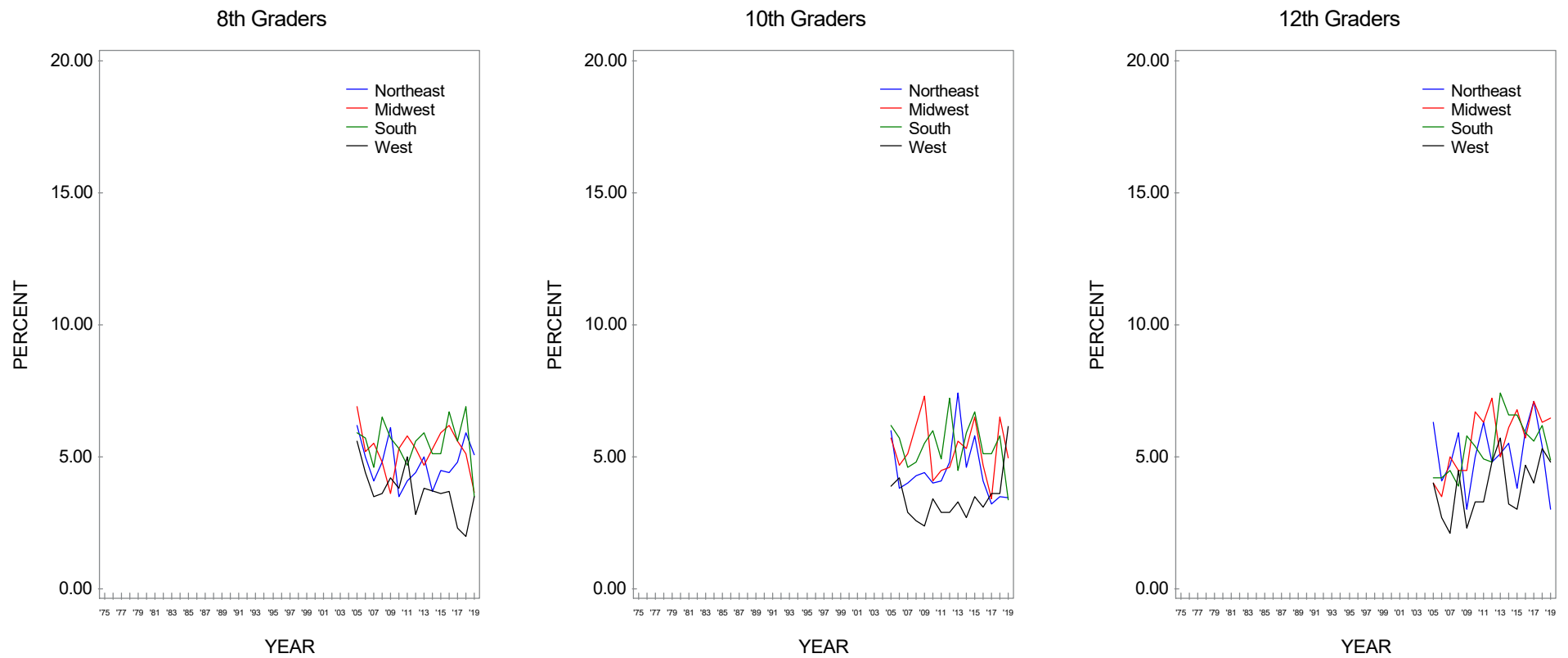
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 454

Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Curent Prevalence of Legal Use by Population Density
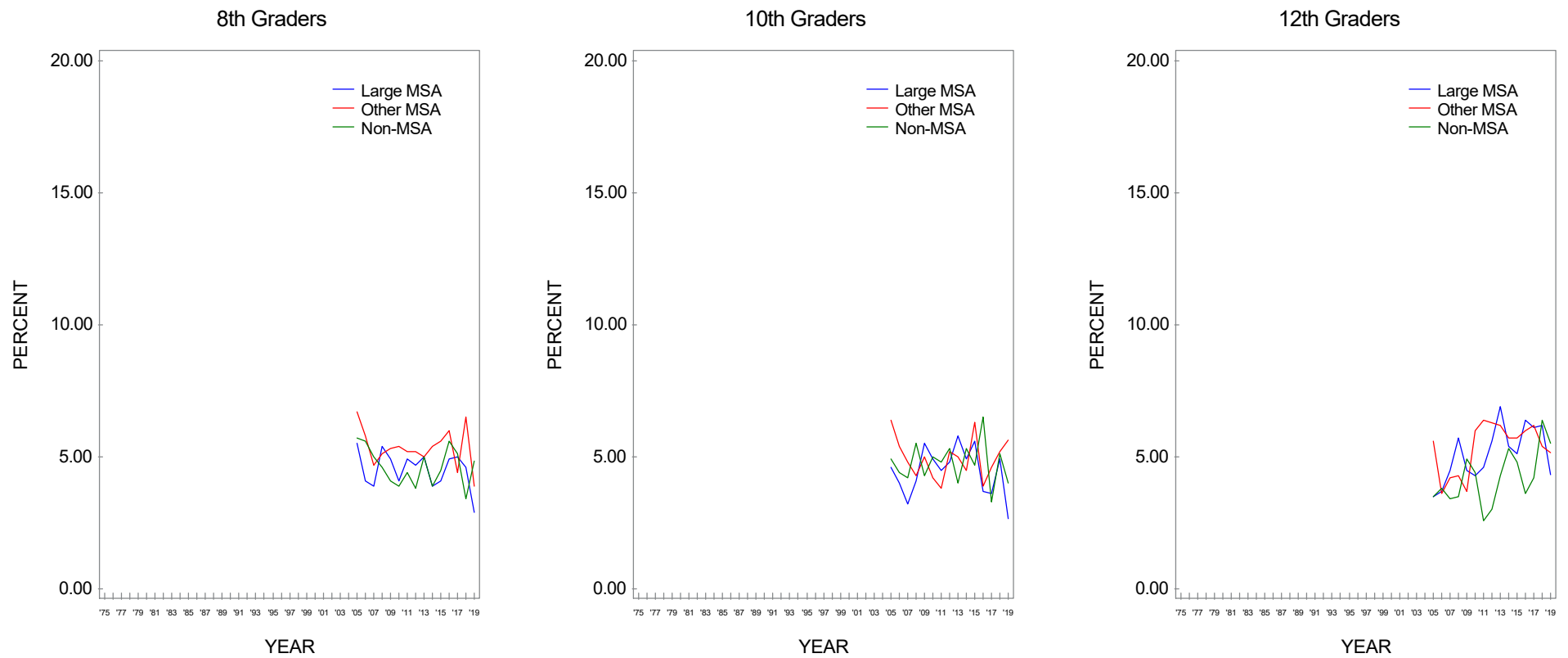
FIGURE 455

Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Average Education Level of Parents*
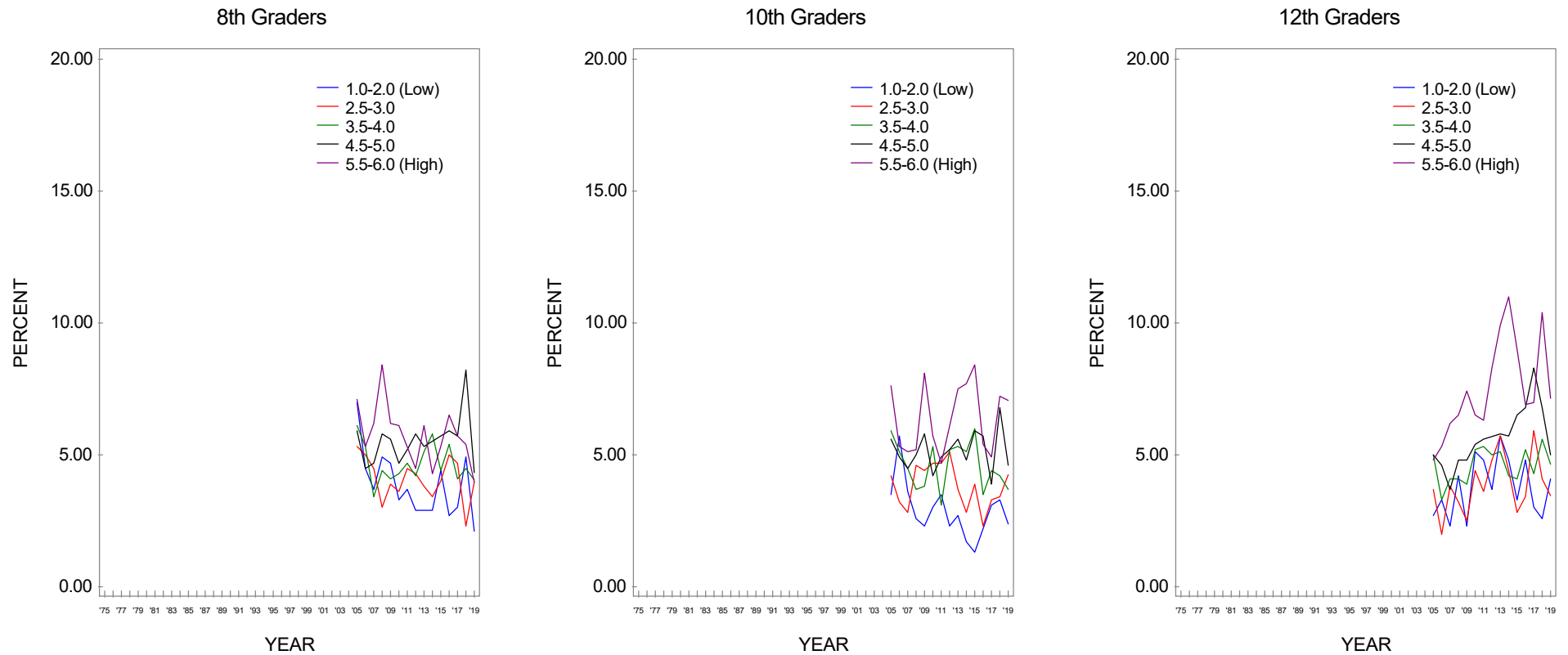
Source. The Monitoring the Future study, the University of Michigan.

*Parental education is an average score of mother's education and father's education.

FIGURE 456
Either Stimulant-Type or Non-Stimulant-Type ADHD Drugs: Trends in Current Prevalence of Legal Use by Race/Ethnicity*
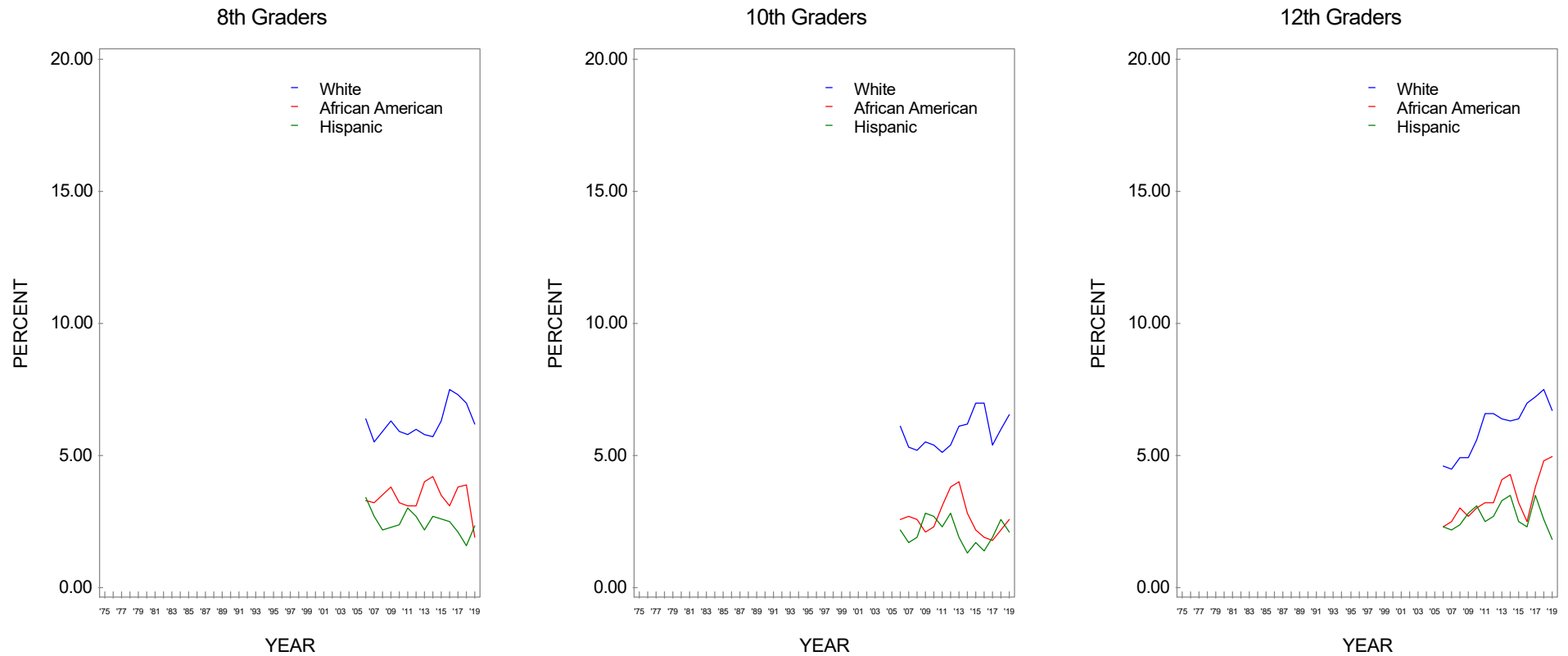
FIGURE 457
Any Nicotine Use*: Trends in 30-Day Prevalence by Gender
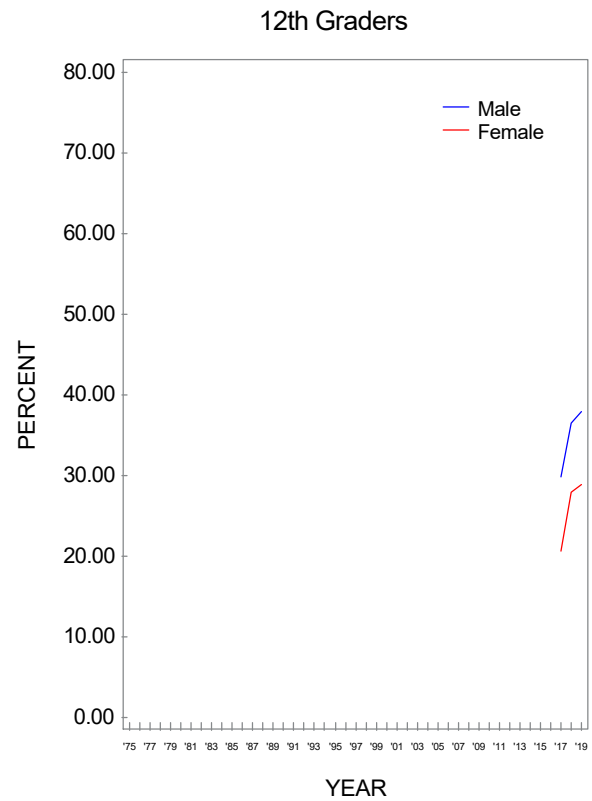
12th Graders

FIGURE 458
Any Nicotine Use*: Trends in 30-Day Prevalence by College Plans
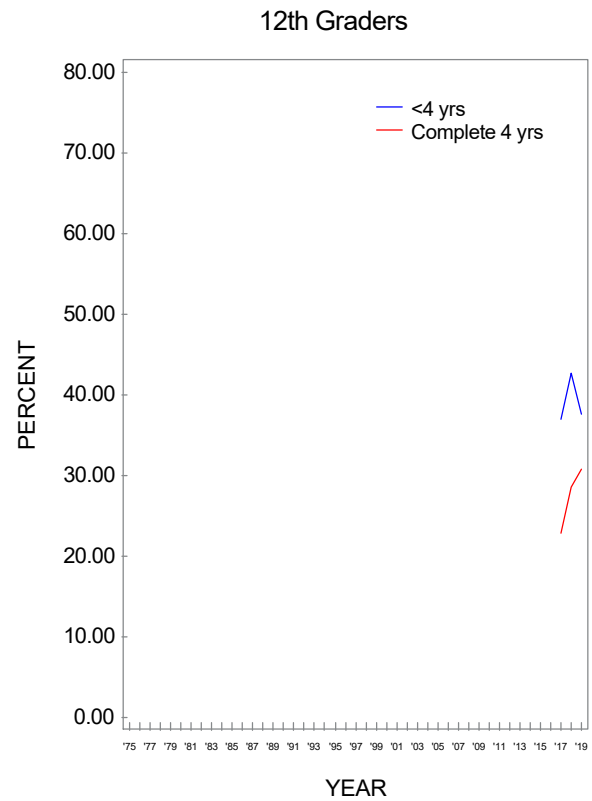
12th Graders

PERCENT

YEAR

Legend:
— <4 yrs
— Complete 4 yrs

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

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, smokeless tobacco, or vaping nicotine.

FIGURE 459
Any Nicotine Use*: Trends in 30-Day Prevalence by Region

12th Graders

FIGURE 460
Any Nicotine Use*: Trends in 30-Day Prevalence by Population Density

12th Graders

FIGURE 461

Any Nicotine Use*: Trends in 30-Day Prevalence by Average Education Level of Parents**
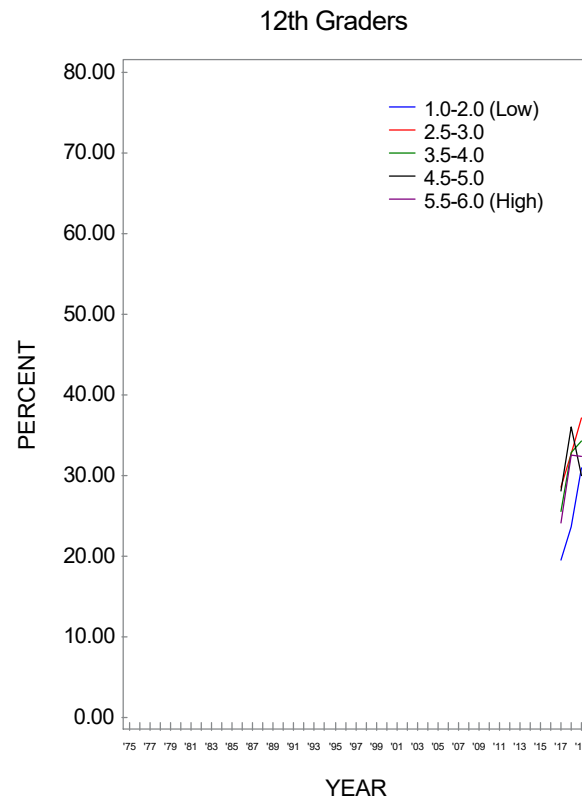
12th Graders

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

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, smokeless tobacco, or vaping nicotine.

**Parental education is an average score of mother's education and father's education.

FIGURE 462
Any Nicotine Use*: Trends in 30-Day Prevalence by Race/Ethnicity**
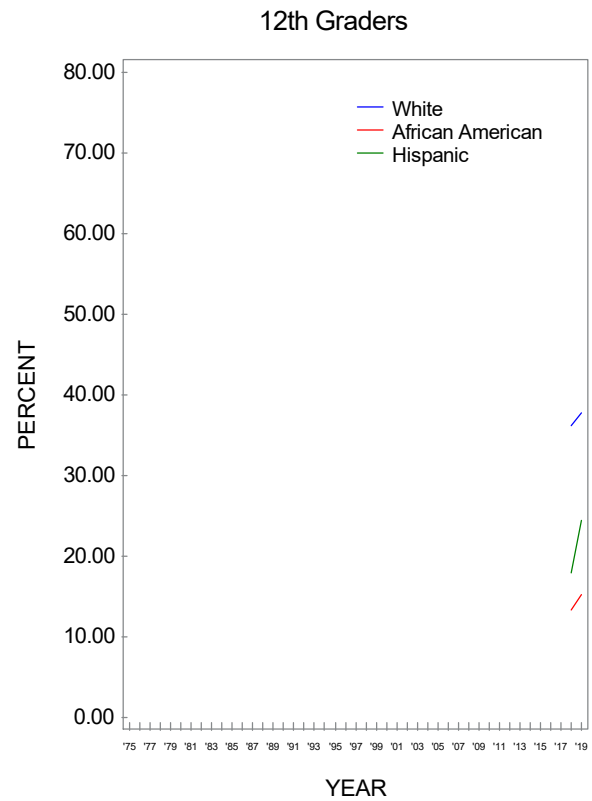
12th Graders

FIGURE 463
Any Nicotine Use other than Vaping*: Trends in 30-Day Prevalence by Gender
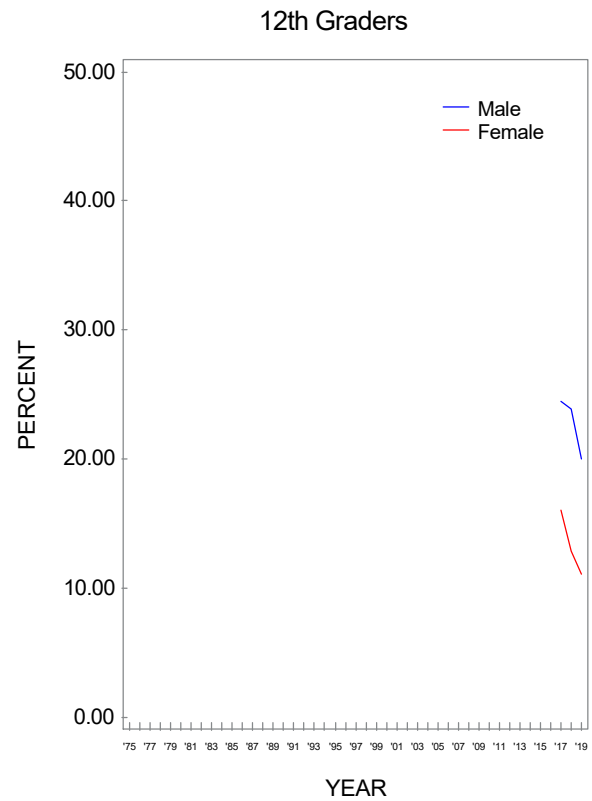
12th Graders

Source. The Monitoring the Future study, the University of Michigan.
*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

FIGURE 464
Any Nicotine Use other than Vaping*: Trends in 30-Day Prevalence by College Plans
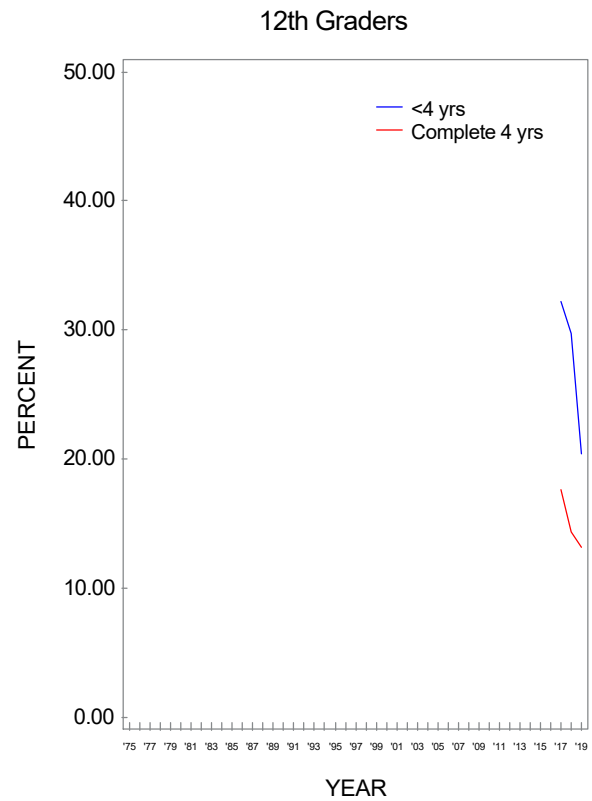
12th Graders

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

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

FIGURE 465
Any Nicotine Use other than Vaping*: Trends in 30-Day Prevalence by Region
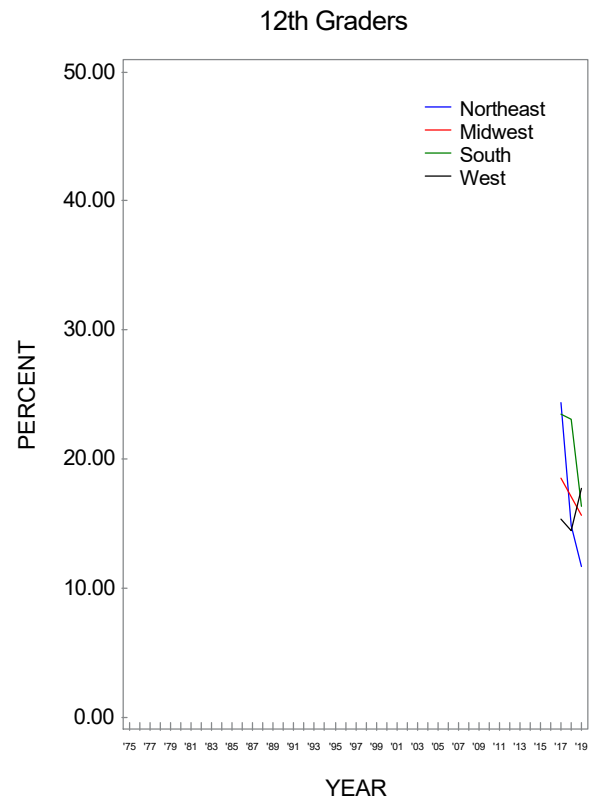
12th Graders

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

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

FIGURE 466

Any Nicotine Use other than Vaping*: Trends in 30-Day Prevalence by Population Density
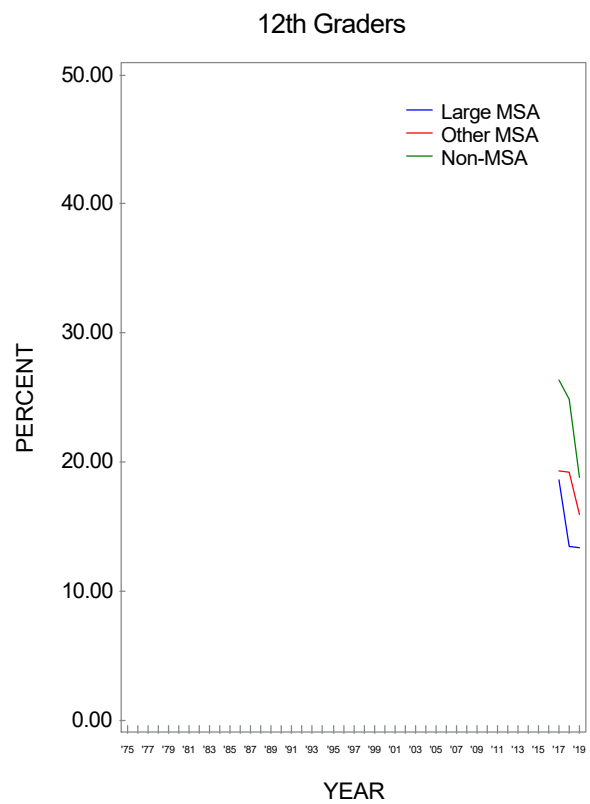
12th Graders

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

FIGURE 467

Any Nicotine Use other than Vaping*: Trends in 30-Day Prevalence by Average Education Level of Parents**

12th Graders
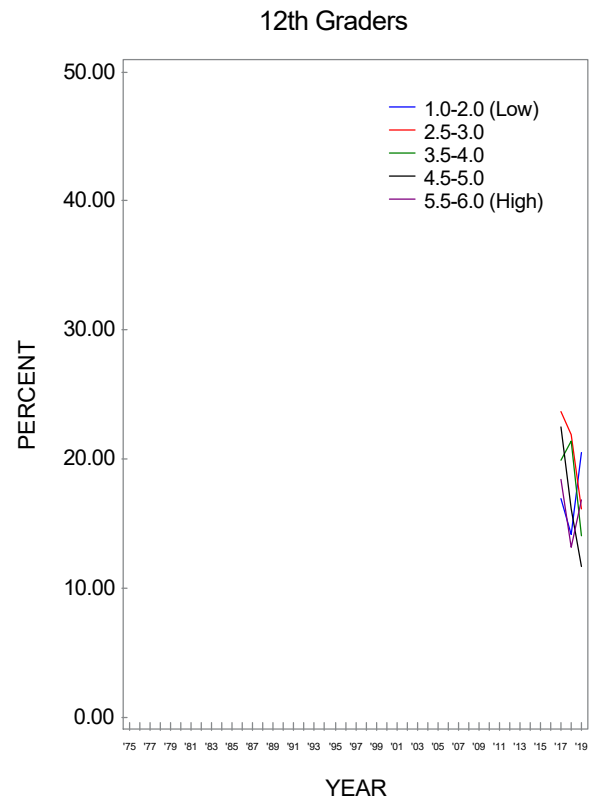
Source. The Monitoring the Future study, the University of Michigan.

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

**Parental education is an average score of mother's education and father's education.

FIGURE 468
Any Nicotine Use other than Vaping*: Trends in 30-Day Prevalence by Race/Ethnicity**
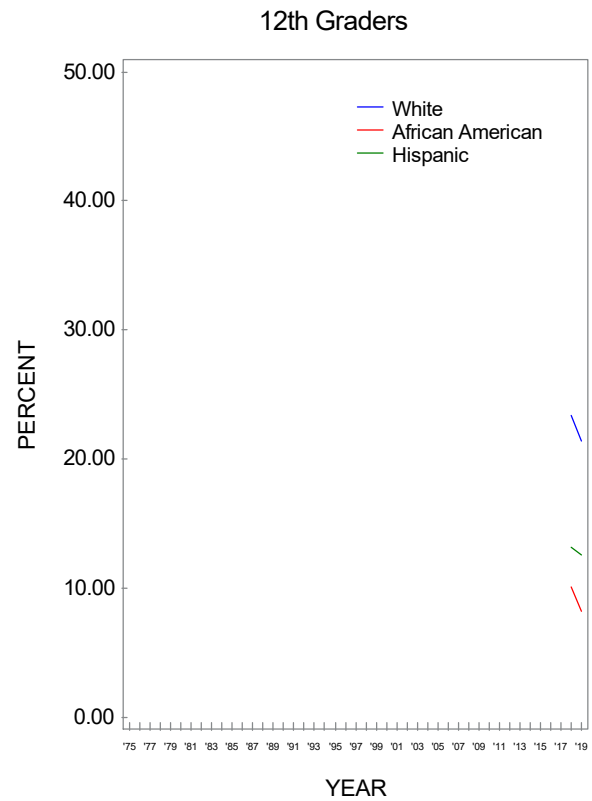
12th Graders

*Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

**To derive percentages for each racial/ethnic subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes and thus provide more stable estimates.

DEFINITION OF BACKGROUND AND DEMOGRAPHIC SUBGROUPS

The following are brief definitions of the background and demographic subgroups explored in the Monitoring the Future (MTF) national survey of 8th, 10th, and 12th graders' attitudes toward and use of drugs (including alcohol and tobacco). A more thorough discussion of the findings can be found in Appendix B of the MTF Volume I monograph, *Monitoring the Future National Survey Results on Drug Use, 1975-2019: Volume I, Secondary School Students.*[4] (Note: All case counts provided in the tables are based on weighted Ns.)

Total: The total sample of respondents in a given year based on weighted cases (set to equal the total number of actual cases).

Gender: *Male and female.* Respondents are asked, "What is your sex?" Those with missing data on the question are omitted from the data presented by gender.

College Plans: Respondents are asked how likely it is that they will graduate from a four-year college program. College plans groupings are defined as follows:

None or under four years. Respondents who indicate they "definitely won't" or "probably won't" graduate from a four-year college program. (Note that, among those who do not expect to complete a four-year college program, a number still expect to get some postsecondary education.)

Complete four years. Respondents who indicate they "definitely will" or "probably will" graduate from a four-year college program.

Those not answering the college plans question are omitted from both groupings.

Region: Region of the country in which the respondent's school is located. There are four mutually exclusive regions in the US based on Census Bureau categories, defined as follows:

Northeast. Census classifications of New England and Middle Atlantic states consist of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Midwest. Census classifications of East North Central and West North Central states consist of Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

South. Census classifications of South Atlantic, East South Central, and West South Central states consist of Delaware, Maryland, District of Columbia, Virginia, and West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

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[4]Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2020, forthcoming). *Monitoring the Future national survey results on drug use, 1975-2019: Volume I, Secondary school students*. Ann Arbor: Institute for Social Research, The University of Michigan.

West. Census classifications of Mountain and Pacific states consist of Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, and California (Alaska and Hawaii are also included in this Census region, but are not included in the MTF study).

Population Density: Population density of the area in which the schools are located. There are three mutually exclusive groups into which schools have been placed in a given year based on population density (which has been variously defined over time by the U.S. Bureau of the Census, as described below). The 1975–1985 samples were based on the 1970 Census; in 1986, one-half of the sample was based on the 1970 Census and the other half was based on the 1980 Census. In 1987 through 1993, all samples were based on the 1980 Census; in 1994, half of the sample was based on the 1980 Census and half on the 1990 Census. Starting in 2006 until 2013, each first-year half-sample of schools comes from a sample design that utilizes 2000 Census counts as the measure of size for first-stage units. Counts from the 2010 Census will be used for the samples beginning in 2014.

The three levels of population density were defined in terms of Standard Metropolitan Statistical Area (SMSA) designations through 1985, and then changed to the new Census Bureau classifications of Metropolitan Statistical Areas (MSAs). Except in the New England states, an MSA is a county or group of contiguous counties that contain at least one city of 50,000 inhabitants or more or twin cities with a combined population of at least 50,000. In the New England states, MSAs consisted of towns and cities instead of counties until 1994, after which New England Consolidated Metropolitan Areas (NECMAs) were used to define MSAs. Each MSA must include at least one central city, and the complete title of an MSA identifies the central city or cities. For the complete description of the criteria used in defining MSAs, see the Office of Management and Budget publication, *Metropolitan Statistical Areas, 1990* (NTIS-PB90- 214420), Washington, D.C. The population living in an MSA is designated as the metropolitan population. The levels of population density used in MTF include those described here:

Large MSA. These were the 12 largest SMSAs as of the 1970 Census and were used for the 1975–1985 samples: New York, Los Angeles, Chicago, Philadelphia, Detroit, San Francisco, Washington, Boston, Pittsburgh, St. Louis, Baltimore, and Cleveland. As of the 1980 Census, the Large MSA group consisted of the 16 largest MSAs in the nation. This new structure was used for the 1986–1994 samples. These 16 MSAs include all of those mentioned above except Cleveland, plus Dallas-Fort Worth, Houston, Nassau-Suffolk, Minneapolis-St. Paul, and Atlanta.

A new sample design was developed based on the 1990 Census, beginning with the first-year half-sample of schools chosen in 1994. In the 1990s sample, only the eight largest MSAs are represented with certainty at all three grade levels; 16 other large MSAs are divided into pairs, with half randomly assigned to both the 8th- and 12th- grade samples and the other half assigned to the 10th-grade sample. The eight largest MSAs are New York, Los Angeles, Chicago, Philadelphia PA-NJ, Detroit, Washington DC-MD-VA, Dallas-Ft. Worth, and Boston. The other 16 large MSAs are Houston, Atlanta, Seattle-Tacoma, Minneapolis MN-WI, St. Louis MO-IL, San Diego, Baltimore, Pittsburgh, Phoenix, Oakland, Cleveland, Miami, Newark, Denver, San Francisco, and Kansas City MO-KS.

Other MSAs. This category consists of all other, smaller MSAs, as defined by the Census, except those listed previously.

Non-MSAs. This category consists of all areas not designated as MSAs—in other words, they do not contain a town (or twin cities) of at least 50,000 inhabitants. The population living outside of MSAs constitutes the nonmetropolitan population.

Parental Education: This is an average of mother's education and father's education based on the respondents' answers about the highest level of education achieved by each parent, using the following scale: (1) completed grade school or less, (2) some high school, (3) completed high school, (4) some college, (5) completed college, and (6) graduate or professional school after college. Missing data were allowed for one of the two parents. The respondent was instructed, "If you were raised mostly by foster parents, stepparents, or others, answer for them. For example, if you have both a stepfather and a natural father, answer for the one that was most important in raising you."

Race/ Ethnicity: From 1975 through 2004, respondents were asked, "How do you describe yourself?" and presented with a list of various racial/ethnic categories. A general instruction told them to select the *one* best response for each question. In 2005, the instructions in half of the questionnaire forms were revised in order to be more consistent with the guidelines of the Office of Management and Budget for assessing race/ethnicity. In the changed forms, respondents were presented with a list of racial/ethnic categories and instructed to "select one or more responses." An examination of the data showed that relatively few respondents (about 6% in 2005 and about 6.6% of the sample in 2014) selected more than one racial/ethnic category. Because some survey questions appear in only one or a few forms, there was some variation in the version of the race/ethnicity question upon which the 2005 data were based. Based on the analyses we have examined, we do not believe these different permutations make any appreciable difference in the results. In 2006 and thereafter the revised instruction was used in all forms. Those checking multiple racial/ethnic groups or one of the other specified groups are omitted from the reporting on race/ethnicity in this volume because of the small numbers of cases.

White/Caucasian. Consists of those respondents who describe themselves as White or Caucasian in 1975–2004. In 2005, the unchanged questionnaire forms were treated in a similar manner. For the revised question in 2005 and for all forms in 2006 and beyond, those checking only White and no other racial/ethnic group were categorized as White.

African American. Consists of those respondents who in 1975–1990 describe themselves as Black or Afro-American or who, in 1991–2004, describe themselves as Black or African American. In 2005, the unchanged questionnaire forms were treated in a similar manner; for the revised question in 2005 and for all forms in 2006 and beyond, only those checking Black or African American and no other racial ethnic group were categorized as African American.

Hispanic. Consists of those respondents who in 1975–1990 describe themselves as Mexican American or Chicano, or Puerto Rican or other Latin American. After 1990, this group includes those respondents who describe themselves as Mexican American or Chicano, Cuban American, Puerto Rican American, or other Latin American. (The term "Puerto Rican American" was shortened to "Puerto Rican" after 1994.) In 2005, the unchanged questionnaire forms were treated in a similar manner; the changed forms

in 2005 and for all forms in 2006 and beyond, only those checking Mexican American or Chicano, Cuban American, Puerto Rican, or Other Hispanic or Latino and no other racial/ethnic group were categorized as Hispanic.

TRENDS BY SUBGROUP:
SUPPLEMENTAL TABLES FOR SECONDARY SCHOOL STUDENTS

The tables in this section contain the numbers underlying the trend lines shown in the figures on subgroup trends. Trends in subgroup data for the 1975–2018 Monitoring the Future (MTF) results containing 8th, 10th, and 12th graders' use of drugs and alcohol are presented in tables below. The trends observed span major classes of drugs for population subgroups defined by gender, college plans, region, population density, parental education, and race/ethnicity. Appendix D of Volume I contains a portion of the information presented here.[5]

Due to the sheer quantity of information such trend tables generate for each prevalence measure (e.g., lifetime, annual, 30-day, daily), we have selected only the prevalence periods that seem most useful for understanding subgroup differences below. Thus, for most drugs, we include only annual prevalence; rates for additional prevalence periods are provided for alcohol, cigarettes, and smokeless tobacco because of their more frequent use. The numbers of cases that go with the data in the figures may be found in the complete set of tables that are included below.

The subgroups distinguished in these tables are used throughout Volume I and defined in the previous section. The reader should note that two-year moving averages are given for the three major racial/ethnic groups included in order to reduce fluctuations in the trends due to random sampling differences. A footnote in each table describes the procedure used to obtain the presented data. A question about race/ethnicity identification was changed in 2005 in half of the questionnaire forms; allowing respondents to select multiple categories of race/ethnicity rather than just one (see the previous section for more details). In 2006, the remaining questionnaire forms were changed in a like manner. However, we believe that this change has had little effect on the results because so few respondents selected more than one of the categories offered.

For nearly all drugs, we provide one table showing the subgroup trends (since 1991) for 8th graders, a second table of trends (since 1991) for 10th graders and a third table showing the longer-term trends (since 1975) for 12th graders. However, for two of the drugs—sedatives (barbiturates) and narcotics other than heroin— the 8th- and 10th-grade data have been omitted, as they have been throughout MTF publications because we are less certain about the validity of the answers provided by those younger students. Specifically, we believe that they often fail to omit nonprescription substances. Usage questions for a few other drugs are simply not asked of 8th and 10th graders; thus, only 12th-grade tables are presented.

Sample sizes should be taken into account when interpreting the importance of any changes observed. The numbers provided in the tables assume that all respondents in a given grade were asked about their use of the drug. Some of the drugs were not contained in all questionnaire forms, meaning that the subgroup and total numbers must be adjusted accordingly. The "Notes" section at the bottom of each table will indicate if only a fraction of the total sample received the question.

This paper also includes graphic presentations of the trends presented in the tables for the various demographic subgroups. These figures use color to help distinguish the various subgroups and improve readability.

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[5]Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2020, forthcoming). *Monitoring the Future national survey results on drug use, 1975-2019: Volume I, Secondary school students*. Ann Arbor: Institute for Social Research, The University of Michigan.

List of 2019 Tables

List of 2019 Tables (continued)

Substance	Table Number			Time Period				
	8th Grade	10th Grade	12th Grade	Lifetime	Annual	30-Day	Daily	2-Weeks
Any Vaping	141	141	141			X		
Vaping nicotine	142	142	142			X		
Vaping marijuana	143	143	143			X		
Vaping just flavoing	144	144	144			X		
Smokeless tobacco	145	146	147			X		
Daily	148	149	150				X	
Dissolvable Tobacco Products	151	152	153		X			
Snus	154	155	156		X			
Steroids	157	158	159		X			
Marijuana, Ever Daily for Month or More	—	—	160				X	
Nonprescription Diet Pills	—	—	161		X			
Nonprescription Stay-Awake Pills	—	—	162		X			
Stimulant-Type ADHD Drugs, Lifetime	163	164	165	X				
Stimulant-Type ADHD Drugs, Current	166	167	168					
Non-Stimulant-Type ADHD Drugs, Lifetime	169	170	171	X				
Non-Stimulant-Type ADHD Drugs, Current	172	173	174					
Either Type ADHD Drugs, Lifetime	175	176	177	X				
Either Type ADHD Drugs, Current	178	179	180					
Any Nicotine Use	—	—	181			X		
Any Nicotine Use other than Vaping	—	—	182			X		
Marijuana, Under a Doctor's Orders			183	X				
Powdered Alcohol	184	184	184		X			
Energy Drinks	185	186	187				X	
Energy Shots	188	189	190				X	
Either Energy Drinks or Shots	191	192	193				X	
Weighted Ns by subgroups	S1	S2	S3					

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TABLE 1
ANY ILLICIT DRUG: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	11.3	12.9	15.1	18.5	21.4	23.6	22.1	21.0	20.5	19.5	19.5	17.7	16.1	15.2	15.5
Gender:															
Male	11.7	11.9	15.2	19.4	22.3	23.6	22.6	21.3	21.3	19.7	21.3	19.2	16.4	15.0	15.2
Female	11.0	13.6	14.9	17.6	20.2	23.3	21.3	20.4	19.7	19.0	17.5	16.3	15.5	15.2	15.6
College Plans:															
None or under 4 years	22.8	25.6	30.7	34.6	38.4	40.3	39.6	41.3	39.9	38.9	38.5	36.8	34.7	33.6	35.2
Complete 4 years	9.5	10.9	12.8	16.3	19.1	21.0	19.9	18.4	18.0	17.1	17.2	15.7	14.0	13.2	13.3
Region:															
Northeast	9.3	10.6	11.5	16.6	17.9	20.3	20.2	16.0	18.2	16.6	18.1	13.8	13.1	13.0	12.3
Midwest	11.2	13.0	13.9	17.2	23.3	24.7	22.3	21.9	22.6	20.6	18.0	17.0	15.7	14.2	15.9
South	11.5	12.9	15.1	17.6	20.8	22.5	21.6	22.3	21.0	19.2	21.5	20.1	18.1	16.8	17.4
West	13.3	15.0	21.1	23.7	23.3	27.1	24.4	22.0	19.2	21.0	18.9	18.4	15.6	15.5	14.5
Population Density:															
Large MSA	10.5	12.0	13.1	16.2	15.2	23.4	20.5	19.8	19.1	18.1	16.4	15.9	14.3	14.0	14.9
Other MSA	12.1	14.4	17.3	21.5	23.7	24.9	22.6	21.4	19.5	18.8	21.5	18.3	16.2	15.9	16.2
Non-MSA	10.8	11.2	12.9	14.0	20.3	21.4	22.9	21.6	24.3	22.7	19.1	18.9	18.1	15.3	15.0
Parental Education: [b]															
1.0–2.0 (Low)	19.5	18.5	20.8	26.1	29.8	26.7	29.5	30.4	30.2	30.9	29.9	27.3	26.4	25.7	24.9
2.5–3.0	11.7	14.1	17.1	20.2	24.3	25.7	25.5	24.2	24.9	23.9	23.3	22.4	20.4	18.5	20.5
3.5–4.0	11.6	13.6	15.4	19.7	23.4	26.2	23.8	21.8	21.0	20.1	21.5	18.5	16.9	16.7	16.7
4.5–5.0	8.7	10.2	12.8	15.7	17.4	21.3	19.3	17.8	15.6	14.6	15.0	14.5	12.0	12.1	11.4
5.5–6.0 (High)	10.2	10.1	11.8	14.9	17.7	19.8	16.8	17.1	15.8	15.0	13.4	12.1	11.0	10.9	9.8
Race/Ethnicity (2-year average): [c]															
White	—	11.8	13.6	15.7	19.2	22.4	23.0	21.5	19.9	19.1	19.0	18.3	16.5	14.9	14.4
African American	—	7.9	9.3	13.0	15.8	17.5	18.1	18.1	18.6	18.3	16.7	15.1	14.6	14.6	15.6
Hispanic	—	18.1	20.6	24.6	26.7	26.9	26.5	26.7	27.4	25.1	24.3	24.8	22.8	20.9	18.8

TABLE 1 (cont.)
ANY ILLICIT DRUG: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

	Percentage who used in last 12 months														2018-2019 change
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	14.8	13.2	14.1	14.5	16.0	14.7	13.4‡	15.2	14.6	14.8	12.0	12.9	13.4	14.8	+1.5
Gender:															
Male	15.1	13.2	14.3	15.7	16.7	15.7	13.8‡	14.9	14.1	14.0	11.3	11.6	13.2	12.6	-0.5
Female	14.2	12.9	13.7	13.1	15.4	13.3	12.7‡	14.9	14.5	15.3	12.5	13.6	13.3	16.7	+3.4 ss
College Plans:															
None or under 4 years	33.1	31.9	34.5	30.7	33.6	32.1	30.1‡	31.3	29.0	27.5	25.4	24.7	25.8	27.0	+1.1
Complete 4 years	13.0	11.4	12.3	13.0	14.6	13.2	12.1‡	14.0	13.3	13.6	10.7	11.5	11.6	13.0	+1.4
Region:															
Northeast	10.8	8.1	11.3	13.8	14.1	9.8	9.6‡	12.5	12.9	11.6	7.5	10.0	8.8	10.8	+2.0
Midwest	13.9	12.9	15.5	13.5	14.2	13.0	9.9‡	13.4	13.4	15.6	12.2	11.2	11.3	13.9	+2.6
South	17.7	15.2	15.6	15.9	18.4	15.7	15.8‡	17.3	14.7	14.9	13.1	13.2	13.2	15.4	+2.2
West	13.9	13.3	12.4	13.5	15.5	18.6	15.6‡	15.5	16.7	16.1	13.0	16.0	19.2	17.6	-1.6
Population Density:															
Large MSA	13.5	11.5	12.5	12.4	15.3	13.4	12.6‡	15.9	16.0	14.8	11.3	12.5	14.0	13.1	-0.8
Other MSA	15.6	13.8	15.1	15.7	17.2	16.1	14.3‡	14.8	14.1	15.7	11.8	13.5	13.5	15.5	+2.0
Non-MSA	15.2	14.5	14.2	14.5	14.4	13.7	12.7‡	14.9	13.7	12.9	13.3	12.0	12.0	15.8	+3.8 ss
Parental Education: [b]															
1.0–2.0 (Low)	23.7	23.2	23.3	21.5	24.6	23.4	22.0‡	25.8	22.9	24.0	17.9	19.8	19.0	22.1	+3.2
2.5–3.0	18.6	16.8	19.2	19.0	20.6	20.1	18.4‡	22.1	19.6	18.8	15.1	17.5	18.0	23.2	+5.2 ss
3.5–4.0	16.5	14.9	15.3	15.8	17.1	16.4	15.4‡	17.9	16.4	16.1	13.5	13.5	15.7	16.3	+0.6
4.5–5.0	11.0	9.2	10.5	11.1	12.8	10.7	9.6‡	11.0	10.4	10.3	9.7	9.4	9.9	11.4	+1.5
5.5–6.0 (High)	9.9	8.1	9.6	9.9	10.5	8.7	7.9‡	9.0	10.5	10.0	7.8	8.7	7.5	9.1	+1.6
Race/Ethnicity (2-year average): [c]															
White	14.1	13.1	13.0	13.5	14.1	13.8	12.1	11.1‡	11.5	11.5	10.4	9.8	10.3	10.9	+0.6
African American	14.9	12.7	12.3	14.2	15.7	15.0	13.5	14.9‡	14.9	14.7	14.3	13.9	13.1	13.8	+0.7
Hispanic	17.9	16.8	16.1	16.8	18.2	19.3	19.3	18.9‡	18.9	17.9	15.8	14.3	15.5	17.6	+2.1 ss

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. The 2013 data are based on half the forms; *N* is one half of *N* indicated. Beginning in 2014 data are based on all forms. See the amphetamine notes for details of the changes.

[a] Use of any illicit drug includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of amphetamines or tranquilizers not under a doctor's orders. The use of narcotics other than heroin and sedatives (barbiturates) has been excluded because 8th and 10th graders appear to overreport their use (perhaps because they include the use of nonprescription drugs in their answers).

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 2
ANY ILLICIT DRUG: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 10

<div align="center">Percentage who used in last 12 months</div>

|	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	21.4	20.4	24.7	30.0	33.3	37.5	38.5	35.0	35.9	36.4	37.2	34.8	32.0	31.1	29.8
Gender:															
Male	21.6	20.4	25.1	31.8	33.7	38.8	40.1	35.3	37.0	39.4	39.6	35.9	33.2	32.0	30.5
Female	21.1	20.1	24.0	28.0	32.5	36.3	36.8	34.7	34.6	33.5	35.0	33.7	30.8	30.2	28.9
College Plans:															
None or under 4 years	32.7	32.0	37.7	43.2	47.3	52.4	55.2	50.5	51.8	53.5	52.7	51.5	48.6	46.9	45.8
Complete 4 years	18.9	17.8	21.9	27.0	30.8	35.0	35.7	32.2	33.2	33.9	34.6	32.1	29.2	28.9	27.6
Region:															
Northeast	21.8	19.0	26.9	29.6	32.4	37.7	37.8	39.0	38.2	34.0	37.4	35.2	32.6	32.8	31.3
Midwest	21.7	20.7	22.4	28.5	32.1	37.6	37.7	32.0	35.2	34.8	35.9	33.7	28.8	28.8	29.1
South	19.2	17.9	23.3	29.2	33.2	37.9	38.7	35.1	34.8	36.0	36.7	33.9	34.0	32.9	31.1
West	23.7	25.5	28.9	34.4	36.1	36.8	40.2	34.5	36.0	41.6	40.7	37.7	32.3	29.8	26.9
Population Density:															
Large MSA	21.4	19.9	24.0	29.4	28.7	35.5	37.2	32.6	35.0	36.5	34.0	33.0	30.5	28.9	28.0
Other MSA	22.0	20.8	25.1	32.7	35.5	40.0	40.0	36.9	37.3	36.6	39.0	36.9	32.4	32.0	31.1
Non-MSA	20.4	20.1	24.4	24.7	30.7	35.1	37.2	34.5	33.9	35.8	37.4	32.8	33.5	32.3	29.5
Parental Education: [b]															
1.0–2.0 (Low)	25.5	24.8	29.2	32.6	38.2	39.5	38.3	36.6	42.2	42.4	39.0	39.4	38.8	37.7	33.2
2.5–3.0	23.0	21.3	25.4	31.1	37.1	39.1	40.8	39.1	39.4	39.2	41.6	39.4	36.4	34.0	34.3
3.5–4.0	21.2	20.6	24.9	30.5	34.7	40.1	41.6	35.6	35.4	39.5	38.2	35.5	33.3	33.6	30.6
4.5–5.0	19.4	18.7	22.5	28.1	30.9	35.5	36.3	31.9	32.8	32.6	35.1	31.9	27.8	27.7	27.6
5.5–6.0 (High)	21.1	18.5	23.6	27.2	26.6	33.6	33.7	31.5	34.6	31.3	32.7	29.1	27.5	26.2	25.9
Race/Ethnicity (2-year average): [c]															
White	—	22.4	23.7	27.9	32.6	36.5	39.3	38.2	36.4	36.9	37.6	37.6	35.0	32.2	31.0
African American	—	10.8	11.9	18.5	23.6	27.3	30.2	28.9	28.4	29.7	30.5	28.5	27.3	29.3	29.0
Hispanic	—	23.6	26.3	30.3	34.3	40.0	41.3	38.1	38.4	39.3	38.8	36.2	33.8	34.5	32.8

TABLE 2 (cont.)
ANY ILLICIT DRUG: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

	Percentage who used in last 12 months														2018-2019 change
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	28.7	28.1	26.9	29.4	30.2	31.1	30.1‡	32.1	29.9	27.9	26.8	27.8	29.9	31.0	+1.1
Gender:															
Male	29.3	29.5	27.9	31.6	33.0	33.8	32.9‡	34.9	30.3	27.8	25.9	26.1	29.5	29.5	0.0
Female	28.1	26.7	25.6	27.3	27.3	28.2	27.5‡	29.4	29.4	27.6	27.1	28.9	30.2	32.1	+1.9
College Plans:															
None or under 4 years	46.2	45.7	47.0	48.5	48.8	50.4	46.2‡	46.2	44.4	44.3	41.0	39.1	43.2	42.1	-1.0
Complete 4 years	26.4	25.7	24.2	27.3	28.0	28.9	28.5‡	30.6	28.4	26.1	25.2	26.1	28.0	28.8	+0.8
Region:															
Northeast	27.8	27.7	28.6	26.2	27.9	30.6	33.2‡	29.7	29.5	28.9	26.0	27.8	32.3	32.5	+0.1
Midwest	28.2	28.1	25.8	26.2	28.1	29.0	26.3‡	29.9	26.6	23.9	25.5	27.5	27.4	28.8	+1.4
South	29.7	26.7	27.1	31.6	31.0	31.4	30.3‡	33.6	31.1	28.4	27.3	26.1	28.9	30.1	+1.2
West	29.0	30.2	26.2	32.6	33.3	33.2	31.6‡	34.1	31.8	30.2	27.8	30.4	32.2	33.9	+1.7
Population Density:															
Large MSA	27.3	27.9	26.4	29.0	28.9	29.5	30.8‡	31.0	30.0	28.2	26.4	29.9	31.6	31.5	-0.1
Other MSA	28.6	28.3	28.1	30.7	31.9	32.6	30.2‡	33.8	30.5	28.2	26.6	27.4	30.7	32.1	+1.4
Non-MSA	31.4	27.8	24.8	27.4	28.6	30.2	29.2‡	29.5	28.5	26.3	28.0	25.2	25.3	27.1	+1.8
Parental Education: [b]															
1.0–2.0 (Low)	36.2	32.0	33.6	39.5	37.4	37.7	39.8‡	40.5	35.0	36.8	30.1	31.8	34.1	35.1	+0.9
2.5–3.0	33.7	33.0	31.7	32.8	36.1	36.3	34.5‡	40.6	34.8	34.0	31.9	31.9	34.1	38.8	+4.6 s
3.5–4.0	30.6	30.2	29.2	30.3	31.9	33.2	31.8‡	32.1	33.6	31.8	28.7	30.4	31.8	33.7	+1.9
4.5–5.0	24.6	24.7	22.3	26.5	24.6	27.2	27.5‡	29.2	25.5	24.5	24.1	24.7	26.9	26.8	-0.1
5.5–6.0 (High)	24.3	21.7	21.7	24.5	25.7	25.1	24.8‡	24.2	24.3	20.7	23.5	24.0	26.5	25.1	-1.4
Race/Ethnicity (2-year average): [c]															
White	30.2	29.4	28.0	27.9	29.2	30.0	29.7	29.2‡	29.0	27.2	26.6	27.1	27.7	28.2	+0.5
African American	26.2	24.2	22.4	23.5	26.6	29.6	30.6	32.5‡	33.2	30.8	28.5	26.2	26.4	29.5	+3.1 ss
Hispanic	28.5	27.3	30.1	33.1	34.0	33.5	34.3	36.3‡	35.8	32.8	29.8	28.8	31.0	32.7	+1.7

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. Level of
Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See
Table S2 for the number of subgroup cases. See appendix B for definition of variables in table. The 2013 data are based on half the forms; *N* is
one half of *N* indicated. Beginning in 2014 data are based on all forms. See the amphetamine notes for details of the changes.

[a]Use of any illicit drug includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of amphetamines or tranquilizers
not under a doctor's orders. The use of narcotics other than heroin and sedatives (barbiturates) has been excluded because 8th and 10th graders appear to
overreport their use (perhaps because they include the use of nonprescription drugs in their answers).

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 3

ANY ILLICIT DRUG: [a,b] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

|	<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>
Approximate 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*
Total	45.0	48.1	51.1	53.8	54.2	53.1	52.1	49.4	47.4	45.8	46.3	44.3	41.7	38.5	35.4	32.5
Gender:																
Male	49.0	52.6	55.4	58.6	58.1	56.0	53.6	51.8	49.7	48.0	48.3	45.7	43.2	40.6	37.7	34.3
Female	41.4	43.0	46.7	48.7	50.1	49.8	50.8	46.3	44.4	42.8	43.8	42.3	39.7	36.1	32.8	30.1
College Plans:																
None or under 4 years	—	50.6	54.3	55.5	56.8	56.5	55.8	53.4	50.8	50.3	50.1	48.6	46.7	42.0	40.9	37.8
Complete 4 years	—	44.3	46.8	50.5	50.5	49.7	48.6	45.5	43.7	41.4	43.1	41.2	39.0	36.5	32.6	29.6
Region:																
Northeast	51.5	55.3	56.8	61.6	62.9	58.9	58.8	55.1	53.8	54.7	53.2	49.7	45.8	41.2	36.0	36.4
Midwest	45.5	47.6	51.9	54.6	55.0	53.1	53.4	50.3	46.9	42.4	45.7	45.0	42.7	39.7	38.7	34.0
South	38.1	42.3	46.2	47.5	45.4	47.0	43.7	42.2	41.3	41.4	37.2	37.4	35.9	34.2	30.7	27.6
West	48.3	49.7	50.0	53.2	56.4	55.8	55.5	51.7	50.7	49.1	53.3	47.8	45.7	41.8	39.5	34.4
Population Density:																
Large MSA	54.5	54.6	56.3	60.3	61.3	59.9	57.8	54.8	52.0	49.7	49.9	48.0	43.9	39.1	32.9	32.6
Other MSA	45.0	47.8	52.4	54.5	55.2	53.8	52.1	49.8	49.6	46.7	46.5	45.1	42.7	40.5	36.3	33.5
Non-MSA	38.8	43.7	45.2	47.4	47.6	47.0	47.6	44.0	41.1	41.4	43.0	40.0	37.6	34.3	36.0	30.1
Parental Education: [c]																
1.0–2.0 (Low)	—	43.4	45.3	47.7	50.2	49.5	48.1	44.3	45.1	42.7	42.8	38.1	35.4	35.8	28.4	26.6
2.5–3.0	—	49.2	51.8	53.3	53.2	53.0	51.2	48.8	46.3	45.7	46.0	44.8	41.8	37.2	35.3	32.7
3.5–4.0	—	48.9	53.1	55.1	56.1	54.2	52.8	50.8	46.5	47.6	47.2	45.6	42.2	38.6	37.7	33.8
4.5–5.0	—	50.8	51.7	56.3	57.1	54.0	53.4	49.7	48.9	44.9	48.4	44.7	43.1	40.0	35.5	33.1
5.5–6.0 (High)	—	51.3	51.8	59.1	54.3	55.0	54.8	48.5	46.1	45.5	44.5	44.5	43.5	40.6	36.3	33.3
Race/Ethnicity (2-year average:) [d]																
White	—	—	50.4	53.5	55.2	54.9	54.4	50.7	49.3	47.4	47.6	47.2	45.2	43.0	40.3	37.5
African American	—	—	40.8	42.8	41.5	40.5	39.0	36.4	38.5	37.8	35.9	33.3	28.9	25.0	21.3	17.0
Hispanic	—	—	49.9	49.5	48.4	48.1	46.8	42.7	42.0	43.1	43.9	42.8	38.9	35.4	30.1	26.4

TABLE 3 (cont.)

ANY ILLICIT DRUG: [a,b] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	29.4	27.1	31.0	35.8	39.0	40.2	42.4	41.4	42.1	40.9	41.4	41.0	39.3	38.8	38.4	36.5
Gender:																
Male	32.1	29.0	33.5	38.6	41.5	43.4	44.1	45.2	45.0	43.4	43.8	43.5	41.3	41.4	42.1	37.5
Female	26.2	24.7	27.9	32.7	35.8	36.2	40.0	37.2	38.9	38.0	38.4	37.8	36.7	35.9	34.5	35.0
College Plans:																
None or under 4 years	33.9	33.5	34.9	40.8	44.1	46.2	48.8	47.3	47.9	45.1	46.2	46.2	46.8	44.4	46.5	46.1
Complete 4 years	27.1	24.4	29.2	33.6	36.7	37.8	40.1	39.1	40.3	38.8	39.6	39.3	36.6	36.8	36.1	33.8
Region:																
Northeast	31.9	28.7	36.1	39.4	41.7	44.6	47.7	46.2	42.5	46.2	47.4	45.7	43.7	43.9	43.2	42.0
Midwest	31.3	27.8	30.8	36.5	40.9	40.9	40.6	38.1	42.1	38.9	42.0	41.6	40.0	38.2	38.8	36.3
South	24.5	23.7	28.2	34.1	36.4	37.6	38.8	40.5	40.8	35.3	37.3	38.1	34.8	35.7	36.6	34.9
West	32.6	31.1	31.8	34.7	38.2	39.1	45.9	43.1	44.2	47.4	41.9	40.5	41.4	39.6	36.3	34.6
Population Density:																
Large MSA	28.6	26.8	32.9	36.4	41.7	41.3	42.1	42.0	42.4	41.1	43.9	41.9	35.7	36.3	38.5	38.2
Other MSA	33.0	27.3	31.7	37.8	39.0	42.3	44.2	42.1	43.3	42.6	41.0	42.4	42.7	42.4	39.8	36.7
Non-MSA	23.8	27.0	28.4	31.6	35.9	35.4	39.2	39.3	39.9	37.5	39.4	37.1	37.6	34.9	35.5	33.5
Parental Education: [c]																
1.0–2.0 (Low)	28.7	27.7	29.5	32.9	37.7	36.6	40.3	38.9	40.9	41.3	38.8	35.3	35.8	34.7	32.0	37.6
2.5–3.0	28.7	26.4	29.2	35.4	38.3	39.9	40.8	40.5	43.7	40.5	41.9	39.3	39.0	37.7	38.9	38.2
3.5–4.0	29.6	28.1	31.6	36.4	38.8	40.4	42.0	42.9	42.9	41.6	42.7	43.2	41.3	42.1	41.3	37.1
4.5–5.0	28.7	26.2	31.5	36.5	39.0	40.5	43.6	40.9	40.0	39.6	41.3	42.0	38.9	38.2	38.8	33.2
5.5–6.0 (High)	31.9	26.8	33.4	35.7	40.7	40.6	44.0	41.8	42.3	41.1	40.1	40.6	36.5	37.4	36.0	37.3
Race/Ethnicity (2-year average:) [d]																
White	33.9	30.5	31.4	35.5	39.0	40.8	42.8	44.0	43.3	42.8	43.1	43.6	42.8	42.0	41.6	40.0
African American	14.7	14.5	16.6	23.5	29.6	32.4	33.0	32.3	32.8	32.7	31.7	30.4	28.3	27.7	29.0	30.0
Hispanic	29.4	30.3	28.8	31.2	35.5	38.0	41.2	41.9	42.5	44.8	41.8	39.0	35.8	34.4	34.5	34.2

TABLE 3 (cont.)
ANY ILLICIT DRUG: [a,b] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	35.9	36.6	36.5	38.3	40.0	39.7‡	40.1	38.7	38.6	38.3	39.9	38.8	38.0	-0.8
Gender:														
Male	38.4	38.8	39.9	41.4	43.2	43.5‡	43.2	39.8	39.7	39.2	40.2	39.7	37.5	-2.3
Female	33.2	34.1	33.2	34.7	36.2	35.1‡	36.5	36.9	37.2	37.0	38.9	36.8	37.7	+0.9
College Plans:														
None or under 4 years	43.7	46.0	42.7	46.5	46.6	44.3‡	47.5	44.5	42.5	40.4	42.4	42.5	42.4	-0.1
Complete 4 years	34.0	34.2	34.9	36.1	38.2	38.2‡	38.1	36.7	37.3	37.1	39.0	37.2	36.3	-0.9
Region:														
Northeast	41.9	40.0	40.5	44.1	42.8	40.9‡	43.7	43.0	43.3	40.7	42.9	42.8	39.1	-3.7
Midwest	37.3	35.1	36.5	36.3	37.9	35.3‡	35.4	38.3	35.8	37.0	41.1	40.1	37.1	-3.0
South	33.6	36.0	34.7	36.2	37.0	37.5‡	38.8	37.7	35.3	35.7	36.2	34.6	36.4	+1.8
West	33.4	36.5	36.0	38.9	44.4	46.1‡	44.3	37.0	43.1	42.3	42.8	41.7	42.1	+0.4
Population Density:														
Large MSA	37.9	37.7	40.2	39.9	41.5	43.0‡	43.2	38.8	41.6	40.8	42.4	39.9	38.4	-1.5
Other MSA	35.1	35.7	35.8	39.4	41.3	40.3‡	40.9	41.2	38.3	38.1	39.2	38.1	38.4	+0.3
Non-MSA	34.7	37.2	33.4	33.2	34.6	32.9‡	33.6	32.3	34.2	34.7	37.2	38.7	36.4	-2.3
Parental Education: [c]														
1.0–2.0 (Low)	35.6	34.6	33.0	36.9	40.3	45.4‡	41.6	40.7	40.3	37.7	37.1	36.2	37.3	+1.1
2.5–3.0	37.8	37.5	37.4	39.2	40.5	40.9‡	42.8	41.4	41.1	38.9	42.2	42.2	39.6	-2.6
3.5–4.0	35.0	35.9	38.4	40.6	41.7	40.8‡	41.8	39.1	41.0	40.3	41.6	41.2	42.1	+0.9
4.5–5.0	34.9	36.5	35.4	37.9	38.5	38.5‡	38.1	36.5	35.4	37.4	38.9	37.4	33.0	-4.4 s
5.5–6.0 (High)	36.9	36.7	36.6	32.6	37.9	34.8‡	37.9	37.1	36.1	35.5	37.5	35.6	37.9	+2.3
Race/Ethnicity (2-year average): [d]														
White	38.5	38.7	38.7	38.8	40.2	40.3	39.3‡	38.9	38.5	38.5	39.2	39.5	38.1	-1.4
African American	28.7	28.6	30.4	33.1	34.8	35.0	37.7‡	39.6	36.3	35.6	38.0	38.8	38.3	-0.4
Hispanic	32.2	31.4	32.6	34.5	37.5	40.5	42.2‡	39.9	38.6	39.7	39.5	37.2	35.9	-1.2

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 estimates and the prevalence estimates for the two most recent years is due to rounding. See Table S3 for the number of subgroup cases. See appendix B for definition of variables in table. The 2013 data are based on half the forms; *N* is one half of *N* indicated. Beginning in 2014 data are based on all forms. See the amphetamine notes for details of the changes.

[a]Use of any illicit drug includes any use of marijuana, LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of narcotics other than heroin, amphetamines, sedatives (barbiturates), methaqualone (excluded since 1990), or tranquilizers not under a doctor's orders.

[b]Beginning in 1982 the question about amphetamine use was revised to get respondents to exclude the inappropriate reporting of nonprescription amphetamines. The prevalence-of-use rate dropped slightly as a result of this methodological change.

[c]Parental education is an average score of mother's education and father's education. See appendix B for details.

[d]To 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 4
ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

|	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[b]	2002	2003	2004	2005
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
Total	8.4	9.3	10.4	11.3	12.6	13.1	11.8	11.0	10.5	10.2‡	10.8	8.8	8.8	7.9	8.1
Gender:															
Male	8.0	8.0	9.2	10.1	11.5	11.0	10.8	9.6	9.7	9.1‡	10.0	8.1	7.9	7.0	6.6
Female	8.8	10.4	11.5	12.3	13.5	14.7	12.6	12.1	11.2	10.9‡	11.2	9.3	9.4	8.8	9.3
College Plans:															
None or under 4 years	16.3	18.5	21.3	21.2	25.3	23.0	22.1	23.8	23.4	22.7‡	21.5	19.7	20.0	18.0	18.2
Complete 4 years	7.2	8.0	8.9	9.9	10.9	11.6	10.6	9.4	9.0	8.7‡	9.5	7.6	7.5	6.9	7.0
Region:															
Northeast	6.8	6.6	8.2	10.3	10.7	11.3	9.5	8.5	8.5	8.0‡	9.5	5.8	7.1	5.9	5.8
Midwest	8.6	10.4	9.4	10.2	14.0	14.3	12.5	10.5	11.9	11.2‡	9.9	8.7	8.7	7.7	8.1
South	8.6	9.7	11.0	11.7	12.5	12.6	11.8	12.5	11.2	10.3‡	12.4	10.6	10.0	9.0	9.5
West	9.3	9.8	13.4	12.7	12.7	14.0	13.0	11.1	9.3	10.5‡	10.1	8.4	7.9	8.2	7.7
Population Density:															
Large MSA	8.0	8.1	8.8	9.8	8.7	12.3	9.9	8.9	8.4	8.5‡	9.7	7.4	7.1	6.9	7.1
Other MSA	8.6	10.4	11.8	12.5	13.5	14.1	12.2	11.2	10.7	10.1‡	11.8	9.2	8.7	8.5	8.8
Non-MSA	8.6	8.9	9.8	9.8	13.2	12.1	13.0	12.8	12.8	12.3‡	10.3	9.8	11.0	8.0	8.1
Parental Education: [c]															
1.0–2.0 (Low)	12.9	12.9	14.4	15.6	18.0	15.5	14.8	17.3	16.0	15.8‡	14.3	13.0	14.1	15.2	14.3
2.5–3.0	8.5	10.1	11.8	12.4	14.2	13.9	12.9	12.2	12.1	12.2‡	13.2	10.9	10.9	8.8	10.3
3.5–4.0	8.7	10.1	10.6	11.8	14.2	14.5	12.5	11.2	11.3	10.6‡	11.7	9.0	9.0	8.4	9.0
4.5–5.0	7.1	7.5	9.1	9.5	9.7	12.0	10.6	9.4	8.5	7.7‡	8.9	7.6	6.7	6.8	5.7
5.5–6.0 (High)	7.8	8.0	8.2	9.4	10.1	11.7	10.3	9.5	8.3	8.4‡	8.0	6.5	6.8	5.9	5.3
Race/Ethnicity (2-year average): [d]															
White	—	9.0	10.0	10.8	12.6	13.9	13.5	12.5	11.5	11.1	10.6‡	10.3[e]	9.3	8.7	8.1
African American	—	4.9	5.0	5.9	5.7	5.3	4.7	4.0	4.1	3.8	3.9‡	4.4[e]	4.4	4.4	4.2
Hispanic	—	12.2	13.7	15.2	15.3	14.7	13.6	13.5	14.5	13.9	12.2‡	11.9[e]	10.8	10.4	9.9

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TABLE 4 (cont.)

**ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 8</u>**

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	7.7	7.0	7.4	7.0	7.1	6.4	5.5‡	6.3	6.4	6.3	5.4	5.8	6.1	6.5	+0.4
Gender:															
Male	6.5	5.9	6.0	6.6	6.4	6.1	4.8‡	5.5	5.3	5.1	4.7	4.4	5.8	5.2	-0.6
Female	8.7	8.0	8.7	7.3	7.7	6.5	6.0‡	6.9	7.1	7.4	6.1	6.8	6.1	7.6	+1.5 s
College Plans:															
None or under 4 years	17.7	18.1	20.3	18.2	16.4	17.2	13.0‡	14.6	14.7	11.0	11.5	10.5	11.6	12.5	+0.9
Complete 4 years	6.7	6.0	6.3	6.0	6.3	5.5	4.9‡	5.7	5.7	5.9	4.8	5.1	5.2	5.6	+0.3
Region:															
Northeast	4.4	4.4	5.2	5.0	4.6	4.4	4.1‡	4.0	4.3	5.3	3.0	3.9	3.6	4.7	+1.1
Midwest	7.1	7.4	7.6	6.7	7.0	6.0	3.7‡	5.4	5.6	5.9	4.9	4.9	4.6	6.2	+1.5 ss
South	9.8	7.8	8.8	8.4	8.3	6.7	7.3‡	8.2	7.1	6.7	6.4	6.1	6.8	6.8	0.0
West	7.4	6.9	6.7	6.3	7.0	7.8	5.4‡	5.9	7.5	6.6	5.9	7.3	8.2	7.7	-0.6
Population Density:															
Large MSA	6.6	6.1	6.8	5.5	5.7	5.7	5.1‡	5.7	5.7	5.8	4.9	6.0	7.1	5.9	-1.2
Other MSA	8.0	7.6	7.7	7.8	8.0	7.0	6.1‡	6.5	6.9	7.1	5.5	5.8	5.8	6.9	+1.1
Non-MSA	8.8	7.1	7.6	7.1	6.9	6.0	5.0‡	6.9	6.4	5.1	6.2	5.4	5.0	6.4	+1.4 s
Parental Education: [c]															
1.0–2.0 (Low)	12.3	11.9	13.6	12.4	11.5	10.7	8.3‡	10.6	9.4	9.8	8.5	9.7	8.3	9.0	+0.7
2.5–3.0	9.4	8.3	9.7	8.7	8.8	9.1	7.2‡	7.1	7.6	7.0	6.1	6.8	7.4	9.3	+1.9
3.5–4.0	8.4	7.8	8.0	7.4	7.3	7.0	6.5‡	8.2	7.0	6.8	5.4	5.8	6.8	6.5	-0.3
4.5–5.0	6.0	4.7	5.4	5.4	6.0	4.6	3.5‡	5.2	4.9	5.0	4.8	4.6	5.2	5.8	+0.6
5.5–6.0 (High)	6.2	5.5	5.7	5.1	4.7	4.3	4.4‡	4.0	5.4	5.1	4.8	4.2	4.0	4.8	+0.8
Race/Ethnicity (2-year average): [d]															
White	8.1	7.6	7.6	7.5	7.2	6.7	5.6	4.9‡	5.4	5.7	5.2	4.8	5.0	5.5	+0.5
African American	3.9	3.3	3.4	4.1	4.0	3.8	3.9	4.0‡	5.2	5.1	5.3	4.9	4.8	4.7	-0.1
Hispanic	9.2	8.6	8.4	8.6	8.7	8.7	8.1	7.4‡	7.4	7.1	6.8	6.5	7.0	7.8	+0.8

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. The 2013 data are based on half the forms; *N* is one half of *N* indicated. Beginning in 2014 data are based on all forms. See the amphetamine notes for details of the changes.

[a]Use of any illicit drug other than marijuana includes any use of LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of amphetamines or tranquilizers not under a doctor's orders. The use of narcotics other than heroin and sedatives (barbiturates) has been excluded because 8th and 10th graders appear to overreport their use (perhaps because they include the use of nonprescription drugs in their answers).

[b]In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. For the tranquilizer list of examples, Miltown was replaced with Xanax. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[c]Parental education is an average score of mother's education and father's education. See appendix B for details.

[d]To 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.

[e]Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 5

ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[b]	2002	2003	2004	2005
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
Total	12.2	12.3	13.9	15.2	17.5	18.4	18.2	16.6	16.7	16.7‡	17.9	15.7	13.8	13.5	12.9
Gender:															
Male	11.2	11.1	13.4	14.1	15.8	17.2	17.2	15.6	15.9	16.7‡	18.3	15.1	13.0	12.7	12.0
Female	13.1	13.2	14.3	16.0	18.9	19.6	19.1	17.5	17.3	16.6‡	17.4	16.4	14.3	14.2	13.6
College Plans:															
None or under 4 years	19.6	20.2	23.1	24.0	27.5	29.5	29.6	27.8	27.3	27.7‡	32.1	27.1	23.8	25.3	24.0
Complete 4 years	10.7	10.5	12.0	13.3	15.7	16.5	16.3	14.6	15.0	15.0‡	15.5	14.0	12.1	11.9	11.4
Region:															
Northeast	10.6	9.6	12.8	13.7	14.1	17.2	16.0	17.2	18.2	14.7‡	16.2	13.4	11.7	13.7	13.0
Midwest	13.2	12.9	12.8	14.8	19.0	20.0	16.2	14.4	16.1	15.8‡	16.5	15.3	13.1	12.0	12.2
South	11.9	12.2	14.7	15.3	18.4	18.6	20.8	18.3	16.8	17.5‡	19.5	16.8	15.7	14.8	13.9
West	12.7	14.1	15.6	17.2	17.2	17.4	18.7	15.8	15.7	18.5‡	19.0	16.7	13.8	13.5	12.0
Population Density:															
Large MSA	11.8	11.4	12.2	13.1	13.5	16.8	16.3	14.6	15.0	17.2‡	15.6	14.3	10.8	10.4	10.9
Other MSA	12.3	12.3	14.1	16.1	18.5	19.5	18.0	16.6	17.3	15.6‡	17.4	16.5	14.2	15.1	13.2
Non-MSA	12.4	13.1	15.0	14.6	17.6	18.3	20.8	18.9	17.5	18.1‡	21.5	16.1	17.2	14.5	14.7
Parental Education: [c]															
1.0–2.0 (Low)	14.4	16.6	18.1	17.1	20.8	22.7	19.1	21.5	19.2	20.4‡	19.6	21.0	19.1	16.5	15.9
2.5–3.0	13.7	12.5	14.6	16.3	19.7	19.4	19.9	19.1	19.1	19.4‡	20.3	18.3	16.7	15.6	14.4
3.5–4.0	12.1	12.7	14.8	15.9	18.3	19.9	19.8	16.4	16.5	17.4‡	19.7	16.1	14.5	14.6	13.7
4.5–5.0	11.0	10.9	11.7	13.3	15.9	16.6	16.5	14.1	15.4	14.5‡	15.6	13.7	11.2	11.6	11.5
5.5–6.0 (High)	11.6	10.7	12.2	12.8	13.4	15.4	15.4	14.4	15.6	14.5‡	14.6	12.2	10.5	11.0	10.8
Race/Ethnicity (2-year average): [d]															
White	—	13.7	14.4	15.4	17.7	20.0	20.5	19.7	18.7	18.6	19.2‡	18.9[e]	17.2	15.7	14.9
African American	—	4.3	4.6	5.4	5.4	4.5	4.8	4.7	4.5	4.2	4.7‡	5.7[e]	4.7	4.6	4.8
Hispanic	—	11.8	13.7	16.1	16.9	18.8	19.1	17.5	17.9	17.8	15.8‡	15.7[e]	15.2	15.1	14.9

Table continued on next page.

TABLE 5 (cont.)
ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a] **Trends in** <u>Annual</u> **Prevalence of Use**
by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	12.7	13.1	11.3	12.2	12.1	11.2	10.8‡	11.2	11.2	10.5	9.8	9.4	9.6	9.1	-0.4
Gender:															
Male	12.0	12.9	10.9	11.8	12.3	12.2	11.3‡	12.5	10.4	10.0	9.7	9.3	9.8	9.5	-0.2
Female	13.1	13.2	11.5	12.3	11.8	10.0	10.4‡	9.9	11.8	10.7	9.7	9.1	9.2	8.6	-0.6
College Plans:															
None or under 4 years	24.7	25.0	22.9	25.4	24.5	24.1	24.5‡	17.2	21.9	19.7	18.4	17.7	18.2	13.9	-4.3 ss
Complete 4 years	11.1	11.5	9.8	10.7	10.7	9.7	9.4‡	10.5	10.1	9.5	8.8	8.3	8.3	8.1	-0.3
Region:															
Northeast	10.4	11.3	8.2	9.0	9.8	9.4	9.3‡	8.5	9.8	9.9	6.8	6.7	7.4	6.1	-1.3
Midwest	12.7	13.4	11.8	11.5	12.0	10.8	10.4‡	11.0	11.8	9.0	9.2	10.3	9.6	8.5	-1.0
South	13.7	13.3	12.6	13.6	12.4	12.2	12.4‡	12.7	11.9	11.3	10.7	8.7	10.3	9.4	-0.9
West	13.3	13.8	11.5	13.7	14.1	11.7	10.3‡	11.6	10.9	11.3	11.5	11.6	10.0	11.4	+1.4
Population Density:															
Large MSA	11.5	12.0	9.9	10.7	11.2	10.4	10.0‡	10.4	10.2	10.3	9.5	9.9	9.6	8.2	-1.5
Other MSA	12.9	13.4	12.1	13.4	12.6	11.2	10.9‡	11.9	11.3	10.6	10.2	9.4	9.8	9.8	+0.1
Non-MSA	14.1	14.0	11.8	11.7	12.7	12.6	11.9‡	10.6	12.7	10.6	9.2	8.7	9.0	8.8	-0.3
Parental Education: [c]															
1.0–2.0 (Low)	16.0	15.6	15.2	18.3	15.8	13.3	16.8‡	15.2	14.1	15.1	11.3	10.5	12.5	11.5	-0.9
2.5–3.0	14.9	15.2	13.2	13.6	14.8	13.1	11.7‡	13.5	12.4	12.8	11.1	11.2	10.9	11.4	+0.5
3.5–4.0	13.4	14.2	12.7	13.0	12.9	12.0	10.9‡	11.6	13.2	12.3	11.0	9.5	9.8	9.7	-0.1
4.5–5.0	10.7	11.6	9.0	9.9	10.2	9.6	9.7‡	9.9	9.2	8.9	9.0	8.5	8.2	7.3	-0.9
5.5–6.0 (High)	11.1	9.9	8.6	10.6	9.4	9.2	9.1‡	9.1	9.0	7.4	8.3	8.5	9.1	7.4	-1.7
Race/Ethnicity (2-year average): [d]															
White	14.4	14.5	13.8	12.9	13.0	12.5	11.5	11.2‡	11.5	10.9	10.3	10.0	9.8	9.1	-0.7
African American	4.9	4.2	4.1	4.3	5.0	5.5	5.8	6.5‡	8.4	7.8	7.8	6.3	5.2	5.4	+0.3
Hispanic	13.0	11.8	12.4	13.2	13.5	12.9	12.6	12.4‡	11.7	11.1	11.1	10.6	11.0	11.0	0.0

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. The 2013 data are based on half the forms; *N* is one half of *N* indicated. Beginning in 2014 data are based on all forms. See the amphetamine notes for details of the changes.

[a]Use of any illicit drug other than marijuana includes any use of LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of amphetamines or tranquilizers not under a doctor's orders. The use of narcotics other than heroin and sedatives (barbiturates) has been excluded because 8th and 10th graders appear to overreport their use (perhaps because they include the use of nonprescription drugs in their answers).

[b]In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. For the tranquilizer list of examples, Miltown was replaced with Xanax. The 2001 data are based on the changed forms only; *N* is one half of *N* indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[c]Parental education is an average score of mother's education and father's education. See appendix B for details.

[d]To 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.
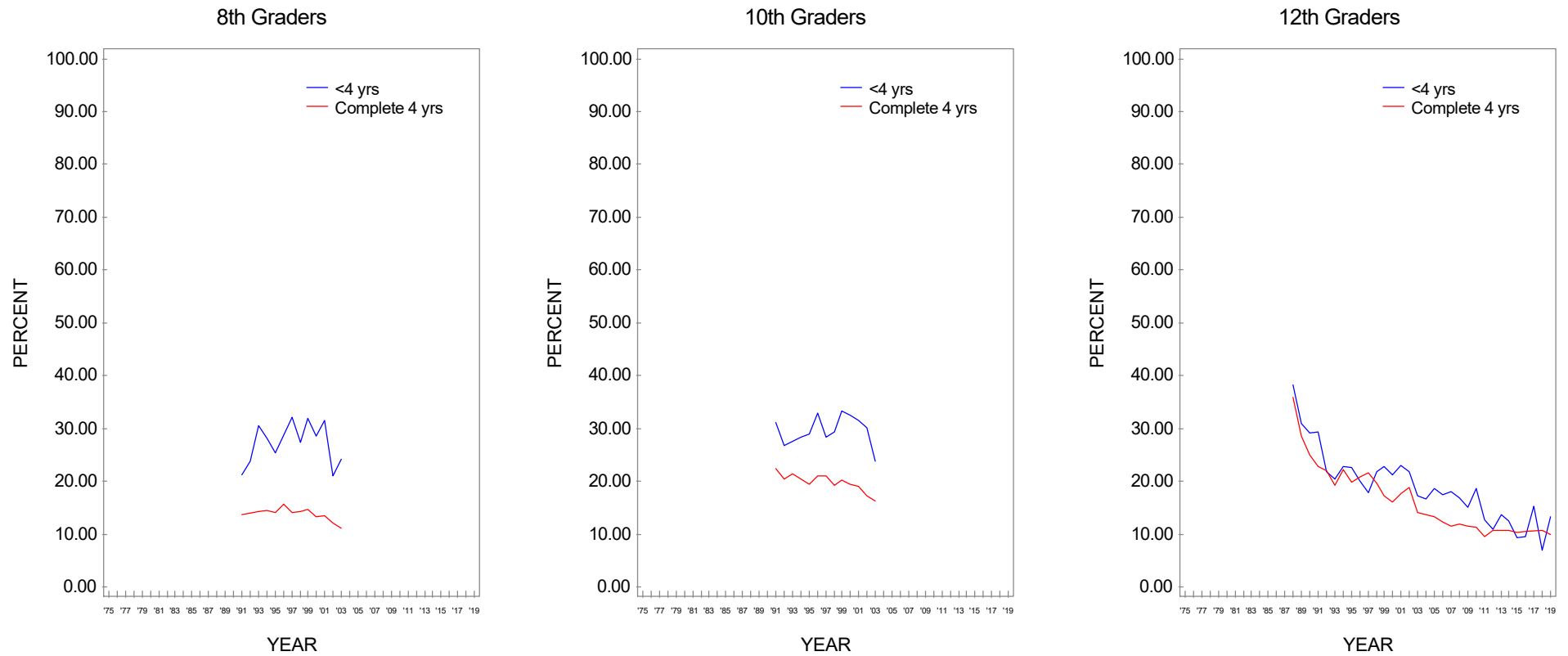
[e]Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 6

ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a,b]
Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	26.2	25.4	26.0	27.1	28.2	30.4	34.0	30.1	28.4	28.0	27.4	25.9	24.1	21.1	20.0	17.9
Gender:																
Male	25.9	25.7	26.3	27.9	29.4	30.2	32.8	31.0	28.9	28.2	27.9	26.2	24.3	22.2	21.0	19.2
Female	26.2	24.4	25.3	25.7	26.3	30.0	34.3	28.3	27.3	26.9	26.2	24.8	23.3	19.3	18.5	16.0
College Plans:																
None or under 4 years	—	28.7	30.1	30.0	31.8	35.5	38.3	34.0	32.3	32.9	31.6	31.3	28.8	24.5	25.5	23.1
Complete 4 years	—	20.9	20.8	22.7	23.5	25.5	30.1	26.0	24.7	23.3	24.1	22.2	21.3	19.0	17.2	15.2
Region:																
Northeast	26.0	26.1	27.8	30.7	32.0	32.1	38.0	33.5	31.2	33.8	32.9	29.5	25.5	20.2	19.2	17.1
Midwest	29.2	26.1	27.7	26.8	27.6	30.9	36.1	31.1	28.6	26.1	25.9	25.1	22.7	20.3	21.5	18.0
South	22.5	23.4	22.9	24.0	23.2	25.8	26.1	24.7	23.8	24.2	21.0	20.6	21.1	20.0	18.1	16.9
West	28.2	26.6	26.0	28.8	33.3	35.2	38.7	32.7	33.0	31.3	33.0	31.6	29.5	24.8	22.3	20.4
Population Density:																
Large MSA	30.3	27.5	27.1	30.2	32.1	34.6	38.3	33.8	31.5	30.5	30.4	28.3	24.5	20.7	16.9	16.0
Other MSA	26.3	25.8	26.8	27.3	28.7	30.1	33.3	30.0	29.7	27.8	26.9	26.4	24.5	22.7	20.9	18.5
Non-MSA	23.4	23.3	24.2	24.2	24.7	27.5	31.4	27.0	24.4	26.2	25.5	23.1	23.0	18.4	21.1	18.4
Parental Education: [c]																
1.0–2.0 (Low)	—	23.2	23.2	24.7	25.2	28.2	29.2	25.7	25.6	27.3	25.8	23.2	21.5	19.7	18.2	15.2
2.5–3.0	—	25.6	27.0	26.4	27.6	30.7	33.5	30.4	28.1	28.2	27.4	27.0	24.2	20.5	20.0	17.9
3.5–4.0	—	26.1	26.2	27.8	29.2	30.7	34.7	30.9	28.6	29.3	28.9	26.6	24.7	20.5	21.4	19.1
4.5–5.0	—	27.2	25.9	27.3	28.7	29.9	34.8	29.4	30.0	26.2	27.1	24.9	23.8	21.7	19.3	17.5
5.5–6.0 (High)	—	25.6	24.8	28.6	30.4	30.8	36.7	31.3	29.0	26.2	23.8	23.8	24.9	22.0	19.6	17.2
Race/Ethnicity (2-year average): [d]																
White	—	—	26.6	27.7	28.8	30.6	34.5	32.1	31.2	30.2	29.6	28.2	26.6	24.4	22.5	21.0
African American	—	—	14.2	13.4	13.0	13.8	13.2	14.5	15.2	12.9	12.0	12.1	11.1	10.3	8.6	6.5
Hispanic	—	—	23.8	23.5	23.3	24.7	27.6	25.5	25.2	26.2	27.2	26.2	23.0	20.5	17.7	15.6

TABLE 6 (cont.)
ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a,b]
Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	<u>1991</u>	<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>[e]	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	
Approximate weighted N =	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	
Total	16.2	14.9	17.1	18.0	19.4	19.8	20.7	20.2	20.7	20.4‡	21.6	20.9	19.8	20.5	19.7	19.2	
Gender:																	
Male	17.0	15.5	17.8	18.5	20.7	21.7	21.7	21.7	22.5	21.5‡	23.3	22.0	21.1	21.5	21.4	19.7	
Female	14.8	13.8	15.8	16.9	17.3	16.8	18.8	18.0	18.5	18.6‡	19.0	19.0	17.9	18.7	17.5	18.3	
College Plans:																	
None or under 4 years	20.1	19.5	19.8	22.9	23.9	24.2	25.8	26.5	24.4	24.7‡	24.5	27.2	26.5	26.0	25.3	25.4	
Complete 4 years	14.3	13.0	15.9	16.0	17.5	17.9	18.4	17.8	19.4	18.5‡	19.9	19.0	17.4	18.4	18.0	17.4	
Region:																	Table continued on next page.
Northeast	15.6	14.7	18.6	17.2	20.2	22.9	24.1	20.7	19.5	21.7‡	22.4	21.5	19.3	20.4	18.0	20.3	
Midwest	17.4	15.5	16.4	20.1	19.1	19.2	18.9	19.8	20.9	18.9‡	24.0	19.9	18.7	19.1	21.4	17.9	
South	14.4	14.0	16.0	17.3	19.0	18.6	19.8	20.3	21.2	19.0‡	18.6	21.3	19.4	20.8	20.5	19.7	
West	17.9	15.8	18.5	17.3	19.9	19.2	20.9	20.0	20.8	23.2‡	22.6	21.1	22.4	21.9	18.0	19.1	
Population Density:																	
Large MSA	14.2	13.5	15.1	16.7	20.2	18.9	18.6	19.0	17.6	19.4‡	23.6	20.6	15.9	18.0	18.6	20.1	
Other MSA	17.9	14.9	18.2	19.2	19.2	20.2	21.5	20.4	21.6	20.9‡	21.2	21.6	22.0	22.3	20.6	18.7	
Non-MSA	14.9	16.1	16.8	17.2	18.7	19.8	21.2	21.3	22.4	20.7‡	20.3	20.2	20.9	19.7	19.3	18.9	
Parental Education: [c]																	
1.0–2.0 (Low)	17.4	14.9	15.6	17.8	19.4	16.9	19.9	20.0	22.2	20.0‡	17.3	17.8	19.4	18.7	14.8	19.7	
2.5–3.0	16.8	15.0	16.1	18.5	19.4	19.7	19.4	20.1	21.0	19.9‡	20.9	20.3	19.6	20.0	20.5	19.4	
3.5–4.0	16.3	15.0	17.8	17.6	19.2	19.8	20.4	21.0	21.9	20.5‡	24.5	22.0	21.7	23.0	21.5	20.2	
4.5–5.0	14.6	14.3	17.5	18.4	19.4	19.3	21.0	19.1	19.3	20.1‡	20.1	21.2	18.5	19.7	19.7	18.6	
5.5–6.0 (High)	14.9	14.3	17.6	16.5	18.3	20.2	21.7	18.9	19.4	20.3‡	18.7	19.8	17.0	17.6	17.5	18.0	
Race/Ethnicity (2-year average): [d]																	
White	18.7	17.1	17.9	19.4	20.3	21.2	22.3	23.1	22.9	22.7	23.0‡	24.1[f]	23.0	22.8	22.7	22.0	
African American	5.7	5.3	4.8	6.1	6.9	6.0	6.4	7.1	6.8	6.4	6.3‡	6.0[f]	6.3	6.5	7.1	7.2	
Hispanic	15.8	15.1	15.6	16.5	17.9	19.7	18.9	17.5	18.5	21.2	18.2‡	16.1[f]	16.0	16.2	16.7	17.3	

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TABLE 6 (cont.)

ANY ILLICIT DRUG OTHER THAN MARIJUANA: [a,b] Trends in Annual Prevalence of Use
by Subgroups in Grade 12

Percentage who used in last 12 months

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	18.5	18.3	17.0	17.3	17.6	17.0‡	17.8	15.9	15.2	14.3	13.3	12.4	11.5	-1.0
Gender:														
Male	20.0	19.9	18.8	19.3	19.1	18.4‡	18.9	16.9	15.7	15.4	14.9	13.9	12.4	-1.4
Female	16.7	16.2	14.9	15.0	15.5	14.9‡	15.9	14.2	14.1	12.5	11.3	9.7	9.7	+0.1
College Plans:														
None or under 4 years	26.0	25.0	22.1	23.6	25.1	19.4‡	24.4	19.8	17.7	15.4	15.7	16.0	15.4	-0.6
Complete 4 years	16.7	16.5	15.7	15.7	15.8	16.1‡	16.2	14.5	14.3	13.6	12.3	10.8	10.0	-0.8
Region:														
Northeast	19.4	18.9	16.8	17.6	16.4	15.1‡	16.7	13.9	13.1	12.3	11.5	12.1	8.1	-4.0 ss
Midwest	18.4	16.8	19.1	16.9	17.5	17.2‡	18.9	16.2	15.0	15.7	12.1	12.2	11.9	-0.3
South	18.8	19.1	16.4	17.4	16.2	16.0‡	17.5	17.2	15.2	14.0	13.6	12.2	11.3	-0.9
West	17.3	18.1	15.6	17.4	20.6	19.5‡	17.9	15.1	16.9	15.0	15.1	13.3	14.7	+1.4
Population Density:														
Large MSA	18.4	16.9	15.9	17.3	16.6	18.3‡	18.1	14.6	14.8	14.3	12.5	11.0	10.7	-0.3
Other MSA	18.1	18.2	17.4	17.7	18.6	17.2‡	18.8	17.7	15.9	14.5	13.9	12.9	11.9	-1.0
Non-MSA	19.5	19.8	17.4	16.3	16.7	14.7‡	15.0	13.0	14.1	13.8	13.4	14.0	11.8	-2.2
Parental Education: [c]														
1.0–2.0 (Low)	16.7	16.4	14.7	14.9	16.0	16.5‡	15.9	14.7	16.5	13.0	10.7	11.4	10.5	-0.9
2.5–3.0	19.7	17.7	17.3	17.7	16.6	18.0‡	18.6	16.8	14.4	13.2	14.6	12.3	11.7	-0.6
3.5–4.0	18.4	18.7	17.6	18.4	18.8	17.6‡	18.3	15.7	15.8	15.4	13.4	12.4	12.9	+0.4
4.5–5.0	18.5	18.2	17.8	16.8	16.6	16.8‡	18.7	15.1	14.7	14.5	12.5	12.3	10.6	-1.8
5.5–6.0 (High)	17.4	17.9	15.4	15.7	18.3	15.2‡	16.3	16.8	16.0	14.0	14.4	12.1	10.0	-2.0
Race/Ethnicity (2-year average): [d]														
White	21.6	21.5	20.5	19.9	20.0	19.6	18.7‡	17.6	16.1	15.5	14.8	13.9	12.5	-1.4 s
African American	7.0	7.0	6.8	8.3	8.7	7.6	9.5‡	13.0	11.2	10.3	9.1	7.5	7.2	-0.3
Hispanic	15.8	13.7	13.6	12.8	12.8	13.6	14.7‡	15.1	14.0	13.7	12.7	10.8	10.1	-0.8

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. The 2013 data are based on half the forms; *N* is one half of *N* indicated. Beginning in 2014 data are based on all forms. See the amphetamine notes for details of the changes.

[a]Use of any illicit drug other than marijuana includes any use of LSD, other hallucinogens, crack, other cocaine, or heroin; or any use of narcotics other than heroin, amphetamines, sedatives (barbiturates), methaqualone (excluded since 1990), or tranquilizers not under a doctor's orders.

[b]Beginning in 1982 the question about amphetamine use was revised to get respondents to exclude the inappropriate reporting of nonprescription amphetamines. The prevalence-of-use rate dropped slightly as a result of this methodological change.

[c]Parental education is an average score of mother's education and father's education. See appendix B for details.

[d]To 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.

[e]In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens and shrooms was added to the list of examples. For the tranquilizer list of examples, Miltown was replaced with Xanax. The 2001 data are based on the changed forms only; N is one half of *N* indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[f]Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 7
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 8

Percentage who ever used

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	10.2	11.2	12.6	16.7	19.9	23.1	22.6	22.2	22.0	20.3	20.4	19.2	17.5	16.3	16.5
Gender:															
Male	11.9	11.9	14.5	19.6	22.5	25.5	24.7	24.3	24.3	22.2	23.6	22.2	19.3	17.6	18.0
Female	8.3	10.3	10.8	13.7	17.2	20.5	20.2	19.6	19.8	18.1	17.2	16.2	15.6	14.9	14.8
College Plans:															
None or under 4 years	22.9	24.5	27.9	33.1	36.2	41.6	41.8	43.5	44.1	41.2	40.8	39.8	38.0	36.9	38.5
Complete 4 years	8.1	9.0	10.4	14.3	17.7	20.2	19.9	19.4	19.1	17.6	17.9	17.1	15.2	14.1	14.0
Region:															
Northeast	7.4	9.2	8.8	15.3	16.0	19.9	20.2	15.6	18.2	17.3	18.7	15.2	13.7	13.6	12.8
Midwest	9.9	9.4	11.5	15.6	21.7	23.1	21.3	23.7	24.6	21.0	18.3	17.9	16.8	15.4	17.6
South	10.8	11.8	12.5	14.9	19.4	22.1	22.7	23.9	23.0	20.5	22.4	22.1	20.0	18.0	18.5
West	12.4	15.1	18.7	22.7	22.4	27.4	25.9	23.1	20.6	21.5	20.7	19.5	17.5	16.8	15.0
Population Density:															
Large MSA	8.9	10.5	10.6	16.7	19.6	24.0	21.6	20.4	20.5	18.8	17.3	17.3	17.1	15.0	15.7
Other MSA	11.4	12.6	15.0	19.8	21.2	24.6	23.2	22.9	21.2	19.4	22.3	19.7	17.1	17.0	17.1
Non-MSA	9.3	9.4	10.1	11.0	18.1	19.1	22.4	22.7	25.6	23.8	20.3	20.7	18.9	16.7	16.3
Parental Education: [a]															
1.0–2.0 (Low)	20.6	19.9	18.6	24.9	28.7	26.6	31.6	30.6	35.1	32.7	31.8	31.2	31.1	25.7	25.3
2.5–3.0	11.9	13.6	14.6	18.1	23.0	25.9	25.7	26.0	28.3	25.0	25.3	25.5	22.2	21.7	23.0
3.5–4.0	10.1	10.4	13.3	16.8	21.4	25.2	25.0	23.9	21.7	20.7	22.0	19.8	18.3	17.0	17.5
4.5–5.0	6.6	7.9	10.0	13.8	16.3	20.1	19.8	17.9	16.2	14.8	15.3	14.9	12.7	12.7	11.7
5.5–6.0 (High)	6.7	7.3	8.7	14.1	14.9	18.8	15.5	16.8	15.2	14.6	12.8	11.8	11.3	10.5	9.8
Race (2-year average): [b]															
White	—	9.9	11.0	12.9	16.6	20.5	22.0	21.1	20.0	19.0	18.5	18.0	16.6	15.1	14.6
African American	—	7.4	9.3	13.2	17.1	19.7	21.7	23.0	23.9	23.8	22.2	20.2	19.7	19.9	20.5
Hispanic	—	19.0	20.3	23.3	26.3	27.2	28.6	29.6	29.7	27.1	26.2	27.4	26.1	23.7	20.5

TABLE 7 (cont.)
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 8

						Percentage who ever used									2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	15.7	14.2	14.6	15.7	17.3	16.4	15.2	16.5	15.6	15.5	12.8	13.5	13.9	15.2	+1.3
Gender:															
Male	17.1	15.2	16.3	17.9	18.9	18.1	16.5	17.0	15.8	16.0	12.8	13.4	14.4	13.6	-0.8
Female	14.0	12.8	12.7	13.4	15.8	14.1	13.6	15.6	14.7	14.6	12.8	13.3	13.3	16.4	+3.2 s
College Plans:															
None or under 4 years	35.4	35.3	35.0	32.2	36.8	35.5	32.9	34.3	29.2	30.0	27.8	26.3	26.9	27.0	+0.1
Complete 4 years	13.6	12.2	12.7	14.3	15.7	14.8	13.8	15.2	14.4	14.1	11.5	12.0	12.1	13.5	+1.4
Region:															
Northeast	12.6	8.8	11.7	14.2	15.5	10.4	10.0	13.1	12.8	10.9	8.6	10.1	9.4	9.7	+0.3
Midwest	15.6	13.5	16.6	15.3	15.1	13.8	12.2	13.3	14.5	16.4	13.0	11.5	11.1	14.0	+2.8
South	18.4	16.6	15.8	17.2	19.9	17.8	17.6	19.4	15.8	15.9	14.0	13.7	13.5	16.7	+3.2
West	13.6	14.0	12.9	14.9	16.6	21.5	18.3	17.4	18.1	16.7	13.7	17.3	20.5	17.8	-2.7
Population Density:															
Large MSA	14.7	11.6	12.9	13.1	16.5	14.7	14.4	17.4	17.6	15.6	12.5	12.5	14.0	13.3	-0.7
Other MSA	16.2	15.3	15.9	17.1	18.3	17.8	15.8	15.0	14.7	15.9	12.4	14.6	14.0	15.9	+1.9
Non-MSA	16.2	15.4	14.2	16.3	16.3	16.1	15.3	18.2	14.3	14.1	14.4	12.0	13.5	16.6	+3.1
Parental Education: [a]															
1.0–2.0 (Low)	25.6	26.6	24.5	24.1	26.2	27.8	27.8	29.1	25.2	25.3	20.9	21.6	22.4	24.6	+2.2
2.5–3.0	20.8	19.8	19.7	21.2	23.1	23.0	22.2	23.4	21.8	20.5	18.0	18.9	20.0	25.0	+5.0 s
3.5–4.0	17.2	15.5	16.0	17.2	18.9	18.1	16.7	18.6	18.0	17.3	14.3	14.8	16.3	17.3	+1.0
4.5–5.0	11.1	9.2	11.0	11.4	13.3	11.7	10.6	11.6	10.4	9.6	10.0	9.2	9.0	10.2	+1.2
5.5–6.0 (High)	9.3	6.5	8.3	9.7	10.3	8.6	7.6	9.4	10.0	9.4	6.6	8.1	7.1	8.8	+1.7
Race (2-year average): [b]															
White	14.1	12.9	12.5	13.3	14.4	14.3	12.7	11.7	11.4	10.9	10.0	9.5	9.9	10.3	+0.4
African American	19.5	16.4	15.9	18.1	19.9	18.9	17.2	18.9	18.8	17.6	17.2	17.0	15.6	16.7	+1.1
Hispanic	19.3	19.1	18.1	18.5	20.4	21.8	22.8	22.1	21.2	20.0	17.5	15.5	16.4	18.5	+2.0 s

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-of-use estimates for the two most recent classes is due to
rounding. See Table S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 10

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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*
Total	23.4	21.4	24.4	30.4	34.1	39.8	42.3	39.6	40.9	40.3	40.1	38.7	36.4	35.1	34.1
Gender:															
Male	25.3	23.3	27.0	33.6	36.2	42.3	45.1	41.6	43.3	44.2	43.9	41.7	38.5	37.2	36.1
Female	21.4	19.3	21.7	26.8	31.6	37.3	39.3	37.6	38.4	36.3	36.4	35.8	34.1	32.9	31.8
College Plans:															
None or under 4 years	37.7	34.6	39.4	44.9	49.5	55.9	60.6	56.1	59.6	58.1	56.7	57.5	53.3	51.7	50.5
Complete 4 years	20.2	18.4	21.1	27.1	31.4	37.0	39.2	36.5	37.8	37.5	37.4	35.7	33.5	32.8	31.7
Region:															
Northeast	22.3	19.3	26.5	30.0	33.1	39.6	41.2	41.9	41.0	37.4	38.8	38.2	36.1	36.0	35.0
Midwest	23.2	20.8	21.7	27.4	30.8	38.0	41.3	35.7	40.3	38.0	38.8	36.6	32.3	32.1	33.4
South	21.3	19.4	23.1	29.8	34.9	41.3	41.9	39.8	39.6	39.8	39.6	38.0	38.9	37.4	35.6
West	27.4	27.4	29.4	36.7	38.4	39.4	45.7	41.4	43.6	46.9	45.2	43.2	37.8	34.8	31.5
Population Density:															
Large MSA	23.6	20.5	23.5	30.9	32.4	38.3	42.2	36.8	40.3	39.9	36.4	37.0	35.6	33.6	33.2
Other MSA	24.9	22.0	25.5	33.6	37.2	42.5	44.1	41.7	42.0	41.2	42.4	40.9	36.5	35.1	34.7
Non-MSA	20.6	21.1	23.2	24.0	30.0	36.2	39.1	38.8	39.2	38.9	39.8	36.4	37.2	37.0	33.9
Parental Education: [a]															
1.0–2.0 (Low)	30.3	28.7	32.0	35.8	39.3	40.8	46.2	43.2	49.0	46.1	44.0	45.9	43.1	45.6	40.1
2.5–3.0	26.2	22.9	26.0	32.8	38.0	42.3	45.7	45.2	45.2	44.3	45.7	44.8	41.9	40.3	40.0
3.5–4.0	23.4	21.4	24.6	30.8	35.5	42.4	44.8	40.1	40.9	44.0	40.6	38.1	37.9	37.6	34.9
4.5–5.0	20.3	18.8	20.4	27.0	31.7	37.4	38.9	35.0	36.8	35.7	37.3	35.2	31.2	30.0	30.4
5.5–6.0 (High)	20.0	17.7	21.9	25.9	26.8	34.7	35.4	33.8	36.2	32.7	33.8	31.4	29.7	27.5	28.2
Race (2-year average): [b]															
White	—	23.0	23.2	27.2	32.3	37.1	41.1	40.9	39.9	40.1	39.7	39.3	37.4	35.1	33.7
African American	—	16.2	16.2	22.1	28.6	34.3	38.1	37.1	37.3	39.5	40.1	38.1	36.9	38.0	38.3
Hispanic	—	26.9	28.8	33.5	37.5	42.2	46.5	46.6	46.5	46.0	44.9	41.9	39.4	39.9	38.8

Percentage who ever used

TABLE 8 (cont.)
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 10

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	31.8	31.0	29.9	32.3	33.4	34.5	33.8	35.8	33.7	31.1	29.7	30.7	32.6	34.0	+1.5
Gender:															
Male	32.9	33.5	31.7	35.8	36.9	37.8	37.1	38.9	35.2	31.7	29.2	29.9	32.4	32.9	+0.5
Female	30.6	28.4	28.0	29.0	29.8	31.2	30.6	32.6	31.9	30.2	29.8	31.0	32.5	34.8	+2.3
College Plans:															
None or under 4 years	51.6	50.3	51.7	52.8	54.5	54.1	51.3	53.3	50.5	48.3	44.0	42.5	46.8	46.6	-0.3
Complete 4 years	29.2	28.3	27.0	30.0	30.9	32.2	31.9	33.9	31.8	29.3	28.1	28.9	30.4	31.6	+1.2
Region:															
Northeast	30.6	30.6	31.5	29.4	30.8	33.7	35.7	32.7	31.8	31.3	28.2	30.1	34.1	35.2	+1.1
Midwest	30.7	29.9	27.8	28.5	31.1	31.9	28.6	32.8	30.0	26.9	28.4	29.6	29.2	30.9	+1.7
South	33.0	30.7	31.1	35.0	35.2	35.7	34.5	38.6	34.6	31.9	30.3	29.6	32.0	34.2	+2.3
West	32.3	32.7	29.0	34.9	35.4	36.4	36.7	37.8	37.4	33.9	31.4	33.9	35.8	36.1	+0.3
Population Density:															
Large MSA	29.6	31.0	30.1	31.4	31.2	32.5	33.8	34.1	33.3	30.7	29.2	31.2	34.8	33.4	-1.4
Other MSA	31.7	30.9	30.2	33.4	35.3	36.5	34.1	37.5	34.4	31.3	29.1	30.9	33.4	35.7	+2.4
Non-MSA	35.3	31.0	28.6	31.2	32.7	33.7	32.9	34.4	32.5	31.1	32.4	29.5	27.2	30.3	+3.1
Parental Education: [a]															
1.0–2.0 (Low)	41.7	37.4	39.7	43.8	43.6	44.4	47.5	45.3	40.9	42.6	34.7	35.8	38.3	40.8	+2.5
2.5–3.0	39.1	37.8	35.8	37.2	40.4	41.6	39.8	43.7	41.2	38.8	37.0	36.4	39.2	43.1	+4.0
3.5–4.0	33.0	32.8	32.3	33.9	35.5	36.9	35.6	38.1	38.0	35.3	31.7	33.1	34.9	36.9	+1.9
4.5–5.0	26.7	26.3	24.0	28.0	26.6	28.7	30.4	31.5	27.9	26.2	26.1	27.4	28.3	28.8	+0.5
5.5–6.0 (High)	25.0	22.2	21.8	25.1	27.0	25.9	26.2	26.5	25.4	22.3	24.4	24.8	26.1	26.2	+0.1
Race (2-year average): [b]															
White	32.4	31.2	29.6	29.7	31.3	32.1	31.8	31.7	31.6	29.8	28.9	28.7	28.8	29.8	+1.1
African American	36.0	32.9	30.0	29.7	32.6	37.0	38.3	38.7	38.3	35.6	33.0	31.7	32.4	34.9	+2.4 s
Hispanic	34.7	32.1	34.8	37.8	38.9	38.9	40.4	42.9	42.1	39.3	35.2	33.5	35.3	36.8	+1.5

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-of-use estimates for the two most recent classes is due to rounding. See Table S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

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TABLE 9
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 12

Percentage who ever used

|	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	47.3	52.8	56.4	59.2	60.4	60.3	59.5	58.7	57.0	54.9	54.2	50.9	50.2	47.2	43.7	40.7
Gender:																
Male	52.7	58.9	61.9	64.4	65.0	64.4	62.5	61.5	59.9	57.9	56.6	53.3	52.0	49.8	46.6	43.6
Female	42.7	46.1	50.8	53.9	55.7	56.1	56.2	55.5	53.4	51.3	51.5	48.2	48.0	44.5	40.4	37.3
College Plans:																
None or under 4 years	—	55.3	59.6	61.4	62.9	64.3	63.5	63.8	61.2	60.7	59.1	56.0	57.0	53.6	51.5	48.0
Complete 4 years	—	48.7	52.0	55.5	56.8	56.8	55.9	54.0	52.2	49.7	50.2	47.5	46.4	44.0	39.7	37.2
Region:																
Northeast	56.3	60.7	62.5	66.7	69.8	67.4	67.8	64.6	63.7	64.0	62.2	56.8	55.7	49.6	45.4	44.5
Midwest	46.9	52.1	56.0	60.6	60.9	60.2	59.9	59.8	57.0	52.3	53.8	52.0	50.1	48.0	46.8	42.6
South	38.8	45.7	51.4	52.4	51.6	53.6	50.8	51.1	50.8	49.1	44.5	43.7	43.6	42.4	38.2	35.4
West	52.5	55.9	57.1	59.0	62.1	62.9	63.2	61.7	59.2	59.8	60.4	53.8	55.1	52.0	48.4	43.0
Population Density:																
Large MSA	58.1	60.1	62.5	66.2	68.5	67.9	65.9	64.0	62.3	59.3	59.2	55.8	53.2	47.8	41.4	40.8
Other MSA	48.1	52.3	57.7	60.2	62.0	61.0	59.6	59.6	58.8	56.0	54.6	51.5	52.0	49.7	45.0	42.5
Non-MSA	39.6	47.8	49.7	51.9	52.1	53.9	54.6	53.1	50.5	49.8	49.3	45.9	43.5	41.9	43.2	36.9
Parental Education: [a]																
1.0–2.0 (Low)	42.3	47.8	50.1	53.1	56.5	57.3	56.5	55.4	56.2	52.6	52.9	47.0	46.1	48.0	39.5	38.1
2.5–3.0	47.0	54.4	56.9	59.1	60.1	61.0	59.0	58.8	56.7	55.6	54.5	52.1	51.6	47.0	45.5	42.2
3.5–4.0	45.6	53.2	58.8	60.5	61.9	60.8	60.0	60.7	56.6	56.3	55.6	51.7	51.0	47.9	45.6	42.1
4.5–5.0	48.5	55.5	57.6	61.6	61.8	60.9	60.9	59.8	58.0	53.2	54.5	50.7	49.7	47.7	42.2	40.4
5.5–6.0 (High)	46.9	57.3	56.9	63.3	61.5	62.0	61.6	58.4	56.7	53.7	50.0	49.5	49.5	45.0	40.7	37.9
Race (2-year average): [b]																
White	—	—	55.1	58.7	60.6	61.3	61.3	60.7	58.8	56.5	55.5	53.8	52.2	51.1	48.3	45.4
African American	—	—	48.5	50.8	50.7	51.4	51.1	51.4	53.9	52.6	49.7	46.9	42.6	38.8	33.4	27.7
Hispanic	—	—	55.6	54.7	55.3	56.7	53.9	53.9	54.4	54.5	53.4	51.0	47.7	46.0	42.8	38.5

Table continued on next page.

TABLE 9 (cont.)
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 12

Percentage who ever used

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	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
Total	36.7	32.6	35.3	38.2	41.7	44.9	49.6	49.1	49.7	48.8	49.0	47.8	46.1	45.7	44.8
Gender:															
Male	40.3	36.3	38.9	42.8	45.2	48.6	52.0	53.2	52.1	51.5	51.9	50.7	50.1	48.5	49.1
Female	32.8	28.6	31.2	33.7	37.7	40.7	46.6	44.6	47.0	45.7	45.7	44.7	42.0	42.6	40.2
College Plans:															
None or under 4 years	43.6	41.8	41.7	44.6	48.8	53.1	56.5	55.6	57.2	55.2	55.9	55.5	55.6	52.6	54.7
Complete 4 years	33.8	28.8	32.7	35.6	38.8	41.8	47.2	46.4	47.0	45.9	46.6	45.6	42.9	43.5	42.1
Region:															
Northeast	40.4	34.5	41.1	44.3	44.5	48.9	54.3	54.1	50.8	52.5	54.9	52.4	50.0	51.2	50.4
Midwest	39.3	32.1	34.5	37.3	43.3	45.4	47.0	45.1	48.1	46.9	48.2	48.2	48.2	45.6	44.0
South	31.2	29.9	32.9	36.1	39.2	41.9	46.3	48.3	48.8	43.6	44.9	44.6	40.9	42.0	43.1
West	39.3	36.8	35.7	37.7	41.5	45.3	54.6	51.0	52.3	56.1	51.2	48.3	48.6	46.5	43.4
Population Density:															
Large MSA	36.1	32.5	36.5	38.6	44.1	46.4	48.9	50.7	50.3	49.1	50.1	48.1	43.4	42.8	45.5
Other MSA	41.4	32.6	36.3	40.7	42.1	47.8	52.6	50.3	50.6	50.2	49.1	50.5	49.5	49.3	45.9
Non-MSA	29.4	32.7	32.7	33.2	38.3	38.2	44.5	44.5	47.4	45.9	47.5	42.2	43.5	42.2	41.8
Parental Education: [a]															
1.0–2.0 (Low)	38.0	36.6	34.6	35.4	39.8	42.1	46.0	45.6	50.5	51.9	48.8	42.8	44.5	43.1	39.6
2.5–3.0	36.8	32.9	34.8	38.5	41.8	44.8	49.7	50.2	51.5	50.4	50.5	49.4	47.8	47.3	47.8
3.5–4.0	36.8	33.2	36.7	39.3	41.7	45.0	49.3	50.5	51.2	49.3	50.4	50.1	47.1	49.0	47.5
4.5–5.0	35.5	30.0	34.3	38.3	40.7	45.5	49.7	48.0	46.2	45.8	47.9	47.1	45.4	43.3	43.4
5.5–6.0 (High)	38.0	29.6	34.9	37.6	43.2	44.2	51.1	47.8	47.6	47.2	45.1	45.4	41.9	42.8	40.7
Race (2-year average): [b]															
White	41.3	36.3	35.6	38.3	41.1	43.9	48.3	50.9	50.3	49.4	49.8	49.9	48.8	48.2	47.5
African American	24.9	23.0	24.1	29.4	34.7	39.0	41.3	42.7	45.1	45.7	43.5	41.7	40.0	39.1	39.0
Hispanic	39.9	40.5	36.8	36.6	39.8	43.5	48.6	50.2	51.1	55.0	52.0	47.6	44.2	42.7	42.8

TABLE 9 (cont.)
MARIJUANA: Trends in Lifetime Prevalence of Use by Subgroups in Grade 12

Percentage who ever used

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	42.3	41.8	42.6	42.0	43.8	45.5	45.2	45.5	44.4	44.7	44.5	45.0	43.6	43.7	+0.1
Gender:															
Male	43.7	44.8	44.8	45.4	47.1	48.7	49.2	49.1	46.2	46.2	45.5	45.7	43.5	43.7	+0.2
Female	40.6	38.6	40.1	38.1	40.0	41.8	40.5	41.3	42.3	43.3	43.3	43.9	42.8	42.9	+0.1
College Plans:															
None or under 4 years	53.3	49.8	54.2	50.4	54.7	52.6	53.6	54.1	52.0	51.0	48.2	49.0	48.9	49.3	+0.4
Complete 4 years	39.2	39.5	39.6	39.8	41.0	43.5	43.0	43.1	42.0	43.1	43.0	43.6	41.8	41.6	-0.2
Region:															
Northeast	48.5	48.9	46.7	45.4	50.3	48.8	47.3	49.5	46.7	49.2	46.6	48.0	48.3	44.5	-3.8
Midwest	42.5	42.5	41.3	42.1	40.8	43.0	39.4	38.8	43.5	41.0	41.8	46.1	45.0	41.6	-3.4
South	41.0	40.0	42.0	40.2	41.6	42.8	43.5	45.0	43.2	41.3	42.0	42.0	38.6	42.4	+3.8
West	38.9	37.9	42.0	41.7	45.1	50.1	52.1	50.0	45.1	50.5	50.0	46.8	47.3	49.1	+1.8
Population Density:															
Large MSA	44.4	43.6	44.4	45.6	45.4	47.9	48.1	48.5	44.1	47.2	46.5	47.4	44.4	44.5	+0.2
Other MSA	42.3	41.2	41.2	40.4	45.1	46.3	45.4	46.5	46.6	44.5	44.9	44.1	42.9	43.2	+0.4
Non-MSA	39.5	40.2	43.8	40.8	38.2	40.3	40.1	38.5	39.2	40.8	40.8	43.2	43.8	43.6	-0.3
Parental Education: [a]															
1.0–2.0 (Low)	46.8	44.6	42.6	42.7	44.5	48.3	52.6	50.8	48.4	48.8	47.7	43.2	42.9	45.6	+2.7
2.5–3.0	46.1	45.0	46.3	44.2	45.6	48.6	48.2	49.0	48.9	48.6	46.5	48.5	46.9	46.5	-0.4
3.5–4.0	43.3	41.5	42.9	44.0	45.6	47.3	46.3	47.9	45.5	46.8	47.4	47.1	46.3	47.8	+1.5
4.5–5.0	37.1	39.4	40.1	38.7	42.8	42.2	42.7	41.4	41.3	41.1	41.8	43.5	42.0	37.2	-4.8 s
5.5–6.0 (High)	40.5	39.0	40.2	38.4	36.9	40.9	38.6	39.0	39.0	39.5	37.9	40.5	38.6	41.7	+3.1
Race (2-year average): [b]															
White	45.3	43.3	43.4	43.3	43.3	44.8	45.2	44.0	43.7	43.8	43.6	44.3	44.2	42.7	-1.5
African American	38.9	37.7	38.0	40.0	41.0	41.8	42.1	43.8	43.7	41.1	41.8	43.7	43.7	43.0	-0.7
Hispanic	43.1	41.3	40.1	40.7	42.3	45.6	48.7	50.7	48.7	48.2	50.3	47.7	43.7	43.6	-0.1

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-of-use estimates for the two most recent classes is due to

rounding. See Table S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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

MARIJUANA: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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*
Total	6.2	7.2	9.2	13.0	15.8	18.3	17.7	16.9	16.5	15.6	15.4	14.6	12.8	11.8	12.2
Gender:															
Male	7.3	7.4	10.5	15.1	17.7	19.6	19.2	18.0	18.1	16.7	18.1	17.0	13.9	12.3	13.0
Female	5.1	6.9	8.0	10.9	13.7	16.9	16.1	15.3	14.9	14.3	12.8	12.4	11.5	11.2	11.4
College Plans:															
None or under 4 years	15.8	17.5	22.4	27.7	30.3	34.6	34.5	35.0	34.9	33.6	34.4	33.1	31.3	29.0	30.5
Complete 4 years	4.6	5.5	7.3	11.0	13.8	15.8	15.5	14.5	14.0	13.4	13.2	12.7	10.7	10.0	10.2
Region:															
Northeast	5.0	5.8	6.2	12.1	13.0	15.3	16.2	11.7	14.4	13.2	14.5	11.3	10.0	10.2	9.8
Midwest	5.9	6.0	8.0	12.0	17.5	18.6	17.0	18.1	18.5	16.6	14.1	14.3	12.3	10.9	12.8
South	6.1	7.3	9.0	11.4	14.7	17.1	17.2	17.9	16.7	15.2	16.8	16.3	14.4	12.9	13.5
West	7.8	10.3	14.8	18.1	18.4	22.5	20.6	18.2	15.6	16.9	15.5	15.3	12.9	12.3	11.4
Population Density:															
Large MSA	5.2	6.7	8.0	13.1	15.6	18.3	16.4	16.0	15.6	14.5	12.4	12.7	11.5	10.8	11.7
Other MSA	7.2	8.3	10.9	15.7	17.2	19.5	18.2	17.4	15.4	14.8	17.4	15.2	12.9	12.4	12.9
Non-MSA	5.3	5.7	7.2	8.0	13.7	15.8	18.0	16.9	19.7	18.5	15.3	16.1	14.1	11.9	11.6
Parental Education: [a]															
1.0–2.0 (Low)	13.2	12.7	13.6	18.7	23.0	20.2	24.8	25.0	25.8	26.2	26.0	24.2	22.5	19.7	18.2
2.5–3.0	7.0	7.7	10.7	14.5	17.9	20.6	20.3	20.0	20.8	19.4	19.5	18.7	16.5	15.4	17.4
3.5–4.0	6.2	7.0	9.7	13.2	17.2	20.2	19.5	17.7	16.3	15.9	16.7	15.4	13.7	12.8	12.8
4.5–5.0	3.7	5.4	7.4	10.9	12.7	16.2	15.7	13.7	11.7	10.8	11.1	11.4	8.9	9.0	8.9
5.5–6.0 (High)	4.6	5.2	6.4	11.0	13.0	14.7	12.1	12.7	12.4	11.5	9.4	9.7	8.0	7.7	7.1
Race/Ethnicity (2-year average): [b]															
White	—	6.4	7.8	10.0	13.5	16.7	17.8	16.7	15.4	14.9	14.7	14.5	13.0	11.5	11.1
African American	—	4.1	5.7	8.9	11.9	14.0	15.3	16.0	16.3	16.1	14.6	12.7	12.6	12.8	13.6
Hispanic	—	11.9	13.9	18.1	20.4	20.8	21.8	22.7	22.8	20.1	19.9	21.1	19.1	16.7	14.7

Table continued on next page.

TABLE 10 (cont.)
MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months														2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	11.7	10.3	10.9	11.8	13.7	12.5	11.4	12.7	11.7	11.8	9.4	10.1	10.5	11.8	+1.3
Gender:															
Male	12.7	11.2	12.2	13.5	15.0	14.0	12.2	12.6	11.9	11.9	9.3	9.6	10.6	10.2	-0.4
Female	10.4	9.3	9.5	10.0	12.4	10.6	10.4	12.5	11.0	11.4	9.3	10.3	10.2	13.0	+2.8 s
College Plans:															
None or under 4 years	28.8	28.1	27.7	26.7	30.7	27.6	28.4	27.8	24.1	24.3	22.2	21.1	21.6	21.9	+0.4
Complete 4 years	10.0	8.6	9.4	10.5	12.3	11.2	10.1	11.6	10.6	10.6	8.2	8.8	8.9	10.3	+1.4
Region:															
Northeast	9.3	6.4	8.3	11.9	12.2	7.8	7.9	10.1	10.3	8.7	6.0	7.8	7.4	8.2	+0.8
Midwest	11.0	9.8	12.6	11.1	12.1	10.7	8.5	10.5	10.7	13.1	10.0	8.7	8.4	10.9	+2.5
South	13.8	11.9	11.5	12.5	15.2	13.3	13.2	14.5	11.5	11.6	9.9	9.8	9.7	12.0	+2.3
West	10.6	10.5	10.3	11.2	13.7	16.8	14.1	13.7	14.0	12.9	10.2	13.6	16.0	14.6	-1.4
Population Density:															
Large MSA	10.3	8.7	9.9	10.1	13.5	11.4	10.7	13.5	13.6	12.0	9.1	9.5	10.8	9.9	-0.9
Other MSA	12.5	10.8	11.8	12.8	14.3	14.0	12.3	11.7	10.8	12.2	8.9	10.9	10.7	12.6	+1.9
Non-MSA	12.0	11.4	10.4	11.8	12.3	11.2	10.8	13.6	10.9	10.4	10.9	9.2	9.5	12.8	+3.3 s
Parental Education: [a]															
1.0–2.0 (Low)	19.4	19.4	18.5	17.6	20.7	20.2	19.2	21.9	19.3	19.0	14.3	16.0	15.9	18.8	+2.9
2.5–3.0	15.1	13.8	14.6	15.8	18.4	17.5	16.3	18.3	16.7	15.8	13.0	14.7	15.1	19.5	+4.4 s
3.5–4.0	13.1	11.3	11.8	13.0	14.7	14.0	13.0	15.1	12.9	12.9	10.7	10.6	12.5	13.4	+0.9
4.5–5.0	8.0	7.2	8.2	8.7	10.6	9.1	8.2	8.6	8.0	7.6	7.4	6.7	7.0	8.0	+0.9
5.5–6.0 (High)	7.1	4.9	6.7	7.4	8.1	6.6	5.8	6.6	7.9	7.3	4.7	6.7	5.2	6.8	+1.6
Race/Ethnicity (2-year average): [b]															
White	10.9	9.9	9.6	10.3	11.5	11.4	10.0	9.1	8.9	8.7	7.8	7.3	7.5	8.0	+0.5
African American	12.9	11.1	10.6	12.3	14.1	13.6	12.4	13.6	13.2	11.9	11.7	11.5	10.7	11.6	+0.9
Hispanic	14.3	13.7	13.2	13.6	15.3	16.9	17.2	16.8	16.0	15.0	12.8	11.4	12.4	14.3	+1.9 ss

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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
MARIJUANA: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

|	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	16.5	15.2	19.2	25.2	28.7	33.6	34.8	31.1	32.1	32.2	32.7	30.3	28.2	27.5	26.6
Gender:															
Male	17.7	16.3	21.2	28.2	30.6	36.0	37.3	32.2	34.3	36.1	36.0	32.3	30.0	29.0	28.1
Female	15.1	13.9	16.9	21.9	26.5	31.4	32.3	30.1	29.7	28.4	29.6	28.4	26.4	25.8	24.9
College Plans:															
None or under 4 years	26.9	25.1	31.5	37.3	41.8	48.9	51.5	46.8	48.3	48.8	47.4	46.6	44.6	41.9	41.4
Complete 4 years	14.2	13.0	16.5	22.4	26.4	31.0	32.0	28.2	29.3	29.7	30.3	27.7	25.5	25.4	24.6
Region:															
Northeast	17.1	14.9	22.4	25.6	28.8	34.8	34.6	35.4	34.4	30.3	34.1	31.7	29.5	29.2	28.7
Midwest	15.8	14.8	17.4	23.4	26.6	33.1	34.4	28.5	31.6	31.1	31.7	29.0	25.0	25.3	26.4
South	14.5	12.5	16.4	23.8	28.4	33.9	34.4	30.7	30.9	31.4	31.2	28.9	29.6	29.0	27.4
West	19.4	20.4	24.0	30.0	32.2	32.4	36.5	30.7	32.0	37.1	36.4	33.4	28.8	26.4	23.4
Population Density:															
Large MSA	16.5	15.1	19.0	26.3	27.8	31.5	34.1	28.7	31.2	32.4	30.0	29.0	27.1	25.9	25.3
Other MSA	17.3	15.9	19.8	28.2	31.2	36.2	36.6	33.1	33.6	32.8	35.2	32.4	28.7	27.8	28.0
Non-MSA	14.9	13.9	18.2	18.5	24.8	30.9	32.5	30.2	30.0	31.1	30.9	27.6	29.0	29.0	25.5
Parental Education: [a]															
1.0–2.0 (Low)	20.3	18.9	22.4	25.8	32.0	32.9	34.5	31.7	38.1	37.1	33.6	33.5	33.7	33.2	28.6
2.5–3.0	17.8	16.0	19.7	26.3	31.8	35.6	36.8	35.3	35.4	34.9	37.1	35.1	32.2	30.6	31.1
3.5–4.0	16.2	15.1	19.3	25.6	30.0	36.4	37.8	31.6	31.9	35.0	32.6	30.1	29.4	29.5	27.1
4.5–5.0	14.9	14.1	17.6	23.8	27.0	31.7	33.1	28.3	28.8	28.9	31.4	27.9	24.3	24.3	24.5
5.5–6.0 (High)	15.9	13.7	18.5	23.3	23.4	30.3	30.5	27.7	30.6	27.3	29.4	25.8	24.3	22.5	23.6
Race/Ethnicity (2-year average): [b]															
White	—	17.0	18.0	22.6	27.7	32.0	35.3	34.2	32.5	32.6	32.9	32.7	30.6	28.2	27.3
African American	—	7.6	8.7	15.3	20.9	25.7	28.4	26.9	26.3	27.6	28.7	26.5	25.1	27.0	27.2
Hispanic	—	18.9	21.3	25.1	29.2	34.6	36.8	34.4	34.0	34.8	34.9	31.6	28.8	29.8	28.6

Table continued on next page.

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TABLE 11 (cont.)

MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 12 months														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	25.2	24.6	23.9	26.7	27.5	28.8	28.0	29.8	27.3	25.4	23.9	25.5	27.5	28.8	+1.4
Gender:															
Male	26.3	26.8	25.5	29.6	30.7	31.8	31.0	32.7	28.3	25.9	23.3	24.2	27.2	27.6	+0.4
Female	24.0	22.4	22.2	23.9	24.3	25.8	25.3	27.0	26.0	24.7	24.0	26.5	27.6	29.7	+2.1
College Plans:															
None or under 4 years	42.0	42.1	43.5	44.5	45.8	47.9	43.6	46.5	41.4	40.8	37.2	35.5	40.3	40.2	-0.1
Complete 4 years	23.0	22.2	21.4	24.7	25.3	26.7	26.5	28.0	25.7	23.8	22.4	24.0	25.6	26.6	+1.1
Region:															
Northeast	24.9	25.0	26.3	24.1	26.2	29.3	31.4	28.7	27.4	26.7	24.1	25.9	29.8	30.7	+0.9
Midwest	24.8	24.9	22.6	23.6	25.7	26.8	23.7	27.5	24.5	21.5	23.0	25.7	25.0	26.5	+1.6
South	25.5	22.7	24.0	28.7	27.8	28.6	27.9	31.1	27.6	25.8	23.8	23.5	26.2	27.9	+1.7
West	25.3	26.2	23.4	29.4	30.3	30.9	30.2	31.3	29.4	27.7	24.6	27.9	30.2	31.4	+1.1
Population Density:															
Large MSA	24.0	24.5	24.2	26.6	26.6	27.4	28.6	28.7	27.5	25.6	24.0	27.0	29.1	29.1	0.0
Other MSA	25.1	24.9	24.7	27.8	29.1	30.6	28.1	31.5	28.0	25.9	23.2	25.2	28.5	30.1	+1.6
Non-MSA	27.4	23.9	21.7	24.5	25.7	27.2	27.0	27.3	25.1	23.8	25.4	23.7	22.4	24.8	+2.4
Parental Education: [a]															
1.0–2.0 (Low)	31.9	28.4	30.2	36.0	34.8	35.8	37.1	36.9	31.5	34.2	26.6	28.8	31.2	32.3	+1.1
2.5–3.0	29.6	29.4	28.3	29.9	33.0	34.0	33.0	35.7	32.0	31.1	29.1	29.1	32.0	36.3	+4.3 s
3.5–4.0	26.6	26.3	26.0	27.3	29.3	31.0	29.7	31.8	30.6	29.0	26.1	28.7	29.2	31.6	+2.4
4.5–5.0	21.8	21.2	19.8	24.2	22.2	24.6	25.5	26.3	23.3	21.9	20.9	23.0	24.7	24.9	+0.2
5.5–6.0 (High)	21.2	18.9	18.9	21.8	23.1	23.1	22.9	23.2	21.6	18.6	20.7	21.3	23.6	22.9	-0.7
Race/Ethnicity (2-year average): [b]															
White	26.6	25.7	24.6	25.1	26.5	27.4	27.5	27.3	26.7	24.8	24.2	24.6	25.3	26.0	+0.7
African American	24.5	22.3	20.6	22.0	25.0	28.1	29.1	30.5	30.6	28.1	25.4	23.8	24.8	27.7	+2.9 ss
Hispanic	24.9	23.7	26.6	29.9	31.1	31.0	31.8	33.4	32.6	30.6	27.2	26.0	28.2	29.9	+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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 12
MARIJUANA: Trends in _Annual_ Prevalence of Use by Subgroups in _Grade 12_

Percentage who used in last 12 months

|	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	40.0	44.5	47.6	50.2	50.8	48.8	46.1	44.3	42.3	40.0	40.6	38.8	36.3	33.1	29.6	27.0
Gender:																
Male	45.8	50.6	53.2	55.9	55.8	53.4	49.2	47.2	45.7	43.2	43.1	41.2	38.6	35.8	32.8	29.4
Female	34.9	37.8	42.0	44.3	45.7	44.1	42.5	40.8	38.4	36.0	37.8	36.0	33.8	30.3	26.3	24.2
College Plans:																
None or under 4 years	—	46.8	50.7	51.6	53.1	51.7	49.7	48.2	46.0	44.2	44.0	42.7	40.6	36.2	34.4	31.1
Complete 4 years	—	40.7	43.4	47.1	47.3	45.9	42.6	40.6	38.3	35.9	37.5	36.1	34.0	31.3	27.3	24.7
Region:																
Northeast	47.4	52.7	53.5	59.2	60.6	55.5	53.2	50.9	49.3	49.6	48.2	44.6	41.2	36.7	31.3	32.2
Midwest	40.1	44.0	48.1	51.6	52.2	48.9	46.8	45.6	42.0	36.4	40.8	40.2	37.4	34.3	33.0	28.7
South	32.4	37.9	42.5	42.7	41.2	42.0	38.0	36.7	36.1	35.6	31.0	31.7	30.2	28.7	25.0	21.4
West	44.1	45.8	46.8	49.1	51.9	51.7	49.6	45.5	44.8	43.2	46.2	41.2	39.6	35.6	32.3	28.3
Population Density:																
Large MSA	50.4	51.3	53.2	57.2	58.7	56.3	51.4	50.4	47.0	44.2	44.4	42.6	39.3	34.3	27.8	27.7
Other MSA	40.3	44.2	48.9	50.8	51.9	49.8	46.4	44.8	44.0	41.0	40.7	39.4	36.9	34.7	30.3	28.3
Non-MSA	32.9	39.8	41.2	43.3	43.3	41.9	41.6	38.5	36.5	35.3	37.3	34.7	32.2	29.0	30.0	23.5
Parental Education: [a]																
1.0–2.0 (Low)	35.2	38.9	41.0	42.5	46.0	43.7	41.8	38.9	39.7	35.7	37.1	33.4	30.7	30.7	23.3	21.0
2.5–3.0	39.2	46.1	48.2	50.3	50.0	49.0	45.3	44.5	42.2	40.1	40.6	38.8	36.3	31.1	29.6	26.9
3.5–4.0	38.5	44.9	49.5	51.4	52.7	49.8	47.0	46.5	42.2	41.4	41.0	40.1	36.8	33.4	31.4	27.6
4.5–5.0	40.6	46.8	49.3	53.2	53.7	50.5	47.6	45.9	43.5	39.6	43.2	39.9	37.5	35.1	29.7	28.5
5.5–6.0 (High)	38.7	47.5	48.6	55.2	51.2	52.0	48.5	45.7	43.7	39.9	37.9	38.9	38.6	35.9	30.7	29.4
Race/Ethnicity (2-year average): [b]																
White	—	—	46.8	50.1	51.8	51.2	49.1	47.1	44.6	42.0	41.6	41.4	39.7	37.6	34.5	31.6
African American	—	—	37.9	39.6	38.4	37.5	36.1	35.5	37.4	36.4	33.4	30.6	25.7	21.2	17.8	13.7
Hispanic	—	—	45.8	43.4	42.1	44.1	41.2	38.8	38.3	38.8	37.8	36.7	33.3	29.6	25.0	21.6

TABLE 12 (cont.)

MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	23.9	21.9	26.0	30.7	34.7	35.8	38.5	37.5	37.8	36.5	37.0	36.2	34.9	34.3	33.6	31.5
Gender:																
Male	27.2	24.4	29.0	35.1	38.1	39.4	40.9	41.7	41.4	39.2	40.1	39.9	37.8	37.4	37.6	32.7
Female	20.1	18.9	22.4	26.4	30.6	31.6	35.5	33.0	34.1	33.4	33.6	32.4	31.6	30.8	29.6	29.7
College Plans:																
None or under 4 years	27.6	27.5	29.1	34.4	39.0	41.7	44.6	43.0	43.2	40.3	41.5	40.9	42.1	39.0	41.3	39.9
Complete 4 years	22.0	19.4	24.4	29.1	32.6	33.4	36.4	35.2	35.9	34.6	35.3	34.7	32.3	32.6	31.5	29.1
Region:																
Northeast	28.2	23.9	31.2	36.0	37.7	40.0	43.5	43.0	39.0	42.3	43.8	41.9	40.5	40.1	39.6	38.1
Midwest	26.1	22.7	26.0	30.5	36.9	36.9	36.5	33.8	38.0	34.5	36.9	37.5	36.5	34.0	33.7	32.0
South	18.1	18.1	23.2	28.7	31.8	32.8	35.0	36.5	36.0	30.7	32.4	32.6	29.4	30.1	31.2	29.4
West	26.8	26.1	26.4	30.0	33.8	35.6	42.6	39.0	39.8	43.1	38.4	35.2	36.2	35.6	32.0	28.8
Population Density:																
Large MSA	24.3	22.6	29.1	32.0	37.5	37.2	38.3	38.4	38.7	37.1	39.2	37.7	32.3	32.3	34.5	33.4
Other MSA	27.5	22.1	26.2	32.7	34.9	38.6	40.5	38.8	39.1	38.1	36.7	38.0	38.1	37.9	35.0	31.9
Non-MSA	17.5	21.0	23.1	25.8	31.0	29.6	34.9	33.5	34.7	32.9	35.1	30.8	32.2	29.7	29.7	28.1
Parental Education: [a]																
1.0–2.0 (Low)	22.4	21.2	23.0	26.3	30.9	31.3	34.8	34.2	35.5	36.5	33.9	30.8	31.4	28.7	27.3	32.0
2.5–3.0	22.5	21.1	24.1	29.7	33.8	35.1	37.4	36.1	38.6	35.1	37.0	34.9	34.2	33.1	34.8	33.2
3.5–4.0	24.0	22.7	26.6	31.5	34.2	36.1	38.1	39.0	38.6	36.8	38.4	38.5	36.2	36.9	35.5	31.6
4.5–5.0	23.8	20.8	27.2	32.0	35.0	36.6	40.1	37.4	35.9	35.8	37.4	37.0	35.4	34.4	33.9	28.4
5.5–6.0 (High)	28.2	22.6	28.0	32.3	37.5	36.7	39.7	38.3	39.2	38.0	35.2	36.1	32.6	34.0	32.3	32.9
Race/Ethnicity (2-year average): [b]																
White	28.2	24.9	25.9	30.2	34.2	36.4	38.7	39.9	39.1	38.2	38.5	38.7	37.9	37.3	36.6	34.8
African American	11.4	11.5	14.2	20.7	26.8	30.2	30.4	30.0	30.4	30.0	29.0	27.3	26.3	25.5	26.3	27.7
Hispanic	23.6	24.7	23.5	25.7	29.7	32.3	36.4	37.2	37.8	40.5	37.6	34.6	31.1	29.5	29.6	28.7

TABLE 12 (cont.)
MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	31.7	32.4	32.8	34.8	36.4	36.4	36.4	35.1	34.9	35.6	37.1	35.9	35.7	-0.2
Gender:														
Male	35.0	35.1	36.7	38.3	40.0	40.8	39.8	37.0	36.3	36.9	37.4	36.8	35.2	-1.6
Female	28.3	29.5	28.7	30.7	32.1	31.3	32.4	33.0	33.5	34.0	36.2	34.1	35.5	+1.4
College Plans:														
None or under 4 years	38.6	41.0	38.0	42.7	41.5	41.5	42.1	40.8	38.7	37.8	39.6	39.5	39.8	+0.3
Complete 4 years	29.8	30.2	31.1	32.5	34.7	34.8	34.8	33.1	33.7	34.5	36.1	34.5	34.0	-0.5
Region:														
Northeast	39.2	36.6	37.8	41.3	40.7	38.1	40.9	39.6	41.0	39.0	41.5	41.1	37.6	-3.5
Midwest	32.6	31.1	32.5	32.5	34.7	32.0	31.6	34.6	32.7	33.4	38.8	38.2	34.4	-3.7
South	29.0	31.0	30.6	32.4	33.1	33.9	34.4	33.6	31.2	32.8	32.7	30.7	33.9	+3.2
West	29.1	32.8	32.1	35.8	40.0	43.0	40.9	34.3	38.9	40.1	39.6	38.9	39.8	+0.9
Population Density:														
Large MSA	33.9	34.8	37.2	36.8	38.7	40.4	38.9	35.8	38.5	38.1	40.2	37.0	36.4	-0.7
Other MSA	31.6	31.2	32.0	36.1	37.4	36.8	37.9	36.9	34.4	35.7	36.0	35.3	35.8	+0.5
Non-MSA	28.8	32.2	28.7	28.8	30.4	29.2	29.0	29.7	30.4	31.7	34.2	35.5	34.4	-1.1
Parental Education: [a]														
1.0–2.0 (Low)	31.1	30.5	28.9	32.8	35.7	42.0	38.4	37.3	35.3	35.0	34.6	33.1	34.5	+1.3
2.5–3.0	33.8	32.8	33.6	35.4	36.8	37.6	39.0	37.5	37.8	36.7	39.7	38.9	37.6	-1.3
3.5–4.0	30.6	32.0	34.5	36.8	38.1	37.5	38.3	35.9	36.8	37.1	39.0	38.6	39.4	+0.7
4.5–5.0	30.4	32.7	31.0	34.5	35.0	35.0	33.3	32.9	32.5	34.8	35.6	34.9	30.8	-4.0 s
5.5–6.0 (High)	32.8	32.8	33.6	29.9	34.5	32.2	33.8	32.9	32.1	32.6	34.1	32.8	35.8	+3.1
Race/Ethnicity (2-year average): [b]														
White	33.4	33.9	34.3	34.8	36.3	36.6	35.6	35.1	35.1	35.3	36.5	36.9	35.6	-1.3
African American	27.0	26.8	28.6	30.8	32.4	33.2	35.0	35.9	32.8	32.4	35.5	36.3	35.7	-0.6
Hispanic	27.2	27.3	28.8	31.6	34.4	37.3	39.2	37.1	35.6	36.9	36.8	34.2	33.4	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 13
MARIJUANA: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 30 days

|	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	3.2	3.7	5.1	7.8	9.1	11.3	10.2	9.7	9.7	9.1	9.2	8.3	7.5	6.4	6.6
Gender:															
Male	3.8	3.8	6.1	9.5	9.8	12.1	11.4	10.3	10.5	10.2	11.0	9.5	8.5	6.3	7.6
Female	2.6	3.5	4.1	6.0	8.2	10.2	8.9	8.8	8.8	7.8	7.3	7.1	6.4	6.3	5.7
College Plans:															
None or under 4 years	9.8	11.5	13.2	19.7	20.6	24.5	23.8	24.6	25.9	23.4	23.9	23.2	21.7	19.0	19.7
Complete 4 years	2.1	2.5	3.9	6.1	7.5	9.1	8.4	7.8	7.7	7.4	7.5	6.8	6.0	4.9	5.2
Region:															
Northeast	2.4	3.1	3.3	7.7	7.2	9.2	9.0	6.5	7.6	7.5	8.7	6.3	5.9	5.3	5.6
Midwest	3.3	3.0	3.7	7.3	10.1	11.8	10.4	10.8	11.7	9.5	7.9	8.0	7.3	5.6	6.6
South	3.3	3.7	5.0	6.6	8.5	10.3	9.7	10.2	10.1	8.9	10.0	9.4	8.7	7.0	7.6
West	3.9	5.6	9.2	10.9	10.6	13.9	11.9	10.5	8.4	10.4	9.8	8.6	7.0	7.0	5.9
Population Density:															
Large MSA	2.8	3.3	4.1	7.6	9.1	11.3	8.7	9.3	8.6	7.5	7.1	6.7	6.5	6.6	6.3
Other MSA	3.7	4.4	6.5	9.8	9.9	12.0	10.7	9.8	9.4	9.1	10.5	8.8	7.5	6.4	7.4
Non-MSA	2.8	3.1	3.2	4.3	7.7	9.7	10.8	10.2	11.6	11.0	9.1	9.4	9.0	6.1	5.7
Parental Education: [a]															
1.0–2.0 (Low)	7.4	7.2	7.2	12.4	13.5	12.5	15.5	15.7	17.5	18.8	16.4	13.5	13.7	11.3	10.6
2.5–3.0	3.9	3.9	5.5	9.0	10.4	13.4	11.6	11.4	12.1	11.9	11.9	11.3	10.0	8.3	9.6
3.5–4.0	3.1	3.5	5.7	7.8	9.9	12.0	11.0	10.6	9.1	8.8	9.6	8.7	7.6	7.0	7.3
4.5–5.0	1.7	2.9	3.6	6.0	7.1	9.3	9.0	7.1	6.7	5.3	6.5	6.2	5.0	4.4	4.2
5.5–6.0 (High)	2.3	2.4	4.2	5.8	7.4	9.2	6.7	7.3	7.5	5.8	5.3	5.4	4.8	3.6	3.3
Race (2-year average): [b]															
White	—	3.3	4.1	5.6	7.8	10.0	10.6	9.5	8.7	8.4	8.4	8.3	7.4	6.2	5.8
African American	—	2.0	2.9	5.0	6.6	8.0	9.0	9.1	9.7	9.3	8.1	7.4	7.3	7.7	8.2
Hispanic	—	6.4	8.3	12.1	12.9	12.5	13.1	13.5	14.3	12.7	12.6	12.6	10.3	9.3	8.3

TABLE 13 (cont.)
MARIJUANA: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	6.5	5.7	5.8	6.5	8.0	7.2	6.5	7.0	6.5	6.5	5.4	5.5	5.6	6.6	+1.0
Gender:															
Male	6.7	6.2	6.6	7.5	9.2	8.5	7.0	6.7	6.9	6.6	5.7	5.3	5.6	5.9	+0.2
Female	6.0	4.9	4.8	5.3	6.8	5.7	6.0	7.2	5.9	6.2	5.0	5.5	5.3	7.4	+2.1 ss
College Plans:															
None or under 4 years	20.1	18.3	19.1	18.9	21.4	19.4	20.0	19.7	17.6	16.4	15.4	13.1	14.2	13.5	-0.7
Complete 4 years	5.1	4.5	4.5	5.4	6.8	6.2	5.4	6.2	5.6	5.6	4.5	4.6	4.3	5.7	+1.3 s
Region:															
Northeast	5.2	3.4	4.2	6.6	7.0	4.3	4.7	5.4	6.2	5.3	3.2	3.8	4.0	4.3	+0.3
Midwest	5.6	5.3	6.8	6.2	6.8	5.7	4.4	5.8	6.0	6.6	5.8	4.3	4.5	6.4	+1.9
South	7.9	6.5	6.0	6.8	8.8	7.7	7.5	8.5	6.1	6.7	5.8	5.3	5.3	6.5	+1.2
West	5.9	5.9	5.6	6.0	8.5	10.2	8.2	7.0	7.7	6.8	6.0	7.9	8.4	8.7	+0.3
Population Density:															
Large MSA	5.3	4.3	4.9	5.5	7.7	6.8	5.8	7.2	7.5	7.1	4.9	4.4	5.8	5.5	-0.3
Other MSA	7.4	6.1	6.3	7.2	8.3	8.3	7.0	6.7	6.0	6.5	5.1	6.4	5.6	7.3	+1.7
Non-MSA	6.3	6.7	5.8	6.1	7.4	5.5	6.5	7.5	6.1	5.7	7.1	4.9	5.3	6.9	+1.6
Parental Education: [a]															
1.0–2.0 (Low)	12.0	10.4	11.1	10.3	12.3	12.2	11.4	13.6	12.4	11.9	8.9	9.5	8.6	11.3	+2.6
2.5–3.0	8.9	7.3	8.4	8.6	10.5	10.1	9.9	10.9	8.8	8.5	7.6	7.6	8.5	11.7	+3.2
3.5–4.0	7.0	6.7	5.6	7.1	8.8	7.7	7.2	8.1	7.1	6.7	5.9	6.1	6.3	6.9	+0.6
4.5–5.0	3.7	3.6	3.8	5.1	6.1	5.5	4.1	4.3	4.1	3.6	4.0	3.2	3.5	3.9	+0.4
5.5–6.0 (High)	3.4	2.3	3.6	4.0	4.3	3.4	3.1	3.4	4.1	4.1	2.6	3.5	2.4	3.6	+1.2
Race (2-year average): [b]															
White	5.8	5.4	5.0	5.4	6.5	6.5	5.3	4.7	4.7	4.6	4.1	3.9	4.0	4.2	+0.2
African American	7.5	6.4	6.1	6.7	7.7	8.1	7.6	8.2	7.7	7.1	7.2	6.5	5.5	6.1	+0.6
Hispanic	8.1	7.6	7.1	7.3	8.8	10.1	10.4	10.0	8.9	8.3	7.3	6.5	6.8	8.3	+1.5 s

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-of-use estimates for the two most recent classes is due to rounding. See Table S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 14

TABLE 14
MARIJUANA: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	8.7	8.1	10.9	15.8	17.2	20.4	20.5	18.7	19.4	19.7	19.8	17.8	17.0	15.9	15.2
Gender:															
Male	10.1	9.0	13.1	18.6	19.1	22.3	23.0	20.3	21.8	23.3	22.7	19.3	19.0	17.4	16.7
Female	7.3	7.1	8.6	12.8	15.0	18.6	17.9	17.2	17.0	16.2	16.8	16.4	15.0	14.2	13.4
College Plans:															
None or under 4 years	15.0	14.3	20.4	25.8	27.9	35.2	34.7	32.6	33.8	33.7	35.2	31.5	31.3	27.5	27.0
Complete 4 years	7.4	6.7	8.8	13.6	15.2	17.9	18.1	16.1	17.0	17.6	17.3	15.6	14.7	14.2	13.4
Region:															
Northeast	10.1	7.7	13.4	16.9	17.1	21.9	21.6	22.7	22.0	19.4	21.3	19.4	18.3	16.5	17.6
Midwest	8.3	7.6	10.5	15.3	16.8	20.7	19.8	16.6	19.6	19.8	19.1	16.7	14.2	14.8	14.3
South	7.2	6.6	9.1	14.8	17.2	20.3	20.1	18.7	18.1	18.2	18.0	16.6	18.5	17.1	15.7
West	10.3	11.7	12.1	17.3	17.6	18.9	21.1	17.2	18.8	22.8	23.0	20.2	17.0	14.7	12.9
Population Density:															
Large MSA	9.3	8.0	11.2	17.2	16.9	18.4	19.8	17.4	19.0	20.6	18.5	16.8	15.4	13.8	14.6
Other MSA	9.1	8.6	11.2	17.5	18.5	22.2	21.7	19.7	20.3	19.7	21.0	19.1	17.3	16.7	15.6
Non-MSA	7.6	7.2	10.1	11.4	14.7	19.3	19.2	18.4	18.1	18.8	18.7	16.5	18.8	16.9	15.0
Parental Education: [a]															
1.0–2.0 (Low)	11.4	11.2	13.3	15.8	20.6	21.4	20.9	20.4	25.0	23.4	20.6	21.6	21.6	19.5	15.8
2.5–3.0	9.5	8.0	11.3	16.3	19.3	22.9	21.7	22.1	22.0	21.0	22.8	20.4	20.3	17.9	18.1
3.5–4.0	8.1	8.3	10.9	15.8	18.0	22.1	22.5	18.3	19.3	21.2	20.8	18.1	17.8	17.3	15.9
4.5–5.0	7.9	7.4	10.0	15.0	15.6	18.1	19.2	16.4	16.6	17.9	17.5	15.2	13.4	13.2	12.7
5.5–6.0 (High)	8.9	7.5	9.4	15.5	13.3	17.4	17.1	16.2	18.2	16.7	17.2	15.5	13.8	12.7	13.5
Race (2-year average): [b]															
White	—	9.0	9.8	13.4	16.8	19.3	21.2	20.3	19.8	20.2	20.2	19.8	18.2	16.5	15.7
African American	—	3.6	4.9	9.8	13.8	15.9	16.5	15.3	14.6	15.8	16.7	15.2	15.1	16.3	15.3
Hispanic	—	10.4	12.4	15.6	17.7	19.1	21.3	21.4	20.6	20.5	20.5	18.2	17.0	17.7	16.0

Table continued on next page.

TABLE 14 (cont.)

MARIJUANA: Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	14.2	14.2	13.8	15.9	16.7	17.6	17.0	18.0	16.6	14.8	14.0	15.7	16.7	18.4	+1.7
Gender:															
Male	15.7	15.8	15.2	18.7	20.1	20.8	19.8	20.6	17.4	15.6	14.2	15.3	17.3	18.1	+0.9
Female	12.6	12.5	12.3	13.2	13.3	14.5	14.4	15.3	15.7	13.7	13.7	15.8	15.8	18.3	+2.5
College Plans:															
None or under 4 years	28.1	27.6	28.4	28.0	34.0	34.2	30.3	31.0	29.3	27.9	24.8	24.7	28.4	29.1	+0.8
Complete 4 years	12.4	12.3	11.9	14.5	14.6	15.7	15.7	16.5	15.1	13.4	12.8	14.4	14.8	16.2	+1.4
Region:															
Northeast	14.6	14.3	16.6	15.3	15.5	19.0	19.1	17.3	17.5	14.7	14.3	17.2	20.4	19.7	-0.7
Midwest	13.6	14.7	12.5	13.3	15.4	16.4	14.4	16.9	14.4	12.6	14.0	15.6	14.9	17.0	+2.1
South	14.6	12.8	14.0	17.3	16.7	16.7	17.2	19.0	17.0	15.3	14.3	13.8	15.4	17.8	+2.3
West	14.1	15.3	12.9	17.2	19.0	19.2	18.0	18.2	17.3	16.4	13.4	17.7	17.5	20.0	+2.5
Population Density:															
Large MSA	14.2	14.2	13.9	16.1	16.0	17.0	17.3	17.2	16.7	14.8	14.5	17.4	18.1	18.3	+0.2
Other MSA	13.6	13.5	14.4	16.4	18.0	18.9	17.2	19.1	17.1	15.4	13.7	15.4	17.6	19.8	+2.3
Non-MSA	15.7	15.5	12.4	14.8	15.1	15.8	16.3	16.3	14.9	13.4	14.2	13.9	12.4	14.6	+2.2
Parental Education: [a]															
1.0–2.0 (Low)	18.4	17.1	18.1	22.2	21.0	23.6	21.0	22.0	18.6	21.0	16.6	18.5	19.8	21.5	+1.6
2.5–3.0	17.1	17.4	15.7	18.1	20.4	21.2	21.3	21.4	19.9	18.4	15.8	18.1	19.6	24.1	+4.6 s
3.5–4.0	14.9	15.1	15.4	16.0	17.7	18.9	17.5	19.7	18.5	17.3	15.9	17.7	18.2	20.5	+2.3
4.5–5.0	12.0	11.2	11.2	14.4	13.7	14.8	15.4	15.5	13.4	12.1	12.0	13.5	14.4	14.5	+0.2
5.5–6.0 (High)	11.8	11.3	10.1	13.1	12.9	13.2	14.0	12.8	13.7	9.8	12.1	13.3	13.0	13.8	+0.8
Race (2-year average): [b]															
White	15.2	14.7	14.2	14.6	15.7	16.4	16.7	16.5	16.2	14.6	14.1	15.1	15.3	15.9	+0.6
African American	13.8	12.6	11.7	13.7	15.5	18.0	18.8	19.1	19.0	17.4	15.8	14.8	16.1	18.7	+2.5 ss
Hispanic	14.0	13.0	15.3	17.4	18.2	18.2	18.5	20.0	19.4	18.1	15.5	14.9	16.9	18.2	+1.3

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-of-use estimates for the two most recent classes is due to
rounding. See Table S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 15
MARIJUANA: 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
Approximate 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
Total	27.1	32.2	35.4	37.1	36.5	33.7	31.6	28.5	27.0	25.2	25.7	23.4	21.0	18.0	16.7	14.0
Gender:																
Male	32.3	37.7	40.7	42.6	41.4	37.8	35.3	31.4	31.0	28.2	28.7	26.8	23.1	20.7	19.5	16.1
Female	22.5	26.0	30.0	31.3	31.3	29.1	27.3	24.9	22.2	21.1	22.4	20.0	18.6	15.2	13.8	11.5
College Plans:																
None or under 4 years	—	34.5	38.7	39.2	39.6	37.7	36.1	32.9	30.7	29.2	29.0	28.3	25.1	20.4	21.0	17.6
Complete 4 years	—	28.4	31.0	33.2	32.2	29.4	27.4	23.9	22.9	20.9	22.7	20.0	18.5	16.4	14.6	11.9
Region:																
Northeast	32.2	38.6	40.4	46.7	44.7	39.3	38.2	33.3	32.0	33.3	32.0	28.5	25.3	20.2	18.6	17.6
Midwest	27.6	31.4	36.1	37.8	38.0	34.0	33.0	30.0	27.2	22.1	26.1	24.0	21.1	18.6	19.2	13.7
South	21.2	27.7	31.3	30.6	29.0	28.4	24.7	22.4	22.9	22.4	18.0	19.2	17.3	15.8	14.0	11.5
West	30.8	32.7	33.6	34.3	35.9	35.2	32.0	29.2	27.1	25.9	29.7	23.1	22.3	18.9	16.8	14.7
Population Density:																
Large MSA	36.2	37.9	40.4	44.0	42.2	39.6	36.3	34.3	31.7	28.5	28.5	26.7	23.1	19.4	15.2	14.1
Other MSA	26.4	32.5	36.2	37.1	37.5	34.5	31.4	28.3	28.1	25.1	25.9	22.9	21.3	19.3	17.5	14.6
Non-MSA	22.2	27.5	30.2	31.4	30.9	28.3	28.0	23.8	21.8	22.5	23.0	21.5	18.2	14.3	16.7	12.6
Parental Education: [a]																
1.0–2.0 (Low)	22.3	29.0	30.4	30.7	33.2	29.9	29.7	24.9	26.2	23.8	23.4	21.0	19.9	15.6	13.9	11.4
2.5–3.0	26.5	33.7	36.7	37.7	35.8	34.6	31.5	28.4	27.3	25.4	25.9	24.1	20.9	16.8	16.3	14.3
3.5–4.0	25.1	32.3	36.9	37.7	37.8	33.6	31.4	29.3	26.1	25.8	26.5	24.1	21.1	17.7	17.9	13.5
4.5–5.0	27.3	32.6	34.3	39.0	37.3	33.7	31.9	30.1	26.9	23.3	27.1	23.1	21.1	19.3	17.1	15.0
5.5–6.0 (High)	24.7	32.1	36.0	39.7	37.6	36.2	31.9	27.7	25.5	23.4	20.6	21.7	21.2	20.6	16.2	15.0
Race (2-year average): [b]																
White	—	—	34.0	36.9	37.6	35.8	33.3	30.8	27.9	26.0	25.9	25.5	23.4	21.1	19.2	17.1
African American	—	—	29.2	29.7	28.2	27.0	25.7	24.8	25.8	24.8	22.3	19.4	14.5	11.0	9.6	7.5
Hispanic	—	—	33.3	30.8	29.0	29.5	27.7	26.2	25.3	23.8	21.9	21.3	20.2	16.1	12.4	11.7

TABLE 15 (cont.)

MARIJUANA: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	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
Total	13.8	11.9	15.5	19.0	21.2	21.9	23.7	22.8	23.1	21.6	22.4	21.5	21.2	19.9	19.8
Gender:															
Male	16.1	13.4	18.2	23.0	24.6	25.1	26.4	26.5	26.3	24.7	25.6	25.3	24.7	23.0	23.6
Female	11.2	10.2	12.5	15.1	17.2	18.3	20.3	18.8	19.7	18.3	19.1	17.4	17.3	16.6	15.8
College Plans:															
None or under 4 years	15.8	15.0	17.9	21.6	23.7	26.4	29.3	28.3	26.6	26.0	27.5	27.0	26.9	24.1	24.9
Complete 4 years	12.5	10.4	14.2	17.7	19.6	20.0	21.5	20.5	21.8	19.6	20.4	19.6	18.9	18.3	18.1
Region:															
Northeast	17.6	14.4	19.5	22.7	23.8	25.9	27.0	27.2	24.2	26.0	28.4	25.6	26.5	25.1	25.0
Midwest	14.9	12.2	15.9	19.3	22.6	23.3	21.8	21.1	23.2	19.3	22.7	22.4	21.6	18.1	19.2
South	9.7	9.4	13.1	17.3	19.4	19.5	20.9	21.3	22.1	17.4	18.1	20.0	17.8	17.7	18.2
West	15.7	14.0	15.6	18.6	19.8	19.7	27.8	23.9	24.2	27.2	23.5	19.3	21.1	20.9	18.0
Population Density:															
Large MSA	14.3	12.9	18.0	20.7	23.6	22.9	21.7	23.4	23.2	22.6	23.4	22.9	19.6	19.1	20.4
Other MSA	16.3	11.5	15.3	19.8	21.5	23.7	25.6	23.9	24.4	22.6	22.5	22.7	23.7	22.3	20.8
Non-MSA	9.0	12.0	13.8	15.7	17.8	17.6	22.0	19.8	21.0	18.6	21.2	17.4	18.7	16.4	16.9
Parental Education: [a]															
1.0–2.0 (Low)	11.7	9.7	12.4	14.0	18.1	17.4	19.9	19.7	22.2	21.5	20.9	17.8	20.0	16.6	16.3
2.5–3.0	12.9	11.9	14.0	18.5	19.6	20.6	23.6	22.1	23.6	20.9	21.7	21.5	20.6	19.3	20.2
3.5–4.0	13.8	12.2	16.9	19.3	21.5	22.9	23.6	23.9	23.0	21.5	23.6	23.7	22.1	21.2	20.2
4.5–5.0	13.7	12.1	15.9	20.4	21.3	22.1	24.7	22.6	22.4	21.4	22.3	20.6	21.0	19.8	20.4
5.5–6.0 (High)	17.6	11.6	16.1	20.3	23.1	22.6	22.9	22.9	23.4	21.3	20.5	19.6	18.3	19.8	18.9
Race (2-year average): [b]															
White	15.3	14.1	14.9	18.4	20.8	22.0	23.6	24.4	23.8	22.7	22.9	23.3	22.8	22.1	21.6
African American	5.9	6.0	8.1	13.1	16.8	18.3	18.5	18.3	19.3	19.0	17.0	16.5	16.3	15.2	14.6
Hispanic	12.9	12.7	12.5	14.9	17.9	19.1	21.2	21.6	22.0	24.6	22.1	20.0	17.9	16.6	16.6

Table continued on next page.

TABLE 15 (cont.)
MARIJUANA: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	18.3	18.8	19.4	20.6	21.4	22.6	22.9	22.7	21.2	21.3	22.5	22.9	22.2	22.3	+0.1
Gender:															
Male	19.7	22.3	22.2	24.3	25.2	26.4	26.5	26.4	24.3	23.1	25.0	24.1	24.0	23.0	-1.1
Female	16.4	15.0	16.2	16.8	16.9	18.4	18.8	18.7	17.9	19.2	19.7	21.5	19.2	21.1	+1.9
College Plans:															
None or under 4 years	24.8	25.9	24.9	24.6	28.1	27.5	27.0	28.0	26.8	24.6	25.4	26.6	26.6	27.0	+0.4
Complete 4 years	16.4	16.8	17.7	19.2	19.3	21.1	21.4	21.3	19.5	20.0	21.2	21.6	20.2	20.3	0.0
Region:															
Northeast	24.8	23.7	23.1	24.6	26.1	26.4	24.0	25.8	25.6	26.2	25.8	26.7	27.4	22.7	-4.8 s
Midwest	17.4	18.6	17.5	20.2	20.0	21.7	19.5	20.0	21.0	19.6	20.4	22.7	23.2	20.7	-2.5
South	17.1	17.0	19.2	19.3	19.6	20.9	22.3	21.0	19.8	18.5	20.5	19.8	17.9	20.6	+2.7
West	16.0	17.7	19.2	19.7	21.7	23.4	26.6	25.8	20.0	23.8	25.6	25.6	24.7	28.1	+3.4
Population Density:															
Large MSA	19.6	20.9	21.8	24.0	22.8	23.3	25.9	25.7	22.0	24.5	24.4	25.2	24.0	22.3	-1.7
Other MSA	18.4	18.2	18.6	20.3	22.7	24.3	23.5	23.5	22.4	20.4	22.6	21.4	21.2	22.5	+1.4
Non-MSA	16.3	16.7	18.5	16.8	15.9	17.5	16.7	16.4	17.1	17.9	19.3	22.4	21.3	21.7	+0.3
Parental Education: [a]															
1.0–2.0 (Low)	17.9	18.2	18.5	16.9	18.6	20.5	26.7	22.6	23.0	21.9	21.4	22.2	19.8	22.6	+2.8
2.5–3.0	19.6	20.1	18.7	22.0	21.2	23.0	23.2	25.2	23.0	22.9	24.4	24.5	23.8	24.4	+0.7
3.5–4.0	18.6	18.5	18.8	21.7	22.8	23.5	23.2	23.5	21.4	21.4	22.8	24.8	23.5	23.8	+0.3
4.5–5.0	16.3	18.3	19.3	19.1	20.8	21.0	22.3	20.8	19.7	20.3	21.6	21.1	20.8	18.5	-2.3
5.5–6.0 (High)	18.2	17.9	21.0	20.3	18.4	23.1	20.3	21.3	19.8	18.6	18.6	19.1	20.8	20.5	-0.3
Race (2-year average): [b]															
White	20.5	19.5	20.1	20.8	21.4	22.2	22.6	21.8	21.3	21.0	21.1	22.1	22.3	21.3	-0.9
African American	15.9	16.0	16.3	18.6	20.1	21.0	22.3	24.0	23.0	20.8	22.2	23.9	24.0	23.8	-0.2
Hispanic	16.0	15.3	15.3	16.7	18.5	19.6	22.0	24.3	22.6	20.9	22.5	22.9	20.5	20.4	-0.1

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-of-use estimates for the two most recent classes is due to rounding.

See Table S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 16
MARIJUANA: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 8

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	0.2	0.2	0.4	0.7	0.8	1.5	1.1	1.1	1.4	1.3	1.3	1.2	1.0	0.8	1.0
Gender															
Male	0.3	0.3	0.5	1.0	1.1	2.0	1.4	1.4	1.9	2.0	2.0	1.7	1.3	0.9	1.4
Female	0.1	0.1	0.3	0.5	0.4	0.9	0.6	0.7	0.8	0.7	0.6	0.7	0.6	0.6	0.6
College Plans:															
None or under 4 years	0.9	1.1	1.2	2.1	3.1	4.4	4.2	4.2	5.6	5.1	5.1	5.1	3.6	3.3	3.9
Complete 4 years	0.1	0.1	0.3	0.5	0.5	1.0	0.6	0.7	0.8	0.9	0.8	0.8	0.7	0.4	0.7
Region:															
Northeast	0.1	0.1	0.3	0.8	0.5	0.9	0.9	0.8	1.0	0.8	1.4	1.2	0.8	0.5	0.7
Midwest	0.1	0.2	0.2	0.7	0.8	1.6	1.2	1.1	1.7	1.4	1.3	1.0	1.0	0.6	1.0
South	0.3	0.2	0.4	0.6	0.8	1.4	0.9	1.4	1.5	1.4	1.5	1.6	1.1	0.9	1.2
West	0.2	0.3	0.7	1.1	1.2	2.1	1.3	0.9	1.0	1.6	0.9	1.0	0.9	0.9	0.8
Population Density:															
Large MSA	0.2	0.1	0.3	0.7	1.1	1.7	0.8	0.8	1.1	1.0	0.8	1.0	0.8	0.7	0.9
Other MSA	0.2	0.2	0.5	0.9	0.9	1.6	1.2	1.1	1.5	1.3	1.6	1.3	1.0	0.8	1.2
Non-MSA	0.2	0.3	0.2	0.5	0.5	1.0	1.1	1.4	1.3	1.8	1.4	1.4	1.2	0.8	0.7
Parental Education: [a]															
1.0–2.0 (Low)	0.5	0.5	0.7	0.8	2.0	1.6	2.2	2.2	3.2	4.6	2.0	2.3	1.9	1.6	1.4
2.5–3.0	0.3	0.3	0.4	0.8	0.9	2.0	0.9	1.5	1.3	1.6	1.9	1.7	1.4	0.8	1.2
3.5–4.0	0.2	0.1	0.5	1.1	0.7	1.4	1.3	1.1	1.5	0.9	1.3	1.4	1.0	0.7	1.2
4.5–5.0	0.1	0.1	0.1	0.5	0.6	0.8	0.8	0.5	0.8	0.5	0.8	0.7	0.7	0.5	0.5
5.5–6.0 (High)	*	0.1	0.3	0.5	0.6	1.2	0.6	0.6	0.7	0.8	0.5	0.4	0.6	0.3	0.2
Race (2-year average): [b]															
White	—	0.2	0.2	0.4	0.7	1.0	1.1	0.9	1.0	1.2	1.3	1.3	1.0	0.7	0.7
African American	—	0.1	0.2	0.4	0.7	1.2	1.3	0.9	1.0	1.0	1.1	1.2	1.2	1.2	1.0
Hispanic	—	0.3	0.6	1.1	1.2	1.6	1.8	1.6	2.0	1.9	1.6	1.5	1.2	1.1	1.3

TABLE 16 (cont.)
MARIJUANA: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 8</u>

	Percentage who used daily in last 30 days														2018-2019 change
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	1.0	0.8	0.9	1.0	1.2	1.3	1.1	1.1	1.0	1.1	0.7	0.8	0.7	1.3	+0.6 s
Gender															
Male	1.3	1.2	1.2	1.4	1.8	1.8	1.6	1.3	1.2	1.3	0.9	0.9	0.8	1.4	+0.5
Female	0.7	0.5	0.6	0.5	0.7	0.7	0.5	0.9	0.7	0.9	0.5	0.6	0.5	1.2	+0.7 ss
College Plans:															
None or under 4 years	5.3	3.2	4.7	4.7	5.2	5.2	5.6	4.9	2.9	3.4	3.0	2.7	2.2	3.7	+1.5
Complete 4 years	0.6	0.6	0.6	0.6	0.9	1.0	0.7	0.8	0.8	0.8	0.5	0.5	0.4	0.9	+0.5 ss
Region:															
Northeast	0.7	0.5	0.3	0.9	0.9	0.5	0.8	0.6	0.9	0.8	0.4	0.8	0.5	0.7	+0.2
Midwest	0.8	0.9	1.3	1.0	1.3	1.2	0.5	0.9	1.3	1.1	0.7	0.5	0.5	1.1	+0.6 s
South	1.4	0.9	1.0	1.0	1.4	1.4	1.2	1.3	0.8	1.2	0.8	0.7	0.6	0.6	+0.1
West	0.9	0.7	0.8	0.9	1.1	1.9	1.6	1.5	1.1	1.1	0.9	1.0	1.3	2.8	+1.5
Population Density:															
Large MSA	0.8	0.5	0.9	0.6	0.8	1.1	0.9	1.0	1.3	1.5	0.4	0.5	0.6	0.7	+0.1
Other MSA	1.3	0.8	0.8	1.2	1.3	1.5	1.2	1.2	0.8	0.9	0.8	0.9	0.6	1.3	+0.7
Non-MSA	0.9	1.4	1.0	1.0	1.7	1.0	1.2	1.3	0.9	0.9	1.1	0.7	1.0	2.2	+1.2
Parental Education: [a]															
1.0–2.0 (Low)	2.6	1.3	2.6	1.9	2.5	2.2	1.9	2.3	2.0	2.5	1.3	1.2	1.4	1.4	0.0
2.5–3.0	1.3	0.9	1.4	1.4	2.1	2.3	1.6	1.5	0.9	1.0	0.9	1.1	0.7	2.9	+2.2 s
3.5–4.0	0.9	1.0	0.7	0.8	1.0	1.3	1.0	1.0	1.1	0.8	0.9	0.8	0.6	1.1	+0.5 s
4.5–5.0	0.6	0.4	0.4	0.6	0.7	0.8	0.3	0.8	0.6	0.6	0.4	0.5	0.4	0.3	0.0
5.5–6.0 (High)	0.3	0.5	0.5	0.6	0.3	0.5	0.6	0.5	0.7	0.7	0.4	0.4	0.3	1.0	+0.8 s
Race (2-year average): [b]											–				
White	1.0	0.9	0.7	0.8	1.0	1.1	1.0	0.8	0.7	0.6	0.6	0.5	0.4	0.5	+0.1
African American	1.0	1.0	1.0	1.0	1.1	1.2	1.0	1.0	1.1	1.2	1.2	1.2	1.1	0.7	-0.4
Hispanic	1.1	0.7	1.0	1.3	1.4	1.9	2.1	1.7	1.4	1.3	0.9	0.8	0.9	1.4	+0.5

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. ' * ' indicates less than .05 percent but greater than 0 percent. Any apparent inconsistency between the change estimate and the prevalence-of-use estimates for the two most recent classes is due to rounding. See Table S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 17

MARIJUANA: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 10

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	0.8	0.8	1.0	2.2	2.8	3.5	3.7	3.6	3.8	3.8	4.5	3.9	3.6	3.2	3.1
Gender:															
Male	1.1	1.1	1.6	3.1	3.7	4.7	5.2	4.8	5.2	5.3	6.4	5.1	5.1	4.1	4.1
Female	0.5	0.4	0.4	1.2	1.7	2.3	2.1	2.4	2.4	2.3	2.6	2.6	2.2	2.2	2.0
College Plans:															
None or under 4 years	1.6	2.3	2.7	5.5	6.5	10.2	9.5	9.7	10.3	10.4	11.7	9.4	9.9	9.0	9.5
Complete 4 years	0.6	0.4	0.6	1.4	2.1	2.3	2.6	2.4	2.7	2.7	3.3	2.9	2.6	2.3	2.1
Region:															
Northeast	0.8	0.7	1.6	2.5	1.9	3.7	3.9	5.0	3.9	3.9	3.8	3.6	3.7	3.3	3.3
Midwest	0.9	0.6	1.0	2.0	2.9	3.8	3.8	3.4	4.2	4.2	4.1	4.2	2.8	3.0	3.3
South	0.6	0.6	0.7	2.2	3.2	3.0	3.9	3.4	3.6	3.4	4.5	3.2	4.2	3.4	2.9
West	1.1	1.3	1.1	2.1	2.7	3.8	2.7	2.9	3.7	3.7	6.2	5.2	3.8	3.0	2.9
Population Density:															
Large MSA	0.8	0.5	1.2	2.1	2.5	3.0	3.6	3.4	3.1	4.2	4.4	3.4	3.0	2.5	3.0
Other MSA	0.9	0.8	0.9	2.3	3.1	3.7	3.8	3.9	4.1	3.4	4.4	4.4	3.6	3.3	3.0
Non-MSA	0.7	0.9	1.1	2.0	2.4	3.7	3.6	3.3	3.9	4.0	4.8	3.7	4.8	3.8	3.4
Parental Education: [a]															
1.0–2.0 (Low)	1.1	1.1	1.4	2.0	4.1	3.6	3.2	3.8	4.6	4.9	6.0	4.6	5.5	5.3	3.7
2.5–3.0	0.9	0.8	1.0	2.6	3.6	4.6	4.3	4.9	5.5	4.3	5.3	4.9	4.8	3.8	4.8
3.5–4.0	0.8	0.9	1.1	2.4	2.8	4.1	4.2	3.4	3.5	4.2	4.7	3.9	3.4	3.4	3.3
4.5–5.0	0.8	0.6	0.6	1.8	1.9	2.4	3.0	3.1	2.6	3.4	3.8	2.7	2.9	2.0	2.0
5.5–6.0 (High)	0.4	0.8	1.0	1.0	2.0	2.1	2.2	2.3	2.5	2.1	3.3	3.2	2.4	1.7	1.8
Race (2-year average): [b]															
White	—	0.9	1.0	1.6	2.5	3.2	3.7	3.7	3.8	4.0	4.3	4.4	4.1	3.5	3.1
African American	—	0.3	0.3	0.8	1.7	2.2	2.8	3.4	3.0	3.2	3.6	3.0	2.9	2.8	2.8
Hispanic	—	0.8	1.1	1.9	2.5	2.8	3.5	3.6	3.2	3.2	4.2	3.9	3.0	2.9	3.1

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TABLE 17 (cont.)
MARIJUANA: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 10</u>

Percentage who used daily in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	2.8	2.8	2.7	2.8	3.3	3.6	3.5	4.0	3.4	3.0	2.5	2.9	3.4	4.8	+1.3 s
Gender:															
Male	3.5	3.9	3.8	4.1	5.1	5.4	4.6	6.2	4.3	3.6	3.1	3.3	4.2	5.2	+1.0
Female	2.0	1.8	1.7	1.7	1.6	1.7	2.4	2.0	2.4	2.4	1.9	2.4	2.5	4.2	+1.7 s
College Plans:															
None or under 4 years	8.9	8.3	9.2	7.9	9.5	9.5	10.5	10.0	8.8	8.8	7.4	8.1	8.9	10.3	+1.4
Complete 4 years	1.9	2.1	1.9	2.2	2.6	2.9	2.8	3.3	2.8	2.4	1.9	2.2	2.5	3.5	+1.0 s
Region:															
Northeast	2.8	3.2	2.8	1.9	2.9	4.3	3.2	2.8	3.4	3.0	2.4	3.2	4.1	4.3	+0.2
Midwest	2.6	2.9	2.6	2.5	2.9	2.9	3.2	3.9	3.2	2.0	2.6	3.2	2.5	4.2	+1.7 ss
South	3.0	2.7	3.2	3.5	3.3	3.6	4.1	5.0	3.7	3.7	2.6	2.7	3.6	5.0	+1.4
West	2.5	2.7	2.4	3.1	4.3	3.8	3.5	3.7	3.3	3.0	2.4	2.9	3.5	5.3	+1.8
Population Density:															
Large MSA	2.8	2.3	2.5	2.2	2.8	3.6	2.9	3.4	3.3	2.6	2.1	2.7	3.2	3.8	+0.6
Other MSA	2.6	2.9	3.0	3.0	3.7	3.5	3.6	4.4	3.6	3.2	2.5	2.7	3.8	5.7	+1.9 s
Non-MSA	3.2	3.5	2.6	3.4	3.3	3.6	4.3	3.9	3.2	3.5	3.4	4.0	2.9	3.7	+0.8
Parental Education: [a]															
1.0–2.0 (Low)	4.2	4.9	4.2	4.6	4.5	5.8	5.5	5.8	4.3	5.1	3.0	4.3	4.9	5.6	+0.7
2.5–3.0	3.9	3.4	3.7	3.4	4.6	4.3	5.3	5.7	4.4	4.8	3.3	3.9	5.0	7.5	+2.5
3.5–4.0	2.9	3.2	3.2	2.9	3.8	3.7	3.2	4.4	4.6	3.3	3.2	3.2	3.3	5.8	+2.5 s
4.5–5.0	1.8	2.0	1.8	2.1	2.4	2.5	3.0	2.8	2.0	1.7	1.8	2.1	2.3	2.7	+0.4
5.5–6.0 (High)	1.9	1.6	1.3	1.9	1.7	2.9	1.8	2.2	1.4	1.8	0.9	1.9	2.3	2.0	-0.3
Race (2-year average): [b]															
White	3.0	3.1	2.8	2.6	2.9	3.3	3.4	3.5	3.5	3.2	3.0	2.7	2.8	3.4	+0.6 s
African American	2.8	2.5	2.8	2.9	3.2	3.8	4.0	4.7	4.4	3.0	2.3	2.7	3.8	4.6	+0.9
Hispanic	2.6	1.9	2.5	2.9	3.2	3.3	3.2	3.7	3.7	3.3	2.7	2.6	2.9	4.5	+1.5

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-of-use estimates for the two most recent classes is due to rounding.

See Table S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 18
MARIJUANA: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 12

Percentage who used daily in last 30 days

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	6.0	8.2	9.1	10.7	10.3	9.1	7.0	6.3	5.5	5.0	4.9	4.0	3.3	2.7	2.9	2.2
Gender:																
Male	8.1	10.8	12.4	14.2	12.7	11.9	9.6	8.2	7.3	7.0	6.9	5.7	4.3	3.9	4.1	3.2
Female	4.0	5.0	5.6	7.1	7.3	6.0	4.2	4.0	3.2	2.5	2.8	2.3	2.1	1.3	1.5	1.0
College Plans:																
None or under 4 years	—	9.9	11.1	12.8	13.0	11.9	9.4	8.6	7.3	6.9	6.7	6.2	5.2	4.0	4.6	3.5
Complete 4 years	—	5.5	6.3	7.4	6.8	5.9	4.8	3.9	3.4	2.9	3.3	2.3	2.0	1.8	2.0	1.5
Region:																
Northeast	6.7	10.2	9.9	14.5	13.6	11.1	9.1	8.0	6.9	7.5	6.8	5.0	4.1	2.5	3.3	2.7
Midwest	6.2	8.1	8.8	11.4	11.5	9.5	8.2	6.8	5.5	4.4	5.5	4.0	3.1	2.5	3.2	2.3
South	5.0	6.7	9.1	8.5	7.0	7.5	4.5	4.8	4.5	4.1	3.0	2.8	2.9	2.6	2.6	1.7
West	6.5	8.0	8.1	8.2	9.3	8.6	6.4	5.4	5.1	4.7	4.5	4.6	3.4	3.1	2.5	2.4
Population Density:																
Large MSA	8.4	10.7	9.5	12.7	10.6	10.3	8.3	7.9	7.3	5.7	5.8	4.6	3.8	2.6	2.3	2.4
Other MSA	5.9	8.2	10.0	10.9	11.3	9.5	7.1	6.0	5.7	5.0	5.0	3.9	3.5	3.4	3.0	2.0
Non-MSA	4.5	6.3	7.6	9.0	8.6	7.7	6.0	5.3	3.8	4.4	3.8	3.6	2.6	1.4	3.3	2.4
Parental Education: [a]																
1.0–2.0 (Low)	4.4	6.8	6.9	8.6	8.4	8.2	6.2	6.2	5.7	5.1	4.2	4.1	4.0	2.5	2.4	2.0
2.5–3.0	5.7	8.2	9.9	11.3	10.9	10.0	7.5	6.5	5.4	5.4	5.5	4.4	2.9	2.7	2.6	2.3
3.5–4.0	5.0	8.0	9.0	10.3	10.1	8.7	6.4	6.4	5.2	4.6	4.7	3.7	3.5	2.4	2.6	1.9
4.5–5.0	5.5	8.8	8.6	10.4	9.0	7.8	6.4	5.7	5.0	4.0	4.2	3.5	2.9	2.6	3.3	2.1
5.5–6.0 (High)	4.3	8.1	9.0	10.2	10.4	8.0	7.1	4.8	3.7	4.0	3.6	2.3	2.7	2.3	2.7	2.5
Race (2-year average): [b]																
White	—	—	8.6	10.2	10.8	9.7	8.0	6.8	5.9	5.1	4.9	4.5	3.7	3.2	3.1	2.8
African American	—	—	6.4	6.0	5.1	5.8	5.4	4.3	4.1	3.6	3.3	3.1	2.3	1.3	0.9	0.7
Hispanic	—	—	6.9	6.3	6.5	8.3	6.9	5.7	5.3	4.7	3.9	3.3	3.0	2.1	1.9	2.0

TABLE 18 (cont.)

MARIJUANA: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	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
Total	2.0	1.9	2.4	3.6	4.6	4.9	5.8	5.6	6.0	6.0	5.8	6.0	6.0	5.6	5.0
Gender:															
Male	3.0	2.8	3.3	5.1	6.5	6.8	8.1	7.7	7.9	8.2	7.9	8.7	8.3	7.7	7.2
Female	0.9	1.0	1.5	2.0	2.4	2.7	3.1	3.2	3.9	3.5	3.6	3.1	3.4	3.1	2.8
College Plans:															
None or under 4 years	3.3	3.5	3.6	4.9	6.8	7.1	8.0	9.8	9.2	9.8	8.8	10.3	9.4	8.1	8.4
Complete 4 years	1.4	1.2	2.0	2.9	3.5	3.9	4.7	4.0	4.7	4.4	4.4	4.6	4.5	4.5	4.0
Region:															
Northeast	2.4	2.4	3.0	4.1	5.1	6.2	6.9	6.8	5.7	7.3	7.7	7.4	7.8	6.8	5.5
Midwest	1.9	1.8	2.3	4.1	4.1	5.2	5.2	5.3	6.2	5.9	6.8	6.2	5.7	5.1	5.4
South	1.8	1.3	1.7	3.0	4.3	3.8	5.3	4.9	5.2	4.6	3.9	5.6	5.4	5.0	5.4
West	2.1	2.6	3.3	3.3	5.3	4.8	6.3	6.5	7.6	7.4	5.9	5.1	5.6	6.1	3.6
Population Density:															
Large MSA	1.9	1.9	2.5	3.7	5.3	5.5	4.6	5.4	5.4	5.7	5.9	6.0	4.4	5.3	5.3
Other MSA	2.5	1.7	2.4	3.9	4.5	5.0	6.6	5.9	5.8	6.3	5.7	6.1	7.6	6.3	5.0
Non-MSA	1.2	2.1	2.3	2.8	3.9	4.1	5.4	5.4	7.1	5.9	6.0	5.6	5.2	4.7	4.7
Parental Education: [a]															
1.0–2.0 (Low)	2.3	1.6	2.3	2.3	4.0	3.9	4.9	6.2	8.8	7.7	5.5	4.5	5.0	5.5	4.3
2.5–3.0	2.4	1.9	2.1	3.8	4.9	5.1	5.8	5.7	6.2	6.3	5.8	7.0	6.0	5.5	5.7
3.5–4.0	1.8	1.8	2.8	3.6	4.0	5.0	5.7	5.8	5.5	5.9	5.7	6.7	6.4	6.0	5.0
4.5–5.0	1.7	1.6	2.3	3.6	4.3	4.8	6.1	5.0	5.5	5.3	5.4	4.8	5.5	5.5	5.1
5.5–6.0 (High)	1.6	2.0	2.1	3.1	3.9	4.1	4.8	4.1	4.6	4.1	4.4	4.6	3.9	3.7	3.8
Race (2-year average): [b]															
White	2.2	2.0	2.4	3.2	4.1	4.7	5.5	5.9	5.8	6.0	6.2	6.4	6.5	6.3	5.8
African American	0.7	0.5	0.8	2.0	3.2	3.7	3.9	4.4	4.7	4.6	4.1	3.7	3.7	3.2	3.5
Hispanic	2.2	2.1	1.9	2.0	3.0	4.2	4.5	4.7	6.0	6.9	5.0	4.0	4.0	4.0	3.7

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TABLE 18 (cont.)
MARIJUANA: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

						Percentage who used daily in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	5.0	5.1	5.4	5.2	6.1	6.6	6.5	6.5	5.8	6.0	6.0	5.9	5.8	6.4	+0.7
Gender:															
Male	6.3	6.8	7.6	7.5	8.8	9.7	9.1	8.9	8.5	8.1	8.0	7.8	7.2	8.0	+0.8
Female	3.2	3.2	3.0	2.6	3.2	3.3	3.6	3.8	3.3	3.8	3.6	3.6	3.4	4.6	+1.2 s
College Plans:															
None or under 4 years	9.3	9.6	9.2	8.3	10.5	11.5	9.0	10.7	9.8	9.7	9.5	10.4	9.2	11.1	+1.8
Complete 4 years	3.7	3.8	4.2	4.1	4.7	5.4	5.5	5.1	4.6	5.0	4.9	4.6	4.1	4.7	+0.6
Region:															
Northeast	7.9	7.0	6.8	5.3	7.5	7.1	7.1	8.0	7.0	7.0	7.6	7.3	6.5	5.7	-0.7
Midwest	4.9	5.7	4.8	6.0	5.8	6.8	6.0	5.5	6.2	5.6	5.6	6.0	6.4	5.7	-0.8
South	4.2	4.3	5.5	5.0	6.1	6.3	6.1	6.4	5.3	5.5	5.0	4.7	4.2	6.2	+2.0 ss
West	3.7	4.0	4.9	4.4	5.4	6.5	7.0	6.5	5.4	6.6	6.9	6.9	7.2	8.8	+1.6
Population Density:															
Large MSA	4.9	4.7	5.6	5.4	6.3	6.2	7.4	6.6	5.2	6.4	6.7	6.1	6.4	5.6	-0.8
Other MSA	5.0	5.1	5.3	5.3	6.7	7.5	6.4	7.1	6.6	5.9	5.5	5.4	5.1	6.9	+1.7 ss
Non-MSA	5.1	5.5	5.6	4.6	4.3	5.0	5.2	4.7	4.8	5.8	6.1	7.0	6.1	6.9	+0.8
Parental Education: [a]															
1.0–2.0 (Low)	4.6	5.6	4.8	3.5	4.6	5.1	5.2	7.8	5.8	6.1	6.4	6.6	4.8	7.3	+2.4 ss
2.5–3.0	6.0	5.8	5.4	5.5	6.1	7.4	7.6	8.7	6.5	7.1	6.8	7.6	6.7	7.1	+0.4
3.5–4.0	4.9	5.0	4.9	5.5	6.6	6.9	7.2	6.9	6.4	5.9	6.2	6.4	6.0	6.7	+0.6
4.5–5.0	4.3	4.3	5.8	4.7	5.4	5.8	6.1	4.3	4.6	5.0	5.0	4.0	4.1	5.2	+1.1
5.5–6.0 (High)	3.6	3.8	4.9	4.1	4.7	6.0	4.4	4.8	4.5	4.9	3.7	3.5	4.4	4.4	0.0
Race (2-year average): [b]															
White	5.4	5.4	5.7	5.8	5.9	6.6	6.9	6.5	6.2	5.9	5.5	5.9	5.8	5.6	-0.2
African American	4.4	4.5	3.8	4.3	6.1	6.5	6.0	6.2	6.1	6.3	7.1	6.6	5.9	6.6	+0.6
Hispanic	3.2	3.2	3.4	3.6	4.1	4.6	4.8	6.1	5.7	4.8	5.1	5.0	4.3	4.8	+0.4

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-of-use estimates for the two most recent classes is due to rounding. See Table S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 19
SYNTHETIC MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months									2018–2019 change
	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	4.4	4.0	3.3	3.1	2.7	2.0	1.6	2.7	+1.1 ss
Gender:										
Male	—	4.1	3.8	2.9	2.6	2.6	2.3	1.8	2.3	+0.6
Female	—	4.6	4.1	3.6	3.5	2.8	1.6	1.4	3.1	+1.7 ss
College Plans:										
None or under 4 years	—	10.2	13.8	11.6	9.9	8.5	7.4	2.2	5.5	+3.3 s
Complete 4 years	—	3.9	3.3	2.6	2.6	2.2	1.4	1.4	2.3	+0.9 s
Region:										
Northeast	—	2.7	3.5	3.5	1.6	1.5	0.8	1.5	2.3	+0.9
Midwest	—	2.4	2.8	2.6	2.9	2.7	1.6	1.2	2.0	+0.9
South	—	5.6	4.2	2.6	3.1	2.8	2.5	1.6	2.8	+1.2
West	—	5.5	5.1	5.1	4.6	3.3	2.3	2.0	3.4	+1.5
Population Density:										
Large MSA	—	4.0	3.8	3.5	2.8	2.4	1.7	1.3	2.1	+0.9 s
Other MSA	—	4.9	3.9	2.6	3.4	2.5	2.4	1.8	3.1	+1.3 s
Non-MSA	—	3.8	4.2	4.3	3.0	3.6	1.4	1.5	2.5	+1.1
Parental Education: [a]										
1.0–2.0 (Low)	—	5.9	8.5	6.9	7.5	5.3	3.8	2.9	6.1	+3.2
2.5–3.0	—	6.4	4.0	4.3	3.5	3.3	2.0	1.5	5.1	+3.6 ss
3.5–4.0	—	5.5	4.8	2.9	3.1	4.3	2.2	1.5	2.6	+1.1
4.5–5.0	—	2.9	3.0	2.4	2.1	1.0	1.3	1.6	1.4	-0.2
5.5–6.0 (High)	—	1.8	2.7	2.7	1.3	1.4	1.2	1.0	1.7	+0.7
Race/Ethnicity (2-year data:) [b]										
White	—	—	3.1	2.9	2.2	2.1	1.8	1.1	1.5	+0.4
African American	—	—	2.8	2.3	2.0	2.5	2.9	2.4	1.9	-0.5
Hispanic	—	—	7.6	5.3	4.3	3.7	2.7	2.5	3.5	+0.9

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

Notes.   ' — ' 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S1.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 20
SYNTHETIC MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 10

<div align="center">Percentage who used in last 12 months</div>

	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	8.8	7.4	5.4	4.3	3.3	2.7	2.9	2.6	-0.3
Gender:										
Male	—	10.0	7.9	5.1	4.3	2.9	2.9	3.4	2.8	-0.6
Female	—	7.7	6.9	5.6	4.4	3.6	2.4	2.4	2.3	0.0
College Plans:										
None or under 4 years	—	18.7	16.5	12.9	11.4	7.8	5.5	4.7	4.3	-0.4
Complete 4 years	—	7.8	6.5	4.5	3.6	2.8	2.4	2.6	2.4	-0.2
Region:										
Northeast	—	7.7	6.9	3.8	4.6	4.2	1.3	3.3	2.6	-0.7
Midwest	—	9.2	6.3	5.8	3.4	2.7	2.7	2.6	2.3	-0.4
South	—	10.0	7.0	5.6	4.0	3.4	1.6	2.0	1.7	-0.3
West	—	7.4	9.4	6.1	5.7	3.0	5.0	4.6	4.7	+0.1
Population Density:										
Large MSA	—	7.7	6.4	5.6	4.6	2.8	1.9	3.7	1.8	-1.9 s
Other MSA	—	8.3	7.6	4.9	4.1	3.5	3.0	2.5	3.1	+0.7
Non-MSA	—	11.4	8.4	6.4	4.4	3.4	3.1	2.9	2.7	-0.1
Parental Education: [a]										
1.0–2.0 (Low)	—	10.5	8.6	6.6	8.5	4.4	5.0	5.5	3.0	-2.6
2.5–3.0	—	13.4	10.5	7.5	6.1	4.4	2.2	3.0	2.5	-0.6
3.5–4.0	—	9.0	8.4	6.9	5.0	3.8	3.2	2.8	2.4	-0.3
4.5–5.0	—	7.2	4.9	3.3	3.0	2.0	2.1	1.9	3.4	+1.4
5.5–6.0 (High)	—	6.4	4.8	3.4	2.0	2.4	1.4	3.2	1.6	-1.6
Race/Ethnicity (2-year data:) [b]										
White	—	—	8.4	6.2	4.5	3.5	2.6	2.2	2.7	+0.5
African American	—	—	3.6	4.1	4.1	3.4	3.0	2.2	1.5	-0.7
Hispanic	—	—	8.8	7.4	5.7	5.1	4.0	4.3	3.4	-0.8

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

Notes. ' — ' 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S2.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 21
SYNTHETIC MARIJUANA: Trends in Annual Prevalence of Use by Subgroups in Grade 12

					Percentage who used in last 12 months						2018–2019 change
	2009–2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	11.4	11.3	7.9	5.8	5.2	3.5	3.7	3.5	3.3	-0.2
Gender:											
Male	—	14.7	14.1	8.7	6.2	5.2	3.1	3.0	3.0	2.6	-0.3
Female	—	7.9	7.9	6.8	5.3	5.2	3.5	4.2	3.4	3.8	+0.4
College Plans:											
None or under 4 years	—	18.9	16.7	11.8	5.8	8.0	5.7	5.6	5.4	5.1	-0.3
Complete 4 years	—	10.0	9.9	7.0	5.8	4.4	2.8	3.3	2.9	2.8	-0.1
Region:											
Northeast	—	11.9	10.7	7.4	5.1	4.3	3.9	2.4	2.2	4.4	+2.2
Midwest	—	13.5	14.2	7.6	6.6	5.3	3.8	3.8	3.8	1.8	-2.0 s
South	—	11.0	9.3	7.9	6.2	4.3	3.4	3.4	4.0	3.1	-0.9
West	—	9.5	11.1	8.4	5.0	7.1	3.2	4.8	3.1	4.8	+1.7
Population Density:											
Large MSA	—	9.7	13.3	6.8	5.9	5.4	3.3	3.3	3.3	4.1	+0.8
Other MSA	—	12.3	10.3	8.2	6.3	5.0	3.9	3.2	3.7	2.9	-0.7
Non-MSA	—	11.7	10.8	8.6	4.6	5.2	2.8	5.5	3.4	2.9	-0.4
Parental Education: [a]											
1.0–2.0 (Low)	—	13.2	10.7	8.8	7.5	6.1	4.1	5.1	7.1	3.9	-3.2
2.5–3.0	—	12.9	12.3	7.0	7.0	5.9	4.8	4.8	3.6	5.0	+1.4
3.5–4.0	—	12.1	12.8	8.4	5.6	5.2	3.7	4.7	2.6	3.3	+0.7
4.5–5.0	—	9.2	11.0	8.5	5.2	4.2	2.5	1.8	3.0	2.8	-0.3
5.5–6.0 (High)	—	11.3	8.5	5.1	4.2	4.4	2.3	2.6	2.1	1.8	-0.3
Race/Ethnicity (2-year data:) [b]											
White	—	—	12.9	10.4	6.9	5.3	4.3	3.6	3.0	2.5	-0.5
African American	—	—	6.0	6.5	5.8	3.7	2.8	2.8	2.8	2.2	-0.6
Hispanic	—	—	9.9	9.6	7.6	6.9	6.1	4.4	5.0	5.0	+0.1

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

Notes. ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

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TABLE 22
INHALANTS: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

<div align="center">Percentage who used in last 12 months</div>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	9.0	9.5	11.0	11.7	12.8	12.2	11.8	11.1	10.3	9.4	9.1	7.7	8.7	9.6	9.5
Gender:															
Male	9.0	9.2	10.4	11.2	11.5	10.3	10.5	10.6	9.5	8.9	8.4	7.6	7.7	8.8	7.8
Female	9.0	9.8	11.9	12.2	14.0	14.1	12.9	11.6	11.1	9.9	9.9	7.8	9.6	10.5	11.1
College Plans:															
None or under 4 years	15.0	15.6	17.7	18.3	19.6	18.2	18.1	20.9	17.9	17.2	15.1	14.5	16.5	17.9	15.3
Complete 4 years	8.1	8.8	10.2	10.9	11.9	11.4	11.2	10.2	9.5	8.6	8.6	7.1	8.0	8.7	9.0
Region:															
Northeast	8.0	8.6	11.3	12.0	13.1	11.7	12.1	9.1	9.8	8.7	9.4	6.9	9.0	8.9	9.1
Midwest	9.8	10.5	9.9	10.3	13.8	13.3	11.3	11.3	10.6	10.6	8.8	8.0	9.6	9.6	8.5
South	8.9	9.1	10.0	11.3	12.1	11.3	11.6	11.3	9.9	8.4	9.5	8.4	7.9	9.9	9.8
West	8.8	9.8	14.2	14.0	12.4	12.9	12.6	12.4	10.9	10.5	8.6	6.4	8.9	9.6	10.4
Population Density:															
Large MSA	9.9	9.1	10.8	11.6	11.7	11.4	10.4	8.6	8.8	8.3	8.3	7.1	8.0	8.8	8.8
Other MSA	8.5	10.3	12.3	13.1	13.7	13.4	11.5	11.1	10.1	9.4	8.9	8.0	8.5	10.3	10.7
Non-MSA	9.1	8.6	8.5	9.3	12.3	11.0	13.9	14.0	12.3	10.9	10.4	7.8	10.1	9.2	8.3
Parental Education: [a]															
1.0–2.0 (Low)	12.0	11.4	11.5	12.4	13.0	11.3	12.1	14.4	12.9	13.1	10.7	10.3	10.6	12.6	11.6
2.5–3.0	9.5	9.9	10.9	12.1	13.9	12.6	12.6	12.0	11.8	11.3	9.7	8.3	10.1	10.2	11.6
3.5–4.0	8.9	10.0	11.5	12.3	14.7	13.4	13.5	12.8	10.8	9.9	9.4	8.9	10.3	11.0	10.0
4.5–5.0	8.0	8.4	10.6	11.0	12.3	13.2	11.4	9.7	9.2	7.1	9.0	7.3	7.4	9.3	8.4
5.5–6.0 (High)	8.4	10.3	12.6	12.2	11.6	11.7	10.8	10.6	9.1	9.2	7.7	6.2	6.5	6.9	8.0
Race/Ethnicity (2-year average): [b]															
White	—	10.1	11.3	12.4	13.8	14.6	14.1	13.3	12.1	10.9	10.1	9.1	8.8	9.6	9.8
African American	—	4.4	4.6	5.3	5.0	4.2	3.8	4.2	4.2	4.3	4.8	5.0	4.9	5.4	5.8
Hispanic	—	10.4	11.5	12.5	13.3	12.7	11.4	11.5	12.7	12.2	11.0	9.9	9.6	10.6	11.0

TABLE 22 (cont.)
INHALANTS: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months														2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014[c]	2015[c]	2016[c]	2017[c]	2018[c]	2019[c]	
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	9.1	8.3	8.9	8.1	8.1	7.0	6.2	5.2	5.3	4.6	3.8	4.7	4.6	4.7	+0.1
Gender:															
Male	7.7	7.3	7.0	7.0	6.4	5.5	4.5	4.0	4.0	3.8	2.9	4.0	3.6	3.1	-0.5
Female	10.5	9.3	11.0	9.3	9.5	8.6	7.9	6.3	6.2	5.2	4.7	5.3	5.4	6.2	+0.8
College Plans:															
None or under 4 years	17.3	18.1	19.1	16.7	13.1	12.8	11.2	10.9	10.7	7.6	8.6	8.3	8.0	5.8	-2.1
Complete 4 years	8.3	7.5	8.0	7.5	7.7	6.7	5.9	4.8	4.8	4.3	3.3	4.3	4.2	4.5	+0.3
Region:															
Northeast	7.2	5.9	7.9	7.4	7.4	6.7	5.6	5.3	4.1	4.6	2.6	4.3	3.7	4.0	+0.3
Midwest	9.0	8.1	9.1	7.6	7.9	5.8	5.5	4.1	4.9	4.7	4.5	4.5	4.7	4.3	-0.5
South	9.1	9.1	9.6	8.9	8.3	7.1	6.4	5.1	5.6	5.0	3.8	4.7	4.3	5.3	+1.0
West	10.5	8.8	8.4	7.9	8.3	8.4	7.2	6.3	5.9	3.7	3.8	5.0	5.5	4.5	-1.0
Population Density:															
Large MSA	8.8	8.6	8.7	7.1	7.2	6.7	6.6	5.1	5.1	4.2	3.4	4.3	4.6	4.1	-0.5
Other MSA	9.0	8.3	8.9	8.8	8.6	7.3	6.5	5.3	4.9	4.7	3.7	4.6	4.4	5.0	+0.6
Non-MSA	9.7	7.9	9.2	8.1	8.0	7.1	5.0	5.1	6.3	4.9	4.6	5.2	5.0	4.9	-0.1
Parental Education: [a]															
1.0–2.0 (Low)	10.5	11.9	13.3	11.8	12.2	10.7	8.9	8.6	7.2	5.3	6.1	5.8	5.8	6.2	+0.4
2.5–3.0	10.7	9.3	10.8	9.5	9.8	8.1	7.8	6.0	6.7	5.5	4.3	5.7	4.8	5.6	+0.8
3.5–4.0	10.3	9.2	9.5	9.3	8.2	8.1	6.8	6.2	5.9	4.9	3.5	5.5	5.4	4.9	-0.5
4.5–5.0	7.8	7.6	7.3	6.9	6.7	5.5	5.0	4.0	4.2	3.9	3.6	4.1	3.9	4.4	+0.5
5.5–6.0 (High)	7.9	6.3	7.8	6.1	6.6	6.2	5.2	3.8	4.1	3.7	3.2	4.2	4.1	4.5	+0.4
Race/Ethnicity (2-year average): [b]															
White	9.7	8.9	8.5	8.6	8.0	7.1	5.9	4.9	4.4	4.3	3.9	4.2	4.5	4.7	+0.3
African American	5.4	5.5	5.6	5.9	5.5	5.1	5.6	5.1	4.7	4.4	3.6	3.3	3.6	4.0	+0.4
Hispanic	9.5	9.2	10.2	10.3	10.7	10.5	9.0	7.6	6.5	4.8	4.1	4.4	4.7	4.6	-0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

[c] Beginning in 2014 data are based on three of four forms; *N* is two thirds of *N* indicated.

TABLE 23
INHALANTS: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	7.1	7.5	8.4	9.1	9.6	9.5	8.7	8.0	7.2	7.3	6.6	5.8	5.4	5.9	6.0
Gender:															
Male	7.4	7.6	9.1	9.7	10.3	10.1	9.1	8.4	7.6	7.7	6.7	5.4	5.2	5.8	5.0
Female	6.6	7.5	7.7	8.6	8.9	8.9	8.2	7.6	6.9	7.0	6.5	6.0	5.6	6.1	6.9
College Plans:															
None or under 4 years	12.0	12.4	14.0	15.1	14.6	14.3	14.4	13.5	11.6	11.2	11.0	9.8	9.6	11.2	9.9
Complete 4 years	5.9	6.4	7.3	7.8	8.7	8.7	7.7	7.0	6.5	6.7	5.9	5.2	4.8	5.2	5.5
Region:															
Northeast	7.2	7.8	10.6	9.8	10.4	11.5	8.9	9.3	8.3	7.2	6.5	6.0	5.9	6.1	6.2
Midwest	7.5	8.0	8.3	8.4	10.4	9.8	8.3	6.7	8.4	7.5	6.5	5.8	6.1	5.7	6.1
South	7.2	6.6	7.3	9.0	9.4	9.1	8.8	8.3	6.5	7.4	6.8	5.4	4.6	5.6	5.6
West	6.2	8.0	8.4	9.9	8.1	8.0	8.5	7.8	6.1	7.2	6.7	6.2	5.5	6.6	6.1
Population Density:															
Large MSA	7.7	7.8	8.5	7.9	8.7	8.1	8.1	6.7	6.9	7.1	6.0	5.1	4.8	5.0	6.2
Other MSA	7.1	7.4	8.4	9.8	9.7	9.6	8.4	7.7	7.0	6.8	6.9	5.4	5.2	6.3	5.6
Non-MSA	6.5	7.5	8.6	9.1	10.5	11.0	9.8	10.1	8.3	8.5	7.0	7.4	7.1	6.5	6.5
Parental Education:[a]															
1.0–2.0 (Low)	7.0	8.2	10.2	8.7	9.4	10.8	9.3	9.7	8.7	8.5	7.6	5.6	5.8	6.2	6.3
2.5–3.0	8.0	7.9	9.1	9.5	11.0	9.9	8.5	9.1	8.0	8.1	7.5	6.0	6.3	6.9	6.9
3.5–4.0	7.5	8.3	8.3	9.6	10.2	10.1	9.4	8.1	6.9	7.4	5.9	6.3	5.8	5.7	6.2
4.5–5.0	6.4	6.5	7.2	8.7	9.4	8.4	8.3	7.1	6.7	6.5	6.8	5.6	5.1	5.7	5.8
5.5–6.0 (High)	6.6	6.7	8.2	8.2	7.0	10.1	8.2	6.7	7.2	7.2	5.5	5.2	4.4	5.1	5.3
Race/Ethnicity (2-year average):[b]															
White	—	8.3	8.8	9.6	10.6	11.0	10.4	9.6	8.9	8.4	7.9	7.1	6.6	6.5	6.6
African American	—	3.6	3.7	3.3	2.8	2.3	2.3	2.4	2.0	2.0	2.1	2.4	2.0	2.1	2.8
Hispanic	—	6.4	8.3	9.0	8.5	8.2	7.9	7.6	7.3	6.3	5.9	4.8	4.8	5.7	6.2

TABLE 23 (cont.)

INHALANTS: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

						Percentage who used in last 12 months									2018-2019
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>[c]	<u>2015</u>[c]	<u>2016</u>[c]	<u>2017</u>[c]	<u>2018</u>[c]	<u>2019</u>[c]	change
Approximate weighted N =	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	6.5	6.6	5.9	6.1	5.7	4.5	4.1	3.5	3.3	2.9	2.4	2.3	2.4	2.8	+0.4
Gender:															
Male	5.9	6.3	5.4	5.4	5.0	4.1	3.4	3.4	2.8	2.7	2.2	2.1	2.0	2.6	+0.6
Female	7.1	7.0	6.3	6.7	6.3	4.8	4.8	3.5	3.8	3.0	2.6	2.5	2.7	3.0	+0.3
College Plans:															
None or under 4 years	10.6	12.0	11.1	11.7	12.1	9.7	8.8	6.0	6.5	5.7	4.3	4.6	4.1	4.3	+0.3
Complete 4 years	5.9	5.9	5.3	5.4	5.0	3.9	3.6	3.2	3.0	2.6	2.2	2.0	2.2	2.5	+0.4
Region:															
Northeast	6.5	6.4	4.9	6.1	4.9	4.8	3.8	2.6	2.5	2.7	2.1	2.0	2.0	2.2	+0.2
Midwest	6.7	6.8	5.7	5.7	5.8	3.9	3.8	3.3	3.6	2.4	2.1	1.6	2.0	3.0	+1.0
South	5.7	6.1	5.6	5.2	5.8	4.3	4.2	3.2	3.8	2.9	2.7	3.0	2.9	2.9	0.0
West	7.2	7.3	7.2	7.6	6.3	5.1	4.4	4.5	3.2	3.5	2.6	2.1	2.2	2.8	+0.6
Population Density:															
Large MSA	6.0	6.0	5.3	6.1	5.6	4.5	3.9	3.3	3.2	3.2	2.2	2.2	1.9	2.5	+0.6
Other MSA	6.4	6.8	6.4	6.2	5.4	4.2	3.6	3.4	3.1	2.7	2.4	2.1	2.6	2.6	-0.1
Non-MSA	7.4	7.1	5.5	5.9	6.4	4.9	5.2	3.7	4.2	2.9	2.9	2.9	2.5	4.0	+1.5
Parental Education:[a]															
1.0–2.0 (Low)	6.9	9.3	8.7	7.1	9.0	6.0	5.4	4.1	4.6	5.7	2.9	2.0	1.0	3.4	+2.4 ss
2.5–3.0	6.2	7.5	6.7	7.4	6.9	5.4	4.7	4.5	4.7	3.5	2.3	2.4	2.4	4.2	+1.8 s
3.5–4.0	7.1	7.0	6.3	6.5	5.7	4.5	3.9	3.8	3.3	3.2	2.6	2.7	2.9	2.0	-0.9
4.5–5.0	5.5	5.8	5.0	4.9	4.8	3.7	3.9	2.9	2.7	2.3	2.2	2.3	3.1	2.4	-0.7
5.5–6.0 (High)	7.5	5.4	4.5	4.8	4.4	3.8	3.6	2.3	2.3	1.9	2.9	1.5	1.7	3.2	+1.6 s
Race/Ethnicity (2-year average):[b]															
White	6.8	7.1	6.5	5.9	5.7	4.8	4.1	3.6	3.2	2.9	2.5	2.3	2.3	2.7	+0.4
African American	2.9	2.9	2.9	3.2	3.1	2.9	2.4	2.6	3.1	2.7	1.9	2.0	2.8	3.0	+0.2
Hispanic	6.4	6.4	7.2	7.9	7.5	6.8	5.7	4.8	4.2	3.7	2.8	2.2	1.9	2.1	+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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Beginning in 2014 data are based on three of four forms; *N* is two thirds of *N* indicated.

TABLE 24
INHALANTS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	—	3.0	3.7	4.1	5.4	4.6	4.1	4.5	4.3	5.1	5.7	6.1	6.9	6.5	5.9	6.9
Adjusted [b]	—	—	—	—	8.9	7.9	6.1	6.6	6.2	7.2	7.5	8.9	8.1	7.1	6.9	7.5
Gender:																
Male	—	3.8	5.1	5.6	6.7	5.9	5.1	5.8	5.8	6.5	6.9	7.8	8.3	8.2	7.8	8.8
Female	—	2.0	2.4	2.8	4.2	3.5	3.2	3.1	2.8	3.8	4.5	4.7	5.6	4.9	4.0	4.9
College Plans:																
None or under 4 years	—	3.6	4.7	5.0	6.3	5.0	4.3	4.9	4.7	5.8	5.8	7.7	8.0	8.1	7.1	7.8
Complete 4 years	—	2.2	2.9	3.4	4.5	4.3	4.0	4.1	3.9	4.7	5.7	5.2	6.4	6.0	5.4	6.4
Region:																
Northeast	—	3.2	4.1	4.4	6.4	6.0	5.2	6.2	5.0	6.1	8.0	5.6	6.7	6.0	6.3	7.4
Midwest	—	2.6	4.2	4.8	5.9	4.6	3.8	3.6	4.5	5.0	5.8	6.7	8.6	7.2	6.7	8.0
South	—	3.8	3.3	3.6	4.3	3.4	3.2	3.8	3.8	4.6	4.2	5.7	6.1	6.8	5.5	6.4
West	—	1.7	3.0	3.6	4.9	4.9	4.7	4.4	4.3	5.3	5.4	6.6	6.2	5.6	4.8	5.7
Population Density:																
Large MSA	—	2.9	3.4	3.4	5.1	5.7	4.7	5.5	4.8	5.3	5.9	5.2	6.0	6.5	5.1	6.7
Other MSA	—	2.6	3.6	3.7	4.8	4.2	4.0	3.9	4.4	5.0	5.9	6.3	6.9	6.0	5.8	6.8
Non-MSA	—	3.4	4.2	5.3	6.2	4.4	3.7	4.4	3.9	5.2	5.4	6.6	7.8	7.5	6.8	7.4
Parental Education: [c]																
1.0–2.0 (Low)	—	3.7	3.9	4.5	5.2	3.6	3.6	3.2	3.1	4.5	4.2	4.9	4.6	5.3	5.9	5.0
2.5–3.0	—	3.1	4.1	4.0	5.0	4.8	4.0	4.8	4.0	5.2	5.6	6.1	6.8	6.3	5.5	6.9
3.5–4.0	—	3.1	3.4	4.1	5.1	4.7	4.0	4.6	4.9	5.6	5.5	6.2	7.1	5.8	6.1	7.2
4.5–5.0	—	2.7	3.0	3.9	5.8	4.3	4.4	4.4	5.2	5.0	7.0	6.9	7.2	7.0	5.7	7.4
5.5–6.0 (High)	—	3.7	4.2	5.0	7.2	5.8	4.9	6.0	4.7	5.6	6.8	6.4	8.7	9.1	6.8	7.6
Race/Ethnicity (2-year average): [d]																
White	—	—	3.6	4.3	5.1	5.3	4.7	4.7	4.8	5.1	5.9	6.5	7.3	7.6	7.0	7.2
African American	—	—	1.5	1.3	2.1	2.2	2.1	1.9	1.8	2.2	2.0	2.1	3.0	3.1	2.2	2.1
Hispanic	—	—	2.7	3.0	2.9	2.9	3.5	4.1	3.4	4.6	6.5	5.5	4.6	4.1	4.7	4.8

TABLE 24 (cont.)
INHALANTS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	6.6	6.2	7.0	7.7	8.0	7.6	6.7	6.2	5.6	5.9	4.5	4.5	3.9	4.2	5.0	4.5
Adjusted [b]	6.9	6.4	7.4	8.2	8.4	8.5	7.3	7.1	6.0	6.2	4.9	4.9	4.5	4.6	5.4	4.7
Gender:																
Male	8.2	8.0	9.2	9.6	9.9	9.1	8.3	7.5	6.5	6.8	5.5	5.8	5.2	4.8	6.2	5.1
Female	5.0	4.5	4.8	6.0	6.2	6.1	5.2	5.1	4.9	5.1	3.5	3.3	2.9	3.4	4.1	3.9
College Plans:																
None or under 4 years	7.7	7.7	8.0	9.0	9.7	8.2	8.0	7.9	6.5	6.7	6.6	6.3	5.1	5.6	7.3	6.8
Complete 4 years	6.3	5.7	6.7	7.4	7.4	7.3	6.5	5.7	5.4	5.5	3.9	4.2	3.5	3.8	4.6	3.9
Region:																
Northeast	6.7	6.0	8.9	10.3	10.3	10.8	9.4	8.0	6.2	6.3	5.7	5.4	5.1	4.3	6.0	5.9
Midwest	8.6	7.4	6.3	9.5	8.6	7.6	6.9	7.6	6.3	5.5	5.0	5.6	3.7	3.8	5.6	4.8
South	5.0	4.8	6.5	6.2	7.0	6.5	5.6	5.1	5.2	5.5	3.4	4.1	3.5	4.1	4.6	3.6
West	6.8	7.5	7.0	5.7	6.7	6.0	5.4	4.7	4.9	6.7	4.8	3.2	3.6	4.6	4.3	4.7
Population Density:																
Large MSA	5.2	6.0	7.4	7.6	8.5	7.8	5.9	5.5	4.8	6.3	4.4	4.4	3.5	4.0	5.0	4.1
Other MSA	7.8	6.6	7.3	7.7	7.8	7.9	6.5	6.1	5.3	4.9	4.3	4.4	4.1	5.1	4.5	4.5
Non-MSA	5.8	5.6	6.0	7.6	7.8	7.0	8.1	7.4	6.9	7.2	5.2	4.8	3.7	4.3	4.9	5.2
Parental Education: [c]																
1.0–2.0 (Low)	6.1	4.2	4.3	5.3	7.5	5.8	5.4	6.3	4.8	4.0	3.2	5.7	3.4	4.6	5.2	5.0
2.5–3.0	6.6	6.7	6.0	7.8	8.0	7.9	6.3	6.0	5.4	5.2	5.7	4.3	3.8	4.9	5.7	4.8
3.5–4.0	6.1	6.3	7.7	7.1	6.7	7.8	7.1	7.3	6.1	6.1	4.2	4.5	3.9	5.0	4.8	4.7
4.5–5.0	7.4	6.3	7.6	8.9	8.9	7.4	7.9	5.3	5.6	5.9	3.8	4.7	4.4	3.4	5.8	4.3
5.5–6.0 (High)	7.1	6.7	9.4	9.7	9.7	8.5	6.0	6.2	6.1	7.5	5.8	4.6	4.0	3.2	3.0	3.9
Race/Ethnicity (2-year average): [d]																
White	7.6	7.2	7.6	8.6	9.1	9.0	8.6	7.9	7.0	6.4	5.9	5.2	4.9	4.7	5.1	5.3
African American	2.7	2.5	2.2	2.4	2.6	2.2	1.9	1.7	1.4	1.9	2.2	1.9	1.5	1.3	1.9	1.9
Hispanic	5.4	6.0	5.7	5.5	5.8	5.9	4.7	4.5	5.5	6.3	4.5	3.4	2.7	2.9	5.3	5.7

TABLE 24 (cont.)
INHALANTS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	3.7	3.8	3.4	3.6	3.2	2.9	2.5	1.9	1.9	1.7	1.5	1.6	1.9	+0.3
Adjusted [b]	4.1	4.0	4.1	—	—	—	—	—	—	—	—	—	—	—
Gender:														
Male	3.9	4.4	3.6	4.7	3.3	3.1	2.9	2.1	2.1	1.5	1.4	1.8	2.2	+0.4
Female	3.4	3.2	3.2	2.5	3.0	2.6	2.2	1.8	1.6	1.7	1.6	1.2	1.5	+0.3
College Plans:														
None or under 4 years	4.4	6.1	4.7	4.5	6.2	3.7	3.9	3.1	4.1	2.2	2.7	2.1	3.7	+1.6 s
Complete 4 years	3.5	3.3	3.1	3.4	2.6	2.6	2.2	1.7	1.4	1.5	1.3	1.4	1.3	-0.1
Region:														
Northeast	3.9	3.5	3.7	3.4	3.1	3.8	2.6	1.9	1.4	2.0	1.4	2.0	1.9	-0.1
Midwest	3.9	3.0	3.7	3.9	3.2	2.5	2.3	2.4	1.5	1.7	1.3	1.1	2.3	+1.2 s
South	3.4	3.7	3.1	3.6	2.7	2.2	2.0	1.8	2.4	1.6	1.8	1.7	1.7	-0.1
West	3.7	5.0	3.5	3.8	4.0	3.4	3.3	1.7	1.8	1.5	1.4	1.6	2.0	+0.4
Population Density:														
Large MSA	2.8	3.1	2.4	4.0	3.3	3.2	2.6	1.7	1.4	1.5	1.3	1.5	2.3	+0.8
Other MSA	3.8	3.7	3.8	3.5	3.0	2.7	2.4	2.0	1.9	1.6	1.6	1.5	1.7	+0.1
Non-MSA	4.7	4.7	3.9	3.4	3.5	2.8	2.6	2.1	2.7	2.1	1.7	1.8	1.8	0.0
Parental Education: [c]														
1.0–2.0 (Low)	3.6	3.6	3.6	3.0	4.3	3.0	2.7	2.6	2.4	1.7	2.3	0.7	1.9	+1.1
2.5–3.0	3.8	3.6	4.1	3.5	3.4	3.4	3.0	1.5	2.2	0.7	1.1	2.0	2.2	+0.3
3.5–4.0	3.9	4.4	3.1	3.6	3.8	2.3	2.7	1.8	2.1	2.0	1.9	1.9	2.1	+0.2
4.5–5.0	3.7	3.6	3.9	3.9	2.3	3.1	1.9	2.1	1.4	2.0	0.8	1.6	1.3	-0.3
5.5–6.0 (High)	3.4	3.4	1.9	3.2	2.0	2.8	2.2	2.1	1.5	1.8	1.9	1.2	1.9	+0.7
Race/Ethnicity (2-year average): [d]														
White	4.7	4.3	4.1	3.8	3.5	3.0	2.6	2.3	1.9	1.6	1.4	1.5	1.8	+0.3
African American	1.6	1.5	1.6	2.0	2.2	1.9	2.0	2.1	1.9	1.8	1.9	1.6	1.9	+0.2
Hispanic	4.3	3.3	3.0	3.6	4.5	4.1	3.7	2.8	2.0	2.1	1.8	1.5	1.3	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on four of five forms in 1976–1988; *N* is four fifths of *N* indicated in Table S3. Data based on five of six forms in 1989–1998; N is five sixths of N indicated in Table S3. Data based on three of six forms beginning in 1999; N is three sixths of N indicated in Table S3.

[a] All data are unadjusted for underreporting of amyl and butyl nitrites, except where otherwise noted.

[b] Adjusted for underreporting of amyl and butyl nitrites. See text for details.

[c] Parental education is an average score of mother's education and father's education. See appendix B for details.

[d] To 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 25
HALLUCINOGENS: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[a]	2002	2003	2004	2005
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
Total	1.9	2.5	2.6	2.7	3.6	4.1	3.7	3.4	2.9	2.8‡	3.4	2.6	2.6	2.2	2.4
Gender:															
Male	2.2	2.6	2.8	3.0	4.0	4.3	4.0	3.7	3.3	3.2‡	3.8	2.9	2.9	2.3	2.5
Female	1.6	2.3	2.3	2.4	3.3	3.7	3.2	2.9	2.4	2.5‡	2.9	2.2	2.3	2.1	2.2
College Plans:															
None or under 4 years	5.1	7.2	7.1	6.7	9.6	9.6	10.1	9.2	9.4	7.7‡	9.5	7.8	8.7	7.8	7.6
Complete 4 years	1.4	1.8	1.9	2.2	2.9	3.2	2.9	2.7	2.1	2.3‡	2.6	2.0	1.9	1.7	1.8
Region:															
Northeast	1.5	1.6	1.9	2.9	3.4	3.7	2.8	2.4	2.6	2.3‡	2.9	1.5	2.5	2.0	1.9
Midwest	1.6	2.4	1.7	2.2	3.8	3.9	3.8	3.5	3.4	3.5‡	2.7	2.7	2.6	1.9	2.2
South	1.9	2.7	2.8	2.4	3.3	3.9	3.4	3.7	2.9	2.7‡	4.0	2.9	2.6	2.4	2.9
West	2.8	3.2	4.2	3.9	4.2	5.1	4.8	3.5	2.4	2.7‡	3.3	2.9	2.7	2.6	2.3
Population Density:															
Large MSA	2.1	2.2	2.2	3.1	4.0	3.8	3.3	2.9	2.5	2.3‡	2.7	2.0	2.2	1.9	2.2
Other MSA	2.0	3.0	3.1	3.1	3.8	4.8	4.0	3.4	3.1	3.0‡	3.6	2.4	2.5	2.6	2.4
Non-MSA	1.5	2.0	1.8	1.6	3.0	3.2	3.5	3.8	2.8	3.2‡	3.6	3.5	3.3	2.1	2.7
Parental Education: [b]															
1.0–2.0 (Low)	3.9	3.7	3.5	3.1	5.1	4.8	5.0	5.0	4.8	5.4‡	5.9	4.4	4.3	4.8	3.4
2.5–3.0	2.2	2.3	2.7	2.8	3.8	4.7	3.9	3.4	3.5	3.2‡	3.9	3.2	3.2	2.5	3.3
3.5–4.0	1.6	2.5	2.8	2.8	4.1	4.1	3.8	3.7	2.8	2.8‡	3.7	2.6	2.6	2.1	3.0
4.5–5.0	1.6	2.0	2.3	2.8	3.2	4.0	3.4	3.0	2.1	2.1‡	2.4	2.1	2.0	2.0	1.8
5.5–6.0 (High)	1.4	2.4	2.0	2.5	3.2	3.5	3.5	3.1	2.5	3.1‡	2.3	1.7	1.9	1.7	1.1
Race/Ethnicity (2-year average): [c]															
White	—	2.2	2.6	2.8	3.6	4.5	4.5	3.9	3.2	3.1	2.9‡	2.7[d]	2.8	2.5	2.4
African American	—	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.6	0.7	0.7‡	0.7[d]	0.9	1.2	1.3
Hispanic	—	3.8	4.1	4.0	4.0	4.1	4.2	4.6	4.5	4.0	3.4‡	3.6[d]	2.9	2.9	2.7

TABLE 25 (cont.)
HALLUCINOGENS: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

	Percentage who used in last 12 months														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	2.1	1.9	2.1	1.9	2.2	2.2	1.6	1.6	1.3	1.3	1.2	1.1	1.4	1.3	-0.1
Gender:															
Male	2.1	2.1	2.2	2.0	2.5	2.6	1.7	1.7	1.5	1.3	1.3	1.1	1.5	1.2	-0.3
Female	2.0	1.8	2.0	1.8	2.0	1.7	1.5	1.6	1.0	1.2	1.1	1.1	1.1	1.4	+0.3
College Plans:															
None or under 4 years	6.7	6.9	8.4	7.4	6.9	7.7	5.2	5.3	4.1	3.8	3.5	2.9	3.9	3.3	-0.6
Complete 4 years	1.6	1.5	1.6	1.4	1.8	1.8	1.3	1.4	1.0	1.1	0.9	0.9	1.0	1.0	+0.1
Region:															
Northeast	1.4	1.0	1.4	1.4	1.8	1.1	1.5	1.0	0.6	0.6	0.8	0.8	0.7	0.5	-0.2
Midwest	1.9	2.0	2.0	1.9	2.5	1.8	0.8	1.5	1.0	1.3	0.9	0.6	0.9	1.3	+0.4
South	2.3	1.7	2.3	1.8	1.9	2.0	2.0	1.8	1.3	1.4	1.5	1.2	1.3	1.1	-0.1
West	2.4	2.8	2.5	2.3	3.0	3.9	1.8	1.9	1.9	1.6	1.3	1.7	2.4	2.0	-0.4
Population Density:															
Large MSA	1.4	1.5	2.1	1.5	1.9	2.0	1.7	1.5	1.1	1.1	1.3	1.0	1.8	0.9	-0.9 ss
Other MSA	2.4	2.0	2.3	2.1	2.6	2.6	1.8	1.7	1.4	1.6	1.1	1.3	1.2	1.4	+0.2
Non-MSA	2.5	2.4	1.7	2.0	2.1	1.7	1.1	1.5	1.4	0.9	1.5	1.1	1.0	1.5	+0.5
Parental Education: [b]															
1.0–2.0 (Low)	2.9	3.0	4.2	3.9	3.1	3.7	2.5	2.3	2.1	2.0	2.4	1.9	2.0	2.2	+0.1
2.5–3.0	2.6	2.0	2.4	1.8	2.8	3.2	1.9	1.8	1.4	1.1	1.6	1.4	1.8	2.2	+0.3
3.5–4.0	2.3	2.3	2.1	2.0	2.4	2.3	2.0	1.5	1.5	1.5	1.3	1.2	1.6	1.4	-0.2
4.5–5.0	1.9	1.6	1.7	1.6	2.0	1.6	1.0	1.4	0.7	1.0	0.6	0.8	1.0	0.9	-0.1
5.5–6.0 (High)	1.5	1.1	1.9	1.5	1.4	1.4	1.2	1.6	1.3	0.8	0.8	0.8	0.8	0.9	+0.1
Race/Ethnicity (2-year average): [c]															
White	2.5	2.2	2.1	2.1	2.1	2.1	1.6	1.3	1.2	1.0	1.0	1.0	1.1	1.1	0.0
African American	1.1	0.7	0.8	0.8	0.7	0.9	1.1	1.2	0.9	0.7	1.0	0.9	0.7	0.8	+0.1
Hispanic	1.8	2.1	2.5	2.4	2.7	3.1	2.8	2.1	1.8	1.5	1.7	1.5	1.5	1.8	+0.3

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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.

[d]Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 26
HALLUCINOGENS: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[a]	2002	2003	2004	2005
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
Total	4.0	4.3	4.7	5.8	7.2	7.8	7.6	6.9	6.9	6.1‡	6.2	4.7	4.1	4.1	4.0
Gender:															
Male	4.4	4.7	5.7	6.6	8.1	8.5	8.7	7.4	8.1	7.2‡	7.9	5.5	4.9	4.6	4.8
Female	3.6	3.8	3.6	4.8	6.1	7.0	6.4	6.3	5.7	4.9‡	4.6	3.9	3.4	3.5	3.1
College Plans:															
None or under 4 years	7.5	7.5	9.1	10.4	12.5	14.5	13.6	14.2	14.3	12.3‡	15.0	10.3	8.9	9.3	9.4
Complete 4 years	3.3	3.6	3.7	4.8	6.2	6.6	6.5	5.6	5.7	5.1‡	4.8	3.9	3.3	3.3	3.2
Region:															
Northeast	4.0	2.7	4.7	5.8	5.6	7.7	6.2	8.1	8.6	5.8‡	6.0	4.2	4.0	4.7	5.0
Midwest	3.4	4.3	4.6	5.7	7.8	9.0	7.0	5.6	6.7	6.1‡	6.0	5.1	3.5	3.7	3.9
South	3.6	3.9	3.6	5.1	7.3	7.5	8.3	7.6	6.5	5.7‡	5.3	4.0	3.9	3.6	3.5
West	5.2	6.5	6.7	7.1	7.6	6.6	8.5	6.1	6.1	6.9‡	8.7	5.9	5.0	4.7	3.7
Population Density:															
Large MSA	4.1	4.6	4.9	6.0	7.1	8.6	7.8	6.3	5.8	7.5‡	5.0	4.7	3.2	2.9	3.4
Other MSA	4.8	4.4	4.9	6.4	8.0	8.2	7.9	7.6	7.8	5.8‡	6.6	4.9	4.4	5.0	4.3
Non-MSA	2.5	3.7	4.1	4.4	5.5	6.0	6.7	6.3	6.5	5.1‡	6.8	4.4	4.6	3.9	4.2
Parental Education: [b]															
1.0–2.0 (Low)	3.7	4.9	6.0	6.1	7.7	8.0	6.5	8.3	7.0	5.2‡	6.4	5.3	6.5	3.2	3.7
2.5–3.0	4.3	4.2	4.5	5.5	7.6	8.5	7.3	8.2	8.1	5.8‡	6.7	5.2	4.7	4.8	4.5
3.5–4.0	3.7	4.6	4.8	5.9	7.6	8.6	8.2	6.6	6.6	6.7‡	6.1	4.8	4.0	3.9	4.0
4.5–5.0	4.1	3.8	4.5	5.5	6.6	6.9	8.2	6.1	6.6	6.3‡	6.0	4.0	3.5	3.7	4.0
5.5–6.0 (High)	4.6	4.2	4.6	6.2	6.5	7.2	6.8	6.0	6.5	6.2‡	5.8	5.2	3.4	4.1	3.7
Race/Ethnicity (2-year average): [c]															
White	—	4.9	5.1	5.6	7.1	8.6	8.9	8.4	8.2	7.6	6.6‡	5.6[d]	5.3	4.9	4.7
African American	—	0.2	0.6	1.1	1.2	0.9	1.0	1.1	1.0	1.0	1.3‡	1.4[d]	1.0	0.8	1.2
Hispanic	—	3.6	4.5	5.7	6.3	6.6	7.3	7.3	6.4	5.2	4.4‡	4.5[d]	3.9	3.8	4.0

Table continued on next page.

TABLE 26 (cont.)

HALLUCINOGENS: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	4.1	4.4	3.9	4.1	4.2	4.1	3.5	3.4	3.3	3.1	2.9	2.8	2.7	3.1	+0.4
Gender:															
Male	4.5	5.4	4.7	5.0	5.2	4.9	4.6	4.4	3.3	3.4	3.5	3.4	3.2	4.0	+0.8
Female	3.5	3.4	3.1	3.1	3.0	3.2	2.5	2.4	3.4	2.5	2.3	2.2	2.1	2.2	+0.1
College Plans:															
None or under 4 years	10.0	10.0	10.4	10.5	11.0	10.3	10.5	6.5	8.3	7.0	6.8	7.5	6.0	5.5	-0.5
Complete 4 years	3.3	3.6	3.1	3.4	3.4	3.4	2.9	3.1	2.8	2.6	2.4	2.2	2.2	2.5	+0.3
Region:															
Northeast	4.0	4.4	3.5	3.4	4.0	4.0	3.0	2.7	3.4	3.2	2.1	1.6	2.1	1.9	-0.2
Midwest	4.1	4.7	3.8	4.4	3.5	3.5	3.2	2.9	3.2	2.2	2.6	3.0	2.6	3.0	+0.4
South	3.5	3.6	4.1	3.8	4.2	4.0	3.4	3.4	3.3	3.5	2.7	2.2	2.9	2.9	0.0
West	5.1	5.1	4.2	4.9	5.1	5.0	4.5	4.4	3.3	3.2	4.2	4.4	3.0	4.5	+1.5
Population Density:															
Large MSA	4.1	3.9	3.9	4.0	3.9	4.0	3.4	2.6	2.8	2.7	2.9	2.8	2.6	3.0	+0.4
Other MSA	4.1	4.7	4.2	4.3	4.3	4.4	3.7	3.9	3.7	3.4	3.0	2.8	2.8	3.2	+0.3
Non-MSA	3.8	4.2	3.4	3.8	4.1	3.7	3.4	3.2	3.4	2.8	2.7	2.8	2.6	3.3	+0.7
Parental Education: [b]															
1.0–2.0 (Low)	5.3	5.4	5.0	5.8	5.3	5.7	4.9	4.4	3.0	3.9	2.9	2.9	3.5	3.4	-0.1
2.5–3.0	4.5	4.6	4.1	3.9	5.6	4.6	4.5	4.0	3.5	4.1	3.8	3.8	3.0	3.7	+0.7
3.5–4.0	3.8	4.5	4.2	4.3	4.2	4.1	3.3	3.9	4.3	3.7	3.0	3.3	2.7	3.5	+0.8
4.5–5.0	3.9	4.2	3.3	3.6	3.5	3.5	3.2	2.9	2.7	2.5	2.5	2.4	2.3	2.5	+0.1
5.5–6.0 (High)	4.0	3.9	3.3	4.5	3.3	3.5	2.8	3.0	2.7	2.0	2.6	2.0	2.8	2.4	-0.4
Race/Ethnicity (2-year average): [c]															
White	4.7	4.9	4.8	4.5	4.5	4.4	4.1	3.6	3.5	3.3	3.2	3.2	3.0	3.1	+0.1
African American	1.4	1.0	1.1	1.4	1.6	1.4	1.4	1.5	1.5	2.0	1.6	1.0	0.8	1.0	+0.2
Hispanic	3.5	2.8	3.6	4.3	4.3	4.5	4.2	3.5	3.1	3.0	3.0	3.0	3.0	3.3	+0.3

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples.
The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms.
Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.
[b] Parental education is an average score of mother's education and father's education. See appendix B for details.
[c] To 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.
[d] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 27

HALLUCINOGENS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	<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>
Approximate 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*
Total	11.2	9.4	8.8	9.6	9.9	9.3	9.0	8.1	7.3	6.5	6.3	6.0	6.4	5.5	5.6	5.9
Adjusted [b]	—	—	—	—	11.8	10.4	10.1	9.0	8.3	7.3	7.6	7.6	6.7	5.8	6.2	6.0
Gender:																
Male	13.7	11.6	10.8	11.6	11.8	11.7	10.9	9.6	8.6	7.9	8.1	7.2	7.5	7.2	7.4	7.7
Female	9.0	6.9	6.5	7.3	7.6	6.7	6.8	6.1	5.5	4.7	4.4	4.7	5.2	3.7	3.6	3.8
College Plans:																
None or under 4 years	—	11.2	10.6	11.0	11.3	11.2	10.7	9.5	8.9	8.3	7.7	7.4	7.9	6.4	7.1	6.6
Complete 4 years	—	6.9	6.4	7.3	7.5	7.1	7.4	6.2	5.4	4.7	5.0	4.7	5.4	4.7	4.8	5.3
Region:																
Northeast	13.2	10.9	10.6	13.0	12.9	12.2	12.9	11.4	8.7	11.3	9.9	7.9	7.5	5.8	5.6	6.6
Midwest	13.0	10.3	9.7	10.7	11.1	11.3	10.3	9.1	8.9	6.0	6.8	6.6	6.9	5.3	6.6	5.7
South	8.5	7.4	6.8	6.3	5.7	5.4	4.1	4.6	5.2	3.9	3.2	3.3	4.8	5.2	4.9	5.0
West	10.2	9.3	8.2	9.6	11.0	9.2	10.4	7.8	6.3	7.0	6.3	7.2	7.4	6.0	5.5	6.9
Population Density:																
Large MSA	13.9	11.1	9.9	11.9	12.3	11.6	12.0	10.9	9.2	8.8	8.3	7.6	7.9	6.5	5.4	5.7
Other MSA	12.1	9.8	9.1	9.3	10.5	9.8	9.0	7.6	7.6	6.3	6.1	5.9	6.3	6.0	5.9	6.6
Non-MSA	8.5	7.7	7.5	8.3	7.1	7.1	6.8	6.5	5.3	5.0	5.0	4.9	5.3	3.5	5.0	4.5
Parental Education: [c]																
1.0–2.0 (Low)	8.9	7.4	6.8	7.7	7.1	8.0	6.7	6.5	6.5	5.4	4.8	5.4	5.8	4.9	4.2	3.8
2.5–3.0	10.2	10.0	9.1	9.6	9.6	9.5	8.9	8.0	6.8	6.7	6.4	6.0	6.2	4.2	4.9	4.6
3.5–4.0	10.9	9.8	9.2	9.7	9.7	9.2	9.2	8.6	7.7	6.3	7.2	6.3	6.0	4.8	5.6	6.5
4.5–5.0	11.1	10.1	8.8	10.2	10.9	9.1	9.4	7.8	7.0	5.9	6.2	5.5	6.8	6.7	6.6	6.8
5.5–6.0 (High)	8.9	9.4	9.5	10.2	11.7	9.9	10.6	9.0	7.0	7.6	4.3	5.9	7.2	7.2	7.0	8.2
Race/Ethnicity (2-year average): [d]																
White	—	—	9.8	9.9	10.5	10.3	10.0	9.3	8.3	7.5	7.0	6.7	6.8	6.8	6.4	6.7
African American	—	—	2.4	2.3	2.0	1.9	1.9	1.8	2.2	1.7	1.2	1.6	1.5	1.0	0.9	0.8
Hispanic	—	—	7.9	7.2	7.0	7.1	7.0	7.7	6.6	5.2	5.7	5.7	5.0	4.0	3.2	3.3

Table continued on next page.

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TABLE 27 (cont.)

HALLUCINOGENS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[e]	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	5.8	5.9	7.4	7.6	9.3	10.1	9.8	9.0	9.4	8.1‡	9.1	6.6	5.9	6.2	5.5	4.9
Adjusted [b]	6.1	6.2	7.8	7.8	9.7	10.7	10.0	9.2	9.8	8.7‡	9.7	7.2	6.5	6.4	5.9	5.3
Gender:																
Male	7.5	7.1	8.9	9.2	11.9	12.4	12.0	11.0	11.4	9.6‡	11.1	8.4	7.8	8.4	7.4	6.2
Female	3.9	4.7	5.6	5.8	6.3	7.3	7.4	6.8	7.4	6.3‡	6.8	4.7	3.8	3.8	3.4	3.6
College Plans:																
None or under 4 years	7.0	7.8	8.1	8.4	11.9	12.1	11.3	12.0	10.5	10.3‡	10.4	9.8	8.2	7.7	7.8	7.0
Complete 4 years	5.3	5.1	6.9	7.0	8.2	9.0	9.0	7.8	8.7	7.0‡	8.0	5.5	5.0	5.4	4.7	4.4
Region:																
Northeast	7.0	7.1	9.0	9.0	10.1	13.3	13.9	10.7	9.8	9.3‡	9.8	9.1	7.8	7.0	5.5	7.1
Midwest	6.5	5.9	6.8	8.1	9.2	8.8	7.6	8.4	9.8	7.0‡	11.4	6.4	5.4	5.3	6.7	4.9
South	3.7	4.7	5.9	6.7	8.8	8.9	9.2	8.5	8.6	6.9‡	5.8	5.6	4.9	5.7	5.2	4.1
West	7.3	7.3	9.2	7.1	9.6	10.5	9.5	9.1	10.0	10.5‡	10.8	6.2	6.3	7.4	4.4	4.3
Population Density:																
Large MSA	5.1	6.2	7.3	8.1	11.0	10.5	8.8	8.7	8.4	8.9‡	11.5	6.8	4.4	5.6	5.5	6.0
Other MSA	7.7	6.0	8.1	8.6	9.5	11.4	11.2	9.9	10.4	8.3‡	8.7	7.2	7.2	7.2	5.9	4.5
Non-MSA	3.3	5.5	6.3	5.1	7.0	7.4	8.3	7.4	8.8	7.0‡	7.3	5.2	5.5	4.8	4.5	4.1
Parental Education: [c]																
1.0–2.0 (Low)	4.9	3.6	4.9	5.0	7.2	7.4	7.3	7.9	9.0	7.0‡	6.3	5.1	5.3	4.9	3.0	4.9
2.5–3.0	4.9	5.6	5.9	7.0	8.7	8.8	8.5	8.8	8.6	7.4‡	9.1	6.6	4.9	5.6	5.7	5.1
3.5–4.0	6.2	6.0	7.5	8.0	9.5	10.3	9.9	9.5	10.6	8.2‡	9.4	7.1	6.4	6.6	5.4	5.1
4.5–5.0	6.1	6.2	8.9	7.7	9.6	10.5	10.4	8.6	9.3	7.7‡	8.6	6.7	6.5	6.4	5.7	4.6
5.5–6.0 (High)	7.3	7.4	8.9	9.0	9.5	11.4	11.6	9.4	8.4	9.6‡	8.8	5.9	5.3	6.1	5.7	4.6
Race/Ethnicity (2-year average): [d]																
White	6.8	6.9	7.9	8.6	9.5	10.8	11.6	11.3	10.7	9.9	9.0‡	8.4[f]	7.2	7.0	6.7	6.0
African American	0.6	0.7	0.8	1.2	1.2	1.7	1.9	1.4	1.2	1.6	1.4‡	1.2[f]	1.3	1.2	1.3	1.5
Hispanic	4.4	4.6	5.3	5.8	7.1	8.3	7.3	6.8	7.9	9.6	7.8‡	6.0[f]	4.6	4.1	3.9	3.8

TABLE 27 (cont.)

HALLUCINOGENS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014[g]	2015[g]	2016[g]	2017[g]	2018[g]	2019[g]	2018-2019 change
							Percentage who used in last 12 months							
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.4	5.9	4.7	5.5	5.2	4.8	4.5	4.0	4.2	4.3	4.4	4.3	4.6	+0.3
Adjusted [b]	5.8	6.1	5.2	6.0	5.8	5.0	4.9	—	—	—	—	—	—	—
Gender:														
Male	7.5	7.8	6.2	7.9	7.0	6.0	5.9	5.5	5.2	5.7	5.9	5.8	6.1	+0.3
Female	3.3	3.9	3.1	2.9	3.3	3.1	2.8	2.6	2.9	2.8	3.0	2.3	2.7	+0.4
College Plans:														
None or under 4 years	8.3	8.4	5.6	8.4	7.7	5.8	6.0	5.8	6.1	4.7	6.1	6.7	6.6	-0.1
Complete 4 years	4.6	5.2	4.3	4.8	4.6	4.5	4.0	3.5	3.6	4.0	3.7	3.4	3.8	+0.5
Region:														
Northeast	6.7	8.0	4.7	6.2	5.7	5.2	4.5	4.4	3.6	5.0	4.2	4.8	4.0	-0.8
Midwest	5.3	4.5	5.9	5.4	5.2	4.5	4.9	4.0	3.8	4.9	3.6	4.5	4.1	-0.4
South	4.2	5.7	3.9	4.5	3.9	4.2	3.9	4.0	3.9	3.1	3.9	3.4	4.4	+0.9
West	6.5	6.2	4.6	6.6	6.7	5.5	4.8	3.6	5.3	5.5	6.2	5.1	6.3	+1.2
Population Density:														
Large MSA	6.2	6.9	5.1	5.6	4.9	5.4	4.5	4.2	4.4	4.3	5.2	3.8	4.2	+0.5
Other MSA	5.1	5.7	4.7	5.9	5.6	5.0	5.0	4.1	4.5	4.8	4.4	4.4	4.6	+0.2
Non-MSA	4.8	5.3	4.2	4.3	4.4	3.2	3.1	3.3	2.7	3.4	3.3	4.8	5.1	+0.3
Parental Education: [c]														
1.0–2.0 (Low)	3.9	4.4	3.6	3.7	4.9	3.3	4.4	3.0	4.8	4.0	4.1	4.0	4.1	+0.1
2.5–3.0	4.9	5.0	4.5	5.0	4.3	5.1	4.7	4.1	4.1	4.0	4.6	4.4	4.6	+0.2
3.5–4.0	5.5	5.5	4.6	6.2	5.4	4.8	4.6	4.4	4.3	4.5	4.7	4.3	5.1	+0.8
4.5–5.0	5.4	6.7	5.3	5.5	4.9	5.0	3.9	3.8	3.7	4.5	4.0	3.6	4.1	+0.6
5.5–6.0 (High)	6.7	7.2	4.6	5.4	5.7	4.5	4.7	4.1	4.1	4.0	4.5	4.4	4.0	-0.4
Race/Ethnicity (2-year average): [d]														
White	6.2	6.9	6.3	6.1	6.4	6.0	5.2	4.6	4.2	4.3	4.8	4.8	4.5	-0.3
African American	1.4	1.4	1.2	1.3	1.7	1.6	1.5	1.9	2.0	1.7	1.9	1.8	1.9	0.0
Hispanic	3.9	3.5	3.3	3.3	3.0	2.9	3.5	3.5	4.0	4.7	3.9	3.4	4.0	+0.5

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See

appendix B for definition of variables in table.

[a] All data are unadjusted for the underreporting of PCP, unless otherwise indicated.

[b] Adjusted for the underreporting of PCP. See text for details.

[c] Parental education is an average score of mother's education and father's education. See appendix B for details.

[d] To 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.

[e] In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list

of examples. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data

are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[f] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with

the new version of the question) and all of the 2002 sample data.

[g] In 2014 questions on use of LSD and hallucinogens other than LSD, the two components of hallucinogen use, were each dropped from one of six forms. Beginning in

2014 data are based on five of six forms; N is five sixths of N indcated.

TABLE 28
LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	1.7	2.1	2.3	2.4	3.2	3.5	3.2	2.8	2.4	2.4	2.2	1.5	1.3	1.1	1.2
Gender:															
Male	2.0	2.1	2.5	2.6	3.4	3.7	3.5	3.2	2.7	2.6	2.3	1.7	1.4	1.1	1.2
Female	1.3	2.0	2.1	2.1	2.9	3.2	2.8	2.4	2.0	2.2	2.1	1.3	1.1	1.1	1.1
College Plans:															
None or under 4 years	4.5	6.4	6.4	6.2	8.5	8.2	9.3	7.8	8.2	6.7	5.8	5.7	4.3	4.7	4.1
Complete 4 years	1.2	1.5	1.6	1.8	2.5	2.7	2.5	2.2	1.7	2.0	1.8	1.1	0.9	0.7	0.8
Region:															
Northeast	1.3	1.4	1.8	2.6	2.9	2.9	2.3	2.1	2.2	1.9	1.9	0.9	1.4	1.0	0.9
Midwest	1.4	1.8	1.4	1.7	3.5	3.4	3.3	2.5	2.7	3.0	1.7	1.8	1.2	0.9	0.9
South	1.8	2.4	2.4	2.1	2.8	3.4	3.0	3.2	2.5	2.4	2.7	1.8	1.3	1.2	1.5
West	2.2	2.9	3.7	3.3	3.8	4.3	4.3	3.2	1.9	2.3	2.0	1.2	1.2	1.2	1.1
Population Density:															
Large MSA	1.9	2.0	2.0	2.7	3.6	3.2	2.9	2.6	2.2	2.0	1.8	1.3	1.3	1.1	1.0
Other MSA	1.7	2.5	2.8	2.8	3.3	4.1	3.6	2.9	2.7	2.6	2.3	1.5	1.2	1.3	1.1
Non-MSA	1.3	1.6	1.4	1.3	2.4	2.6	2.8	2.9	1.9	2.8	2.4	1.9	1.4	0.7	1.4
Parental Education: [a]															
1.0–2.0 (Low)	3.5	3.1	3.1	2.8	4.6	4.4	4.7	4.4	3.7	4.9	4.1	3.4	2.3	2.8	1.7
2.5–3.0	1.8	2.1	2.3	2.6	3.1	4.0	3.2	2.8	2.7	2.9	2.6	2.0	1.4	1.2	1.7
3.5–4.0	1.4	2.0	2.4	2.4	3.6	3.5	3.4	3.1	2.4	2.2	2.4	1.3	1.3	1.0	1.5
4.5–5.0	1.4	1.5	2.1	2.1	2.6	3.4	2.9	2.5	1.9	1.8	1.5	1.2	1.1	1.0	0.6
5.5–6.0 (High)	1.3	2.0	2.0	2.1	2.9	3.0	2.9	2.4	1.9	2.3	1.3	0.8	0.8	0.6	0.4
Race/Ethnicity (2-year average): [b]															
White	—	1.9	2.3	2.5	3.1	3.9	3.9	3.2	2.6	2.6	2.6	2.0	1.5	1.1	1.0
African American	—	0.5	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.6	0.8	0.9
Hispanic	—	3.3	3.7	3.6	3.3	3.5	3.9	4.2	3.9	3.5	3.2	2.4	1.7	1.8	1.7

TABLE 28 (cont.)
LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	0.9	1.1	1.3	1.1	1.2	1.1	0.8	1.0	0.7	0.9	0.8	0.9	0.9	0.9	0.0
Gender:															
Male	0.8	1.1	1.4	1.1	1.2	1.4	0.8	1.0	0.8	0.8	0.9	0.9	1.0	0.8	-0.1
Female	1.0	1.0	1.2	1.1	1.1	0.8	0.8	1.0	0.6	0.9	0.6	0.8	0.8	1.0	+0.2
College Plans:															
None or under 4 years	3.4	3.9	5.2	4.9	3.7	3.9	3.3	3.8	2.5	2.5	2.3	2.4	2.8	2.5	-0.3
Complete 4 years	0.7	0.8	1.0	0.8	0.9	0.9	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.7	+0.1
Region:															
Northeast	0.5	0.6	0.8	0.8	1.0	0.6	0.7	0.6	0.3	0.3	0.6	0.5	0.5	0.5	0.0
Midwest	0.7	1.2	1.3	1.1	1.4	0.9	0.3	0.9	0.6	1.0	0.6	0.6	0.4	1.1	+0.6 ss
South	1.1	1.0	1.4	1.0	1.0	1.0	1.1	1.2	0.8	0.9	1.1	0.9	0.8	0.9	0.0
West	1.0	1.4	1.4	1.6	1.4	2.1	0.9	1.1	1.0	1.0	0.6	1.4	1.8	1.3	-0.6
Population Density:															
Large MSA	0.6	0.7	1.4	1.0	1.0	1.0	0.9	1.0	0.7	0.8	1.1	0.8	1.3	0.7	-0.6 ss
Other MSA	1.1	1.2	1.3	1.2	1.4	1.3	0.8	1.1	0.7	1.1	0.6	1.0	0.9	1.1	+0.2
Non-MSA	1.0	1.3	1.0	1.1	1.0	0.9	0.6	0.8	0.7	0.5	0.9	0.7	0.5	0.9	+0.5
Parental Education: [a]															
1.0–2.0 (Low)	1.8	1.8	2.4	2.6	1.6	1.7	1.6	1.3	1.4	1.5	1.8	1.5	1.9	1.9	0.0
2.5–3.0	1.0	1.1	1.6	1.1	1.1	1.7	1.1	1.0	0.8	0.7	0.9	1.2	1.3	1.5	+0.2
3.5–4.0	1.0	1.0	1.1	1.0	1.4	1.2	0.7	0.8	1.0	1.1	0.8	0.9	1.0	0.9	-0.1
4.5–5.0	0.7	1.0	1.0	0.8	1.0	0.8	0.4	1.0	0.4	0.7	0.4	0.6	0.5	0.7	+0.2
5.5–6.0 (High)	0.7	0.6	1.3	0.9	0.8	0.8	0.7	1.1	0.6	0.6	0.5	0.5	0.5	0.5	0.0
Race/Ethnicity (2-year average): [b]															
White	1.0	1.0	1.1	1.1	1.1	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.0
African American	0.6	0.3	0.6	0.7	0.5	0.6	0.6	0.8	0.6	0.4	0.7	0.6	0.5	0.6	0.0
Hispanic	1.0	1.3	1.6	1.5	1.6	1.8	1.4	1.2	1.2	1.0	1.2	1.1	1.2	1.3	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 29
LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	3.7	4.0	4.2	5.2	6.5	6.9	6.7	5.9	6.0	5.1	4.1	2.6	1.7	1.6	1.5
Gender:															
Male	3.9	4.3	5.1	5.9	7.4	7.6	7.6	6.3	7.0	5.9	5.1	3.1	1.9	1.8	1.9
Female	3.4	3.6	3.2	4.3	5.5	6.2	5.8	5.4	5.1	4.3	3.1	2.0	1.6	1.4	1.0
College Plans:															
None or under 4 years	6.8	7.0	8.4	9.4	11.1	13.1	12.8	12.4	13.1	11.1	9.9	6.0	4.4	4.5	4.1
Complete 4 years	3.0	3.4	3.3	4.2	5.6	5.8	5.7	4.7	4.9	4.1	3.2	2.0	1.3	1.2	1.1
Region:															
Northeast	3.6	2.6	3.8	5.1	4.7	6.4	5.2	7.1	7.5	4.1	4.0	2.2	1.8	1.7	2.3
Midwest	3.2	4.1	4.4	5.2	7.3	8.3	6.0	4.5	6.0	5.4	4.3	2.8	1.7	1.5	1.2
South	3.3	3.7	3.2	4.6	6.8	6.8	7.9	6.5	5.8	5.0	3.5	2.3	1.7	1.4	1.4
West	4.8	5.9	6.1	6.3	6.5	5.7	7.4	5.2	5.1	5.9	5.3	3.2	1.7	1.9	1.0
Population Density:															
Large MSA	3.8	4.4	4.4	5.4	6.6	7.6	7.0	5.4	4.9	6.4	3.8	2.6	1.3	1.1	1.2
Other MSA	4.4	4.1	4.4	5.9	7.1	7.4	7.0	6.6	6.7	4.8	4.1	2.7	1.7	1.9	1.5
Non-MSA	2.3	3.5	3.7	3.7	5.0	5.2	6.0	5.0	5.9	4.4	4.6	2.3	2.3	1.5	1.8
Parental Education: [a]															
1.0–2.0 (Low)	3.1	4.4	5.5	5.5	6.9	7.6	5.9	7.9	6.3	4.9	3.9	2.7	3.7	1.3	1.8
2.5–3.0	4.0	4.2	4.2	5.1	6.9	7.6	6.6	7.0	7.3	5.1	4.8	2.9	2.0	1.7	1.7
3.5–4.0	3.4	4.1	4.2	5.3	6.9	7.9	7.4	5.6	5.8	5.6	4.3	2.8	1.7	1.4	1.6
4.5–5.0	3.8	3.6	3.9	4.8	6.0	6.0	7.0	5.0	5.7	5.0	3.8	2.0	1.2	1.4	1.2
5.5–6.0 (High)	4.2	3.9	3.9	5.4	5.9	5.8	6.0	4.6	5.3	5.0	3.5	2.4	1.2	1.6	1.4
Race/Ethnicity (2-year average): [b]															
White	—	4.6	4.6	5.0	6.4	7.7	7.9	7.3	7.0	6.5	5.2	3.8	2.4	1.9	1.7
African American	—	0.2	0.5	0.9	1.0	0.8	0.9	1.0	0.9	0.9	0.9	0.6	0.4	0.4	0.6
Hispanic	—	3.2	4.1	5.0	5.7	6.1	6.7	6.6	5.6	4.6	3.7	2.9	2.4	1.7	1.6

TABLE 29 (cont.)
LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	1.7	1.9	1.8	1.9	1.9	1.8	1.7	1.7	1.9	2.0	2.1	2.1	2.0	2.3	+0.3
Gender:															
Male	2.1	2.3	2.2	2.3	2.4	2.2	2.3	2.3	2.1	2.2	2.6	2.5	2.4	2.7	+0.3
Female	1.3	1.5	1.3	1.3	1.3	1.3	1.1	1.0	1.8	1.5	1.6	1.6	1.5	1.8	+0.2
College Plans:															
None or under 4 years	5.1	4.3	5.1	5.9	5.1	4.2	6.3	3.5	5.2	4.2	4.7	5.3	4.4	4.3	-0.1
Complete 4 years	1.2	1.5	1.3	1.4	1.5	1.6	1.3	1.5	1.5	1.7	1.8	1.7	1.6	1.8	+0.2
Region:															
Northeast	1.7	1.8	1.5	1.6	2.0	1.8	1.4	1.7	1.7	2.1	1.6	1.1	1.7	1.4	-0.2
Midwest	1.6	2.2	2.0	2.3	1.4	1.7	1.6	1.5	2.0	1.4	2.0	2.6	1.9	2.2	+0.3
South	1.7	1.6	1.8	1.6	2.1	2.1	1.7	1.5	2.2	2.4	1.9	2.0	2.0	2.2	+0.2
West	1.8	1.9	1.7	2.0	2.0	1.8	2.1	1.9	1.5	1.6	3.0	2.5	2.1	3.0	+0.9
Population Density:															
Large MSA	1.6	1.6	1.5	1.7	1.7	1.8	1.8	1.3	1.7	1.7	2.3	2.1	1.8	2.2	+0.3
Other MSA	1.7	2.1	1.9	2.2	1.9	1.8	1.7	2.2	2.1	2.4	2.1	2.1	2.2	2.3	+0.1
Non-MSA	1.8	1.7	1.7	1.4	2.1	1.9	1.8	0.9	1.6	1.4	1.9	1.9	1.7	2.3	+0.6
Parental Education: [a]															
1.0–2.0 (Low)	2.5	2.9	2.2	2.5	2.4	3.0	2.0	2.2	1.7	2.5	2.4	2.0	2.4	2.8	+0.5
2.5–3.0	2.1	2.0	1.6	1.9	2.5	1.8	2.6	1.8	1.8	2.0	2.9	2.7	2.1	2.8	+0.7
3.5–4.0	1.6	1.8	1.9	2.0	1.8	1.8	1.4	1.7	2.3	2.4	2.1	2.6	2.0	2.5	+0.6
4.5–5.0	1.3	1.7	1.5	1.5	1.6	1.7	1.6	1.5	1.6	1.5	1.9	1.7	1.8	1.7	-0.1
5.5–6.0 (High)	1.3	1.7	1.9	2.2	1.9	1.6	1.3	1.7	1.6	1.6	1.8	1.6	2.0	1.5	-0.5
Race/Ethnicity (2-year average): [b]															
White	1.8	2.0	2.0	1.9	2.0	2.0	1.9	1.9	2.0	2.1	2.2	2.3	2.2	2.2	0.0
African American	0.7	0.6	0.7	0.9	1.1	1.0	0.8	0.8	1.1	1.2	0.8	0.9	0.7	0.7	0.0
Hispanic	1.6	1.4	1.8	2.0	1.7	1.9	1.9	1.5	1.4	1.6	2.2	2.2	2.3	2.5	+0.3

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 30
LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	7.2	6.4	5.5	6.3	6.6	6.5	6.5	6.1	5.4	4.7	4.4	4.5	5.2	4.8	4.9	5.4
Gender:																
Male	9.6	7.9	7.1	7.8	8.0	8.1	8.0	7.4	6.7	5.8	5.9	5.5	6.4	6.5	6.5	7.1
Female	5.6	4.6	3.9	4.5	4.8	4.8	4.7	4.3	3.8	3.1	2.8	3.4	3.9	3.0	3.2	3.6
College Plans:																
None or under 4 years	—	7.5	6.7	7.2	8.0	8.2	8.0	7.5	6.9	6.1	5.6	5.9	6.6	5.7	6.5	6.2
Complete 4 years	—	4.7	4.0	4.6	4.5	4.7	5.0	4.3	3.8	3.1	3.4	3.3	4.3	4.1	4.2	4.8
Region:																
Northeast	8.5	8.0	7.2	8.0	7.9	6.8	9.0	8.0	5.6	7.0	5.4	5.1	5.3	4.7	5.1	5.9
Midwest	8.7	7.0	6.5	7.9	7.9	8.5	7.8	7.3	7.0	4.4	5.3	5.3	5.7	4.7	6.0	5.3
South	5.4	4.7	3.7	3.7	3.4	4.3	3.4	3.9	4.4	3.5	2.8	2.6	4.2	4.7	4.2	4.7
West	7.6	5.9	5.0	5.8	8.3	6.5	6.3	4.8	4.2	4.5	4.6	5.9	6.2	5.2	4.4	6.4
Population Density:																
Large MSA	9.4	7.9	6.4	7.2	7.6	7.3	8.0	7.3	5.7	4.7	4.1	4.4	5.6	5.2	4.6	5.2
Other MSA	7.4	6.8	5.6	6.1	7.3	6.8	6.9	6.3	6.0	4.9	4.8	4.9	5.4	5.6	5.3	6.1
Non-MSA	5.7	4.8	4.8	5.8	4.9	5.6	4.9	4.8	4.4	4.2	4.1	4.0	4.4	3.1	4.3	4.2
Parental Education: [a]																
1.0–2.0 (Low)	6.1	4.8	4.5	5.0	4.5	5.2	4.8	5.0	4.9	4.1	3.0	3.9	4.4	4.1	3.6	3.4
2.5–3.0	6.5	6.8	5.8	6.1	6.3	6.8	6.5	6.1	5.1	4.8	4.5	4.6	4.9	3.8	4.3	4.4
3.5–4.0	6.4	6.7	5.6	6.1	6.7	6.7	6.7	6.4	5.7	4.3	4.7	4.6	4.9	4.2	5.1	6.0
4.5–5.0	7.0	6.4	5.3	6.7	7.5	5.7	6.4	5.7	5.2	4.3	4.8	4.1	5.8	6.2	5.9	6.2
5.5–6.0 (High)	6.5	6.4	6.1	7.0	7.4	7.2	7.7	6.0	4.8	5.0	3.8	4.7	6.1	6.2	5.5	7.4
Race/Ethnicity (2-year average): [b]																
White	—	—	6.3	6.3	6.8	7.0	7.2	6.9	6.2	5.5	5.0	4.9	5.4	5.8	5.7	6.1
African American	—	—	1.3	1.3	1.2	1.1	1.0	0.9	0.9	0.7	0.7	1.0	0.8	0.6	0.7	0.6
Hispanic	—	—	6.1	5.0	4.9	5.2	4.5	5.2	5.0	4.1	3.9	3.9	4.0	3.1	2.3	2.7

TABLE 30 (cont.)

LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	5.2	5.6	6.8	6.9	8.4	8.8	8.4	7.6	8.1	6.6	6.6	3.5	1.9	2.2	1.8	1.7
Gender:																
Male	6.8	6.7	8.4	8.4	10.7	10.9	10.3	9.3	10.0	7.6	7.9	4.4	2.5	3.1	2.7	2.1
Female	3.4	4.4	5.1	5.3	5.8	6.5	6.2	5.7	6.1	5.3	5.0	2.3	1.2	1.2	0.9	1.1
College Plans:																
None or under 4 years	6.4	7.6	7.5	7.7	11.2	11.4	10.3	10.9	9.4	8.7	8.2	5.7	3.0	3.2	3.4	2.6
Complete 4 years	4.7	4.8	6.4	6.3	7.3	7.7	7.4	6.3	7.3	5.6	5.7	2.7	1.4	1.8	1.3	1.4
Region:																
Northeast	6.1	6.6	8.6	8.2	8.8	11.9	11.8	8.2	7.8	7.1	6.7	5.4	2.4	2.3	1.7	3.0
Midwest	5.9	5.5	6.3	7.3	8.3	7.7	7.0	7.6	9.1	5.9	8.6	3.7	1.8	1.8	2.1	1.6
South	3.4	4.4	5.5	6.3	8.1	7.9	8.1	7.4	7.7	6.0	4.7	3.1	1.9	2.6	1.8	1.4
West	6.5	7.0	8.5	6.2	8.5	8.8	6.9	7.1	7.7	7.9	6.6	2.1	1.4	2.3	1.6	1.1
Population Density:																
Large MSA	4.3	5.7	6.7	7.3	9.7	9.0	7.7	7.2	6.8	6.7	7.7	3.3	1.5	1.9	1.8	2.2
Other MSA	7.0	5.8	7.6	7.9	8.7	10.0	9.3	8.4	9.2	6.9	6.4	4.0	2.2	2.6	1.9	1.5
Non-MSA	3.0	5.1	5.6	4.6	6.5	6.5	7.3	6.1	7.4	5.9	5.6	2.7	1.7	1.9	1.7	1.2
Parental Education: [a]																
1.0–2.0 (Low)	4.3	3.3	4.6	4.4	6.6	6.7	6.8	6.8	8.6	5.6	5.4	2.4	1.5	3.2	1.7	1.5
2.5–3.0	4.4	5.2	5.6	6.5	8.1	8.2	7.3	7.8	7.6	6.4	6.7	3.4	1.9	2.4	1.9	2.0
3.5–4.0	5.5	5.7	7.0	7.4	8.6	9.3	8.5	8.2	9.0	6.7	6.3	4.0	1.7	1.8	1.5	1.9
4.5–5.0	5.3	5.8	8.3	6.9	8.6	8.7	8.6	6.5	8.0	6.0	6.7	3.1	1.7	2.0	1.7	1.3
5.5–6.0 (High)	7.1	7.0	8.2	7.9	8.3	9.2	9.5	7.3	6.4	7.0	5.6	2.8	1.7	2.2	1.7	1.1
Race/Ethnicity (2-year average): [b]																
White	6.3	6.4	7.4	8.0	8.6	9.7	10.1	9.5	9.1	8.3	7.5	5.8	3.0	2.2	2.2	1.8
African American	0.6	0.6	0.6	0.9	1.0	1.3	1.6	1.1	0.8	1.3	1.3	0.8	0.8	0.8	0.7	0.9
Hispanic	3.6	4.1	5.1	5.4	6.4	7.4	6.3	5.9	7.0	7.6	5.8	3.8	1.8	1.7	1.7	1.4

TABLE 30 (cont.)
LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months							2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014[c]	2015[c]	2016[c]	2017[c]	2018[c]	2019[c]	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	2.1	2.7	1.9	2.6	2.7	2.4	2.2	2.5	2.9	3.0	3.3	3.2	3.6	+0.4
Gender:														
Male	3.0	3.7	2.4	3.6	3.6	2.9	2.9	3.4	3.5	4.1	4.4	4.4	4.9	+0.5
Female	1.2	1.6	1.3	1.4	1.7	1.6	1.3	1.5	2.1	1.9	2.1	1.6	2.1	+0.5
College Plans:														
None or under 4 years	4.1	4.8	2.5	4.2	3.7	3.1	3.4	3.7	4.4	3.6	4.9	5.0	4.7	-0.3
Complete 4 years	1.6	2.1	1.6	2.1	2.4	2.2	1.7	2.2	2.4	2.8	2.7	2.5	3.1	+0.6
Region:														
Northeast	2.1	3.0	2.6	3.7	3.0	2.9	2.7	2.6	2.3	3.2	2.9	3.7	3.3	-0.4
Midwest	2.7	2.5	2.4	2.8	3.0	1.9	2.3	2.3	2.4	3.5	2.8	3.5	3.1	-0.4
South	1.7	3.0	1.2	2.0	2.1	2.1	1.8	3.1	3.1	2.3	2.8	2.7	3.6	+0.8
West	2.0	2.2	1.5	2.3	2.9	2.8	2.2	1.6	3.5	3.6	4.8	3.1	4.5	+1.4
Population Density:														
Large MSA	2.4	2.7	2.4	2.4	2.4	2.5	2.2	2.6	3.3	3.1	3.9	2.8	3.4	+0.6
Other MSA	2.0	2.8	1.7	2.9	3.0	2.7	2.4	2.6	3.2	3.4	3.4	3.6	3.7	+0.1
Non-MSA	1.8	2.6	1.4	2.0	2.3	1.4	1.5	2.1	1.5	1.9	2.1	2.9	3.5	+0.7
Parental Education: [a]														
1.0–2.0 (Low)	2.3	2.3	1.8	1.9	2.4	1.7	2.0	2.0	3.8	2.4	2.9	3.0	3.3	+0.3
2.5–3.0	1.9	2.4	1.6	2.3	2.3	2.6	2.8	2.5	2.7	2.8	3.4	3.1	3.8	+0.7
3.5–4.0	2.1	2.4	1.6	2.7	2.8	2.4	1.9	2.7	2.9	3.1	3.5	3.1	3.8	+0.7
4.5–5.0	2.0	2.8	1.9	2.3	2.7	2.4	1.9	2.1	2.5	3.0	3.1	2.5	3.3	+0.8
5.5–6.0 (High)	2.3	3.2	2.1	3.2	2.4	2.2	2.1	2.8	2.9	3.3	3.2	3.4	2.9	-0.5
Race/Ethnicity (2-year average): [b]														
White	2.1	2.8	2.6	2.7	3.3	3.1	2.5	2.4	2.6	2.9	3.5	3.6	3.4	-0.2
African American	0.8	0.8	0.7	0.8	1.0	0.9	0.8	1.1	1.3	1.1	1.5	1.5	1.6	+0.1
Hispanic	1.8	1.8	1.3	0.9	1.0	1.3	1.7	2.0	3.1	3.7	2.9	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 S3 for the
number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]In 2014 questions on use of LSD were dropped from one of six forms. Beginning in 2014 data are based on five of six forms; *N* is five sixths of *N* indcated.

TABLE 31
HALLUCINOGENS OTHER THAN LSD: Trends in Annual Prevalence of Use
by Subgroups in Grade 8

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[a]	2002	2003	2004	2005
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
Total	0.7	1.1	1.0	1.3	1.7	2.0	1.8	1.6	1.5	1.4‡	2.4	2.1	2.1	1.9	2.0
Gender:															
Male	0.8	1.1	1.2	1.6	1.9	2.1	2.1	1.8	1.8	1.5‡	2.8	2.4	2.4	1.9	2.2
Female	0.6	1.0	0.9	0.9	1.4	1.7	1.4	1.4	1.1	1.3‡	2.0	1.7	1.8	1.8	1.8
College Plans:															
None or under 4 years	1.7	3.6	2.9	3.6	4.8	5.2	4.7	5.1	5.3	3.9‡	7.4	6.5	7.5	6.5	6.1
Complete 4 years	0.5	0.7	0.7	1.0	1.3	1.4	1.4	1.2	1.0	1.2‡	1.8	1.6	1.5	1.4	1.6
Region:															
Northeast	0.4	0.6	0.7	1.4	1.8	2.1	1.7	1.2	1.4	1.3‡	2.1	1.3	1.9	1.6	1.5
Midwest	0.6	1.3	0.6	1.1	1.6	1.8	1.8	1.9	1.7	1.8‡	1.8	2.1	2.2	1.7	1.9
South	0.7	1.0	1.0	1.0	1.5	1.7	1.4	1.8	1.6	1.3‡	2.9	2.2	2.2	1.9	2.4
West	1.4	1.3	1.9	1.9	1.9	2.6	2.7	1.3	1.1	1.4‡	2.4	2.6	2.3	2.2	2.0
Population Density:															
Large MSA	0.7	0.8	0.7	1.6	1.6	1.8	1.4	1.3	1.1	1.2‡	1.9	1.6	1.6	1.4	2.0
Other MSA	0.7	1.3	1.3	1.4	1.8	2.2	1.9	1.6	1.5	1.7‡	2.6	1.9	2.1	2.1	2.0
Non-MSA	0.7	1.0	0.9	0.8	1.5	1.7	1.9	2.0	1.9	1.3‡	2.6	3.0	3.0	2.0	2.2
Parental Education:[b]															
1.0–2.0 (Low)	1.5	1.8	1.4	1.6	2.4	2.2	2.6	2.7	2.6	2.5‡	5.0	3.4	3.5	3.9	2.7
2.5–3.0	0.8	0.7	1.1	1.1	1.7	2.1	2.0	1.3	1.9	1.5‡	2.3	2.6	2.8	2.0	2.9
3.5–4.0	0.4	1.2	1.2	1.2	1.8	2.0	1.6	1.8	1.3	1.3‡	2.6	1.9	2.2	1.7	2.6
4.5–5.0	0.8	0.9	0.7	1.5	1.6	2.0	1.6	1.5	0.9	1.1‡	1.6	1.7	1.5	1.6	1.6
5.5–6.0 (High)	0.8	1.3	0.9	1.5	1.7	1.4	1.9	1.9	1.5	2.0‡	1.9	1.5	1.6	1.6	1.0
Race/Ethnicity (2-year average):[c]															
White	—	0.9	1.0	1.2	1.7	2.1	2.1	1.8	1.6	1.6	1.4‡	1.5[d]	2.3	2.2	2.1
African American	—	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3‡	0.4[d]	0.6	0.8	0.9
Hispanic	—	1.5	1.5	1.5	1.8	2.1	2.0	2.2	2.2	1.8	1.2‡	1.8[d]	2.2	2.2	2.1

Table continued on next page.

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TABLE 31 (cont.)

HALLUCINOGENS OTHER THAN LSD: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	1.8	1.6	1.6	1.5	1.8	1.8	1.3	1.2	1.0	0.8	0.8	0.7	0.9	0.9	0.0
Gender:															
Male	1.8	1.7	1.6	1.7	2.1	2.1	1.3	1.2	1.2	1.0	0.8	0.6	1.1	0.8	-0.3
Female	1.7	1.4	1.5	1.4	1.6	1.4	1.2	1.1	0.7	0.7	0.7	0.7	0.7	0.9	+0.3
College Plans:															
None or under 4 years	5.5	6.0	6.9	5.9	6.0	5.8	3.8	3.7	3.2	3.1	2.5	2.0	2.3	2.1	-0.3
Complete 4 years	1.4	1.2	1.1	1.2	1.5	1.5	1.1	1.0	0.8	0.6	0.6	0.5	0.7	0.7	0.0
Region:															
Northeast	1.2	0.8	1.0	1.3	1.4	0.9	1.2	0.5	0.5	0.6	0.4	0.4	0.5	0.2	-0.3
Midwest	1.7	1.7	1.4	1.4	2.0	1.4	0.7	1.1	0.8	0.8	0.6	0.3	0.8	0.9	+0.2
South	1.8	1.4	1.7	1.4	1.4	1.5	1.6	1.3	0.9	0.9	0.9	0.8	0.9	0.8	-0.2
West	2.2	2.3	1.8	2.1	2.6	3.4	1.4	1.5	1.5	0.9	1.1	1.1	1.3	1.5	+0.2
Population Density:															
Large MSA	1.2	1.3	1.4	1.2	1.6	1.7	1.4	1.0	0.8	0.7	0.7	0.5	1.1	0.5	-0.6 ss
Other MSA	2.0	1.6	1.7	1.6	2.0	2.2	1.4	1.2	1.0	1.0	0.8	0.8	0.8	1.0	+0.2
Non-MSA	2.1	2.0	1.3	1.8	1.7	1.1	0.9	1.2	1.1	0.8	1.0	0.7	0.8	1.2	+0.4
Parental Education: [b]															
1.0–2.0 (Low)	2.3	2.5	3.1	3.3	2.7	3.1	1.6	1.8	1.6	1.1	1.3	1.1	1.3	1.4	0.0
2.5–3.0	2.2	1.5	1.7	1.3	2.4	2.3	1.5	1.4	1.1	0.8	1.0	0.8	0.9	1.6	+0.8
3.5–4.0	1.8	1.9	1.7	1.6	2.0	1.9	1.7	1.2	1.0	0.8	1.1	0.8	1.2	0.8	-0.4
4.5–5.0	1.7	1.2	1.2	1.3	1.7	1.4	0.8	0.9	0.6	0.6	0.4	0.4	0.8	0.6	-0.2
5.5–6.0 (High)	1.2	0.9	1.3	1.3	1.0	1.2	1.1	1.0	1.0	0.7	0.6	0.6	0.5	0.8	+0.3
Race/Ethnicity (2-year average): [c]															
White	2.2	1.8	1.7	1.6	1.8	1.8	1.3	1.1	1.0	0.8	0.7	0.7	0.7	0.8	+0.1
African American	0.9	0.6	0.6	0.6	0.6	0.5	0.7	0.7	0.4	0.5	0.7	0.6	0.3	0.3	0.0
Hispanic	1.4	1.6	1.9	1.8	2.1	2.6	2.3	1.6	1.3	1.0	0.9	0.8	0.8	1.1	+0.3

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 have been the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and treated in a parallel manner.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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.

[d] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 32
HALLUCINOGENS OTHER THAN LSD: Trends in Annual Prevalence of Use
by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[a]	2002	2003	2004	2005
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
Total	1.3	1.4	1.9	2.4	2.8	3.3	3.3	3.4	3.2	3.1‡	4.4	4.0	3.6	3.7	3.5
Gender:															
Male	1.5	1.6	2.5	3.0	3.4	3.8	4.1	3.9	4.1	3.8‡	5.7	4.6	4.4	4.3	4.2
Female	1.1	1.1	1.2	1.7	2.1	2.7	2.5	2.8	2.3	2.4‡	3.1	3.4	2.8	3.2	2.9
College Plans:															
None or under 4 years	2.5	2.7	3.7	4.8	5.3	6.2	4.8	7.3	6.7	6.1‡	10.9	8.8	7.3	8.2	8.5
Complete 4 years	1.1	1.1	1.5	1.9	2.3	2.7	3.0	2.6	2.6	2.6‡	3.3	3.3	2.9	3.1	2.8
Region:															
Northeast	1.4	0.7	2.3	3.2	3.0	3.9	3.2	4.7	4.5	3.4‡	4.2	3.6	3.4	4.3	4.4
Midwest	1.0	1.2	1.7	1.9	2.2	3.2	3.4	3.2	2.8	3.3‡	4.0	4.3	2.9	3.3	3.6
South	1.3	1.2	1.5	2.1	2.7	3.1	3.1	3.2	2.7	2.9‡	3.6	3.4	3.5	3.3	3.0
West	1.6	2.6	2.5	3.0	3.5	3.0	3.6	2.5	3.3	3.0‡	6.7	5.1	4.5	4.2	3.3
Population Density:															
Large MSA	1.4	1.5	1.9	2.4	2.7	3.4	3.3	3.1	3.1	3.9‡	3.4	4.0	2.8	2.7	2.9
Other MSA	1.4	1.4	1.9	2.5	3.0	3.5	3.2	3.4	3.5	2.9‡	4.8	4.0	3.9	4.4	3.9
Non-MSA	1.0	1.2	2.0	2.3	2.5	2.7	3.5	3.5	2.7	2.8‡	4.5	3.9	3.8	3.6	3.6
Parental Education: [b]															
1.0–2.0 (Low)	1.5	1.5	2.0	2.6	3.3	3.4	2.4	2.9	3.4	2.5‡	4.8	4.4	5.2	2.8	3.1
2.5–3.0	1.2	1.0	1.4	1.8	2.7	3.4	2.7	4.2	3.0	2.6‡	4.4	4.3	4.2	4.5	4.1
3.5–4.0	1.3	1.7	2.3	2.3	3.0	3.2	3.6	3.0	2.8	3.2‡	4.3	4.0	3.3	3.6	3.6
4.5–5.0	1.2	1.5	1.9	2.6	2.5	3.3	3.7	3.0	3.7	3.7‡	4.4	3.5	3.2	3.5	3.5
5.5–6.0 (High)	1.8	1.1	2.1	2.8	2.5	3.5	3.6	3.7	3.7	3.7‡	3.9	4.6	3.0	3.5	3.3
Race/Ethnicity (2-year average): [c]															
White	—	1.5	1.8	2.3	2.8	3.4	3.9	4.0	4.0	3.8	3.4‡	4.0[d]	4.7	4.4	4.2
African American	—	0.1	0.4	0.7	0.7	0.4	0.3	0.4	0.5	0.6	1.1‡	1.3[d]	0.9	0.7	1.1
Hispanic	—	1.3	1.5	1.9	2.0	2.1	2.4	2.8	2.6	2.0	1.6‡	2.5[d]	2.9	3.2	3.5

TABLE 32 (cont.)
HALLUCINOGENS OTHER THAN LSD: Trends in Annual Prevalence of Use
by Subgroups in Grade 10

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	3.7	3.8	3.3	3.5	3.5	3.5	3.0	2.7	2.6	1.9	2.0	1.8	1.7	2.1	+0.4
Gender:															
Male	4.1	4.7	4.0	4.4	4.4	4.1	4.0	3.5	2.5	2.2	2.3	2.1	1.9	2.9	+1.0 ss
Female	3.1	3.0	2.6	2.6	2.5	2.9	2.1	2.0	2.7	1.6	1.5	1.4	1.4	1.3	-0.1
College Plans:															
None or under 4 years	9.0	8.9	9.0	9.0	10.0	9.4	8.7	4.8	6.3	4.9	4.6	4.9	3.6	3.6	0.0
Complete 4 years	3.0	3.2	2.6	2.9	2.8	2.8	2.4	2.5	2.1	1.6	1.7	1.4	1.4	1.7	+0.3
Region:															
Northeast	3.7	4.1	2.9	2.7	3.3	3.3	2.8	1.8	2.9	2.1	1.4	1.0	1.1	1.2	+0.1
Midwest	3.7	4.0	3.3	3.8	2.9	2.9	2.4	2.3	2.4	1.3	1.7	1.6	1.5	1.8	+0.4
South	3.0	3.1	3.5	3.3	3.5	3.4	3.0	2.8	2.2	2.0	1.7	1.2	2.0	2.0	0.0
West	4.7	4.4	3.6	4.3	4.4	4.6	3.9	3.7	2.8	2.4	3.0	3.4	2.1	3.3	+1.2
Population Density:															
Large MSA	3.8	3.4	3.3	3.4	3.2	3.5	2.8	2.0	2.2	1.7	2.0	1.8	1.5	1.8	+0.3
Other MSA	3.7	4.1	3.6	3.6	3.7	3.8	3.2	3.1	2.8	2.0	2.1	1.6	1.9	2.2	+0.3
Non-MSA	3.3	3.8	2.9	3.4	3.6	3.0	2.9	2.7	2.5	2.1	1.8	2.1	1.6	2.4	+0.8
Parental Education: [b]															
1.0–2.0 (Low)	4.7	4.5	4.7	5.0	4.7	4.9	4.1	3.6	2.5	2.8	2.0	1.9	2.2	1.6	-0.5
2.5–3.0	3.8	3.9	3.3	3.2	5.0	4.1	3.5	3.5	2.6	2.7	2.6	2.6	1.9	2.8	+0.9
3.5–4.0	3.4	4.1	3.5	3.7	3.4	3.3	2.8	3.0	3.1	2.3	2.2	2.0	1.7	2.7	+1.0
4.5–5.0	3.7	3.8	2.9	3.2	2.8	3.1	2.9	2.4	2.2	1.6	1.5	1.4	1.4	1.5	+0.2
5.5–6.0 (High)	3.8	3.3	2.6	3.8	2.6	3.2	2.4	2.0	2.1	1.2	1.6	1.3	1.9	1.7	-0.2
Race/Ethnicity (2-year average): [c]															
White	4.2	4.4	4.2	3.9	3.8	3.8	3.5	3.0	2.7	2.4	2.2	2.2	1.9	2.1	+0.2
African American	1.2	0.8	0.7	1.1	1.2	1.0	1.1	1.1	0.9	1.4	1.2	0.6	0.4	0.6	+0.2
Hispanic	3.0	2.3	2.9	3.6	3.7	3.7	3.5	2.9	2.4	2.0	1.9	1.8	1.9	2.1	+0.2

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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.

[d]Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 33
HALLUCINOGENS OTHER THAN LSD: Trends in Annual Prevalence of Use
by Subgroups in Grade 12

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	9.4	7.0	6.9	7.3	6.8	6.2	5.6	4.7	4.1	3.8	3.6	3.0	3.2	2.1	2.2	2.1
Gender:																
Male	12.1	8.8	8.9	8.8	8.0	8.0	6.9	5.7	4.9	4.8	4.6	3.4	3.7	2.7	3.1	3.0
Female	7.5	5.0	4.9	5.5	5.3	4.2	4.0	3.6	3.1	2.7	2.5	2.5	2.6	1.4	1.1	1.1
College Plans:																
None or under 4 years	—	8.3	8.6	8.1	7.6	6.7	6.0	5.1	4.8	4.5	4.1	3.3	3.5	2.5	2.7	2.1
Complete 4 years	—	5.2	4.9	5.7	5.3	5.1	5.0	4.1	3.1	3.0	2.9	2.5	2.8	1.8	1.9	1.9
Region:																
Northeast	12.0	7.8	8.2	10.3	10.2	10.0	9.0	8.1	6.1	8.4	7.1	5.1	4.8	2.6	2.5	2.9
Midwest	11.3	7.9	7.9	7.6	6.8	6.7	5.7	4.8	4.4	2.9	3.1	2.7	3.5	1.6	2.3	1.7
South	7.1	5.7	5.4	4.8	4.1	3.1	2.0	1.8	2.4	1.5	1.5	1.4	1.7	2.0	1.9	1.7
West	7.7	6.7	6.3	7.2	6.6	5.9	6.9	4.9	4.1	4.5	3.6	3.3	3.3	2.5	2.3	2.6
Population Density:																
Large MSA	11.1	7.8	7.5	9.3	8.8	8.5	8.1	7.3	6.6	6.9	6.1	5.1	4.8	3.3	2.6	2.3
Other MSA	10.7	7.3	7.2	6.9	7.2	6.5	5.0	3.7	4.0	3.1	3.0	2.4	2.5	1.7	2.0	2.4
Non-MSA	6.8	6.1	6.1	6.1	4.7	4.1	4.4	4.0	2.4	2.4	2.4	2.1	2.9	1.6	2.1	1.5
Parental Education: [a]																
1.0–2.0 (Low)	7.5	5.1	5.4	5.7	4.7	5.8	3.9	3.7	3.6	2.8	2.7	2.3	3.4	2.7	2.0	1.5
2.5–3.0	8.7	7.6	6.9	7.2	6.5	5.9	5.1	4.7	3.6	3.8	3.5	3.1	2.9	1.5	1.8	1.2
3.5–4.0	9.1	7.5	7.4	7.3	6.6	5.8	5.8	4.8	4.5	3.6	4.1	3.2	3.0	1.8	1.8	2.2
4.5–5.0	9.7	8.4	7.0	7.8	7.5	6.4	6.0	4.7	3.9	3.8	3.6	2.7	3.3	2.2	2.6	2.8
5.5–6.0 (High)	7.4	7.2	7.8	7.9	9.2	7.2	7.0	6.7	4.6	5.3	2.6	2.8	3.5	3.1	3.3	3.6
Race/Ethnicity (2-year average): [b]																
White	—	—	7.6	7.6	7.5	7.0	6.3	5.6	4.7	4.3	4.0	3.5	3.4	3.0	2.4	2.4
African American	—	—	1.6	1.6	1.3	1.4	1.3	1.2	1.6	1.3	0.8	0.9	0.9	0.6	0.5	0.4
Hispanic	—	—	5.1	5.2	4.8	4.4	4.5	4.8	4.2	3.4	3.7	3.3	2.1	1.7	1.6	1.5

TABLE 33 (cont.)
HALLUCINOGENS OTHER THAN LSD: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[c]	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	2.0	1.7	2.2	3.1	3.8	4.4	4.6	4.6	4.3	4.4‡	5.9	5.4	5.4	5.6	5.0	4.6
Gender:																
Male	2.7	2.3	3.0	4.3	5.3	5.7	5.9	6.0	5.4	5.8‡	7.2	7.2	7.2	7.7	6.7	5.7
Female	1.3	1.2	1.3	1.9	2.1	2.8	3.2	3.0	3.1	2.9‡	4.2	3.5	3.4	3.4	3.2	3.3
College Plans:																
None or under 4 years	2.4	2.2	2.5	3.2	4.4	5.1	4.7	6.1	4.4	5.6‡	7.3	7.9	7.3	6.9	6.8	6.5
Complete 4 years	1.9	1.5	2.0	2.9	3.4	4.0	4.4	3.9	4.0	3.8‡	5.0	4.6	4.5	4.9	4.4	4.1
Region:																
Northeast	3.5	2.5	2.6	5.1	5.3	6.1	6.6	6.3	5.5	5.0‡	6.9	7.5	7.3	6.7	4.9	6.4
Midwest	1.9	1.8	2.0	3.1	3.2	3.5	2.8	4.1	3.7	3.6‡	6.9	5.0	4.7	4.6	6.3	4.7
South	1.0	1.3	1.8	1.9	3.1	3.6	4.0	3.5	3.3	3.3‡	3.1	4.5	4.3	4.9	4.7	3.8
West	2.6	1.8	2.9	3.6	4.5	5.4	6.1	5.5	5.7	6.9‡	8.0	5.6	6.0	6.9	4.0	4.2
Population Density:																
Large MSA	1.8	2.1	2.5	3.6	4.9	5.2	4.0	4.4	4.5	5.2‡	7.6	5.9	3.9	5.2	5.1	5.5
Other MSA	2.6	1.7	2.2	3.6	3.7	4.7	5.4	5.1	4.2	4.3‡	5.4	5.8	6.5	6.6	5.4	4.2
Non-MSA	1.2	1.4	2.0	1.8	2.7	3.1	3.6	3.7	4.2	3.8‡	4.8	4.3	5.1	4.1	4.0	3.9
Parental Education: [a]																
1.0–2.0 (Low)	1.9	1.3	1.7	2.2	2.7	3.5	2.7	3.7	2.2	3.8‡	3.8	4.3	4.7	3.3	2.9	4.9
2.5–3.0	1.6	1.6	1.5	2.4	3.4	3.0	3.5	3.9	3.3	3.6‡	5.4	5.4	4.3	4.9	5.1	4.5
3.5–4.0	2.0	1.8	2.4	2.9	3.6	4.0	4.8	4.6	5.1	4.2‡	6.1	5.6	5.9	6.0	4.9	4.9
4.5–5.0	2.4	1.7	2.7	3.7	4.2	5.2	5.3	5.0	4.4	4.6‡	5.5	5.8	6.0	6.3	5.3	4.3
5.5–6.0 (High)	2.4	2.1	3.0	4.4	4.1	5.9	5.9	5.4	4.7	5.8‡	6.6	5.1	4.8	5.6	5.3	4.5
Race/Ethnicity (2-year average): [b]																
White	2.4	2.2	2.2	3.0	3.8	4.4	5.2	5.6	5.2	4.8	4.7‡	5.4[d]	6.3	6.4	6.1	5.5
African American	0.3	0.3	0.5	0.7	0.8	0.8	0.7	0.6	0.6	1.0	0.9‡	0.9[d]	0.9	0.9	1.2	1.4
Hispanic	1.7	1.4	1.4	1.6	2.6	3.5	3.1	2.7	3.0	4.6	4.8‡	4.1[d]	4.1	3.7	3.6	3.5

TABLE 33 (cont.)
HALLUCINOGENS OTHER THAN LSD: Trends in Annual Prevalence of Use
by Subgroups in Grade 12

Percentage who used in last 12 months

	2007	2008	2009	2010	2011	2012	2013	2014[e]	2015[e]	2016[e]	2017[e]	2018[e]	2019[e]	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	4.8	5.0	4.2	4.8	4.3	4.0	3.7	3.0	2.9	2.7	2.9	2.7	2.7	0.0
Gender:														
Male	6.8	6.7	5.7	6.9	5.9	5.3	5.0	4.1	3.6	3.5	4.1	3.6	3.7	+0.1
Female	2.9	3.4	2.6	2.5	2.7	2.6	2.2	2.1	1.9	1.8	1.8	1.4	1.5	+0.1
College Plans:														
None or under 4 years	7.2	6.3	5.0	7.1	6.7	4.7	4.9	4.1	4.9	3.2	4.1	4.3	4.4	+0.1
Complete 4 years	4.2	4.7	3.9	4.2	3.8	3.9	3.3	2.7	2.3	2.5	2.5	2.0	2.2	+0.2
Region:														
Northeast	6.0	7.2	3.8	5.0	4.7	4.0	3.3	3.4	2.8	3.1	2.9	3.0	2.2	-0.8
Midwest	4.6	3.9	5.3	4.5	4.2	4.1	4.1	3.2	2.7	2.9	2.1	2.9	2.7	-0.2
South	3.8	4.6	3.7	3.9	3.2	3.5	3.5	2.6	2.4	2.0	2.6	1.9	2.2	+0.3
West	5.7	5.4	4.0	6.2	5.8	4.7	3.7	3.4	4.1	3.6	4.3	3.6	4.4	+0.8
Population Density:														
Large MSA	5.5	6.0	4.5	5.0	4.1	4.8	3.7	3.1	2.8	2.5	3.4	2.3	2.4	+0.1
Other MSA	4.7	4.9	4.3	5.1	4.7	4.0	4.1	3.3	3.3	2.9	2.8	2.6	2.6	0.0
Non-MSA	4.1	4.4	3.6	3.6	3.6	2.8	2.6	2.3	2.2	2.7	2.6	3.6	3.5	-0.1
Parental Education: [a]														
1.0–2.0 (Low)	3.5	3.4	3.0	3.1	4.5	2.8	3.5	2.2	3.0	2.9	3.0	2.7	2.2	-0.5
2.5–3.0	4.3	3.9	4.1	4.1	3.7	4.3	3.5	3.2	2.9	2.4	2.8	2.8	2.7	-0.2
3.5–4.0	4.9	4.8	4.4	5.5	4.3	4.1	4.2	3.3	3.3	2.5	3.2	2.5	2.8	+0.3
4.5–5.0	4.9	6.0	4.7	4.7	4.0	4.3	3.0	3.1	2.4	3.0	2.5	2.1	2.5	+0.3
5.5–6.0 (High)	5.8	6.1	4.1	4.8	5.1	3.4	4.3	2.8	3.0	2.7	3.3	2.7	3.0	+0.2
Race/Ethnicity (2-year average): [b]														
White	5.6	6.0	5.6	5.4	5.5	4.9	4.4	3.8	3.2	3.0	3.1	3.0	2.9	-0.2
African American	1.2	1.0	0.9	1.0	1.3	1.4	1.3	1.4	1.3	1.1	1.3	1.2	1.1	-0.1
Hispanic	3.4	3.0	2.8	3.0	2.8	2.6	3.0	2.7	2.7	2.8	2.3	2.1	2.2	+0.2

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

[c] In 2001 the question text was changed on half of the questionnaire forms. Other psychedelics was changed to other hallucinogens, and shrooms was added to the list of examples. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[d] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

[e] In 2014 questions on use of hallucinogens other than LSD were dropped from one of six forms. Beginning in 2014 data are based on five of six forms; *N* is five sixths of N indcated.

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TABLE 34

MDMA (ECSTASY, MOLLY): Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991-1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	—	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	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	2.3	2.3	1.8	1.7	3.1	3.5	2.9	2.1	1.7	1.7	1.4	1.5	1.7	1.3	2.4	1.7	1.1	1.1‡	1.5	1.4	1.0	0.9	1.1	1.1	+0.1
Gender:																										
Male	—	2.2	2.7	2.3	1.7	3.1	3.4	3.1	1.8	1.7	1.6	1.0	1.3	1.4	1.3	2.5	2.0	0.9	1.1‡	1.6	1.2	1.0	0.9	1.2	1.2	0.0
Female	—	2.3	2.0	1.3	1.7	3.0	3.7	2.6	2.2	1.8	1.7	1.7	1.7	2.0	1.2	2.4	1.4	1.2	1.1‡	1.5	1.5	0.9	0.9	0.9	1.0	+0.1
College Plans:																										
None or under 4 years	—	4.8	6.1	4.8	5.3	6.5	9.2	9.1	6.9	5.4	5.9	3.8	5.4	6.9	4.9	9.9	4.7	3.0	3.1‡	4.1	3.3	2.9	3.1	3.3	3.4	+0.1
Complete 4 years	—	1.9	2.0	1.5	1.2	2.7	2.9	2.3	1.5	1.3	1.3	1.2	1.1	1.3	1.0	1.9	1.5	0.9	1.0‡	1.3	1.2	0.8	0.7	0.7	0.8	+0.1
Region:																										
Northeast	—	2.1	1.5	1.6	1.8	2.4	3.8	2.0	1.8	1.8	1.1	0.8	0.5	1.2	1.0	1.2	0.9	1.2	0.6‡	1.4	1.0	0.6	0.6	0.7	0.3	-0.4 s
Midwest	—	1.7	1.7	1.7	1.4	3.5	2.9	2.3	2.1	1.4	1.7	1.6	1.2	1.4	1.0	2.4	0.9	0.3	1.2‡	1.2	1.3	0.9	1.0	0.7	0.8	+0.1
South	—	2.8	2.3	2.7	1.8	3.2	3.7	3.7	2.5	1.9	2.1	2.0	1.8	1.8	1.1	2.5	1.5	1.4	1.3‡	1.7	1.7	1.1	0.9	1.2	1.3	+0.1
West	—	2.3	3.8	0.8	1.7	2.9	3.6	3.0	1.6	1.7	1.5	0.7	1.9	2.2	2.2	3.2	3.7	1.3	1.2‡	1.5	1.1	1.1	1.1	1.6	1.7	+0.2
Population Density:																										
Large MSA	—	2.9	1.8	1.8	1.6	3.0	3.1	2.6	1.8	2.1	1.6	1.1	1.4	1.9	1.3	2.5	1.9	1.1	1.1‡	1.2	1.7	0.7	0.9	1.2	0.6	-0.6 ss
Other MSA	—	2.5	3.1	2.1	1.8	3.4	4.3	3.3	1.9	1.9	1.6	1.6	1.5	1.7	1.4	2.6	1.9	1.3	1.3‡	1.8	1.4	1.1	0.9	1.1	1.4	+0.3
Non-MSA	—	1.2	1.5	1.5	1.6	2.5	2.5	2.5	2.7	1.0	1.9	1.6	1.8	1.3	1.0	2.0	1.2	0.6	0.8‡	1.2	0.9	1.2	0.8	0.9	1.3	+0.4
Parental Education:[a]																										
1.0–2.0 (Low)	—	2.9	2.2	2.1	2.5	4.2	5.8	6.0	3.6	3.6	2.5	2.8	3.1	4.1	1.8	5.0	2.2	2.1	2.3‡	2.4	2.5	1.7	2.1	2.0	2.1	+0.1
2.5–3.0	—	2.2	2.4	1.4	2.0	3.9	4.3	3.6	3.1	2.2	3.0	1.5	1.9	1.7	1.6	3.8	2.2	1.7	1.2‡	2.1	1.5	1.1	1.5	1.4	2.3	+0.9
3.5–4.0	—	2.2	2.9	2.6	1.5	2.8	2.4	2.9	2.1	1.7	1.7	1.2	1.1	2.1	1.4	2.2	2.1	1.0	1.0‡	1.3	1.2	1.1	0.8	1.1	0.8	-0.3
4.5–5.0	—	2.6	2.0	1.4	1.2	3.1	3.3	2.4	1.4	1.2	1.1	1.3	1.4	1.0	1.1	1.9	1.5	0.6	1.1‡	1.0	1.0	1.1	0.5	1.0	0.8	-0.2
5.5–6.0 (High)	—	2.4	2.7	2.5	2.3	2.0	3.0	1.2	2.0	1.7	0.9	1.2	0.8	0.8	1.1	1.1	1.1	0.6	0.6‡	1.3	0.8	0.3	0.5	0.5	0.8	+0.3
Race/Ethnicity (2-year average):[b]																										
White	—	—	2.7	2.4	1.9	2.5	3.2	2.9	2.4	1.9	1.5	1.5	1.4	1.6	1.5	1.9	1.8	1.0	0.9	1.0‡	1.3	0.9	0.7	0.7	0.9	+0.2
African American	—	—	0.3	0.4	0.5	0.6	1.1	1.1	1.0	1.6	1.8	1.4	1.2	0.7	0.4	0.7	1.1	1.0	0.9	1.0‡	1.3	1.3	1.2	0.5	0.2	-0.3 s
Hispanic	—	—	2.5	1.7	1.9	3.3	5.3	5.9	4.0	2.3	2.3	1.8	1.8	2.1	2.1	2.6	3.1	2.4	1.8	1.5‡	1.3	1.3	1.0	1.3	1.5	+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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1996; *N* is one half of *N* indicated in Table S2. Data based on one of four forms in 1997–2001; *N* is one third of *N* indicated in Table S2. Data based on two of four forms beginning in 2002; *N* is one half of *N* indicated in Table S2. In 2014 a revised question on use of ecstasy (MDMA) including "Molly" was added to one form.

Beginning in 2014 data reported here are for the revised wording which includes "Molly"; *N* is two sixths of *N* indicated in 2014 and five sixths of *N* indicated beginning in 2015.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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. Two year race data for the 2014 are based on the 2013 and 2014 unchanged forms only. Two year race data for the 2015 are based on the 2014 revised wording data two and one half times weighted and the 2015 revised wording data. Beginning in 2016 two year race data based only on revised wording data.

TABLE 35
MDMA (ECSTASY, MOLLY): Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991-1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	—	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	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	4.6	3.9	3.3	4.4	5.4	6.2	4.9	3.0	2.4	2.6	2.8	3.5	2.9	3.7	4.7	4.5	3.0	3.6‡	3.8	2.4	1.8	1.7	1.4	1.7	+0.3
Gender:																										
Male	—	4.9	4.7	3.5	4.7	5.7	7.6	4.3	2.8	2.4	2.6	3.3	3.7	3.4	3.7	5.4	4.9	3.3	4.4‡	3.9	2.6	2.2	2.1	1.5	2.1	+0.6 s
Female	—	4.2	3.1	2.9	4.2	4.8	4.9	5.2	3.2	2.4	2.5	2.2	3.1	2.4	3.5	4.0	3.8	2.6	2.9‡	3.6	2.1	1.4	1.3	1.3	1.2	-0.1
College Plans:																										
None or under 4 years	—	7.7	7.5	5.4	8.5	10.7	13.6	10.1	5.7	5.4	5.6	6.9	7.4	7.5	8.6	9.2	10.6	8.3	7.0‡	8.7	5.9	4.8	4.5	3.4	3.7	+0.3
Complete 4 years	—	4.0	3.3	2.9	3.7	4.5	5.1	4.1	2.6	2.0	2.2	2.2	3.0	2.3	3.1	4.2	3.8	2.4	3.2‡	3.2	2.0	1.5	1.4	1.1	1.2	+0.1
Region:																										
Northeast	—	4.4	3.0	3.8	7.0	6.4	8.2	4.4	2.7	2.6	2.2	2.2	2.9	2.0	2.0	3.7	3.2	1.9	3.3‡	3.4	1.9	1.2	1.6	0.8	0.9	+0.1
Midwest	—	3.6	3.2	2.2	2.3	5.2	4.8	4.6	2.5	1.9	3.0	2.8	3.5	2.0	2.8	3.1	2.1	2.4	3.1‡	3.1	1.9	1.6	2.1	1.6	1.1	-0.5
South	—	5.6	5.0	4.1	4.1	5.2	5.9	5.1	3.8	2.6	2.6	3.0	3.6	2.8	3.2	4.5	3.9	2.8	3.9‡	4.8	3.1	1.8	1.5	1.6	1.6	+0.1
West	—	4.1	3.7	2.7	4.4	5.0	6.8	5.2	3.0	2.7	2.5	3.0	3.8	4.5	6.8	7.8	9.2	4.8	3.8‡	3.3	2.3	2.4	1.8	1.4	2.8	+1.4 s
Population Density:																										
Large MSA	—	5.6	4.0	2.5	5.2	7.0	7.3	5.1	2.4	1.8	3.0	2.9	3.0	3.8	3.3	4.8	4.8	3.8	3.1‡	3.4	2.6	1.9	1.9	1.3	1.1	-0.3
Other MSA	—	4.6	3.6	4.1	4.7	5.3	5.5	5.2	3.1	3.1	2.5	2.7	3.7	2.7	4.0	5.3	5.1	2.9	4.6‡	4.4	2.1	1.7	1.6	1.5	2.0	+0.6
Non-MSA	—	3.3	4.2	2.7	2.8	3.7	6.3	3.7	3.8	2.0	2.3	2.8	3.8	2.0	3.5	3.3	3.0	1.9	1.7‡	3.1	2.7	1.9	1.7	1.4	1.7	+0.3
Parental Education: [a]																										
1.0–2.0 (Low)	—	4.8	3.0	1.9	3.7	7.0	7.2	5.8	2.4	3.3	4.4	3.8	4.3	4.8	6.0	8.5	9.5	5.6	3.5‡	2.5	3.7	2.3	2.0	1.7	1.3	-0.4
2.5–3.0	—	4.7	3.9	3.1	4.4	4.9	6.5	5.5	3.8	3.3	2.8	2.9	4.7	3.5	4.8	5.6	5.0	3.0	5.0‡	4.6	2.3	2.0	2.6	1.6	2.3	+0.7
3.5–4.0	—	4.7	5.2	4.3	4.0	6.3	7.0	5.5	3.5	2.1	3.3	2.5	3.2	3.2	3.8	4.8	4.4	2.5	3.5‡	5.1	3.2	1.8	2.0	1.3	2.0	+0.7
4.5–5.0	—	4.2	2.5	2.9	4.3	5.0	5.3	3.9	2.7	2.3	2.2	2.7	3.2	2.0	2.5	3.6	2.5	2.9	3.1‡	3.8	1.9	1.8	1.1	1.3	1.2	-0.1
5.5–6.0 (High)	—	5.3	4.0	4.4	5.6	4.8	5.8	4.6	2.3	1.4	1.4	3.3	2.8	2.1	3.4	3.6	3.8	2.5	3.0‡	2.5	1.7	1.5	1.3	1.6	1.3	-0.3
Race/Ethnicity (2-year average): [b]																										
White	—	—	4.8	4.0	4.4	5.3	6.0	6.2	4.6	3.1	2.7	2.9	3.5	3.4	2.9	3.7	4.0	3.2	2.9	3.2‡	3.5	2.2	1.7	1.4	1.4	+0.1
African American	—	—	0.8	1.2	1.3	1.5	2.2	1.8	1.5	0.9	0.6	1.0	1.3	1.3	1.5	1.9	2.2	1.8	1.3	1.3‡	1.9	1.5	1.3	1.0	0.8	-0.2
Hispanic	—	—	3.6	2.3	2.4	4.6	5.4	4.3	3.4	3.0	4.3	3.9	2.7	3.8	5.6	7.3	8.7	7.3	5.1	3.9‡	3.2	2.1	2.1	2.2	2.0	-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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1996; N is one half of N indicated in Table S2. Data based on one of four forms in 1997–2001; N is one third of N indicated in Table S2. Data based on two of four forms beginning in 2002; N is one half of N indicated in Table S2. In 2014 a revised question on use of ecstasy (MDMA) including "Molly" was added to one form. Beginning in 2014 data reported here are for the revised wording which includes "Molly"; N is two sixths of N indicated in 2014 and five sixths of N indicated beginning in 2015.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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. Two year race data for the 2014 are based on the 2013 and 2014 unchanged forms only. Two year race data for the 2015 are based on the 2014 revised wording data two and one half times weighted and the 2015 revised wording data. Beginning in 2016 two year race data based only on revised wording data.

TABLE 36
MDMA (ECSTASY, MOLLY): Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1975–1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	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	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	4.6	4.0	3.6	5.6	8.2	9.2	7.4	4.5	4.0	3.0	4.1	4.5	4.3	4.3	4.5	5.3	3.8	4.0‡	5.0	3.6	2.7	2.6	2.2	2.2	0.0
Gender:																										
Male	—	4.8	5.6	4.8	5.6	8.1	10.5	8.2	4.8	4.7	3.3	4.3	5.0	5.5	5.5	5.3	6.3	4.1	5.0‡	6.6	4.0	3.3	3.5	2.9	2.9	-0.1
Female	—	4.2	2.5	2.7	5.6	8.2	8.0	6.4	4.0	3.2	2.7	4.0	4.1	3.3	3.2	3.6	4.6	3.4	2.9‡	3.1	3.1	1.9	1.6	1.5	1.5	0.0
College Plans:																										
None or under 4 years	—	6.9	3.8	4.7	4.2	8.5	9.8	8.9	6.5	5.3	3.7	6.0	6.5	7.2	6.1	4.7	8.5	4.8	4.3‡	5.6	6.1	3.0	3.8	3.4	4.1	+0.7
Complete 4 years	—	4.0	3.9	3.3	6.2	8.0	8.7	7.1	3.9	3.6	2.8	3.7	3.9	3.7	3.9	4.4	4.7	3.4	4.0‡	4.6	3.1	2.4	2.1	1.8	1.7	-0.2
Region:																										
Northeast	—	6.3	6.9	3.7	9.4	8.8	10.1	10.3	5.1	3.5	3.0	2.9	4.3	2.9	3.8	4.5	5.9	3.7	4.6‡	6.0	3.9	2.1	1.7	1.6	1.3	-0.4
Midwest	—	3.7	1.3	2.7	3.3	5.7	11.8	5.0	4.7	3.0	3.0	3.4	4.4	2.8	4.5	3.5	3.7	2.4	3.9‡	2.8	2.3	2.9	1.9	2.2	1.5	-0.7
South	—	4.6	4.3	4.0	5.7	5.9	5.7	7.9	4.2	5.1	3.4	4.9	4.6	4.6	3.8	3.6	4.4	3.2	3.7‡	5.4	2.7	2.4	2.6	1.8	2.6	+0.8 s
West	—	3.9	4.1	4.0	5.0	14.4	10.3	6.8	4.2	3.8	2.5	4.6	4.7	6.6	5.2	6.9	7.9	5.9	4.0‡	5.6	5.9	3.3	3.8	3.1	3.0	-0.2
Population Density:																										
Large MSA	—	3.6	3.6	3.2	6.1	8.7	10.9	8.4	4.3	4.0	3.5	6.1	5.8	4.7	4.1	5.2	5.8	5.1	5.1‡	4.2	3.5	2.3	2.6	2.1	1.7	-0.4
Other MSA	—	5.1	4.6	4.3	6.1	8.4	9.7	8.1	5.0	4.5	3.2	3.1	4.0	4.8	4.7	4.9	5.7	3.7	3.9‡	6.8	3.6	2.9	2.9	2.2	2.4	+0.2
Non-MSA	—	4.5	3.4	2.7	4.2	7.4	6.4	4.6	4.0	2.8	2.1	3.1	3.7	2.8	3.5	2.2	3.7	1.8	2.6‡	1.8	3.9	2.6	1.9	2.2	2.5	+0.3
Parental Education: [a]																										
1.0–2.0 (Low)	—	5.5	3.5	4.2	6.8	7.3	3.8	4.8	4.1	4.6	3.0	3.8	4.7	4.0	6.2	3.8	6.3	3.7	5.3‡	6.4	3.4	2.9	3.3	1.7	1.8	+0.1
2.5–3.0	—	5.0	3.1	3.2	5.1	7.7	10.3	8.0	3.8	3.7	3.9	3.6	4.9	4.0	2.5	4.9	5.5	3.5	3.8‡	4.1	3.9	2.7	3.1	2.7	2.9	+0.2
3.5–4.0	—	4.9	3.8	3.2	5.7	6.2	8.4	7.5	5.7	4.6	2.8	3.9	4.4	5.3	4.6	4.7	5.0	4.1	4.1‡	4.2	4.3	2.4	2.5	2.0	1.8	-0.2
4.5–5.0	—	4.0	2.9	4.3	6.2	8.3	11.2	7.3	5.0	3.8	3.2	5.1	4.1	3.6	4.9	4.2	5.7	3.9	3.2‡	4.9	3.1	2.5	2.1	2.0	1.9	0.0
5.5–6.0 (High)	—	4.1	8.7	3.5	4.7	10.6	8.1	7.6	3.3	3.1	2.0	3.6	4.6	4.1	4.0	4.3	4.4	3.6	5.9‡	6.7	3.7	2.9	2.4	2.5	2.5	0.0
Race/Ethnicity (2-year average): [b]																										
White	—	—	5.2	4.7	5.1	7.6	9.6	8.5	6.4	4.7	3.9	4.0	4.9	4.8	4.6	4.5	5.1	4.9	4.0	3.9‡	4.0	3.3	2.7	2.6	2.4	-0.2
African American	—	—	0.4	0.4	0.5	1.3	2.4	1.7	1.4	1.6	1.4	1.8	2.1	2.2	2.4	2.6	2.4	1.5	1.1	1.7‡	3.3	2.2	1.6	0.9	1.1	+0.2
Hispanic	—	—	2.8	2.7	6.0	10.6	10.2	7.0	5.3	3.7	3.0	3.0	3.3	3.2	3.9	4.6	4.4	4.5	4.5	3.9‡	3.8	2.8	2.2	2.1	1.8	-0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of six forms in 1996–2001; *N* is one sixth of *N* indicated in Table S3. Data based on two of six forms beginning in 2002; *N* is two sixths of *N* indicated in Table S3. Beginning in 2014 a revised question on use of ecstasy (MDMA) including "Molly" was added to one form.   Beginning in 2014 data reported here are for the revised wording which includes "Molly". *N* is one sixth of N indicated in 2014 and three sixths of *N* indicated beginning in 2015.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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. Two year race data for 2014 are based on the 2013 and 2014 unchanged forms only. Two year race data for the 2015 are based on the 2014 revised wording data triple weighted and the 2015 revised wording data. Beginning in 2016 two year race data based only on revised wording data.

TABLE 37
SALVIA: Trends in Annual Prevalence of Use by Subgroups in Grade 8

					Percentage who used in last 12 months							
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	1.7	1.6	1.4	1.2	0.6	0.7	0.9	0.4	0.6	0.8	+0.1
Gender:												
Male	—	2.6	2.0	1.4	1.6	0.6	0.7	1.2	0.5	1.0	1.0	0.0
Female	—	1.0	1.1	1.1	0.9	0.6	0.6	0.7	0.2	0.3	0.5	+0.2
College Plans:												
None or under 4 years	—	4.4	5.4	5.2	4.2	2.7	1.7	5.5	1.4	2.0	2.1	+0.1
Complete 4 years	—	1.4	1.3	1.1	1.0	0.4	0.6	0.5	0.2	0.4	0.6	+0.1
Region:												
Northeast	—	1.9	1.8	0.5	0.8	0.8	0.5	0.7	0.1	0.5	0.2	-0.3
Midwest	—	1.6	1.1	0.4	0.3	0.2	0.5	0.5	0.2	0.2	0.5	+0.3
South	—	1.4	1.5	2.4	1.1	0.8	0.8	1.4	0.5	0.9	1.4	+0.5
West	—	2.4	2.1	1.2	2.6	0.5	0.7	0.7	0.5	0.8	0.5	-0.3
Population Density:												
Large MSA	—	2.0	1.3	1.9	1.4	0.5	0.7	0.9	0.3	1.0	1.0	0.0
Other MSA	—	1.6	2.1	1.3	1.1	0.8	0.7	1.0	0.5	0.5	0.9	+0.4
Non-MSA	—	1.9	0.9	0.6	1.2	0.3	0.4	0.7	0.2	0.3	0.1	-0.2
Parental Education: [a]												
1.0–2.0 (Low)	—	2.3	4.7	1.4	2.3	1.0	1.3	2.2	1.3	0.9	1.2	+0.3
2.5–3.0	—	1.7	2.5	1.3	1.1	0.4	0.5	1.1	0.2	0.1	1.5	+1.4 s
3.5–4.0	—	0.9	1.7	1.0	1.4	0.3	0.4	1.9	0.0	0.4	0.4	0.0
4.5–5.0	—	2.1	1.0	1.5	1.4	0.8	0.7	0.1	0.5	0.9	0.3	-0.6
5.5–6.0 (High)	—	1.5	0.2	1.4	0.5	0.7	0.2	0.5	0.4	0.3	0.8	+0.5
Race/Ethnicity (2-year average): [b]												
White	—	—	1.5	1.2	0.9	0.6	0.4	0.4	0.3	0.3	0.4	+0.1
African American	—	—	1.4	1.5	1.4	0.8	0.6	1.1	1.2	1.3	1.6	+0.3
Hispanic	—	—	2.1	2.4	2.2	1.6	0.9	1.3	1.1	0.6	0.8	+0.3

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

Notes. ' — ' indicates data not available. See Table S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data for 8th graders based on one of four forms; *N* is one third of *N* indicated in Table S1.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 38
SALVIA: Trends in Annual Prevalence of Use by Subgroups in Grade 10

					Percentage who used in last 12 months							2018– 2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	3.7	3.9	2.5	2.3	1.8	1.2	0.9	0.9	0.7	0.9	+0.2
Gender:												
Male	—	5.4	5.0	3.7	3.4	2.2	1.8	1.3	1.0	0.8	1.4	+0.6
Female	—	1.9	2.7	1.4	1.3	1.4	0.5	0.5	0.8	0.6	0.5	-0.1
College Plans:												
None or under 4 years	—	8.1	12.1	8.2	5.4	5.7	3.8	1.9	1.4	1.4	1.7	+0.3
Complete 4 years	—	3.2	2.9	1.9	2.0	1.3	0.9	0.8	0.8	0.6	0.8	+0.2
Region:												
Northeast	—	2.8	5.0	3.6	2.6	1.4	1.5	0.9	0.3	1.0	0.2	-0.7
Midwest	—	3.1	3.4	1.3	0.9	1.3	0.7	1.0	0.9	0.6	0.6	+0.1
South	—	4.0	3.4	2.0	1.8	1.9	1.0	0.7	0.7	0.3	0.8	+0.4
West	—	4.7	4.2	3.8	4.1	2.6	1.7	1.3	1.7	1.4	1.9	+0.5
Population Density:												
Large MSA	—	4.3	3.8	2.3	2.5	2.1	1.1	1.0	1.1	1.0	0.6	-0.4
Other MSA	—	3.3	3.8	2.6	2.1	1.4	1.2	0.7	0.7	0.7	1.2	+0.5
Non-MSA	—	3.7	4.1	2.7	2.6	2.4	1.3	1.3	1.1	0.4	0.6	+0.2
Parental Education: [a]												
1.0–2.0 (Low)	—	5.8	2.6	3.6	3.3	1.6	1.6	0.8	1.9	2.3	1.1	-1.2
2.5–3.0	—	4.4	5.1	3.3	3.0	1.8	1.8	1.4	0.9	0.4	1.1	+0.7
3.5–4.0	—	3.6	4.6	2.2	2.1	2.3	1.1	0.8	0.9	0.5	1.3	+0.8
4.5–5.0	—	2.7	3.3	2.0	2.3	1.6	1.0	0.7	1.0	0.6	0.7	+0.2
5.5–6.0 (High)	—	4.0	2.8	2.5	1.2	1.3	0.6	0.6	0.3	0.3	0.5	+0.2
Race/Ethnicity (2-year average): [b]												
White	—	—	3.9	3.4	2.3	2.1	1.6	1.0	0.8	0.6	0.7	+0.1
African American	—	—	1.6	0.7	1.3	1.3	1.7	1.2	0.7	0.7	0.9	+0.2
Hispanic	—	—	4.7	4.0	2.8	1.6	0.8	1.1	1.2	1.2	1.1	-0.2

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

Notes.   ' — ' indicates data not available. See Table S2 for the number of subgroup cases. See appendix B for definition of variables
in table. Data for 10th graders based on one of four forms; N is one third of N indicated in Table S2.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 39
SALVIA: Trends in Annual Prevalence of Use by Subgroups in Grade 12

					Percentage who used in last 12 months							2018–2019 change
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.7	5.5	5.9	4.4	3.4	1.8	1.9	1.8	1.5	0.9	0.7	-0.2
Gender:												
Male	9.3	8.5	8.6	5.6	5.0	2.3	2.4	2.2	1.0	1.0	0.7	-0.3
Female	2.3	2.5	3.3	3.0	1.8	1.0	1.0	0.9	1.6	0.4	0.7	+0.3
College Plans:												
None or under 4 years	7.4	9.2	11.4	5.9	6.7	3.4	3.0	3.6	2.9	1.4	0.8	-0.6
Complete 4 years	5.2	4.7	4.8	3.9	2.5	1.4	1.4	1.2	1.1	0.5	0.6	+0.2
Region:												
Northeast	7.1	6.2	6.0	5.3	3.9	2.9	1.3	1.8	2.8	2.3	0.0	-2.3
Midwest	5.0	5.0	3.1	2.6	1.3	1.5	1.3	1.0	1.6	0.4	0.3	-0.1
South	4.8	5.3	5.2	3.8	3.6	1.7	1.4	1.6	1.2	1.2	0.9	-0.2
West	6.9	6.1	9.9	6.5	5.2	1.5	3.5	2.8	1.3	0.2	1.2	+1.0
Population Density:												
Large MSA	7.8	6.7	7.0	5.0	2.8	2.3	2.0	1.4	1.7	1.3	1.0	-0.3
Other MSA	5.0	5.5	6.1	4.7	4.2	1.9	1.4	2.6	1.2	0.4	0.4	0.0
Non-MSA	4.6	4.1	4.1	2.9	2.5	1.0	2.7	0.6	1.9	1.3	0.8	-0.5
Parental Education: [a]												
1.0–2.0 (Low)	5.8	5.4	6.3	8.3	7.1	1.9	2.5	4.5	1.0	1.1	1.8	+0.7
2.5–3.0	4.6	4.4	5.3	3.7	4.1	1.9	1.6	1.2	1.8	0.9	0.4	-0.5
3.5–4.0	6.2	6.0	6.6	3.5	3.1	1.6	2.1	1.1	2.8	1.5	0.8	-0.7
4.5–5.0	5.5	5.6	5.4	4.6	2.6	1.7	1.0	1.6	0.5	0.6	0.0	-0.6
5.5–6.0 (High)	7.0	6.7	6.0	4.2	2.3	1.9	1.7	1.6	0.2	0.1	0.9	+0.8
Race/Ethnicity (2-year average): [b]												
White	—	6.3	6.2	5.3	3.8	2.5	1.7	1.5	1.6	1.4	0.5	-0.9 ss
African American	—	2.5	2.5	2.8	2.6	1.7	1.6	1.9	1.8	0.9	0.3	-0.6
Hispanic	—	4.4	4.6	5.6	4.8	2.0	1.0	1.8	1.6	1.4	1.8	+0.5

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

Notes. ' — ' indicates data not available. See Table S3 for the number of subgroup cases. See appendix B for definition of variables in table Data for 12th graders based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 40
COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	1.1	1.5	1.7	2.1	2.6	3.0	2.8	3.1	2.7	2.6	2.5	2.3	2.2	2.0	2.2
Gender:															
Male	1.4	1.5	1.9	2.1	2.5	2.7	3.1	2.9	2.8	2.6	2.4	2.2	1.9	1.7	2.0
Female	0.9	1.5	1.5	2.1	2.6	3.1	2.5	3.1	2.7	2.6	2.6	2.3	2.3	2.3	2.3
College Plans:															
None or under 4 years	3.2	4.8	5.4	6.6	7.0	7.9	7.5	9.4	8.1	7.5	7.0	7.2	7.1	6.8	6.1
Complete 4 years	0.8	1.0	1.1	1.5	2.0	2.2	2.2	2.3	2.0	2.0	2.0	1.8	1.6	1.5	1.8
Region:															
Northeast	1.3	0.8	1.0	2.2	2.2	2.6	2.4	1.9	2.2	1.6	1.9	1.6	1.6	1.9	1.8
Midwest	0.9	1.4	1.0	1.2	2.6	2.9	2.6	2.7	2.6	2.9	2.3	2.3	2.0	1.6	2.0
South	1.1	1.7	2.1	2.5	2.4	2.7	2.6	3.8	3.1	2.2	3.2	2.6	2.5	2.1	2.4
West	1.5	2.0	2.7	2.3	3.3	3.7	3.7	3.3	2.7	3.7	2.4	2.4	2.3	2.4	2.4
Population Density:															
Large MSA	1.1	1.4	1.3	1.9	2.4	2.8	2.4	2.3	2.1	2.3	2.1	2.0	1.7	2.2	2.2
Other MSA	1.1	1.7	2.2	2.5	2.8	3.2	2.9	3.3	2.8	2.5	2.8	2.3	2.2	2.1	2.2
Non-MSA	1.2	1.3	1.2	1.4	2.4	2.7	3.0	3.4	3.2	3.1	2.5	2.6	2.7	1.7	2.2
Parental Education: [a]															
1.0–2.0 (Low)	2.4	3.2	2.9	3.5	4.9	3.9	4.7	6.3	5.6	5.3	4.4	3.7	4.1	3.3	4.2
2.5–3.0	1.4	1.6	2.0	2.3	2.4	3.3	3.0	3.3	3.1	2.9	2.8	2.8	2.4	2.5	2.9
3.5–4.0	0.7	1.2	1.8	2.1	2.8	3.3	2.8	3.1	2.8	2.5	2.4	2.2	2.2	2.0	2.5
4.5–5.0	0.7	1.0	1.0	1.6	1.9	2.7	2.6	2.2	1.7	1.8	2.1	2.0	1.5	1.8	1.5
5.5–6.0 (High)	1.2	1.5	1.1	1.9	2.5	2.5	2.3	2.5	2.5	2.2	1.6	1.5	2.0	1.2	1.2
Race/Ethnicity (2-year average): [b]															
White	—	1.2	1.3	1.6	2.3	2.8	3.0	2.8	2.6	2.5	2.5	2.4	2.2	1.9	1.8
African American	—	0.7	0.7	0.7	0.6	0.6	0.5	0.7	0.8	0.8	0.8	0.8	0.9	1.0	1.0
Hispanic	—	3.1	4.0	4.5	4.7	4.8	4.3	5.2	5.9	4.7	4.2	4.1	3.8	3.6	3.6

TABLE 40 (cont.)

COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	2.0	2.0	1.8	1.6	1.6	1.4	1.2	1.0	1.0	0.9	0.8	0.8	0.8	0.7	-0.1
Gender:															
Male	1.9	1.7	1.8	1.4	1.5	1.3	1.1	1.0	0.9	0.9	0.8	0.7	0.8	0.7	-0.1
Female	2.1	2.2	1.8	1.7	1.7	1.3	1.2	1.0	1.1	0.8	0.7	0.8	0.6	0.8	+0.1
College Plans:															
None or under 4 years	7.1	6.5	6.9	6.4	5.6	5.5	4.6	3.4	3.0	2.5	2.3	2.6	2.4	1.3	-1.1 s
Complete 4 years	1.5	1.5	1.3	1.2	1.3	1.1	0.9	0.8	0.8	0.8	0.6	0.5	0.5	0.6	+0.1
Region:															
Northeast	1.3	1.2	1.2	1.4	1.0	0.9	1.1	0.8	0.5	0.6	0.5	0.5	0.5	0.3	-0.2
Midwest	1.3	1.6	1.9	1.8	2.0	1.3	0.6	0.8	0.8	0.8	0.6	0.6	0.5	0.4	-0.1
South	2.9	2.3	2.2	1.2	1.6	1.3	1.4	1.0	1.3	1.0	1.0	0.6	0.7	0.9	+0.2
West	1.9	2.2	1.6	2.1	1.7	2.1	1.4	1.3	1.3	1.1	0.9	1.3	1.4	1.0	-0.4
Population Density:															
Large MSA	1.9	1.9	2.0	1.1	1.4	1.5	1.3	1.0	1.2	1.0	0.8	0.7	0.8	0.8	0.0
Other MSA	2.0	2.1	1.7	1.9	1.8	1.5	1.2	1.0	1.0	1.1	0.7	0.9	0.7	0.7	0.0
Non-MSA	2.2	1.8	1.7	1.4	1.5	1.2	0.9	0.8	1.0	0.4	1.0	0.5	0.7	0.5	-0.2
Parental Education: [a]															
1.0–2.0 (Low)	4.4	3.8	3.6	3.9	3.3	2.6	2.6	2.1	1.8	1.2	1.8	1.3	1.7	1.5	-0.2
2.5–3.0	2.2	2.2	2.3	1.8	2.0	2.1	1.6	1.1	1.1	0.9	0.8	1.1	0.8	0.8	0.0
3.5–4.0	2.0	1.8	1.8	1.5	1.6	1.6	1.2	0.9	1.1	0.8	0.8	0.8	0.7	0.8	+0.1
4.5–5.0	1.4	1.4	1.2	0.8	1.2	0.9	0.5	0.7	0.9	0.6	0.6	0.5	0.7	0.6	-0.2
5.5–6.0 (High)	1.5	1.3	1.4	1.5	1.2	0.8	0.7	0.8	0.6	1.0	0.5	0.3	0.4	0.6	+0.2
Race/Ethnicity (2-year average): [b]															
White	1.9	1.7	1.6	1.5	1.4	1.3	1.0	0.9	0.7	0.7	0.6	0.5	0.5	0.5	0.0
African American	0.9	0.9	0.8	0.8	0.7	0.5	0.6	0.8	0.8	0.7	0.6	1.1	1.2	1.3	+0.1
Hispanic	3.5	3.8	3.5	2.8	2.8	2.9	2.6	1.8	1.4	1.3	1.2	1.7	1.8	1.5	-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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 41
COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

<div align="center">Percentage who used in last 12 months</div>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	2.2	1.9	2.1	2.8	3.5	4.2	4.7	4.7	4.9	4.4	3.6	4.0	3.3	3.7	3.5
Gender:															
Male	2.2	2.0	2.5	3.1	3.5	4.5	4.7	4.9	5.2	4.7	3.8	4.2	3.3	3.9	3.6
Female	2.2	1.7	1.6	2.5	3.3	4.0	4.6	4.4	4.6	4.1	3.2	3.9	3.2	3.4	3.3
College Plans:															
None or under 4 years	4.7	4.0	5.1	6.6	7.2	10.0	10.4	10.7	11.6	9.7	9.1	10.1	8.3	9.4	8.8
Complete 4 years	1.7	1.4	1.4	2.0	2.8	3.2	3.7	3.6	3.8	3.5	2.7	3.1	2.4	2.9	2.8
Region:															
Northeast	1.5	1.0	2.0	2.4	2.5	3.0	3.0	4.9	4.6	3.1	2.3	2.4	3.1	3.4	3.6
Midwest	1.7	1.7	1.4	2.2	2.9	4.1	4.0	3.7	4.4	4.6	3.4	3.6	2.7	3.2	3.4
South	2.0	1.8	1.9	2.6	3.5	4.2	5.4	4.3	5.2	4.2	3.8	3.8	3.5	3.5	2.9
West	3.6	3.2	3.7	4.7	5.3	5.9	6.4	6.4	5.3	5.7	4.9	6.5	3.7	4.8	4.4
Population Density:															
Large MSA	1.9	1.6	1.6	2.3	3.4	3.8	4.5	4.3	4.1	4.3	3.2	3.6	2.5	3.3	3.3
Other MSA	2.7	2.1	2.3	3.1	3.5	4.7	4.3	4.7	5.1	4.2	3.7	4.4	3.2	3.8	3.4
Non-MSA	1.6	1.7	2.1	2.7	3.6	3.7	5.7	5.2	5.4	4.7	3.8	3.8	4.6	3.9	3.8
Parental Education: [a]															
1.0–2.0 (Low)	3.3	3.5	3.2	3.8	5.3	7.4	6.3	8.1	8.2	7.7	5.6	7.9	7.0	6.5	5.3
2.5–3.0	2.4	1.7	2.2	2.9	4.3	4.5	5.0	5.5	5.9	5.4	5.2	4.8	3.9	4.2	4.6
3.5–4.0	2.4	2.1	2.5	3.2	3.7	4.3	5.4	4.4	4.7	4.4	2.9	3.8	3.4	4.0	3.4
4.5–5.0	1.6	1.4	1.6	2.1	2.6	3.4	3.7	3.5	3.9	3.2	2.7	2.4	2.2	3.0	2.8
5.5–6.0 (High)	1.9	1.5	1.1	1.9	1.9	3.4	3.3	3.2	3.9	2.9	2.0	3.2	1.6	1.8	2.4
Race/Ethnicity (2-year average): [b]															
White	—	2.1	2.0	2.2	3.0	3.8	4.4	4.7	4.9	4.7	3.9	3.9	3.9	3.7	3.7
African American	—	0.6	0.6	1.0	0.9	0.7	0.8	1.0	0.9	0.6	0.8	1.0	0.9	0.8	1.0
Hispanic	—	3.7	3.7	4.9	5.5	7.0	8.5	8.3	8.2	8.0	6.6	6.0	6.1	5.8	6.4

TABLE 41 (cont.)
COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

						Percentage who used in last 12 months									2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	3.2	3.4	3.0	2.7	2.2	1.9	2.0	1.9	1.5	1.8	1.3	1.4	1.5	1.5	-0.1
Gender:															
Male	3.2	3.6	3.0	2.8	2.7	2.3	2.3	2.5	1.8	1.9	1.5	1.7	1.8	1.5	-0.2
Female	3.1	3.3	2.8	2.4	1.6	1.4	1.6	1.3	1.0	1.7	1.0	1.0	1.3	1.3	+0.1
College Plans:															
None or under 4 years	9.0	8.6	8.7	8.5	7.2	5.5	6.8	4.1	4.8	4.3	4.0	3.8	3.8	2.3	-1.5
Complete 4 years	2.4	2.8	2.2	2.0	1.6	1.5	1.5	1.6	1.1	1.6	0.9	1.1	1.2	1.2	0.0
Region:															
Northeast	2.5	2.9	2.0	2.4	2.0	2.0	1.3	1.2	1.2	1.7	0.8	0.9	1.0	0.6	-0.4
Midwest	3.2	3.6	2.5	2.4	1.8	1.3	1.4	1.3	1.3	1.2	1.0	1.4	1.1	1.0	-0.1
South	3.2	3.5	3.5	2.4	1.9	1.9	2.2	2.0	1.5	1.8	1.4	1.3	2.1	1.8	-0.3
West	3.8	3.6	3.3	3.6	3.3	2.4	2.7	2.7	1.7	2.5	1.6	1.8	1.4	1.8	+0.4
Population Density:															
Large MSA	2.8	3.3	2.8	2.4	2.1	1.9	2.1	1.8	1.2	1.7	1.3	1.8	1.4	0.9	-0.6
Other MSA	3.2	3.4	3.3	3.1	2.3	2.0	1.7	2.1	1.3	1.7	1.2	1.3	1.9	1.9	0.0
Non-MSA	3.8	3.7	2.4	2.2	2.1	1.6	2.2	1.3	2.2	2.1	1.4	0.9	1.0	1.3	+0.4
Parental Education: [a]															
1.0–2.0 (Low)	6.5	6.4	6.8	6.0	4.4	3.4	5.3	3.1	2.7	3.9	1.4	2.0	2.5	2.2	-0.3
2.5–3.0	4.1	3.9	3.5	3.3	2.5	2.0	2.3	2.4	1.5	2.3	1.9	1.9	1.8	1.9	+0.1
3.5–4.0	2.9	3.5	2.7	2.7	1.9	1.9	1.6	1.6	1.8	1.9	1.0	1.1	1.7	1.7	0.0
4.5–5.0	2.0	2.5	2.2	1.6	1.8	1.4	1.5	1.4	0.8	1.1	1.1	1.0	1.0	0.9	-0.2
5.5–6.0 (High)	3.0	2.5	1.6	2.0	1.4	1.3	1.2	1.6	1.1	1.2	0.8	1.2	1.5	1.0	-0.5
Race/Ethnicity (2-year average): [b]															
White	3.5	3.5	3.2	2.6	2.1	1.7	1.6	1.6	1.5	1.5	1.5	1.3	1.3	1.2	-0.1
African American	1.0	0.8	0.8	0.9	0.9	0.7	1.3	1.6	0.9	1.0	0.8	0.7	0.6	0.3	-0.3
Hispanic	5.9	4.9	5.2	5.2	4.6	4.1	3.8	3.7	2.8	2.2	1.9	1.5	2.3	2.6	+0.4

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 42
COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5	11.4	11.6	13.1	12.7	10.3	7.9	6.5	5.3
Gender:																
Male	7.5	7.5	9.3	11.4	14.6	14.8	13.8	13.1	13.2	13.8	14.8	14.3	11.3	9.1	8.1	6.6
Female	3.9	4.4	4.9	6.5	9.3	9.8	10.4	9.6	9.3	9.1	11.2	10.9	9.2	6.5	4.9	3.8
College Plans:																
None or under 4 years	—	6.6	8.1	9.5	13.7	13.2	12.4	12.5	12.2	13.2	14.7	15.7	12.4	9.7	9.3	7.8
Complete 4 years	—	5.0	5.5	7.7	9.5	10.8	11.5	9.9	9.9	9.7	11.4	10.4	9.0	6.7	5.3	4.1
Region:																
Northeast	5.3	6.6	7.9	11.8	13.8	14.2	16.8	16.9	15.2	19.5	20.8	17.9	13.3	9.1	7.3	6.5
Midwest	5.1	5.5	6.3	8.5	10.5	10.9	9.4	9.0	8.0	5.8	8.2	10.1	7.5	6.1	5.3	4.1
South	5.4	5.1	6.0	6.8	8.5	7.8	6.8	6.3	7.7	7.7	7.5	7.1	7.0	6.2	6.0	4.8
West	7.8	7.9	10.2	10.7	18.6	20.6	22.1	17.9	19.2	19.3	19.7	20.0	16.4	12.1	8.5	6.6
Population Density:																
Large MSA	7.3	8.6	8.6	12.3	16.6	18.7	17.5	17.2	16.9	16.8	18.8	18.8	12.9	9.3	6.4	5.6
Other MSA	5.9	5.8	7.3	8.9	11.7	11.3	11.5	10.1	11.2	11.0	12.4	12.0	10.1	8.5	7.1	5.4
Non-MSA	4.3	4.3	5.8	6.4	8.9	8.9	9.4	8.5	7.3	8.3	9.2	9.0	8.1	5.3	5.4	4.8
Parental Education: [a]																
1.0–2.0 (Low)	4.5	5.3	5.5	6.3	8.4	9.0	8.3	7.6	9.0	9.4	12.0	10.5	8.7	7.6	6.7	4.7
2.5–3.0	4.6	6.1	6.8	8.7	11.1	11.2	10.5	11.0	9.8	10.9	12.7	12.9	9.9	7.4	6.4	5.6
3.5–4.0	4.5	5.9	7.2	9.0	13.2	13.3	13.3	12.5	11.7	12.2	14.0	13.6	11.2	7.2	6.4	5.6
4.5–5.0	6.3	7.6	8.1	10.4	14.0	13.6	14.9	13.6	13.1	12.2	13.7	12.2	10.0	8.7	7.1	4.4
5.5–6.0 (High)	5.2	7.1	9.5	11.6	15.2	16.3	16.2	13.8	15.1	13.4	11.9	12.5	10.8	8.1	5.8	5.5
Race/Ethnicity (2-year average): [b]																
White	—	—	6.5	8.3	10.9	12.8	13.0	12.6	11.8	11.9	13.0	13.5	12.0	9.6	7.6	6.3
African American	—	—	4.8	4.6	4.6	5.2	4.8	5.2	7.2	6.3	5.3	5.8	4.8	3.8	2.9	1.7
Hispanic	—	—	7.2	7.5	8.9	11.2	12.4	12.1	11.4	13.3	16.3	16.7	14.0	9.9	7.8	7.4

TABLE 42 (cont.)

COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	3.5	3.1	3.3	3.6	4.0	4.9	5.5	5.7	6.2	5.0	4.8	5.0	4.8	5.3	5.1	5.7
Gender:																
Male	4.1	3.7	4.0	4.5	4.8	6.0	6.6	6.8	7.3	5.8	5.4	5.9	5.9	6.5	5.8	6.0
Female	2.6	2.4	2.3	2.8	3.1	3.5	4.2	4.5	5.0	3.9	4.1	4.0	3.7	4.1	4.2	5.2
College Plans:																
None or under 4 years	4.9	5.1	4.5	5.3	5.6	7.5	8.1	9.7	9.1	7.1	8.2	8.6	6.0	8.3	7.5	8.1
Complete 4 years	2.8	2.4	2.8	3.0	3.4	4.0	4.4	4.5	5.4	4.2	3.7	3.9	4.2	4.3	4.4	5.1
Region:																
Northeast	3.8	2.8	3.1	3.1	3.8	5.5	6.6	5.9	4.3	4.1	4.8	5.0	5.2	5.0	4.7	6.7
Midwest	3.2	2.5	2.4	3.7	3.4	3.8	4.7	5.8	6.2	4.8	5.7	5.2	3.9	4.2	5.0	4.2
South	3.0	3.2	3.1	3.4	3.6	4.6	4.8	5.8	6.9	4.7	3.9	5.0	4.7	5.4	5.3	6.4
West	4.4	4.3	4.9	4.5	5.8	6.1	6.8	5.4	6.9	6.3	5.0	4.6	5.8	7.0	5.0	5.5
Population Density:																
Large MSA	4.1	3.6	2.7	3.3	4.4	4.8	4.7	5.4	5.0	4.1	4.3	4.1	3.8	4.7	5.2	7.4
Other MSA	3.7	3.3	3.9	4.1	3.9	4.9	5.6	5.8	6.6	4.9	5.0	5.4	5.7	5.8	5.2	4.8
Non-MSA	2.5	2.4	2.7	3.2	3.9	4.9	6.0	6.0	6.9	6.1	5.2	5.3	4.6	5.0	4.7	4.9
Parental Education: [a]																
1.0–2.0 (Low)	3.5	3.9	3.5	4.1	4.8	5.3	6.5	6.9	9.0	6.2	5.7	6.6	4.8	7.3	4.3	6.1
2.5–3.0	3.8	3.3	3.0	4.0	3.9	5.0	5.5	6.3	6.0	4.6	6.0	5.3	4.1	5.2	6.6	6.3
3.5–4.0	3.7	3.0	3.8	3.8	4.2	5.0	5.6	6.0	6.8	5.0	4.8	5.3	5.2	5.3	5.2	5.7
4.5–5.0	3.1	2.9	3.0	3.1	3.7	4.8	5.2	5.0	5.4	5.3	4.4	4.2	4.7	5.2	4.3	5.1
5.5–6.0 (High)	2.4	2.6	2.4	3.3	3.4	4.3	4.4	4.4	5.2	3.9	2.6	4.3	4.4	4.3	4.1	5.7
Race/Ethnicity (2-year average): [b]																
White	4.6	3.3	3.1	3.5	4.0	4.5	5.5	6.3	6.7	6.2	5.5	5.7	5.6	5.6	5.6	5.8
African American	1.5	1.2	0.8	0.9	1.0	0.8	0.9	0.9	0.9	1.0	1.0	0.9	1.1	1.2	1.2	1.6
Hispanic	6.1	5.2	5.8	5.4	5.5	7.3	7.6	6.7	7.5	7.6	6.1	5.5	4.9	5.5	6.2	6.5

TABLE 42 (cont.)
COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 12 months													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.2	4.4	3.4	2.9	2.9	2.7	2.6	2.6	2.5	2.3	2.7	2.3	2.2	-0.1
Gender:														
Male	5.9	5.2	4.1	4.0	3.6	3.3	3.4	3.5	3.3	3.0	3.7	2.8	2.6	-0.2
Female	4.4	3.5	2.7	1.9	2.1	2.0	1.7	1.6	1.7	1.5	1.9	1.4	1.7	+0.3
College Plans:														
None or under 4 years	8.8	7.4	5.4	5.2	5.4	4.2	5.1	3.9	4.4	3.2	4.5	4.0	4.1	+0.1
Complete 4 years	4.4	3.6	2.8	2.4	2.3	2.3	1.9	2.2	2.1	1.9	2.2	1.8	1.6	-0.2
Region:														
Northeast	6.0	4.5	2.8	3.3	2.8	2.1	2.7	2.5	2.3	1.6	2.6	2.3	1.3	-1.0
Midwest	5.0	3.2	3.6	2.4	2.9	2.2	1.9	2.3	1.8	1.9	2.0	2.0	1.5	-0.5
South	5.2	4.8	3.2	2.5	2.6	2.5	2.2	2.7	2.0	1.7	2.5	1.7	2.1	+0.4
West	4.8	4.9	3.9	4.0	3.3	4.1	4.0	2.7	4.4	4.0	3.9	3.5	4.4	+0.8
Population Density:														
Large MSA	5.0	4.4	3.4	3.3	2.9	2.9	2.6	2.3	3.0	2.4	3.0	2.3	2.0	-0.4
Other MSA	5.4	4.3	3.3	3.1	2.9	2.9	3.0	3.1	2.3	2.4	2.9	2.2	2.2	0.0
Non-MSA	5.3	4.5	3.6	1.9	2.7	2.1	1.9	1.7	2.4	1.7	2.0	2.5	2.7	+0.2
Parental Education: [a]														
1.0–2.0 (Low)	6.2	4.7	4.1	3.2	4.2	3.0	4.2	3.0	4.0	2.7	3.2	3.3	2.3	-1.0
2.5–3.0	5.9	4.0	3.6	3.2	2.6	3.1	2.9	3.1	2.6	2.1	3.1	2.8	2.2	-0.6
3.5–4.0	5.5	4.9	3.4	3.0	3.0	2.6	3.0	2.4	2.3	2.0	2.8	1.7	2.1	+0.4
4.5–5.0	4.9	4.0	3.2	2.5	2.3	2.6	1.6	2.2	2.2	2.2	2.0	2.0	2.3	+0.3
5.5–6.0 (High)	4.0	4.1	2.5	2.4	3.0	2.4	2.1	2.6	2.2	2.4	2.7	1.9	1.6	-0.2
Race/Ethnicity (2-year average): [b]														
White	6.1	5.6	4.4	3.4	3.1	3.1	2.6	2.3	2.3	2.2	2.6	2.7	2.2	-0.5 s
African American	1.3	0.8	0.7	0.9	1.1	0.9	0.9	1.6	1.5	0.9	0.8	0.8	0.9	+0.1
Hispanic	6.0	4.7	4.0	3.5	3.3	3.4	3.8	3.6	3.4	3.6	3.2	2.9	2.7	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 43
CRACK: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	0.7	0.9	1.0	1.3	1.6	1.8	1.7	2.1	1.8	1.8	1.7	1.6	1.6	1.3	1.4
Gender:															
Male	0.8	0.9	1.1	1.3	1.5	1.7	1.8	2.1	1.8	1.7	1.6	1.6	1.3	1.1	1.3
Female	0.5	0.9	0.9	1.2	1.6	1.9	1.5	2.1	1.8	1.8	1.8	1.6	1.7	1.5	1.5
College Plans:															
None or under 4 years	2.0	2.9	3.4	4.6	4.2	4.9	4.7	7.5	5.3	5.2	4.4	5.7	5.8	4.9	3.3
Complete 4 years	0.4	0.6	0.6	0.8	1.3	1.3	1.3	1.5	1.4	1.4	1.4	1.2	1.1	1.0	1.2
Region:															
Northeast	0.5	0.4	0.4	1.4	1.4	1.7	1.6	1.2	1.5	1.2	1.2	1.2	1.3	1.2	0.9
Midwest	0.6	1.0	0.8	0.9	1.4	1.9	1.6	1.9	1.9	1.9	1.7	1.5	1.3	1.2	1.4
South	0.7	1.0	1.2	1.6	1.4	1.7	1.4	2.5	1.9	1.4	2.0	1.7	1.8	1.3	1.5
West	0.8	1.3	1.4	1.3	2.3	2.1	2.3	2.6	1.8	2.9	1.7	2.0	1.8	1.8	1.6
Population Density:															
Large MSA	0.5	0.8	0.7	1.3	1.5	1.8	1.5	1.6	1.2	1.6	1.4	1.5	1.2	1.5	1.5
Other MSA	0.7	1.1	1.2	1.5	1.7	2.0	1.8	2.2	2.0	1.8	1.8	1.6	1.7	1.3	1.3
Non-MSA	0.8	0.8	0.9	1.0	1.4	1.7	1.7	2.6	2.1	2.0	1.8	1.8	1.7	1.2	1.4
Parental Education: [a]															
1.0–2.0 (Low)	1.7	2.2	1.8	2.8	3.0	2.7	3.0	5.0	3.6	3.7	3.2	3.1	3.3	2.2	3.1
2.5–3.0	0.7	0.8	1.0	1.4	1.2	2.1	2.0	2.2	2.0	2.1	1.8	2.1	1.7	1.7	1.8
3.5–4.0	0.4	0.7	1.2	0.9	1.7	2.0	1.4	2.1	2.0	1.8	1.3	1.4	1.6	1.3	1.6
4.5–5.0	0.4	0.6	0.5	1.1	1.3	1.5	1.5	1.6	1.0	1.0	1.5	1.2	1.0	1.1	0.9
5.5–6.0 (High)	0.8	1.0	0.6	1.4	1.6	1.5	1.5	1.6	1.9	1.8	1.3	1.3	1.3	1.0	0.6
Race/Ethnicity (2-year average): [b]															
White	—	0.7	0.8	1.0	1.4	1.7	1.7	1.7	1.8	1.7	1.7	1.5	1.5	1.3	1.2
African American	—	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.6	0.7	0.8	0.8
Hispanic	—	1.9	2.0	2.1	2.7	3.0	2.8	3.6	3.9	2.9	2.6	2.7	2.8	2.6	2.5

TABLE 43 (cont.)
CRACK: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	1.3	1.3	1.1	1.1	1.0	0.9	0.6	0.6	0.7	0.5	0.5	0.5	0.4	0.4	0.0
Gender:															
Male	1.2	1.2	1.0	0.9	0.9	0.8	0.6	0.5	0.6	0.5	0.5	0.5	0.4	0.5	+0.1
Female	1.3	1.5	1.2	1.2	1.1	1.0	0.7	0.7	0.8	0.6	0.5	0.6	0.4	0.3	-0.1
College Plans:															
None or under 4 years	4.4	4.1	4.3	4.8	3.2	3.5	2.8	2.2	2.2	1.6	1.6	1.9	1.3	0.8	-0.6
Complete 4 years	1.0	1.1	0.8	0.8	0.8	0.7	0.5	0.5	0.6	0.4	0.4	0.4	0.3	0.4	+0.1
Region:															
Northeast	0.9	0.8	0.8	1.0	0.8	0.5	0.8	0.6	0.3	0.4	0.2	0.4	0.2	0.3	+0.1
Midwest	0.7	1.1	1.2	1.2	1.1	0.9	0.4	0.6	0.6	0.3	0.5	0.5	0.3	0.3	0.0
South	1.8	1.5	1.2	0.7	0.9	0.9	0.7	0.7	0.9	0.6	0.7	0.4	0.4	0.5	+0.1
West	1.3	1.8	1.2	1.7	1.2	1.3	0.6	0.6	0.6	0.7	0.5	0.9	0.8	0.5	-0.3
Population Density:															
Large MSA	1.3	1.1	1.4	0.8	1.0	1.0	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.0
Other MSA	1.1	1.6	1.0	1.3	1.1	0.9	0.6	0.6	0.7	0.6	0.5	0.6	0.4	0.4	0.0
Non-MSA	1.6	1.2	1.0	0.9	0.8	0.9	0.4	0.6	0.7	0.3	0.6	0.3	0.4	0.4	0.0
Parental Education: [a]															
1.0–2.0 (Low)	3.0	2.9	2.8	3.3	1.8	2.0	1.6	1.2	1.2	0.9	1.4	1.0	1.1	0.6	-0.5
2.5–3.0	1.5	1.4	1.6	0.9	1.1	1.4	0.8	0.7	0.9	0.7	0.6	0.7	0.4	0.3	-0.1
3.5–4.0	1.2	1.3	0.8	1.0	0.9	0.9	0.7	0.5	0.6	0.4	0.6	0.5	0.5	0.4	-0.1
4.5–5.0	0.9	0.9	0.7	0.6	0.8	0.6	0.2	0.5	0.5	0.4	0.3	0.4	0.2	0.4	+0.2
5.5–6.0 (High)	1.0	1.0	0.9	1.1	0.9	0.5	0.3	0.6	0.5	0.3	0.2	0.3	0.2	0.6	+0.3
Race/Ethnicity (2-year average): [b]															
White	1.1	1.0	1.0	0.8	0.8	0.7	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.0
African American	0.6	0.6	0.5	0.7	0.6	0.5	0.5	0.7	0.6	0.6	0.6	0.5	0.5	0.4	-0.1
Hispanic	2.6	2.7	2.5	2.2	2.1	2.1	1.7	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.0

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 44
CRACK: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	0.9	0.9	1.1	1.4	1.8	2.1	2.2	2.5	2.4	2.2	1.8	2.3	1.6	1.7	1.7
Gender:															
Male	0.9	0.9	1.3	1.6	1.9	2.1	2.3	2.7	2.5	2.3	1.9	2.5	1.6	1.8	1.6
Female	0.8	0.9	0.7	1.0	1.6	2.1	2.2	2.2	2.3	2.1	1.7	2.2	1.6	1.5	1.7
College Plans:															
None or under 4 years	2.4	2.1	2.7	3.4	3.7	5.0	4.9	6.0	5.5	5.2	4.7	5.6	4.5	4.6	4.8
Complete 4 years	0.6	0.6	0.7	0.9	1.5	1.5	1.8	1.9	1.8	1.7	1.4	1.8	1.1	1.2	1.3
Region:															
Northeast	0.5	0.4	1.1	1.4	1.1	1.4	1.5	2.6	2.5	1.7	1.0	1.4	1.3	1.4	1.8
Midwest	0.9	0.9	0.8	1.0	1.5	2.2	2.1	2.1	2.1	1.8	1.8	2.2	1.4	1.5	1.4
South	1.0	0.8	0.9	1.3	1.9	2.0	2.0	1.9	2.0	1.9	1.7	1.7	1.7	1.4	1.3
West	1.1	1.4	1.7	1.9	2.8	2.8	3.8	3.9	3.2	3.8	3.3	4.4	2.0	2.6	2.5
Population Density:															
Large MSA	0.9	0.8	0.7	0.9	1.9	1.7	2.3	2.2	2.2	2.4	1.9	2.2	1.2	1.5	1.8
Other MSA	0.9	0.9	1.1	1.5	1.6	2.4	1.7	2.4	2.3	2.0	1.8	2.5	1.7	1.8	1.5
Non-MSA	0.9	0.9	1.2	1.6	2.3	1.9	3.3	3.1	2.8	2.5	1.8	2.2	2.1	1.7	1.9
Parental Education: [a]															
1.0–2.0 (Low)	1.3	1.7	1.8	1.9	3.0	3.9	3.4	4.5	3.4	4.8	3.0	3.9	2.9	3.5	2.6
2.5–3.0	1.0	0.8	1.0	1.1	2.4	2.5	2.4	3.1	2.9	2.9	2.5	2.6	1.8	1.9	2.5
3.5–4.0	0.9	1.0	1.4	1.5	1.7	1.9	2.6	2.0	2.5	2.2	1.4	2.2	1.6	1.6	1.4
4.5–5.0	0.7	0.6	0.7	1.0	1.3	1.4	1.8	2.0	1.9	1.1	1.6	1.4	1.3	1.4	1.3
5.5–6.0 (High)	0.7	0.9	0.5	1.1	1.1	1.8	1.2	1.8	1.8	1.4	1.2	2.2	0.8	0.8	1.0
Race/Ethnicity (2-year average): [b]															
White	—	0.9	0.9	1.1	1.5	1.9	2.2	2.3	2.4	2.2	1.8	2.0	2.0	1.6	1.5
African American	—	0.3	0.4	0.8	0.6	0.4	0.4	0.5	0.5	0.5	0.7	0.8	0.6	0.4	0.6
Hispanic	—	1.5	1.7	1.9	2.5	3.7	3.7	4.1	4.4	4.0	3.7	3.6	3.5	3.1	3.6

TABLE 44 (cont.)
CRACK: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 12 months														2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	1.3	1.3	1.3	1.2	1.0	0.9	0.8	0.8	0.5	0.7	0.4	0.6	0.6	0.6	0.0
Gender:															
Male	1.3	1.5	1.3	1.1	1.0	1.0	0.9	0.9	0.6	0.7	0.6	0.6	0.5	0.6	+0.1
Female	1.2	1.1	1.2	1.2	0.9	0.8	0.6	0.7	0.5	0.6	0.3	0.5	0.6	0.5	-0.1
College Plans:															
None or under 4 years	3.7	3.8	3.9	4.1	3.4	2.5	3.5	1.3	1.8	2.2	1.7	2.4	1.3	0.9	-0.4
Complete 4 years	1.0	1.0	0.9	0.9	0.7	0.7	0.5	0.8	0.4	0.5	0.3	0.4	0.5	0.4	0.0
Region:															
Northeast	0.9	1.1	1.0	1.2	1.0	1.1	0.5	0.6	0.5	0.7	0.3	0.6	0.3	0.3	0.0
Midwest	1.3	1.1	1.1	1.4	0.9	0.6	0.7	0.7	0.6	0.5	0.3	0.4	0.4	0.5	+0.1
South	1.2	1.4	1.1	0.8	0.9	0.8	0.6	0.8	0.5	0.7	0.6	0.5	0.9	0.8	-0.1
West	1.7	1.6	1.8	1.5	1.4	1.3	1.3	1.2	0.5	1.1	0.6	0.8	0.4	0.5	0.0
Population Density:															
Large MSA	1.3	1.3	1.1	0.8	1.0	0.9	1.0	0.7	0.5	0.7	0.5	0.6	0.6	0.3	-0.3
Other MSA	1.1	1.3	1.4	1.5	1.0	1.0	0.5	1.0	0.4	0.7	0.4	0.6	0.6	0.7	+0.1
Non-MSA	1.6	1.3	1.2	1.0	1.2	0.8	0.9	0.6	0.8	1.0	0.6	0.5	0.4	0.7	+0.3
Parental Education: [a]															
1.0–2.0 (Low)	3.9	3.8	3.3	2.5	2.5	1.6	1.9	1.5	0.4	2.1	0.5	1.0	1.0	0.8	-0.2
2.5–3.0	1.6	1.6	1.3	1.6	0.9	0.9	1.0	1.0	0.6	0.8	0.7	0.9	0.5	0.9	+0.3
3.5–4.0	1.0	0.9	1.1	1.3	0.8	0.9	0.5	0.6	0.8	0.6	0.3	0.5	0.4	0.6	+0.2
4.5–5.0	0.8	0.9	1.0	0.7	0.8	0.6	0.6	0.7	0.3	0.4	0.3	0.3	0.4	0.2	-0.2
5.5–6.0 (High)	1.0	0.7	0.7	0.6	0.9	0.8	0.4	0.8	0.4	0.6	0.4	0.3	0.8	0.5	-0.3
Race/Ethnicity (2-year average): [b]															
White	1.4	1.2	1.1	1.0	0.9	0.7	0.6	0.5	0.6	0.5	0.4	0.4	0.5	0.5	0.0
African American	0.6	0.5	0.5	0.5	0.6	0.7	0.6	0.8	0.7	0.8	0.7	0.4	0.3	0.2	-0.1
Hispanic	3.1	2.3	2.4	2.5	2.0	1.9	2.0	1.8	1.0	0.8	0.9	0.6	1.0	1.0	0.0

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 45

CRACK: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	—	—	—	—	—	—	—	—	—	—	*15,200*	*16,300*	*16,300*	*16,700*	*15,200*
Total	—	—	—	—	—	—	—	—	—	—	—	4.1	3.9	3.1	3.1	1.9
Gender:																
Male	—	—	—	—	—	—	—	—	—	—	—	4.2	4.6	4.0	4.3	2.3
Female	—	—	—	—	—	—	—	—	—	—	—	3.6	3.0	2.0	1.8	1.4
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	—	—	—	—	5.2	5.1	4.1	3.8	3.5
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	2.8	2.7	2.3	2.7	1.2
Region:																
Northeast	—	—	—	—	—	—	—	—	—	—	—	6.0	4.0	2.3	3.3	2.0
Midwest	—	—	—	—	—	—	—	—	—	—	—	3.1	3.5	2.4	2.2	1.6
South	—	—	—	—	—	—	—	—	—	—	—	1.6	2.8	2.6	3.3	1.8
West	—	—	—	—	—	—	—	—	—	—	—	7.5	6.1	5.6	3.8	2.7
Population Density:																
Large MSA	—	—	—	—	—	—	—	—	—	—	—	5.9	4.7	3.9	3.4	1.6
Other MSA	—	—	—	—	—	—	—	—	—	—	—	3.5	3.5	3.2	3.3	2.0
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	3.5	3.7	2.0	2.2	2.0
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	1.2	3.6	3.3	3.1	2.2
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	5.3	4.2	2.6	3.1	2.2
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	4.0	4.0	3.4	2.8	1.8
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	2.9	3.4	3.1	2.6	1.1
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	3.7	2.4	2.1	3.7	1.8
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	—	—	—	—	3.8	3.4	3.1	2.1
African American	—	—	—	—	—	—	—	—	—	—	—	—	1.9	2.5	2.0	1.3
Hispanic	—	—	—	—	—	—	—	—	—	—	—	—	5.5	3.7	3.2	4.2

TABLE 45 (cont.)
CRACK: Trends in Annual Prevalence of Use by Subgroups in Grade 12

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
						Percentage who used in last 12 months									
Approximate weighted N =	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
Total	1.5	1.5	1.5	1.9	2.1	2.1	2.4	2.5	2.7	2.2	2.1	2.3	2.2	2.3	1.9
Gender:															
Male	1.8	1.7	1.9	2.4	2.5	2.6	3.0	3.1	2.9	2.5	2.4	2.6	2.3	2.5	2.2
Female	1.0	1.0	1.1	1.3	1.5	1.6	1.8	2.0	2.2	1.7	1.8	1.8	1.9	1.9	1.6
College Plans:															
None or under 4 years	2.3	2.6	2.7	3.3	3.0	4.0	4.3	4.6	5.0	3.5	4.4	4.5	2.7	3.9	3.4
Complete 4 years	1.1	1.0	1.2	1.4	1.7	1.6	1.7	1.9	1.9	1.7	1.5	1.7	1.8	1.7	1.6
Region:															
Northeast	1.3	1.3	1.2	1.5	1.6	2.1	2.6	3.0	2.4	1.8	2.0	2.0	2.0	1.7	1.5
Midwest	1.5	1.4	1.3	2.2	2.0	2.3	2.2	2.6	2.8	2.0	2.6	2.6	1.9	2.1	2.3
South	1.2	1.2	1.5	1.6	1.7	1.7	1.8	2.0	2.3	1.8	1.2	1.9	2.0	2.2	1.8
West	1.8	2.1	2.1	2.3	3.5	2.6	3.4	3.2	3.4	3.2	3.0	2.8	3.0	3.3	2.3
Population Density:															
Large MSA	1.2	1.3	1.3	1.5	2.0	2.1	2.2	2.5	2.0	1.8	1.5	1.6	1.8	2.0	1.7
Other MSA	1.7	1.6	1.8	2.1	2.1	1.9	2.3	2.4	2.5	2.1	2.2	2.4	2.3	2.2	1.8
Non-MSA	1.2	1.3	1.4	1.9	2.1	2.5	2.8	2.9	3.6	2.8	2.8	2.8	2.4	2.8	2.5
Parental Education: [a]															
1.0–2.0 (Low)	1.6	1.9	2.6	2.7	3.4	3.4	3.6	3.9	3.2	2.8	3.8	4.8	2.5	3.3	2.3
2.5–3.0	1.5	1.9	1.6	2.2	2.3	2.4	2.5	2.8	2.8	2.1	2.6	2.2	1.6	2.9	2.4
3.5–4.0	1.7	1.3	1.5	1.8	1.7	2.2	2.0	2.4	3.0	2.2	1.8	2.3	2.3	1.9	2.0
4.5–5.0	0.9	1.0	1.4	1.1	1.9	1.6	2.5	2.1	2.2	1.8	1.9	1.7	2.2	1.8	1.5
5.5–6.0 (High)	1.1	0.8	1.0	1.8	1.5	1.6	1.8	2.1	1.6	2.2	1.2	1.5	1.9	1.7	1.5
Race/Ethnicity (2-year average): [b]															
White	1.6	1.3	1.3	1.6	1.9	2.0	2.2	2.6	2.8	2.5	2.2	2.3	2.2	2.2	2.1
African American	1.0	0.6	0.6	0.9	1.0	0.7	0.5	0.3	0.4	0.5	0.5	0.7	1.2	1.3	0.9
Hispanic	3.4	2.7	2.5	2.4	3.1	4.1	4.2	3.9	3.5	3.4	3.1	3.1	2.9	3.0	3.1

TABLE 45 (cont.)
CRACK: Trends in Annual Prevalence of Use by Subgroups in Grade 12

					Percentage who used in last 12 months										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	2.1	1.9	1.6	1.3	1.4	1.0	1.2	1.1	1.1	1.1	0.8	1.0	0.9	1.0	+0.1
Gender:															
Male	2.1	2.1	1.7	1.6	1.9	1.2	1.4	1.1	1.4	1.3	1.0	1.2	1.4	1.4	0.0
Female	1.9	1.7	1.3	1.0	0.9	0.8	0.9	0.9	0.6	0.6	0.5	0.8	0.4	0.7	+0.3 s
College Plans:															
None or under 4 years	3.5	3.7	3.3	2.8	2.5	2.4	1.9	2.1	1.8	2.2	1.2	2.1	1.9	2.2	+0.3
Complete 4 years	1.7	1.5	1.1	0.9	1.2	0.7	1.0	0.7	0.9	0.7	0.7	0.7	0.6	0.7	+0.1
Region:															
Northeast	2.5	2.1	1.8	0.6	1.4	1.2	0.8	1.1	0.8	0.7	0.7	0.9	0.7	0.5	-0.2
Midwest	1.5	1.7	1.3	1.7	1.1	1.2	1.0	1.0	0.9	1.3	0.6	0.7	1.2	0.9	-0.3
South	2.1	2.2	1.6	1.2	1.4	0.8	1.1	0.8	1.0	0.9	0.5	1.1	0.9	1.1	+0.3
West	2.2	1.6	1.7	1.6	1.8	1.2	1.9	1.6	1.6	1.4	1.6	1.2	0.9	1.6	+0.7
Population Density:															
Large MSA	2.6	1.9	1.3	1.1	1.4	1.0	1.2	0.9	0.7	1.0	1.1	0.7	0.9	1.0	+0.1
Other MSA	1.7	1.9	1.6	1.3	1.6	1.1	1.3	1.2	1.5	1.0	0.7	1.2	1.1	1.0	0.0
Non-MSA	2.0	2.0	1.6	1.6	1.0	0.9	1.0	0.9	0.6	1.2	0.6	1.0	0.7	1.2	+0.5
Parental Education: [a]															
1.0–2.0 (Low)	3.6	3.6	2.1	2.2	2.5	2.3	1.9	1.5	1.8	1.8	1.7	1.6	1.7	1.6	-0.1
2.5–3.0	2.4	2.2	1.4	0.9	1.7	0.8	1.3	1.0	1.2	1.2	1.0	1.1	1.0	1.1	+0.1
3.5–4.0	2.0	1.9	1.6	1.4	1.4	1.2	1.0	1.2	0.7	1.0	0.3	1.0	0.8	1.0	+0.2
4.5–5.0	1.8	1.7	1.4	1.4	1.0	0.8	1.1	0.8	0.8	0.7	0.8	0.5	0.7	0.6	-0.1
5.5–6.0 (High)	1.2	1.0	1.3	0.6	0.8	0.8	1.1	0.8	1.4	0.8	0.6	0.6	0.5	1.0	+0.5
Race/Ethnicity (2-year average): [b]															
White	1.9	2.0	1.8	1.4	1.2	1.1	1.1	1.0	0.8	0.8	0.7	0.8	0.9	0.8	-0.1
African American	1.0	1.0	0.9	0.9	0.7	0.7	0.7	0.9	1.3	1.3	0.9	0.8	0.7	0.9	+0.1
Hispanic	3.1	2.7	2.0	1.6	1.8	1.9	1.7	1.7	1.7	1.5	1.3	1.1	1.2	1.3	+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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1986; N is one fifth of N indicated in Table S3. Data based on two forms in 1987–1989; N is two fifths of N indicated in 1987–1988 and two sixths of N indicated in 1989 in Table S3. Data based on six forms beginnning in 1990.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 46
OTHER COCAINE: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

<p style="text-align:center;">Percentage who used in last 12 months</p>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	1.0	1.2	1.3	1.7	2.1	2.5	2.2	2.4	2.3	1.9	1.9	1.8	1.6	1.6	1.7
Gender:															
Male	1.1	1.2	1.5	1.7	2.0	2.2	2.5	2.3	2.3	1.9	1.8	1.7	1.5	1.3	1.5
Female	0.8	1.2	1.2	1.8	2.2	2.6	1.9	2.4	2.2	1.8	2.0	1.9	1.6	1.8	1.8
College Plans:															
None or under 4 years	2.7	4.2	4.1	5.6	5.9	6.6	6.0	7.7	7.1	6.1	5.3	6.4	5.0	5.4	4.5
Complete 4 years	0.6	0.7	0.9	1.2	1.6	1.8	1.7	1.8	1.7	1.4	1.5	1.3	1.2	1.1	1.4
Region:															
Northeast	1.2	0.7	0.9	1.9	1.8	2.1	1.6	1.4	1.7	1.1	1.6	1.2	1.0	1.6	1.5
Midwest	0.6	1.0	0.7	0.9	2.0	2.4	2.0	1.9	2.2	2.3	1.6	1.8	1.7	1.1	1.3
South	1.0	1.5	1.6	2.0	2.0	2.3	2.1	3.1	2.6	1.7	2.4	2.1	1.9	1.7	1.9
West	1.3	1.5	2.1	2.0	2.7	3.1	2.9	2.5	2.2	2.5	1.7	1.9	1.6	1.8	1.8
Population Density:															
Large MSA	0.9	1.1	1.0	1.6	2.0	2.5	1.7	1.8	1.8	1.6	1.6	1.4	1.2	1.7	1.6
Other MSA	0.9	1.4	1.8	2.1	2.1	2.6	2.2	2.5	2.3	1.8	2.2	1.8	1.6	1.6	1.7
Non-MSA	1.1	0.9	0.7	1.2	2.2	2.2	2.5	2.8	2.8	2.5	1.6	2.3	2.2	1.3	1.7
Parental Education: [a]															
1.0–2.0 (Low)	2.1	2.7	2.2	3.1	4.3	3.2	3.5	4.7	5.1	4.2	3.7	2.8	2.9	3.1	2.9
2.5–3.0	1.2	1.1	1.5	2.0	2.0	2.6	2.4	2.5	2.8	2.1	1.9	2.3	1.8	1.9	2.2
3.5–4.0	0.6	1.0	1.5	1.9	2.2	2.8	2.1	2.4	2.3	1.9	1.8	1.9	1.6	1.5	2.0
4.5–5.0	0.6	0.8	0.8	1.1	1.6	2.4	1.9	1.8	1.3	1.4	1.6	1.6	1.1	1.3	1.2
5.5–6.0 (High)	1.0	1.2	0.8	1.2	2.0	1.9	1.7	1.8	1.8	1.3	1.1	0.8	1.5	0.9	0.9
Race/Ethnicity (2-year average): [b]															
White	—	0.9	1.0	1.2	1.8	2.4	2.5	2.2	2.1	1.9	1.8	1.8	1.8	1.5	1.4
African American	—	0.6	0.5	0.6	0.5	0.4	0.3	0.5	0.7	0.6	0.5	0.5	0.6	0.8	0.9
Hispanic	—	2.6	3.3	4.0	4.3	4.1	3.3	4.0	4.9	3.9	3.2	3.1	2.7	2.8	2.9

TABLE 46 (cont.)

OTHER COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	1.6	1.5	1.4	1.3	1.3	1.1	1.0	0.8	0.8	0.8	0.6	0.6	0.7	0.6	-0.1
Gender:															
Male	1.4	1.3	1.4	1.3	1.3	1.1	0.9	0.8	0.8	0.9	0.6	0.5	0.7	0.4	-0.3
Female	1.7	1.6	1.4	1.3	1.4	0.9	1.0	0.8	0.7	0.6	0.6	0.7	0.5	0.7	+0.3
College Plans:															
None or under 4 years	5.7	5.7	5.5	5.6	4.7	4.6	3.8	3.0	2.6	2.0	2.0	2.1	2.1	1.0	-1.1 s
Complete 4 years	1.2	1.1	1.1	1.0	1.1	0.8	0.7	0.6	0.6	0.7	0.4	0.4	0.4	0.5	+0.1
Region:															
Northeast	1.0	1.0	0.9	1.2	0.9	0.7	0.8	0.5	0.4	0.4	0.5	0.5	0.4	0.1	-0.3 s
Midwest	1.1	1.3	1.5	1.5	1.6	1.0	0.5	0.6	0.6	0.6	0.3	0.5	0.4	0.3	-0.1
South	2.3	1.8	1.8	1.0	1.3	1.1	1.2	0.8	0.9	0.9	0.8	0.5	0.5	0.7	+0.2
West	1.5	1.5	1.3	1.8	1.4	1.6	1.2	1.1	1.1	0.9	0.8	1.0	1.3	0.9	-0.4
Population Density:															
Large MSA	1.5	1.5	1.5	0.9	1.1	1.2	1.1	0.8	1.1	0.8	0.5	0.6	0.7	0.5	-0.2
Other MSA	1.6	1.5	1.4	1.6	1.5	1.2	1.0	0.9	0.7	0.9	0.6	0.7	0.7	0.7	0.0
Non-MSA	1.7	1.5	1.4	1.4	1.3	0.8	0.8	0.7	0.7	0.3	0.8	0.4	0.6	0.4	-0.2
Parental Education: [a]															
1.0–2.0 (Low)	3.6	3.1	3.0	3.4	2.8	2.1	2.1	1.8	1.4	1.0	1.4	1.2	1.2	1.4	+0.2
2.5–3.0	1.7	1.6	1.8	1.4	1.9	1.6	1.2	1.0	0.7	0.8	0.5	0.9	0.7	0.8	+0.1
3.5–4.0	1.7	1.4	1.7	1.2	1.3	1.3	0.9	0.8	0.8	0.8	0.6	0.7	0.6	0.5	0.0
4.5–5.0	1.2	1.0	0.8	0.6	1.0	0.7	0.4	0.5	0.8	0.4	0.4	0.3	0.6	0.3	-0.3
5.5–6.0 (High)	0.9	0.9	1.1	1.3	0.9	0.6	0.6	0.7	0.4	0.8	0.5	0.4	0.4	0.4	+0.1
Race/Ethnicity (2-year average): [b]															
White	1.5	1.3	1.2	1.2	1.2	1.0	0.8	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.0
African American	0.7	0.6	0.6	0.8	0.7	0.4	0.4	0.6	0.6	0.5	0.4	0.3	0.4	0.4	0.0
Hispanic	2.8	3.1	2.8	2.2	2.2	2.4	2.2	1.5	1.1	1.0	0.9	0.8	0.9	1.0	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 47

OTHER COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	2.1	1.7	1.8	2.4	3.0	3.5	4.1	4.0	4.4	3.8	3.0	3.4	2.8	3.3	3.0
Gender:															
Male	2.0	1.9	2.2	2.7	3.1	3.7	4.1	4.1	4.6	4.2	3.3	3.6	2.9	3.6	3.3
Female	2.1	1.5	1.4	2.1	2.9	3.3	4.0	3.8	4.1	3.4	2.6	3.3	2.7	3.0	2.7
College Plans:															
None or under 4 years	4.4	3.3	4.5	5.9	6.3	8.4	9.0	9.3	10.5	8.3	8.2	8.7	7.3	8.3	8.1
Complete 4 years	1.6	1.3	1.3	1.7	2.5	2.7	3.2	3.0	3.4	3.0	2.1	2.6	2.1	2.6	2.3
Region:															
Northeast	1.3	1.0	1.8	2.0	2.2	2.2	2.5	4.3	4.1	2.5	2.0	1.8	2.7	3.2	3.0
Midwest	1.6	1.3	1.3	1.8	2.5	3.4	3.4	3.1	3.9	4.0	3.0	3.2	2.3	3.0	3.0
South	1.9	1.6	1.7	2.2	2.9	3.5	4.8	3.7	4.7	3.9	3.2	3.3	3.1	3.2	2.6
West	3.4	3.1	3.2	4.3	4.8	5.2	5.3	5.2	4.6	4.6	3.9	5.5	3.2	4.1	3.6
Population Density:															
Large MSA	1.6	1.5	1.4	1.9	2.8	3.3	3.9	3.8	3.7	3.7	2.5	3.1	2.2	2.9	2.7
Other MSA	2.6	2.0	2.0	2.7	3.1	3.9	3.8	4.0	4.5	3.7	3.2	3.7	2.8	3.4	3.1
Non-MSA	1.4	1.4	1.9	2.5	3.1	3.2	4.9	4.2	4.8	4.0	3.2	3.3	4.1	3.6	3.3
Parental Education: [a]															
1.0–2.0 (Low)	3.1	2.7	2.7	3.1	5.0	6.1	5.5	6.7	7.6	6.3	4.8	7.1	6.4	5.7	4.5
2.5–3.0	2.2	1.6	2.0	2.6	3.6	3.6	4.3	4.5	5.1	4.4	4.5	3.9	3.5	3.7	4.0
3.5–4.0	2.2	2.0	2.2	2.7	3.3	3.8	4.6	4.0	4.2	4.0	2.5	3.2	2.9	3.7	3.0
4.5–5.0	1.6	1.3	1.4	1.8	2.2	3.0	3.3	3.0	3.5	3.0	2.2	2.0	1.8	2.8	2.4
5.5–6.0 (High)	1.8	1.3	0.9	1.6	1.7	2.8	2.9	2.5	3.5	2.7	1.4	2.7	1.2	1.6	2.1
Race/Ethnicity (2-year average): [b]															
White	—	1.9	1.8	1.9	2.6	3.2	3.7	4.1	4.3	4.1	3.4	3.3	3.4	3.4	3.3
African American	—	0.5	0.5	0.9	0.8	0.6	0.6	0.9	0.8	0.5	0.5	0.7	0.7	0.7	0.8
Hispanic	—	3.4	3.4	4.6	5.2	6.1	7.5	7.0	6.8	7.1	5.6	5.0	5.2	5.1	5.4

TABLE 47 (cont.)

OTHER COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
								Percentage who used in last 12 months							
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	2.9	3.1	2.6	2.3	1.9	1.7	1.8	1.6	1.3	1.5	1.1	1.2	1.4	1.4	0.0
Gender:															
Male	3.0	3.2	2.7	2.5	2.3	2.1	2.1	2.2	1.7	1.5	1.4	1.5	1.7	1.4	-0.2
Female	2.8	2.9	2.4	2.1	1.3	1.2	1.5	1.0	0.9	1.4	0.9	0.9	1.2	1.3	+0.1
College Plans:															
None or under 4 years	8.3	7.5	7.8	7.2	6.8	5.1	6.2	3.9	4.5	3.1	3.6	2.9	3.6	2.2	-1.4
Complete 4 years	2.2	2.5	1.8	1.8	1.3	1.3	1.4	1.3	0.9	1.3	0.9	1.0	1.1	1.2	0.0
Region:															
Northeast	2.5	2.5	1.7	2.1	1.7	1.7	1.1	1.1	1.0	1.4	0.7	0.6	0.9	0.5	-0.5
Midwest	2.8	3.3	2.2	2.1	1.5	1.2	1.2	0.8	1.1	1.2	1.0	1.4	1.0	1.0	0.0
South	2.9	3.3	3.2	2.1	1.5	1.8	2.2	1.8	1.5	1.5	1.2	1.1	2.0	1.8	-0.3
West	3.5	3.0	2.7	3.1	3.0	2.1	2.5	2.4	1.6	2.0	1.5	1.5	1.3	1.8	+0.5
Population Density:															
Large MSA	2.6	3.1	2.4	2.2	1.9	1.8	2.0	1.5	1.0	1.4	1.1	1.7	1.2	0.9	-0.4
Other MSA	3.0	2.9	2.9	2.6	2.0	1.7	1.6	1.9	1.3	1.5	1.1	1.0	1.8	1.8	0.0
Non-MSA	3.4	3.3	2.0	1.9	1.7	1.5	2.0	0.9	1.9	1.8	1.3	0.8	0.9	1.3	+0.3
Parental Education: [a]															
1.0–2.0 (Low)	5.6	5.1	5.9	5.1	3.6	3.1	5.3	2.5	2.6	2.5	1.2	1.7	2.3	2.2	-0.1
2.5–3.0	3.7	3.3	3.1	2.7	2.3	1.9	2.2	2.3	1.3	1.9	1.8	1.5	1.8	1.8	0.0
3.5–4.0	2.8	3.2	2.4	2.5	1.7	1.7	1.5	1.4	1.5	1.7	0.9	1.0	1.6	1.6	0.0
4.5–5.0	1.8	2.4	1.9	1.4	1.6	1.3	1.3	1.1	0.8	1.0	1.0	0.9	0.9	0.8	-0.1
5.5–6.0 (High)	2.8	2.4	1.3	2.0	1.0	1.0	1.0	1.2	0.9	1.1	0.7	1.1	1.4	0.9	-0.5
Race/Ethnicity (2-year average): [b]															
White	3.2	3.2	2.8	2.3	1.9	1.6	1.5	1.4	1.3	1.3	1.3	1.2	1.2	1.2	0.0
African American	0.9	0.6	0.7	0.7	0.6	0.6	1.2	1.4	0.7	0.6	0.5	0.6	0.6	0.3	-0.2
Hispanic	5.0	4.5	4.6	4.5	4.0	3.7	3.4	3.4	2.6	1.9	1.5	1.2	2.1	2.5	+0.4

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 48

OTHER COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

<p style="text-align:center">Percentage who used in last 12 months</p>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	—	—	—	—	—	—	—	—	—	—	—	16,300	16,300	16,700	15,200
Total	—	—	—	—	—	—	—	—	—	—	—	—	9.8	7.4	5.2	4.6
Gender:																
Male	—	—	—	—	—	—	—	—	—	—	—	—	10.1	8.0	6.5	5.8
Female	—	—	—	—	—	—	—	—	—	—	—	—	9.1	6.2	4.0	3.2
College Plans:																
None or under 4 years													9.8	6.0	7.3	6.3
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	—	8.3	6.7	4.2	3.7
Region:																
Northeast	—	—	—	—	—	—	—	—	—	—	—	—	12.9	7.0	4.9	5.6
Midwest	—	—	—	—	—	—	—	—	—	—	—	—	8.2	5.6	4.8	3.7
South	—	—	—	—	—	—	—	—	—	—	—	—	5.8	5.8	4.6	4.1
West	—	—	—	—	—	—	—	—	—	—	—	—	15.3	13.4	7.5	6.1
Population Density:																
Large MSA	—	—	—	—	—	—	—	—	—	—	—	—	13.3	9.8	5.6	5.0
Other MSA	—	—	—	—	—	—	—	—	—	—	—	—	8.9	7.8	5.4	4.7
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	—	8.0	4.5	4.4	4.1
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	—	5.3	4.9	3.3	3.4
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	—	10.5	6.5	4.6	5.0
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	—	10.5	7.2	5.1	4.7
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	—	9.0	7.7	6.1	4.1
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	—	9.7	9.0	6.5	5.4
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	—	—	—	—	—	9.3	7.0	5.3
African American	—	—	—	—	—	—	—	—	—	—	—	—	—	2.8	1.4	0.7
Hispanic	—	—	—	—	—	—	—	—	—	—	—	—	—	6.3	5.1	5.1

TABLE 48 (cont.)

OTHER COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	3.2	2.6	2.9	3.0	3.4	4.2	5.0	4.9	5.8	4.5	4.4	4.4	4.2	4.7	4.5	5.2
Gender:																
Male	3.7	3.1	3.7	3.7	4.0	4.9	5.7	5.6	7.1	5.5	4.9	5.0	5.4	5.8	5.4	5.7
Female	2.4	2.0	2.0	2.3	2.5	3.2	4.0	3.9	4.2	3.4	3.7	3.7	2.9	3.5	3.6	4.4
College Plans:																
None or under 4 years	4.0	4.0	3.9	4.3	4.5	5.7	7.0	8.9	7.6	6.7	7.4	7.1	4.8	6.8	6.7	6.9
Complete 4 years	2.8	2.0	2.5	2.5	2.9	3.5	4.1	3.5	5.2	3.7	3.4	3.4	3.8	3.9	3.9	4.7
Region:																
Northeast	3.4	2.8	2.3	2.8	4.2	5.2	5.9	4.7	4.1	3.7	4.4	4.3	5.3	4.4	4.3	6.2
Midwest	2.9	2.2	2.3	3.5	2.7	3.2	4.1	5.3	5.7	4.5	5.6	4.8	3.2	3.9	4.2	3.6
South	2.8	2.5	2.6	2.6	3.1	4.2	4.6	4.9	6.6	4.0	3.9	4.4	4.1	4.9	4.7	5.8
West	3.9	3.1	4.6	3.5	4.0	4.5	6.2	4.4	6.1	5.9	3.5	3.9	4.7	5.8	4.7	5.1
Population Density:																
Large MSA	3.7	3.1	2.6	2.6	3.7	3.9	4.2	4.8	4.8	3.7	4.1	3.5	3.0	3.9	4.6	7.2
Other MSA	3.3	2.5	3.6	3.5	3.3	4.4	5.2	4.9	6.0	4.5	4.3	4.7	5.3	5.4	4.7	4.4
Non-MSA	2.5	2.3	2.0	2.6	3.1	4.2	5.6	4.9	6.7	5.4	5.0	4.9	3.9	4.2	4.0	3.8
Parental Education: [a]																
1.0–2.0 (Low)	3.5	3.7	3.9	2.7	2.9	5.2	6.4	5.5	7.4	5.4	3.7	5.1	4.1	6.3	4.1	4.6
2.5–3.0	3.5	2.3	2.3	3.2	3.4	3.8	4.9	5.3	5.0	3.8	5.6	4.7	3.4	3.6	5.5	5.5
3.5–4.0	3.2	2.6	3.3	3.4	3.6	4.6	4.9	5.3	6.9	4.7	4.7	4.9	4.6	5.1	4.7	5.2
4.5–5.0	2.7	2.3	2.9	2.6	3.2	3.9	4.4	4.2	5.5	4.5	3.9	3.4	4.3	5.1	4.2	4.6
5.5–6.0 (High)	2.4	2.0	1.7	3.1	2.7	3.8	4.8	3.5	3.6	4.2	2.2	3.9	3.8	3.7	3.7	5.9
Race/Ethnicity (2-year average): [b]																
White	4.2	2.9	2.6	2.9	3.3	3.9	5.0	5.6	6.0	5.7	5.0	5.1	4.9	4.8	4.9	5.2
African American	1.0	1.0	0.7	0.8	0.8	0.7	0.7	0.6	0.8	1.0	0.9	0.8	1.0	1.1	1.2	1.4
Hispanic	5.0	4.3	5.1	5.1	4.0	5.6	6.9	6.0	5.8	6.6	5.8	4.7	3.9	4.8	5.8	5.7

TABLE 48 (cont.)

OTHER COCAINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months								2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	4.5	4.0	3.0	2.6	2.6	2.4	2.4	2.4	2.1	2.0	2.3	2.0	1.9	-0.1
Gender:														
Male	4.8	4.8	3.6	3.6	3.4	2.8	3.1	3.6	2.7	2.5	3.4	2.2	2.2	0.0
Female	3.9	3.1	2.3	1.7	1.9	1.8	1.6	1.3	1.6	1.4	1.4	1.2	1.3	+0.1
College Plans:														
None or under 4 years	7.7	6.8	4.7	5.3	4.3	3.2	4.4	3.3	3.8	3.3	4.3	3.3	3.5	+0.2
Complete 4 years	3.6	3.1	2.5	2.1	2.2	2.0	1.8	2.1	1.7	1.7	1.8	1.4	1.2	-0.2
Region:														
Northeast	5.3	4.4	2.7	3.3	2.9	1.8	2.4	2.2	1.9	1.0	2.2	2.1	1.2	-0.8
Midwest	4.4	3.4	3.5	2.2	2.6	1.7	1.7	2.0	1.9	1.6	1.7	1.8	1.5	-0.3
South	4.5	4.2	2.7	1.9	2.4	2.5	2.1	2.5	1.6	1.7	2.0	1.4	1.8	+0.4
West	3.8	4.1	2.9	3.6	2.9	3.3	3.5	2.7	3.5	3.7	3.5	2.9	3.4	+0.4
Population Density:														
Large MSA	4.3	4.1	2.8	2.8	2.6	2.6	2.1	2.0	2.4	2.2	2.6	2.0	1.6	-0.3
Other MSA	4.6	3.9	3.0	3.0	2.7	2.6	2.7	2.9	2.0	2.1	2.3	1.8	1.8	0.0
Non-MSA	4.6	4.2	3.2	1.5	2.5	1.5	1.9	1.9	1.9	1.8	1.9	2.3	2.4	+0.1
Parental Education: [a]														
1.0–2.0 (Low)	5.2	3.0	3.8	3.0	3.2	3.5	3.3	1.7	3.1	2.7	2.7	2.4	1.9	-0.5
2.5–3.0	5.0	3.8	3.2	2.6	2.6	2.4	3.1	3.1	2.3	1.9	2.7	2.5	2.1	-0.4
3.5–4.0	4.5	4.6	2.5	2.9	2.9	2.4	2.7	2.3	2.1	1.9	2.2	1.3	1.6	+0.3
4.5–5.0	4.3	3.5	2.9	2.1	2.2	1.9	1.4	2.2	1.8	2.0	1.7	1.6	1.8	+0.1
5.5–6.0 (High)	3.7	4.2	2.6	2.6	2.5	2.2	1.9	2.6	1.9	2.0	2.4	1.6	1.2	-0.4
Race/Ethnicity (2-year average): [b]														
White	5.5	5.2	4.3	3.2	3.0	2.8	2.3	2.0	2.0	2.1	2.3	2.3	1.9	-0.4
African American	1.2	0.7	0.6	0.7	0.7	0.8	1.0	1.5	1.4	0.8	0.6	0.4	0.7	+0.3
Hispanic	4.8	3.7	3.1	2.5	2.5	3.1	3.6	3.4	3.0	2.9	2.7	2.4	2.1	-0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one form in 1987–1989; N is one fifth of N indicated in 1987–1988 and one sixth of N indicated in 1989 in Table S3. Data based on four of six forms beginning in 1990; N is four sixths of N indicated in Table S3.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 49
HEROIN: Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991	1992	1993	1994	1995[a]	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	0.7	0.7	0.7	1.2	1.4	1.6	1.3	1.3	1.4	1.1	1.0	0.9	0.9	1.0	0.8
Gender:															
Male	0.9	0.8	0.8	1.3	1.6	1.5	1.4	1.5	1.4	1.0	1.0	0.8	0.8	0.9	0.8
Female	0.5	0.7	0.5	0.9	1.2	1.5	1.1	1.1	1.3	1.2	1.0	1.0	0.9	1.0	0.8
College Plans:															
None or under 4 years	2.1	2.7	2.0	3.9	4.4	4.1	3.4	5.0	3.7	3.5	3.1	2.9	3.1	4.2	2.3
Complete 4 years	0.4	0.4	0.5	0.7	1.0	1.1	1.1	0.9	1.1	0.8	0.8	0.7	0.6	0.6	0.6
Region:															
Northeast	0.5	0.6	0.7	1.3	1.4	1.8	1.1	1.1	1.3	1.1	1.1	0.8	0.7	1.1	0.7
Midwest	0.4	0.8	0.5	1.1	1.4	1.6	1.4	1.3	1.6	1.4	1.0	1.0	1.0	0.8	0.5
South	0.8	0.7	0.7	1.1	1.5	1.4	1.2	1.4	1.4	0.7	1.2	1.0	1.0	0.9	1.0
West	1.0	0.7	1.1	1.1	1.2	1.6	1.4	1.3	1.2	1.4	0.7	1.0	0.9	1.2	0.8
Population Density:															
Large MSA	0.5	0.7	0.7	1.2	1.2	1.4	1.0	1.0	1.3	1.0	0.9	0.7	0.8	1.2	0.6
Other MSA	0.7	0.8	0.9	1.2	1.5	1.7	1.3	1.3	1.4	1.1	1.0	1.0	0.9	1.0	0.8
Non-MSA	0.8	0.7	0.4	1.0	1.5	1.5	1.5	1.6	1.5	1.0	1.1	1.1	1.2	0.6	1.0
Parental Education: [b]															
1.0–2.0 (Low)	1.5	1.4	0.8	2.0	2.6	2.0	2.3	3.5	2.8	1.7	2.6	1.2	2.1	1.9	0.5
2.5–3.0	0.9	0.7	0.6	1.1	1.0	1.7	1.4	1.2	1.4	1.5	1.1	1.3	1.0	1.1	1.3
3.5–4.0	0.6	0.6	0.7	1.3	1.6	1.7	1.0	1.1	1.2	0.7	1.0	0.9	0.8	1.0	1.0
4.5–5.0	0.4	0.5	0.8	0.8	1.2	1.4	1.1	1.1	1.1	0.8	0.6	0.8	0.6	0.7	0.5
5.5–6.0 (High)	0.5	0.8	0.6	1.3	1.6	1.0	1.5	1.4	1.8	1.0	0.8	0.6	0.7	0.6	0.4
Race/Ethnicity (2-year average): [c]															
White	—	0.6	0.6	0.8	1.2	1.6	1.6	1.3	1.2	1.2	1.0	1.0	0.9	0.9	0.8
African American	—	0.4	0.3	0.6	0.7	0.5	0.4	0.5	0.7	0.5	0.6	0.6	0.5	0.7	0.5
Hispanic	—	1.4	1.4	1.5	1.8	2.1	1.7	1.7	2.2	2.0	1.4	1.2	1.4	1.7	1.5

TABLE 49
HEROIN: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months														2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015[a]	2016[a]	2017[a]	2018[a]	2019[a]	
Approximate weighted N =	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	0.8	0.8	0.9	0.7	0.8	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.0
Gender:															
Male	0.6	0.8	0.9	0.8	0.9	0.7	0.5	0.4	0.6	0.2	0.2	0.2	0.4	0.3	-0.1
Female	0.9	0.9	0.7	0.7	0.7	0.7	0.5	0.5	0.4	0.3	0.2	0.4	0.2	0.4	+0.2
College Plans:															
None or under 4 years	3.0	3.7	3.5	3.5	2.3	3.1	1.8	2.1	2.2	0.6	0.9	1.7	0.9	0.7	-0.3
Complete 4 years	0.6	0.5	0.6	0.5	0.7	0.5	0.4	0.4	0.3	0.2	0.1	0.2	0.2	0.3	+0.1
Region:															
Northeast	0.4	0.5	0.7	0.4	0.6	0.6	0.4	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.0
Midwest	0.7	0.8	1.0	0.7	0.8	0.8	0.4	0.4	0.5	0.3	0.1	0.3	0.1	0.3	+0.1
South	0.9	0.8	0.8	0.6	0.8	0.6	0.6	0.6	0.4	0.4	0.4	0.3	0.4	0.4	0.0
West	0.9	1.0	0.9	1.2	0.9	0.8	0.5	0.6	0.8	0.1	0.2	0.7	0.5	0.4	-0.2
Population Density:															
Large MSA	0.7	0.5	1.2	0.6	0.7	0.6	0.6	0.5	0.6	0.2	0.2	0.4	0.6	0.3	-0.3
Other MSA	0.9	0.9	0.8	0.8	0.9	0.8	0.5	0.6	0.4	0.2	0.3	0.4	0.2	0.4	+0.2
Non-MSA	0.8	1.0	0.6	0.7	0.7	0.7	0.3	0.4	0.5	0.5	0.2	0.1	0.2	0.2	0.0
Parental Education: [b]															
1.0–2.0 (Low)	1.8	1.9	2.3	2.0	1.4	1.4	0.9	1.2	1.1	0.3	0.3	1.0	0.6	0.5	-0.1
2.5–3.0	0.8	0.8	1.0	0.8	1.0	1.3	0.8	0.6	0.4	0.2	0.3	0.3	0.6	0.3	-0.3
3.5–4.0	0.8	0.6	0.7	0.6	0.8	0.6	0.8	0.5	0.4	0.2	0.3	0.3	0.4	0.6	+0.2
4.5–5.0	0.6	0.9	0.4	0.5	0.5	0.3	0.2	0.3	0.3	0.3	0.2	0.0	0.2	0.1	0.0
5.5–6.0 (High)	0.4	0.4	1.2	0.6	0.8	0.5	0.3	0.5	0.5	0.1	0.1	0.3	0.1	0.4	+0.3
Race/Ethnicity (2-year average): [c]															
White	0.7	0.7	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.0
African American	0.4	0.4	0.4	0.6	0.7	0.4	0.5	0.5	0.4	0.2	0.1	0.2	0.2	0.4	+0.2
Hispanic	1.1	1.2	1.3	1.2	1.3	1.4	1.0	0.7	0.6	0.3	0.1	0.4	0.6	0.5	0.0

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]In 1995, the heroin question was changed in half of the forms. Separate questions were asked for use with and without injection. In 1996, the remaining forms were changed. Data presented here represent the combined data from all forms. Beginning in 2015 Heroin use with and without a needle were dropped in one form; data based on three of four forms; N is two thirds of N indicated.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 50
HEROIN: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995[a]	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	0.5	0.6	0.7	0.9	1.1	1.2	1.4	1.4	1.4	1.4	0.9	1.1	0.7	0.9	0.9
Gender:															
Male	0.7	0.8	0.9	1.0	1.3	1.5	1.6	1.7	1.7	1.5	1.0	1.3	0.8	1.0	1.1
Female	0.4	0.4	0.4	0.8	0.8	0.9	1.3	1.1	1.2	1.2	0.8	0.8	0.7	0.7	0.8
College Plans:															
None or under 4 years	1.4	1.4	1.9	2.0	2.2	2.4	2.9	2.7	3.4	3.8	2.5	2.7	2.0	2.8	3.2
Complete 4 years	0.3	0.4	0.4	0.7	0.9	1.0	1.2	1.2	1.1	1.0	0.7	0.8	0.5	0.6	0.6
Region:															
Northeast	0.4	0.6	0.6	0.6	0.9	0.9	1.3	1.8	1.9	1.5	1.0	0.9	0.6	1.1	1.3
Midwest	0.6	0.6	0.8	0.9	1.0	1.5	1.5	1.4	1.3	1.6	1.1	1.2	0.7	0.7	1.0
South	0.6	0.5	0.6	1.0	1.3	1.4	1.5	1.3	1.4	1.5	0.9	0.8	0.9	1.0	0.8
West	0.4	0.8	0.5	1.2	1.0	1.0	1.3	1.1	1.1	0.7	0.7	1.4	0.7	0.8	0.8
Population Density:															
Large MSA	0.6	0.6	0.7	0.8	1.0	1.1	1.6	1.2	1.2	1.8	0.9	0.9	0.6	0.9	0.8
Other MSA	0.5	0.6	0.6	0.9	1.0	1.3	1.3	1.5	1.4	1.2	1.0	1.0	0.8	0.9	1.0
Non-MSA	0.4	0.6	0.7	1.0	1.3	1.2	1.6	1.5	1.6	1.2	0.9	1.4	0.9	0.7	0.9
Parental Education: [b]															
1.0–2.0 (Low)	0.4	0.5	1.2	1.3	1.8	1.0	1.3	1.7	2.4	1.3	1.1	2.0	1.1	1.5	1.7
2.5–3.0	0.8	0.7	0.7	0.8	1.0	1.2	1.3	1.2	1.5	1.7	1.3	0.8	0.8	1.0	1.2
3.5–4.0	0.5	0.6	0.8	0.9	1.2	1.3	1.6	1.6	1.2	1.5	0.6	1.1	0.7	0.8	0.8
4.5–5.0	0.4	0.5	0.3	0.9	0.9	1.1	1.5	1.3	1.4	1.3	0.8	0.7	0.6	0.7	0.8
5.5–6.0 (High)	0.4	0.5	0.8	0.9	0.9	1.5	1.1	1.3	1.2	1.1	0.9	1.6	0.3	0.5	0.6
Race/Ethnicity (2-year average): [c]															
White	—	0.6	0.7	0.8	1.0	1.2	1.4	1.4	1.5	1.5	1.2	1.0	0.9	0.8	0.9
African American	—	0.3	0.4	0.6	0.6	0.2	0.2	0.4	0.5	0.5	0.5	0.3	0.3	0.4	0.6
Hispanic	—	0.7	0.7	0.7	1.0	1.0	1.3	1.6	1.7	1.4	1.4	1.1	1.1	1.2	1.2

TABLE 50

HEROIN: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015[a]	2016[a]	2017[a]	2018[a]	2019[a]	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	0.9	0.8	0.8	0.9	0.8	0.8	0.6	0.6	0.5	0.5	0.3	0.2	0.2	0.3	+0.1
Gender:															
Male	0.9	0.9	1.0	1.1	0.9	0.9	0.6	0.9	0.5	0.4	0.5	0.2	0.2	0.4	+0.2
Female	0.8	0.8	0.6	0.6	0.7	0.6	0.6	0.4	0.5	0.4	0.1	0.2	0.1	0.1	0.0
College Plans:															
None or under 4 years	2.7	2.0	2.5	2.9	2.8	2.6	2.5	2.0	1.9	1.3	1.0	0.7	0.5	0.5	-0.1
Complete 4 years	0.6	0.7	0.6	0.7	0.6	0.6	0.4	0.5	0.4	0.3	0.2	0.1	0.1	0.2	+0.1
Region:															
Northeast	0.9	1.1	0.7	0.9	0.8	0.9	0.6	0.5	0.2	0.6	0.2	0.2	0.2	0.2	0.0
Midwest	0.9	0.7	1.0	1.1	0.8	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.1	0.3	+0.1
South	0.9	0.8	0.9	0.8	0.8	0.9	0.6	0.5	0.8	0.5	0.3	0.1	0.2	0.3	+0.1
West	0.7	0.9	0.7	1.0	0.8	0.7	0.6	0.9	0.5	0.4	0.4	0.3	0.2	0.4	+0.3
Population Density:															
Large MSA	0.7	0.9	0.6	0.8	0.8	0.7	0.7	0.5	0.4	0.4	0.3	0.3	0.2	0.2	+0.1
Other MSA	0.9	0.8	0.8	1.2	0.8	0.8	0.4	0.8	0.4	0.3	0.3	0.2	0.2	0.4	+0.2
Non-MSA	1.0	0.7	1.1	0.5	0.9	0.8	0.9	0.5	1.1	0.8	0.4	0.3	0.2	0.2	0.0
Parental Education: [b]															
1.0–2.0 (Low)	1.4	1.8	1.9	1.5	1.3	0.9	1.7	0.8	0.5	1.1	0.6	0.6	0.2	0.3	+0.1
2.5–3.0	0.9	0.8	0.5	1.1	0.6	1.0	0.8	0.9	0.7	0.5	0.3	0.3	0.1	0.5	+0.4
3.5–4.0	0.6	0.8	1.1	1.2	0.7	0.8	0.5	0.4	0.6	0.4	0.2	0.2	0.2	0.2	0.0
4.5–5.0	0.7	0.7	0.6	0.6	0.9	0.5	0.5	0.5	0.4	0.3	0.3	0.1	0.1	0.1	0.0
5.5–6.0 (High)	1.2	0.5	0.6	0.6	0.8	0.5	0.3	0.9	0.5	0.4	0.4	0.1	0.3	0.5	+0.3
Race/Ethnicity (2-year average): [c]															
White	1.0	0.8	0.7	0.8	0.8	0.7	0.6	0.5	0.6	0.5	0.3	0.2	0.1	0.2	+0.1
African American	0.6	0.4	0.5	0.4	0.4	0.8	0.8	0.7	0.6	0.5	0.4	0.4	0.2	0.1	-0.2
Hispanic	1.2	1.0	1.0	1.1	1.0	0.9	1.0	1.0	0.7	0.5	0.4	0.4	0.3	0.2	-0.1

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]In 1995, the heroin question was changed in half of the forms. Separate questions were asked for use with and without injection. In 1996, the remaining forms were changed. Data presented here represent the combined data from all forms. Beginning in 2015 Heroin use with and without a needle were dropped in one form; data based on three of four forms; N is two thirds of N indicated.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 51
HEROIN: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	1.0	0.8	0.8	0.8	0.5	0.5	0.5	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.6	0.5
Gender:																
Male	1.2	1.0	1.2	1.1	0.6	0.6	0.6	0.8	0.7	0.7	0.8	0.7	0.7	0.7	0.9	0.6
Female	0.8	0.5	0.4	0.6	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.3
College Plans:																
None or under 4 years	—	0.9	1.1	1.0	0.7	0.6	0.5	0.7	0.9	0.6	0.7	0.8	0.5	0.8	0.9	0.6
Complete 4 years	—	0.6	0.5	0.6	0.3	0.3	0.5	0.4	0.3	0.4	0.5	0.4	0.4	0.3	0.5	0.4
Region:																
Northeast	1.1	0.7	0.7	0.6	0.6	0.5	0.5	0.9	0.6	0.6	0.8	0.7	0.6	0.5	0.9	0.8
Midwest	1.3	1.0	1.0	0.8	0.5	0.7	0.6	0.5	0.4	0.6	0.6	0.4	0.6	0.3	0.6	0.3
South	0.9	0.7	0.9	1.1	0.6	0.3	0.5	0.5	0.7	0.5	0.6	0.5	0.4	0.5	0.6	0.5
West	0.7	0.6	0.5	0.8	0.2	0.4	0.5	0.3	0.5	0.4	0.3	0.5	0.5	0.7	0.7	0.3
Population Density:																
Large MSA	1.3	1.0	0.5	0.7	0.4	0.3	0.3	0.7	0.6	0.6	0.7	0.7	0.3	0.4	0.5	0.4
Other MSA	0.9	1.0	0.8	0.8	0.6	0.5	0.5	0.4	0.4	0.4	0.7	0.4	0.6	0.5	0.7	0.5
Non-MSA	1.0	0.4	1.1	1.0	0.5	0.6	0.7	0.6	0.7	0.7	0.4	0.5	0.5	0.5	0.8	0.5
Parental Education: [a]																
1.0–2.0 (Low)	1.2	0.8	0.8	0.8	0.6	0.6	0.4	0.4	0.5	0.6	0.8	0.9	0.5	0.5	0.9	0.8
2.5–3.0	0.8	0.9	0.8	0.9	0.5	0.6	0.6	0.7	0.6	0.5	0.5	0.4	0.4	0.7	0.7	0.4
3.5–4.0	0.6	0.8	0.9	0.7	0.4	0.4	0.5	0.3	0.5	0.5	0.5	0.5	0.6	0.4	0.6	0.4
4.5–5.0	1.2	1.4	0.6	0.9	0.6	0.4	0.3	0.6	0.4	0.4	0.7	0.3	0.3	0.3	0.6	0.4
5.5–6.0 (High)	1.2	0.6	1.1	1.0	0.8	0.4	0.7	1.1	0.8	0.5	0.6	0.5	0.7	0.4	0.4	0.5
Race/Ethnicity (2-year average): [b]																
White	—	—	0.8	0.8	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.6
African American	—	—	0.6	0.6	0.5	0.5	0.6	0.7	0.6	0.4	0.5	0.5	0.5	0.7	0.6	0.3
Hispanic	—	—	1.2	2.0	1.7	0.4	0.3	0.4	0.6	1.1	1.0	0.9	0.9	0.5	0.5	0.6

TABLE 51 (cont.)
HEROIN: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months									
	1991	1992	1993	1994	1995[c]	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	0.4	0.6	0.5	0.6	1.1	1.0	1.2	1.0	1.1	1.5	0.9	1.0	0.8	0.9	0.8	0.8
Gender:																
Male	0.6	0.8	0.7	0.8	1.4	1.3	1.5	1.4	1.4	1.7	1.3	1.1	0.8	1.2	1.2	1.0
Female	0.3	0.3	0.3	0.4	0.8	0.7	0.9	0.7	0.8	1.2	0.6	0.8	0.5	0.4	0.5	0.4
College Plans:																
None or under 4 years	0.5	0.9	1.0	1.1	1.5	1.8	1.8	1.7	1.3	2.2	1.3	2.3	0.9	1.6	1.8	1.3
Complete 4 years	0.4	0.5	0.4	0.5	0.9	0.8	1.0	0.8	1.0	1.1	0.7	0.7	0.6	0.6	0.6	0.6
Region:																
Northeast	0.2	0.5	0.9	0.7	1.0	1.6	1.7	1.3	1.2	1.0	1.2	1.2	0.8	0.9	1.0	1.1
Midwest	0.8	0.6	0.5	0.9	0.7	0.7	0.9	1.0	0.9	1.4	1.3	1.0	0.6	0.6	0.8	0.4
South	0.4	0.6	0.4	0.6	1.4	1.0	1.1	1.1	1.3	1.6	0.6	1.2	1.0	1.0	0.9	0.8
West	0.3	0.8	0.5	0.4	1.0	0.9	1.2	0.6	0.9	1.8	0.8	0.5	0.5	0.9	0.7	0.7
Population Density:																
Large MSA	0.4	0.4	0.6	0.4	1.4	1.1	1.1	0.9	0.8	1.9	1.1	1.0	0.7	0.8	0.8	1.0
Other MSA	0.4	0.7	0.5	0.8	0.9	1.1	1.3	1.3	1.3	1.3	0.8	1.0	0.8	1.0	0.9	0.6
Non-MSA	0.6	0.7	0.5	0.5	1.0	0.9	1.0	0.6	1.0	1.3	0.9	1.1	0.9	0.6	0.8	0.6
Parental Education: [a]																
1.0–2.0 (Low)	0.5	0.7	0.3	0.9	1.8	1.1	2.1	1.2	2.3	2.3	1.3	2.1	1.1	1.4	1.0	1.2
2.5–3.0	0.4	0.6	0.4	0.8	1.1	0.9	1.0	1.0	0.9	1.6	0.5	1.0	0.7	0.9	1.2	0.9
3.5–4.0	0.4	0.6	0.6	0.4	0.9	1.1	1.2	1.2	1.0	1.3	1.0	0.9	0.8	0.7	0.8	0.7
4.5–5.0	0.6	0.7	0.7	0.3	1.1	1.0	1.1	1.0	1.1	1.5	1.0	0.7	0.6	0.9	0.5	0.5
5.5–6.0 (High)	0.5	0.3	0.4	0.9	1.0	0.8	1.1	0.7	1.1	1.1	0.8	1.0	0.6	0.6	0.8	0.7
Race/Ethnicity (2-year average): [b]																
White	0.5	0.5	0.5	0.5	0.8	1.0	1.2	1.2	1.1	1.3	1.3	1.0	0.8	0.7	0.7	0.7
African American	0.2	0.5	0.4	0.3	0.4	0.5	0.5	0.4	0.3	0.5	0.4	0.5	0.7	0.7	0.8	0.7
Hispanic	0.6	0.9	0.7	0.5	1.2	1.5	1.1	0.8	1.0	2.0	1.6	0.8	0.8	1.0	1.3	1.2

TABLE 51 (cont.)
HEROIN: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months								2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	0.9	0.7	0.7	0.9	0.8	0.6	0.6	0.6	0.5	0.3	0.4	0.4	0.4	0.0
Gender:														
Male	1.2	1.0	1.0	1.1	1.0	0.8	0.8	0.9	0.7	0.4	0.4	0.3	0.5	+0.1
Female	0.6	0.4	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.0
College Plans:														
None or under 4 years	2.2	1.4	1.1	1.7	1.2	1.2	1.0	1.1	1.3	0.8	0.7	0.8	0.8	0.0
Complete 4 years	0.7	0.5	0.6	0.6	0.7	0.5	0.4	0.5	0.3	0.1	0.2	0.2	0.3	+0.1
Region:														
Northeast	1.1	0.7	0.8	1.3	0.7	0.8	0.6	0.8	0.3	0.2	0.1	0.2	0.4	+0.1
Midwest	0.8	0.6	0.8	0.9	0.7	0.7	0.6	0.6	0.6	0.4	0.2	0.6	0.1	-0.5 s
South	0.9	0.7	0.6	0.7	0.7	0.4	0.5	0.5	0.4	0.2	0.6	0.4	0.5	+0.1
West	0.9	1.0	0.9	0.7	1.0	0.8	0.7	0.5	0.6	0.4	0.4	0.1	0.4	+0.2
Population Density:														
Large MSA	0.9	0.9	0.9	0.8	0.9	0.7	0.5	0.4	0.4	0.4	0.3	0.3	0.5	+0.1
Other MSA	0.9	0.8	0.8	0.9	0.8	0.7	0.6	0.7	0.4	0.2	0.4	0.4	0.3	-0.1
Non-MSA	1.0	0.5	0.6	0.8	0.5	0.5	0.6	0.5	0.6	0.4	0.5	0.3	0.4	+0.1
Parental Education: [a]														
1.0–2.0 (Low)	1.7	1.3	1.5	1.1	1.0	1.3	1.0	1.3	0.8	0.5	0.7	1.1	0.9	-0.2
2.5–3.0	1.0	0.5	0.8	1.0	0.5	0.8	0.6	0.6	0.4	0.2	0.6	0.3	0.4	+0.1
3.5–4.0	0.8	0.9	0.6	0.9	0.8	0.4	0.4	0.3	0.6	0.3	0.3	0.3	0.4	+0.1
4.5–5.0	0.9	0.5	0.6	0.7	0.8	0.5	0.5	0.7	0.4	0.2	0.2	0.1	0.1	0.0
5.5–6.0 (High)	0.5	0.7	0.5	0.6	0.7	0.4	0.6	0.5	0.2	0.3	0.2	0.2	0.3	+0.1
Race/Ethnicity (2-year average): [b]														
White	0.9	0.9	0.7	0.8	0.9	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.0
African American	0.5	0.4	0.4	0.6	0.7	0.8	0.8	0.9	1.0	0.6	0.5	0.6	0.7	+0.1
Hispanic	1.1	0.9	0.7	0.6	0.5	0.4	0.5	0.6	0.5	0.4	0.4	0.4	0.5	0.0

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]In 1995, the heroin question was changed in half of the forms. Separate questions were asked for use with and without injection. In 1996, the remaining forms were changed. Data presented here represent the combined data from all forms.

TABLE 52

HEROIN WITH A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	1991–1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800
Total	—	0.9	1.0	0.8	0.8	0.9	0.6	0.7	0.6	0.6	0.7	0.6
Gender:												
Male	—	1.2	1.0	0.8	1.0	1.0	0.7	0.7	0.6	0.7	0.7	0.6
Female	—	0.5	1.0	0.7	0.7	0.8	0.6	0.7	0.6	0.5	0.7	0.6
College Plans:												
None or under 4 years	—	3.2	3.1	2.0	3.1	2.2	2.1	2.2	1.9	2.0	3.1	1.5
Complete 4 years	—	0.6	0.7	0.6	0.6	0.7	0.5	0.6	0.5	0.4	0.4	0.4
Region:												
Northeast	—	0.8	1.3	0.5	0.6	1.0	0.8	0.9	0.6	0.4	0.7	0.4
Midwest	—	0.9	1.1	0.7	0.9	1.2	0.9	0.7	0.8	0.6	0.6	0.3
South	—	0.8	0.9	0.8	1.0	0.9	0.3	0.9	0.6	0.7	0.6	0.8
West	—	1.0	1.0	1.0	0.8	0.7	0.8	0.3	0.6	0.7	0.9	0.6
Population Density:												
Large MSA	—	0.9	0.7	0.6	0.8	0.8	0.7	0.7	0.4	0.5	1.0	0.3
Other MSA	—	0.9	1.2	0.8	0.8	0.9	0.6	0.6	0.7	0.6	0.7	0.7
Non-MSA	—	0.9	1.1	0.9	1.1	1.1	0.7	1.0	0.8	0.9	0.5	0.7
Parental Education: [a]												
1.0–2.0 (Low)	—	1.3	0.9	1.5	2.3	2.0	1.2	2.0	1.1	1.6	1.6	0.3
2.5–3.0	—	0.5	1.2	0.8	0.8	0.9	0.5	0.7	0.9	0.6	0.8	1.0
3.5–4.0	—	0.8	1.2	0.6	0.6	0.9	0.4	0.6	0.6	0.4	0.7	0.7
4.5–5.0	—	1.0	0.8	0.7	0.7	0.5	0.4	0.5	0.5	0.5	0.6	0.3
5.5–6.0 (High)	—	1.0	0.6	0.9	0.9	1.2	0.9	0.7	0.4	0.5	0.5	0.3
Race/Ethnicity (2-year average): [b]												
White	—	—	1.1	1.0	0.7	0.8	0.7	0.6	0.7	0.6	0.6	0.5
African American	—	—	0.3	0.2	0.3	0.4	0.3	0.5	0.5	0.4	0.5	0.4
Hispanic	—	—	1.1	1.0	1.1	1.5	1.2	0.8	0.7	0.9	1.3	1.1

Percentage who used in last 12 months

TABLE 52 (cont.)

HEROIN WITH A NEEDLE: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

	Percentage who used in last 12 months														2018-2019 change
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	0.5	0.6	0.5	0.5	0.6	0.5	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.0
Gender:															
Male	0.4	0.5	0.6	0.6	0.6	0.5	0.4	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.0
Female	0.6	0.5	0.4	0.5	0.5	0.4	0.3	0.4	0.3	0.2	0.1	0.3	0.1	0.2	+0.1
College Plans:															
None or under 4 years	2.1	2.7	2.1	2.6	1.3	2.1	1.3	1.8	2.2	0.6	0.7	1.1	0.5	0.3	-0.3
Complete 4 years	0.4	0.3	0.4	0.4	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	+0.1
Region:															
Northeast	0.3	0.4	0.5	0.3	0.5	0.5	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	+0.1
Midwest	0.4	0.6	0.5	0.5	0.6	0.3	0.3	0.3	0.4	0.2	0.1	0.3	0.1	0.0	-0.1
South	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.0
West	0.7	0.6	0.6	0.9	0.7	0.6	0.3	0.3	0.7	0.1	0.1	0.3	0.4	0.3	-0.1
Population Density:															
Large MSA	0.5	0.3	0.7	0.5	0.6	0.4	0.4	0.2	0.5	0.2	0.2	0.3	0.3	0.2	-0.1
Other MSA	0.6	0.6	0.5	0.6	0.7	0.5	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.3	+0.1
Non-MSA	0.4	0.7	0.3	0.5	0.3	0.4	0.2	0.2	0.4	0.3	0.2	0.1	0.1	0.0	-0.1
Parental Education: [a]															
1.0–2.0 (Low)	1.4	1.3	1.6	1.6	0.6	1.0	0.6	0.8	0.9	0.3	0.2	0.7	0.5	0.3	-0.2
2.5–3.0	0.5	0.6	0.5	0.5	0.7	0.9	0.5	0.4	0.3	0.1	0.2	0.2	0.4	0.3	-0.1
3.5–4.0	0.4	0.3	0.4	0.3	0.6	0.4	0.7	0.3	0.3	0.1	0.2	0.2	0.2	0.3	+0.1
4.5–5.0	0.4	0.6	0.3	0.4	0.4	0.2	0.1	0.2	0.3	0.2	0.2	0.0	0.1	0.1	0.0
5.5–6.0 (High)	0.2	0.3	0.7	0.5	0.6	0.4	0.2	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.0
Race/Ethnicity (2-year average): [b]															
White	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.0
African American	0.3	0.2	0.2	0.5	0.6	0.4	0.4	0.5	0.4	0.2	0.1	0.2	0.2	0.1	0.0
Hispanic	0.9	0.9	1.0	0.9	1.0	1.1	0.7	0.4	0.4	0.2	0.1	0.2	0.3	0.3	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1995; *N* is one half of *N* indicated in Table S1. Data based on all forms beginning in 1996. Beginning in 2015 Heroin use with and without a needle were dropped in one form; data based on three of four forms; *N* is two thirds of *N* indicated.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 53

HEROIN WITH A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991–1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200
Total	—	0.6	0.7	0.7	0.8	0.6	0.5	0.4	0.6	0.5	0.5	0.5
Gender:												
Male	—	0.8	0.8	0.9	1.0	0.8	0.6	0.5	0.6	0.5	0.6	0.6
Female	—	0.4	0.4	0.5	0.5	0.5	0.4	0.3	0.4	0.4	0.3	0.4
College Plans:												
None or under 4 years	—	1.6	1.4	1.5	1.6	1.7	1.7	1.4	1.5	1.4	1.6	1.6
Complete 4 years	—	0.4	0.5	0.6	0.6	0.5	0.3	0.3	0.4	0.3	0.3	0.3
Region:												
Northeast	—	0.5	0.3	0.6	0.8	0.7	0.5	0.5	0.4	0.4	0.5	0.6
Midwest	—	0.6	1.0	0.8	0.9	0.7	0.5	0.5	0.6	0.5	0.4	0.5
South	—	0.6	0.7	0.8	0.8	0.6	0.6	0.3	0.5	0.5	0.5	0.4
West	—	0.5	0.5	0.6	0.6	0.6	0.4	0.5	0.8	0.5	0.5	0.6
Population Density:												
Large MSA	—	0.5	0.5	0.6	0.7	0.6	0.6	0.4	0.5	0.4	0.5	0.4
Other MSA	—	0.5	0.7	0.6	0.7	0.5	0.4	0.5	0.4	0.4	0.5	0.6
Non-MSA	—	0.8	0.8	1.1	1.0	1.0	0.6	0.4	1.0	0.6	0.3	0.5
Parental Education: [a]												
1.0–2.0 (Low)	—	1.6	0.6	0.7	1.3	1.2	1.0	0.5	1.2	0.8	1.0	1.4
2.5–3.0	—	0.5	0.8	0.6	0.6	0.7	0.8	0.7	0.3	0.4	0.5	0.6
3.5–4.0	—	0.7	0.7	0.9	0.9	0.6	0.5	0.2	0.6	0.5	0.4	0.4
4.5–5.0	—	0.4	0.5	0.7	0.6	0.6	0.3	0.3	0.3	0.5	0.3	0.4
5.5–6.0 (High)	—	0.3	0.6	0.7	0.8	0.6	0.3	0.5	1.1	0.2	0.3	0.3
Race/Ethnicity (2-year average): [b]												
White	—	—	0.6	0.7	0.7	0.6	0.5	0.4	0.5	0.5	0.4	0.4
African American	—	—	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.5
Hispanic	—	—	0.6	0.6	0.8	1.0	0.9	0.9	0.7	0.7	0.8	0.8

TABLE 53 (cont.)
HEROIN WITH A NEEDLE: Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

	Percentage who used in last 12 months															2018-2019
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	change
Approximate weighted N =	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.5	0.4	0.2	0.3	0.2	0.1	0.2	+0.1
Gender:															
Male	0.6	0.5	0.6	0.8	0.5	0.6	0.5	0.6	0.4	0.2	0.5	0.2	0.2	0.3	+0.2
Female	0.4	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.2	0.1	0.2	0.1	0.1	0.0
College Plans:															
None or under 4 years	1.3	1.3	1.7	2.1	1.7	1.6	1.6	1.1	1.7	0.5	1.0	0.6	0.3	0.4	+0.1
Complete 4 years	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.2	+0.1
Region:															
Northeast	0.6	0.6	0.4	0.8	0.5	0.4	0.3	0.4	0.2	0.3	0.1	0.1	0.1	0.2	0.0
Midwest	0.5	0.4	0.5	0.7	0.5	0.4	0.5	0.5	0.4	0.3	0.4	0.3	0.1	0.1	0.0
South	0.6	0.4	0.6	0.4	0.5	0.7	0.3	0.4	0.5	0.2	0.2	0.1	0.1	0.3	+0.1
West	0.3	0.6	0.5	0.5	0.4	0.4	0.4	0.6	0.5	0.1	0.4	0.2	0.1	0.4	+0.3
Population Density:															
Large MSA	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.0
Other MSA	0.5	0.5	0.5	0.8	0.4	0.5	0.3	0.6	0.3	0.1	0.3	0.2	0.1	0.3	+0.2
Non-MSA	0.7	0.4	0.7	0.4	0.6	0.6	0.5	0.4	1.0	0.4	0.3	0.1	0.1	0.2	+0.1
Parental Education: [a]															
1.0–2.0 (Low)	1.0	1.3	1.7	1.0	0.9	0.6	1.2	0.4	0.5	0.4	0.5	0.6	0.1	0.2	0.0
2.5–3.0	0.5	0.5	0.2	0.7	0.2	0.5	0.5	0.5	0.5	0.3	0.3	0.2	0.1	0.4	+0.3
3.5–4.0	0.4	0.4	0.5	0.8	0.4	0.5	0.3	0.3	0.5	0.2	0.2	0.1	0.1	0.1	0.0
4.5–5.0	0.3	0.5	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.0	0.0
5.5–6.0 (High)	1.0	0.2	0.3	0.4	0.7	0.2	0.3	0.7	0.3	0.1	0.3	0.1	0.2	0.5	+0.4
Race/Ethnicity (2-year average): [b]															
White	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.2	+0.1
African American	0.4	0.2	0.4	0.4	0.4	0.6	0.5	0.4	0.5	0.4	0.4	0.3	0.2	0.1	-0.1
Hispanic	0.8	0.6	0.7	0.8	0.6	0.4	0.6	0.6	0.5	0.3	0.3	0.4	0.2	0.1	-0.1

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1995; *N* is one half of *N* indicated in Table S2. Data based on all forms beginning in 1996. Beginning in 2015 Heroin use with and without a needle were dropped in one form; data based on three of four forms; *N* is two thirds of *N* indicated.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 54
HEROIN WITH A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

<center>Percentage who used in last 12 months</center>

	1975–1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
Approximate weighted N =	—	15,400	14,300	15,400	15,200	13,600	12,800	12,800	12,900	14,600	14,600	14,700	
Total	—	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.5	
Gender:													
Male	—	0.7	0.9	0.9	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	
Female	—	0.3	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.1	0.3	
College Plans:													
None or under 4 years	—	0.9	1.2	0.9	0.8	0.5	1.0	0.7	0.9	0.4	1.0	0.9	
Complete 4 years	—	0.4	0.4	0.4	0.3	0.4	0.2	0.2	0.3	0.4	0.2	0.4	
Region:													
Northeast	—	0.4	0.6	0.6	0.7	0.3	0.2	0.7	0.6	0.6	0.6	0.6	
Midwest	—	0.5	0.4	0.8	0.4	0.5	0.4	0.2	0.6	0.3	0.2	0.7	Table continued on next page.
South	—	0.4	0.6	0.3	0.5	0.4	0.8	0.1	0.3	0.6	0.4	0.4	
West	—	0.8	0.5	0.5	0.1	0.3	0.1	0.4	0.2	0.2	0.5	0.3	
Population Density:													
Large MSA	—	0.6	0.7	0.3	0.3	0.4	0.8	0.4	0.5	0.5	0.6	0.4	
Other MSA	—	0.4	0.5	0.6	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.6	
Non-MSA	—	0.6	0.3	0.7	0.5	0.6	0.3	0.2	0.5	0.4	0.2	0.5	
Parental Education: [a]													
1.0–2.0 (Low)	—	0.7	0.9	1.8	0.8	1.5	1.2	0.7	0.8	0.5	0.2	0.8	
2.5–3.0	—	0.6	0.5	0.4	0.5	0.1	0.4	0.3	0.4	0.7	0.6	0.5	
3.5–4.0	—	0.2	0.3	0.3	0.4	0.5	0.2	0.1	0.5	0.3	0.3	0.4	
4.5–5.0	—	0.5	0.7	0.6	0.4	0.3	0.4	0.4	0.2	0.4	0.4	0.3	
5.5–6.0 (High)	—	0.6	0.5	0.5	0.2	0.4	0.2	0.3	0.2	0.3	0.4	0.4	
Race/Ethnicity (2-year average): [b]													
White	—	—	0.4	0.5	0.5	0.4	0.3	0.2	0.2	0.3	0.3	0.3	
African American	—	—	0.2	0.5	0.4	0.2	0.5	0.4	0.2	0.4	0.5	0.6	
Hispanic	—	—	1.0	0.7	0.5	0.6	1.0	0.6	0.4	0.6	0.7	0.8	

TABLE 54 (cont.)
HEROIN WITH A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

							Percentage who used in last 12 months								2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	0.5	0.4	0.4	0.3	0.7	0.6	0.4	0.4	0.5	0.3	0.3	0.2	0.3	0.3	-0.0
Gender:															
Male	0.7	0.5	0.6	0.4	1.0	0.8	0.5	0.5	0.8	0.4	0.3	0.2	0.3	0.4	+0.1
Female	0.3	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.2	0.2	0.1	0.2	0.0
College Plans:															
None or under 4 years	1.0	1.0	1.0	0.6	1.6	1.3	1.1	0.7	0.9	0.8	1.0	0.4	1.0	0.7	-0.3
Complete 4 years	0.3	0.2	0.2	0.2	0.4	0.5	0.3	0.2	0.4	0.2	0.1	0.2	0.1	0.2	+0.1
Region:															
Northeast	0.8	0.7	0.3	0.3	0.6	0.8	0.6	0.3	0.7	0.0	0.1	0.1	0.2	0.6	+0.4
Midwest	0.1	0.1	0.3	0.3	0.8	0.4	0.6	0.3	0.7	0.6	0.3	0.1	0.6	0.1	-0.5
South	0.6	0.4	0.3	0.2	0.8	0.5	0.2	0.4	0.3	0.3	0.4	0.4	0.3	0.0
West	0.3	0.2	0.5	0.3	0.4	1.0	0.4	0.5	0.5	0.4	0.3	0.1	0.1	0.1	0.0
Population Density:															
Large MSA	0.7	0.6	0.2	0.5	0.7	0.8	0.5	0.3	0.4	0.5	0.2	0.2	0.4	0.4	0.0
Other MSA	0.4	0.2	0.5	0.2	0.6	0.7	0.4	0.4	0.6	0.2	0.3	0.3	0.3	0.2	-0.2
Non-MSA	0.4	0.4	0.2	0.1	0.7	0.3	0.2	0.3	0.4	0.4	0.5	0.2	0.2	0.4	+0.2
Parental Education: [a]															
1.0–2.0 (Low)	1.0	1.0	0.9	0.8	1.4	1.4	0.4	0.8	1.5	0.8	0.7	0.6	1.4	0.5	-0.9
2.5–3.0	0.5	0.4	0.3	0.5	0.9	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.0
3.5–4.0	0.5	0.2	0.4	0.2	0.5	0.8	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.4	+0.2
4.5–5.0	0.2	0.2	0.3	0.1	0.5	0.4	0.5	0.3	0.6	0.4	0.1	0.1	0.1	0.1	-0.1
5.5–6.0 (High)	0.6	0.3	0.2	0.1	0.3	0.6	0.3	0.0	0.1	0.1	0.2	0.3	0.1	0.3	+0.2
Race/Ethnicity (2-year average): [b]															
White	0.3	0.3	0.3	0.3	0.4	0.6	0.5	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.0
African American	0.7	0.4	0.3	0.3	0.7	0.9	0.5	0.5	0.8	0.6	0.2	0.4	0.6	0.9	+0.3
Hispanic	0.9	0.7	0.4	0.3	0.5	0.6	0.2	0.3	0.6	0.7	0.4	0.3	0.4	0.4	+0.1

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 S3 for the
number of subgroup cases. See appendix B for definition of variables in table. Data based on three of six forms; N is three sixths of N indicated in Table S3.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 55

HEROIN WITHOUT A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months											
	1991–1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	17,500	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800
Total	—	0.8	1.0	0.8	0.8	0.9	0.7	0.6	0.6	0.6	0.6	0.5
Gender:												
Male	—	1.0	0.9	0.9	0.9	0.8	0.5	0.6	0.6	0.6	0.4	0.4
Female	—	0.6	0.9	0.7	0.8	0.8	0.8	0.6	0.7	0.6	0.7	0.5
College Plans:												
None or under 4 years	—	3.2	2.1	2.2	3.4	2.7	2.4	1.9	1.7	2.3	2.5	1.6
Complete 4 years	—	0.5	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4
Region:												
Northeast	—	0.9	1.1	0.8	0.7	0.7	0.6	0.7	0.3	0.5	0.6	0.5
Midwest	—	1.0	1.0	0.9	0.9	1.0	0.8	0.6	0.7	0.8	0.4	0.3
South	—	0.8	0.8	0.7	0.9	0.9	0.5	0.6	0.7	0.7	0.6	0.6
West	—	0.7	1.1	1.1	0.9	0.9	0.8	0.5	0.7	0.5	0.7	0.4
Population Density:												
Large MSA	—	0.9	1.0	0.6	0.5	0.8	0.7	0.5	0.6	0.6	0.7	0.4
Other MSA	—	0.8	1.0	0.9	1.0	0.8	0.8	0.8	0.5	0.6	0.6	0.5
Non-MSA	—	0.9	0.9	1.0	1.0	1.1	0.5	0.4	0.8	0.7	0.3	0.6
Parental Education: [a]												
1.0–2.0 (Low)	—	1.9	1.5	1.3	2.4	1.7	1.1	1.3	0.5	1.4	1.5	0.2
2.5–3.0	—	0.7	0.9	1.1	0.7	1.0	1.3	0.6	0.8	0.6	0.6	0.9
3.5–4.0	—	0.5	1.2	0.5	0.8	0.6	0.5	0.6	0.6	0.7	0.6	0.5
4.5–5.0	—	0.8	0.8	0.8	0.6	0.8	0.5	0.5	0.6	0.4	0.4	0.3
5.5–6.0 (High)	—	0.7	0.8	1.0	1.1	1.1	0.3	0.4	0.4	0.5	0.3	0.1
Race/Ethnicity (2-year average): [b]												
White	—	—	1.0	1.0	0.8	0.8	0.8	0.7	0.6	0.6	0.5	0.4
African American	—	—	0.2	0.2	0.4	0.5	0.3	0.3	0.3	0.3	0.5	0.4
Hispanic	—	—	1.5	1.2	1.1	1.4	1.1	0.8	1.0	1.0	1.0	0.9

TABLE 55 (cont.)

HEROIN WITHOUT A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 12 months														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	0.5	0.5	0.6	0.4	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.0
Gender:															
Male	0.5	0.4	0.6	0.4	0.5	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	-0.1
Female	0.6	0.5	0.6	0.4	0.5	0.5	0.3	0.3	0.2	0.2	0.1	0.3	0.1	0.3	+0.1
College Plans:															
None or under 4 years	2.3	1.9	2.6	1.9	1.8	1.8	1.1	1.3	0.5	0.4	0.9	1.3	0.8	0.4	-0.4
Complete 4 years	0.4	0.3	0.4	0.2	0.4	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.0
Region:															
Northeast	0.2	0.2	0.4	0.3	0.4	0.3	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.0	-0.1
Midwest	0.7	0.5	0.8	0.3	0.4	0.5	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.3	+0.2
South	0.6	0.4	0.7	0.3	0.5	0.4	0.3	0.4	0.2	0.3	0.3	0.2	0.3	0.3	0.0
West	0.5	0.7	0.5	0.7	0.6	0.5	0.4	0.3	0.4	0.0	0.1	0.5	0.4	0.2	-0.2
Population Density:															
Large MSA	0.4	0.3	0.8	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.1	-0.3 s
Other MSA	0.5	0.5	0.5	0.5	0.6	0.5	0.2	0.3	0.2	0.2	0.1	0.3	0.2	0.3	+0.1
Non-MSA	0.7	0.7	0.4	0.3	0.5	0.4	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.0
Parental Education: [a]															
1.0–2.0 (Low)	1.4	1.0	1.6	1.1	1.4	0.7	0.7	0.9	0.5	0.3	0.3	0.5	0.6	0.2	-0.4
2.5–3.0	0.6	0.4	0.8	0.4	0.6	1.0	0.4	0.4	0.2	0.2	0.3	0.3	0.4	0.2	-0.2
3.5–4.0	0.6	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.4	+0.2
4.5–5.0	0.4	0.7	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.0
5.5–6.0 (High)	0.3	0.3	0.8	0.2	0.5	0.2	0.1	0.4	0.2	0.0	0.0	0.2	0.1	0.4	+0.3
Race/Ethnicity (2-year average): [b]															
White	0.5	0.5	0.5	0.4	0.3	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0
African American	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.3	+0.2
Hispanic	0.6	0.7	0.8	0.8	0.8	0.8	0.6	0.5	0.5	0.2	0.1	0.3	0.5	0.4	-0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1995; N is one half of N indicated in Table S1. Data based on all forms beginning in 1996. Beginning in 2015 Heroin use with and without a needle were dropped in one form; data based on three of four forms; N is two thirds of N indicated.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 56

HEROIN WITHOUT A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	1991–1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
					Percentage who used in last 12 months							
Approximate weighted N =	—	17,000	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200
Total	—	0.8	0.9	1.1	1.0	1.1	1.1	0.7	0.8	0.5	0.7	0.7
Gender:												
Male	—	0.9	1.1	1.2	1.2	1.3	1.1	0.8	0.9	0.6	0.8	0.7
Female	—	0.7	0.7	1.0	0.8	1.0	1.0	0.6	0.6	0.4	0.5	0.6
College Plans:												
None or under 4 years	—	1.7	1.8	2.1	1.8	2.5	2.7	1.7	2.2	1.4	2.2	2.3
Complete 4 years	—	0.6	0.7	1.0	0.9	0.8	0.8	0.5	0.6	0.4	0.5	0.4
Region:												
Northeast	—	0.5	0.7	1.0	1.4	1.6	1.2	0.8	0.7	0.4	0.9	0.9
Midwest	—	0.5	0.8	1.2	0.7	1.0	1.2	0.8	0.9	0.5	0.5	0.8
South	—	1.1	1.1	1.2	1.0	1.0	1.3	0.7	0.5	0.7	0.7	0.6
West	—	0.9	0.9	1.0	0.8	0.8	0.5	0.5	1.2	0.4	0.5	0.5
Population Density:												
Large MSA	—	0.9	0.9	1.3	0.8	0.9	1.5	0.8	0.6	0.4	0.6	0.7
Other MSA	—	0.7	1.0	1.0	1.1	1.2	1.0	0.7	0.8	0.6	0.8	0.7
Non-MSA	—	0.9	0.7	1.1	1.0	1.2	0.9	0.7	1.0	0.6	0.5	0.6
Parental Education: [a]												
1.0–2.0 (Low)	—	1.7	0.8	0.9	1.2	1.8	1.1	0.9	1.5	0.9	1.0	1.1
2.5–3.0	—	0.6	0.7	1.0	1.0	1.1	1.1	0.9	0.7	0.7	0.7	0.9
3.5–4.0	—	0.9	1.0	1.3	1.2	0.9	1.3	0.5	0.8	0.4	0.7	0.6
4.5–5.0	—	0.5	0.8	1.1	1.0	1.0	1.0	0.6	0.5	0.5	0.5	0.6
5.5–6.0 (High)	—	0.9	1.1	1.0	0.7	1.1	1.1	0.6	1.1	0.1	0.4	0.5
Race/Ethnicity (2-year average): [b]												
White	—	—	0.9	1.0	1.1	1.1	1.2	1.0	0.8	0.7	0.6	0.7
African American	—	—	0.1	0.1	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3
Hispanic	—	—	0.8	1.1	1.4	1.3	0.9	0.8	0.8	0.8	0.9	1.0

TABLE 56 (cont.)

HEROIN WITHOUT A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 12 months														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.2	+0.1
Gender:															
Male	0.6	0.6	0.8	0.8	0.6	0.5	0.4	0.5	0.3	0.3	0.2	0.2	0.1	0.3	+0.1
Female	0.6	0.5	0.4	0.4	0.5	0.4	0.4	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.0
College Plans:															
None or under 4 years	2.0	1.1	1.6	2.0	2.2	1.6	1.8	1.2	1.3	1.2	0.7	0.4	0.4	0.3	-0.2
Complete 4 years	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	+0.1
Region:															
Northeast	0.8	0.7	0.6	0.5	0.5	0.6	0.3	0.4	0.2	0.4	0.1	0.2	0.1	0.1	0.0
Midwest	0.6	0.5	0.8	0.7	0.6	0.2	0.4	0.2	0.2	0.3	0.3	0.2	0.0	0.2	+0.1
South	0.6	0.6	0.6	0.4	0.5	0.6	0.5	0.3	0.5	0.3	0.1	0.1	0.2	0.2	0.0
West	0.5	0.5	0.4	0.8	0.6	0.5	0.5	0.6	0.3	0.3	0.1	0.1	0.1	0.3	+0.2
Population Density:															
Large MSA	0.5	0.7	0.5	0.4	0.6	0.5	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.2	+0.1
Other MSA	0.6	0.5	0.6	0.8	0.5	0.4	0.3	0.5	0.2	0.2	0.1	0.1	0.1	0.3	+0.2
Non-MSA	0.8	0.6	0.8	0.3	0.6	0.5	0.6	0.3	0.6	0.6	0.2	0.2	0.2	0.1	-0.1
Parental Education: [a]															
1.0–2.0 (Low)	1.2	0.9	1.1	1.1	0.9	0.7	1.3	0.5	0.3	0.8	0.4	0.2	0.1	0.1	0.0
2.5–3.0	0.6	0.6	0.4	0.6	0.5	0.7	0.6	0.7	0.4	0.2	0.1	0.1	0.0	0.3	+0.3
3.5–4.0	0.5	0.6	0.8	0.7	0.5	0.4	0.4	0.1	0.3	0.4	0.1	0.2	0.2	0.1	-0.1
4.5–5.0	0.5	0.5	0.5	0.3	0.6	0.3	0.3	0.2	0.3	0.1	0.1	0.0	0.0	0.1	+0.1
5.5–6.0 (High)	0.4	0.3	0.4	0.5	0.5	0.4	0.1	0.7	0.4	0.4	0.2	0.1	0.2	0.5	+0.2
Race/Ethnicity (2-year average): [b]															
White	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.2	+0.1
African American	0.4	0.3	0.4	0.3	0.2	0.5	0.6	0.5	0.4	0.4	0.1	0.0	0.1	0.0	0.0
Hispanic	0.9	0.8	0.7	0.7	0.7	0.7	0.6	0.5	0.3	0.3	0.2	0.2	0.2	0.1	0.0

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1995; *N* is one half of *N* indicated in Table S2. Data based on all forms beginning in 1996. Beginning in 2015 Heroin use with and without a needle were dropped in one form; data based on three of four forms; *N* is two thirds of *N* indicated.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 57

HEROIN WITHOUT A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months						
	1975–1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	*15,400*	*14,300*	*15,400*	*15,200*	*13,600*	*12,800*	*12,800*	*12,900*	*14,600*	*14,600*	*14,700*
Total	—	1.0	1.0	1.2	0.8	1.0	1.6	0.8	0.8	0.8	0.7	0.8
Gender:												
Male	—	1.4	1.3	1.4	1.0	1.3	1.8	1.3	0.9	0.9	0.9	1.1
Female	—	0.7	0.7	0.9	0.7	0.8	1.5	0.4	0.7	0.7	0.4	0.5
College Plans:												
None or under 4 years	—	1.4	1.7	1.6	1.3	1.5	2.7	1.3	2.2	0.8	1.5	1.7
Complete 4 years	—	0.9	0.8	1.0	0.6	1.0	1.3	0.7	0.4	0.7	0.4	0.6
Region:												
Northeast	—	0.9	1.9	1.9	1.1	1.3	0.9	1.3	1.1	0.6	1.1	1.1
Midwest	—	0.7	0.5	1.0	0.6	0.7	1.6	1.1	0.9	0.7	0.4	0.7
South	—	1.4	0.9	1.1	1.1	1.2	1.8	0.3	0.9	1.2	0.5	0.7
West	—	0.8	0.7	0.6	0.3	1.0	2.0	0.9	0.4	0.3	1.0	0.7
Population Density:												
Large MSA	—	1.3	1.1	1.2	0.9	0.9	2.5	1.0	0.6	0.8	0.8	0.7
Other MSA	—	0.8	1.2	1.1	0.9	1.2	1.2	0.8	1.1	0.7	0.9	0.7
Non-MSA	—	1.0	0.4	1.2	0.4	0.8	1.4	0.7	0.6	1.0	0.2	1.0
Parental Education: [a]												
1.0–2.0 (Low)	—	1.0	0.8	1.7	0.5	2.0	2.7	1.5	1.8	1.0	1.1	1.1
2.5–3.0	—	1.1	0.6	0.8	1.1	1.1	1.8	0.5	0.9	0.9	0.8	1.0
3.5–4.0	—	0.9	1.1	1.3	0.9	0.8	1.7	0.8	1.0	0.7	0.6	0.9
4.5–5.0	—	1.2	1.2	1.2	0.8	1.1	1.6	1.1	0.2	0.8	0.7	0.5
5.5–6.0 (High)	—	0.6	1.0	1.0	0.5	1.0	0.6	0.8	0.8	0.7	0.3	0.5
Race/Ethnicity (2-year average): [b]												
White	—	—	1.1	1.3	1.2	1.1	1.4	1.3	1.0	0.8	0.7	0.6
African American	—	—	0.2	0.3	0.3	0.1	0.4	0.4	0.4	0.6	0.7	0.5
Hispanic	—	—	0.9	0.6	0.4	0.6	1.8	1.3	0.5	0.7	0.7	0.9

TABLE 57 (cont.)
HEROIN WITHOUT A NEEDLE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months									2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	0.6	1.0	0.5	0.6	0.8	0.7	0.4	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.0
Gender:															
Male	0.8	1.2	0.7	0.8	1.1	0.9	0.5	0.5	0.8	0.5	0.2	0.1	0.2	0.2	0.0
Female	0.3	0.6	0.3	0.4	0.4	0.5	0.2	0.3	0.2	0.1	0.3	0.2	0.1	0.1	0.0
College Plans:															
None or under 4 years	1.2	2.6	1.0	0.7	1.8	1.1	0.8	0.8	0.7	0.8	0.5	0.4	0.6	0.6	0.0
Complete 4 years	0.4	0.7	0.3	0.5	0.4	0.6	0.3	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.0
Region:															
Northeast	1.0	1.1	0.7	0.7	1.3	0.8	0.2	0.4	0.9	0.3	0.1	0.0	0.2	0.4	+0.2
Midwest	0.2	0.9	0.3	0.7	0.7	0.9	0.3	0.3	0.5	0.6	0.2	0.0	0.4	0.1	-0.3
South	0.7	1.0	0.3	0.6	0.7	0.4	0.1	0.4	0.3	0.3	0.3	0.4	0.2	0.3	+0.1
West	0.6	0.9	0.8	0.7	0.6	0.9	0.8	0.8	0.4	0.3	0.3	0.2	0.1	0.1	0.0
Population Density:															
Large MSA	0.8	0.9	0.5	0.7	1.1	0.8	0.2	0.2	0.4	0.3	0.3	0.1	0.3	0.4	+0.1
Other MSA	0.4	0.9	0.6	0.6	0.8	0.7	0.4	0.5	0.6	0.4	0.2	0.3	0.1	0.2	0.0
Non-MSA	0.5	1.2	0.3	0.5	0.5	0.4	0.5	0.6	0.2	0.4	0.3	0.2	0.4	0.3	-0.1
Parental Education: [a]															
1.0–2.0 (Low)	1.2	2.2	0.7	1.1	0.8	1.0	0.1	1.0	0.9	1.0	0.6	0.4	0.3	0.7	+0.3
2.5–3.0	0.5	0.9	0.5	0.7	0.9	0.4	0.5	0.7	0.3	0.4	0.2	0.1	0.4	0.2	-0.3
3.5–4.0	0.5	0.8	0.3	0.9	1.1	1.0	0.2	0.3	0.2	0.2	0.2	0.3	0.1	0.4	+0.3
4.5–5.0	0.4	0.8	0.6	0.3	0.5	0.7	0.5	0.3	0.7	0.3	0.1	0.1	0.1	0.1	0.0
5.5–6.0 (High)	0.7	0.7	0.6	0.2	0.5	0.4	0.2	0.3	0.5	0.3	0.3	0.2	0.2	0.1	-0.1
Race/Ethnicity (2-year average): [b]															
White	0.6	0.8	0.8	0.6	0.7	0.8	0.6	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0
African American	0.4	0.4	0.4	0.3	0.7	0.8	0.4	0.3	0.7	0.8	0.3	0.3	0.4	0.8	+0.4
Hispanic	1.0	1.1	0.7	0.4	0.6	0.7	0.3	0.3	0.6	0.6	0.4	0.2	0.2	0.2	0.0

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on three of six forms; N is three sixths of N indicated in Table S3.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 58

NARCOTICS OTHER THAN HEROIN: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Percentage who used in last 12 months										
Approximate 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
Total	5.7	5.7	6.4	6.0	6.2	6.3	5.9	5.3	5.1	5.2	5.9	5.2	5.3	4.6	4.4	4.5
Gender:																
Male	6.6	6.8	7.3	6.9	7.3	7.1	6.5	6.0	6.0	6.2	6.8	5.9	5.6	5.1	4.9	5.0
Female	4.8	4.7	5.4	5.1	5.1	5.4	5.3	4.6	4.2	4.2	5.1	4.6	4.9	4.1	3.8	3.9
College Plans:																
None or under 4 years	—	6.8	8.0	6.8	7.3	7.4	7.2	6.1	6.1	6.1	6.6	6.7	6.1	4.8	5.3	5.7
Complete 4 years	—	4.6	4.7	4.9	5.0	5.1	4.8	4.6	4.3	4.3	5.4	4.3	4.8	4.6	3.9	4.0
Region:																
Northeast	6.1	6.5	6.6	6.8	7.0	5.7	7.2	5.6	5.6	6.7	7.3	5.7	6.0	3.7	4.7	4.1
Midwest	6.2	6.2	7.5	6.7	6.1	7.6	6.2	5.5	5.3	4.8	6.3	5.8	5.2	4.4	5.7	4.6
South	4.9	5.0	5.2	4.5	5.2	5.0	4.1	4.5	4.4	4.5	3.8	4.2	4.3	4.7	3.2	4.1
West	5.4	5.0	6.0	6.7	7.1	6.8	7.2	6.2	5.2	5.3	7.1	5.4	6.1	5.7	4.9	5.3
Population Density:																
Large MSA	7.3	6.7	6.7	6.9	7.3	6.9	6.9	5.2	6.0	5.2	6.0	4.8	5.2	4.0	4.1	3.8
Other MSA	5.5	6.1	6.3	5.9	6.3	7.0	6.3	5.7	5.3	5.1	6.4	5.6	5.3	5.2	4.9	4.6
Non-MSA	4.8	4.6	6.2	5.4	5.3	4.8	4.8	4.9	4.1	5.2	5.2	5.0	5.2	4.4	3.8	4.8
Parental Education: [b]																
1.0–2.0 (Low)	5.4	5.0	5.1	5.0	5.2	5.2	4.8	4.8	4.8	4.7	4.5	4.7	4.1	3.9	3.6	3.8
2.5–3.0	5.1	5.9	6.4	6.2	5.9	5.8	5.6	4.9	5.0	5.2	5.5	5.0	4.4	4.3	4.0	4.1
3.5–4.0	4.2	6.3	6.7	6.0	6.3	6.9	6.6	5.2	4.5	5.1	6.5	6.0	5.6	4.3	4.6	4.6
4.5–5.0	6.4	6.3	6.6	6.4	6.7	7.0	6.3	6.4	6.0	5.6	6.4	4.8	5.4	5.4	4.2	4.7
5.5–6.0 (High)	6.5	6.5	7.9	6.1	7.8	6.8	6.8	7.1	5.3	4.9	6.8	5.4	7.8	5.6	6.4	5.7
Race/Ethnicity (2-year average): [c]																
White	—	—	6.6	6.7	6.6	6.8	6.7	6.2	5.8	5.7	6.3	6.3	6.0	5.8	5.3	5.2
African American	—	—	2.2	2.0	1.8	1.7	1.9	1.8	1.7	1.6	1.6	1.7	1.6	1.5	1.5	1.4
Hispanic	—	—	3.8	3.5	3.5	3.7	4.3	4.1	4.0	4.2	3.6	3.0	2.4	2.2	2.5	2.4

TABLE 58 (cont.)

NARCOTICS OTHER THAN HEROIN: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002[d]	2003[d]	2004	2005	2006
Approximate weighted N =	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
Total	3.5	3.3	3.6	3.8	4.7	5.4	6.2	6.3	6.7	7.0	6.7‡	9.4	9.3	9.5	9.0	9.0
Gender:																
Male	3.9	3.3	3.6	4.3	5.6	6.4	7.1	7.4	8.2	8.0	8.0‡	11.6	10.7	10.9	10.7	10.3
Female	3.1	3.3	3.3	3.4	3.8	4.4	5.4	5.1	5.2	5.9	5.6‡	7.4	7.8	8.1	7.4	7.8
College Plans:																
None or under 4 years	3.8	4.3	4.2	4.9	5.6	7.0	8.2	8.4	7.0	7.8	7.5‡	12.4	12.3	12.4	12.2	12.4
Complete 4 years	3.5	3.0	3.3	3.5	4.4	4.9	5.7	5.5	6.6	6.6	6.4‡	8.8	8.4	8.7	8.3	8.1
Region:																
Northeast	3.2	3.7	4.6	3.5	4.3	6.1	7.8	6.5	6.2	6.7	7.2‡	10.6	9.3	9.9	8.3	10.1
Midwest	4.2	3.6	3.2	4.7	5.2	6.0	6.1	6.5	7.5	7.2	7.8‡	8.8	9.1	8.7	10.7	9.9
South	2.7	2.7	3.2	3.8	4.5	5.1	6.1	6.5	7.5	6.6	5.7‡	9.3	8.0	9.1	8.6	7.9
West	4.4	3.5	4.0	3.1	4.7	4.1	4.7	5.2	4.7	7.5	6.5‡	9.5	11.4	11.1	8.3	8.9
Population Density:																
Large MSA	3.3	3.5	3.1	4.1	4.8	4.6	4.6	5.2	5.4	7.0	8.4‡	8.9	7.4	8.1	8.4	8.1
Other MSA	3.9	3.1	3.7	3.7	4.7	5.4	7.2	6.8	7.4	7.2	5.6‡	10.3	10.3	10.7	9.3	9.0
Non-MSA	3.1	3.6	3.7	3.6	4.7	6.0	6.0	6.5	6.8	6.6	6.9‡	8.5	9.7	8.9	9.1	10.4
Parental Education: [b]																
1.0–2.0 (Low)	3.8	3.5	3.8	3.0	4.0	4.5	4.7	4.7	4.6	4.6	5.1‡	6.2	7.9	6.8	5.2	6.1
2.5–3.0	3.2	3.5	2.9	3.8	4.2	5.6	5.3	5.9	5.9	6.4	6.4‡	8.9	9.3	8.8	9.5	9.5
3.5–4.0	3.7	3.2	3.7	3.4	4.4	5.5	6.5	6.8	7.2	7.3	7.1‡	10.4	9.8	10.8	10.5	10.3
4.5–5.0	3.6	3.4	3.7	4.3	5.5	5.4	6.8	6.2	7.4	7.9	7.0‡	10.3	9.5	10.5	9.3	9.1
5.5–6.0 (High)	4.1	3.2	4.5	4.8	5.5	5.6	7.6	6.6	7.4	7.5	7.0‡	8.7	8.8	8.8	7.6	8.0
Race/Ethnicity (2-year average): [c]																
White	4.7	4.1	4.1	4.3	5.0	5.9	7.1	7.6	7.7	8.3	8.5	10.3‡	10.2[f]	11.2	11.2	11.2
African American	1.1	0.9	1.0	1.5	1.4	1.2	1.8	2.4	2.0	1.7	1.8	1.9‡	2.1[f]	2.7	2.5	2.4
Hispanic	2.3	2.1	2.3	2.2	2.5	3.7	3.1	2.8	3.6	4.6	4.5	4.3‡	5.2[f]	5.5	5.3	5.0

TABLE 58 (cont.)

NARCOTICS OTHER THAN HEROIN: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	2007[e]	2008	2009	2010	2011	2012	2013[g]	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	9.2	9.1	9.2	8.7	8.7	7.9	7.1	6.1	5.4	4.8	4.2	3.4	2.7	-0.7 ss
Gender:														
Male	10.9	10.6	10.7	9.9	9.6	9.3	8.4	7.2	6.1	5.6	5.3	4.4	3.4	-1.0 s
Female	7.6	7.9	7.9	7.4	7.8	6.5	5.6	5.0	4.6	3.8	3.2	2.2	1.8	-0.4
College Plans:														
None or under 4 years	12.9	13.1	11.0	12.3	13.2	9.7	10.1	7.3	6.8	4.9	6.0	4.6	3.7	-0.9
Complete 4 years	8.3	8.3	8.8	7.8	7.8	7.4	6.3	5.8	5.0	4.6	3.8	3.0	2.3	-0.7 s
Region:														
Northeast	9.3	9.7	9.3	9.2	8.3	6.3	7.1	4.0	3.9	3.1	3.0	2.8	1.6	-1.2 ss
Midwest	10.5	10.0	11.6	9.0	9.7	9.1	6.8	6.3	5.0	5.6	3.7	3.5	2.5	-1.0 s
South	8.3	8.3	8.0	8.4	7.3	6.1	7.1	6.4	5.5	4.8	4.9	3.2	2.8	-0.4
West	9.2	9.0	8.2	8.4	10.2	10.0	7.4	7.1	6.6	5.0	4.5	4.0	3.6	-0.4
Population Density:														
Large MSA	7.9	7.9	7.9	8.8	7.6	8.4	6.4	4.6	4.2	4.4	3.4	2.8	2.5	-0.3
Other MSA	9.3	9.0	9.4	9.0	9.0	7.4	7.9	7.4	5.9	5.0	4.6	3.6	2.8	-0.8
Non-MSA	10.7	10.7	10.6	7.7	9.6	8.3	6.1	4.8	6.1	4.7	4.9	4.0	2.6	-1.4 s
Parental Education: [b]														
1.0–2.0 (Low)	7.1	7.1	6.1	5.2	6.6	7.2	5.5	5.8	5.7	4.0	3.3	3.2	2.8	-0.4
2.5–3.0	8.8	9.2	9.9	9.4	8.5	9.0	7.6	6.8	4.7	4.0	5.1	3.9	2.9	-1.1
3.5–4.0	9.5	9.9	9.9	10.0	10.1	8.4	8.3	6.1	6.1	5.1	4.6	3.7	2.9	-0.8
4.5–5.0	9.9	9.0	9.9	8.1	8.1	8.0	6.6	5.8	5.3	5.2	3.7	3.1	2.2	-0.9
5.5–6.0 (High)	9.5	9.7	8.2	8.3	9.2	6.0	6.2	6.3	5.7	5.7	4.6	3.1	2.7	-0.4
Race/Ethnicity (2-year average): [c]														
White	11.5	11.7	11.7	11.1	10.6	10.0	8.5	7.0	6.0	5.6	5.0	4.2	3.3	-1.0 sss
African American	2.6	2.7	2.8	4.0	4.1	3.4	4.0	4.7	4.6	3.7	3.2	2.8	1.7	-1.1 ss
Hispanic	4.5	4.2	4.7	5.1	5.4	5.5	5.7	5.4	4.1	3.9	3.8	2.9	2.5	-0.5

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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.

[d] In 2002 the question text was changed in half of the questionnaire forms. In the list of examples of narcotics other than heroin, Talwin, laudanum, and paregoric were replaced with Vicodin, OxyContin, and Percocet. The 2002 data presented here are based on the changed forms only; N is one half of N indicated. In 2003 the remaining forms were changed to the new wording. Beginning in 2003, the data are based on all forms.

[e] In 2007, in the list of narcotics other than heroin, Dilaudid was replaced with Ultram.

[f] The 2003 data comprise half of the 2002 sample data double-weighted and all of the 2003 sample data.

[g] In 2013 the list of examples was changed on one form: MS Contin, Roxycodone, Hydrocodone (Lortab, Lorcet, Norco), Suboxone, Tylox, and Tramadol were added to the list. An examination of the data did not show any effect from the wording change.

TABLE 59
OXYCONTIN: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 8</u>

								Percentage who used in last 12 months												2018–2019 change
	1991–2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	*15,100*	*16,500*	*17,000*	*16,800*	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	—	1.3	1.7	1.7	1.8	2.6	1.8	2.1	2.0	2.1	1.8	1.6	2.0	1.0	0.8	0.9	0.8	0.8	1.2	+0.5
Gender:																				
Male	—	1.9	1.6	1.8	1.9	2.8	1.7	2.3	2.7	2.1	1.7	1.8	1.8	0.9	1.2	1.2	1.0	0.8	1.4	+0.6
Female	—	0.9	1.7	1.6	1.7	2.2	2.0	1.8	1.4	2.2	1.8	1.2	2.2	1.2	0.6	0.7	0.6	0.7	1.0	+0.3
College Plans:																				
None or under 4 years	—	4.3	7.5	6.9	6.8	8.8	5.1	6.1	8.4	6.4	7.7	8.2	7.6	3.8	3.4	3.3	3.2	2.5	3.8	+1.3
Complete 4 years	—	1.0	1.1	1.2	1.2	1.9	1.5	1.8	1.6	1.8	1.3	1.1	1.6	0.8	0.6	0.7	0.6	0.5	0.9	+0.3
Region:																				
Northeast	—	1.0	1.2	1.1	1.7	1.6	1.1	0.8	1.2	1.6	1.3	0.8	3.0	0.8	0.3	0.5	0.2	0.6	0.5	-0.1
Midwest	—	1.7	1.7	1.3	2.4	3.2	2.0	1.4	2.2	2.2	1.9	0.9	1.0	0.6	0.4	0.8	0.7	0.2	0.8	+0.5
South	—	1.5	2.1	2.2	2.0	2.4	2.0	2.9	2.1	2.5	1.8	2.6	1.9	1.1	1.4	1.2	0.9	0.9	1.8	+0.9
West	—	0.9	1.3	1.8	1.0	3.1	1.6	2.3	2.2	1.8	2.2	1.0	2.4	1.5	0.7	0.7	1.2	1.2	1.3	+0.1
Population Density:																				
Large MSA	—	1.2	1.1	0.9	1.1	1.3	0.9	1.7	0.7	1.3	0.8	1.8	1.4	0.8	0.6	0.9	0.5	0.8	1.4	+0.6
Other MSA	—	1.4	1.7	2.6	2.3	3.1	2.2	2.2	2.3	2.3	2.7	1.3	2.0	1.2	1.3	0.8	1.0	0.9	1.2	+0.4
Non-MSA	—	1.5	2.5	1.1	1.8	3.2	2.3	2.6	2.8	2.9	1.5	1.7	2.7	0.9	0.3	1.0	0.7	0.4	0.9	+0.5
Parental Education: [b]																				
1.0–2.0 (Low)	—	2.9	4.0	3.5	3.7	3.6	2.0	4.0	6.1	3.0	3.8	1.4	1.9	1.6	1.2	1.9	2.5	0.8	4.3	+3.5 s
2.5–3.0	—	2.0	2.3	2.1	2.9	3.4	2.2	2.3	2.1	2.7	2.6	2.7	1.7	1.3	1.1	1.2	0.3	0.7	2.1	+1.4
3.5–4.0	—	1.0	1.9	2.2	2.5	2.4	2.2	2.3	1.7	2.5	2.4	1.2	3.0	1.0	0.9	1.0	1.2	0.6	0.9	+0.4
4.5–5.0	—	0.9	0.7	1.3	0.7	2.0	1.6	1.7	1.7	1.3	1.1	1.2	1.9	1.0	0.7	0.5	0.4	1.1	0.5	-0.6
5.5–6.0 (High)	—	1.3	1.6	0.7	0.8	2.2	0.8	1.7	1.0	1.1	0.5	1.4	1.4	0.5	0.3	0.5	0.6	0.3	0.4	+0.1
Race/Ethnicity (2-year average): [c]																				
White	—	—	1.6	1.7	1.7	2.3	2.5	2.3	2.2	2.1	1.9	1.5	1.3	1.2	1.1	0.7	0.5	0.6	0.7	+0.1
African American	—	—	0.9	0.6	1.0	1.4	1.2	1.4	1.6	1.5	1.3	1.5	1.8	1.0	0.6	1.5	1.8	1.4	1.6	+0.2
Hispanic	—	—	1.3	2.8	2.6	2.4	2.3	1.5	1.8	2.2	2.6	2.1	1.9	1.9	1.0	1.0	0.9	0.7	1.3	+0.5

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in Table S1.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 60
OXYCONTIN: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 10</u>

									Percentage who used in last 12 months											2018–
	1991–2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019 change
Approximate weighted N =	—	*14,300*	*15,800*	*16,400*	*16,200*	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	—	3.0	3.6	3.5	3.2	3.8	3.9	3.6	5.1	4.6	3.9	3.0	3.4	3.0	2.6	2.1	2.2	2.2	2.0	-0.1
Gender:																				
Male	—	3.6	4.3	3.8	3.4	3.7	4.2	3.8	5.6	4.9	3.8	3.2	4.7	2.8	2.9	2.1	1.9	2.5	2.8	+0.3
Female	—	2.4	2.9	3.1	3.0	4.0	3.5	3.5	4.5	4.1	4.0	2.8	2.2	2.8	2.3	2.1	2.4	1.7	1.3	-0.4
College Plans:																				
None or under 4 years	—	6.5	10.8	7.2	8.0	11.0	8.8	10.2	12.6	13.9	11.8	9.1	6.1	6.9	7.5	6.5	4.6	3.7	3.2	-0.5
Complete 4 years	—	2.5	2.5	3.0	2.6	2.9	3.2	2.9	4.2	3.5	2.9	2.4	3.1	2.5	2.1	1.7	1.9	1.9	1.8	0.0
Region:																				
Northeast	—	3.6	3.7	4.6	3.8	3.1	2.8	3.2	3.6	4.4	4.5	3.0	3.1	1.0	2.4	1.3	1.2	1.6	1.1	-0.5
Midwest	—	2.1	2.9	2.5	3.5	4.1	4.3	3.9	5.8	4.9	4.2	2.0	4.2	2.3	2.7	1.9	1.8	1.9	1.3	-0.5
South	—	3.7	4.2	4.8	3.6	4.4	4.7	4.1	5.4	4.8	4.0	3.5	2.7	3.6	2.5	2.6	3.0	2.1	2.1	0.0
West	—	2.6	3.5	1.9	1.6	3.3	3.3	3.0	5.2	4.2	2.9	3.4	3.7	4.2	3.0	2.4	2.1	3.1	3.2	+0.1
Population Density:																				
Large MSA	—	2.0	2.3	2.1	2.8	3.4	3.5	2.5	4.5	4.2	2.9	2.3	3.2	2.6	2.0	1.5	1.9	2.3	0.8	-1.5 s
Other MSA	—	3.3	3.6	3.7	2.7	3.3	3.5	4.1	5.8	4.3	3.6	2.6	3.4	2.5	2.8	2.0	2.1	2.1	2.6	+0.5
Non-MSA	—	3.7	5.7	5.1	4.9	5.8	5.4	4.1	4.4	5.7	5.7	4.9	3.6	4.7	3.2	3.6	2.9	2.2	2.6	+0.4
Parental Education: [b]																				
1.0–2.0 (Low)	—	6.5	5.9	3.7	3.3	6.9	3.9	3.1	6.5	7.9	5.5	4.4	5.2	2.5	4.3	1.4	2.3	5.5	1.4	-4.0 ss
2.5–3.0	—	3.8	3.9	4.0	4.8	5.3	5.9	5.1	6.7	6.9	5.4	4.1	4.4	3.1	2.8	2.3	2.7	3.7	2.0	-1.7
3.5–4.0	—	2.0	4.1	4.1	3.0	4.3	3.5	3.6	5.5	4.0	4.3	3.9	3.2	3.8	4.0	2.8	2.3	1.4	2.9	+1.6
4.5–5.0	—	1.7	2.9	2.6	2.6	2.3	3.4	3.2	3.9	2.9	2.4	1.7	2.7	2.4	1.6	1.9	2.6	1.2	1.8	+0.6
5.5–6.0 (High)	—	4.4	2.8	2.8	2.6	2.4	2.8	3.5	4.6	3.6	3.2	2.2	2.8	2.1	1.7	1.9	0.9	0.8	2.1	+1.3
Race/Ethnicity (2-year average): [c]																				
White	—	—	3.6	4.1	4.1	4.1	4.6	4.7	5.0	5.3	4.4	3.5	3.5	3.6	3.0	2.7	2.3	1.7	1.7	0.0
African American	—	—	2.3	2.0	1.1	1.5	1.8	1.5	1.7	2.4	2.9	1.8	1.5	2.1	2.4	1.7	1.6	1.6	1.8	+0.2
Hispanic	—	—	2.5	2.9	2.3	1.8	1.9	1.8	2.9	4.0	4.4	3.6	1.9	1.9	2.0	1.7	2.2	4.0	3.1	-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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

Data based on one of four forms; *N* is one third of *N* indicated in Table S2.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 61
OXYCONTIN: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 12

							Percentage who used in last 12 months													2018–
	1975–2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019 change
Approximate weighted N =	—	12,900	14,600	14,600	14,700	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	4.0	4.5	5.0	5.5	4.3	5.2	4.7	4.9	5.1	4.9	4.3	3.6	3.3	3.7	3.4	2.7	2.3	1.7	-0.6
Gender:																				
Male	—	5.6	6.2	6.1	7.4	5.3	6.3	5.3	6.5	5.9	5.9	5.1	4.7	4.3	4.2	3.6	3.4	2.4	2.3	-0.1
Female	—	2.6	2.8	3.4	3.5	2.9	4.0	4.0	3.4	3.8	3.8	3.1	2.5	2.2	3.0	2.6	1.8	1.7	1.0	-0.6
College Plans:																				
None or under 4 years	—	7.0	8.8	8.2	9.9	7.4	7.8	7.6	6.7	10.2	9.7	5.2	6.0	4.5	4.3	5.3	4.5	3.8	3.5	-0.3
Complete 4 years	—	3.2	3.1	3.8	4.3	3.3	4.5	4.1	4.5	3.9	3.9	4.0	2.8	2.9	3.4	2.9	2.1	1.7	1.2	-0.5
Region:																				
Northeast	—	5.0	5.5	4.6	6.0	5.5	5.5	4.6	5.0	6.3	4.4	3.6	3.6	3.1	2.8	2.1	2.0	1.3	0.7	-0.6
Midwest	—	5.0	4.5	4.2	6.0	4.3	5.1	4.4	5.4	5.0	4.3	4.5	3.0	3.4	3.8	3.6	2.1	2.0	1.4	-0.6
South	—	3.6	4.0	5.9	6.3	4.0	5.2	4.9	4.3	4.8	5.0	4.3	4.1	4.4	3.6	3.6	3.1	2.8	2.1	-0.7
West	—	2.6	4.4	4.7	3.0	3.6	5.1	4.9	5.0	4.7	5.9	4.5	3.3	1.6	4.2	3.7	3.1	2.5	2.2	-0.2
Population Density:																				
Large MSA	—	3.7	2.8	4.6	4.8	4.4	4.2	3.9	4.2	5.4	3.9	4.6	2.8	3.6	2.6	3.7	2.0	2.5	1.3	-1.2 ss
Other MSA	—	3.8	5.3	5.2	5.1	3.6	5.4	5.0	5.2	4.8	5.2	4.0	4.2	3.4	4.3	3.6	3.4	2.0	1.8	-0.2
Non-MSA	—	4.7	5.2	4.9	7.1	5.4	6.2	5.1	5.2	5.3	6.0	4.6	3.1	2.7	3.9	2.7	2.5	2.6	2.3	-0.4
Parental Education: [b]																				
1.0–2.0 (Low)	—	6.3	6.9	3.7	5.5	4.2	4.4	3.8	4.9	4.9	3.4	4.3	6.0	3.6	3.2	4.2	3.7	2.6	3.3	+0.7
2.5–3.0	—	5.3	6.8	4.8	6.3	4.4	5.6	4.5	4.6	5.5	4.8	4.2	3.4	3.0	3.3	2.9	3.4	3.0	1.9	-1.1
3.5–4.0	—	3.9	3.4	6.5	6.3	5.1	5.0	6.0	5.8	5.4	5.7	4.6	3.4	3.4	3.4	2.4	2.8	2.2	1.7	-0.5
4.5–5.0	—	2.2	3.6	3.1	4.2	3.4	5.3	4.3	4.8	4.2	4.4	4.4	3.5	2.8	3.9	3.6	1.6	1.6	1.3	-0.2
5.5–6.0 (High)	—	4.0	2.5	4.3	4.8	3.5	4.3	3.8	4.1	4.7	5.0	3.5	2.2	4.1	4.3	5.0	2.8	1.3	0.8	-0.6
Race/Ethnicity (2-year average): [c]																				
White	—	—	4.7	5.1	5.8	5.4	5.5	6.0	5.8	5.7	5.8	5.2	4.0	3.3	3.7	3.7	3.0	2.5	1.9	-0.6 s
African American	—	—	2.5	2.4	2.0	2.2	2.4	2.1	2.0	3.1	3.2	2.8	3.4	4.0	3.9	3.3	2.5	1.7	1.3	-0.4
Hispanic	—	—	2.5	2.2	3.0	3.7	3.2	2.1	2.9	3.5	3.0	3.2	3.4	2.7	2.1	2.9	3.3	2.1	1.6	-0.5

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

Data based on two of six forms in 2002–2005; N is two sixths of N indicated in Table S3. Data based on three of six forms beginning in 2006; N is three sixths of N indicated in Table S3.

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

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 62
VICODIN: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 8

Percentage who used in last 12 months

	1991–2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	15,100	16,500	17,000	16,800	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	2.5	2.8	2.5	2.6	3.0	2.7	2.9	2.5	2.7	2.1	1.3	1.4	1.0	0.9	0.8	0.7	0.6	0.9	+0.3
Gender:																				
Male	—	2.7	2.8	2.4	2.9	2.6	2.1	2.9	3.0	2.8	2.1	0.8	1.1	0.9	0.8	1.2	0.9	0.8	1.2	+0.4
Female	—	2.4	2.8	2.6	2.2	3.4	3.2	2.7	2.2	2.6	1.9	1.7	1.6	1.1	1.0	0.5	0.4	0.3	0.7	+0.4
College Plans:																				
None or under 4 years	—	5.9	6.3	7.1	7.3	9.5	8.1	7.0	6.5	7.2	6.4	3.0	4.0	1.9	2.2	2.9	2.7	1.9	2.3	+0.3
Complete 4 years	—	2.1	2.4	2.0	1.9	2.4	2.1	2.5	2.3	2.2	1.8	1.2	1.2	0.9	0.7	0.6	0.4	0.4	0.7	+0.3
Region:																				
Northeast	—	1.5	1.1	1.0	1.5	1.9	1.4	1.0	1.8	2.8	1.7	0.7	1.6	0.3	0.3	0.6	0.1	0.5	0.5	-0.1
Midwest	—	3.3	3.9	3.2	3.3	3.9	3.6	3.1	3.5	3.4	2.8	1.8	1.0	1.4	1.0	0.8	1.0	0.0	0.9	+0.9
South	—	2.5	2.1	2.1	2.3	2.2	2.1	2.9	1.7	1.8	1.5	1.5	1.1	0.6	1.0	0.9	0.5	0.8	1.2	+0.4
West	—	2.6	4.2	3.6	3.1	4.4	3.5	3.7	3.3	3.2	3.0	1.1	2.0	1.8	1.0	1.0	0.9	0.8	0.8	-0.1
Population Density:																				
Large MSA	—	2.6	2.4	1.8	2.5	2.4	1.6	2.7	1.9	1.8	1.2	1.8	1.3	0.8	0.7	0.9	0.4	0.6	1.4	+0.8
Other MSA	—	3.0	3.1	3.0	2.6	3.3	3.4	3.0	2.6	3.2	2.7	1.0	1.4	1.2	1.2	0.8	1.0	0.6	0.8	+0.3
Non-MSA	—	1.6	2.5	2.4	2.6	3.3	2.8	2.8	3.2	2.8	2.4	1.6	1.5	1.0	0.4	0.9	0.2	0.5	0.4	-0.1
Parental Education: [b]																				
1.0–2.0 (Low)	—	3.3	3.3	4.9	3.9	4.8	3.1	3.4	5.4	3.9	4.0	1.7	1.7	1.5	2.8	1.7	1.4	0.6	2.2	+1.7 s
2.5–3.0	—	3.9	3.4	4.1	3.8	4.0	3.0	3.3	3.8	3.3	3.0	1.2	1.1	0.9	1.1	0.7	0.5	0.1	1.3	+1.2 s
3.5–4.0	—	3.4	2.9	3.2	2.9	2.7	3.1	2.8	2.5	1.6	2.8	1.3	2.3	1.5	0.6	1.1	0.6	0.6	0.6	0.0
4.5–5.0	—	1.4	2.1	1.1	1.9	2.6	2.4	3.2	1.5	2.7	1.4	1.3	1.4	0.8	0.3	0.7	0.4	0.5	0.7	+0.2
5.5–6.0 (High)	—	1.3	2.1	0.9	1.6	2.2	1.8	2.3	2.1	2.7	0.9	1.0	0.8	0.8	0.3	0.3	0.4	0.5	0.6	+0.1
Race/Ethnicity (2-year average): [c]																				
White	—	—	3.0	2.7	2.4	2.9	3.2	3.2	2.8	2.6	2.5	1.8	1.2	0.9	0.7	0.7	0.6	0.4	0.3	-0.1
African American	—	—	1.4	1.4	1.6	1.7	1.6	1.6	1.9	2.0	1.3	1.2	1.3	0.9	0.5	1.0	1.1	1.5	1.8	+0.3
Hispanic	—	—	2.1	3.3	3.6	2.8	2.6	2.1	2.5	3.0	2.8	2.1	1.9	1.8	1.2	0.8	0.6	0.5	0.7	+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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S1.

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

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 63
VICODIN: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 10

Percentage who used in last 12 months

	1991–2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,300	15,800	16,400	16,200	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	6.9	7.2	6.2	5.9	7.0	7.2	6.7	8.1	7.7	5.9	4.4	4.6	3.4	2.5	1.7	1.5	1.1	1.1	-0.1
Gender:																				
Male	—	7.4	8.4	6.2	5.5	7.0	7.5	7.1	9.2	8.1	6.0	4.5	5.1	2.9	2.7	1.8	1.4	1.4	1.3	-0.1
Female	—	6.1	6.1	6.0	6.2	6.9	6.8	6.4	7.0	7.0	5.8	4.4	4.1	3.9	2.2	1.8	1.5	0.7	0.8	0.0
College Plans:																				
None or under 4 years	—	13.4	15.8	11.6	13.2	17.2	15.2	16.5	17.6	16.9	14.1	8.8	9.3	7.1	7.8	4.9	3.7	3.0	1.4	-1.6
Complete 4 years	—	5.7	5.8	5.4	4.8	5.6	6.1	5.6	7.1	6.5	4.9	4.0	4.1	3.0	2.0	1.4	1.2	0.8	1.0	+0.2
Region:																				
Northeast	—	6.2	5.6	6.4	5.7	4.9	6.5	5.3	5.1	5.6	4.6	3.3	3.5	2.4	1.9	1.8	1.0	0.8	0.5	-0.2
Midwest	—	7.2	9.4	6.4	7.1	8.7	8.8	8.4	10.5	9.3	8.1	4.6	5.8	4.4	2.9	2.6	1.3	1.6	0.8	-0.8
South	—	5.3	5.0	5.0	5.0	4.2	4.5	5.2	5.6	6.0	4.3	3.4	3.1	2.7	1.8	0.7	1.5	0.7	1.1	+0.4
West	—	10.0	9.1	7.1	5.8	11.1	9.4	7.9	12.1	10.1	6.6	6.6	6.0	4.4	3.9	2.4	1.9	1.6	1.5	-0.1
Population Density:																				
Large MSA	—	5.7	7.1	4.8	6.5	6.1	6.8	6.2	7.7	7.1	5.7	4.3	4.8	3.9	1.5	1.4	1.5	0.9	0.3	-0.6 s
Other MSA	—	7.9	6.4	6.9	5.3	7.6	7.2	6.7	8.9	7.5	5.8	4.5	4.7	3.0	2.8	1.5	1.3	1.1	1.5	+0.4
Non-MSA	—	6.2	9.2	6.4	6.3	6.9	7.8	7.6	7.1	8.9	6.3	4.5	4.0	3.9	3.5	3.0	1.8	1.5	1.1	-0.4
Parental Education: [b]																				
1.0–2.0 (Low)	—	6.1	6.4	6.4	4.9	7.6	6.5	6.3	10.4	12.1	5.8	6.6	8.2	3.0	4.8	1.1	2.4	3.0	0.2	-2.8 ss
2.5–3.0	—	8.0	8.3	8.2	7.7	8.0	8.6	7.5	9.1	9.6	7.5	5.8	4.4	3.5	3.0	2.1	1.1	1.6	0.5	-1.0
3.5–4.0	—	7.5	8.5	6.2	6.8	8.1	8.2	7.9	9.0	8.9	7.3	4.9	5.3	5.1	3.5	2.3	1.1	0.8	1.7	+0.8
4.5–5.0	—	5.7	6.3	5.1	5.0	5.6	7.0	6.0	7.3	4.5	4.3	3.6	3.7	2.4	1.7	1.7	1.6	0.4	0.9	+0.5
5.5–6.0 (High)	—	6.6	5.6	5.0	4.6	6.3	4.7	5.7	6.0	5.8	4.1	3.1	3.7	2.7	1.2	1.2	1.3	0.9	1.8	+0.9
Race/Ethnicity (2-year average): [c]																				
White	—	—	8.0	7.6	7.1	7.4	8.3	8.5	8.3	8.3	7.2	5.3	4.7	4.8	3.6	2.6	1.8	1.2	1.0	-0.2
African American	—	—	3.1	3.0	1.6	2.2	2.4	2.2	2.7	3.4	3.0	1.7	1.9	2.4	2.2	1.2	1.2	0.9	1.1	+0.2
Hispanic	—	—	6.5	6.0	4.8	4.4	4.2	4.1	6.2	8.2	7.3	5.6	4.6	3.3	2.2	1.5	1.5	1.8	1.0	-0.8 ss

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in Table S2.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 64
VICODIN: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 12

Percentage who used in last 12 months

	1975–2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	12,900	14,600	14,600	14,700	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	9.6	10.5	9.3	9.5	9.7	9.6	9.7	9.7	8.0	8.1	7.5	5.3	4.8	4.4	2.9	2.0	1.7	1.1	-0.7 s
Gender:																				
Male	—	12.0	13.0	10.7	11.9	10.9	10.9	10.6	11.5	9.5	9.0	8.6	6.5	5.5	5.1	3.2	2.2	1.6	1.4	-0.3
Female	—	7.5	8.1	7.6	7.2	8.7	8.1	8.9	7.9	6.4	7.1	5.9	4.1	3.8	3.8	2.3	1.5	1.3	0.7	-0.6
College Plans:																				
None or under 4 years	—	13.0	14.7	11.6	14.3	11.8	13.2	15.0	13.1	12.0	13.2	9.2	8.3	5.7	5.8	4.1	2.7	3.2	2.4	-0.8
Complete 4 years	—	8.4	9.1	8.3	8.4	9.1	8.5	8.5	8.9	7.1	7.1	6.8	4.5	4.4	4.0	2.6	1.7	1.2	0.7	-0.5 s
Region:																				
Northeast	—	8.1	9.4	9.1	8.8	10.8	9.3	9.9	9.0	9.0	5.8	5.4	5.4	3.2	3.4	1.3	1.5	1.1	0.5	-0.7
Midwest	—	11.6	13.2	8.4	12.4	12.0	14.1	11.7	14.3	9.6	9.6	9.7	6.7	7.4	5.6	4.4	2.5	2.2	1.3	-1.0
South	—	8.1	6.1	7.0	7.8	6.9	6.3	7.3	6.2	5.0	5.6	4.9	3.1	3.6	3.7	2.3	1.9	1.8	0.9	-0.9
West	—	10.9	16.3	15.4	9.3	11.2	10.9	11.1	10.4	10.6	11.9	9.7	7.1	5.7	5.2	3.9	1.8	1.6	1.9	+0.3
Population Density:																				
Large MSA	—	9.7	7.3	8.3	8.9	10.4	9.1	8.4	8.6	8.4	8.7	8.7	5.5	4.2	3.4	3.0	2.0	2.1	0.9	-1.3 s
Other MSA	—	10.6	12.2	10.9	9.3	9.4	9.3	10.0	9.7	8.5	8.2	6.8	5.5	5.3	5.4	3.3	2.0	1.3	1.3	0.0
Non-MSA	—	7.8	11.4	7.2	10.6	9.5	10.7	10.5	11.3	6.2	7.2	7.3	4.6	4.3	3.6	1.9	1.7	2.0	0.8	-1.2 ss
Parental Education: [b]																				
1.0–2.0 (Low)	—	12.1	9.4	7.8	7.8	7.9	6.3	7.8	9.6	6.0	8.6	6.8	6.0	4.9	4.5	2.6	2.0	2.0	0.9	-1.1
2.5–3.0	—	9.6	10.8	8.8	10.5	9.3	10.2	10.5	9.2	8.5	7.6	9.0	5.0	5.0	3.7	3.0	2.5	2.1	1.1	-0.9
3.5–4.0	—	9.5	12.0	10.1	10.0	11.6	9.9	11.2	10.9	8.3	9.0	7.8	6.5	4.1	4.9	2.6	2.0	1.8	1.5	-0.3
4.5–5.0	—	9.9	9.7	8.4	9.0	8.6	10.5	8.8	10.3	7.9	7.3	7.1	5.3	5.1	4.8	2.4	1.2	0.8	0.8	0.0
5.5–6.0 (High)	—	8.6	8.8	10.1	8.9	10.4	7.9	8.8	7.7	8.4	7.7	5.5	3.4	4.8	4.2	4.2	2.0	1.6	0.4	-1.2 s
Race/Ethnicity (2-year average): [c]																				
White	—	—	11.7	11.2	10.5	11.3	11.5	11.6	11.8	10.4	9.4	8.7	6.6	5.0	4.7	3.8	2.5	1.9	1.2	-0.6 ss
African American	—	—	3.3	3.1	3.3	3.7	3.3	3.6	4.3	4.3	4.1	3.8	3.2	2.7	2.9	2.9	1.8	1.1	1.2	+0.1
Hispanic	—	—	7.1	7.2	7.7	6.5	5.7	4.9	5.7	6.2	6.0	7.1	7.1	4.7	3.5	3.4	2.3	1.7	1.4	-0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

Data based on two of six forms in 2002–2005; *N* is two sixths of *N* indicated in Table S3. Data based on three of six forms beginning in 2006; *N* is three sixths of *N* indicated in Table S3.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 65
AMPHETAMINES: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	6.2	6.5	7.2	7.9	8.7	9.1	8.1	7.2	6.9	6.5	6.7	5.5	5.5	4.9	4.9
Gender:															
Male	5.5	5.2	5.6	6.5	7.0	6.7	6.6	5.6	5.6	5.1	5.7	4.8	4.4	3.7	3.5
Female	6.9	7.9	8.8	9.3	10.3	11.3	9.6	8.7	8.2	7.7	7.5	6.2	6.5	6.1	6.2
College Plans:															
None or under 4 years	11.6	12.9	14.6	14.5	17.1	15.5	14.1	15.4	14.0	14.2	12.0	12.2	12.4	8.9	11.2
Complete 4 years	5.4	5.7	6.3	7.0	7.6	8.3	7.5	6.3	6.2	5.7	6.1	4.8	4.8	4.5	4.3
Region:															
Northeast	5.1	4.3	5.9	6.9	7.3	7.6	6.5	5.5	5.6	5.0	5.5	3.4	4.1	2.8	3.5
Midwest	7.1	8.0	7.3	7.8	10.6	10.8	9.3	7.2	8.3	7.8	7.1	5.9	5.9	5.1	5.0
South	6.1	6.6	7.3	8.3	8.6	8.7	8.1	8.4	7.5	7.0	8.1	6.7	6.4	5.7	5.8
West	6.0	6.6	8.6	8.4	7.9	9.1	8.3	6.7	5.4	5.4	4.6	4.7	4.6	4.9	4.6
Population Density:															
Large MSA	5.8	4.8	5.6	6.6	7.2	7.9	6.4	5.4	5.2	5.2	5.0	4.2	3.9	4.0	3.6
Other MSA	6.2	7.5	8.2	8.8	8.9	10.0	8.1	7.4	6.8	6.4	7.6	5.9	5.5	5.4	5.8
Non-MSA	6.7	7.0	7.5	7.5	10.1	8.9	9.9	8.8	9.3	8.5	6.9	6.3	7.5	5.0	5.2
Parental Education: [b]															
1.0–2.0 (Low)	8.3	8.4	10.2	11.2	11.8	10.1	9.6	11.2	8.9	9.7	7.4	6.3	8.4	9.7	8.3
2.5–3.0	6.6	7.3	8.2	9.0	10.6	9.9	9.2	8.1	7.8	8.1	8.2	7.3	7.4	5.2	6.6
3.5–4.0	6.7	7.4	7.8	8.5	10.1	10.3	8.9	7.7	8.2	6.8	7.8	5.7	5.9	5.6	5.6
4.5–5.0	5.3	5.5	6.4	6.6	6.8	8.6	7.5	6.2	5.6	5.2	5.9	4.9	4.3	4.2	3.7
5.5–6.0 (High)	5.7	5.4	5.3	5.7	6.4	8.7	7.3	6.4	5.8	5.2	4.5	4.3	3.9	3.5	3.1
Race/Ethnicity (2-year average): [c]															
White	—	6.8	7.4	8.1	9.3	10.2	9.9	9.0	8.4	8.0	7.8	7.2	6.4	5.9	5.4
African American	—	3.3	3.4	3.9	3.9	3.4	3.0	2.8	2.7	2.4	2.3	2.7	2.5	2.1	2.2
Hispanic	—	7.2	7.7	8.6	8.7	8.6	8.1	7.2	7.0	6.8	6.6	5.9	5.0	5.4	5.3

TABLE 65 (cont.)
AMPHETAMINES: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 8

							Percentage who used in last 12 months								2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	4.7	4.2	4.5	4.1	3.9	3.5	2.9‡	4.2	4.3	4.1	3.5	3.5	3.7	4.1	+0.4
Gender:															
Male	3.5	3.3	3.5	3.7	3.4	3.1	2.4‡	3.5	3.4	3.1	2.9	2.4	3.6	2.8	-0.7
Female	5.7	4.9	5.5	4.4	4.3	3.8	3.3‡	4.8	4.8	5.1	4.1	4.4	3.9	5.3	+1.4 ss
College Plans:															
None or under 4 years	10.7	10.0	12.4	10.8	8.8	8.1	6.8‡	8.7	10.4	6.5	7.4	6.0	7.0	7.5	+0.5
Complete 4 years	4.1	3.6	3.8	3.5	3.5	3.1	2.6‡	3.9	3.7	3.9	3.1	3.2	3.3	3.5	+0.2
Region:															
Northeast	2.2	2.6	2.6	2.9	2.0	2.3	2.1‡	2.6	3.3	3.4	1.6	2.3	2.1	3.5	+1.4 ss
Midwest	5.3	4.8	5.1	4.1	4.0	3.5	2.2‡	4.0	3.8	3.8	3.5	3.0	3.2	4.0	+0.8
South	5.6	4.6	5.5	5.1	4.8	3.8	4.0‡	5.3	4.4	4.6	4.2	3.9	4.3	4.2	-0.1
West	4.3	3.7	3.8	3.0	3.6	3.9	2.2‡	3.8	5.2	4.0	3.7	4.4	4.5	4.4	-0.1
Population Density:															
Large MSA	3.9	3.4	4.1	2.7	2.6	2.6	2.6‡	3.8	3.3	3.1	2.8	3.5	4.0	3.4	-0.6
Other MSA	4.8	4.6	4.8	4.8	4.6	4.1	3.1‡	4.3	4.7	5.0	3.6	3.6	3.7	4.4	+0.8
Non-MSA	5.4	4.4	4.4	4.3	3.9	3.6	3.0‡	4.8	4.8	3.5	4.3	3.6	3.3	4.4	+1.1 s
Parental Education: [b]															
1.0–2.0 (Low)	6.5	7.3	7.9	6.5	5.9	5.1	3.8‡	6.0	5.3	6.0	5.0	5.8	4.8	5.4	+0.6
2.5–3.0	6.0	4.9	6.0	4.5	4.6	5.4	3.7‡	5.0	5.3	5.3	4.0	4.1	4.2	5.8	+1.5
3.5–4.0	5.0	4.5	5.4	5.3	4.1	3.8	3.4‡	6.1	4.8	4.4	3.5	3.7	4.5	4.1	-0.4
4.5–5.0	4.2	2.9	3.2	3.3	3.5	2.5	1.9‡	3.5	3.2	3.3	3.2	2.7	3.2	3.8	+0.6
5.5–6.0 (High)	3.6	3.5	3.4	2.8	2.5	2.4	2.6‡	2.3	3.6	3.3	3.3	2.7	3.0	3.1	+0.1
Race/Ethnicity (2-year average): [c]															
White	5.3	4.9	4.9	4.9	4.5	3.9	3.2	2.7‡	3.9	4.1	3.6	3.2	3.3	3.8	+0.5 s
African American	2.0	1.7	1.8	2.4	2.3	1.9	1.9	1.6‡	3.2	3.2	3.3	3.3	3.3	2.9	-0.4
Hispanic	4.5	3.9	4.0	3.9	3.5	3.9	3.6	2.6‡	4.5	4.1	3.8	3.7	4.0	4.4	+0.4

Table continued on next page.

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TABLE 65 (cont.)
AMPHETAMINES: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 8</u>

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. In 2009, the question text was changed slightly in half of the questionnaire forms. An examination of the data
did not show any effect from the wording changes. In 2010 the remaining forms were changed in a like manner. In 2013 the question wording was changed two of the 8th and 10th grade questionnaires. The new
wording in 2013 asked "On how many occasions (if any) have you taken amphetamines or other prescription stimulant drugs…" In contrast, the old wording did not include "or other prescription stimulant drugs."
Results in 2013 indicated higher prevalence in questionnaires with the new as compared to the old wording; it was proportionally 61% higher in 8th grade and 34% higher in 10th grade. 2013 data are based on
the changed forms only; *N* is one half of *N* indicated.Beginning in 2014 all questionnaires included the new, updated wording.

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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. 2013 race/ethnicity data are based on the 2012 data combined with the 2013 data from the unchanged forms which were double weighted. The 2014 race/ethnicity data are
based on the 2013 changed data which were double weighted and the 2014 data.

TABLE 66
AMPHETAMINES: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	<u>1991</u>	<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>
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*
Total	8.2	8.2	9.6	10.2	11.9	12.4	12.1	10.7	10.4	11.1	11.7	10.7	9.0	8.5	7.8
Gender:															
Male	7.0	7.0	8.2	8.6	9.6	10.5	10.3	9.0	9.2	10.3	10.6	9.6	7.8	7.3	6.6
Female	9.3	9.3	10.9	11.7	14.1	14.2	13.9	12.3	11.5	11.8	12.7	11.8	10.1	9.6	9.0
College Plans:															
None or under 4 years	13.4	14.4	15.5	16.6	19.9	20.3	19.3	17.9	16.3	18.2	20.4	17.5	15.7	14.8	13.7
Complete 4 years	7.1	6.9	8.4	8.9	10.6	11.1	10.9	9.5	9.5	10.0	10.3	9.7	7.9	7.6	7.0
Region:															
Northeast	6.1	5.4	7.8	8.7	9.8	11.5	10.7	11.0	12.1	9.8	10.5	9.3	7.4	8.5	7.4
Midwest	10.3	9.4	9.5	10.5	13.3	14.0	11.0	9.8	10.3	11.1	10.7	10.4	9.7	8.2	8.5
South	8.1	8.7	10.9	11.2	12.8	12.6	14.2	12.6	10.8	12.0	14.0	12.2	10.2	9.6	8.6
West	7.7	8.4	9.5	9.4	10.6	10.6	11.1	8.5	8.2	10.9	9.9	9.6	8.1	7.3	5.8
Population Density:															
Large MSA	7.5	6.7	7.6	8.0	9.2	10.5	9.9	8.9	9.3	10.7	9.8	9.8	6.2	6.2	6.5
Other MSA	7.9	8.0	9.5	10.8	12.8	12.8	11.5	10.3	10.6	9.9	11.1	11.0	9.5	9.6	8.0
Non-MSA	9.3	10.0	11.6	11.2	13.3	13.7	15.5	13.8	11.5	13.6	15.1	11.2	12.2	9.2	9.0
Parental Education: [b]															
1.0–2.0 (Low)	10.0	11.9	12.3	10.8	14.3	15.1	12.2	12.6	10.7	13.3	12.3	13.1	10.9	9.2	8.9
2.5–3.0	9.7	8.9	10.5	11.6	14.2	13.0	14.1	12.8	11.3	12.9	13.6	12.8	11.2	9.9	8.9
3.5–4.0	7.9	8.4	10.5	11.1	12.4	14.1	13.5	11.1	11.2	12.2	12.6	11.1	9.9	10.1	8.1
4.5–5.0	7.4	6.6	7.5	8.9	10.7	10.7	10.6	9.0	9.8	9.7	10.5	9.5	7.6	7.2	7.4
5.5–6.0 (High)	6.9	6.9	8.3	7.3	8.8	10.1	9.2	9.4	9.8	8.8	9.2	8.1	6.4	6.3	6.6
Race/Ethnicity (2-year average): [c]															
White	—	9.4	10.1	11.0	12.4	13.9	14.2	13.6	12.6	12.7	13.4	13.4	12.2	10.6	9.5
African American	—	2.8	3.0	4.0	4.0	3.4	3.1	2.9	2.8	2.5	2.9	3.5	2.8	2.7	3.0
Hispanic	—	6.2	7.0	7.7	8.9	10.3	9.8	8.9	8.8	9.1	8.3	7.9	7.7	7.3	7.3

TABLE 66 (cont.)

AMPHETAMINES: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 12 months														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	7.9	8.0	6.4	7.1	7.6	6.6	6.5‡	7.9	7.6	6.8	6.1	5.6	5.7	5.2	-0.4
Gender:															
Male	6.7	7.4	5.8	6.8	7.4	7.2	6.9‡	8.3	6.9	6.4	6.1	5.3	5.4	4.9	-0.5
Female	8.9	8.7	6.9	7.4	7.7	6.0	6.2‡	7.5	8.3	7.3	6.2	5.7	5.9	5.5	-0.4
College Plans:															
None or under 4 years	14.8	15.4	12.5	15.3	15.7	14.6	13.8‡	11.5	14.7	12.8	12.1	9.3	10.2	7.3	-2.8 s
Complete 4 years	7.0	7.1	5.6	6.3	6.7	5.7	5.8‡	7.6	6.9	6.3	5.5	5.2	5.0	4.8	-0.2
Region:															
Northeast	6.7	7.3	4.2	5.2	5.9	5.7	6.2‡	6.2	6.6	6.4	4.0	4.6	4.6	3.7	-0.9
Midwest	8.7	8.7	7.3	7.0	8.6	7.4	6.4‡	8.5	8.7	6.0	6.9	6.9	6.6	4.6	-2.0 s
South	8.5	8.1	6.8	8.3	7.6	7.2	7.5‡	9.0	7.9	7.5	6.8	5.4	5.6	5.5	-0.1
West	7.1	7.7	6.6	7.4	8.1	5.6	5.2‡	7.3	7.0	7.1	6.2	5.5	5.8	6.5	+0.7
Population Density:															
Large MSA	6.8	7.5	5.4	6.3	6.9	6.0	5.9‡	7.5	7.3	6.6	6.0	6.0	5.8	4.4	-1.4 s
Other MSA	8.3	8.0	6.6	7.7	8.0	6.4	6.5‡	8.4	7.3	6.7	6.2	5.6	5.7	5.7	0.0
Non-MSA	8.7	9.0	7.2	7.3	8.1	8.0	7.3‡	7.3	8.9	7.6	6.3	5.1	5.4	5.3	-0.2
Parental Education: [b]															
1.0–2.0 (Low)	9.3	7.9	7.8	9.8	9.6	6.6	9.8‡	10.9	9.5	9.5	6.7	6.0	6.5	6.1	-0.4
2.5–3.0	9.0	10.2	7.6	8.0	8.5	7.9	6.8‡	9.9	8.7	8.0	6.7	6.0	6.7	7.2	+0.5
3.5–4.0	9.1	8.9	7.7	7.8	8.3	7.3	6.7‡	8.2	8.7	8.5	7.3	5.6	5.4	5.4	-0.1
4.5–5.0	6.6	6.9	5.4	6.0	6.9	5.8	6.1‡	7.3	6.5	6.1	5.6	5.5	5.0	3.8	-1.1 s
5.5–6.0 (High)	6.8	6.0	4.3	6.5	6.3	5.3	5.7‡	5.6	6.2	5.0	5.3	5.8	5.9	4.8	-1.0
Race/Ethnicity (2-year average): [c]															
White	9.2	9.4	8.7	7.8	8.5	8.3	7.4	7.1‡	8.5	7.7	7.0	6.5	6.2	5.5	-0.7 ss
African American	2.8	2.3	2.3	2.3	2.8	3.0	2.9	2.6‡	5.3	4.8	4.6	3.9	3.3	3.5	+0.1
Hispanic	6.3	5.8	6.0	6.1	6.3	6.1	6.1	4.7‡	7.4	6.7	6.6	5.6	5.4	5.8	+0.4

TABLE 66 (cont.)
AMPHETAMINES: [a] **Trends in** <u>**Annual**</u> **Prevalence of Use by Subgroups in** <u>**Grade 10**</u>

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. In 2009, the question text was changed slightly in half of the questionnaire forms. An examination of the data
did not show any effect from the wording changes. In 2010 the remaining forms were changed in a like manner. In 2013 the question wording was changed two of the 8th and 10th grade questionnaires. The new
wording in 2013 asked "On how many occasions (if any) have you taken amphetamines or other prescription stimulant drugs…" In contrast, the old wording did not include "or other prescription stimulant drugs."
Results in 2013 indicated higher prevalence in questionnaires with the new as compared to the old wording; it was proportionally 61% higher in 8th grade and 34% higher in 10th grade. 2013 data are based on
the changed forms only; *N* is one half of *N* indicated. Beginning in 2014 all questionnaires included the new, updated wording.

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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. 2013 race/ethnicity data are based on the 2012 data combined with the 2013 data from the unchanged forms which were double weighted. The 2014 race/ethnicity data are
based on the 2013 changed data which were double weighted and the 2014 data.

TABLE 67

AMPHETAMINES: [a,b] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
							Percentage who used in last 12 months									
Approximate 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
Total	16.2	15.8	16.3	17.1	18.3	20.8	26.0	20.3	17.9	17.7	15.8	13.4	12.2	10.9	10.8	9.1
Gender:																
Male	15.6	15.8	16.0	16.9	18.4	19.7	24.8	19.6	17.2	16.8	14.9	12.7	11.8	10.8	11.1	9.4
Female	16.5	15.4	16.4	17.1	17.8	21.8	26.9	20.3	17.9	18.2	16.4	13.8	12.4	10.9	10.5	8.6
College Plans:																
None or under 4 years	—	19.3	20.5	20.0	21.8	25.8	30.9	23.7	20.9	22.2	19.7	17.7	16.0	13.9	15.1	12.6
Complete 4 years	—	11.9	11.5	13.7	14.5	16.5	22.3	16.8	14.5	14.2	13.3	10.9	10.2	9.5	9.1	7.4
Region:																
Northeast	16.5	14.7	16.8	19.6	22.0	22.0	28.8	21.5	17.9	19.0	16.8	12.6	10.4	8.4	9.0	6.3
Midwest	18.7	17.8	19.0	18.2	18.3	22.2	30.1	24.1	20.4	20.3	17.3	15.2	13.5	12.2	13.3	10.7
South	12.6	13.7	13.2	14.0	14.0	17.7	19.6	16.4	15.4	15.1	12.8	11.5	11.5	10.8	9.9	8.9
West	18.5	17.2	16.0	17.8	20.7	22.1	26.6	18.7	18.2	16.9	17.3	15.0	13.4	11.8	11.1	10.2
Population Density:																
Large MSA	19.6	15.4	15.3	17.7	19.5	21.9	28.0	21.6	18.1	17.7	15.0	11.2	10.9	8.8	7.1	6.5
Other MSA	15.5	16.3	17.1	17.5	18.9	20.8	25.5	20.7	19.6	17.1	15.7	14.2	11.9	11.9	11.4	9.6
Non-MSA	14.8	15.4	15.9	16.0	16.6	19.9	25.1	18.8	15.6	18.5	16.6	14.1	14.0	11.3	13.3	10.6
Parental Education: [c]																
1.0–2.0 (Low)	15.7	13.4	14.5	14.9	16.0	19.1	22.3	18.7	15.7	17.1	14.5	11.9	11.9	9.8	10.4	7.6
2.5–3.0	16.7	16.9	17.4	17.3	18.4	22.2	26.7	21.9	19.6	19.2	17.0	15.2	13.3	11.1	11.7	9.7
3.5–4.0	14.9	16.6	16.1	18.2	19.6	21.5	26.9	21.7	19.4	18.5	17.2	14.3	12.6	11.8	12.3	10.6
4.5–5.0	14.5	16.8	15.9	16.9	17.1	20.0	26.2	19.1	18.9	15.9	15.1	12.0	11.7	10.3	9.4	8.1
5.5–6.0 (High)	12.0	14.6	16.0	17.2	20.4	17.9	26.8	20.5	16.1	14.0	10.9	10.1	10.4	10.0	9.1	7.3
Race/Ethnicity (2-year average): [d]																
White	—	—	17.3	18.2	19.2	21.3	26.4	23.6	22.3	20.5	18.9	16.4	14.3	13.0	12.4	11.4
African American	—	—	5.3	4.7	4.2	5.3	5.8	6.0	5.7	4.7	4.3	4.0	3.8	3.9	3.6	3.1
Hispanic	—	—	12.3	12.2	12.8	14.5	17.5	12.3	11.5	13.2	14.6	10.8	8.7	9.6	9.0	7.0

TABLE 67 (cont.)

AMPHETAMINES: [a,b] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	8.2	7.1	8.4	9.4	9.3	9.5	10.2	10.1	10.2	10.5	10.9	11.1	9.9	10.0	8.6	8.1
Gender:																
Male	8.3	7.2	8.2	9.2	9.5	9.6	10.1	10.3	10.6	10.4	10.9	11.3	9.8	9.9	9.1	7.4
Female	7.9	6.9	8.5	9.4	8.9	8.8	10.2	9.8	9.6	10.5	10.6	10.7	9.5	9.9	7.9	8.5
College Plans:																
None or under 4 years	11.0	9.7	11.0	13.4	12.3	12.8	14.1	13.6	12.7	13.9	14.4	14.8	14.4	13.3	11.5	10.6
Complete 4 years	7.0	6.1	7.6	8.0	8.3	8.4	8.9	9.0	9.5	9.6	9.8	10.1	8.4	8.9	7.8	7.5
Region:																
Northeast	6.5	6.2	8.1	7.4	9.6	10.4	11.1	9.0	9.9	10.6	12.0	11.5	9.7	9.5	7.4	8.5
Midwest	10.1	8.4	8.9	12.0	9.5	10.0	10.8	11.0	10.5	10.4	12.7	11.3	10.3	10.2	10.3	7.6
South	7.9	6.7	8.3	9.0	9.2	9.1	9.8	10.4	10.8	10.2	9.5	11.7	9.7	10.3	9.4	8.8
West	7.8	6.9	8.3	8.4	8.9	8.3	9.1	9.6	8.8	10.9	9.7	9.6	9.7	9.5	6.1	7.0
Population Density:																
Large MSA	6.2	6.0	6.5	7.8	9.1	7.9	8.9	9.0	7.0	8.3	10.6	10.7	7.5	8.0	7.8	8.7
Other MSA	8.4	6.7	8.5	9.4	8.5	8.9	9.5	9.9	10.8	10.9	10.8	11.0	10.5	10.6	8.9	7.6
Non-MSA	9.5	9.0	9.8	10.9	10.8	11.9	13.0	12.2	12.4	12.4	11.4	12.1	11.7	11.1	8.9	8.2
Parental Education: [c]																
1.0–2.0 (Low)	9.5	7.0	9.0	10.4	9.9	8.1	9.8	9.7	9.9	11.0	8.9	8.1	10.6	7.5	6.1	8.2
2.5–3.0	9.1	7.7	8.6	10.3	9.9	10.5	10.3	10.6	11.3	11.0	12.2	11.4	9.9	11.0	9.2	8.2
3.5–4.0	8.9	7.7	9.1	9.4	9.1	9.3	10.8	11.4	10.8	10.6	11.6	12.3	10.7	12.3	9.5	8.9
4.5–5.0	6.5	6.3	8.0	9.5	9.2	8.9	9.4	9.4	9.7	10.3	10.7	11.1	9.4	8.2	8.5	7.8
5.5–6.0 (High)	5.7	5.8	7.6	7.1	8.1	9.1	10.2	8.7	8.4	10.2	8.7	10.2	7.7	8.4	7.4	7.0
Race/Ethnicity (2-year average): [d]																
White	9.8	8.8	9.0	10.4	10.7	10.5	11.4	12.1	11.9	11.9	12.6	13.2	12.4	11.6	11.0	9.9
African American	2.7	2.2	2.3	3.4	3.4	2.9	2.8	2.8	2.5	2.6	3.0	2.9	2.8	2.4	2.4	2.6
Hispanic	6.1	6.0	6.2	6.4	7.1	7.8	7.3	7.0	7.6	9.2	9.2	7.9	6.8	7.0	6.7	6.4

TABLE 67 (cont.)

AMPHETAMINES: [a,b] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	7.5	6.8	6.6	7.4	8.2	7.9‡	9.2	8.1	7.7	6.7	5.9	5.5	4.5	-1.0 s
Gender:														
Male	7.4	6.5	7.5	8.3	8.8	8.2‡	10.0	8.8	8.1	7.5	6.9	6.3	4.9	-1.4 s
Female	7.3	6.8	5.7	6.4	7.4	7.5‡	7.9	7.3	7.1	5.8	5.0	4.2	3.8	-0.4
College Plans:														
None or under 4 years	10.3	10.7	8.4	10.5	11.6	8.9‡	13.1	9.5	9.3	6.7	6.8	6.7	6.1	-0.6
Complete 4 years	6.7	5.7	6.1	6.7	7.4	7.6‡	8.4	7.6	7.3	6.6	5.7	4.9	3.9	-1.0 s
Region:														
Northeast	7.5	6.5	6.7	8.6	7.1	7.0‡	8.1	7.1	6.6	5.8	5.0	5.4	3.1	-2.3 sss
Midwest	8.2	6.9	7.8	8.1	8.6	9.0‡	10.7	8.9	9.0	7.7	5.9	6.0	4.9	-1.1
South	7.9	7.1	6.5	6.9	8.1	7.0‡	9.3	8.9	7.5	6.6	6.3	5.5	4.6	-0.9
West	5.8	6.3	5.2	6.5	8.7	8.5‡	8.5	7.0	7.7	6.5	5.8	5.0	4.7	-0.3
Population Density:														
Large MSA	6.7	6.2	6.3	6.8	7.4	9.2‡	8.5	7.5	7.7	6.2	5.1	4.5	4.4	0.0
Other MSA	7.4	6.7	7.0	8.0	8.7	7.8‡	10.2	9.0	7.8	7.0	6.6	5.8	4.7	-1.1
Non-MSA	8.6	7.5	6.2	6.8	8.1	6.1‡	7.9	7.0	7.5	6.7	5.8	6.6	3.7	-2.9 sss
Parental Education: [c]														
1.0–2.0 (Low)	7.5	7.3	5.5	5.0	6.8	6.0‡	7.9	6.8	6.4	5.8	4.2	4.1	3.8	-0.3
2.5–3.0	7.6	7.3	7.3	7.2	8.1	7.8‡	10.1	8.9	7.3	6.0	6.0	5.1	3.8	-1.3
3.5–4.0	7.6	6.5	7.3	7.9	8.3	8.0‡	9.0	7.8	7.7	7.4	5.9	6.0	4.6	-1.5 s
4.5–5.0	7.4	6.2	6.3	8.1	7.6	8.7‡	10.0	8.5	8.5	6.9	6.1	5.5	5.0	-0.5
5.5–6.0 (High)	7.1	7.1	5.6	7.5	9.7	8.4‡	9.3	8.6	9.5	7.8	7.4	6.2	5.1	-1.1
Race/Ethnicity (2-year average): [d]														
White	9.3	8.7	8.1	8.6	9.6	10.0	10.1‡	9.8	9.1	8.6	7.6	6.8	5.7	-1.1 ss
African American	2.5	2.2	2.3	2.8	2.9	2.9	3.3‡	5.9	4.3	3.7	3.4	3.1	2.7	-0.4
Hispanic	5.8	4.7	4.4	4.4	4.8	4.7	6.3‡	6.9	6.5	5.8	4.7	3.9	3.6	-0.3

Percentage who used in last 12 months

TABLE 67 (cont.)
AMPHETAMINES: [a,b] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. In 2013 the question wording was changed slightly in four of the six questionnaire forms. Vyvanse was added to the list of examples in one questionnaire form. 2013 data presented here are based on the unchanged forms only; *N* is two sixths of *N* indicated.

[a]Only drug use not under a doctor's orders is included here.

[b]Beginning in 1982, the question about amphetamine use was revised to get respondents to exclude the inappropriate reporting of nonprescription amphetamines. The prevalence rate dropped slightly as a result of this methodological change. (In 1982 and 1983, the data are based on three of the five questionnaire forms.) Only drug use not under a doctor's orders is included here. In 2009, the question text was changed slightly in half of the questionnaire forms. An examination of the data did not show any effect from the wording changes. In 2010 the remaining forms were changed in a like manner. In 2011 bennies, Benzedrine, and Methadrine were deleted from the list of examples in one questionnaire form. An examination of the data did not show any effect from the wording changes. In 2013 the question wording was changed in three of the 12th grade questionnaires. The new wording in 2013 asked "On how many occasions (if any) have you taken amphetamines or other prescription stimulant drugs…" In contrast, the old wording did not include "or other prescription stimulant drugs." Results in 2013 indicated higher prevalence in questionnaires with the new as compared to the old wording; it was proportionally 21% higher in 12th grade. 2013 data are based on the changed forms only; N is one half of N indicated.Beginning in 2014 all questionnaires included the new, updated wording.

[c]Parental education is an average score of mother's education and father's education. See appendix B for details.

[d]To 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. 2013 race/ethnicity data are based on the 2012 data combined with the 2013 data from the unchanged forms which were triple weighted. The 2014 race/ethnicity data are based on the 2013 changed data which were double weighted and the 2014 data.

TABLE 68
RITALIN: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 8

						Percentage who used in last 12 months															2018–2019 change
	1991–2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	16,200	15,100	16,500	17,000	16,800	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	2.9	2.8	2.6	2.5	2.4	2.6	2.1	1.6	1.8	1.5	1.3	0.7	1.1	0.9	0.6	0.8	0.4	0.5	1.0	+0.4
Gender:																					
Male	—	3.2	3.2	2.9	2.6	2.4	2.7	1.9	1.5	2.4	1.5	1.1	0.5	1.3	0.8	0.8	1.2	0.5	0.7	1.2	+0.6
Female	—	2.6	2.5	2.3	2.4	2.4	2.5	2.3	1.5	1.4	1.5	1.3	0.8	0.8	1.0	0.5	0.4	0.3	0.3	0.7	+0.4
College Plans:																					
None or under 4 years	—	8.1	7.7	6.8	8.8	7.5	9.0	4.2	5.7	5.3	5.8	3.7	3.0	3.2	4.6	2.6	2.9	1.1	2.1	3.4	+1.3
Complete 4 years	—	2.4	2.2	2.1	1.8	1.8	1.9	1.8	1.2	1.6	1.1	1.1	0.5	0.9	0.6	0.4	0.6	0.3	0.4	0.6	+0.2
Region:																					
Northeast	—	1.5	2.8	1.7	1.6	2.0	2.0	0.9	0.4	1.2	1.8	1.5	0.1	1.3	1.3	0.2	0.5	0.1	0.5	0.6	+0.1
Midwest	—	3.0	3.0	2.9	2.4	1.9	3.2	2.4	2.0	2.3	1.8	1.2	0.1	0.7	0.2	0.5	0.4	0.2	0.4	1.0	+0.6
South	—	3.5	2.8	2.9	3.0	3.0	2.5	2.5	2.2	1.5	1.4	1.4	1.4	1.2	0.9	0.8	1.2	0.7	0.5	1.4	+0.9
West	—	2.9	2.5	2.2	2.5	2.1	2.7	1.6	1.2	2.2	1.2	1.0	0.5	1.3	1.4	0.7	0.7	0.5	0.7	0.7	-0.1
Population Density:																					
Large MSA	—	2.2	2.3	2.3	1.7	1.5	2.3	1.2	1.1	1.6	1.1	0.8	0.8	0.9	1.0	0.6	0.9	0.3	0.5	1.2	+0.7
Other MSA	—	2.9	3.1	2.8	3.0	3.4	3.0	2.7	1.8	1.9	1.9	1.8	0.8	1.2	1.0	0.7	1.0	0.6	0.7	0.9	+0.2
Non-MSA	—	3.5	2.8	2.4	2.4	1.7	2.3	2.0	1.9	2.0	1.3	0.9	0.2	1.0	0.8	0.3	0.3	0.3	0.2	0.9	+0.7
Parental Education: [b]																					
1.0–2.0 (Low)	—	4.8	5.3	2.5	4.2	5.2	6.5	1.9	4.4	4.6	2.3	2.7	0.7	2.3	2.0	0.8	1.8	0.9	0.6	2.0	+1.4
2.5–3.0	—	3.3	4.0	2.8	2.9	2.7	3.1	2.3	2.2	2.2	1.4	1.6	0.8	1.2	0.7	1.1	0.7	0.2	0.6	1.4	+0.8
3.5–4.0	—	3.5	3.3	3.3	2.7	2.7	2.6	2.4	1.7	2.1	0.5	1.5	1.1	1.2	1.0	0.4	1.0	0.4	0.5	1.2	+0.6
4.5–5.0	—	2.4	1.5	1.8	2.1	1.5	2.0	1.8	1.0	1.3	1.4	0.9	0.3	1.2	1.0	0.4	0.4	0.2	0.5	0.7	+0.2
5.5–6.0 (High)	—	2.1	1.7	2.1	1.9	1.6	1.2	1.8	0.7	1.4	1.6	0.8	0.6	0.4	0.4	0.3	0.6	0.6	0.3	0.5	+0.3
Race/Ethnicity (2-year average): [c]																					
White	—	—	3.0	2.8	2.7	2.5	2.6	2.4	1.9	1.7	1.7	1.4	1.0	0.7	0.8	0.6	0.4	0.4	0.3	0.4	+0.1
African American	—	—	1.0	1.3	1.5	1.6	1.8	1.8	1.8	1.3	1.0	1.1	1.0	1.4	1.2	0.7	1.5	1.6	0.9	1.2	+0.3
Hispanic	—	—	3.8	2.7	2.5	3.3	3.1	2.8	2.1	1.5	1.5	1.3	1.2	1.3	1.3	0.7	0.7	0.6	0.6	0.9	+0.3

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

Data based on one of four forms; *N* is one third of *N* indicated in Table S1.

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

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 69
RITALIN: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 10

	1991–2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
								Percentage who used in last 12 months													
Approximate weighted N =	—	14,000	14,300	15,800	16,400	16,200	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	4.8	4.8	4.1	3.4	3.4	3.6	2.8	2.9	3.6	2.7	2.6	1.9	1.8	1.8	1.6	1.2	0.8	0.9	0.7	-0.2
Gender:																					
Male	—	5.2	4.9	4.2	3.6	3.2	3.7	2.6	3.0	3.8	3.1	2.9	2.8	2.5	2.2	2.1	1.5	0.7	1.5	1.1	-0.4
Female	—	4.3	4.6	3.8	3.0	3.5	3.7	2.9	2.9	3.4	2.1	2.5	1.0	1.2	1.5	1.2	0.9	0.7	0.4	0.2	-0.2
College Plans:																					
None or under 4 years	—	7.2	10.2	11.0	5.5	6.7	9.1	6.0	8.6	9.3	6.2	7.3	4.5	3.7	6.0	4.7	3.2	2.4	1.9	0.8	-1.1
Complete 4 years	—	4.3	3.8	2.9	3.0	2.9	2.8	2.3	2.3	3.0	2.2	2.1	1.6	1.6	1.4	1.3	0.9	0.6	0.7	0.7	-0.1
Region:																					
Northeast	—	5.5	3.6	3.8	4.5	4.1	3.0	2.8	3.3	4.0	2.2	3.5	2.1	1.8	1.6	1.9	1.2	0.4	0.8	0.5	-0.3
Midwest	—	4.6	4.8	4.2	2.7	4.8	4.0	3.6	3.1	4.6	3.2	2.9	2.1	1.9	2.2	1.0	1.6	1.0	1.3	0.5	-0.7
South	—	5.3	5.2	4.2	3.8	3.0	3.4	3.0	3.0	3.5	2.7	2.4	1.9	1.6	1.7	1.4	1.0	0.8	0.8	0.6	-0.2
West	—	3.1	5.1	3.9	2.4	1.4	4.2	1.6	2.4	2.3	2.4	2.1	1.2	1.9	1.9	2.4	1.1	0.8	0.7	1.0	+0.3
Population Density:																					
Large MSA	—	4.3	3.6	4.0	2.6	4.0	2.8	2.9	2.0	3.3	3.0	2.8	2.0	1.7	1.7	0.9	0.8	0.8	1.0	0.1	-0.9 sss
Other MSA	—	4.6	5.8	3.7	3.6	3.3	4.1	2.5	3.3	3.6	2.6	2.8	1.7	1.7	1.7	1.8	1.1	0.6	0.8	1.0	+0.2
Non-MSA	—	5.8	4.3	5.1	3.7	2.8	3.7	3.0	3.5	4.1	2.3	2.1	2.1	2.1	2.3	2.5	2.1	1.2	1.0	0.6	-0.3
Parental Education: [b]																					
1.0–2.0 (Low)	—	5.0	7.7	4.2	4.8	3.3	3.9	3.9	2.8	4.1	4.0	3.0	1.2	2.4	1.2	2.2	0.4	1.0	1.8	0.0	-1.8
2.5–3.0	—	5.4	5.9	5.0	3.4	4.4	3.8	3.2	2.9	3.9	2.7	3.3	3.2	3.3	1.3	1.6	2.1	0.9	1.4	0.6	-0.8
3.5–4.0	—	5.0	4.2	4.1	3.0	2.6	3.6	2.7	2.9	3.8	3.1	2.9	1.5	1.6	2.5	2.2	1.2	0.8	0.5	0.8	+0.3
4.5–5.0	—	4.2	3.6	3.7	2.9	4.0	3.4	2.6	3.4	3.3	1.4	1.9	1.7	1.5	1.5	1.1	0.4	0.4	0.7	1.0	+0.3
5.5–6.0 (High)	—	4.6	4.7	3.3	3.7	2.8	4.0	2.2	2.8	3.8	3.3	2.2	1.8	0.7	1.7	1.3	1.6	0.6	0.8	0.6	-0.2
Race/Ethnicity (2-year average): [c]																					
White	—	—	5.5	4.8	4.1	3.9	3.9	3.7	3.5	3.8	3.4	2.9	2.6	2.0	2.1	1.9	1.6	1.0	0.7	0.8	+0.1
African American	—	—	1.8	2.5	1.9	1.0	1.5	1.7	1.4	1.2	2.0	2.2	1.1	1.2	1.3	1.3	0.9	1.1	0.8	1.1	+0.3
Hispanic	—	—	3.1	4.4	3.6	2.2	2.1	1.9	1.6	2.3	2.8	2.6	2.2	1.7	1.5	1.8	1.7	1.2	1.0	0.5	-0.5 s

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

Data based on one of four forms; *N* is one third of *N* indicated in Table S2.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 70
RITALIN: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months														2018–2019
	1975–2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	—	12,800	12,900	14,600	14,600	14,700	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	5.1	4.0	4.0	5.1	4.4	4.4	3.8	3.4	2.1	2.7	2.6	2.6	2.3	1.8	2.0	1.2	1.3	0.9	1.1	+0.2
Gender:																					
Male	—	6.0	5.1	5.5	6.0	5.4	4.5	3.6	3.7	3.2	3.5	2.7	2.7	2.9	1.9	2.4	1.3	1.6	1.4	1.5	+0.2
Female	—	4.1	2.8	2.6	4.0	3.3	3.8	3.5	2.9	1.1	1.7	2.3	1.9	1.6	1.5	1.4	0.6	0.9	0.4	0.7	+0.3
College Plans:																					
None or under 4 years	—	6.4	7.7	4.4	6.8	5.3	5.3	5.6	4.2	3.2	5.4	3.1	2.9	4.1	1.4	2.4	2.4	1.5	1.3	2.3	+1.0
Complete 4 years	—	4.7	3.0	3.7	4.4	4.1	4.0	3.3	3.2	1.8	2.1	2.5	2.3	1.9	1.6	1.8	0.8	1.1	0.7	0.8	+0.1
Region:																					
Northeast	—	4.7	4.5	4.6	4.1	4.7	6.1	4.1	4.2	1.3	3.5	2.1	2.5	2.0	1.6	1.6	0.9	1.5	1.8	0.7	-1.1
Midwest	—	7.4	5.4	3.8	6.0	5.3	3.8	5.2	3.4	3.0	2.9	3.0	2.4	2.0	2.1	2.0	1.3	1.1	0.9	1.4	+0.6
South	—	4.1	3.4	3.5	4.7	4.6	4.3	3.0	3.4	2.1	2.1	2.7	2.8	2.3	2.5	1.8	1.2	1.3	0.7	0.8	+0.1
West	—	3.8	2.6	4.4	5.5	2.7	3.8	3.5	2.8	1.7	2.8	2.2	2.5	2.8	0.4	2.5	1.4	1.2	0.7	1.9	+1.2
Population Density:																					
Large MSA	—	7.2	3.9	3.2	4.2	4.1	5.4	4.0	4.1	2.4	2.7	2.2	2.4	1.9	2.1	2.0	1.7	1.5	0.9	0.9	-0.1
Other MSA	—	3.7	4.0	5.1	5.6	5.1	3.9	3.4	3.5	2.2	2.8	2.6	2.4	2.5	1.8	1.6	1.0	1.5	0.7	1.2	+0.4
Non-MSA	—	5.4	4.0	2.9	4.9	3.4	3.8	4.2	2.4	1.5	2.2	3.1	3.1	2.4	1.2	2.7	1.0	0.4	1.3	1.5	+0.2
Parental Education: [b]																					
1.0–2.0 (Low)	—	5.6	5.3	3.1	5.2	5.5	5.2	2.1	2.0	2.6	2.9	1.9	4.1	2.3	1.9	2.0	1.5	0.8	0.4	2.6	+2.2
2.5–3.0	—	4.5	4.2	3.7	4.2	4.2	3.6	4.1	3.4	3.3	3.0	2.5	2.5	2.1	2.0	2.0	1.0	1.8	1.1	0.7	-0.4
3.5–4.0	—	5.0	3.9	4.8	6.3	4.1	4.6	3.5	3.6	1.3	2.6	2.7	2.7	2.6	1.1	1.6	0.9	1.3	0.8	1.4	+0.6
4.5–5.0	—	4.7	3.5	3.5	4.6	3.9	4.7	4.7	3.1	1.9	2.2	2.0	2.1	2.3	1.2	2.0	1.0	0.8	1.0	1.0	0.0
5.5–6.0 (High)	—	6.6	3.9	4.0	4.5	6.0	4.6	2.7	4.5	1.7	2.4	3.3	2.0	1.3	3.3	1.9	1.4	1.2	0.9	0.5	-0.4
Race/Ethnicity (2-year average): [c]																					
White	—	—	5.4	4.6	5.2	5.3	4.9	4.9	4.3	3.1	2.6	2.7	2.6	2.3	1.9	1.9	1.5	1.2	1.1	0.8	-0.4
African American	—	—	0.8	1.2	1.2	2.0	2.3	1.8	1.5	1.5	2.1	1.9	1.6	2.3	2.2	2.3	2.2	1.1	0.9	0.7	-0.2
Hispanic	—	—	3.1	3.3	3.6	3.6	3.9	2.7	1.5	1.9	2.1	2.3	2.7	2.3	1.6	1.4	1.2	1.1	1.0	1.3	+0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 71
ADDERALL: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 8</u>

	Percentage who used in last 12 months											2018–2019 change
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	2.0	2.3	1.7	1.7	1.8	1.3	1.0	1.5	1.3	1.8	2.5	+0.7
Gender:												
Male	2.8	2.5	1.5	1.3	1.6	1.0	1.2	2.0	1.3	1.5	2.7	+1.2 s
Female	1.3	2.1	1.7	1.9	1.9	1.4	1.0	1.2	1.2	1.9	2.4	+0.5
College Plans:												
None or under 4 years	6.1	5.4	5.1	4.2	7.4	4.9	3.3	4.5	3.4	2.9	6.0	+3.1
Complete 4 years	1.7	2.0	1.4	1.5	1.4	1.0	0.9	1.2	1.0	1.6	2.0	+0.5
Region:												
Northeast	1.0	1.5	1.4	1.0	2.2	1.0	1.1	0.6	0.3	1.1	1.0	0.0
Midwest	2.3	3.1	2.3	1.0	0.8	0.9	0.6	1.8	1.7	1.5	2.1	+0.6
South	2.3	2.3	1.7	2.6	2.1	1.6	1.5	1.7	1.5	2.2	3.6	+1.4
West	1.8	1.9	1.2	1.3	2.0	1.3	0.6	1.6	1.1	2.0	2.3	+0.3
Population Density:												
Large MSA	1.9	1.7	0.7	2.1	1.5	1.3	0.9	1.2	0.9	1.8	3.2	+1.5 s
Other MSA	2.0	2.8	2.5	1.4	1.7	1.3	1.4	1.5	1.4	2.1	2.4	+0.3
Non-MSA	2.0	2.0	1.5	1.5	2.3	1.2	0.5	2.1	1.3	1.2	2.0	+0.8
Parental Education: [b]												
1.0–2.0 (Low)	5.3	3.5	3.7	1.1	2.2	1.9	1.9	1.8	0.9	1.3	4.6	+3.3 ss
2.5–3.0	1.8	2.5	2.6	1.9	2.1	1.3	1.0	1.7	1.5	1.9	5.6	+3.7 s
3.5–4.0	2.9	2.0	1.6	1.5	2.3	1.3	1.3	1.7	1.6	1.9	1.5	-0.3
4.5–5.0	1.4	2.4	1.3	1.4	1.8	1.0	1.1	1.0	1.4	1.9	2.3	+0.4
5.5–6.0 (High)	1.1	1.2	0.7	1.7	0.6	1.0	0.3	1.4	0.2	1.0	1.1	+0.1
Race/Ethnicity (2-year average): [c]												
White	—	2.4	2.1	1.7	1.4	1.3	1.2	1.3	1.5	1.3	1.9	+0.6
African American	—	1.2	1.5	1.4	1.6	1.3	1.1	2.0	2.0	1.5	2.4	+0.8
Hispanic	—	1.9	1.9	1.7	1.8	1.8	0.9	0.8	1.0	1.2	2.1	+0.9 s

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

Notes. ' — ' 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 four forms; N is one third of N indicated in Tables D-S1.

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

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 72
ADDERALL: [a] Trends in <u>Annual</u> Prevalence of Use
by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	5.7	5.3	4.6	4.5	4.4	4.6	5.2	4.2	4.0	4.1	3.1	-1.0
Gender:												
Male	6.1	5.5	5.4	5.0	5.2	4.7	5.3	4.1	4.3	4.8	3.7	-1.1
Female	5.3	4.9	3.8	4.1	3.7	4.4	5.2	4.1	3.6	3.2	2.3	-0.9
College Plans:												
None or under 4 years	15.1	10.6	11.5	9.3	8.1	10.4	9.2	7.9	9.9	7.6	3.9	-3.7 s
Complete 4 years	4.8	4.6	3.7	4.0	4.0	4.0	4.8	3.7	3.3	3.5	2.9	-0.6
Region:												
Northeast	4.2	4.1	4.9	4.0	5.4	3.9	6.1	3.1	2.7	1.9	1.9	0.0
Midwest	8.4	7.6	6.3	5.3	5.8	6.1	5.2	4.2	5.5	5.7	2.1	-3.6 ss
South	6.5	5.2	4.6	5.5	4.1	4.9	5.3	4.8	3.7	4.2	3.2	-1.0
West	3.4	3.7	2.3	2.5	2.9	3.4	4.2	4.1	3.7	3.6	4.6	+1.0
Population Density:												
Large MSA	6.2	6.0	4.8	3.7	4.3	5.4	3.8	3.6	5.2	6.0	1.9	-4.2 sss
Other MSA	5.9	5.0	4.1	4.4	4.7	4.3	6.0	4.5	3.0	2.6	3.8	+1.2
Non-MSA	4.8	4.8	5.1	5.7	4.0	4.2	5.6	4.3	4.3	4.4	3.2	-1.3
Parental Education: [b]												
1.0–2.0 (Low)	7.9	6.7	4.7	5.4	4.2	4.4	5.8	3.1	7.3	5.9	2.6	-3.3
2.5–3.0	6.6	6.0	5.4	6.3	5.2	4.8	5.2	3.7	2.7	4.5	3.1	-1.4
3.5–4.0	5.4	6.2	4.9	4.8	4.5	5.8	6.8	5.5	4.0	4.2	3.6	-0.6
4.5–5.0	4.9	3.8	4.5	4.1	4.7	3.9	5.1	3.4	3.1	2.9	3.2	+0.3
5.5–6.0 (High)	6.7	4.6	3.2	2.9	3.2	4.2	4.0	4.9	4.5	4.8	3.2	-1.6
Race/Ethnicity (2-year average): [c]												
White	—	6.6	5.7	5.3	5.6	5.9	6.0	5.6	4.5	4.1	3.6	-0.5
African American	—	2.2	2.7	1.7	2.0	3.0	3.5	2.9	2.9	2.9	2.5	-0.4
Hispanic	—	4.2	3.9	3.8	2.5	2.0	3.3	4.0	4.6	4.5	3.4	-1.1

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

Notes. ' — ' 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 four forms; N is one third of N indicated in Table D-S2.

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

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 73
ADDERALL: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 12

Percentage who used in last 12 months

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.4	6.5	6.5	7.6	7.4	6.8	7.5	6.2	5.5	4.6	3.9	-0.7
Gender:												
Male	7.4	7.5	7.4	8.0	8.7	7.7	8.0	7.7	7.1	4.9	4.8	-0.1
Female	3.8	5.5	5.5	6.9	6.0	6.0	6.9	4.4	4.2	3.9	3.0	-0.9
College Plans:												
None or under 4 years	7.0	10.9	7.5	7.8	9.2	5.4	8.6	7.3	7.0	7.0	4.9	-2.0
Complete 4 years	5.0	5.7	6.4	7.4	6.8	7.0	7.0	5.8	5.1	4.0	3.5	-0.6
Region:												
Northeast	5.1	7.7	7.2	7.6	5.2	7.2	6.9	5.1	5.9	5.6	3.7	-1.9
Midwest	7.9	7.3	7.7	10.1	8.7	9.2	10.3	7.6	5.7	4.8	3.7	-1.1
South	5.1	6.2	6.3	6.4	8.3	7.0	6.8	6.0	5.7	4.6	3.6	-1.1
West	3.2	5.3	5.3	6.6	6.3	3.9	6.4	5.7	4.9	3.7	4.9	+1.2
Population Density:												
Large MSA	5.9	7.0	4.7	9.1	7.2	7.8	7.5	6.8	5.0	4.2	3.6	-0.5
Other MSA	5.5	6.5	7.9	7.4	8.1	7.2	7.3	6.1	5.9	4.8	4.4	-0.4
Non-MSA	4.5	6.0	6.1	6.2	5.7	4.3	8.0	5.2	5.6	4.8	2.9	-1.9
Parental Education: [b]												
1.0–2.0 (Low)	4.0	5.2	5.6	5.8	7.0	2.7	5.7	4.9	3.7	3.0	4.1	+1.1
2.5–3.0	5.7	6.0	7.2	6.3	5.7	7.3	7.0	4.5	6.9	4.6	3.1	-1.6
3.5–4.0	6.1	6.7	5.9	8.4	8.4	6.6	7.9	7.5	5.7	4.8	3.4	-1.4
4.5–5.0	5.5	7.0	7.1	9.4	7.7	7.7	7.8	6.9	3.6	4.4	3.9	-0.5
5.5–6.0 (High)	4.7	7.0	6.2	6.6	8.6	8.8	8.5	5.8	8.5	6.0	6.3	+0.3
Race/Ethnicity (2-year average): [c]												
White	—	7.5	8.1	8.8	9.1	8.1	8.4	8.6	7.7	6.6	5.1	-1.5 ss
African American	—	2.9	2.2	2.1	3.6	4.6	5.9	5.1	2.2	1.6	1.7	+0.1
Hispanic	—	3.1	2.9	3.7	4.8	4.9	4.4	4.7	4.3	3.6	3.1	-0.5

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

Notes. ' — ' 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 two of six forms; *N* is two sixths of *N* indicated in Table S3.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a]Only drug use not under a doctor's orders is included here.
[b]Parental education is an average score of mother's education and father's education. See appendix B for details.
[c]To 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 74
PROVIGIL: [a] Trends in Annual Prevalence of Use
by Subgroups in Grade 12

	Percentage who used in last 12 months											2018–2019 change
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	13,700	14,400	14,100	—	—	—	—	—	—	—	—	
Total	1.8	1.3	1.5	—	—	—	—	—	—	—	—	—
Gender:												
Male	2.3	1.8	1.4	—	—	—	—	—	—	—	—	—
Female	1.3	0.6	1.3	—	—	—	—	—	—	—	—	—
College Plans:												
None or under 4 years	4.0	4.0	2.5	—	—	—	—	—	—	—	—	—
Complete 4 years	1.3	0.8	1.1	—	—	—	—	—	—	—	—	—
Region:												
Northeast	1.9	1.7	2.0	—	—	—	—	—	—	—	—	—
Midwest	2.0	1.7	1.0	—	—	—	—	—	—	—	—	—
South	1.9	1.2	1.7	—	—	—	—	—	—	—	—	—
West	1.4	0.9	1.2	—	—	—	—	—	—	—	—	—
Population Density:												
Large MSA	1.9	1.0	1.4	—	—	—	—	—	—	—	—	—
Other MSA	1.7	1.5	1.3	—	—	—	—	—	—	—	—	—
Non-MSA	2.0	1.6	1.8	—	—	—	—	—	—	—	—	—
Parental Education: [b]												
1.0–2.0 (Low)	3.8	1.7	2.4	—	—	—	—	—	—	—	—	—
2.5–3.0	2.0	1.6	2.0	—	—	—	—	—	—	—	—	—
3.5–4.0	1.7	1.2	1.6	—	—	—	—	—	—	—	—	—
4.5–5.0	1.2	0.8	0.5	—	—	—	—	—	—	—	—	—
5.5–6.0 (High)	1.1	1.8	0.9	—	—	—	—	—	—	—	—	—
Race/Ethnicity (2-year data): [c]												
White	—	1.5	1.3	—	—	—	—	—	—	—	—	—
African American	—	1.5	1.5	—	—	—	—	—	—	—	—	—
Hispanic	—	1.5	1.2	—	—	—	—	—	—	—	—	—

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

Notes.   ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 75
METHAMPHETAMINE: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	1991–1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	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	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	3.2	2.5	2.8	2.2	2.5	1.5	1.8	1.8	1.1	1.2	1.0	1.2	0.8	1.0	1.0	0.6	0.5	0.4	0.5	0.4	0.5	0.0
Gender:																							
Male	—	3.1	2.2	2.5	2.0	2.0	1.1	1.7	1.4	0.7	0.9	1.0	1.3	0.5	0.8	0.7	0.5	0.5	0.4	0.4	0.3	0.3	-0.1
Female	—	3.2	2.8	3.0	2.4	3.0	1.7	1.9	2.3	1.5	1.5	1.0	1.1	1.0	1.1	1.0	0.6	0.5	0.4	0.6	0.5	0.7	+0.2
College Plans:																							
None or under 4 years	—	7.4	6.8	6.6	6.6	7.9	6.6	6.8	6.3	3.2	3.8	3.1	2.7	3.6	5.0	4.4	3.0	1.2	1.9	1.8	1.8	2.1	+0.2
Complete 4 years	—	2.7	2.0	2.3	1.7	2.0	1.0	1.2	1.3	0.9	1.0	0.9	1.1	0.6	0.7	0.7	0.4	0.4	0.2	0.3	0.2	0.3	0.0
Region:																							
Northeast	—	1.6	2.0	1.2	0.8	1.7	1.0	0.6	0.7	0.5	0.8	0.3	0.6	0.6	0.8	0.4	0.5	0.2	0.2	0.0	0.4	0.4	+0.1
Midwest	—	4.4	3.0	3.2	2.5	3.5	2.1	2.0	1.7	1.5	1.6	0.9	1.6	0.5	0.3	0.7	0.8	0.8	0.4	0.4	0.1	0.1	0.0
South	—	3.4	2.4	3.4	2.8	2.4	1.4	2.0	1.6	1.1	1.4	1.1	1.0	0.9	1.2	1.0	0.4	0.4	0.5	0.6	0.6	0.5	-0.1
West	—	2.8	2.5	2.4	2.0	2.4	1.6	2.1	3.1	1.2	1.0	1.4	1.6	1.1	1.4	1.5	0.9	0.6	0.4	0.8	0.5	0.7	+0.3
Population Density:																							
Large MSA	—	2.2	2.1	1.6	1.3	2.0	1.5	1.3	1.5	0.4	0.7	1.1	0.9	0.6	0.9	1.5	0.7	0.3	0.3	0.4	0.5	0.3	-0.2
Other MSA	—	3.6	2.6	3.4	2.5	2.4	1.7	2.0	2.1	1.4	1.5	1.0	1.3	1.2	1.2	0.6	0.6	0.6	0.3	0.6	0.5	0.7	+0.2
Non-MSA	—	3.5	3.0	2.8	2.7	3.4	1.2	2.1	1.8	1.6	1.4	0.9	1.3	0.3	0.7	0.9	0.5	0.6	0.7	0.5	0.1	0.2	+0.1
Parental Education: [a]																							
1.0–2.0 (Low)	—	6.3	5.0	4.4	4.3	4.2	4.4	4.1	3.9	1.9	2.1	1.7	2.2	3.1	1.5	2.1	0.2	0.4	0.8	1.2	1.4	1.3	-0.1
2.5–3.0	—	4.3	3.1	4.0	3.0	3.4	1.3	1.5	1.8	1.4	1.7	0.9	1.0	1.5	1.3	0.7	0.8	0.2	0.2	0.5	0.7	0.9	+0.2
3.5–4.0	—	3.3	2.4	3.0	2.0	2.5	1.8	2.9	2.2	1.2	1.3	1.1	1.3	0.5	1.4	0.7	0.6	0.0	0.5	0.6	0.6	0.4	-0.1
4.5–5.0	—	1.9	1.3	1.6	1.9	1.6	1.0	0.9	1.2	0.9	0.9	0.6	1.1	0.4	0.6	0.7	0.6	0.5	0.2	0.3	0.1	0.2	0.0
5.5–6.0 (High)	—	3.2	2.2	1.2	1.1	2.3	0.9	0.7	1.7	0.8	1.1	1.6	1.1	0.4	0.7	0.8	0.2	0.6	0.2	0.2	0.0	0.5	+0.5
Race/Ethnicity (2-year average): [b]																							
White	—	—	3.2	3.1	2.8	2.7	2.2	1.6	1.6	1.4	1.1	1.0	1.0	0.8	0.7	0.7	0.6	0.6	0.5	0.3	0.2	0.2	0.0
African American	—	—	1.1	0.8	0.6	0.8	0.6	0.5	0.8	0.6	0.5	0.7	0.5	0.6	0.6	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.0
Hispanic	—	—	4.0	3.3	3.2	3.2	3.0	2.8	2.8	2.3	1.7	1.5	1.8	1.9	1.5	1.5	1.1	0.4	0.6	0.7	1.0	1.3	+0.3

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S1.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 76
METHAMPHETAMINE: Trends in Annual Prevalence of Use by Subgroups in Grade 10

									Percentage who used in last 12 months														2018–2019
	1991–1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	—	14,000	13,600	14,000	14,300	15,800	16,400	16,200	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	4.6	4.0	3.7	3.9	3.3	3.0	2.9	1.8	1.6	1.5	1.6	1.6	1.4	1.0	1.0	0.8	0.8	0.4	0.4	0.4	0.5	0.0
Gender:																							
Male	—	4.5	4.5	3.8	3.9	3.0	2.7	2.6	1.7	1.4	1.4	1.4	1.5	1.3	1.1	1.0	0.7	0.6	0.4	0.4	0.4	0.5	+0.1
Female	—	4.7	3.6	3.5	3.6	3.7	3.3	3.0	2.0	1.8	1.6	1.7	1.8	1.4	0.9	0.8	0.8	0.9	0.5	0.3	0.4	0.3	-0.1
College Plans:																							
None or under 4 years	—	9.1	8.8	7.0	9.1	9.4	6.0	7.3	5.8	3.9	3.6	4.6	4.8	4.6	4.1	2.4	3.6	3.4	2.2	1.2	1.5	0.2	-1.3
Complete 4 years	—	3.9	3.3	3.1	3.0	2.3	2.6	2.2	1.3	1.2	1.2	1.3	1.2	1.0	0.7	0.9	0.5	0.5	0.2	0.2	0.2	0.4	+0.2
Region:																							
Northeast	—	5.1	4.1	2.3	1.5	2.1	2.5	3.0	1.5	1.4	0.5	1.3	1.4	2.0	1.0	0.4	0.1	0.3	0.2	0.1	0.3	0.1	-0.2
Midwest	—	4.6	4.0	3.8	3.0	3.4	2.2	3.4	1.7	0.9	1.4	1.8	1.1	0.9	0.5	0.7	0.9	0.6	0.9	0.8	0.3	0.6	+0.4
South	—	4.0	3.8	4.0	4.6	3.8	2.9	2.2	2.3	1.9	1.9	1.4	1.5	1.4	1.0	0.9	1.2	1.2	0.3	0.2	0.6	0.1	-0.4
West	—	5.1	4.4	4.6	5.8	3.8	4.7	3.0	1.7	2.3	1.8	2.1	2.6	1.4	1.4	1.9	0.6	0.8	0.3	0.3	0.4	1.0	+0.6
Population Density:																							
Large MSA	—	3.8	4.4	4.0	3.1	2.3	2.7	2.9	2.2	1.7	1.2	1.5	1.5	1.0	1.1	1.0	0.7	0.7	0.1	0.3	0.4	0.2	-0.1
Other MSA	—	4.8	3.4	3.6	4.4	3.8	3.4	3.0	1.5	1.5	1.8	1.6	1.9	1.7	0.6	1.2	0.5	0.8	0.4	0.4	0.3	0.6	+0.2
Non-MSA	—	5.2	4.8	3.6	3.7	3.7	2.5	2.5	2.1	1.8	1.3	1.6	1.3	1.4	1.7	0.6	1.6	0.9	1.3	0.4	0.7	0.5	-0.2
Parental Education: [a]																							
1.0–2.0 (Low)	—	7.2	7.0	5.6	6.2	7.3	4.5	4.2	3.8	3.8	2.6	3.7	3.4	2.9	2.5	1.9	1.2	1.0	0.7	0.3	0.7	0.4	-0.3
2.5–3.0	—	4.2	4.3	4.6	4.9	4.1	3.7	3.8	2.7	1.6	2.3	2.7	2.3	1.2	1.7	1.4	0.4	1.0	0.3	0.9	0.3	0.1	-0.2
3.5–4.0	—	4.8	4.3	3.2	3.7	3.2	3.3	2.0	1.4	1.7	1.0	1.4	1.9	1.3	0.7	1.0	1.2	1.1	0.5	0.1	0.7	0.3	-0.4
4.5–5.0	—	4.8	3.5	3.6	2.4	2.2	2.3	3.2	1.4	1.0	1.6	0.7	0.8	1.3	0.8	0.3	0.4	0.6	0.2	0.2	0.1	0.3	+0.2
5.5–6.0 (High)	—	3.3	3.5	2.5	4.0	2.1	1.7	1.3	1.3	1.0	0.6	0.7	0.8	1.0	0.3	1.2	0.6	0.3	0.6	0.1	0.7	1.2	+0.6
Race/Ethnicity (2-year average): [b]																							
White	—	—	4.7	4.1	4.1	4.2	3.4	2.9	2.4	1.8	1.6	1.4	1.5	1.5	1.2	0.9	0.9	0.8	0.6	0.4	0.3	0.4	+0.1
African American	—	—	0.4	1.0	1.1	0.6	0.8	1.1	1.0	0.8	0.5	0.4	0.6	0.7	0.3	0.3	0.6	0.9	0.4	0.5	0.4	0.0	-0.4
Hispanic	—	—	3.9	3.0	4.4	4.6	4.6	5.0	3.3	1.9	2.3	2.7	2.5	1.9	1.8	2.1	1.2	1.0	0.8	0.3	0.4	0.3	-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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S2.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 77
METHAMPHETAMINE: Trends in Annual Prevalence of Use by Subgroups in Grade 12

							Percentage who used in last 12 months															2018–2019 change
	1975–1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	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	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	4.7	4.3	3.9	3.6	3.2	3.4	2.5	2.5	1.7	1.2	1.2	1.0	1.4	1.1	0.9	1.0	0.6	0.6	0.6	0.5	0.5	-0.1
Gender:																							
Male	—	5.0	4.4	4.3	4.3	3.6	3.7	2.7	2.0	1.8	1.8	1.3	1.5	1.6	1.2	1.3	1.3	0.7	0.9	0.6	0.7	0.7	-0.1
Female	—	4.5	4.2	3.4	3.0	2.9	3.1	2.3	3.0	1.6	0.7	1.0	0.5	1.1	0.9	0.4	0.7	0.4	0.4	0.5	0.2	0.2	0.0
College Plans:																							
None or under 4 years	—	6.8	6.2	6.9	6.5	5.8	6.7	4.9	3.7	3.9	1.9	3.1	1.8	1.9	2.3	1.6	1.3	2.0	1.3	1.6	1.0	0.8	-0.1
Complete 4 years	—	4.0	3.8	3.2	2.7	2.4	2.4	2.0	2.1	1.2	1.0	0.8	0.8	1.3	0.8	0.6	0.9	0.3	0.5	0.4	0.4	0.3	-0.1
Region:																							
Northeast	—	3.1	4.5	3.4	1.6	1.8	1.3	0.6	1.4	1.4	1.1	1.0	1.2	2.1	0.5	1.3	0.9	0.0	0.6	0.6	0.1	0.1	0.0
Midwest	—	5.1	4.1	4.7	4.5	4.2	3.3	4.4	1.2	1.2	0.8	1.2	1.1	1.2	0.9	0.8	0.7	1.2	0.4	0.6	1.3	0.5	-0.8
South	—	3.9	3.7	3.4	3.0	2.8	4.0	2.2	3.1	2.1	1.2	1.4	0.9	1.1	0.9	0.5	1.2	0.4	0.4	0.6	0.5	0.7	+0.2
West	—	7.1	5.4	4.4	5.4	4.0	4.9	2.7	3.8	1.5	1.9	1.0	1.2	1.5	1.8	1.4	0.7	0.7	1.4	0.7	0.2	0.2	0.0
Population Density:																							
Large MSA	—	4.2	3.6	2.7	2.1	1.8	2.8	1.5	3.4	1.3	1.3	1.1	1.0	0.9	1.2	0.8	0.9	0.5	0.7	0.6	0.4	0.6	+0.1
Other MSA	—	4.0	4.9	4.0	4.4	3.0	2.6	2.4	2.0	1.7	1.2	1.1	1.1	2.0	1.2	0.9	1.0	0.5	0.8	0.7	0.6	0.3	-0.3
Non-MSA	—	6.4	4.3	5.3	4.1	5.3	5.5	4.1	2.0	2.2	1.3	1.4	1.0	0.6	0.5	1.2	0.8	1.0	0.2	0.4	0.6	0.7	+0.1
Parental Education: [a]																							
1.0–2.0 (Low)	—	6.0	7.7	5.0	3.5	4.3	5.5	4.0	2.7	3.1	1.6	3.5	2.0	3.1	1.4	1.4	1.6	1.1	2.2	1.0	0.9	1.0	+0.1
2.5–3.0	—	4.8	3.5	4.8	4.9	3.6	4.1	3.0	2.4	2.2	0.6	1.4	1.1	1.0	0.6	1.2	1.1	0.8	0.3	0.2	0.4	0.3	-0.1
3.5–4.0	—	5.2	3.9	3.8	3.8	3.6	3.1	3.0	2.9	1.4	1.3	0.8	0.9	1.2	1.3	0.6	0.7	0.5	0.3	0.8	0.4	0.4	0.0
4.5–5.0	—	3.7	4.2	3.1	2.9	2.9	2.8	2.1	2.2	1.7	0.8	1.0	1.0	1.2	1.2	0.7	0.9	0.6	0.4	0.6	0.6	0.1	-0.5
5.5–6.0 (High)	—	4.2	5.5	3.2	3.1	1.0	3.0	1.2	1.2	0.8	1.6	0.4	0.4	1.3	0.7	0.9	0.9	0.2	0.7	0.1	0.3	0.3	0.0
Race/Ethnicity (2-year average): [b]																							
White	—	—	4.9	4.6	4.2	3.5	3.5	3.3	2.6	2.1	1.5	1.1	1.1	1.3	1.2	0.9	0.7	0.6	0.4	0.5	0.7	0.4	-0.3 s
African American	—	—	1.1	1.0	0.5	1.4	1.8	0.7	0.4	0.7	1.1	1.1	0.5	0.4	0.5	0.4	1.1	1.0	0.3	0.2	0.2	0.6	+0.4
Hispanic	—	—	4.9	4.6	3.9	3.4	3.4	3.4	3.7	2.7	1.1	1.2	1.1	1.2	1.2	1.2	1.5	1.0	0.8	0.8	0.5	0.5	+0.0

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 78
CRYSTAL METHAMPHETAMINE (ICE): Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1975–1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	15,200	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
Total	—	1.3	1.4	1.3	1.7	1.8	2.4	2.8	2.3	3.0	1.9	2.2	2.5	3.1	2.0	2.1	2.3
Gender:																	
Male	—	1.5	1.9	1.5	1.9	2.2	2.6	3.9	2.6	3.9	2.2	2.5	2.7	3.5	2.5	2.6	2.5
Female	—	1.0	0.9	1.0	1.2	1.3	2.1	1.7	2.1	2.1	1.6	1.9	2.1	2.5	1.5	1.6	2.0
College Plans:																	
None or under 4 years	—	1.4	1.9	2.2	2.6	2.4	4.3	5.1	3.8	5.0	2.3	3.8	4.2	4.8	2.6	4.4	4.2
Complete 4 years	—	1.2	1.2	1.0	1.4	1.5	1.8	2.1	1.9	2.4	1.8	1.7	2.0	2.6	1.9	1.5	1.8
Region:																	
Northeast	—	1.6	1.1	0.9	1.1	0.9	1.4	3.2	2.8	2.6	1.0	1.0	1.9	2.6	1.3	0.9	1.2
Midwest	—	1.1	1.4	1.1	1.5	2.3	2.2	2.1	1.9	2.7	1.7	2.8	2.1	2.0	1.0	1.8	2.2
South	—	0.5	1.0	1.0	1.2	1.2	1.8	2.0	1.6	3.1	2.3	2.0	1.7	3.5	2.3	2.3	2.7
West	—	2.5	2.2	2.6	3.2	2.8	4.7	4.9	3.7	3.4	2.5	2.9	4.7	4.0	3.4	3.5	3.1
Population Density:																	
Large MSA	—	1.2	1.3	1.5	2.2	2.0	3.0	4.6	2.9	2.5	1.6	2.3	2.7	2.2	1.9	2.3	2.1
Other MSA	—	1.3	1.7	1.3	1.7	1.8	2.0	2.0	2.0	3.3	2.1	1.7	2.3	3.6	2.0	1.4	2.3
Non-MSA	—	1.2	0.8	1.2	1.2	1.6	2.3	2.6	2.1	2.8	2.0	3.0	2.5	3.2	2.1	3.2	2.7
Parental Education: [a]																	
1.0–2.0 (Low)	—	1.1	1.0	0.9	1.6	1.0	3.2	3.4	2.2	2.8	3.6	3.2	5.9	3.7	3.7	4.0	2.6
2.5–3.0	—	1.4	1.1	1.1	1.2	3.0	2.6	3.0	2.5	3.2	1.3	1.7	2.4	3.6	1.7	2.7	2.6
3.5–4.0	—	1.4	1.2	1.5	2.3	1.6	1.9	2.6	2.2	3.6	2.5	1.9	2.8	2.4	2.2	2.4	3.1
4.5–5.0	—	1.2	1.8	1.4	1.8	1.3	2.5	2.9	2.9	2.6	1.3	2.8	1.5	2.8	1.5	1.0	1.4
5.5–6.0 (High)	—	1.1	1.0	1.4	1.3	1.0	2.2	2.5	1.4	1.9	2.1	1.3	2.0	2.8	1.8	0.9	1.1
Race/Ethnicity (2-year average): [b]																	
White	—	—	1.3	1.3	1.5	1.7	2.0	2.5	2.6	2.9	2.8	2.3	2.4	2.6	2.3	2.0	2.0
African American	—	—	0.8	1.0	0.8	0.5	0.5	0.3	0.5	1.0	0.7	0.7	1.1	1.6	1.4	0.7	1.0
Hispanic	—	—	1.3	1.8	2.3	2.1	2.7	4.0	2.8	1.7	1.7	2.4	3.4	3.6	2.5	2.6	3.4

TABLE 78 (cont.)
CRYSTAL METHAMPHETAMINE (ICE): Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	1.9	1.6	1.1	0.9	0.9	1.2	0.8	1.1	0.8	0.5	0.8	0.8	0.6	0.6	+0.1
Gender:															
Male	1.5	1.8	1.4	1.1	1.1	1.0	1.0	1.3	0.8	0.5	1.0	0.4	0.6	0.7	+0.1
Female	2.2	1.4	0.7	0.8	0.6	1.1	0.7	0.8	0.7	0.5	0.6	1.2	0.2	0.4	+0.2
College Plans:															
None or under 4 years	3.5	3.7	1.7	1.8	2.1	2.9	1.9	2.4	1.7	1.0	1.6	1.3	1.4	1.6	+0.2
Complete 4 years	1.3	1.2	0.8	0.7	0.6	0.9	0.5	0.8	0.5	0.4	0.6	0.7	0.2	0.4	+0.2
Region:															
Northeast	1.0	1.1	1.4	0.5	0.6	0.4	0.9	1.0	0.3	0.4	0.4	0.5	0.5	0.4	0.0
Midwest	1.0	1.5	0.5	1.0	0.9	0.8	1.0	0.6	0.9	1.2	0.8	0.6	0.6	0.6	0.0
South	2.9	1.7	0.9	0.8	0.9	1.4	0.6	1.1	0.8	0.4	1.0	1.1	0.7	0.7	0.0
West	1.9	2.1	1.7	1.5	1.2	1.8	0.9	1.6	1.1	0.4	1.0	0.6	0.4	0.7	+0.4
Population Density:															
Large MSA	2.2	1.3	0.6	0.9	0.9	1.1	1.2	1.3	1.2	0.8	0.8	0.7	0.6	0.9	+0.3
Other MSA	1.5	1.7	1.2	0.8	0.9	1.3	0.7	1.2	0.7	0.3	0.7	0.7	0.2	0.4	+0.1
Non-MSA	2.1	1.9	1.3	1.3	1.1	1.0	0.7	0.7	0.6	0.7	1.3	1.1	1.2	0.8	-0.4
Parental Education: [a]															
1.0–2.0 (Low)	4.2	3.2	1.4	2.8	1.9	3.6	1.1	3.8	3.0	1.4	1.2	1.6	0.9	0.7	-0.3
2.5–3.0	2.6	2.1	0.6	0.8	1.6	0.3	1.6	1.3	0.8	1.0	0.7	0.7	0.4	1.2	+0.8
3.5–4.0	1.4	1.4	1.0	1.2	0.4	1.5	0.6	0.9	0.6	0.4	1.0	1.2	0.7	0.6	-0.1
4.5–5.0	1.0	1.5	0.7	0.3	0.5	0.5	0.4	0.4	0.3	0.3	0.6	0.2	0.4	0.3	-0.1
5.5–6.0 (High)	1.4	0.8	1.2	0.6	0.7	1.3	0.2	0.4	0.2	0.0	1.0	0.5	0.3	0.3	0.0
Race/Ethnicity (2-year average): [b]															
White	1.9	1.7	1.3	0.7	0.5	0.6	0.7	0.6	0.6	0.3	0.3	0.5	0.4	0.3	-0.2
African American	1.0	0.6	0.6	0.7	0.9	1.1	0.8	1.0	1.3	0.6	0.6	0.8	0.8	1.5	+0.7
Hispanic	3.3	2.9	1.8	1.4	1.7	2.4	2.1	1.4	2.0	2.0	1.6	1.2	0.9	0.6	-0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 79
BATH SALTS (SYNTHETIC STIMULANTS): Trends in
Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	15,100	14,600	14,600	14,400	16,900	15,300	14,000	—	
Total	—	0.8	1.0	0.5	0.4	0.9	0.5	0.9	—	—
Gender:										
Male	—	0.6	1.1	0.5	0.5	1.2	0.9	1.4	—	—
Female	—	0.9	0.9	0.5	0.3	0.7	0.3	0.4	—	—
College Plans:										
None or under 4 years	—	3.6	3.1	2.3	1.0	3.2	2.5	3.3	—	—
Complete 4 years	—	0.6	0.8	0.4	0.3	0.6	0.3	0.6	—	—
Region:										
Northeast	—	0.3	0.7	0.9	0.1	0.5	0.4	0.6	—	—
Midwest	—	0.5	0.6	0.3	0.2	0.7	0.3	0.2	—	—
South	—	1.3	1.0	0.5	0.6	1.0	0.5	1.6	—	—
West	—	0.7	1.5	0.4	0.3	1.1	0.9	0.7	—	—
Population Density:										
Large MSA	—	1.0	1.4	0.8	0.5	1.2	0.5	1.1	—	—
Other MSA	—	0.7	0.8	0.4	0.3	0.7	0.6	0.8	—	—
Non-MSA	—	0.8	0.8	0.3	0.3	1.0	0.4	0.8	—	—
Parental Education: [a]										
1.0–2.0 (Low)	—	0.9	2.7	1.0	0.5	2.5	1.6	1.1	—	—
2.5–3.0	—	0.6	0.6	0.4	0.4	0.6	0.4	0.3	—	—
3.5–4.0	—	0.8	0.8	0.2	0.5	1.3	0.4	1.1	—	—
4.5–5.0	—	0.6	1.0	0.7	0.3	0.3	0.4	0.8	—	—
5.5–6.0 (High)	—	0.8	0.4	0.6	0.2	0.5	0.5	0.9	—	—
Race/Ethnicity (2-year data): [b]										
White	—	—	0.5	0.4	0.3	0.4	0.4	0.4	—	—
African American	—	—	1.3	1.0	0.7	1.4	1.6	1.9	—	—
Hispanic	—	—	1.7	1.3	0.5	0.8	0.8	0.9	—	—

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

Notes.   ' — ' 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S1 .

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 80
BATH SALTS (SYNTHETIC STIMULANTS): Trends in
Annual Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 12 months									2018–2019 change
	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	15,000	12,900	13,000	15,600	14,700	13,500	14,300	—	
Total	—	0.6	0.9	0.9	0.7	0.8	0.4	0.5	—	—
Gender:										
Male	—	0.9	1.3	1.0	0.8	1.1	0.4	0.7	—	—
Female	—	0.4	0.6	0.7	0.5	0.4	0.4	0.3	—	—
College Plans:										
None or under 4 years	—	1.9	3.7	3.6	3.6	2.4	0.8	1.6	—	—
Complete 4 years	—	0.5	0.6	0.5	0.4	0.6	0.4	0.4	—	—
Region:										
Northeast	—	0.7	1.4	0.6	0.4	1.3	0.2	0.7	—	—
Midwest	—	0.8	0.8	0.7	0.4	0.7	0.4	0.4	—	—
South	—	0.5	0.8	1.0	0.9	0.6	0.3	0.6	—	—
West	—	0.6	0.9	1.1	0.9	0.7	0.9	0.6	—	—
Population Density:										
Large MSA	—	1.0	0.7	1.0	0.5	0.4	0.4	0.6	—	—
Other MSA	—	0.3	0.8	0.6	0.7	0.8	0.3	0.5	—	—
Non-MSA	—	0.8	1.7	1.4	0.9	1.5	0.7	0.5	—	—
Parental Education: [a]										
1.0–2.0 (Low)	—	0.7	0.4	0.9	1.8	1.0	1.0	1.2	—	—
2.5–3.0	—	0.9	2.0	0.6	1.2	0.7	0.4	0.5	—	—
3.5–4.0	—	0.4	0.6	1.5	0.4	1.0	0.6	0.5	—	—
4.5–5.0	—	0.7	0.4	0.4	0.3	0.3	0.2	0.4	—	—
5.5–6.0 (High)	—	0.2	1.1	0.9	0.5	1.0	0.1	0.2	—	—
Race/Ethnicity (2-year data): [b]										
White	—	—	0.7	0.8	0.6	0.6	0.6	0.3	—	—
African American	—	—	0.8	1.4	1.7	1.3	0.9	0.5	—	—
Hispanic	—	—	0.7	0.6	0.5	0.8	0.9	0.9	—	—

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

Notes.   ' — ' 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 S2 for the number of subgroup cases.
See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S2.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a]Parental education is an average score of mother's education and father's education. See appendix B for details.
[b]To 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 81

BATH SALTS (SYNTHETIC STIMULANTS): Trends in Annual Prevalence of Use by Subgroups in Grade 12

	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	13,700	12,600	12,400	12,900	11,800	12,600	13,300	—	
Total	—	1.3	0.9	0.9	1.0	0.8	0.6	0.6	—	—
Gender:										
Male	—	1.2	1.0	1.1	1.2	0.8	0.6	0.4	—	—
Female	—	1.1	0.6	0.5	0.6	0.3	0.7	0.5	—	—
College Plans:										
None or under 4 years	—	1.8	1.8	1.5	1.6	2.1	1.8	1.4	—	—
Complete 4 years	—	1.1	0.6	0.6	0.8	0.3	0.3	0.3	—	—
Region:										
Northeast	—	1.2	0.7	1.4	0.1	0.6	0.6	0.3	—	—
Midwest	—	1.3	1.0	0.7	1.5	1.0	0.4	0.5	—	—
South	—	1.7	1.0	1.2	1.3	0.9	0.7	0.8	—	—
West	—	1.0	0.8	0.2	0.7	0.4	0.6	0.5	—	—
Population Density:										
Large MSA	—	1.3	0.9	1.0	1.1	0.5	0.6	0.7	—	—
Other MSA	—	1.4	0.7	1.0	0.8	0.9	0.5	0.2	—	—
Non-MSA	—	1.2	1.3	0.5	1.4	0.7	0.9	1.2	—	—
Parental Education: [a]										
1.0–2.0 (Low)	—	2.1	1.7	2.0	1.6	1.9	1.5	1.2	—	—
2.5–3.0	—	1.7	0.9	1.5	0.9	1.0	0.9	1.0	—	—
3.5–4.0	—	0.8	1.0	0.3	0.6	0.6	0.4	0.1	—	—
4.5–5.0	—	1.2	0.6	0.5	1.0	0.3	0.4	0.4	—	—
5.5–6.0 (High)	—	1.3	0.2	0.2	0.4	0.1	0.2	0.3	—	—
Race/Ethnicity (2-year data): [b]										
White	—	—	1.0	0.5	0.6	0.7	0.5	0.4	—	—
African American	—	—	1.6	2.2	2.3	1.7	1.2	1.0	—	—
Hispanic	—	—	1.2	0.8	0.6	0.8	0.8	0.7	—	—

Percentage who used in last 12 months

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

Notes. ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 82

SEDATIVES (BARBITURATES): [a,b] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 12 months

	<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>
Approximate 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*
Total	10.7	9.6	9.3	8.1	7.5	6.8	6.6	5.5	5.2	4.9	4.6	4.2	3.6	3.2	3.3	3.4
Gender:																
Male	12.3	9.9	10.2	8.4	7.6	7.3	7.2	5.9	5.9	5.5	5.2	4.7	4.0	3.4	3.5	3.8
Female	9.9	9.2	8.4	7.7	7.0	6.0	5.8	5.0	4.2	4.0	3.9	3.8	3.2	3.0	3.0	3.0
College Plans:																
None or under 4 years	—	11.6	11.4	9.1	9.3	9.0	8.1	7.4	6.7	6.2	6.2	6.1	4.7	4.1	4.8	4.7
Complete 4 years	—	7.3	6.8	6.8	5.2	4.8	5.1	3.8	3.8	3.7	3.6	3.0	3.0	2.7	2.5	2.8
Region:																
Northeast	11.5	10.4	9.2	9.6	9.6	6.9	6.8	5.6	4.7	5.1	5.3	5.2	4.2	2.5	3.2	2.9
Midwest	12.8	10.4	10.7	7.9	6.9	7.3	7.5	5.4	6.1	4.9	4.9	4.2	3.3	2.5	3.2	3.5
South	9.9	9.7	9.3	7.8	7.3	7.0	5.5	6.3	5.2	5.2	4.2	4.1	3.7	4.1	3.7	4.0
West	10.0	6.7	6.6	6.6	5.7	5.2	6.5	3.9	4.0	4.2	4.1	3.3	3.2	3.2	2.7	2.9
Population Density:																
Large MSA	11.1	10.2	8.1	8.1	8.3	6.6	6.9	5.3	5.2	4.4	4.4	3.7	3.3	2.8	2.6	2.6
Other MSA	11.3	9.8	9.9	8.2	7.3	6.5	6.4	5.7	5.3	4.9	4.2	4.4	3.6	3.4	3.1	3.6
Non-MSA	9.8	9.0	9.5	8.1	7.0	7.2	6.6	5.5	5.0	5.5	5.4	4.5	3.9	3.2	4.4	3.9
Parental Education: [c]																
1.0–2.0 (Low)	10.3	9.1	8.0	7.5	7.8	8.0	6.5	5.8	6.1	4.7	5.0	4.8	3.8	4.3	4.1	3.1
2.5–3.0	10.3	10.2	10.3	8.2	7.3	7.2	6.5	5.7	5.7	5.2	5.3	4.6	3.6	3.1	3.4	3.7
3.5–4.0	9.5	9.6	9.0	8.3	7.4	6.3	6.5	5.1	4.6	5.0	4.4	4.4	3.2	2.9	3.2	3.9
4.5–5.0	10.7	10.1	9.1	7.8	6.6	5.9	6.4	5.0	4.4	4.3	4.1	3.3	3.9	3.3	2.8	3.1
5.5–6.0 (High)	9.0	10.3	8.3	8.0	7.2	5.4	6.8	5.8	3.7	4.0	3.1	3.4	3.6	3.1	3.4	2.9
Race/Ethnicity (2-year average): [d]																
White	—	—	10.2	9.3	8.2	7.5	7.2	6.5	5.8	5.5	5.1	4.7	4.2	3.7	3.5	3.7
African American	—	—	3.3	3.2	2.6	2.5	2.4	2.0	1.7	1.6	1.6	1.6	1.7	1.5	1.1	1.1
Hispanic	—	—	7.4	5.8	5.8	5.8	5.7	5.1	4.1	4.4	4.6	3.6	2.8	2.8	3.2	2.8

TABLE 82 (cont.)

SEDATIVES (BARBITURATES): [a,b] Trends in Annual Prevalence of Use by Subgroups in Grade 12

<div style="text-align:center">Percentage who used in last 12 months</div>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	3.4	2.8	3.4	4.1	4.7	4.9	5.1	5.5	5.8	6.2	5.7	6.7	6.0	6.5	7.2	6.6
Gender:																
Male	3.4	2.9	3.4	4.3	5.1	5.2	5.3	6.3	6.3	6.9	6.3	7.4	6.7	7.0	7.7	6.4
Female	3.2	2.6	3.3	3.8	4.2	4.4	4.8	4.8	5.3	5.4	5.1	5.9	5.4	6.0	6.6	6.7
College Plans:																
None or under 4 years	4.3	3.9	3.8	5.4	5.9	6.7	6.6	6.9	7.0	7.0	7.1	9.8	9.6	9.3	10.7	10.0
Complete 4 years	2.9	2.3	3.2	3.7	4.4	4.3	4.6	5.1	5.5	6.0	5.4	6.0	5.1	5.6	6.3	5.7
Region:																
Northeast	2.8	2.7	3.5	4.0	4.1	5.6	5.7	5.5	4.7	5.6	5.3	5.9	4.8	5.4	5.7	5.7
Midwest	3.5	2.7	3.5	4.1	4.5	4.9	4.4	4.8	6.0	5.2	5.6	6.4	5.1	5.9	7.5	6.2
South	3.6	3.0	3.6	4.8	5.3	5.4	5.8	6.8	6.8	7.5	6.1	8.4	7.1	7.8	8.5	7.5
West	3.3	2.5	2.7	2.8	4.3	3.3	4.2	4.2	4.9	5.7	5.6	5.1	6.5	6.3	5.9	6.2
Population Density:																
Large MSA	2.4	2.4	2.6	3.6	4.1	3.6	4.2	4.6	3.7	5.1	5.9	6.5	4.2	5.5	6.1	6.6
Other MSA	3.9	2.6	3.1	4.3	4.9	5.4	5.0	5.6	6.2	6.6	6.1	6.7	6.6	7.1	7.5	6.6
Non-MSA	3.3	3.4	4.3	4.1	5.0	5.4	6.4	6.8	7.4	6.8	4.9	7.0	7.4	6.6	7.8	6.6
Parental Education: [c]																
1.0–2.0 (Low)	3.6	3.9	3.8	4.5	4.9	4.8	4.3	6.4	7.5	5.2	6.3	5.1	6.7	6.6	6.2	7.3
2.5–3.0	3.7	2.4	3.6	4.5	5.2	4.9	4.9	6.3	6.2	7.1	5.3	7.1	6.5	7.0	8.1	6.5
3.5–4.0	3.0	2.8	2.8	4.0	4.6	4.9	6.0	5.6	6.4	5.8	6.1	7.7	7.2	8.0	7.7	7.3
4.5–5.0	3.3	2.9	3.4	4.0	4.4	5.0	5.1	5.0	5.0	6.7	5.9	6.3	4.7	5.1	7.0	6.2
5.5–6.0 (High)	3.6	2.4	3.8	3.6	4.1	4.6	4.6	5.0	5.1	5.5	5.8	6.6	4.3	5.5	6.3	6.0
Race/Ethnicity (2-year average): [d]																
White	3.8	3.5	3.6	4.3	4.9	5.4	5.9	6.5	6.7	6.9	7.0	7.5	7.6	7.4	7.9	7.9
African American	1.2	1.1	1.0	1.5	1.6	1.1	1.0	1.4	1.4	1.3	1.5	1.4	1.7	2.4	2.6	2.5
Hispanic	2.4	2.2	1.9	2.6	3.5	4.0	3.7	3.3	4.0	5.1	4.7	4.5	4.1	4.7	5.8	5.8

TABLE 82 (cont.)
SEDATIVES (BARBITURATES): [a,b] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	2007	2008	2009	2010	2011	2012	2013[e]	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	6.2	5.8	5.2	4.8	4.3	4.5	4.8	4.3	3.6	3.0	2.9	2.7	2.5	-0.2
Gender:														
Male	6.3	5.9	5.6	4.8	4.2	4.2	4.7	4.4	3.1	2.7	2.9	2.4	2.5	+0.2
Female	6.2	5.7	4.9	4.6	4.4	4.7	4.9	4.2	4.1	3.2	2.9	2.5	2.3	-0.3
College Plans:														
None or under 4 years	8.2	8.9	7.6	6.7	7.5	5.1	6.1	5.9	4.1	3.6	3.9	3.5	3.3	-0.3
Complete 4 years	5.7	5.2	4.7	4.3	3.7	4.3	4.4	3.9	3.5	2.9	2.8	2.4	2.2	-0.2
Region:														
Northeast	5.5	5.1	4.3	4.2	3.4	4.1	3.9	3.0	3.3	2.2	1.6	2.5	1.7	-0.8
Midwest	5.9	5.7	6.5	5.3	4.7	4.4	4.7	4.1	2.9	3.7	2.7	2.9	2.1	-0.8 s
South	7.2	6.8	5.6	5.3	4.2	4.4	5.5	5.1	3.8	2.9	3.2	2.5	2.8	+0.2
West	5.4	5.0	4.0	4.2	4.7	5.0	4.5	4.1	4.3	3.2	3.7	2.7	3.1	+0.4
Population Density:														
Large MSA	5.7	4.3	4.5	4.1	3.4	4.3	4.7	3.6	3.3	2.5	2.3	2.3	2.3	-0.1
Other MSA	6.3	6.2	5.4	5.0	4.6	4.8	5.2	5.0	4.0	3.4	3.4	2.6	2.5	-0.1
Non-MSA	6.9	6.7	5.9	5.5	4.9	4.0	3.9	3.5	3.3	3.0	3.1	3.2	2.7	-0.5
Parental Education: [c]														
1.0–2.0 (Low)	6.3	6.0	4.8	4.3	4.8	5.1	4.9	4.3	3.3	3.4	3.4	2.8	2.5	-0.3
2.5–3.0	5.7	6.3	5.7	5.5	4.6	5.0	5.0	4.8	3.2	3.0	3.2	2.5	2.7	+0.1
3.5–4.0	6.5	6.2	5.5	5.2	4.6	4.8	5.1	4.0	4.6	3.4	3.3	2.9	2.5	-0.4
4.5–5.0	7.0	5.0	5.6	4.5	4.2	4.3	4.6	4.6	3.1	2.7	2.2	2.8	2.2	-0.6
5.5–6.0 (High)	5.3	5.4	3.5	3.6	3.0	3.7	4.6	3.7	4.1	3.3	2.8	2.1	2.3	+0.2
Race/Ethnicity (2-year average): [d]														
White	7.5	7.3	6.6	5.8	5.2	4.9	5.1	5.0	4.5	3.8	3.2	2.8	2.6	-0.3
African American	2.5	2.2	2.0	2.7	2.5	2.1	2.5	3.1	2.6	2.0	1.7	1.5	2.0	+0.5
Hispanic	5.2	4.3	4.0	3.8	3.5	3.7	3.8	3.8	3.3	2.7	3.1	2.9	2.4	-0.5

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Only drug use not under a doctor's orders is included here.

[b] In 2004 the barbiturate question text was changed on half of the questionnaire forms. Barbiturates was changed to Sedatives, including barbiturates, and "have you taken barbiturates . . . " was changed to "have you taken sedatives . . . " In the list of examples downs, downers, goofballs, yellow, reds, blues, rainbows were changed to downs, or downers, and include Phenobarbital, Tuinal, Nembutal, and Seconal. An examination of the data did not show any effect from the wording change. In 2005 the remaining forms were changed in a like manner.

[c] Parental education is an average score of mother's education and father's education. See appendix B for details.

[d] To 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.

[e] In 2013 the question text was changed in all forms: Tuinal, Nembutal, and Seconal were replaced with Ambien, Lunesta, and Sonata. In one form the list of examples was also changed: Tuinal was dropped from the list and Dalmane, Restoril, Halcion, Intermezzo, and Zolpimist were added. An examination of the data did not show any effect from the wording changes.

TABLE 83

TRANQUILIZERS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[b]	2002	2003	2004	2005
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
Total	1.8	2.0	2.1	2.4	2.7	3.3	2.9	2.6	2.5	2.6‡	2.8	2.6	2.7	2.5	2.8
Gender:															
Male	1.5	1.6	1.8	1.9	2.0	2.3	2.6	2.3	2.1	2.1‡	2.5	2.2	2.2	1.9	2.1
Female	2.1	2.3	2.4	2.8	3.3	4.0	3.2	3.0	2.9	3.1‡	2.9	2.8	3.0	3.2	3.4
College Plans:															
None or under 4 years	3.9	4.9	3.6	5.1	5.9	6.4	5.8	6.4	5.8	6.8‡	5.8	6.5	6.3	6.2	6.9
Complete 4 years	1.5	1.5	1.9	2.0	2.3	2.8	2.6	2.2	2.0	2.2‡	2.5	2.1	2.3	2.1	2.4
Region:															
Northeast	1.0	1.6	1.7	2.5	2.3	2.7	2.5	2.0	2.3	2.2‡	2.0	1.8	1.9	1.7	1.6
Midwest	1.4	1.9	1.3	1.7	2.6	3.5	2.4	2.6	2.6	2.2‡	2.2	2.4	2.2	2.1	2.8
South	2.6	2.5	2.4	2.6	3.0	3.7	3.3	3.2	2.8	3.2‡	3.4	3.4	3.5	3.4	3.7
West	1.8	1.6	3.0	2.7	2.4	2.9	3.0	2.3	1.9	2.5‡	3.2	1.9	2.6	2.2	2.2
Population Density:															
Large MSA	1.8	2.1	1.7	2.5	1.8	3.2	2.1	1.9	1.8	2.5‡	2.8	2.0	1.8	1.8	2.0
Other MSA	1.7	1.8	2.5	2.6	3.2	3.4	3.2	2.6	2.4	2.7‡	3.1	2.7	2.9	3.1	3.1
Non-MSA	2.2	2.2	1.6	1.9	2.6	3.1	3.2	3.6	3.4	2.7‡	2.3	2.9	3.4	2.4	3.4
Parental Education: [c]															
1.0–2.0 (Low)	3.6	3.8	2.5	3.2	3.9	4.9	4.3	5.5	5.0	5.6‡	3.7	5.0	3.9	4.7	5.0
2.5–3.0	1.6	2.1	2.5	2.6	2.7	3.5	3.1	2.8	3.3	3.6‡	3.7	3.6	3.5	2.8	4.3
3.5–4.0	2.0	2.2	2.1	2.6	3.2	3.9	3.2	2.7	2.1	2.6‡	2.7	2.2	2.8	3.0	3.3
4.5–5.0	1.4	0.9	1.8	2.0	2.2	2.8	2.4	2.4	1.7	1.4‡	2.7	2.0	2.1	2.0	1.3
5.5–6.0 (High)	1.8	1.9	1.7	2.1	1.6	2.7	2.7	2.1	1.9	2.2‡	2.1	1.6	1.6	1.7	2.0
Race/Ethnicity (2-year average): [d]															
White	—	2.0	2.0	2.2	2.7	3.2	3.4	3.1	2.9	3.0	3.0‡	3.0[e]	2.8	2.8	2.9
African American	—	0.9	1.1	1.2	1.2	1.3	1.2	0.9	0.7	0.5	0.5‡	0.6[e]	1.0	1.2	1.0
Hispanic	—	2.7	3.1	3.4	3.3	3.5	3.5	3.4	3.5	3.5	3.6‡	3.8[e]	3.4	3.4	3.5

TABLE 83 (cont.)

TRANQUILIZERS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	2.6	2.4	2.4	2.6	2.8	2.0	1.8	1.8	1.7	1.7	1.7	2.0	2.0	2.4	+0.4
Gender:															
Male	2.2	1.6	1.7	2.3	2.2	1.6	1.3	1.3	1.3	1.2	1.4	1.5	2.0	2.1	+0.2
Female	2.9	3.1	3.2	3.0	3.3	2.4	2.3	2.4	2.1	2.2	1.9	2.4	2.1	2.7	+0.6
College Plans:															
None or under 4 years	6.0	6.8	5.9	7.0	5.5	4.8	4.1	5.3	4.8	3.1	3.3	4.2	4.0	5.1	+1.2
Complete 4 years	2.3	2.0	2.2	2.3	2.6	1.8	1.6	1.6	1.5	1.6	1.5	1.8	1.8	2.0	+0.2
Region:															
Northeast	1.3	1.4	1.6	1.2	1.6	1.1	1.3	1.2	1.5	1.6	1.1	0.9	0.9	1.1	+0.1
Midwest	2.4	2.8	2.5	2.4	2.6	1.8	1.0	1.5	1.5	1.8	1.2	1.6	1.3	2.1	+0.8 s
South	3.6	2.9	3.3	3.6	3.6	2.5	2.7	2.3	2.0	1.9	2.0	2.3	2.5	2.8	+0.3
West	2.1	1.9	1.8	2.2	2.4	2.2	1.3	1.9	1.8	1.4	2.1	2.7	2.9	3.2	+0.3
Population Density:															
Large MSA	1.9	1.9	1.8	2.0	2.2	1.7	1.5	1.6	1.8	2.2	1.5	2.0	2.2	2.5	+0.3
Other MSA	2.6	2.8	2.8	3.0	3.1	2.4	2.2	1.9	1.8	1.7	1.7	2.1	2.2	2.6	+0.4
Non-MSA	3.5	2.4	2.6	2.5	2.8	1.6	1.5	1.9	1.6	1.0	1.8	1.7	1.5	1.9	+0.4
Parental Education: [c]															
1.0–2.0 (Low)	5.1	5.2	4.7	5.9	4.8	3.4	3.2	3.6	3.0	3.1	2.5	4.4	3.2	3.4	+0.2
2.5–3.0	3.2	3.3	3.0	3.4	3.4	2.8	2.4	2.4	2.3	1.7	1.7	2.4	2.6	4.1	+1.5 s
3.5–4.0	3.1	2.9	2.5	2.8	3.2	2.5	1.9	2.2	1.9	1.8	2.0	1.7	2.4	2.3	-0.1
4.5–5.0	1.7	1.3	2.1	1.7	2.0	1.3	1.1	1.5	1.5	1.5	1.7	1.5	1.9	2.0	+0.1
5.5–6.0 (High)	1.8	1.0	1.7	1.4	1.7	1.3	1.5	0.9	1.1	1.3	1.2	1.5	1.1	1.7	+0.6
Race/Ethnicity (2-year average): [d]															
White	3.0	2.7	2.6	2.8	2.9	2.6	2.0	1.7	1.7	1.7	1.4	1.5	1.6	1.8	+0.2
African American	0.8	0.9	0.9	1.0	1.2	1.3	1.2	1.1	1.1	1.2	1.5	1.4	1.0	1.0	0.0
Hispanic	3.0	2.9	2.9	2.9	3.3	2.9	2.4	2.4	2.2	2.0	2.1	2.3	2.6	3.0	+0.4

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Only drug use not under a doctor's orders is included here.

[b] In 2001, for the tranquilizer list of examples, Miltown was replaced with Xanax. The 2001 data are based on the changed forms only; *N* is one half of *N* indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[c] Parental education is an average score of mother's education and father's education. See appendix B for details.

[d] To 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.

[e] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 84

TRANQUILIZERS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[b]	2002	2003	2004	2005
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
Total	3.2	3.5	3.3	3.3	4.0	4.6	4.9	5.1	5.4	5.6‡	7.3	6.3	5.3	5.1	4.8
Gender:															
Male	2.5	2.7	3.2	3.0	4.0	4.3	4.7	4.7	5.2	5.8‡	7.9	5.7	4.7	4.7	4.3
Female	3.8	4.3	3.2	3.6	4.0	4.9	5.2	5.4	5.4	5.5‡	6.8	6.9	5.8	5.5	5.3
College Plans:															
None or under 4 years	5.0	6.0	5.8	6.0	7.4	9.4	8.6	8.3	8.6	10.0‡	13.5	11.6	9.2	9.6	9.6
Complete 4 years	2.8	3.1	2.7	2.8	3.4	3.8	4.3	4.5	4.8	4.9‡	6.4	5.5	4.7	4.5	4.2
Region:															
Northeast	2.7	2.8	3.4	2.8	2.6	3.9	3.6	5.7	5.5	3.9‡	6.2	4.6	4.3	5.0	5.0
Midwest	2.4	3.0	2.5	2.6	3.2	4.4	3.7	3.4	4.6	5.4‡	5.6	5.5	4.5	3.5	3.3
South	4.2	4.5	3.9	4.2	5.1	5.7	7.3	6.6	6.0	6.9‡	9.6	8.1	7.5	7.3	6.6
West	2.9	3.2	3.2	3.6	4.3	3.6	3.7	4.1	4.9	5.4‡	6.7	5.8	4.1	4.1	3.8
Population Density:															
Large MSA	3.2	3.3	2.7	2.6	3.2	4.2	3.9	4.1	5.0	5.5‡	5.8	5.1	3.9	3.2	3.5
Other MSA	3.0	3.8	3.3	3.9	4.1	4.6	4.4	5.2	5.5	5.4‡	7.0	6.8	5.8	5.7	5.4
Non-MSA	3.5	3.3	3.6	3.0	4.7	5.2	7.0	6.0	5.6	6.1‡	9.9	6.7	6.4	6.4	5.3
Parental Education: [c]															
1.0–2.0 (Low)	3.3	5.3	4.8	4.2	5.0	5.9	4.7	6.5	5.0	8.2‡	7.6	7.1	7.5	5.8	5.2
2.5–3.0	3.6	3.5	3.1	3.3	4.5	5.2	5.3	6.3	5.9	6.2‡	7.9	7.5	7.3	5.6	5.7
3.5–4.0	3.2	3.4	3.5	3.4	4.3	5.0	5.5	4.9	5.2	5.6‡	8.1	6.7	5.7	5.7	5.4
4.5–5.0	2.5	3.9	2.9	2.9	3.5	4.1	4.2	4.5	5.7	5.2‡	6.7	5.8	4.1	4.6	4.0
5.5–6.0 (High)	3.5	2.3	3.1	3.4	3.2	3.6	4.4	4.0	5.3	4.7‡	6.9	4.6	3.4	4.1	4.0
Race/Ethnicity (2-year average): [d]															
White	—	4.0	3.8	3.6	4.1	4.9	5.6	6.0	6.1	6.4	7.0‡	7.6[e]	7.4	6.5	6.0
African American	—	0.9	0.9	0.9	0.8	0.7	0.9	1.0	1.2	1.1	1.5‡	1.5[e]	1.3	1.3	1.3
Hispanic	—	2.9	3.3	3.1	3.1	3.4	3.5	3.5	3.7	4.0	4.0‡	4.3[e]	4.4	4.5	4.3

TABLE 84 (cont.)

TRANQUILIZERS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	5.2	5.3	4.6	5.0	5.1	4.5	4.3	3.7	3.9	3.9	4.1	4.1	3.9	3.4	-0.4
Gender:															
Male	5.0	4.6	4.1	4.4	4.5	4.7	4.0	3.8	3.2	3.2	3.5	3.8	3.9	3.7	-0.2
Female	5.3	6.0	5.0	5.7	5.5	4.3	4.5	3.6	4.6	4.5	4.5	4.2	3.7	3.1	-0.6
College Plans:															
None or under 4 years	10.2	9.9	9.6	11.4	10.6	9.9	10.7	6.4	7.9	8.5	8.7	7.2	7.4	6.0	-1.3
Complete 4 years	4.5	4.7	3.9	4.4	4.4	3.9	3.6	3.4	3.5	3.4	3.6	3.7	3.4	2.9	-0.4
Region:															
Northeast	3.8	4.1	2.8	3.0	4.0	3.5	3.0	2.9	3.0	3.4	2.3	2.4	2.1	1.9	-0.2
Midwest	4.2	5.3	4.7	5.1	5.1	4.4	4.3	3.9	4.7	2.9	3.9	4.3	3.9	3.3	-0.6
South	6.9	6.5	6.2	6.2	6.1	5.4	5.3	4.3	4.3	4.8	4.6	3.8	4.6	4.0	-0.6
West	5.3	4.7	3.7	5.2	4.3	4.2	3.9	3.3	3.2	3.8	4.8	5.5	4.0	3.7	-0.3
Population Density:															
Large MSA	4.4	4.1	3.3	3.9	4.6	4.0	3.7	3.0	3.6	3.8	4.5	4.5	3.8	2.8	-1.0
Other MSA	5.3	5.8	5.2	5.8	5.2	4.7	4.2	4.1	3.9	3.9	3.7	4.1	3.9	3.8	-0.1
Non-MSA	6.3	6.0	5.1	5.1	5.5	5.1	5.2	3.7	4.5	3.8	4.5	3.4	3.8	3.6	-0.3
Parental Education: [c]															
1.0–2.0 (Low)	6.6	5.5	5.4	7.4	6.5	4.8	5.5	5.4	5.4	4.8	4.9	4.6	5.3	4.0	-1.4
2.5–3.0	6.2	6.4	5.9	5.9	6.7	5.0	5.4	4.6	4.0	4.8	5.4	4.8	3.7	4.0	+0.3
3.5–4.0	5.6	5.7	5.2	5.9	5.8	4.8	5.0	4.4	4.9	5.0	4.2	4.5	4.7	4.4	-0.3
4.5–5.0	4.3	4.9	3.5	4.1	4.0	4.4	3.6	2.4	3.3	3.4	3.7	3.7	3.2	2.5	-0.6
5.5–6.0 (High)	4.3	3.9	3.6	3.6	3.3	4.1	3.2	3.2	2.8	2.5	3.1	3.8	3.4	2.8	-0.6
Race/Ethnicity (2-year average): [d]															
White	6.0	6.2	6.1	5.7	5.8	5.6	5.1	4.4	4.0	4.1	4.0	4.1	4.0	3.6	-0.4
African American	1.6	1.3	1.0	1.3	1.8	2.1	1.8	1.7	2.1	2.5	2.7	2.2	1.5	1.8	+0.3
Hispanic	3.8	3.3	3.5	4.5	4.9	4.1	4.0	4.2	3.8	3.8	4.4	5.2	5.3	4.2	-1.1 s

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Only drug use not under a doctor's orders is included here.

[b] In 2001, for the tranquilizer list of examples, Miltown was replaced with Xanax. The 2001 data are based on the changed forms only;   *N* is one half of *N* indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[c] Parental education is an average score of mother's education and father's education. See appendix B for details.

[d] To 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.

[e] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 85

TRANQUILIZERS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
													Percentage who used in last 12 months			
Approximate 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
Total	10.6	10.3	10.8	9.9	9.6	8.7	8.0	7.0	6.9	6.1	6.1	5.8	5.5	4.8	3.8	3.5
Gender:																
Male	10.0	9.4	10.2	9.7	9.9	9.0	8.0	6.9	7.0	6.3	6.4	5.9	5.2	4.7	4.0	3.5
Female	11.1	11.0	11.4	10.1	9.3	8.5	7.7	7.1	6.7	5.8	5.7	5.8	5.8	4.8	3.5	3.5
College Plans:																
None or under 4 years	—	11.5	12.3	11.1	11.0	10.7	9.4	8.0	8.0	7.4	6.8	7.2	6.7	5.1	4.8	4.3
Complete 4 years	—	8.9	9.0	8.6	8.1	7.2	6.9	6.3	5.8	5.2	5.5	5.1	4.9	4.6	3.3	3.2
Region:																
Northeast	9.2	9.7	10.4	10.9	11.5	8.6	8.3	7.8	6.8	6.8	7.1	6.4	6.9	4.5	3.7	2.9
Midwest	10.6	10.1	11.0	8.8	7.5	8.2	7.8	6.2	6.8	5.6	6.0	5.5	4.5	3.7	3.1	2.9
South	11.3	11.7	11.4	10.5	10.4	9.5	7.8	7.4	7.4	6.9	5.9	6.3	5.7	6.0	4.4	4.3
West	11.7	8.5	9.6	8.9	9.4	8.6	8.0	6.4	6.2	4.9	5.3	4.8	5.2	4.4	3.4	3.9
Population Density:																
Large MSA	11.2	9.6	9.6	10.3	9.9	8.7	8.3	7.0	7.0	5.4	5.8	5.3	5.8	4.7	3.1	3.6
Other MSA	11.0	11.3	11.4	10.1	10.2	9.3	8.1	7.2	7.2	6.1	6.0	5.7	5.6	5.0	3.5	3.7
Non-MSA	9.9	9.5	11.0	9.2	8.7	8.0	7.5	6.8	6.5	6.8	6.5	6.4	5.2	4.5	4.9	3.3
Parental Education: [b]																
1.0–2.0 (Low)	—	11.2	10.1	9.4	9.4	9.1	7.8	7.1	6.1	6.0	6.5	5.3	6.7	5.7	3.9	3.6
2.5–3.0	—	9.8	10.3	11.5	10.1	8.8	9.1	8.0	7.3	7.2	6.5	6.2	5.8	5.4	4.6	3.9
3.5–4.0	—	9.8	11.2	11.1	9.5	10.4	8.9	8.3	6.7	6.9	5.8	6.4	6.5	5.3	4.5	3.4
4.5–5.0	—	11.3	11.7	11.4	10.5	10.0	8.1	7.4	7.6	6.6	5.8	6.3	4.7	5.9	5.5	3.8
5.5–6.0 (High)	—	9.3	12.0	10.1	11.0	11.4	10.3	9.1	7.6	7.1	6.3	5.5	5.4	5.4	5.6	4.9
Race/Ethnicity (2-year average): [c]																
White	—	—	11.4	11.1	10.5	9.9	9.1	8.3	7.8	7.3	6.8	6.6	6.3	5.9	5.0	4.2
African American	—	—	4.3	4.2	3.6	3.1	3.0	2.5	2.3	2.1	1.7	1.7	2.0	2.0	1.2	0.7
Hispanic	—	—	8.4	8.2	7.4	6.4	5.7	5.8	5.1	5.3	5.0	4.4	3.7	2.5	1.6	1.9

Table continued on next page.

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TABLE 85 (cont.)
TRANQUILIZERS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[d]	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	3.6	2.8	3.5	3.7	4.4	4.6	4.7	5.5	5.8	5.7‡	6.9	7.7	6.7	7.3	6.8	6.6
Gender:																
Male	3.5	2.7	3.5	4.0	4.7	5.0	5.4	6.3	6.9	6.4‡	7.9	8.4	6.9	8.0	7.2	7.1
Female	3.6	3.0	3.3	3.5	4.1	4.0	3.9	4.7	4.8	4.9‡	5.8	6.9	6.3	6.5	6.2	6.1
College Plans:																
None or under 4 years	4.2	3.9	3.9	4.5	5.6	5.6	6.2	6.8	6.4	6.7‡	7.6	9.9	9.6	9.1	10.3	8.5
Complete 4 years	3.4	2.5	3.3	3.5	4.1	4.2	4.0	5.1	5.6	5.2‡	6.7	7.1	6.0	6.8	5.9	6.0
Region:																
Northeast	3.0	3.0	3.7	3.5	3.9	4.8	5.3	4.9	5.6	5.2‡	5.7	6.8	5.4	6.5	5.7	7.2
Midwest	3.0	2.3	2.8	3.1	4.0	4.4	3.5	3.7	5.1	4.7‡	8.1	6.5	5.5	6.2	7.0	5.8
South	4.0	3.5	4.2	4.8	5.0	5.3	5.4	7.5	7.6	6.7‡	7.4	10.4	8.5	9.0	8.3	7.6
West	4.4	2.3	3.0	2.8	4.3	3.0	4.3	4.4	3.9	5.6‡	5.5	5.8	6.6	7.0	4.9	5.3
Population Density:																
Large MSA	2.5	2.9	2.9	3.9	4.0	3.7	4.2	4.8	4.0	4.7‡	7.9	7.8	4.7	5.5	5.5	6.5
Other MSA	4.1	2.7	3.6	3.7	4.5	4.9	4.8	5.7	6.6	6.2‡	6.4	8.2	7.8	8.5	7.4	6.6
Non-MSA	3.7	3.1	3.7	3.5	4.8	4.7	5.1	5.9	6.5	6.0‡	6.7	6.8	7.4	7.3	7.1	6.9
Parental Education: [b]																
1.0–2.0 (Low)	4.0	3.9	3.3	4.2	3.9	4.2	3.9	6.4	5.2	6.4‡	5.4	5.2	7.1	5.0	4.3	5.7
2.5–3.0	3.6	2.8	3.3	3.5	4.7	4.0	4.3	5.2	6.2	5.3‡	6.7	7.9	6.5	7.9	7.7	6.9
3.5–4.0	3.1	2.7	3.5	3.6	4.3	4.7	4.6	6.0	6.4	5.6‡	7.7	8.4	7.6	9.0	7.3	6.9
4.5–5.0	3.9	3.0	3.4	3.7	4.5	4.6	5.4	4.9	5.4	5.9‡	7.4	7.9	5.9	7.1	6.8	6.6
5.5–6.0 (High)	4.0	2.2	4.2	4.2	4.1	5.3	5.1	5.5	5.6	5.8‡	6.0	7.9	6.2	5.4	5.9	6.4
Race/Ethnicity (2-year average): [c]																
White	4.1	3.7	3.7	4.2	4.6	5.1	5.5	6.2	6.8	6.9	7.7‡	9.2[f]	8.7	8.4	8.6	8.2
African American	0.9	1.3	1.0	1.1	1.2	0.9	0.8	1.0	1.0	0.7	0.6‡	1.1[f]	1.3	1.7	1.9	1.6
Hispanic	2.7	2.4	2.0	2.4	3.5	4.3	3.8	3.3	3.5	4.3	3.9‡	4.1[f]	4.5	4.5	4.3	4.3

Table continued on next page.

TABLE 85 (cont.)
TRANQUILIZERS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

<div align="center">Percentage who used in last 12 months</div>

	2007[e]	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	6.2	6.2	6.3	5.6	5.6	5.3	4.6	4.7	4.7	4.9	4.7	3.9	3.4	-0.5
Gender:														
Male	6.9	6.8	6.8	5.9	5.4	5.1	4.6	4.9	4.6	4.8	5.2	4.2	3.2	-1.0 s
Female	5.4	5.7	5.7	5.2	5.6	5.5	4.4	4.4	4.6	4.9	4.0	3.1	3.4	+0.3
College Plans:														
None or under 4 years	9.1	9.3	8.7	8.6	9.1	6.7	6.0	5.5	5.5	5.2	6.2	5.4	4.7	-0.8
Complete 4 years	5.5	5.5	5.7	4.9	4.9	4.9	4.2	4.4	4.5	4.6	4.2	3.2	2.9	-0.3
Region:														
Northeast	5.9	5.3	6.7	5.2	4.8	4.6	4.2	3.3	4.1	3.7	3.6	3.4	2.2	-1.2
Midwest	6.4	5.2	7.0	5.7	6.1	5.3	4.7	4.4	4.5	4.9	4.4	4.3	3.8	-0.6
South	7.0	7.8	6.9	6.4	5.5	5.3	5.0	5.0	4.6	5.1	5.4	4.0	3.5	-0.5
West	4.7	5.5	4.1	4.3	5.7	6.0	4.4	5.8	5.6	5.3	4.6	3.5	3.6	+0.1
Population Density:														
Large MSA	5.9	5.2	5.5	4.9	4.7	5.3	4.5	3.7	4.5	4.8	3.9	3.1	2.9	-0.2
Other MSA	6.4	6.6	6.7	5.8	5.8	5.6	5.2	5.6	5.3	5.1	5.5	4.2	3.7	-0.5
Non-MSA	6.2	6.5	6.3	6.0	6.5	4.9	3.6	4.0	3.6	4.6	4.2	4.5	3.2	-1.3
Parental Education: [b]														
1.0–2.0 (Low)	6.0	5.9	5.1	5.0	5.4	5.3	4.3	4.4	4.6	4.9	4.3	3.2	3.1	-0.1
2.5–3.0	6.5	5.5	7.0	6.4	5.5	5.9	4.5	5.1	4.9	4.2	4.9	4.4	4.1	-0.3
3.5–4.0	6.4	7.4	6.2	6.1	6.7	5.7	5.8	4.7	5.5	5.3	5.5	4.2	3.8	-0.5
4.5–5.0	6.3	5.7	6.5	5.1	5.2	4.9	4.0	4.8	4.5	5.0	4.0	3.3	2.9	-0.4
5.5–6.0 (High)	5.5	6.0	5.9	4.2	4.6	4.6	4.0	4.4	4.3	5.0	4.9	3.6	2.5	-1.1
Race/Ethnicity (2-year average): [c]														
White	7.9	7.9	8.0	7.3	6.8	6.7	5.9	5.1	5.0	5.1	5.1	4.7	4.0	-0.7 s
African American	1.3	1.0	1.2	2.2	2.3	1.6	1.7	2.5	2.8	2.9	2.9	2.7	2.3	-0.4
Hispanic	4.5	4.2	4.0	3.9	3.9	3.9	3.8	4.2	4.6	4.7	4.7	3.7	3.0	-0.7

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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.

[d] In 2001, for the tranquilizer list of examples, Miltown was replaced with Xanax. The 2001 data are based on the changed forms only; N is one half of N indicated. In 2002 the remaining forms were changed. Beginning in 2002, the data are based on all forms. Data for any illicit drug other than marijuana and hallucinogens are also affected by these changes and have been treated in a parallel manner.

[e] In 2007, for the list of tranquilizers, Equanil and meprobamate were replaced with Soma while Atarax, Tranxene, and Vistaril were replaced with Ativan and Klonopin.

[f] Due to changes in the question wording in half of the questionnaire forms in 2001, the 2002 entry comprises half of the 2001 sample data double-weighted (the half with the new version of the question) and all of the 2002 sample data.

TABLE 86
ANY PRESCRIPTION DRUG [a] WITHOUT MEDICAL SUPERVISION:
Trends in Annual Prevalence of Use by Subgroups in Grade 12

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approx. weighted N =	*14,700*	*14,200*	*14,500*	*14,000*	*13,700*	*13,700*	*13,700*	*13,600*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	17.1	16.8	15.8	15.4	14.4	15.0	15.2	14.8‡	15.9	13.9	12.9	12.0	10.9	9.9	8.6	-1.3 s
Gender																
Male	18.2	17.0	16.4	16.3	16.1	16.1	15.9	15.5‡	16.5	14.2	12.9	12.3	12.0	10.7	9.0	-1.7 s
Female	15.7	16.3	14.8	14.4	13.5	13.7	14.0	13.7‡	14.6	13.0	12.6	11.0	9.6	8.1	7.8	-0.2
College Plans																
None or under 4 years	22.2	22.3	21.7	20.9	18.6	20.0	22.3	16.7‡	21.1	16.4	14.8	12.3	12.9	12.0	10.7	-1.3
Complete 4 years	15.8	15.2	14.3	14.1	13.9	13.8	13.7	14.0‡	14.7	13.0	12.3	11.5	10.3	8.8	7.7	-1.1
Region																
Northeast	15.5	17.4	15.8	15.2	14.7	15.1	13.3	12.4‡	14.6	11.7	11.2	9.7	9.2	9.1	5.7	-3.5 ss
Midwest	18.9	16.1	16.5	15.0	17.3	15.0	15.9	15.6‡	17.0	14.3	13.1	13.5	10.1	9.9	9.6	-0.4
South	17.9	17.4	16.3	16.1	14.3	15.6	14.3	13.5‡	16.1	15.1	13.0	12.0	11.7	10.0	8.6	-1.4
West	15.2	16.2	14.1	15.0	12.8	14.0	17.2	17.0‡	15.5	13.3	13.9	11.9	11.7	10.2	10.3	+0.2
Population Density																
Large MSA	15.5	16.9	15.0	13.3	13.6	14.9	14.1	15.8‡	15.9	12.3	12.2	12.0	9.6	8.5	8.0	-0.4
Other MSA	18.0	16.5	15.7	15.7	15.3	15.5	15.9	14.7‡	16.8	15.9	13.5	11.9	11.8	10.5	9.3	-1.2
Non-MSA	17.4	17.5	17.1	17.3	15.4	14.1	15.0	13.2‡	13.5	11.2	12.7	12.0	11.3	10.9	8.0	-2.9 s
Parental Education [b]																
1.0–2.0 (Low)	11.8	15.7	13.7	13.2	11.5	11.9	13.2	13.3‡	13.6	12.1	12.5	10.3	8.6	8.6	7.5	-1.1
2.5–3.0	18.1	17.2	16.4	15.3	15.6	15.6	15.1	16.1‡	16.9	14.7	12.3	10.6	11.7	9.8	8.5	-1.2
3.5–4.0	18.9	18.2	16.2	16.3	15.5	16.3	16.1	15.5‡	16.3	13.7	14.0	13.1	11.3	10.0	9.7	-0.3
4.5–5.0	17.4	16.6	15.9	15.2	15.7	14.6	14.6	14.6‡	16.6	13.9	12.7	12.4	10.7	10.1	8.2	-1.8
5.5–6.0 (High)	15.0	15.5	14.8	15.1	13.5	14.1	15.5	13.0‡	15.2	14.8	14.0	12.7	12.0	10.1	8.1	-2.0
Race/Ethnicity (2-year average) [c]																
White	—	19.8	19.3	18.9	18.2	17.8	17.8	17.5	17.2‡	15.5	14.4	13.5	12.5	11.4	10.1	-1.4 ss
African American	—	6.1	5.8	5.7	5.7	7.3	7.5	6.5	10.1‡	10.2	9.3	8.7	7.8	6.4	5.6	-0.8
Hispanic	—	12.8	11.9	10.3	10.1	9.9	10.3	10.9	11.9‡	12.4	11.1	10.5	10.1	8.5	7.3	-1.2 s

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. '‡' indicates that the question changed the following year.

[a]The use of any prescription drug includes use of any of the following: amphetamines, sedatives (barbiturates), narcotics other than heroin, or tranquilizers … without a doctor telling you to use them. In 2013 the question wording for amphetamines was changed in three of the 12th grade questionnaires. 2013 data are based on the three changed forms only.   N is three sixths of N indicated. Data for any prescription drug use are affected by these changes and have been handled in a parallel manner.

[b]Parental education is an average score of mother's education and father's education reported on the following scale: (1) Completed grade school or less, (2) Some high school, (3) Completed high school, (4) Some college, (5) Completed college, (6) Graduate or professional school after college. Missing data were allowed on one of the two variables.

[c]To 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 87
OVER-THE-COUNTER COUGH/COLD MEDICINES: [c]
Trends in Annual Prevalence of Use by Subgroups in Grade 8

	1991–2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	4.2	4.0	3.6	3.8	3.2	2.7	3.0	2.9	2.0	1.6	2.6	2.1	2.8	3.2	+0.4
Gender:																
Male	—	3.4	3.1	2.7	3.7	2.7	2.2	1.7	2.7	1.4	1.1	2.4	2.1	2.6	3.4	+0.8
Female	—	4.7	5.0	4.3	3.8	3.7	3.1	3.9	3.0	2.5	2.1	2.9	2.1	2.9	3.1	+0.2
College Plans:																
None or under 4 years	—	11.9	8.0	7.1	12.9	5.9	5.9	6.4	8.2	5.2	4.5	7.0	6.0	4.2	5.2	+1.1
Complete 4 years	—	3.4	3.6	3.3	3.1	2.9	2.5	2.8	2.6	1.8	1.4	2.3	1.7	2.6	3.0	+0.3
Region:																
Northeast	—	3.4	2.4	2.5	2.7	2.2	2.3	1.6	2.6	1.8	1.2	1.8	0.9	1.4	2.1	+0.8
Midwest	—	4.5	4.0	3.8	3.8	3.0	2.4	2.6	1.9	1.6	1.6	3.2	2.4	2.4	2.6	+0.2
South	—	4.2	4.8	4.1	4.5	3.2	2.7	3.9	3.1	2.2	2.0	2.5	2.1	3.2	3.6	+0.4
West	—	4.4	3.6	3.3	3.3	4.1	3.5	3.0	3.8	2.3	1.2	2.9	2.6	3.7	4.1	+0.4
Population Density:																
Large MSA	—	3.5	2.7	3.1	3.4	2.6	1.7	3.1	3.6	1.6	1.3	2.3	1.3	2.3	3.3	+1.0
Other MSA	—	4.4	4.8	3.5	3.8	3.7	3.5	3.0	2.7	2.2	1.7	2.8	2.7	2.9	3.3	+0.5
Non-MSA	—	4.6	4.2	4.3	4.3	3.0	2.7	2.8	2.3	2.2	1.8	2.8	1.8	3.5	2.9	-0.5
Parental Education: [a]																
1.0–2.0 (Low)	—	6.2	5.7	4.8	9.2	4.1	5.0	4.6	3.1	2.8	1.5	4.1	3.4	4.3	5.8	+1.5
2.5–3.0	—	5.1	4.5	4.4	4.6	4.0	3.7	3.3	3.9	1.0	2.7	2.9	1.9	2.8	5.0	+2.2
3.5–4.0	—	4.4	5.4	3.8	4.2	3.1	3.7	4.0	3.2	2.7	1.3	3.5	2.6	3.0	3.4	+0.3
4.5–5.0	—	3.8	3.4	3.4	3.3	2.1	1.9	1.9	3.2	1.7	1.6	1.8	1.9	3.5	2.4	-1.1
5.5–6.0 (High)	—	3.0	2.0	2.5	1.7	3.3	1.0	2.0	1.5	2.5	1.1	2.4	1.6	1.4	2.7	+1.3
Race/Ethnicity (2-year average): [b]																
White	—	—	4.5	4.1	3.7	3.3	2.9	2.6	2.6	2.6	1.9	2.1	2.4	2.4	2.9	+0.5
African American	—	—	2.2	2.3	2.7	2.8	2.3	3.0	3.2	2.1	1.9	2.4	2.3	2.4	3.3	+0.8
Hispanic	—	—	4.4	3.8	3.6	3.9	3.2	3.8	3.9	2.8	1.5	1.9	2.3	2.4	2.8	+0.4

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in Table S1.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Taken to get high.

TABLE 88
OVER-THE-COUNTER COUGH/COLD MEDICINES: [c]
Trends in Annual Prevalence of Use by Subgroups in Grade 10

							Percentage who used in last 12 months									2018–
	1991–2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019 change
Approximate weighted N =	—	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	5.3	5.4	5.3	6.0	5.1	5.5	4.7	4.3	3.7	3.3	3.0	3.6	3.3	2.6	-0.7
Gender:																
Male	—	5.1	4.6	4.9	5.9	5.5	5.4	5.5	4.6	3.8	3.0	2.7	3.5	3.7	3.1	-0.6
Female	—	5.5	6.3	5.7	6.0	4.9	5.8	4.1	3.5	3.3	3.5	3.3	3.5	3.0	2.1	-0.9
College Plans:																
None or under 4 years	—	9.9	9.7	11.3	13.5	10.8	13.6	10.2	8.0	9.2	9.3	4.8	7.6	4.8	4.6	-0.1
Complete 4 years	—	4.6	4.8	4.6	5.2	4.5	4.6	4.2	3.9	3.0	2.6	2.8	3.2	3.1	2.3	-0.8
Region:																
Northeast	—	4.1	5.8	3.5	4.1	4.4	5.3	4.5	4.4	3.1	2.2	3.4	2.1	2.6	3.2	+0.7
Midwest	—	4.3	5.4	5.4	6.2	4.9	6.0	4.3	3.5	3.3	3.2	2.0	3.7	3.3	2.1	-1.2
South	—	6.3	5.9	6.6	6.9	5.0	6.2	5.7	4.2	4.4	3.4	3.7	3.5	3.4	2.1	-1.3 s
West	—	6.0	4.7	4.8	6.3	6.3	4.2	4.0	5.1	3.5	4.2	2.6	4.8	3.9	3.7	-0.2
Population Density:																
Large MSA	—	4.3	4.7	4.3	5.3	5.1	4.1	4.2	4.3	3.8	2.6	2.9	3.6	3.7	1.6	-2.1 sss
Other MSA	—	5.5	5.6	6.2	6.8	4.7	6.4	4.7	4.0	3.3	3.6	3.1	3.2	3.2	2.7	-0.4
Non-MSA	—	6.3	6.3	4.7	5.3	6.1	5.9	5.5	5.0	4.3	3.7	2.7	4.7	3.1	4.0	+0.9
Parental Education: [a]																
1.0–2.0 (Low)	—	5.1	6.4	6.8	9.7	9.3	8.0	6.2	5.4	3.5	5.1	4.4	5.4	6.7	2.8	-3.9 s
2.5–3.0	—	6.2	7.4	5.9	7.3	6.0	6.2	5.9	5.3	2.9	3.9	3.6	4.2	4.2	3.3	-0.9
3.5–4.0	—	6.2	6.0	5.0	6.5	5.3	5.5	5.8	5.2	4.7	3.4	2.4	4.8	2.4	3.3	+0.9
4.5–5.0	—	4.1	4.5	5.6	4.5	3.4	5.1	3.5	3.0	2.9	2.9	2.6	3.1	2.4	2.2	-0.3
5.5–6.0 (High)	—	5.1	3.0	3.9	5.2	5.1	4.6	3.6	2.9	3.6	2.6	3.3	2.0	3.0	2.0	-1.1
Race/Ethnicity (2-year average): [b]																
White	—	—	6.0	6.2	6.4	5.8	5.4	5.1	4.7	4.2	3.7	3.5	3.5	3.4	3.2	-0.2
African American	—	—	3.9	3.1	2.1	2.6	3.8	2.7	2.3	3.6	3.4	2.4	2.8	2.6	2.5	-0.1
Hispanic	—	—	3.2	4.0	5.5	5.6	5.7	6.5	5.0	3.5	2.4	2.1	3.4	4.2	3.0	-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 = .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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S2.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

[c] Taken to get high.

TABLE 89
OVER-THE-COUNTER COUGH/COLD MEDICINES: [c]
Trends in Annual Prevalence of Use by Subgroups in Grade 12

	1991–2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	6.9	5.8	5.5	5.9	6.6	5.3	5.6	5.0	4.1	4.6	4.0	3.2	3.4	2.5	-0.9
Gender:																
Male	—	7.6	5.9	6.3	8.1	7.7	5.6	6.1	5.9	4.8	5.8	4.7	4.0	4.0	3.4	-0.6
Female	—	5.9	5.1	4.7	4.1	5.4	4.7	4.5	4.2	3.3	3.2	3.3	2.5	2.6	1.5	-1.1 s
College Plans:																
None or under 4 years	—	8.9	8.3	7.6	7.1	8.6	7.3	8.4	7.3	4.3	5.6	5.7	4.7	5.9	4.3	-1.6
Complete 4 years	—	6.2	5.2	4.9	5.5	6.1	4.9	4.8	4.4	3.9	4.2	3.6	2.9	2.8	2.0	-0.8
Region:																
Northeast	—	5.9	7.8	4.4	5.1	7.4	5.6	4.9	5.1	3.8	3.8	3.9	2.7	3.4	1.4	-1.9
Midwest	—	6.6	6.8	4.4	6.7	5.9	6.1	5.8	4.6	4.3	4.2	3.7	2.9	3.7	2.1	-1.6
South	—	7.6	5.2	6.7	6.2	6.6	5.5	5.6	5.7	4.6	4.6	4.7	3.3	3.1	2.3	-0.8
West	—	6.7	4.2	5.8	4.8	6.6	4.1	5.8	4.5	3.5	5.4	3.2	3.7	3.6	4.3	+0.7
Population Density:																
Large MSA	—	7.6	5.4	4.9	5.7	6.3	5.2	5.9	5.0	2.8	4.7	3.4	2.7	2.6	1.6	-1.0
Other MSA	—	6.0	5.9	5.5	6.6	6.8	5.4	5.2	4.9	4.8	4.4	4.6	3.9	3.4	2.7	-0.7
Non-MSA	—	7.5	6.1	6.4	4.4	6.2	5.4	6.0	5.4	4.3	4.7	3.6	2.8	4.7	3.4	-1.3
Parental Education: [a]																
1.0–2.0 (Low)	—	7.7	7.2	6.8	7.8	7.4	7.3	5.7	5.9	3.6	3.3	4.6	3.0	3.6	5.6	+2.0
2.5–3.0	—	6.2	6.7	5.0	6.1	6.2	5.7	5.5	4.3	5.6	4.8	4.1	5.1	4.0	2.8	-1.2
3.5–4.0	—	7.7	4.6	6.3	5.7	7.9	4.9	5.6	6.3	2.8	5.9	3.9	3.7	3.3	2.0	-1.2
4.5–5.0	—	6.7	6.8	4.8	5.6	5.3	4.9	6.0	4.1	4.5	4.0	3.4	2.0	2.5	2.2	-0.3
5.5–6.0 (High)	—	4.9	4.0	4.4	5.1	5.9	5.6	5.3	3.9	4.1	3.2	4.5	0.9	3.8	1.6	-2.2
Race/Ethnicity (2-year average): [b]																
White	—	—	6.3	5.8	5.9	6.4	6.2	5.6	5.3	4.5	4.2	4.2	3.4	3.2	2.8	-0.4
African American	—	—	5.0	4.2	4.5	4.6	4.6	3.8	3.7	4.5	4.8	4.9	3.3	2.2	2.1	-0.2
Hispanic	—	—	7.9	6.0	6.0	7.1	5.4	5.4	5.8	3.8	4.2	5.0	4.2	3.3	3.1	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Taken to get high.

TABLE 90
ROHYPNOL: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	1991–1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
					Percentage who used in last 12 months								
Approximate weighted N =	—	17,800	18,600	18,100	16,700	16,700	16,200	15,100	16,500	17,000	16,800	16,500	
Total	—	1.0	0.8	0.8	0.5	0.5	0.7	0.3	0.5	0.6	0.7	0.5	
Gender:													
Male	—	1.1	0.7	0.8	0.6	0.5	0.6	0.2	0.4	0.5	0.7	0.7	
Female	—	1.0	0.9	0.9	0.2	0.6	0.7	0.2	0.4	0.7	0.7	0.4	
College Plans:													
None or under 4 years	—	2.5	1.5	3.0	0.9	2.2	2.0	1.0	1.3	2.4	1.8	1.1	
Complete 4 years	—	0.8	0.7	0.6	0.4	0.4	0.5	0.2	0.4	0.4	0.6	0.5	
Region:													
Northeast	—	0.9	0.3	0.9	0.3	0.6	0.9	0.2	0.2	0.3	0.6	1.4	Table continued on next page.
Midwest	—	0.9	0.8	0.8	0.3	0.4	1.0	0.4	0.2	0.8	0.6	0.0	
South	—	1.3	1.1	0.9	0.7	0.9	0.6	0.4	0.6	0.5	0.5	0.6	
West	—	1.0	0.7	0.8	0.5	*	0.4	0.1	0.7	0.7	1.1	0.2	
Population Density:													
Large MSA	—	1.2	0.8	0.7	0.4	0.9	1.2	0.1	0.1	0.5	0.4	0.6	
Other MSA	—	1.1	0.9	1.0	0.6	0.5	0.5	0.3	0.4	0.8	0.7	0.5	
Non-MSA	—	0.8	0.7	0.8	0.3	0.2	0.4	0.5	1.0	0.3	1.0	0.5	
Parental Education: [a]													
1.0–2.0 (Low)	—	2.0	2.1	2.2	0.2	0.9	1.3	0.9	1.8	2.4	0.6	0.7	
2.5–3.0	—	1.1	1.1	0.8	0.3	0.8	0.3	0.0	0.9	0.1	1.3	0.1	
3.5–4.0	—	1.2	0.7	0.9	0.6	0.2	1.2	0.2	0.1	0.2	0.4	0.7	
4.5–5.0	—	0.8	0.6	0.6	0.5	0.4	0.7	0.6	0.4	0.6	0.9	0.1	
5.5–6.0 (High)	—	0.8	0.5	0.9	0.7	0.9	0.2	0.2	0.0	0.1	0.5	1.5	
Race/Ethnicity (2-year average): [b]													
White	—	—	0.9	0.8	0.7	0.5	0.6	0.5	0.4	0.4	0.5	0.5	
African American	—	—	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.9	0.7	0.2	
Hispanic	—	—	1.4	1.5	1.5	0.6	0.9	0.8	0.4	1.0	0.8	0.6	

TABLE 90 (cont.)
ROHYPNOL: Trends in Annual Prevalence of Use by Subgroups in Grade 8

							Percentage who used in last 12 months							2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	0.7	0.5	0.4	0.5	0.8	0.4	0.4	0.3	0.3	0.5	0.4	0.3	0.4	+0.1
Gender:														
Male	0.6	0.6	0.4	0.3	0.7	0.4	0.5	0.3	0.5	0.4	0.2	0.4	0.2	-0.2
Female	0.7	0.3	0.4	0.7	0.8	0.3	0.3	0.4	0.2	0.3	0.6	0.3	0.7	+0.4
College Plans:														
None or under 4 years	3.3	2.6	2.4	0.5	1.8	3.1	2.2	0.9	1.5	3.3	1.1	1.3	0.2	-1.1
Complete 4 years	0.4	0.3	0.2	0.5	0.7	0.2	0.3	0.3	0.2	0.2	0.3	0.1	0.4	+0.3
Region:														
Northeast	0.1	0.0	0.0	0.5	0.9	0.4	0.5	0.2	0.0	1.2	0.3	0.0	0.0	0.0
Midwest	0.8	0.7	0.6	0.4	0.6	0.1	0.0	0.5	0.0	0.2	0.5	0.4	0.5	0.0
South	0.7	0.6	0.4	0.7	0.4	0.6	0.5	0.2	0.4	0.5	0.3	0.4	0.7	+0.3
West	0.8	0.5	0.5	0.5	1.7	0.4	0.6	0.4	0.6	0.1	0.4	0.3	0.2	-0.1
Population Density:														
Large MSA	0.4	0.6	0.1	0.4	1.1	0.4	0.3	0.2	0.3	1.0	0.6	0.2	0.2	0.0
Other MSA	0.8	0.5	0.6	0.7	0.7	0.3	0.6	0.3	0.5	0.1	0.4	0.3	0.3	+0.1
Non-MSA	0.8	0.4	0.4	0.3	0.5	0.6	0.2	0.4	0.0	0.3	0.1	0.6	0.9	+0.3
Parental Education: [a]														
1.0–2.0 (Low)	0.5	0.7	1.4	1.4	0.3	1.6	0.3	0.7	0.0	1.9	0.9	0.3	0.0	-0.3
2.5–3.0	0.5	0.5	0.0	0.0	1.0	0.5	0.7	0.4	0.2	0.5	0.7	0.2	1.9	+1.7
3.5–4.0	0.7	0.7	0.3	0.6	1.0	0.4	0.4	0.2	0.8	0.4	0.2	0.6	0.3	-0.3
4.5–5.0	0.9	0.2	0.6	0.6	0.6	0.3	0.7	0.1	0.3	0.3	0.2	0.4	0.2	-0.2
5.5–6.0 (High)	0.4	0.3	0.1	0.4	1.0	0.2	0.0	0.4	0.0	0.2	0.1	0.2	0.0	-0.2
Race/Ethnicity (2-year average): [b]														
White	0.4	0.5	0.6	0.4	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.3	0.4	0.0
African American	0.2	0.2	0.2	0.1	0.3	0.7	0.6	0.6	0.6	0.3	0.2	0.4	0.3	-0.1
Hispanic	1.1	1.0	0.5	0.8	1.6	1.2	0.3	0.4	0.3	0.6	0.7	0.4	0.5	+0.1

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. ' * ' indicates less than 0.05% but greater than 0%. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1996; *N* is one half of *N* indicated in Table S1. Data based on three of four forms in 1997–1998; *N* is two thirds of *N* indicated in Table S1. Data based on two of four forms in 1999–2001; *N* is one third of *N* indicated in Table S1. Data are based on one of four forms beginning in 2002; *N* is one sixth of *N* indicated in Table S1.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 91
ROHYPNOL: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	1991–1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
						Percentage who used in last 12 months							
Approximate weighted N =	—	15,600	15,500	15,000	13,600	14,300	14,000	14,300	15,800	16,400	16,200	16,200	
Total	—	1.1	1.3	1.2	1.0	0.8	1.0	0.7	0.6	0.7	0.5	0.5	
Gender:													
Male	—	1.1	1.4	1.4	1.2	1.0	1.1	0.4	0.7	0.8	0.3	0.4	
Female	—	1.1	1.1	1.1	0.9	0.6	0.9	0.9	0.6	0.6	0.6	0.7	
College Plans:													
None or under 4 years	—	2.9	2.7	2.9	2.8	1.4	2.8	0.5	0.3	1.4	1.6	1.5	
Complete 4 years	—	0.8	1.1	0.9	0.8	0.6	0.7	0.7	0.6	0.6	0.3	0.4	
Region:													
Northeast	—	0.6	0.7	0.9	0.4	0.6	0.9	0.4	1.0	0.8	0.7	0.3	
Midwest	—	0.5	0.8	1.0	0.9	0.4	0.9	0.3	0.2	0.3	0.2	1.0	Table continued on next page.
South	—	1.9	2.4	2.0	1.8	1.2	1.0	0.4	0.8	0.9	0.7	0.7	
West	—	1.1	0.6	0.5	0.6	0.7	1.3	2.0	0.4	0.9	0.2	0.0	
Population Density:													
Large MSA	—	1.1	1.3	1.3	0.9	0.9	1.2	0.7	0.3	0.6	0.3	0.2	
Other MSA	—	1.4	1.3	1.3	1.3	0.9	0.8	0.9	0.4	0.7	0.5	0.7	
Non-MSA	—	0.6	1.3	1.0	0.7	0.5	1.2	0.3	1.5	0.8	0.5	0.8	
Parental Education: [a]													
1.0–2.0 (Low)	—	1.7	1.3	1.7	1.2	1.3	2.3	0.4	1.3	0.4	1.1	1.4	
2.5–3.0	—	1.0	1.1	1.6	1.6	0.5	1.1	0.9	0.7	0.4	0.5	0.3	
3.5–4.0	—	1.5	1.6	1.0	0.8	0.8	0.7	1.0	0.9	1.0	0.4	0.7	
4.5–5.0	—	0.7	1.5	0.9	0.6	0.7	1.1	0.7	0.2	0.6	0.6	0.3	
5.5–6.0 (High)	—	1.1	0.8	1.3	1.1	0.8	0.3	0.2	0.4	1.0	0.0	0.0	
Race/Ethnicity (2-year average): [b]													
White	—	—	1.4	1.5	1.5	1.0	1.0	1.0	0.6	0.9	0.8	0.5	
African American	—	—	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.4	0.3	
Hispanic	—	—	1.0	1.2	1.1	0.7	0.9	1.0	0.7	0.3	0.2	0.6	

TABLE 91 (cont.)
ROHYPNOL: Trends in Annual Prevalence of Use by Subgroups in Grade 10

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
						Percentage who used in last 12 months								
Approximate weighted N =	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	0.7	0.4	0.4	0.6	0.6	0.5	0.6	0.5	0.2	0.5	0.3	0.3	0.6	+0.3
Gender:														
Male	0.7	0.3	0.3	0.6	0.8	0.4	0.7	0.7	0.1	0.6	0.0	0.1	0.3	+0.1
Female	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.5	0.5	0.9	+0.4
College Plans:														
None or under 4 years	1.4	0.5	0.9	1.2	0.9	2.3	0.6	1.8	0.7	2.4	0.4	0.9	0.0	-0.9
Complete 4 years	0.6	0.4	0.4	0.5	0.6	0.3	0.6	0.4	0.2	0.3	0.2	0.2	0.7	+0.4
Region:														
Northeast	0.5	0.7	0.2	0.9	0.6	0.8	0.3	0.1	0.1	0.3	0.5	0.1	0.1	0.0
Midwest	1.4	0.2	0.9	0.3	0.5	0.3	1.1	0.5	0.1	0.9	0.3	0.3	0.1	-0.2
South	0.5	0.4	0.3	0.8	0.8	0.5	0.4	0.8	0.4	0.1	0.3	0.3	1.1	+0.7
West	0.4	0.4	0.3	0.2	0.6	0.5	0.4	0.7	0.1	1.0	0.1	0.5	0.6	+0.1
Population Density:														
Large MSA	0.7	0.1	0.3	0.5	0.7	0.5	0.8	0.3	0.4	0.5	0.4	0.2	1.2	+1.0
Other MSA	0.6	0.7	0.5	0.7	0.5	0.4	0.4	0.4	0.1	0.4	0.3	0.3	0.3	+0.1
Non-MSA	0.9	0.3	0.4	0.4	0.9	0.5	0.7	1.3	0.0	0.8	0.0	0.6	0.1	-0.5
Parental Education: [a]														
1.0–2.0 (Low)	0.4	1.2	0.2	0.7	0.0	0.8	0.6	0.6	0.9	1.8	0.9	0.4	0.7	+0.3
2.5–3.0	0.6	0.3	0.4	0.3	0.6	0.8	0.5	1.3	0.0	0.7	0.1	0.0	0.8	+0.8
3.5–4.0	0.5	0.5	0.9	0.4	0.5	0.0	0.8	0.8	0.0	0.3	0.2	0.4	0.3	-0.1
4.5–5.0	0.6	0.2	0.1	0.6	1.2	0.2	0.6	0.1	0.2	0.2	0.3	0.4	0.0	-0.4
5.5–6.0 (High)	1.1	0.6	0.6	1.0	0.0	1.1	0.4	0.0	0.5	0.5	0.1	0.2	1.8	+1.6
Race/Ethnicity (2-year average): [b]														
White	0.6	0.5	0.5	0.6	0.8	0.6	0.5	0.7	0.5	0.4	0.3	0.4	0.6	+0.3
African American	0.0	0.0	0.1	0.3	0.5	0.3	0.1	0.5	0.3	0.3	0.3	0.1	0.1	0.0
Hispanic	0.8	0.6	0.3	0.4	0.3	0.3	0.5	0.7	0.3	0.4	0.6	0.4	0.3	0.0

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of two forms in 1996; N is one half of N indicated in Table S2. Data based on three of four forms in 1997–1998; N is two thirds of N indicated in Table S2. Data based on two of four forms in 1999–2001; N is one third of N indicated in Table S2. Data based on one of four forms beginning in 2002; N is one sixth of N indicated in Table S2.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 92
ROHYPNOL: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months						
	1975–1995	1996	1997	1998	1999	2000	2001[a]	2002[a]	2003	2004	2005	2006
Approximate weighted N =	—	*14,300*	*15,400*	*15,200*	*13,600*	*12,800*	*12,800*	*12,900*	*14,600*	*14,600*	*14,700*	*14,200*
Total	—	1.1	1.2	1.4	1.0	0.8	0.9‡	1.6	1.3	1.6	1.2	1.1
Gender:												
Male	—	1.8	1.2	1.7	1.0	0.8	1.1‡	2.3	2.0	2.3	1.5	1.3
Female	—	0.3	1.1	1.1	1.0	0.7	0.6‡	1.0	0.5	0.7	0.8	0.5
College Plans:												
None or under 4 years	—	1.4	0.5	1.8	1.0	0.1	1.2‡	2.5	2.1	3.0	2.4	1.6
Complete 4 years	—	0.8	1.3	1.3	1.0	0.9	0.8‡	1.4	0.9	1.0	0.9	0.8
Region:												
Northeast	—	0.9	0.6	1.2	0.8	0.3	1.7‡	1.2	1.4	0.8	1.1	1.3
Midwest	—	1.0	0.5	1.0	0.8	0.9	0.5‡	1.8	1.2	1.3	1.7	0.8
South	—	1.8	2.2	2.6	1.6	1.3	1.0‡	1.5	1.4	2.1	1.3	1.3
West	—	0.1	0.8	0.0	0.2	0.1	0.8‡	2.0	1.1	1.8	0.6	1.3
Population Density:												
Large MSA	—	1.3	0.9	0.8	0.3	0.3	1.0‡	1.6	1.1	1.8	1.4	1.2
Other MSA	—	1.3	1.5	2.2	1.4	1.1	1.2‡	2.0	1.7	1.6	1.2	1.0
Non-MSA	—	0.7	0.7	0.6	0.9	0.7	0.3‡	1.1	0.9	1.2	1.1	1.4
Parental Education: [b]												
1.0–2.0 (Low)	—	1.6	0.4	0.6	4.7	0.0	4.2‡	3.7	2.8	3.4	3.9	1.2
2.5–3.0	—	0.5	0.6	1.0	0.3	0.4	0.4‡	2.9	1.8	1.8	1.2	1.2
3.5–4.0	—	0.8	1.4	1.1	1.1	1.5	0.8‡	0.8	1.2	1.5	1.4	1.0
4.5–5.0	—	0.9	1.7	2.7	0.3	0.6	0.8‡	1.6	0.9	0.6	0.3	1.2
5.5–6.0 (High)	—	1.8	1.7	1.4	0.7	0.0	0.2‡	0.8	0.2	1.5	0.9	0.7
Race/Ethnicity (2-year average): [c]												
White	—	—	1.2	1.6	1.5	0.9	0.8‡	—	1.5	1.3	1.1	0.9
African American	—	—	0.1	0.0	0.2	0.4	0.2‡	—	0.8	1.2	1.7	1.3
Hispanic	—	—	2.0	1.3	1.0	0.6	1.3‡	—	1.6	1.7	1.9	2.1

TABLE 92 (cont.)
ROHYPNOL: Trends in Annual Prevalence of Use by Subgroups in Grade 12

						Percentage who used in last 12 months								2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	1.0	1.3	1.0	1.5	1.3	1.5	0.9	0.7	1.0	1.1	0.8	0.7	0.5	-0.2
Gender:														
Male	0.9	1.5	1.1	2.2	2.0	1.2	0.9	0.9	0.9	1.0	0.7	0.5	0.7	+0.3
Female	0.7	0.8	0.8	0.7	0.5	0.7	0.7	0.4	0.7	1.0	0.8	0.4	0.3	-0.1
College Plans:														
None or under 4 years	1.8	2.3	1.8	3.8	1.7	2.7	1.7	0.6	1.0	3.9	2.5	1.5	1.5	0.0
Complete 4 years	0.7	1.0	0.8	0.9	1.2	0.8	0.6	0.7	0.8	0.4	0.3	0.3	0.2	-0.1
Region:														
Northeast	1.7	0.8	0.7	2.2	1.9	0.9	0.9	1.3	0.2	0.7	2.0	0.3	0.0	-0.3
Midwest	0.9	1.0	1.3	1.5	0.6	1.1	1.0	0.5	1.6	1.6	0.6	0.6	0.8	+0.2
South	1.0	2.0	1.1	1.0	1.7	2.3	1.0	0.7	1.0	1.3	0.6	1.3	0.3	-1.0
West	0.5	0.9	0.5	1.8	1.0	1.1	0.7	0.3	0.8	0.6	0.4	0.1	1.0	+0.9
Population Density:														
Large MSA	1.0	0.6	1.0	1.5	0.7	1.4	0.5	0.7	1.4	0.6	0.6	0.7	0.6	-0.1
Other MSA	1.1	1.8	1.2	1.5	1.4	1.1	0.9	0.8	0.9	1.7	1.0	0.6	0.4	-0.2
Non-MSA	0.8	1.0	0.4	1.3	1.8	2.6	1.5	0.4	0.6	0.5	0.6	1.0	0.6	-0.4
Parental Education: [b]														
1.0–2.0 (Low)	1.3	1.6	2.1	1.0	3.6	1.4	2.1	3.2	0.7	3.8	1.0	1.0	1.8	+0.7
2.5–3.0	0.8	1.7	1.2	1.2	1.0	1.1	1.2	0.5	0.3	1.6	1.6	1.2	0.6	-0.6
3.5–4.0	0.5	1.3	0.8	1.3	1.1	1.4	0.3	0.3	0.8	0.2	0.4	0.6	0.7	+0.1
4.5–5.0	1.4	0.7	0.4	1.4	1.0	1.4	0.4	0.5	0.6	0.8	0.3	0.3	0.0	-0.3
5.5–6.0 (High)	0.9	0.6	0.9	2.0	1.0	1.1	0.0	0.0	0.3	0.0	0.2	0.3	0.0	-0.3
Race/Ethnicity (2-year average): [c]														
White	0.7	0.9	1.0	1.1	1.3	0.9	0.7	0.4	0.4	0.6	0.8	0.7	0.4	-0.2
African American	1.6	2.1	1.7	1.2	1.3	1.8	2.0	1.9	2.1	2.2	1.4	0.3	0.4	0.0
Hispanic	1.5	0.8	1.3	1.5	1.0	1.5	1.4	0.8	0.5	0.8	0.7	0.8	1.1	+0.3

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of six forms in 1996–2001; N is one sixth of N indicated in Table S3. Data based on two of six forms beginning in 2002; N is two sixths of N indicated in Table S3. Data based on one of six forms beginning in 2010; N is one sixth of N indicated in Table S3.

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

[a]The 2001 and 2002 data are not comparable due to changes in the questionnaire forms.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 93
ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 30 days

	1991	1992	1993[a]	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[a]	2005
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
Total	25.1	26.1‡	24.3	25.5	24.6	26.2	24.5	23.0	24.0	22.4	21.5	19.6	19.7	18.6	17.1
Gender:															
Male	26.3	26.3‡	25.3	26.5	25.0	26.6	25.2	24.0	24.8	22.5	22.3	19.1	19.4	17.9	16.2
Female	23.8	25.9‡	23.7	24.7	24.0	25.8	23.9	21.9	23.3	22.0	20.6	20.0	19.8	19.0	17.9
College Plans:															
None or under 4 years	37.2	39.6‡	41.1	41.4	40.0	41.7	40.2	41.2	41.6	38.3	37.0	35.3	35.3	32.6	32.6
Complete 4 years	23.1	24.2‡	22.2	23.6	22.6	24.0	22.8	21.0	22.0	20.4	19.7	18.2	18.1	17.2	15.5
Region:															
Northeast	24.3	23.8‡	21.0	25.4	24.1	26.9	24.8	21.2	25.7	25.6	23.3	19.3	18.4	18.0	14.5
Midwest	26.6	28.3‡	24.7	24.2	24.7	26.9	22.8	23.9	25.7	24.1	21.2	19.1	21.9	19.3	16.9
South	25.1	26.8‡	25.4	25.6	25.5	26.3	26.4	23.8	24.4	20.9	22.8	21.6	20.8	18.8	19.0
West	23.1	23.5‡	25.6	27.2	23.1	24.8	22.7	22.2	19.8	20.2	18.1	17.0	16.0	17.9	16.4
Population Density:															
Large MSA	25.4	27.4‡	21.2	23.8	22.3	24.9	23.1	21.4	21.7	21.2	19.4	17.4	18.2	18.1	17.2
Other MSA	24.3	26.1‡	26.0	27.4	25.3	27.4	24.9	22.4	23.4	21.3	21.5	20.1	19.4	19.1	17.9
Non-MSA	26.2	24.2‡	24.9	23.8	26.0	25.7	25.4	26.0	28.1	26.1	24.1	21.4	22.3	18.1	15.6
Parental Education: [b]															
1.0–2.0 (Low)	30.7	32.8‡	28.0	33.5	30.8	28.1	29.7	28.9	30.7	30.2	28.5	27.6	25.5	24.2	23.8
2.5–3.0	27.0	27.2‡	28.0	27.4	27.8	30.1	26.2	26.5	27.9	26.3	27.0	23.2	24.0	22.1	20.4
3.5–4.0	25.1	26.3‡	25.9	26.7	26.8	27.6	27.8	24.5	25.2	23.0	23.3	21.2	22.0	20.0	18.8
4.5–5.0	22.8	24.6‡	20.6	22.6	21.0	25.0	22.6	20.2	20.4	18.4	17.2	17.0	16.0	16.3	14.6
5.5–6.0 (High)	24.0	25.2‡	22.3	23.6	20.5	21.5	20.5	21.3	22.1	19.0	16.4	15.1	15.7	15.8	13.1
Race/Ethnicity (2-year average): [c]															
White	—	26.6	27.1‡	25.3	25.4	26.6	26.7	24.8	24.7	24.7	23.2	21.5	20.1	19.2	17.9
African American	—	18.6	19.7‡	19.4	18.7	18.1	17.9	16.1	16.1	16.0	15.0	14.8	15.5	16.2	14.9
Hispanic	—	31.0	32.3‡	33.5	32.4	29.7	29.8	29.5	29.0	26.7	25.7	26.5	25.3	23.5	20.6

Table continued on next page.

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TABLE 93 (cont.)
ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

						Percentage who used in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	17.2	15.9	15.9	14.9	13.8	12.7	11.0	10.2	9.0	9.7	7.3	8.0	8.2	7.9	-0.2
Gender:															
Male	16.3	15.6	15.4	14.7	13.2	12.1	10.3	9.3	8.2	9.1	6.7	6.8	7.4	7.3	0.0
Female	17.6	16.0	16.4	14.9	14.3	12.8	11.6	11.2	9.5	9.9	7.8	9.1	9.1	8.3	-0.8
College Plans:															
None or under 4 years	30.8	33.5	30.4	31.7	25.7	24.6	23.3	23.6	17.0	15.5	14.6	14.5	15.7	13.5	-2.2
Complete 4 years	15.8	14.3	14.7	13.5	12.8	11.7	10.0	9.4	8.3	9.1	6.7	7.3	7.3	7.1	-0.2
Region:															
Northeast	16.9	12.9	15.9	15.3	13.3	8.8	9.3	9.1	7.6	8.2	5.9	5.8	6.8	5.3	-1.5
Midwest	17.0	15.5	16.1	13.0	12.2	11.7	7.8	8.5	8.9	7.9	6.3	6.9	7.6	8.9	+1.3
South	18.5	17.1	18.2	17.4	15.7	14.2	13.3	12.5	9.8	10.8	8.4	8.1	8.0	9.1	+1.1
West	15.3	15.9	12.6	12.5	12.5	14.2	11.5	9.1	8.6	10.2	7.3	10.3	9.9	7.3	-2.7
Population Density:															
Large MSA	16.6	14.8	15.2	12.9	13.5	11.5	10.3	9.5	8.8	9.2	6.4	7.5	8.7	6.7	-2.0 ss
Other MSA	17.4	16.1	16.3	15.9	14.0	13.1	11.8	10.4	9.0	9.6	7.0	8.0	7.9	7.8	-0.2
Non-MSA	17.5	16.8	16.2	15.5	13.5	13.6	10.6	11.1	9.2	10.4	9.3	8.7	7.9	10.5	+2.6
Parental Education: [b]															
1.0–2.0 (Low)	24.1	26.1	25.5	22.8	19.2	19.7	17.1	16.2	11.3	13.4	10.3	11.8	10.8	9.6	-1.2
2.5–3.0	20.0	20.3	19.3	18.3	17.4	16.6	15.3	13.2	11.5	11.6	9.5	10.5	10.9	10.9	0.0
3.5–4.0	19.0	16.9	16.8	16.8	15.3	14.1	11.7	12.7	10.7	10.4	6.9	8.5	9.5	9.4	-0.1
4.5–5.0	13.9	11.6	13.4	11.5	11.4	9.5	8.9	7.5	7.6	7.7	6.3	6.9	6.3	6.9	+0.6
5.5–6.0 (High)	13.8	11.2	11.5	10.4	9.2	9.3	7.3	7.4	6.5	8.0	6.2	5.5	6.4	5.6	-0.8
Race/Ethnicity (2-year average): [c]															
White	16.9	15.6	15.2	15.4	13.9	12.3	10.7	9.5	9.0	8.9	8.2	7.2	7.3	8.0	+0.8
African American	13.1	12.3	12.9	12.3	11.8	11.6	10.0	9.7	8.8	8.2	6.9	6.0	6.0	4.9	-1.1
Hispanic	21.2	23.0	21.5	19.2	18.1	18.0	17.5	14.3	11.2	10.4	9.5	9.0	9.8	9.6	-0.3

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See
appendix B for definition of variables in table.

[a] In 1993, the question text was changed slightly in one form to indicate that a drink meant more than a few sips. The 1993 data are based on the changed form only;
N is one half of N indicated. In 1994 the question text was changed in the remaining form. Beginning in 1994, the data are based on all forms. In 2004, the question
text was changed slightly in half of the forms. An examination of the data did not show any effect from the wording change. The remaining forms were changed in 2005.
[b] Parental education is an average score of mother's education and father's education. See appendix B for details.
[c] To 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 94
ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 30 days

	1991	1992	1993[a]	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[a]	2005
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
Total	42.8	39.9‡	38.2	39.2	38.8	40.4	40.1	38.8	40.0	41.0	39.0	35.4	35.4	35.2	33.2
Gender:															
Male	45.5	41.6‡	40.6	43.5	39.7	42.6	42.5	40.0	42.3	43.3	41.1	35.3	35.3	36.3	32.8
Female	40.2	38.3‡	35.6	34.8	37.8	38.3	37.9	37.7	38.1	38.6	36.8	35.7	35.3	34.0	33.6
College Plans:															
None or under 4 years	53.6	49.5‡	48.6	52.0	52.2	53.3	51.6	52.4	53.7	53.9	52.2	47.1	46.6	47.5	44.9
Complete 4 years	40.6	37.9‡	36.1	36.4	36.4	38.3	38.1	36.5	37.9	39.1	36.8	33.5	33.6	33.6	31.6
Region:															
Northeast	48.0	42.3‡	42.4	37.4	38.3	41.4	41.1	41.6	44.8	42.0	37.8	36.3	38.7	40.4	37.0
Midwest	43.5	40.3‡	37.4	39.6	38.9	39.1	38.6	37.6	40.9	42.5	41.0	35.7	34.4	30.9	31.9
South	41.7	38.2‡	38.0	40.5	39.4	41.7	40.8	39.9	38.8	39.1	38.3	33.7	34.8	36.4	33.4
West	39.6	39.8‡	35.6	38.2	38.0	38.9	39.9	35.5	36.1	41.1	38.2	37.2	34.1	33.7	30.7
Population Density:															
Large MSA	43.6	40.4‡	39.0	36.3	34.6	37.9	37.8	34.2	39.7	42.4	37.6	32.0	33.1	32.0	31.1
Other MSA	41.4	38.6‡	36.2	40.1	39.9	41.0	40.2	39.0	39.7	39.3	38.3	35.2	35.6	37.0	34.4
Non-MSA	44.8	41.9‡	41.3	40.6	41.3	42.1	42.6	43.7	41.0	42.4	41.8	40.4	38.3	35.8	33.5
Parental Education: [b]															
1.0–2.0 (Low)	42.1	40.4‡	37.5	38.6	43.5	43.2	39.2	39.9	40.6	41.1	38.6	38.2	38.4	38.6	36.5
2.5–3.0	43.9	40.9‡	40.6	41.5	42.3	42.6	41.1	41.2	42.3	42.8	41.4	38.0	37.4	38.5	36.0
3.5–4.0	44.2	40.0‡	38.0	40.6	38.8	42.2	41.6	40.1	40.2	42.8	41.0	36.4	36.6	37.5	33.5
4.5–5.0	40.7	39.4‡	36.2	37.7	37.9	37.8	39.3	36.9	38.7	40.2	37.0	33.7	32.7	32.6	31.8
5.5–6.0 (High)	44.9	41.7‡	39.3	35.4	34.3	39.6	38.9	37.0	40.9	39.0	37.1	32.0	34.1	32.4	31.8
Race/Ethnicity (2-year average): [c]															
White	—	44.1	43.1‡	40.4	41.0	42.2	43.0	42.7	43.0	43.9	42.7	40.0	38.7	37.8	37.0
African American	—	30.2	29.3‡	29.7	28.0	23.9	24.6	25.1	24.4	24.7	25.3	24.3	23.7	24.6	23.0
Hispanic	—	41.0	39.9‡	37.7	40.5	44.0	42.8	39.4	39.6	40.5	40.2	37.9	37.1	39.5	38.2

TABLE 94 (cont.)
ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

						Percentage who used in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	33.8	33.4	28.8	30.4	28.9	27.2	27.6	25.7	23.5	21.5	19.9	19.7	18.6	18.4	-0.2
Gender:															
Male	33.8	33.4	28.6	31.0	30.1	28.2	28.0	26.0	23.0	20.6	18.6	17.1	18.2	18.1	-0.1
Female	33.8	33.3	29.0	29.8	27.7	26.0	27.1	25.3	23.9	22.5	20.9	22.1	19.1	18.6	-0.5
College Plans:															
None or under 4 years	44.8	47.4	44.6	45.5	45.6	41.4	40.9	37.1	37.0	32.0	28.9	26.6	25.3	24.1	-1.2
Complete 4 years	32.5	31.7	26.9	28.8	26.9	25.6	26.3	24.4	22.1	20.5	19.0	18.8	17.7	17.3	-0.4
Region:															
Northeast	35.7	36.2	31.4	30.5	29.5	31.5	33.3	28.4	27.0	24.0	19.8	21.1	20.4	19.5	-0.9
Midwest	33.7	34.4	29.5	28.9	27.4	23.2	24.5	22.4	20.4	19.1	18.1	17.2	16.6	17.7	+1.1
South	32.8	31.2	29.0	32.2	29.9	27.7	28.3	27.4	24.3	22.9	21.7	19.2	19.5	18.6	-1.0
West	33.9	32.9	25.9	29.0	28.7	27.5	24.9	24.6	22.6	19.4	19.2	21.8	17.8	18.0	+0.3
Population Density:															
Large MSA	32.5	31.8	27.4	30.3	29.3	26.5	27.4	24.8	23.3	21.2	21.0	22.4	19.6	16.7	-2.9
Other MSA	34.5	33.3	28.7	29.7	28.4	27.7	26.9	26.5	24.0	21.4	18.1	17.9	18.8	19.1	+0.3
Non-MSA	34.4	36.2	31.1	31.9	29.4	27.1	29.1	24.9	22.6	22.4	23.0	19.8	16.8	19.5	+2.7
Parental Education: [b]															
1.0–2.0 (Low)	33.1	36.5	35.5	37.4	34.2	30.3	32.2	29.4	26.3	23.2	20.0	21.2	20.3	19.4	-0.9
2.5–3.0	38.0	37.0	30.9	32.9	33.1	30.2	28.6	30.3	25.0	22.8	22.0	18.4	19.0	21.4	+2.5
3.5–4.0	35.6	35.6	30.4	31.3	30.3	29.4	28.6	26.8	26.2	23.6	21.2	22.0	18.8	19.6	+0.8
4.5–5.0	32.0	31.5	25.9	28.2	26.3	24.3	27.6	22.6	21.3	19.9	19.2	18.6	17.3	16.7	-0.6
5.5–6.0 (High)	31.7	28.8	26.2	27.4	24.5	24.0	26.2	23.4	22.1	21.6	20.3	21.0	22.0	18.2	-3.9
Race/Ethnicity (2-year average): [c]															
White	36.3	35.9	33.3	31.5	30.8	29.1	29.1	28.2	26.4	24.6	23.0	22.4	21.9	20.8	-1.1
African American	21.5	21.7	20.6	20.2	20.7	20.8	20.2	19.0	16.6	15.1	13.9	11.4	10.2	11.4	+1.2
Hispanic	36.1	34.8	33.7	34.1	34.9	31.8	28.4	28.8	27.1	24.0	21.4	20.8	20.0	19.2	-0.8

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See
appendix B for definition of variables in table.

[a] In 1993, the question text was changed slightly in one form to indicate that a drink meant more than a few sips. The 1993 data are based on the changed form only;
N is one half of N indicated. In 1994 the question text was changed in the remaining form. Beginning in 1994, the data are based on all forms. In 2004, the question text
was changed slightly in half of the forms. An examination of the data did not show any effect from the wording change. The remaining forms were changed in 2005.
[b] Parental education is an average score of mother's education and father's education. See appendix B for details.
[c] To 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 95

ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

<div align="center">Percentage who used in last 30 days</div>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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*
Total	68.2	68.3	71.2	72.1	71.8	72.0	70.7	69.7	69.4	67.2	65.9	65.3	66.4	63.9	60.0	57.1
Gender:																
Male	75.0	74.5	77.8	77.5	76.7	77.4	75.7	74.1	74.4	71.4	69.8	69.0	69.9	68.0	65.1	61.3
Female	62.2	61.8	65.0	67.1	67.0	66.8	65.7	65.4	64.3	62.8	62.1	61.9	63.1	59.9	54.9	52.3
College Plans:																
None or under 4 years	—	69.9	72.8	72.7	72.2	73.5	72.1	71.6	70.5	69.0	67.9	66.6	68.6	65.0	61.6	58.7
Complete 4 years	—	66.5	69.4	71.6	71.4	70.8	70.0	68.6	68.1	65.7	64.6	64.8	65.7	63.6	59.1	56.4
Region:																
Northeast	76.9	75.7	76.6	78.0	81.1	79.4	80.4	76.7	74.4	73.6	72.3	67.6	69.1	66.7	61.7	65.3
Midwest	71.1	73.2	76.4	77.2	73.9	75.1	73.6	75.0	74.4	70.6	66.8	71.3	70.7	67.9	65.9	61.5
South	62.8	60.2	64.7	67.0	65.7	65.5	62.9	61.3	64.3	62.1	60.0	58.2	60.7	58.6	55.1	51.0
West	60.0	62.2	64.4	63.1	65.5	67.6	65.3	63.8	62.9	63.6	66.2	64.5	66.7	65.0	59.3	51.6
Population Density:																
Large MSA	75.3	72.6	74.0	75.5	77.3	78.0	75.5	72.9	69.2	66.6	67.4	66.2	66.3	63.8	56.9	59.2
Other MSA	68.5	67.0	72.0	72.7	72.0	70.8	69.1	69.3	69.8	66.2	65.1	64.8	66.9	64.1	60.7	57.4
Non-MSA	63.2	66.5	67.8	68.4	67.3	69.0	68.9	67.6	69.0	69.0	65.9	65.2	65.5	63.8	61.7	54.4
Parental Education: [b]																
1.0–2.0 (Low)	58.7	62.5	62.0	62.7	64.6	65.9	62.1	61.3	61.2	58.1	58.7	56.1	56.3	54.5	47.8	47.2
2.5–3.0	70.0	71.4	72.5	71.9	71.1	72.0	70.7	69.4	69.2	67.4	65.9	65.3	67.0	64.6	59.7	57.2
3.5–4.0	69.2	67.9	73.5	75.0	74.6	73.3	71.5	72.7	70.4	69.6	66.9	66.7	67.2	64.3	62.9	57.7
4.5–5.0	69.6	71.3	74.5	77.0	76.0	74.4	73.1	74.5	73.1	69.3	68.9	68.0	68.8	66.0	62.1	60.8
5.5–6.0 (High)	67.3	72.5	77.1	79.2	75.9	77.2	77.4	74.1	75.0	70.3	67.9	69.9	70.5	67.3	62.2	60.8
Race/Ethnicity (2-year average): [c]																
White	—	—	72.8	75.0	75.3	75.4	75.4	74.6	73.9	72.8	71.2	70.2	71.0	70.6	67.3	63.8
African American	—	—	49.5	48.7	47.2	47.6	46.7	46.0	47.7	45.5	42.8	42.1	39.4	39.8	39.5	35.8
Hispanic	—	—	63.0	64.5	63.8	63.6	62.0	60.3	59.1	59.7	58.1	56.3	57.2	57.8	52.9	49.1

TABLE 95 (cont.)

ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 30 days															
	1991	1992	1993[a]	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[c]	2005	2006
Approximate weighted N =	*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*
Total	54.0	51.3‡	48.6	50.1	51.3	50.8	52.7	52.0	51.0	50.0	49.8	48.6	47.5	48.0	47.0	45.3
Gender:																
Male	58.4	55.8‡	54.2	55.5	55.7	54.8	56.2	57.3	55.3	54.0	54.7	52.3	51.7	51.1	50.7	47.3
Female	49.0	46.8‡	43.4	45.2	47.0	46.9	48.9	46.9	46.8	46.1	45.1	45.1	43.8	45.1	43.3	43.0
College Plans:																
None or under 4 years	57.1	54.9‡	52.4	53.6	55.9	54.8	56.1	56.0	55.2	54.3	55.5	53.0	55.4	52.1	52.8	54.0
Complete 4 years	52.7	50.0‡	47.4	48.9	49.6	49.3	51.4	50.9	49.8	48.3	47.9	47.4	45.2	47.0	45.5	43.2
Region:																
Northeast	59.6	51.5‡	56.1	53.1	55.0	56.5	56.7	56.2	57.2	58.0	54.3	50.9	51.6	53.9	54.5	52.4
Midwest	59.7	58.0‡	51.6	53.8	55.3	51.5	51.5	51.9	51.1	52.3	54.5	52.1	50.8	49.5	48.0	46.3
South	49.1	48.1‡	47.7	49.2	50.6	51.1	51.1	51.4	49.5	44.9	45.9	46.8	43.0	43.5	43.9	43.2
West	49.7	46.7‡	39.8	44.2	43.2	42.1	52.7	49.2	47.8	48.3	44.9	45.0	47.0	47.3	43.6	41.3
Population Density:																
Large MSA	52.9	49.0‡	50.6	49.5	50.6	51.6	51.1	49.1	48.9	51.2	49.7	50.3	43.0	44.1	46.6	47.6
Other MSA	55.7	50.8‡	47.1	49.2	50.6	50.1	53.4	53.9	52.8	48.8	49.6	48.8	49.6	51.7	47.6	43.9
Non-MSA	52.0	54.1‡	49.8	52.5	53.4	51.4	52.9	51.6	50.1	50.8	50.0	45.9	49.6	45.5	46.1	44.7
Parental Education: [b]																
1.0–2.0 (Low)	49.9	45.6‡	36.6	43.5	45.9	41.2	43.8	43.8	46.8	43.4	42.9	42.2	43.6	42.1	38.2	44.4
2.5–3.0	53.3	52.3‡	49.0	49.9	52.0	48.2	51.0	50.1	50.5	50.0	49.0	47.9	47.8	46.8	47.8	46.7
3.5–4.0	54.3	51.2‡	51.2	50.1	50.6	51.4	52.1	55.6	51.1	51.3	51.4	50.9	47.9	52.4	47.8	46.3
4.5–5.0	54.8	51.0‡	49.8	52.6	51.8	53.6	55.3	52.4	50.2	48.1	51.5	48.9	47.5	47.7	50.2	42.9
5.5–6.0 (High)	58.0	55.7‡	53.2	52.2	55.1	54.2	57.4	54.7	56.0	54.0	49.5	51.1	49.3	47.4	46.0	48.2
Race/Ethnicity (2-year average): [c]																
White	60.0	56.8	55.6‡	54.0	54.5	54.8	56.4	57.7	56.3	55.1	55.3	54.0	52.3	52.2	52.3	50.7
African American	33.7	31.7	32.4‡	33.8	35.2	36.5	34.3	33.3	32.2	30.0	29.4	30.1	29.9	29.2	29.0	29.2
Hispanic	51.5	53.8	50.5‡	45.9	48.7	47.5	48.2	49.8	50.2	51.2	48.9	47.5	46.4	45.4	43.3	43.4

Table continued on next page.

TABLE 95 (cont.)

ALCOHOL: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	44.4	43.1	43.5	41.2	40.0	41.5	39.2	37.4	35.3	33.2	33.2	30.2	29.3	-0.9
Gender:														
Male	47.1	45.8	47.8	44.2	42.1	43.8	41.8	37.4	36.0	34.5	34.1	30.4	29.8	-0.7
Female	41.4	40.9	38.9	37.9	37.5	38.8	36.3	37.1	35.0	32.0	32.3	30.1	28.5	-1.5
College Plans:														
None or under 4 years	48.6	49.7	51.0	47.9	45.2	44.2	45.3	40.2	37.9	35.6	35.7	30.9	31.1	+0.2
Complete 4 years	43.3	41.7	41.6	39.3	38.8	40.7	37.9	36.6	35.0	32.5	32.8	30.0	28.7	-1.3
Region:														
Northeast	51.8	49.1	48.4	49.2	46.3	48.1	45.7	41.6	42.7	36.9	37.3	32.6	30.5	-2.1
Midwest	47.9	42.8	45.0	40.8	41.2	41.8	39.0	40.2	33.6	33.7	34.0	30.4	29.4	-1.1
South	43.1	42.9	42.0	39.6	37.5	36.6	35.4	34.6	33.1	31.3	31.7	30.0	28.3	-1.7
West	36.6	39.2	39.2	37.4	38.0	43.1	39.8	36.1	35.4	33.8	32.1	28.5	30.4	+1.9
Population Density:														
Large MSA	47.1	46.1	46.7	42.4	41.1	44.1	39.2	37.7	38.5	33.0	34.3	30.0	27.9	-2.1
Other MSA	42.1	40.4	41.5	41.6	41.1	41.8	40.8	38.7	33.4	33.6	30.5	28.3	29.1	+0.8
Non-MSA	45.2	45.8	43.7	38.5	35.8	36.9	35.3	33.7	35.0	32.7	37.5	34.9	32.1	-2.7
Parental Education: [b]														
1.0–2.0 (Low)	38.3	41.4	39.8	36.4	36.7	41.4	36.1	32.5	32.5	31.7	28.9	23.7	23.4	-0.3
2.5–3.0	46.0	42.4	43.4	42.4	38.8	41.4	40.3	38.2	35.3	31.4	31.1	27.1	28.5	+1.4
3.5–4.0	43.6	43.2	46.9	41.6	41.2	42.7	41.1	37.9	36.5	32.8	33.2	32.4	29.3	-3.1
4.5–5.0	45.0	43.9	42.0	42.1	40.1	41.7	39.5	38.7	36.1	35.7	35.8	32.0	30.0	-2.0
5.5–6.0 (High)	47.6	45.9	43.3	38.4	41.9	41.1	38.7	40.6	36.3	34.4	38.3	35.5	35.6	+0.2
Race/Ethnicity (2-year average): [c]														
White	49.3	48.6	47.2	45.4	43.8	43.8	43.6	42.5	40.9	39.0	39.0	38.0	34.9	-3.2 ss
African American	28.7	28.6	30.5	31.4	30.1	29.6	28.4	25.9	24.0	21.8	20.3	21.2	19.4	-1.9
Hispanic	41.4	38.9	40.1	40.1	39.7	39.8	39.0	37.0	36.3	34.9	30.9	26.4	24.4	-2.0

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See
appendix B for definition of variables in table.

[a]In 1993, the question text was changed slightly in three of six forms to indicate that a drink meant more than a few sips. The 1993 data are based on the changed
forms only; N is three sixths of N indicated. In 1994 the question text was changed in the remaining forms. Beginning in 1994, the data are based on all six forms.
In 2004 the question text was changed slightly in half of the forms. An examination of the data did not show any effect from the wording change. The remaining forms
were changed in 2005.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 96

ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 8</u>

Percentage who used daily in last 30 days

	1991	1992	1993[a]	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[a]	2005
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
Total	0.6	0.6‡	1.0	1.0	0.7	1.0	0.8	0.9	1.0	0.8	0.9	0.7	0.8	0.6	0.5
Gender:															
Male	0.7	0.8‡	1.5	1.2	1.0	1.4	0.9	1.2	1.3	1.0	1.2	0.8	0.8	0.6	0.6
Female	0.4	0.4‡	0.5	0.7	0.5	0.6	0.6	0.5	0.6	0.5	0.6	0.4	0.7	0.6	0.3
College Plans:															
None or under 4 years	1.6	2.2‡	2.7	2.8	1.9	3.0	2.0	3.1	3.4	1.8	2.8	2.8	2.3	2.2	1.9
Complete 4 years	0.4	0.4‡	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.6	0.6	0.5	0.6	0.5	0.3
Region:															
Northeast	0.4	0.5‡	0.7	1.0	0.6	1.0	0.8	1.0	1.0	0.6	0.8	0.7	0.6	0.3	0.3
Midwest	0.6	0.6‡	0.9	0.7	0.7	1.1	0.8	1.0	1.3	1.2	0.7	0.7	0.9	0.6	0.6
South	0.6	0.8‡	1.3	1.4	0.7	1.1	0.8	1.0	1.0	0.7	1.2	0.8	0.8	0.8	0.5
West	0.5	0.5‡	0.9	0.7	0.8	0.8	0.7	0.5	0.9	0.6	0.6	0.4	0.6	0.6	0.4
Population Density:															
Large MSA	0.4	0.6‡	1.1	0.6	0.6	0.9	0.4	0.7	1.0	0.4	0.5	0.4	0.7	0.5	0.5
Other MSA	0.5	0.6‡	0.6	1.0	0.6	1.0	0.9	0.8	0.8	0.7	0.9	0.8	0.7	0.5	0.4
Non-MSA	0.8	0.7‡	1.6	1.4	1.1	1.3	0.9	1.1	1.5	1.4	1.3	0.8	1.0	0.9	0.6
Parental Education: [b]															
1.0–2.0 (Low)	1.6	1.4‡	1.5	1.5	1.4	1.3	1.6	1.8	1.9	0.8	1.7	1.1	2.5	1.5	0.9
2.5–3.0	0.8	0.6‡	0.6	0.9	0.8	1.3	0.5	0.8	0.9	1.1	1.2	0.8	1.1	0.6	0.5
3.5–4.0	0.3	0.5‡	0.8	1.0	1.0	1.2	0.8	0.6	1.2	0.6	0.5	0.7	0.6	0.6	0.5
4.5–5.0	0.3	0.5‡	0.5	0.9	0.4	0.5	0.7	0.7	0.4	0.6	0.6	0.5	0.3	0.2	0.3
5.5–6.0 (High)	0.4	0.6‡	1.8	0.9	0.6	1.0	0.5	1.0	1.1	0.6	0.7	0.4	0.5	0.4	0.1
Race/Ethnicity (2-year average): [c]															
White	—	0.5	0.6‡	0.7	0.8	0.8	0.9	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.4
African American	—	0.5	1.0‡	1.2	0.9	0.8	0.6	0.6	0.9	0.5	0.4	0.5	0.5	0.6	0.6
Hispanic	—	1.1	1.2‡	1.6	1.5	1.4	1.4	1.3	1.3	1.1	1.2	1.3	1.4	1.4	0.8

Table continued on next page.

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TABLE 96 (cont.)
ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 8</u>

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	0.5	0.6	0.7	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	+0.1
Gender:															
Male	0.5	0.8	1.0	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.3	+0.2
Female	0.4	0.3	0.4	0.4	0.5	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.0
College Plans:															
None or under 4 years	1.5	2.4	2.7	1.8	2.2	1.6	1.9	1.5	1.3	1.0	0.5	0.6	0.3	0.7	+0.4
Complete 4 years	0.3	0.4	0.6	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0
Region:															
Northeast	0.3	0.4	0.6	0.1	0.4	0.1	0.3	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.0
Midwest	0.5	0.6	0.8	0.3	0.4	0.3	0.2	0.1	0.2	0.2	0.0	0.1	0.0	0.2	+0.1
South	0.6	0.7	0.9	0.7	0.7	0.4	0.4	0.5	0.4	0.3	0.3	0.1	0.2	0.3	+0.1
West	0.4	0.5	0.4	0.6	0.5	0.7	0.4	0.2	0.4	0.1	0.1	0.2	0.2	0.3	+0.1
Population Density:															
Large MSA	0.4	0.4	0.7	0.3	0.5	0.3	0.4	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.0
Other MSA	0.5	0.6	0.8	0.4	0.5	0.4	0.4	0.2	0.3	0.2	0.1	0.1	0.2	0.3	+0.1
Non-MSA	0.6	0.8	0.7	0.8	0.6	0.5	0.2	0.5	0.5	0.2	0.5	0.2	0.1	0.4	+0.3
Parental Education: [b]															
1.0–2.0 (Low)	0.7	1.3	1.8	2.1	1.3	0.5	0.3	0.2	0.8	0.2	0.2	0.3	0.1	0.3	+0.2
2.5–3.0	0.6	0.5	0.9	0.5	0.5	0.7	0.5	0.2	0.2	0.3	0.3	0.3	0.2	0.2	+0.1
3.5–4.0	0.6	0.7	0.7	0.4	0.6	0.4	0.4	0.6	0.3	0.2	0.3	0.2	0.0	0.3	+0.3 s
4.5–5.0	0.3	0.2	0.2	0.1	0.3	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.0	-0.1
5.5–6.0 (High)	0.3	0.4	0.6	0.4	0.3	0.4	0.2	0.2	0.2	0.1	0.2	0.0	0.2	0.2	+0.1
Race/Ethnicity (2-year average): [c]															
White	0.4	0.4	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	+0.1
African American	0.5	0.5	0.6	0.4	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.1	-0.2
Hispanic	0.6	0.8	1.0	1.0	0.9	0.8	0.7	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.0

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] In 1993, the question text was changed slightly in one form to indicate that a drink meant more than a few sips. The 1993 data are based on the changed form only; N is one half of N indicated. In 1994 the question text was changed in the remaining form. Beginning in 1994, the data are based on all forms. In 2004, the question text was changed slightly in half of the forms. An examination of the data did not show any effect from the wording change. The remaining forms were changed in 2005.
[b] Parental education is an average score of mother's education and father's education. See appendix B for details.
[c] To 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 97

ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 10</u>

Percentage who used daily in last 30 days

	1991	1992	1993[a]	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[a]	2005
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
Total	1.4	1.3‡	1.8	1.7	1.7	1.6	1.7	1.9	1.9	1.8	1.9	1.8	1.5	1.3	1.3
Gender:															
Male	2.3	1.6‡	2.6	2.5	2.6	2.4	2.5	2.8	2.9	2.7	2.9	2.6	2.0	1.9	1.9
Female	0.4	0.8‡	1.0	0.8	0.8	0.8	0.8	1.2	0.9	0.8	0.9	1.0	1.0	0.7	0.7
College Plans:															
None or under 4 years	2.0	3.2‡	3.6	3.6	4.0	3.2	4.0	4.3	4.5	4.0	4.6	3.7	3.0	3.7	3.9
Complete 4 years	1.2	0.8‡	1.5	1.2	1.3	1.3	1.3	1.5	1.5	1.4	1.4	1.4	1.2	1.0	1.0
Region:															
Northeast	1.3	0.9‡	1.8	0.9	1.5	1.0	1.5	2.3	1.9	1.3	1.6	1.4	1.5	0.9	1.4
Midwest	1.4	1.5‡	1.8	1.7	1.8	1.6	1.6	2.1	2.3	1.9	1.6	1.7	1.2	1.0	1.1
South	1.6	1.2‡	1.8	2.3	1.8	1.8	1.9	1.9	1.6	2.0	1.9	1.8	1.5	1.6	1.4
West	1.0	1.4‡	1.7	1.6	1.8	1.9	1.8	1.5	1.9	1.7	2.4	2.0	1.8	1.6	1.4
Population Density:															
Large MSA	1.3	1.2‡	1.1	1.3	1.3	1.5	1.2	1.5	2.0	1.6	1.8	1.4	1.4	0.7	0.9
Other MSA	1.2	1.0‡	1.4	1.7	1.8	1.5	1.6	1.7	1.7	1.6	1.6	1.8	1.4	1.5	1.4
Non-MSA	1.6	1.9‡	3.2	2.1	2.2	1.9	2.5	2.9	2.2	2.3	2.5	2.1	2.0	1.5	1.7
Parental Education: [b]															
1.0–2.0 (Low)	2.6	2.0‡	3.1	1.9	2.9	1.6	2.1	2.7	2.4	2.2	2.9	2.0	2.3	1.6	1.7
2.5–3.0	1.5	1.1‡	2.1	1.9	2.1	1.6	2.1	2.4	2.1	2.3	1.9	2.1	1.6	1.6	2.0
3.5–4.0	1.1	1.3‡	1.7	1.7	1.7	1.6	1.9	2.0	1.9	1.9	1.5	1.5	1.4	1.1	1.2
4.5–5.0	1.1	0.8‡	1.0	1.3	1.3	1.5	1.2	1.2	1.5	1.4	1.7	1.6	1.6	1.1	0.7
5.5–6.0 (High)	1.2	1.5‡	2.0	1.2	0.9	1.4	0.8	1.9	2.0	1.2	1.7	1.8	0.9	1.2	0.9
Race/Ethnicity (2-year average): [c]															
White	—	1.3	1.4‡	1.6	1.7	1.7	1.6	1.8	1.9	1.8	1.7	1.8	1.7	1.5	1.4
African American	—	0.9	1.2‡	1.2	1.1	0.6	0.7	1.0	1.0	1.1	1.4	1.2	0.9	0.5	0.5
Hispanic	—	1.6	1.9‡	1.8	2.3	2.3	2.0	2.4	2.4	2.0	2.6	2.4	1.8	1.7	1.6

TABLE 97 (cont.)
ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 10</u>

	Percentage who used daily in last 30 days														2018-2019
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	change
Approximate weighted N =	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	1.4	1.4	1.0	1.1	1.1	0.8	1.0	0.9	0.8	0.5	0.5	0.6	0.5	0.6	+0.2
Gender:															
Male	1.8	1.9	1.4	1.5	1.7	1.1	1.4	1.3	1.1	0.7	0.8	0.7	0.6	0.9	+0.3
Female	1.0	0.9	0.6	0.7	0.6	0.4	0.5	0.5	0.6	0.3	0.3	0.4	0.3	0.4	+0.1
College Plans:															
None or under 4 years	3.2	3.3	2.1	3.5	3.3	2.2	3.0	1.9	2.7	1.3	1.1	1.5	0.9	0.9	-0.1
Complete 4 years	1.2	1.2	0.9	0.9	0.9	0.6	0.7	0.8	0.6	0.4	0.5	0.4	0.4	0.6	+0.2
Region:															
Northeast	1.6	1.5	1.1	0.8	0.7	0.8	1.2	0.9	0.5	0.3	0.6	0.5	0.8	0.2	-0.6 s
Midwest	1.3	1.6	0.9	1.1	1.2	0.5	0.8	0.6	0.6	0.3	0.5	0.6	0.3	0.6	+0.4
South	1.6	1.2	1.1	1.3	1.1	0.9	1.2	1.3	1.2	0.7	0.6	0.5	0.6	0.9	+0.4
West	1.2	1.6	0.9	1.2	1.5	0.8	0.8	0.8	0.7	0.5	0.5	0.6	0.4	0.5	+0.1
Population Density:															
Large MSA	1.3	1.3	0.9	1.0	1.2	0.8	0.8	1.0	0.6	0.4	0.5	0.6	0.4	0.2	-0.1
Other MSA	1.4	1.5	1.0	1.1	1.0	0.7	0.8	0.8	0.7	0.5	0.4	0.3	0.5	0.8	+0.3
Non-MSA	1.8	1.6	1.2	1.3	1.3	0.9	1.5	0.9	1.4	0.6	0.9	1.1	0.7	0.9	+0.2
Parental Education: [b]															
1.0–2.0 (Low)	2.9	3.6	2.1	1.6	2.3	0.8	1.5	1.1	1.8	0.7	0.7	0.5	0.3	1.3	+1.0
2.5–3.0	1.9	1.6	1.0	1.4	1.6	0.9	1.2	1.5	0.9	0.9	0.5	0.8	0.6	1.2	+0.6 s
3.5–4.0	1.5	1.2	1.0	1.3	0.6	0.8	0.7	0.9	0.9	0.4	0.7	0.5	0.2	0.6	+0.4 s
4.5–5.0	0.9	1.1	0.4	0.6	1.0	0.8	0.8	0.7	0.4	0.4	0.4	0.2	0.6	0.3	-0.3
5.5–6.0 (High)	0.7	1.0	0.9	0.6	0.7	0.5	1.1	0.4	0.7	0.3	0.3	0.9	0.9	0.4	-0.4
Race/Ethnicity (2-year average): [c]															
White	1.4	1.4	1.2	1.0	1.0	0.9	0.9	1.0	0.9	0.6	0.5	0.6	0.6	0.6	0.0
African American	0.8	0.8	0.7	0.9	0.8	0.5	0.5	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.0
Hispanic	2.0	2.1	2.0	1.9	1.9	1.6	1.1	1.0	1.0	0.9	0.6	0.5	0.4	0.6	+0.3

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

Notes.   ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]In 1993, the question text was changed slightly in one form to indicate that a drink meant more than a few sips. The 1993 data are based on the changed form only; N is one half of N indicated. In 1994 the question text was changed in the remaining form. Beginning in 1994, the data are based on all forms. In 2004, the question text was changed slightly in half of the forms. An examination of the data did not show any effect from the wording change. The remaining forms were changed in 2005.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 98

ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

Percentage who used daily in last 30 days

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total		5.6	6.1	5.7	6.9	6.0	6.0	5.8	5.5	4.8	5.0	4.7	4.8	4.2	4.2	3.7
Gender:																
Male	—	8.1	8.6	8.3	9.7	8.6	8.4	7.7	7.7	6.6	7.0	6.7	7.2	6.2	6.0	5.2
Female	—	2.7	3.6	3.2	4.0	3.6	3.4	3.4	2.9	2.7	3.0	2.8	2.5	2.3	2.2	1.9
College Plans:																
None or under 4 years	—	7.3	8.0	7.3	9.1	8.1	7.7	7.5	6.7	6.0	6.5	6.8	7.0	6.0	6.1	4.9
Complete 4 years	—	3.6	4.0	4.1	5.0	4.4	4.6	4.1	4.0	3.6	4.0	3.5	3.6	3.4	3.2	3.0
Region:																
Northeast	—	6.3	6.5	6.2	8.7	7.4	7.5	6.3	5.9	6.5	6.6	4.9	4.2	4.2	4.3	4.6
Midwest	—	6.9	6.7	7.0	6.8	6.7	6.6	7.6	6.2	4.3	4.4	4.9	5.3	4.8	5.1	3.9
South	—	4.6	5.9	5.0	7.2	5.2	5.2	5.0	5.4	5.3	5.0	4.9	5.1	4.0	4.0	3.4
West	—	3.8	4.3	3.8	3.8	4.5	4.3	2.8	3.6	2.8	4.0	4.2	4.5	3.9	3.5	2.9
Population Density:																
Large MSA	—	5.4	5.9	6.2	7.0	7.1	6.5	6.4	5.6	5.1	5.3	4.1	3.7	3.5	4.0	4.7
Other MSA	—	5.4	5.8	5.5	6.1	5.4	5.3	5.1	5.7	4.5	5.1	4.5	5.4	4.5	3.9	3.2
Non-MSA	—	6.1	6.5	5.7	7.9	6.1	6.6	6.1	5.9	5.1	4.8	5.8	4.9	4.5	5.2	3.8
Parental Education: [b]																
1.0–2.0 (Low)	—	5.7	5.0	4.7	6.2	6.3	5.8	5.2	6.1	5.2	5.5	5.5	5.8	5.0	3.9	3.1
2.5–3.0	—	6.2	7.1	6.4	7.2	6.5	6.3	6.1	5.2	5.1	5.2	4.7	4.5	4.3	5.0	3.9
3.5–4.0	—	5.0	5.3	5.3	6.4	5.5	6.1	5.5	5.3	4.6	4.7	4.6	4.9	3.8	4.0	3.5
4.5–5.0	—	5.6	5.7	5.6	6.7	5.8	4.8	5.6	5.1	4.1	4.5	4.4	4.8	3.9	3.8	3.4
5.5–6.0 (High)	—	5.0	6.3	5.6	8.8	5.5	6.3	5.2	5.6	4.1	4.8	4.0	4.5	4.8	3.0	4.2
Race/Ethnicity (2-year average): [c]																
White	—	—	6.0	6.2	6.6	6.8	6.5	6.3	5.9	5.3	5.1	5.2	5.1	4.8	4.5	4.2
African American	—	—	2.2	2.0	2.1	2.5	2.3	2.2	2.3	2.2	2.2	2.1	2.1	2.2	2.4	2.1
Hispanic	—	—	5.3	4.6	4.0	4.3	4.5	3.7	3.2	4.0	5.0	4.7	4.6	4.6	4.3	3.8

TABLE 98 (cont.)

ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

Percentage who used daily in last 30 days

	1991	1992	1993[a]	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[c]	2005	2006
Approximate weighted N =	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
Total	3.6	3.4‡	3.4	2.9	3.6	3.7	3.9	4.0	3.4	2.9	3.6	3.5	3.2	2.8	3.1	3.0
Gender:																
Male	5.3	5.2‡	5.3	4.8	5.5	5.2	5.7	6.4	5.2	4.7	5.5	5.3	4.7	4.1	4.4	4.3
Female	1.6	1.6‡	1.6	1.2	1.6	2.0	1.9	1.4	1.4	1.1	1.7	1.7	1.6	1.4	1.6	1.5
College Plans:																
None or under 4 years	5.4	5.3‡	4.3	4.4	5.4	5.0	6.0	6.8	5.9	4.8	5.3	4.8	5.0	4.3	5.6	4.9
Complete 4 years	2.9	2.7‡	2.9	2.4	2.9	3.1	3.2	3.0	2.6	2.2	2.9	3.1	2.4	2.2	2.3	2.4
Region:																
Northeast	3.3	2.9‡	5.3	3.0	2.8	4.1	3.7	4.1	2.8	3.0	3.1	2.8	3.7	3.3	3.1	3.3
Midwest	3.9	3.7‡	3.3	3.1	4.3	3.8	4.5	4.1	3.2	3.1	4.5	4.6	3.4	2.6	3.6	3.3
South	4.1	3.7‡	3.5	3.0	3.8	3.6	4.1	4.2	3.9	2.8	3.5	3.3	3.0	2.8	3.2	3.1
West	2.7	2.9‡	1.8	2.5	2.8	3.1	3.2	3.2	3.2	2.9	3.0	3.0	2.6	2.5	2.1	2.4
Population Density:																
Large MSA	3.3	3.4‡	2.7	2.5	3.5	4.4	3.9	3.4	2.3	3.0	3.6	3.4	2.1	2.5	2.8	3.4
Other MSA	3.5	3.1‡	3.6	2.8	3.5	3.3	4.0	4.1	3.4	2.7	3.6	3.2	3.5	3.3	3.1	2.8
Non-MSA	4.1	4.1‡	3.6	3.6	3.6	3.7	3.9	4.3	4.4	3.4	3.7	4.2	3.9	2.3	3.4	3.0
Parental Education: [b]																
1.0–2.0 (Low)	4.2	3.0‡	3.6	2.3	3.9	2.6	3.8	5.3	4.0	3.5	3.5	2.5	2.7	3.4	2.6	3.1
2.5–3.0	4.1	4.0‡	2.6	3.4	3.9	3.5	3.7	4.1	3.6	2.9	3.4	3.4	3.6	3.0	3.7	3.4
3.5–4.0	3.0	2.9‡	3.7	2.5	2.7	3.4	3.2	4.0	3.3	3.0	3.4	3.7	2.9	2.9	2.5	2.8
4.5–5.0	3.1	2.8‡	3.6	2.8	3.9	4.0	3.9	3.6	2.9	2.4	3.3	3.1	3.0	2.0	3.1	2.7
5.5–6.0 (High)	4.1	4.7‡	2.9	3.1	3.5	3.6	4.7	3.1	3.2	2.9	3.9	4.0	2.3	2.6	2.7	2.8
Race/Ethnicity (2-year average): [c]																
White	3.8	3.6	3.1‡	3.1	3.3	3.7	4.1	4.3	3.9	3.3	3.5	3.8	3.6	3.2	3.3	3.4
African American	1.6	1.9	2.3‡	2.6	2.5	2.2	1.8	1.8	1.6	1.4	1.6	1.6	1.5	1.2	1.1	1.5
Hispanic	3.6	3.6	2.8‡	3.1	3.5	4.0	4.0	4.3	4.8	5.0	4.1	3.3	2.8	2.7	2.9	2.9

TABLE 98 (cont.)
ALCOHOL: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

	Percentage who used daily in last 30 days													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	3.1	2.8	2.5	2.7	2.1	2.5	2.2	1.9	1.9	1.3	1.6	1.2	1.7	+0.5 s
Gender:														
Male	4.3	4.0	3.6	3.6	2.9	3.6	3.0	2.8	2.3	1.7	2.2	1.6	2.4	+0.7
Female	1.9	1.7	1.3	1.6	1.2	1.2	1.2	1.0	1.4	0.8	0.7	0.5	0.9	+0.4
College Plans:														
None or under 4 years	4.8	5.1	5.0	4.4	4.1	3.8	4.8	3.7	3.9	2.6	2.9	2.4	3.1	+0.7
Complete 4 years	2.6	2.2	1.8	2.2	1.6	2.1	1.5	1.4	1.4	1.0	1.2	0.7	1.1	+0.4 s
Region:														
Northeast	3.5	2.2	2.2	2.9	2.8	3.3	2.2	1.3	2.0	1.6	1.2	1.2	0.9	-0.3
Midwest	3.3	2.9	3.2	3.2	2.6	2.6	2.3	2.1	2.1	1.4	1.2	0.8	1.6	+0.8
South	3.4	3.8	2.3	2.9	1.7	2.1	2.2	1.9	1.8	1.3	2.1	1.5	2.2	+0.7
West	2.0	1.7	2.1	1.8	1.8	2.5	1.9	1.9	1.8	1.3	1.4	0.9	1.4	+0.4
Population Density:														
Large MSA	3.1	2.1	2.5	2.7	2.3	2.2	1.8	1.6	2.1	1.3	1.5	1.0	1.1	+0.1
Other MSA	3.3	2.6	2.6	2.7	2.1	2.8	2.2	2.0	1.5	1.2	1.6	1.2	1.5	+0.3
Non-MSA	2.6	4.2	2.3	2.8	2.0	2.4	2.7	1.9	2.7	1.7	1.7	1.6	3.1	+1.5 ss
Parental Education: [b]														
1.0–2.0 (Low)	3.6	2.6	3.3	2.9	2.4	2.8	2.3	2.6	3.1	1.6	1.3	1.0	2.0	+1.0
2.5–3.0	3.6	2.6	2.4	2.9	2.9	2.2	3.0	1.5	1.8	1.4	1.6	1.0	1.8	+0.8
3.5–4.0	2.9	2.7	2.5	2.3	2.1	2.5	1.7	1.5	1.8	0.9	1.4	1.2	1.3	+0.1
4.5–5.0	3.0	2.9	2.1	2.5	1.3	2.5	2.1	2.2	1.6	1.5	1.5	1.1	1.5	+0.4
5.5–6.0 (High)	2.4	2.6	1.5	2.0	2.0	2.5	1.7	1.8	1.5	0.9	1.1	1.4	1.6	+0.2
Race/Ethnicity (2-year average): [c]														
White	3.4	3.4	2.9	2.6	2.5	2.5	2.4	2.0	1.9	1.7	1.7	1.7	1.6	-0.1
African American	1.5	1.3	1.4	2.1	2.0	1.5	1.5	1.4	1.1	0.8	0.9	0.9	0.8	-0.1
Hispanic	3.1	2.8	2.5	2.5	2.4	2.3	2.7	2.3	2.0	1.9	1.2	0.8	1.0	+0.2

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

Notes. ' ‡ ' indicates some change in the question. See relevant footnote. See relevant figure to assess the impact of the wording changes. 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] In 1993, the question text was changed slightly in three of six forms to indicate that a drink meant more than a few sips. The 1993 data are based on the changed forms only; N is three sixths of N indicated. In 1994 the question text was changed in the remaining forms. Beginning in 1994, the data are based on all six forms. In 2004 the question text was changed slightly in half of the forms. An examination of the data did not show any effect from the wording change. The remaining forms were changed in 2005.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 99
BEEN DRUNK: Trends in 30-Day Prevalence by Subgroups in Grade 8

Percentage who had been drunk in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	7.6	7.5	7.8	8.7	8.3	9.6	8.2	8.4	9.4	8.3	7.7	6.7	6.7	6.2	6.0
Gender:															
Male	8.4	7.4	7.8	9.0	8.2	9.7	8.4	8.5	10.2	8.2	7.8	7.1	6.6	5.8	5.9
Female	7.0	7.6	7.8	8.3	8.2	9.5	7.9	8.2	8.6	8.1	7.4	6.3	6.8	6.6	6.2
College Plans:															
None or under 4 years	15.8	17.2	18.4	20.0	17.2	19.3	18.7	21.4	22.4	18.9	18.9	15.5	17.0	16.1	15.7
Complete 4 years	6.4	6.1	6.4	7.3	7.3	8.2	7.1	6.9	8.0	7.0	6.5	5.9	5.7	5.2	5.1
Region:															
Northeast	5.7	6.4	6.2	8.2	8.2	9.7	7.9	6.9	9.4	8.3	8.0	5.3	4.9	4.8	4.2
Midwest	7.7	7.6	7.3	8.3	8.3	10.2	8.2	10.4	11.6	9.7	8.2	7.0	8.1	6.8	6.2
South	8.8	8.2	8.3	8.8	8.4	9.1	8.3	7.8	9.5	7.4	8.1	7.6	7.2	6.4	7.1
West	7.3	6.9	9.4	9.6	8.2	9.8	8.3	8.3	6.6	8.1	6.0	5.9	6.0	6.4	5.8
Population Density:															
Large MSA	7.4	7.0	6.0	7.6	7.2	8.9	6.7	6.9	7.8	7.1	6.3	5.2	5.6	5.4	5.4
Other MSA	7.3	7.4	8.4	9.7	8.9	9.9	8.6	7.5	8.4	7.2	7.9	7.3	6.8	6.5	6.1
Non-MSA	8.4	8.2	8.8	7.9	8.6	10.0	9.2	11.7	13.3	12.0	8.9	7.3	8.1	6.5	6.9
Parental Education: [a]															
1.0–2.0 (Low)	13.4	11.0	10.4	12.5	13.1	11.1	11.5	13.1	14.5	14.0	12.1	10.5	13.4	10.0	9.3
2.5–3.0	9.2	8.8	9.2	9.3	9.6	11.9	9.3	9.5	11.7	10.5	9.7	8.5	9.4	7.4	8.4
3.5–4.0	6.9	7.6	8.5	9.3	9.4	10.4	10.2	9.1	9.9	8.0	8.7	6.7	7.1	6.8	6.7
4.5–5.0	6.1	6.5	5.9	7.5	6.4	8.7	6.7	7.0	6.9	5.6	5.7	5.5	4.5	5.0	4.6
5.5–6.0 (High)	6.8	4.9	6.7	7.6	6.0	7.1	5.8	6.9	8.7	7.1	4.6	4.8	4.2	4.4	3.5
Race/Ethnicity (2-year average): [b]															
White	—	7.7	7.8	8.4	8.9	9.7	9.7	9.1	9.8	10.0	9.0	8.0	7.2	6.8	6.6
African American	—	5.4	5.1	5.6	5.6	5.5	4.6	3.9	4.9	4.7	4.0	4.0	4.2	4.1	3.8
Hispanic	—	9.9	9.9	10.8	10.8	10.8	10.4	9.8	9.9	8.5	7.8	8.4	8.5	8.1	7.0

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TABLE 99 (cont.)
BEEN DRUNK: Trends in 30-Day Prevalence by Subgroups in Grade 8

	Percentage who had been drunk in last 30 days														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	6.2	5.5	5.4	5.4	5.0	4.4	3.6	3.5	2.7	3.1	1.8	2.2	2.1	2.6	+0.5
Gender:															
Male	6.1	5.3	5.3	5.3	4.8	4.4	3.3	3.0	2.7	2.9	1.8	1.6	1.8	2.3	+0.5
Female	6.2	5.6	5.4	5.3	5.2	4.2	3.8	4.0	2.7	3.0	1.7	2.8	2.3	2.9	+0.6
College Plans:															
None or under 4 years	15.4	16.3	14.9	14.9	12.9	10.9	9.5	10.9	6.7	6.7	5.3	5.2	4.5	4.9	+0.3
Complete 4 years	5.4	4.6	4.6	4.6	4.4	3.9	3.1	3.0	2.4	2.7	1.5	1.9	1.8	2.3	+0.5
Region:															
Northeast	5.8	3.5	4.5	4.7	4.2	2.9	3.5	2.7	2.0	2.6	0.9	1.5	1.5	1.8	+0.3
Midwest	6.3	5.7	5.3	5.0	4.7	4.1	2.2	2.6	2.3	2.4	1.4	2.0	2.0	2.2	+0.2
South	6.9	6.1	6.8	6.5	5.7	4.4	4.4	4.5	2.8	3.3	2.2	2.4	2.0	2.9	+0.9
West	5.2	5.7	4.2	4.4	4.8	5.7	3.5	3.3	3.4	3.6	1.9	2.7	2.8	3.1	+0.3
Population Density:															
Large MSA	5.1	4.8	5.4	4.0	4.7	3.5	3.1	3.1	2.5	2.6	1.2	2.1	2.0	2.1	0.0
Other MSA	6.4	5.6	5.2	5.8	5.2	4.8	4.1	3.3	2.8	3.3	1.8	2.1	2.1	2.7	+0.7
Non-MSA	7.5	6.4	5.9	6.3	5.0	4.7	3.2	4.6	3.0	3.2	2.6	2.9	2.3	3.3	+1.0
Parental Education:[a]															
1.0–2.0 (Low)	9.4	10.6	10.1	10.1	7.8	7.9	6.0	6.4	3.8	4.9	3.5	2.8	2.2	2.9	+0.7
2.5–3.0	7.9	7.9	7.4	6.3	7.1	6.6	5.6	4.6	3.4	4.1	2.2	3.0	2.5	3.5	+1.0
3.5–4.0	7.1	6.0	5.8	5.4	5.3	4.8	4.1	4.3	2.9	2.6	1.5	2.6	2.3	3.7	+1.5 s
4.5–5.0	4.4	3.1	3.7	4.4	4.2	3.2	2.6	2.4	2.4	2.3	1.4	1.9	1.7	2.3	+0.6
5.5–6.0 (High)	4.6	3.1	3.3	3.4	2.6	2.7	1.6	2.2	2.2	2.5	1.4	1.8	1.9	1.6	-0.3
Race/Ethnicity (2-year average):[b]															
White	6.4	5.9	5.5	5.5	5.3	4.7	3.9	3.3	2.9	2.6	2.3	2.0	2.1	2.5	+0.4
African American	3.6	3.7	3.8	3.6	3.4	2.9	2.7	3.0	2.4	2.0	1.7	1.4	1.6	1.2	-0.4
Hispanic	7.2	7.4	6.7	6.2	5.8	5.6	5.5	4.5	3.6	3.5	2.8	2.2	2.2	2.4	+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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 100

BEEN DRUNK: Trends in 30-Day Prevalence by Subgroups in Grade 10

Percentage who had been drunk in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	20.5	18.1	19.8	20.3	20.8	21.3	22.4	21.1	22.5	23.5	21.9	18.3	18.2	18.5	17.6
Gender:															
Male	22.3	18.6	21.4	23.2	21.9	23.0	24.6	22.3	25.4	26.2	24.2	19.3	18.8	20.2	18.2
Female	18.7	17.5	18.1	17.2	19.6	19.8	20.2	19.9	19.8	20.9	19.7	17.4	17.7	17.0	16.8
College Plans:															
None or under 4 years	29.5	26.3	29.0	31.1	31.4	32.0	35.5	33.5	34.6	35.1	34.8	27.4	27.4	27.5	27.8
Complete 4 years	18.6	16.4	17.9	18.0	19.0	19.7	20.3	19.1	20.7	21.8	19.8	16.8	16.9	17.4	16.3
Region:															
Northeast	23.9	18.8	20.0	19.0	19.5	22.4	21.9	23.1	25.8	22.8	19.9	18.1	20.3	22.4	20.5
Midwest	21.8	18.9	20.1	21.0	22.6	22.0	23.3	21.8	26.0	27.6	24.0	18.7	18.8	16.6	17.4
South	19.2	16.8	19.8	20.9	20.9	21.4	22.0	21.9	20.3	21.4	21.5	17.5	17.6	18.7	17.2
West	18.2	18.3	19.0	19.5	19.5	19.3	22.6	17.0	19.0	22.4	21.2	19.5	16.5	16.7	15.2
Population Density:															
Large MSA	20.6	17.6	17.6	16.1	18.2	19.6	20.7	17.2	21.6	23.4	19.5	16.5	15.7	15.1	16.2
Other MSA	20.1	17.3	18.2	21.7	21.8	21.9	21.8	21.2	22.7	22.5	21.6	18.0	18.6	20.5	18.3
Non-MSA	21.1	19.9	24.7	21.8	21.8	22.4	25.5	25.4	23.4	25.4	25.3	21.4	21.4	19.0	17.8
Parental Education: [a]															
1.0–2.0 (Low)	20.9	18.2	22.2	20.0	23.4	22.1	19.7	20.1	21.8	21.3	22.0	17.3	19.0	17.7	15.8
2.5–3.0	22.5	18.5	21.4	21.2	22.9	23.4	22.5	23.3	23.4	24.5	22.6	19.9	18.9	21.0	19.4
3.5–4.0	20.4	19.4	19.4	22.1	21.4	22.1	24.1	21.3	23.3	24.5	22.8	19.5	19.3	18.9	17.5
4.5–5.0	19.7	17.1	18.2	18.7	19.7	19.5	22.3	20.2	21.7	24.1	21.4	17.4	17.5	17.3	17.5
5.5–6.0 (High)	20.6	18.5	18.6	17.9	17.9	22.3	22.4	20.4	24.0	23.1	21.5	16.8	17.7	19.3	17.0
Race/Ethnicity (2-year average): [b]															
White	—	21.6	20.8	22.0	22.7	23.7	25.0	25.5	25.7	26.7	25.8	23.2	21.9	21.7	21.0
African American	—	9.4	10.3	10.1	9.8	8.5	8.6	8.8	7.6	8.6	9.5	8.6	8.0	8.3	8.0
Hispanic	—	16.2	15.9	17.0	18.6	20.1	19.5	18.0	17.8	18.0	18.7	17.4	15.7	17.0	17.3

TABLE 100 (cont.)
BEEN DRUNK: Trends in 30-Day Prevalence by Subgroups in Grade 10

Percentage who had been drunk in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	18.8	18.1	14.4	15.5	14.7	13.7	14.5	12.8	11.2	10.3	9.0	8.9	8.4	8.8	+0.3
Gender:															
Male	19.1	18.9	14.6	16.4	15.5	14.9	15.4	13.2	11.1	10.3	8.4	7.6	8.2	8.6	+0.5
Female	18.4	17.4	14.3	14.8	13.7	12.4	13.5	12.4	11.5	10.3	9.6	10.1	8.6	8.9	+0.3
College Plans:															
None or under 4 years	29.0	28.9	25.2	26.8	27.0	23.8	23.1	18.5	20.9	16.3	13.9	13.4	11.8	11.2	-0.6
Complete 4 years	17.5	16.8	13.2	14.4	13.3	12.6	13.7	12.3	10.3	9.7	8.5	8.3	7.9	8.3	+0.4
Region:															
Northeast	20.4	20.5	15.3	14.6	14.7	16.6	18.6	13.6	13.3	11.6	10.0	9.9	9.1	9.2	+0.1
Midwest	19.8	19.6	16.0	15.0	15.3	11.9	12.8	11.4	9.7	9.5	8.4	8.1	8.2	8.1	-0.1
South	17.6	16.3	14.9	16.6	14.5	14.0	15.0	13.9	11.6	11.4	9.2	8.5	8.7	8.8	+0.1
West	17.9	16.9	11.8	15.5	14.3	13.0	12.1	12.4	10.7	7.9	8.4	9.6	7.6	9.0	+1.4
Population Density:															
Large MSA	17.7	16.3	12.7	15.3	14.2	12.9	14.9	12.8	11.3	10.0	9.3	11.1	9.4	7.8	-1.6
Other MSA	19.0	18.5	14.8	15.3	14.8	14.1	13.7	13.0	10.8	9.9	7.9	7.4	8.1	9.4	+1.4
Non-MSA	20.0	20.0	16.4	16.4	15.1	14.0	15.7	12.6	12.3	11.6	11.5	9.2	7.7	8.6	+0.9
Parental Education: [a]															
1.0–2.0 (Low)	18.4	17.7	16.9	19.7	18.2	13.6	15.7	15.1	12.0	8.5	8.5	8.4	8.5	8.1	-0.4
2.5–3.0	21.6	19.9	15.0	17.6	16.4	15.8	14.9	13.6	11.5	11.4	8.9	8.0	8.1	9.5	+1.5
3.5–4.0	19.9	19.1	15.7	16.4	14.3	14.8	14.7	13.4	12.9	11.3	9.4	9.3	8.4	10.1	+1.8
4.5–5.0	17.4	16.8	13.3	13.8	13.9	12.1	15.0	12.1	10.4	10.0	8.7	8.9	7.8	7.8	-0.1
5.5–6.0 (High)	17.6	17.7	14.2	14.6	13.2	13.1	14.6	12.3	11.3	9.8	10.8	10.7	10.9	9.6	-1.3
Race/Ethnicity (2-year average): [b]															
White	20.9	21.3	19.2	17.0	16.4	15.6	16.0	15.4	14.1	12.8	11.7	11.3	11.0	10.5	-0.5
African American	7.8	8.3	8.0	8.4	9.3	8.3	7.6	7.2	5.5	5.3	4.8	3.7	3.1	3.7	+0.6
Hispanic	16.6	15.0	14.0	14.9	15.7	13.8	12.5	13.1	11.6	10.0	8.5	7.8	7.7	8.0	+0.3

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 101
BEEN DRUNK: Trends in <u>30-Day</u> Prevalence by Subgroups in <u>Grade 12</u>

Percentage who had been drunk in last 30 days

	1975–1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	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
Total	—	31.6	29.9	28.9	30.8	33.2	31.3	34.2	32.9	32.9	32.3	32.7	30.3	30.9	32.5	30.2
Gender:																
Male	—	37.1	35.2	34.5	34.5	37.8	35.4	39.2	39.0	37.9	38.4	37.0	34.3	34.9	36.0	33.6
Female	—	25.4	24.5	23.5	26.8	28.8	27.3	29.1	26.6	27.7	26.7	28.4	26.9	26.9	29.0	26.4
College Plans:																
None or under 4 years	—	32.2	31.4	32.6	32.2	37.6	31.4	38.1	33.7	36.1	35.0	36.3	31.7	37.6	34.7	34.3
Complete 4 years	—	30.9	29.2	27.4	29.4	31.4	31.0	32.3	32.0	31.7	30.6	31.3	29.3	28.7	31.2	28.5
Region:																
Northeast	—	36.4	30.0	35.0	35.2	35.5	37.2	35.9	35.6	37.5	39.3	33.9	33.6	35.4	38.1	38.7
Midwest	—	37.2	38.2	32.5	34.1	38.2	31.5	33.7	34.8	33.4	34.8	39.2	35.0	34.9	34.2	31.3
South	—	26.5	25.2	26.4	29.1	31.2	31.0	34.5	30.1	30.8	26.5	28.8	28.4	25.9	29.3	26.9
West	—	28.5	26.6	23.2	25.4	27.1	24.7	32.7	33.5	32.2	32.8	28.8	25.0	30.1	29.5	26.5
Population Density:																
Large MSA	—	30.4	26.1	29.4	28.7	32.0	31.5	31.5	32.2	29.2	30.5	30.6	32.9	25.4	27.4	28.2
Other MSA	—	33.5	29.8	26.9	29.9	31.7	33.0	33.7	34.0	35.4	34.5	31.7	29.1	33.5	37.3	31.5
Non-MSA	—	29.4	33.7	32.0	34.4	36.9	28.2	38.2	31.4	32.5	30.5	36.7	29.2	33.2	29.1	29.9
Parental Education: [a]																
1.0–2.0 (Low)	—	20.4	20.5	23.6	25.7	25.4	18.8	23.7	24.6	20.8	28.4	22.2	20.0	25.6	25.5	22.0
2.5–3.0	—	30.2	30.0	26.4	30.3	30.0	27.4	31.5	28.0	30.5	33.1	32.2	27.0	28.7	32.3	29.9
3.5–4.0	—	31.0	31.3	29.2	29.9	34.4	31.1	32.7	34.1	34.0	31.2	32.0	32.4	30.6	35.1	31.3
4.5–5.0	—	34.4	29.4	32.8	33.5	36.5	35.8	37.7	36.0	32.8	31.9	36.1	31.0	33.3	33.7	31.3
5.5–6.0 (High)	—	40.5	34.3	30.4	30.7	34.9	34.6	39.8	39.9	40.6	35.5	33.6	34.5	33.4	32.6	32.2
Race/Ethnicity (2-year average): [b]																
White	—	—	34.7	33.6	34.0	36.4	36.6	37.7	39.3	37.8	37.0	37.7	36.6	35.6	36.4	36.5
African American	—	—	11.0	12.5	14.1	13.2	13.0	13.8	13.8	14.9	14.9	12.0	12.1	11.7	14.3	15.4
Hispanic	—	—	27.2	24.8	23.0	24.2	26.2	26.9	25.9	27.5	29.8	25.5	23.5	23.9	24.1	22.2

Table continued on next page.

TABLE 101 (cont.)
BEEN DRUNK: Trends in 30-Day Prevalence by Subgroups in Grade 12

						Percentage who had been drunk in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	30.0	28.7	27.6	27.4	26.8	25.0	28.1	26.0	23.5	20.6	20.4	19.1	17.5	17.5	0.0
Gender:															
Male	32.9	31.7	29.2	32.7	31.2	27.5	30.6	29.1	24.9	21.1	22.1	20.4	19.0	17.2	-1.7
Female	26.3	25.7	26.2	22.5	21.8	22.0	24.8	22.7	22.4	19.6	19.1	18.1	16.2	17.4	+1.2
College Plans:															
None or under 4 years	37.2	30.6	32.0	31.0	32.9	27.9	29.6	28.9	25.3	21.2	23.8	21.7	17.1	19.6	+2.5
Complete 4 years	27.6	28.2	26.4	25.9	24.8	24.1	27.3	25.0	22.6	20.3	19.4	18.6	17.6	16.4	-1.2
Region:															
Northeast	37.9	32.6	31.1	36.3	32.4	31.5	34.7	30.1	28.6	25.1	21.8	25.3	20.7	17.9	-2.8
Midwest	32.2	32.0	31.2	29.4	28.9	27.5	29.6	26.8	25.9	20.3	22.8	17.7	18.0	18.9	+0.9
South	27.4	26.5	25.5	23.6	24.9	21.5	22.2	21.7	21.0	18.4	17.6	17.8	15.4	16.2	+0.7
West	25.2	26.0	24.1	23.5	23.4	23.3	29.3	28.3	21.4	21.3	22.1	18.4	18.3	18.4	0.0
Population Density:															
Large MSA	30.4	29.8	31.4	29.8	26.6	23.8	30.7	25.6	22.5	22.9	21.1	19.7	18.4	16.7	-1.7
Other MSA	29.0	27.6	25.0	25.9	26.8	26.9	28.0	28.1	25.2	18.1	20.4	17.3	16.4	17.3	+0.9
Non-MSA	31.4	29.4	28.8	27.8	27.2	22.3	24.1	21.1	20.7	22.6	19.4	21.9	18.6	19.1	+0.5
Parental Education: [a]															
1.0–2.0 (Low)	27.7	19.7	26.7	19.8	22.4	19.1	19.7	25.7	18.7	14.0	13.9	15.8	9.5	12.7	+3.2
2.5–3.0	29.5	31.6	25.3	29.0	25.4	22.9	26.6	24.8	25.2	21.4	19.3	15.7	16.0	15.6	-0.4
3.5–4.0	31.0	26.8	28.2	28.2	28.6	26.3	29.5	25.6	21.7	22.4	21.8	20.0	16.8	17.1	+0.3
4.5–5.0	29.7	28.4	30.0	27.0	26.5	25.6	29.7	27.9	25.9	21.8	21.5	19.7	19.1	19.7	+0.6
5.5–6.0 (High)	30.1	33.0	27.8	29.0	26.5	27.5	30.5	27.1	25.8	21.1	23.4	24.1	27.5	21.2	-6.3
Race/Ethnicity (2-year average): [b]															
White	35.2	33.7	32.7	31.8	31.6	29.9	29.7	30.6	29.0	26.4	25.0	24.2	23.1	21.9	-1.2
African American	13.5	14.6	14.8	15.1	14.7	14.2	14.3	13.4	15.1	13.8	9.9	10.1	10.9	10.5	-0.4
Hispanic	23.1	24.0	22.2	21.7	20.5	20.0	21.2	22.7	19.5	16.0	17.2	16.8	13.1	11.6	-1.4

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 102

BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 8

Percentage reporting 5+ drinks in a row on one or more occasions

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	10.9	11.3	11.3	12.1	12.3	13.3	12.3	11.5	13.1	11.7	11.0	10.3	9.8	9.4	8.4
Gender:															
Male	12.1	11.6	12.4	13.2	12.5	14.1	13.0	12.1	14.0	11.7	11.5	10.4	10.2	8.8	8.2
Female	9.6	10.8	10.3	11.1	12.1	12.4	11.5	10.8	12.0	11.3	10.2	10.0	9.4	9.9	8.6
College Plans:															
None or under 4 years	21.1	23.0	25.7	25.3	25.0	26.1	26.5	26.7	30.2	25.0	24.7	24.7	23.2	21.2	21.0
Complete 4 years	9.3	9.7	9.4	10.5	10.8	11.3	10.7	9.8	11.2	10.1	9.4	9.0	8.4	8.2	7.2
Region:															
Northeast	8.6	8.8	8.1	10.9	11.1	12.8	10.9	9.7	12.4	11.5	10.5	8.4	7.8	8.1	6.0
Midwest	11.5	12.5	10.9	11.5	12.2	13.5	12.0	12.4	15.5	13.2	10.8	10.5	10.8	10.1	8.7
South	11.9	12.3	12.9	12.4	13.0	13.7	13.2	11.9	13.3	11.0	12.5	11.4	10.6	9.6	9.8
West	10.2	10.4	12.8	13.8	12.3	12.9	12.3	11.6	10.3	10.9	9.0	9.9	9.0	9.5	8.0
Population Density:															
Large MSA	10.6	10.4	8.6	10.4	10.3	12.2	11.3	10.1	11.0	10.6	9.2	8.3	8.8	8.7	8.0
Other MSA	10.5	11.7	12.3	13.1	12.2	13.7	12.1	10.9	12.1	10.5	11.0	10.8	8.9	9.3	8.3
Non-MSA	12.0	11.7	12.9	12.1	15.0	14.2	13.9	14.3	17.4	15.3	13.1	11.8	12.9	10.5	9.2
Parental Education: [a]															
1.0–2.0 (Low)	18.3	17.8	16.3	16.8	20.1	16.9	17.6	16.5	20.8	18.9	16.5	16.6	16.3	14.9	14.4
2.5–3.0	12.6	13.4	13.3	14.2	14.8	15.4	13.5	13.8	17.0	15.3	14.3	12.8	13.5	12.1	10.7
3.5–4.0	10.7	11.3	11.5	12.5	13.3	14.3	14.2	12.4	14.0	11.0	11.7	11.1	10.5	10.0	9.4
4.5–5.0	8.8	8.7	8.5	10.3	9.3	11.1	10.3	9.3	9.5	8.2	8.1	7.9	6.7	8.0	6.4
5.5–6.0 (High)	8.8	8.4	8.9	9.1	8.7	10.7	9.0	9.4	9.2	9.5	6.6	7.3	6.8	6.2	5.0
Race/Ethnicity (2-year average): [b]															
White	—	11.2	10.9	11.1	12.1	13.2	13.3	12.3	12.6	13.0	11.9	10.9	10.0	9.6	9.0
African American	—	6.5	7.6	8.6	8.3	8.0	7.5	6.9	7.7	7.3	6.4	7.1	7.5	6.9	6.1
Hispanic	—	16.5	17.7	18.9	18.4	17.5	17.4	16.9	17.4	16.0	14.4	14.4	13.8	13.2	12.1

TABLE 102 (cont.)
BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 8

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
							Percentage reporting 5+ drinks in a row on one or more occasions								
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	8.7	8.3	8.1	7.8	7.2	6.4	5.1	5.1	4.1	4.6	3.4	3.7	3.7	3.8	+0.2
Gender:															
Male	8.6	8.2	8.1	7.8	6.5	6.1	4.6	4.5	3.5	4.6	3.2	3.1	3.3	3.5	+0.2
Female	8.5	8.2	8.0	7.7	7.8	6.5	5.5	5.7	4.6	4.6	3.6	4.2	3.9	4.0	+0.1
College Plans:															
None or under 4 years	19.3	21.5	21.3	19.1	17.6	15.6	15.3	14.2	9.9	10.5	7.7	8.3	8.9	8.2	-0.7
Complete 4 years	7.6	7.1	7.0	6.8	6.3	5.7	4.4	4.5	3.7	4.1	3.0	3.2	2.9	3.1	+0.2
Region:															
Northeast	7.8	5.6	7.1	8.2	6.2	3.7	4.3	4.2	3.3	3.6	2.5	2.8	2.9	2.0	-0.9
Midwest	8.8	7.5	8.2	7.0	6.5	6.1	2.6	4.1	3.4	3.8	2.7	3.1	2.9	3.6	+0.6
South	9.7	9.4	9.7	8.8	8.4	7.1	6.3	6.4	4.7	5.4	4.3	3.9	3.6	4.8	+1.3
West	7.6	8.9	6.3	6.6	6.6	8.0	6.1	4.8	4.5	4.8	3.2	4.7	5.1	3.9	-1.1
Population Density:															
Large MSA	8.1	7.4	8.1	6.4	6.5	5.8	4.5	4.9	4.0	4.3	2.7	3.5	3.7	3.1	-0.6
Other MSA	8.3	8.5	7.9	8.2	7.6	6.6	5.6	5.0	4.0	4.6	3.4	3.5	3.7	3.9	+0.2
Non-MSA	10.2	9.2	8.4	8.9	7.0	7.0	5.1	5.8	4.5	5.3	4.6	4.4	3.4	5.1	+1.6
Parental Education: [a]															
1.0–2.0 (Low)	13.3	15.5	17.0	15.2	12.0	11.0	9.5	9.5	5.7	7.5	6.2	6.2	5.9	5.6	-0.3
2.5–3.0	10.6	10.5	10.5	9.5	9.3	8.8	7.6	6.7	5.4	5.8	4.6	5.1	4.7	6.5	+1.8
3.5–4.0	9.9	9.2	7.9	8.7	8.0	7.2	5.3	6.4	4.9	4.9	2.8	3.7	3.7	4.2	+0.5
4.5–5.0	6.7	5.5	5.7	5.3	5.7	4.6	3.8	3.0	3.4	3.1	3.1	2.9	2.6	3.0	+0.4
5.5–6.0 (High)	5.9	5.0	4.7	4.7	4.3	4.1	2.0	3.9	3.0	3.6	2.3	2.5	2.5	2.1	-0.5
Race/Ethnicity (2-year average): [b]															
White	8.4	8.0	7.8	7.7	7.1	6.2	4.9	4.2	4.2	4.0	3.6	3.0	2.9	3.4	+0.5
African American	5.7	5.6	5.7	5.2	5.3	5.1	4.3	4.5	4.4	4.1	3.4	2.9	2.6	1.9	-0.8
Hispanic	11.6	12.5	12.3	11.5	10.8	10.4	9.9	7.8	5.7	5.4	5.3	4.9	5.2	5.3	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 103

BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 10

Percentage reporting 5+ drinks in a row on one or more occasions

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	21.0	19.1	21.0	21.9	22.0	22.8	23.1	22.4	23.5	24.1	22.8	20.3	20.0	19.9	19.0
Gender:															
Male	24.1	21.5	24.1	26.4	24.1	25.1	26.3	24.7	27.4	27.6	26.1	21.6	21.1	21.6	19.9
Female	18.1	17.0	17.7	17.3	19.7	20.4	20.1	20.4	20.0	20.6	19.7	19.0	19.0	18.1	17.9
College Plans:															
None or under 4 years	30.5	28.6	31.8	34.1	34.5	35.7	36.9	35.7	36.5	36.7	37.2	31.0	31.5	29.6	31.3
Complete 4 years	19.1	17.2	18.8	19.3	19.8	20.7	20.8	20.2	21.5	22.2	20.5	18.5	18.2	18.6	17.3
Region:															
Northeast	23.7	18.0	21.1	19.9	20.3	22.3	21.8	24.1	26.0	23.8	20.7	19.5	21.5	23.8	21.0
Midwest	21.7	19.8	22.0	23.0	23.3	23.4	22.4	22.2	25.0	26.2	24.8	20.3	19.9	16.7	18.8
South	20.8	18.9	20.4	22.9	22.4	23.5	23.4	23.1	22.1	22.5	22.1	19.7	19.1	20.1	18.6
West	18.6	19.8	20.0	20.4	21.1	21.4	25.3	19.9	21.7	24.6	23.1	22.2	20.1	19.6	17.6
Population Density:															
Large MSA	20.2	17.5	19.1	17.6	18.4	20.5	20.4	18.3	22.4	24.0	20.8	17.6	18.0	16.9	17.4
Other MSA	20.4	18.1	19.2	22.7	22.1	23.0	22.9	22.0	22.7	23.4	21.7	20.4	19.9	21.6	19.4
Non-MSA	22.9	22.8	25.8	24.6	25.9	25.3	26.6	28.0	26.7	25.7	27.2	23.8	23.4	20.1	20.3
Parental Education: [a]															
1.0–2.0 (Low)	23.2	23.0	24.3	22.6	26.7	24.7	22.7	24.1	25.2	24.7	23.0	23.9	24.4	23.0	21.0
2.5–3.0	23.8	20.0	23.4	23.4	24.7	25.5	23.5	25.5	26.3	27.0	24.6	22.5	21.8	21.9	21.3
3.5–4.0	19.9	19.2	20.6	23.3	22.8	23.7	24.6	22.8	23.6	23.8	24.2	20.7	20.5	20.4	18.9
4.5–5.0	19.3	18.1	18.6	20.2	20.2	20.3	21.6	20.1	21.3	23.3	21.5	17.7	17.8	18.2	17.9
5.5–6.0 (High)	20.9	18.4	18.9	18.5	17.3	22.4	22.4	20.1	23.6	23.1	21.2	18.7	18.4	19.0	17.9
Race/Ethnicity (2-year average): [b]															
White	—	21.6	21.4	22.9	23.8	24.5	25.2	25.3	25.4	26.2	25.6	23.6	22.5	22.2	21.8
African American	—	12.3	11.9	11.8	11.1	9.4	10.0	10.6	10.7	10.8	10.3	10.0	9.8	9.7	9.1
Hispanic	—	20.3	20.5	20.9	23.3	25.7	24.4	23.6	24.4	25.1	24.8	23.3	22.9	23.3	22.4

TABLE 103 (cont.)
BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 10

							Percentage reporting 5+ drinks in a row on one or more occasions								2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	19.9	19.6	16.0	17.5	16.3	14.7	15.6	13.7	12.6	10.9	9.7	9.8	8.7	8.5	-0.2
Gender:															
Male	21.0	20.9	16.6	18.8	17.9	16.5	16.4	14.7	13.1	11.3	9.6	9.0	9.1	9.0	0.0
Female	18.9	18.3	15.4	16.1	14.6	12.7	14.8	12.5	12.2	10.6	9.8	10.5	8.3	7.9	-0.4
College Plans:															
None or under 4 years	30.8	30.7	29.1	29.9	30.5	27.1	25.9	21.7	24.3	18.3	16.4	15.0	14.0	12.1	-2.0
Complete 4 years	18.6	18.2	14.4	16.1	14.6	13.4	14.6	12.8	11.4	10.1	9.0	9.1	7.9	7.7	-0.1
Region:															
Northeast	21.2	20.4	16.8	16.4	15.2	16.8	19.5	14.5	13.8	11.9	9.4	9.8	9.0	9.0	0.0
Midwest	20.0	20.7	16.5	17.2	16.2	13.0	13.8	12.3	11.4	9.7	9.2	8.5	7.6	8.2	+0.7
South	19.1	18.4	16.3	18.4	16.7	15.4	16.2	15.0	13.3	11.9	10.4	9.7	9.6	8.7	-0.8
West	20.1	19.5	14.4	17.4	16.9	14.1	13.2	12.8	11.9	9.6	9.6	11.3	8.1	8.1	-0.1
Population Density:															
Large MSA	19.2	17.9	14.5	16.7	16.0	14.3	15.9	13.7	12.3	11.0	10.2	12.2	9.4	7.2	-2.2
Other MSA	19.7	19.6	16.0	17.0	16.5	14.7	14.8	13.7	12.4	10.3	8.7	8.2	8.1	8.9	+0.8
Non-MSA	21.9	22.5	18.1	19.8	16.7	15.4	16.6	13.7	13.8	12.4	11.8	10.0	8.7	9.6	+0.8
Parental Education: [a]															
1.0–2.0 (Low)	19.8	22.0	20.6	25.7	22.8	17.6	20.5	17.8	15.4	13.9	10.5	11.7	11.2	8.9	-2.3
2.5–3.0	22.8	22.6	17.8	19.6	19.5	17.1	17.3	15.1	14.0	11.9	10.8	9.4	9.5	9.4	-0.1
3.5–4.0	21.2	20.7	16.6	18.4	16.3	15.8	15.0	13.6	13.7	12.1	10.0	10.9	8.5	9.5	+1.0
4.5–5.0	18.1	17.7	14.7	14.7	14.1	12.7	15.4	12.5	10.7	10.1	9.2	9.2	7.2	7.0	-0.2
5.5–6.0 (High)	19.0	17.2	12.8	14.8	13.1	12.3	14.7	12.1	11.6	9.6	10.0	9.9	9.4	8.4	-1.0
Race/Ethnicity (2-year average): [b]															
White	21.7	21.8	19.7	17.9	17.2	16.1	16.3	15.7	14.4	13.0	11.6	11.0	10.5	9.7	-0.8
African American	9.1	10.0	9.8	9.8	10.7	9.4	8.2	8.6	7.5	6.9	5.8	4.7	3.9	4.2	+0.3
Hispanic	21.2	20.1	19.6	20.6	22.2	19.7	17.1	16.9	15.0	13.2	11.4	11.3	10.8	9.3	-1.5

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 104

BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

Percentage reporting 5+ drinks in a row on one or more occasions

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
Total	36.8	37.1	39.4	40.3	41.2	41.2	41.4	40.5	40.8	38.7	36.7	36.8	37.5	34.7	33.0	32.2
Gender:																
Male	49.0	47.9	50.0	51.4	51.9	52.1	51.6	49.8	50.4	47.5	45.3	46.1	46.1	43.0	41.2	39.1
Female	26.4	25.9	29.3	29.6	30.9	30.5	30.8	31.1	31.0	29.6	28.2	28.1	29.2	26.5	24.9	24.4
College Plans:																
None or under 4 years	—	41.8	44.7	44.3	44.5	46.3	46.7	45.7	44.9	43.5	41.6	41.3	42.7	38.5	38.2	35.8
Complete 4 years	—	31.5	33.9	35.9	37.7	36.9	37.4	36.5	37.2	34.6	33.0	34.1	35.0	32.8	30.5	30.3
Region:																
Northeast	43.0	40.8	40.0	43.5	47.4	48.0	49.3	43.3	42.2	42.9	42.4	37.1	37.2	34.3	33.3	37.2
Midwest	40.6	42.8	44.5	45.3	44.8	45.4	44.9	47.9	47.2	44.3	39.7	42.6	43.5	39.9	40.4	37.9
South	32.1	30.8	36.3	36.4	36.7	34.4	34.7	34.6	37.6	33.5	29.7	31.7	33.4	30.4	28.5	27.2
West	29.0	32.8	34.2	33.3	34.0	36.0	35.6	32.5	33.3	34.5	36.1	35.9	36.6	35.4	30.8	26.3
Population Density:																
Large MSA	37.9	37.0	38.1	39.5	42.2	44.8	43.4	40.9	38.8	37.9	37.6	36.4	34.8	32.5	28.8	34.5
Other MSA	36.1	36.8	39.5	40.1	40.8	38.9	39.5	39.7	41.0	37.3	35.4	35.5	38.6	35.3	33.7	31.8
Non-MSA	36.9	38.0	40.5	41.3	40.9	41.4	42.2	41.3	42.0	41.2	37.6	39.1	38.3	35.9	35.8	30.6
Parental Education: [a]																
1.0–2.0 (Low)	31.6	34.1	35.6	36.3	36.0	37.0	37.0	35.3	37.2	34.8	31.8	31.7	33.9	30.7	25.4	25.3
2.5–3.0	37.5	41.1	41.8	40.9	42.3	43.3	43.2	41.4	41.2	39.8	38.2	37.9	38.9	35.7	34.0	32.7
3.5–4.0	35.1	36.4	39.5	41.3	41.4	42.1	42.4	42.4	40.9	39.3	36.9	37.9	38.3	34.7	34.3	32.0
4.5–5.0	34.4	36.9	37.2	42.4	43.8	40.8	40.8	41.9	41.9	38.6	37.1	37.1	37.2	35.1	34.2	34.5
5.5–6.0 (High)	29.9	34.5	41.1	37.2	41.9	38.5	39.3	40.9	42.1	38.2	34.9	36.7	37.2	34.7	31.8	34.1
Race/Ethnicity (2-year average): [b]																
White	—	—	40.5	42.4	43.5	44.3	44.9	44.9	44.5	43.6	41.5	40.3	40.9	40.0	37.9	36.6
African American	—	—	19.0	19.3	18.9	17.7	17.1	17.1	18.3	17.2	15.7	16.4	15.8	15.2	15.7	14.4
Hispanic	—	—	36.4	37.2	33.6	33.1	34.8	32.9	32.5	33.0	31.7	30.8	33.0	33.7	28.8	25.6

Table continued on next page.

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TABLE 104 (cont.)

BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

Percentage reporting 5+ drinks in a row on one or more occasions

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	29.8	27.9	27.5	28.2	29.8	30.2	31.3	31.5	30.8	30.0	29.7	28.6	27.9	29.2	27.1	25.4
Gender:																
Male	37.8	35.6	34.6	37.0	36.9	37.0	37.9	39.2	38.1	36.7	36.0	34.2	34.2	34.3	32.6	28.9
Female	21.2	20.3	20.7	20.2	23.0	23.5	24.4	24.0	23.6	23.5	23.7	23.0	22.1	24.2	21.6	21.5
College Plans:																
None or under 4 years	34.4	32.8	32.7	34.0	35.2	33.9	36.2	36.3	35.4	35.7	35.9	34.0	34.5	34.6	34.3	32.3
Complete 4 years	27.9	26.0	25.8	26.3	27.8	28.8	29.5	30.0	29.5	27.6	27.8	27.2	25.9	27.6	25.1	23.7
Region:																
Northeast	33.4	25.8	30.3	29.2	31.2	33.7	33.5	33.5	33.7	35.1	31.8	30.7	30.9	33.2	32.2	30.9
Midwest	34.6	34.6	30.1	31.9	34.3	31.5	31.6	32.6	31.6	33.9	34.5	33.4	32.5	30.2	29.1	26.5
South	26.3	24.7	27.1	26.9	28.6	30.2	30.6	30.7	30.0	24.9	26.6	26.8	23.7	26.1	24.2	23.9
West	26.3	26.0	22.0	24.5	24.2	24.0	29.6	29.5	28.6	29.3	26.0	23.9	26.5	28.6	24.5	22.0
Population Density:																
Large MSA	28.6	25.5	27.6	26.8	28.3	29.8	29.9	27.9	27.1	29.7	29.0	29.9	23.3	25.5	26.5	26.6
Other MSA	30.1	27.0	26.5	27.1	28.4	30.3	31.1	33.1	32.2	29.3	29.0	28.0	29.8	31.9	27.4	25.0
Non-MSA	30.4	31.9	29.2	31.5	34.0	30.5	33.2	32.4	32.4	31.7	31.9	28.2	30.5	28.2	27.0	24.5
Parental Education: [a]																
1.0–2.0 (Low)	26.8	23.4	21.9	24.0	26.6	24.8	22.6	26.3	27.4	25.1	24.8	22.2	23.5	22.9	19.4	25.4
2.5–3.0	29.9	28.1	27.6	28.5	31.2	28.6	30.4	30.3	30.8	29.2	30.2	28.5	27.6	28.8	28.3	25.8
3.5–4.0	30.4	27.9	28.4	28.4	29.5	29.8	31.0	33.2	30.5	30.5	30.3	28.6	28.4	30.9	27.6	26.5
4.5–5.0	29.9	28.1	28.4	29.3	29.9	32.4	32.4	32.3	30.6	29.9	30.9	30.9	28.6	30.5	29.4	24.0
5.5–6.0 (High)	30.6	30.4	29.0	29.0	30.7	33.1	34.9	32.4	34.2	32.7	28.6	30.6	28.7	27.8	25.2	26.3
Race/Ethnicity (2-year average): [b]																
White	34.6	32.1	31.3	31.5	32.3	33.4	35.1	36.4	35.7	34.6	34.5	33.7	32.4	32.5	32.5	30.4
African American	11.7	11.3	12.6	14.4	14.9	15.3	13.4	12.3	12.3	11.5	11.8	11.5	10.8	11.4	11.3	11.4
Hispanic	27.9	31.1	27.2	24.3	26.6	27.1	27.6	28.1	29.3	31.0	28.4	26.4	25.9	26.0	23.9	23.3

TABLE 104 (cont.)
BINGE DRINKING: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

							Percentage reporting 5+ drinks in a row on one or more occasions							2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	25.9	24.6	25.2	23.2	21.6	23.7	22.1	19.4	17.2	15.5	16.6	13.8	14.4	+0.6
Gender:														
Male	30.7	28.4	30.5	28.0	25.5	27.2	26.1	22.3	19.3	17.2	18.5	15.9	16.1	+0.2
Female	21.5	21.3	20.2	18.4	17.6	19.7	18.1	16.6	14.9	13.5	14.6	11.9	12.4	+0.5
College Plans:														
None or under 4 years	30.8	31.5	31.3	32.1	27.4	27.5	29.2	24.0	21.5	18.2	20.7	16.5	16.7	+0.2
Complete 4 years	24.7	23.2	23.8	21.2	20.4	22.6	20.6	18.3	16.4	14.7	15.8	12.9	13.5	+0.7
Region:														
Northeast	29.7	27.3	28.9	28.7	26.1	29.0	26.6	22.3	21.3	18.0	18.7	15.2	13.6	-1.6
Midwest	28.9	25.2	28.8	24.6	24.3	24.8	22.7	20.4	16.7	16.0	15.7	13.5	13.5	0.0
South	25.4	24.7	23.1	21.0	18.8	19.6	18.6	17.9	16.4	14.6	16.9	14.0	15.0	+1.0
West	20.5	21.9	20.9	20.7	19.9	24.1	23.1	18.8	16.2	14.9	15.6	12.7	15.0	+2.3
Population Density:														
Large MSA	28.0	25.8	25.7	23.0	21.7	25.1	21.3	19.4	18.9	15.6	16.5	13.7	12.8	-0.9
Other MSA	24.2	22.5	24.1	23.6	22.5	23.3	23.3	20.1	15.3	15.2	14.7	12.4	14.2	+1.8
Non-MSA	26.4	28.1	27.2	22.4	19.6	22.4	20.5	17.9	19.3	16.2	21.2	17.1	17.6	+0.5
Parental Education: [a]														
1.0–2.0 (Low)	20.4	21.3	23.2	20.1	17.9	23.6	21.5	19.0	17.2	14.6	13.0	10.8	11.7	+0.9
2.5–3.0	27.3	23.0	24.6	24.6	21.1	23.9	23.1	20.1	17.1	13.9	15.5	12.7	14.8	+2.2
3.5–4.0	24.8	25.1	27.6	23.3	23.2	24.3	23.9	19.2	17.4	15.9	16.4	13.8	13.8	0.0
4.5–5.0	27.5	26.2	24.4	24.2	21.4	23.6	21.4	20.7	17.9	16.5	18.2	15.0	14.5	-0.5
5.5–6.0 (High)	27.1	26.4	25.6	21.2	22.1	22.8	20.3	19.0	17.6	15.9	20.1	17.2	17.5	+0.3
Race/Ethnicity (2-year average): [b]														
White	29.7	29.9	29.0	27.6	25.9	25.7	25.6	23.8	21.2	19.1	19.6	19.4	17.6	-1.8 s
African American	11.5	10.9	12.0	13.1	11.3	11.3	12.5	11.3	9.8	8.3	7.7	7.4	6.7	-0.7
Hispanic	22.5	21.5	22.6	22.1	20.8	21.8	22.4	20.4	18.5	16.7	14.4	11.7	10.8	-0.9

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 105

EXTREME BINGE DRINKING:

Trends in 2-Week Prevalence of Having 10 or More Drinks in a Row
by Subgroups in <u>Grades 8 and 10</u>

	8th Graders						10th Graders				
	1991–2015	2016	2017	2018	2019	2018–2019 change	1991–2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	16,900	15,300	14,000	13,600		—	14,700	13,500	14,300	14,000	
Total	—	1.2	1.1	1.1	1.7	+0.5	—	3.0	3.6	3.3	3.3	0.0
Gender:												
Male	—	1.2	1.0	1.1	1.0	-0.2	—	3.5	4.1	3.5	3.8	+0.3
Female	—	0.9	1.0	1.0	2.4	+1.4 s	—	2.5	2.8	2.9	2.8	-0.1
College Plans:												
None or under 4 years	—	3.4	2.7	3.8	3.2	-0.5	—	6.6	7.2	8.2	6.9	-1.3
Complete 4 years	—	0.9	0.8	0.7	1.5	+0.8 s	—	2.6	2.8	2.7	2.7	0.0
Region:												
Northeast	—	0.7	1.2	0.5	0.7	+0.2	—	3.2	2.7	3.0	2.3	-0.7
Midwest	—	1.0	0.7	1.0	1.2	+0.2	—	3.5	3.5	2.9	3.3	+0.4
South	—	1.4	0.9	0.6	2.2	+1.6 s	—	2.8	3.5	4.0	3.6	-0.5
West	—	1.2	1.7	2.7	2.0	-0.7	—	2.7	4.6	2.7	3.5	+0.8
Population Density:												
Large MSA	—	0.7	1.2	0.7	0.8	+0.2	—	3.3	4.8	2.9	2.5	-0.5
Other MSA	—	1.1	1.1	1.2	1.8	+0.6	—	2.3	2.2	3.4	3.3	-0.1
Non-MSA	—	2.0	1.0	1.8	2.8	+1.1	—	4.5	5.2	3.5	4.6	+1.1
Parental Education: a												
1.0–2.0 (Low)	—	2.8	2.1	1.8	2.6	+0.8	—	4.9	6.1	4.4	4.9	+0.5
2.5–3.0	—	1.2	1.5	1.8	3.3	+1.6	—	2.7	3.2	2.9	4.7	+1.8
3.5–4.0	—	1.0	0.7	0.6	2.2	+1.6 s	—	2.5	3.1	3.6	4.8	+1.2
4.5–5.0	—	0.8	0.9	0.5	0.7	+0.3	—	2.9	2.9	2.7	1.3	-1.4 s
5.5–6.0 (High)	—	1.0	0.6	0.8	0.9	+0.1	—	3.3	4.2	3.8	2.3	-1.4
Race/Ethnicity (2-year data): b												
White	—	—	0.8	0.6	1.1	+0.5	—	—	3.7	3.9	3.8	-0.1
African American	—	—	1.0	0.8	0.6	-0.2	—	—	0.9	1.0	0.8	-0.2
Hispanic	—	—	1.6	1.6	1.8	+0.2	—	—	3.5	3.4	4.1	0.7

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S1 and S2.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 105 (cont.)
EXTREME BINGE DRINKING:
Trends in 2-Week Prevalence of Having 10 or More Drinks in a Row
by Subgroups in Grade 12

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approx. weighted N =	14,700	14,200	14,500	14,000	13,700	13,700	13,700	13,600	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	10.6	12.9	11.1	10.4	10.6	9.9	9.8	10.4	8.1	7.1	6.1	4.4	6.0	4.6	5.3	+0.7
Gender																
Male	16.0	17.8	15.6	14.3	15.2	14.5	13.6	14.1	11.7	10.9	8.0	5.4	7.6	6.4	6.2	-0.2
Female	4.1	6.8	6.2	5.8	5.5	4.9	4.6	5.3	4.1	3.0	3.3	2.8	2.6	2.4	3.6	+1.2
College Plans																
None or under 4 years	14.0	19.4	14.3	16.4	13.4	15.4	14.9	10.9	11.0	10.3	10.4	7.1	7.8	8.5	6.8	-1.7
Complete 4 years	8.2	10.0	9.7	8.2	9.4	8.0	8.3	9.5	6.2	5.7	4.6	3.0	4.7	3.4	3.4	+0.0
Region																
Northeast	11.0	13.3	13.9	11.0	14.3	9.3	11.2	12.7	8.7	7.5	7.3	4.9	7.4	3.9	2.1	-1.9
Midwest	12.6	15.3	12.1	11.9	13.1	13.8	11.9	10.5	9.4	7.6	8.6	4.3	5.7	3.5	5.6	+2.0
South	10.3	14.2	11.1	10.3	9.6	9.5	9.3	9.0	6.3	7.6	5.1	4.1	6.0	5.5	6.8	+1.3
West	8.3	7.1	7.5	8.1	5.7	7.1	7.5	10.8	9.1	5.4	4.8	4.6	5.4	4.5	4.4	-0.0
Population Density																
Large MSA	9.2	12.6	9.5	10.4	9.5	10.0	10.7	12.5	8.2	5.9	6.9	4.8	7.1	3.8	4.1	+0.3
Other MSA	9.1	12.7	12.2	8.6	10.2	9.0	9.4	8.8	8.8	7.0	4.7	2.5	4.4	4.3	4.8	+0.5
Non-MSA	15.1	13.8	10.9	14.3	13.0	11.9	9.7	11.2	6.4	9.0	8.5	8.4	7.8	6.6	8.6	+2.0
Parental Education [a]																
1.0–2.0 (Low)	6.8	15.8	6.0	10.6	8.8	7.8	9.4	14.9	9.1	6.9	3.0	3.3	6.3	5.6	5.0	-0.6
2.5–3.0	11.8	13.5	10.6	10.8	11.8	9.2	7.6	9.3	7.8	11.4	5.2	4.7	6.0	4.3	3.8	-0.5
3.5–4.0	10.7	11.4	11.1	8.0	10.8	10.4	10.0	9.9	8.5	4.9	7.2	4.4	3.7	4.5	6.7	+2.2
4.5–5.0	10.2	11.3	11.8	11.8	8.4	8.8	9.2	9.9	8.0	6.2	6.1	3.7	6.3	3.7	3.8	+0.1
5.5–6.0 (High)	6.4	10.7	11.2	8.0	9.0	7.1	10.2	9.6	2.7	6.6	5.2	2.4	4.9	4.9	3.8	-1.1
Race/Ethnicity (2-year average) [b]																
White	—	13.2	13.8	13.3	12.2	11.9	11.9	11.4	9.8	7.9	7.3	6.1	5.9	6.2	5.8	-0.4
African American	—	4.4	4.1	1.4	2.8	4.4	3.5	5.0	5.1	5.0	4.5	1.9	3.2	3.8	2.5	-1.3
Hispanic	—	9.6	8.8	6.7	9.0	8.0	6.8	7.1	8.1	8.0	5.4	3.5	3.0	3.6	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 1 of 6 forms; *N* is one sixth of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education reported on the following scale: (1) Completed grade school or less, (2) Some high school, (3) Completed high school, (4) Some college, (5) Completed college, (6) Graduate or professional school after college. Missing data were allowed on one of the two variables.

[b]To 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 106
EXTREME BINGE DRINKING:
Trends in 2-Week Prevalence of Having 15 or More Drinks in a Row
by Subgroups in <u>Grade 12</u>

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	2018–2019 <u>change</u>
Approx. weighted N =	*14,700*	*14,200*	*14,500*	*14,000*	*13,700*	*13,700*	*13,700*	*13,600*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	5.7	7.2	5.6	5.6	6.0	6.3	4.6	5.5	4.4	4.1	3.5	2.3	3.1	2.5	3.2	+0.8
Gender																
Male	8.5	10.7	8.3	8.7	8.8	9.4	6.4	7.1	6.4	6.4	4.9	3.6	4.4	3.0	3.7	+0.8
Female	1.8	2.9	2.7	2.1	3.0	2.3	1.9	2.1	1.7	1.2	1.5	1.0	0.7	0.9	1.8	+0.9
College Plans																
None or under 4 years	7.0	12.2	8.3	10.5	7.9	11.0	9.1	6.0	5.9	5.3	8.4	4.2	6.3	4.8	5.2	+0.4
Complete 4 years	4.1	5.1	4.5	4.1	5.3	4.6	3.3	4.6	2.9	3.1	2.0	1.7	2.0	1.6	1.7	+0.1
Region																
Northeast	5.6	5.5	6.0	4.7	6.6	5.7	4.3	5.1	5.5	4.0	3.8	1.7	2.2	1.7	1.7	+0.0
Midwest	7.1	8.9	6.7	6.5	8.2	9.6	6.8	5.9	4.9	4.2	4.2	2.8	2.3	1.0	2.7	+1.7 s
South	5.9	8.4	6.1	6.2	6.1	6.1	4.6	5.6	3.4	4.9	3.0	2.2	3.7	3.9	4.3	+0.5
West	4.1	4.3	3.5	4.1	2.4	3.9	2.7	5.2	4.4	2.6	3.6	2.5	3.6	2.0	2.7	+0.7
Population Density																
Large MSA	4.9	7.2	4.3	4.0	5.5	6.5	4.0	7.1	4.9	3.3	3.9	2.6	3.3	1.3	2.4	+1.1
Other MSA	5.5	6.6	6.4	4.2	5.4	5.8	4.3	4.2	4.5	4.5	3.0	1.6	2.6	2.2	3.2	+1.0
Non-MSA	7.4	8.1	6.0	10.5	7.8	7.2	6.3	6.3	3.3	4.2	4.3	3.5	4.2	5.2	4.7	-0.5
Parental Education [a]																
1.0–2.0 (Low)	5.5	8.0	5.7	7.9	5.6	6.6	6.3	9.7	4.3	4.9	1.9	1.6	2.6	4.1	3.8	-0.3
2.5–3.0	6.3	7.6	6.4	5.3	7.4	5.2	4.7	4.1	3.2	4.7	2.9	2.8	3.6	1.8	2.5	+0.7
3.5–4.0	4.0	6.1	5.6	4.6	6.1	6.6	5.5	4.2	5.2	3.4	4.0	2.3	2.7	2.1	3.7	+1.6
4.5–5.0	4.9	6.9	5.7	6.1	4.0	4.0	2.6	5.0	3.7	3.4	3.3	2.1	2.7	1.1	2.4	+1.3
5.5–6.0 (High)	4.1	4.7	2.7	2.6	4.2	4.9	3.8	5.2	0.6	3.6	2.4	0.7	0.9	3.2	1.0	-2.2
Race/Ethnicity (2-year average) [b]																
White	—	6.9	7.0	6.5	6.7	6.9	6.1	5.2	4.9	4.4	4.1	3.1	2.7	2.9	2.7	-0.2
African American	—	1.1	2.2	1.5	1.8	3.1	2.5	2.8	2.8	2.7	1.6	0.4	2.3	3.2	2.5	-0.7
Hispanic	—	5.6	5.8	5.1	5.0	4.3	4.4	4.5	4.6	3.8	2.9	2.8	1.8	1.3	1.9	+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-S3 for the number of subgroup cases. See appendix B for definition of variables in table.Data based on 1 of 6 forms; *N* is one sixth of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education reported on the following scale: (1) Completed grade school or less, (2) Some high school, (3) Completed high school, (4) Some college, (5) Completed college, (6) Graduate or professional school after college. Missing data were allowed on one of the two variables.

[b]To 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 107
BEER: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	16.2	16.9	17.4	18.3	18.8	18.4	16.7	16.2	16.6	15.2	15.0	12.3	12.0	14.4	12.8
Gender:															
Male	19.1	18.6	19.1	21.2	20.4	19.9	18.6	17.7	19.4	16.8	16.5	12.2	12.4	14.0	12.9
Female	13.5	15.3	16.1	16.0	17.0	17.1	14.6	14.7	14.1	13.5	13.6	12.2	11.4	14.6	12.9
College Plans:															
None or under 4 years	26.4	27.7	32.2	32.8	36.0	33.0	33.9	32.6	35.5	29.6	32.9	27.4	28.7	26.4	26.3
Complete 4 years	14.6	15.4	15.6	16.6	16.8	16.3	14.6	14.4	14.3	13.8	12.9	11.1	10.2	13.1	11.5
Region:															
Northeast	14.0	14.0	14.9	18.6	19.3	21.7	18.4	14.7	18.5	14.2	18.7	10.8	12.3	15.1	11.4
Midwest	16.4	18.0	16.7	18.0	17.4	19.3	16.8	18.4	17.5	17.0	13.2	10.2	14.0	15.9	11.4
South	17.8	18.5	19.1	18.2	20.1	16.6	15.5	16.1	17.2	14.2	14.3	14.0	11.4	14.4	15.0
West	14.9	15.1	18.0	18.8	17.6	17.8	17.2	15.1	12.6	15.7	15.3	13.9	10.3	12.2	11.4
Population Density:															
Large MSA	15.0	18.7	15.1	15.2	12.0	16.2	15.0	13.8	14.3	14.0	12.0	11.5	11.0	14.2	11.4
Other MSA	16.1	16.8	17.6	19.4	19.1	19.6	15.9	14.3	16.5	14.1	15.5	12.4	11.9	13.9	13.6
Non-MSA	17.8	15.4	19.8	18.3	21.8	18.8	19.6	22.7	19.4	18.8	17.2	13.2	13.5	15.6	13.1
Parental Education: [a]															
1.0–2.0 (Low)	22.0	22.5	21.5	24.4	23.9	19.7	21.6	21.9	25.4	23.2	21.3	24.1	17.1	23.7	22.6
2.5–3.0	18.2	18.4	19.5	19.7	22.8	21.3	21.2	17.4	19.7	20.7	18.4	14.8	15.1	17.8	15.8
3.5–4.0	15.7	18.0	19.4	19.7	19.6	20.2	18.5	17.9	16.9	13.5	18.1	13.5	14.3	15.0	13.9
4.5–5.0	14.4	13.4	14.9	15.3	15.6	17.8	12.7	12.6	12.3	12.0	10.0	8.4	7.4	11.9	11.2
5.5–6.0 (High)	13.5	14.6	14.4	17.2	14.2	13.2	14.1	17.0	16.0	11.4	9.7	10.3	10.2	13.3	6.7
Race/Ethnicity (2-year average): [b]															
White	—	16.7	17.6	17.9	19.0	19.7	18.8	17.4	17.4	16.8	15.5	13.5	12.0	13.5	14.0
African American	—	12.6	13.0	15.8	14.5	11.1	9.7	8.1	9.7	9.7	7.9	7.2	7.5	8.1	7.6
Hispanic	—	23.9	24.2	22.2	23.3	23.7	21.8	19.9	19.5	19.8	20.7	21.8	19.6	18.4	18.3

TABLE 107 (cont.)
BEER: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

	Percentage who used in last 30 days														2018-2019 change
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	12.5	12.2	11.8	10.0	10.6	9.8	7.9	6.8	6.3	7.3	4.7	5.7	6.8	5.8	-1.0
Gender:															
Male	13.0	11.3	12.3	10.6	11.3	10.2	8.5	6.9	6.9	8.1	4.9	5.3	6.3	5.2	-1.1
Female	11.9	12.2	11.2	9.2	10.1	9.2	7.2	6.6	5.8	6.5	4.7	6.3	7.5	6.3	-1.2
College Plans:															
None or under 4 years	24.7	27.3	30.5	20.9	26.1	16.6	19.5	14.5	16.0	14.5	11.8	11.3	13.0	12.2	-0.9
Complete 4 years	11.4	10.8	10.3	9.0	9.4	9.4	7.0	6.3	5.6	6.8	4.3	5.1	6.1	5.0	-1.0
Region:															
Northeast	11.4	9.5	10.4	9.2	10.4	6.8	6.8	5.0	4.6	5.8	4.0	3.1	4.8	3.4	-1.4
Midwest	13.2	10.6	12.5	8.4	10.2	9.1	5.0	7.0	6.1	7.6	3.1	4.7	7.0	5.0	-2.0
South	13.3	14.0	14.1	12.2	12.2	10.5	8.8	8.2	6.4	7.8	6.3	6.4	7.1	6.4	-0.7
West	11.4	12.0	8.9	8.8	8.6	11.7	10.1	5.6	7.6	7.1	4.2	7.7	7.5	6.9	-0.6
Population Density:															
Large MSA	11.9	10.3	13.0	8.9	9.0	8.2	7.4	6.6	4.7	6.8	4.6	4.3	5.6	5.0	-0.6
Other MSA	12.1	12.3	11.3	9.5	10.9	9.9	8.6	7.5	6.5	7.5	4.3	5.8	8.0	5.3	-2.6 s
Non-MSA	14.3	14.6	11.3	12.5	12.3	12.0	6.9	5.9	8.1	7.5	6.2	7.7	5.7	8.3	+2.6
Parental Education: [a]															
1.0–2.0 (Low)	17.3	21.0	21.3	15.0	13.6	15.4	12.1	11.8	8.6	13.7	12.4	10.1	9.5	9.0	-0.4
2.5–3.0	16.8	19.5	16.7	13.2	14.6	12.5	9.6	8.3	8.8	8.5	6.2	6.3	9.8	8.4	-1.4
3.5–4.0	13.6	10.6	13.1	10.6	11.5	11.4	8.4	8.1	9.0	8.7	3.2	7.1	7.9	6.7	-1.1
4.5–5.0	9.4	9.3	8.8	8.6	8.8	7.5	6.3	6.1	4.1	4.6	4.4	5.2	5.9	4.8	-1.1
5.5–6.0 (High)	9.3	6.7	7.0	6.5	6.5	7.4	4.7	4.9	4.5	6.1	3.0	3.3	4.8	3.8	-1.0
Race/Ethnicity (2-year average): [b]															
White	12.7	11.5	11.5	11.2	10.7	10.2	8.2	6.8	6.4	6.5	5.4	4.6	5.8	6.5	+0.7
African American	8.5	9.0	7.4	6.3	5.6	5.9	5.8	4.2	3.3	3.7	4.1	3.9	3.1	2.1	-1.0
Hispanic	17.1	17.8	17.8	14.9	13.3	14.0	13.8	11.3	9.0	8.8	8.9	7.8	8.4	8.4	0.0

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 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; N is one half of N indicated in Table S1. Data based on one of four forms beginning in 1997; N is one third of N indicated in Table S1.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a]Parental education is an average score of mother's education and father's education. See appendix B for details.
[b]To 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 108
BEER: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	31.1	28.9	28.7	30.2	29.9	30.5	30.4	28.3	29.5	30.6	28.0	24.6	23.2	26.5	24.8
Gender:															
Male	37.6	33.1	33.3	37.3	33.5	34.7	34.1	32.5	35.4	35.4	33.7	28.7	27.9	30.7	26.5
Female	25.2	25.1	24.2	23.3	26.2	26.7	27.1	24.3	23.8	25.6	22.9	20.9	19.3	22.3	23.1
College Plans:															
None or under 4 years	39.4	37.5	37.4	41.4	41.9	44.8	43.8	40.5	43.7	42.7	42.3	37.2	30.3	36.4	36.4
Complete 4 years	29.4	27.2	26.9	28.0	27.8	28.1	28.2	26.1	27.0	28.6	25.9	22.7	22.2	25.1	23.2
Region:															
Northeast	37.1	29.4	32.0	31.9	31.7	33.1	33.2	31.0	34.7	31.7	27.0	23.8	25.6	30.4	25.2
Midwest	31.7	29.4	29.1	31.6	31.1	30.4	30.1	27.8	29.8	33.1	29.0	25.6	23.3	22.1	26.2
South	29.4	28.4	26.6	29.5	29.4	30.6	28.5	27.2	27.8	27.1	26.6	22.6	21.9	27.2	23.6
West	28.4	28.8	28.7	27.5	27.3	28.1	31.1	28.1	26.6	32.6	30.6	27.6	22.6	27.0	24.4
Population Density:															
Large MSA	31.0	30.1	28.8	28.9	23.9	28.9	28.8	24.3	29.3	30.1	25.5	22.5	21.6	23.4	21.8
Other MSA	28.9	27.4	26.4	30.8	30.3	30.1	31.2	28.9	29.4	29.8	26.2	24.7	22.9	27.0	25.2
Non-MSA	35.2	30.8	32.8	30.0	32.2	33.0	30.5	31.4	30.0	32.7	34.4	27.1	26.1	29.3	27.9
Parental Education: [a]															
1.0–2.0 (Low)	33.5	27.7	33.3	30.0	34.0	28.9	28.6	29.3	26.5	26.7	26.7	22.4	26.3	28.7	28.9
2.5–3.0	32.0	30.3	28.4	31.1	33.0	31.1	30.3	30.9	32.3	30.8	27.2	28.6	24.1	30.3	29.1
3.5–4.0	31.4	29.9	29.0	31.3	30.1	30.9	31.3	30.0	29.5	32.3	29.0	25.1	24.3	26.2	23.8
4.5–5.0	29.9	27.7	28.0	30.3	28.5	29.0	31.4	25.0	27.4	32.4	27.7	22.7	21.9	26.4	24.4
5.5–6.0 (High)	30.7	27.4	28.1	27.1	26.5	33.7	30.7	26.5	31.1	28.7	30.4	21.9	21.0	24.2	21.7
Race/Ethnicity (2-year average): [b]															
White	—	31.7	30.2	31.1	32.1	32.5	32.4	31.9	32.2	33.1	31.7	28.7	27.0	27.5	28.2
African American	—	20.9	20.3	19.0	18.8	15.9	15.6	13.1	10.0	13.5	14.8	11.6	10.2	11.3	12.5
Hispanic	—	32.2	29.6	29.3	31.2	31.9	31.3	29.8	28.3	28.9	30.7	28.6	25.1	27.8	31.3

TABLE 108 (cont.)
BEER: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	26.8	24.4	22.4	22.6	22.4	19.6	19.6	18.4	17.3	15.7	13.0	14.0	14.1	12.2	-1.9
Gender:															
Male	29.2	26.8	24.5	25.2	26.3	23.0	22.1	21.0	19.2	16.3	13.4	13.6	16.1	13.6	-2.5
Female	24.0	21.8	20.6	19.8	18.4	16.1	17.3	15.7	15.8	15.2	12.3	14.4	12.3	11.1	-1.2
College Plans:															
None or under 4 years	39.2	39.2	38.1	38.0	36.9	31.0	27.6	26.9	28.6	24.9	23.6	20.4	16.5	16.2	-0.3
Complete 4 years	25.2	22.6	20.4	20.9	20.6	18.4	18.7	17.4	16.1	14.8	11.8	13.1	13.9	11.5	-2.3
Region:															
Northeast	31.4	27.3	24.9	23.3	22.3	22.9	23.6	19.7	20.2	17.2	15.2	15.6	15.2	15.1	-0.1
Midwest	25.5	24.7	23.0	21.3	21.3	16.6	16.6	14.1	13.8	13.7	10.7	11.3	11.6	13.6	+1.9
South	25.0	21.2	22.7	23.5	22.2	20.8	20.9	21.5	17.6	17.1	13.4	14.7	16.2	10.9	-5.3 s
West	27.2	25.8	19.7	21.8	23.8	19.0	17.6	17.7	18.0	14.2	12.9	14.5	12.5	11.1	-1.4
Population Density:															
Large MSA	25.5	24.6	21.7	22.1	22.0	18.3	21.6	16.3	16.7	15.3	14.9	15.8	14.9	11.6	-3.3
Other MSA	27.5	22.4	21.8	22.6	22.1	20.7	18.9	19.0	18.0	15.4	10.6	13.0	14.1	11.2	-2.9
Non-MSA	27.3	28.7	24.8	23.1	23.5	19.6	18.2	19.8	16.5	17.3	16.3	13.7	13.1	15.7	+2.7
Parental Education: [a]															
1.0–2.0 (Low)	27.8	28.9	29.2	26.8	30.4	25.9	23.1	20.6	23.7	19.1	12.5	15.4	17.9	13.9	-4.0
2.5–3.0	30.7	29.7	25.7	25.7	26.8	22.7	21.1	23.3	18.3	20.5	16.6	15.9	14.2	14.5	+0.3
3.5–4.0	28.4	25.4	23.5	22.8	23.3	20.6	18.8	18.0	18.4	16.7	13.0	14.9	13.0	13.6	+0.6
4.5–5.0	23.4	21.5	20.6	20.3	18.5	16.3	19.7	16.8	14.2	13.5	13.4	11.7	13.0	8.9	-4.1 s
5.5–6.0 (High)	26.0	20.5	17.3	20.0	18.8	17.0	19.9	16.8	18.7	14.6	10.4	13.8	16.3	13.5	-2.8
Race/Ethnicity (2-year average): [b]															
White	28.4	27.8	25.3	23.9	23.3	21.6	21.0	20.3	19.6	18.7	16.3	15.0	15.8	15.3	-0.6
African American	11.9	9.7	10.0	11.7	12.5	12.2	8.2	6.9	6.9	7.2	6.1	4.2	4.1	4.4	+0.3
Hispanic	30.7	29.3	28.2	28.0	29.9	28.3	24.4	23.3	20.5	18.2	16.0	16.0	17.5	16.2	-1.3

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 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; N is one half of N indicated in Table S2. Data based on one of four forms beginning in 1997; N is one third of N indicated in Table S2.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 109
BEER: 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
Approximate weighted N =	—	*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*
Total	—	59.8	62.1	62.3	63.7	62.9	62.7	60.3	61.7	59.5	56.7	55.5	56.2	53.3	51.4	47.2
Gender:																
Male	—	68.6	73.1	73.0	74.0	74.3	71.4	68.3	69.7	67.4	64.5	64.3	64.9	61.8	59.7	55.7
Female	—	51.3	52.8	52.7	54.5	52.4	53.9	52.7	54.0	51.8	49.4	47.9	48.1	46.3	43.4	38.0
College Plans:																
None or under 4 years	—	62.1	64.6	65.2	65.7	68.3	65.0	64.6	62.4	62.7	59.8	54.2	58.2	57.3	55.5	46.5
Complete 4 years	—	57.6	60.3	59.5	61.6	58.4	61.0	57.4	61.1	57.4	55.1	55.7	55.1	51.8	49.4	47.5
Region:																
Northeast	—	64.9	65.9	64.7	71.9	67.6	67.1	65.7	68.3	62.6	64.4	51.5	56.8	54.8	54.2	52.7
Midwest	—	65.4	66.9	68.3	66.1	64.9	67.5	66.1	66.6	66.8	57.4	66.3	61.4	59.8	58.5	50.3
South	—	53.2	55.3	58.4	59.2	60.3	57.5	53.0	56.5	53.7	51.0	48.6	52.1	47.6	46.1	42.0
West	—	52.8	59.4	54.2	56.1	57.7	56.9	52.8	53.8	55.3	56.4	54.4	54.8	52.7	48.5	45.4
Population Density:																
Large MSA	—	62.5	64.2	62.8	65.3	67.7	63.8	63.3	63.1	58.8	56.0	55.1	56.9	52.6	50.1	52.3
Other MSA	—	58.6	62.0	62.4	62.3	62.1	61.9	58.6	59.4	56.6	56.8	55.1	56.4	53.0	51.6	47.3
Non-MSA	—	59.3	60.7	61.7	64.4	60.5	63.0	60.0	63.6	63.7	57.3	56.3	55.4	54.3	52.1	42.4
Parental Education: [a]																
1.0–2.0 (Low)	—	58.5	48.3	54.6	52.9	55.9	54.7	56.8	58.8	51.1	52.2	46.8	55.8	47.1	45.3	42.2
2.5–3.0	—	62.7	64.8	63.6	64.5	66.1	65.4	58.5	59.8	62.4	56.8	54.6	53.6	51.9	52.4	47.5
3.5–4.0	—	58.4	66.0	62.7	67.1	64.4	64.0	63.9	62.3	61.2	57.9	56.0	56.0	51.5	52.2	45.8
4.5–5.0	—	62.6	64.4	64.7	68.4	58.4	60.1	60.0	66.2	61.9	60.5	57.6	59.9	58.2	51.4	49.3
5.5–6.0 (High)	—	64.1	69.3	68.3	63.6	69.3	68.9	68.3	65.9	54.2	55.4	62.5	57.7	57.4	53.2	53.4
Race/Ethnicity (2-year average): [b]																
White	—	—	63.8	65.2	65.9	66.3	66.3	65.4	64.6	64.6	62.2	59.9	59.6	59.1	57.0	54.1
African American	—	—	38.7	36.4	37.4	38.7	38.8	37.2	39.2	36.9	33.1	32.7	28.6	30.3	32.6	28.4
Hispanic	—	—	52.7	54.3	52.3	52.5	47.7	47.5	43.4	40.7	46.5	50.9	55.4	49.2	40.4	36.6

TABLE 109 (cont.)
BEER: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	47.2	42.0	43.4	42.6	44.9	46.9	44.4	45.6	42.7	42.7	41.5	39.7	37.8	38.3	38.0	35.5
Gender:																
Male	55.3	50.1	50.0	51.2	53.0	53.5	49.7	55.0	48.2	51.7	50.9	44.3	44.5	44.1	47.3	39.7
Female	39.3	34.6	37.2	35.6	37.4	40.2	39.9	37.0	36.9	33.9	32.1	34.4	31.7	32.1	30.4	31.1
College Plans:																
None or under 4 years	52.4	48.8	48.2	47.1	50.1	46.2	44.6	49.6	47.5	42.4	54.1	45.7	39.4	44.0	45.1	46.2
Complete 4 years	45.2	39.9	41.5	41.6	42.8	47.0	44.4	44.4	41.7	42.4	38.4	37.9	37.2	36.6	36.6	33.4
Region:																
Northeast	49.5	40.8	47.0	43.3	47.0	56.9	47.5	52.6	54.3	48.9	47.2	43.4	41.9	42.6	41.3	42.9
Midwest	53.5	49.1	46.3	48.0	49.7	48.1	43.3	44.6	45.4	47.6	48.1	42.9	43.1	41.4	40.5	35.8
South	41.1	39.5	43.0	40.4	43.8	44.4	43.3	43.2	36.6	35.1	33.6	35.1	32.0	34.2	33.8	34.2
West	46.0	36.7	37.0	38.2	37.8	38.8	44.5	45.5	40.2	43.5	39.9	39.8	36.9	36.1	38.8	31.3
Population Density:																
Large MSA	44.4	42.3	44.0	42.8	45.9	49.1	45.5	42.1	39.9	45.2	38.0	40.5	36.3	34.2	37.9	35.1
Other MSA	47.6	40.3	42.0	39.4	43.7	46.9	45.0	47.6	42.8	40.7	42.6	38.8	38.9	38.9	38.4	37.2
Non-MSA	48.8	45.1	45.3	47.6	46.0	45.3	41.9	45.6	45.4	43.2	43.3	40.5	37.5	41.4	37.1	33.0
Parental Education: [a]																
1.0–2.0 (Low)	48.1	36.6	41.1	37.0	43.1	31.2	30.4	37.0	35.4	37.2	39.1	41.6	30.9	34.1	32.9	27.5
2.5–3.0	46.7	41.4	43.7	44.4	44.0	42.4	41.5	42.8	43.0	37.4	48.0	36.6	36.2	38.0	35.8	38.1
3.5–4.0	48.4	40.7	44.4	42.2	42.8	48.2	46.3	48.9	42.5	45.1	35.8	40.9	39.9	43.0	38.4	35.7
4.5–5.0	46.4	43.8	41.9	41.1	47.1	47.1	47.7	48.9	40.0	43.9	43.6	39.9	38.4	36.1	42.4	35.3
5.5–6.0 (High)	46.1	47.0	47.7	46.6	49.6	58.0	49.9	44.5	51.8	52.0	42.3	45.2	41.4	38.7	37.6	38.4
Race/Ethnicity (2-year average): [b]																
White	51.6	48.3	46.0	46.5	47.8	50.1	50.7	49.9	47.7	45.8	46.7	45.4	43.1	42.1	42.3	41.8
African American	25.3	24.2	28.0	29.9	25.6	28.4	25.5	22.8	22.3	21.7	20.6	16.9	14.0	15.7	18.0	14.8
Hispanic	40.3	44.7	39.8	40.5	41.7	41.3	39.8	39.0	43.6	45.3	42.6	40.8	37.2	36.7	39.2	35.4

TABLE 109 (cont.)
BEER: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	36.6	33.7	34.9	31.7	29.0	32.2	30.8	28.6	25.4	23.6	25.5	21.8	21.9	+0.1
Gender:														
Male	43.7	40.7	42.2	39.7	35.2	39.1	36.9	33.1	28.9	28.2	32.6	25.0	27.3	+2.3
Female	29.3	27.7	28.7	23.0	22.4	25.6	24.6	24.4	22.4	19.0	19.7	18.5	16.7	-1.8
College Plans:														
None or under 4 years	39.0	43.7	38.5	40.6	35.8	33.9	41.5	31.4	27.1	23.5	30.8	23.5	27.8	+4.3
Complete 4 years	35.7	31.7	34.1	30.2	27.5	31.9	28.4	27.6	25.2	23.4	24.7	21.5	20.9	-0.6
Region:														
Northeast	44.1	39.7	42.6	41.2	30.5	40.7	35.7	32.4	38.1	26.5	30.6	23.7	22.1	-1.6
Midwest	39.2	32.7	37.8	31.8	31.2	31.1	33.6	28.8	22.2	26.3	29.6	22.5	19.8	-2.7
South	34.2	33.4	31.0	29.0	25.5	26.4	28.2	26.5	20.8	20.2	23.5	20.4	22.3	+1.8
West	31.7	31.8	30.5	28.9	31.0	35.1	27.9	28.7	26.7	25.6	21.6	22.0	24.0	+2.0
Population Density:														
Large MSA	40.7	36.9	39.5	31.6	30.9	36.2	30.7	30.0	29.4	20.7	25.0	22.7	21.6	-1.1
Other MSA	32.8	31.5	31.7	33.1	27.9	32.4	32.5	29.0	23.4	24.7	22.5	18.4	20.1	+1.6
Non-MSA	38.2	35.0	36.6	28.3	29.0	26.0	26.9	25.8	23.7	25.4	32.4	27.9	27.3	-0.6
Parental Education: [a]														
1.0–2.0 (Low)	32.8	28.5	32.2	24.1	28.7	32.1	24.5	26.3	28.2	23.5	11.0	18.0	21.7	+3.7
2.5–3.0	35.2	34.7	30.4	34.8	28.9	30.9	33.7	26.6	26.2	20.6	24.5	21.8	23.3	+1.5
3.5–4.0	36.8	30.9	36.9	31.5	26.2	31.4	33.2	30.5	22.7	23.8	26.9	19.5	19.7	+0.3
4.5–5.0	39.4	33.8	38.9	34.3	32.3	33.6	32.7	25.9	28.3	24.5	28.7	23.6	20.3	-3.3
5.5–6.0 (High)	38.8	43.1	33.7	28.2	29.5	34.7	26.1	39.5	23.2	26.4	33.8	29.1	26.6	-2.5
Race/Ethnicity (2-year average): [b]														
White	41.0	39.7	37.8	36.4	34.0	33.8	34.5	34.0	31.5	29.1	31.0	30.8	25.8	-5.0 sss
African American	13.6	14.6	19.3	18.9	12.0	12.2	15.2	13.4	11.1	9.7	7.3	6.6	6.2	-0.4
Hispanic	32.7	31.2	31.6	32.1	32.7	35.5	32.9	30.7	29.6	23.8	21.6	20.0	21.5	+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 = .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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1976–1988; N is one fifth of N indicated in Table S3. Data based on one of six forms beginning in 1989; N is one sixth of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 110
BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 8

Percentage reporting 5+ drinks in a row on one or more occasions

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	7.2	7.3	8.2	8.5	8.5	9.2	7.6	8.0	8.3	7.5	8.1	6.1	5.5	6.8	5.8
Gender:															
Male	9.2	8.9	9.4	10.6	9.8	10.1	9.2	10.0	10.5	8.8	9.4	6.5	5.8	6.4	5.5
Female	5.2	5.9	7.1	6.7	7.4	8.2	6.0	6.3	6.2	6.3	7.0	5.5	5.1	6.9	6.2
College Plans:															
None or under 4 years	15.4	18.2	18.4	20.7	17.5	19.7	22.0	21.6	24.8	21.9	25.4	19.0	17.5	19.0	16.7
Complete 4 years	5.9	5.8	6.9	7.1	7.5	7.6	6.0	6.6	6.2	6.1	6.3	5.0	4.2	5.5	4.9
Region:															
Northeast	4.8	5.5	5.8	8.1	9.3	10.7	7.6	6.6	9.1	5.7	9.4	3.5	5.6	6.5	3.7
Midwest	6.9	7.0	7.6	8.8	8.0	9.2	8.4	10.0	9.3	8.9	7.8	5.6	7.0	8.3	4.7
South	8.9	9.0	9.4	8.1	8.8	8.4	6.9	8.0	8.9	7.1	7.9	6.7	5.1	6.4	7.4
West	7.0	6.7	9.2	9.1	8.1	9.2	7.9	7.1	5.3	8.0	7.9	8.4	4.2	6.0	6.0
Population Density:															
Large MSA	6.6	7.4	6.1	6.9	5.3	8.5	5.6	6.7	6.2	6.0	5.4	5.0	4.2	5.6	4.9
Other MSA	7.0	7.6	8.2	9.1	8.8	9.3	7.4	6.6	8.6	6.4	8.4	6.0	5.3	6.4	6.0
Non-MSA	8.4	6.8	10.7	8.4	9.8	9.8	9.6	12.3	10.2	11.5	10.5	7.7	7.3	8.9	6.6
Parental Education: [a]															
1.0–2.0 (Low)	12.6	12.5	11.0	11.6	12.5	12.8	9.8	12.6	17.9	14.8	11.5	11.2	9.4	11.9	14.0
2.5–3.0	7.7	8.9	9.9	9.3	10.2	10.7	10.1	8.0	9.8	10.9	10.0	8.1	7.2	8.8	8.1
3.5–4.0	7.8	7.0	7.9	9.0	9.8	10.1	8.3	9.0	10.4	6.6	9.1	6.8	6.0	7.9	5.3
4.5–5.0	5.0	4.5	7.3	6.8	6.1	7.5	5.3	5.9	3.9	5.0	5.1	3.7	3.5	5.3	4.3
5.5–6.0 (High)	6.2	6.0	6.2	8.4	5.9	6.7	5.7	8.7	6.1	4.3	5.3	4.8	4.1	4.7	2.4
Race/Ethnicity (2-year average): [b]															
White	—	7.0	7.6	8.0	8.7	9.2	8.6	7.9	8.3	8.3	7.7	6.7	5.7	6.1	5.9
African American	—	5.2	5.1	7.2	6.4	4.9	4.4	3.6	4.7	4.9	4.0	3.2	3.0	3.6	3.1
Hispanic	—	12.7	13.2	12.1	11.6	12.7	12.3	10.5	10.2	9.8	12.3	13.2	10.3	9.1	10.0

TABLE 110 (cont.)

BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 8

	Percentage reporting 5+ drinks in a row on one or more occasions														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	5.5	5.4	5.1	4.9	4.8	4.3	3.5	3.0	2.5	2.5	2.0	2.6	2.9	2.5	-0.3
Gender:															
Male	5.9	5.5	6.0	5.3	5.2	4.4	3.5	2.8	2.6	2.3	1.9	2.6	3.1	2.2	-1.0
Female	4.9	4.8	4.3	4.1	4.7	4.0	3.6	3.1	2.4	2.6	2.1	2.5	2.7	2.9	+0.2
College Plans:															
None or under 4 years	13.9	15.3	19.2	15.4	16.8	8.4	12.2	7.8	6.7	8.6	4.9	6.4	7.7	7.0	-0.7
Complete 4 years	4.7	4.4	4.1	4.1	3.9	4.0	2.9	2.7	2.2	2.0	1.8	2.1	2.2	1.9	-0.3
Region:															
Northeast	4.1	4.8	5.3	4.6	4.8	2.1	2.1	2.0	1.8	1.9	1.3	0.8	1.9	0.8	-1.1
Midwest	5.9	3.6	4.6	4.4	4.3	4.9	1.5	2.8	2.9	1.9	1.6	2.2	2.9	2.1	-0.7
South	6.3	6.6	6.2	5.8	5.8	4.3	4.1	3.7	2.6	3.1	2.7	3.1	2.8	3.0	+0.2
West	4.9	5.4	3.9	4.2	3.9	5.4	5.8	2.6	2.6	2.3	1.5	3.5	3.8	3.3	-0.5
Population Density:															
Large MSA	4.1	4.5	5.6	4.4	4.4	3.0	3.6	2.3	1.7	2.1	2.2	1.9	2.8	1.5	-1.3 s
Other MSA	5.4	5.2	4.7	4.4	5.0	4.6	3.7	3.4	2.7	2.5	1.6	2.6	3.2	2.6	-0.5
Non-MSA	7.8	6.9	5.2	6.8	5.2	5.5	2.9	2.8	3.3	2.9	2.4	3.6	2.2	3.7	+1.5
Parental Education: [a]															
1.0–2.0 (Low)	8.9	11.6	11.3	9.5	9.2	7.6	7.7	6.1	4.7	6.2	7.3	3.9	4.8	4.0	-0.7
2.5–3.0	7.1	8.8	8.8	6.8	7.6	5.5	5.1	3.1	3.7	4.3	2.5	2.8	4.7	4.1	-0.6
3.5–4.0	5.4	4.8	5.7	5.1	4.8	5.7	2.7	4.1	2.9	1.8	1.7	2.6	2.8	2.8	0.0
4.5–5.0	4.3	3.4	2.5	4.3	3.4	3.0	2.4	2.2	1.4	1.4	1.4	2.6	1.8	1.8	0.0
5.5–6.0 (High)	4.7	2.1	2.3	2.0	2.5	2.7	1.4	2.1	1.6	0.9	0.9	1.6	1.9	1.8	-0.1
Race/Ethnicity (2-year average): [b]															
White	5.2	4.9	4.8	5.0	4.8	4.3	3.3	2.9	2.5	1.9	1.8	2.0	2.3	2.5	+0.3
African American	2.7	2.6	2.4	2.0	1.5	2.9	3.0	1.3	1.7	1.6	0.9	1.4	1.9	1.1	-0.8
Hispanic	9.0	9.0	9.0	7.3	7.1	7.0	7.3	5.9	3.6	3.9	4.3	3.4	3.7	4.3	+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 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; *N* is one half of *N* indicated in Table S1. Data based on one of four forms beginning in 1997; *N* is one third of *N* indicated in Table S1.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 111

BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 10

Percentage reporting 5+ drinks in a row on one or more occasions

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	16.4	15.1	16.1	17.0	17.1	17.9	17.6	16.0	18.1	17.5	16.3	14.1	13.8	13.6	13.1
Gender:															
Male	21.7	18.9	20.4	23.0	21.1	22.5	21.2	20.7	24.0	22.5	22.2	16.7	18.3	17.1	15.2
Female	11.7	11.7	11.8	11.1	13.1	13.7	14.4	11.8	12.5	12.7	11.2	11.7	9.9	10.4	10.8
College Plans:															
None or under 4 years	25.4	22.8	25.4	26.6	28.2	30.7	31.6	26.1	29.9	26.8	31.2	26.2	22.7	20.5	23.0
Complete 4 years	14.5	13.5	14.2	15.0	15.3	15.8	15.4	14.2	16.2	15.9	14.1	12.2	12.6	12.7	11.8
Region:															
Northeast	19.0	14.6	17.1	18.4	17.4	19.9	17.5	18.8	21.5	16.4	15.2	12.6	16.4	16.9	15.2
Midwest	16.5	16.7	17.3	18.2	18.3	18.8	18.4	16.3	18.3	20.9	16.4	14.9	13.5	10.9	14.6
South	15.4	13.9	14.9	16.9	16.9	17.7	16.6	15.4	17.5	15.7	15.9	13.2	12.4	12.8	10.8
West	15.9	15.5	15.2	13.5	15.5	15.1	18.3	14.0	15.5	16.9	18.3	16.0	14.0	15.0	12.4
Population Density:															
Large MSA	16.0	14.8	15.2	14.5	12.7	16.4	15.9	12.8	18.0	16.9	13.0	12.0	13.0	11.5	10.6
Other MSA	15.8	13.9	13.9	17.0	17.2	17.6	17.6	15.9	17.3	16.3	15.7	13.5	13.1	14.4	13.8
Non-MSA	17.9	17.7	20.9	18.7	19.6	20.1	19.1	19.6	20.1	20.1	21.2	18.1	17.0	14.7	14.6
Parental Education: [a]															
1.0–2.0 (Low)	21.3	15.6	18.9	19.2	20.3	20.5	18.1	12.8	14.2	16.7	17.9	13.8	19.0	14.1	15.1
2.5–3.0	18.5	16.6	15.3	18.5	19.7	18.8	18.0	19.0	20.5	16.5	15.9	15.8	14.8	17.1	16.3
3.5–4.0	15.0	15.6	16.5	16.7	17.4	18.5	18.9	15.8	17.6	17.9	17.8	14.4	13.7	13.9	13.6
4.5–5.0	15.1	14.0	16.3	16.8	16.0	15.9	16.5	14.9	17.3	19.0	14.3	12.5	13.1	12.0	11.6
5.5–6.0 (High)	15.4	13.1	15.3	14.5	13.8	18.3	16.1	16.2	19.3	16.8	17.5	13.1	11.8	13.7	11.3
Race/Ethnicity (2-year average): [b]															
White	—	16.7	16.4	17.4	18.1	19.0	19.3	18.6	19.7	19.9	18.1	16.5	16.1	15.5	15.1
African American	—	9.8	10.1	9.3	8.7	6.5	6.6	5.5	4.0	6.2	6.8	6.1	4.7	4.1	4.2
Hispanic	—	17.2	16.1	16.8	18.6	19.7	19.5	16.9	14.8	17.5	20.3	17.5	16.2	17.5	16.5

TABLE 111 (cont.)
BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 10

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	14.5	13.7	10.8	11.3	10.9	10.3	10.4	9.1	8.2	7.4	5.6	6.4	6.8	5.4	-1.4
Gender:															
Male	16.3	16.5	12.8	13.6	14.0	12.7	12.9	10.8	9.9	8.6	6.2	7.1	9.4	6.8	-2.6 s
Female	12.3	10.7	9.2	9.1	8.0	7.7	8.1	7.1	6.6	6.2	4.9	5.9	4.4	4.2	-0.2
College Plans:															
None or under 4 years	26.1	26.4	21.2	24.3	23.9	20.0	18.3	15.2	18.3	16.4	11.3	13.7	11.2	6.5	-4.7 s
Complete 4 years	12.8	12.3	9.6	10.0	9.4	9.3	9.7	8.4	7.0	6.5	5.0	5.6	6.2	5.3	-0.9
Region:															
Northeast	17.7	14.7	12.0	12.1	10.3	12.2	12.7	8.8	9.0	8.7	6.1	7.0	8.2	5.5	-2.7
Midwest	14.8	14.2	11.2	11.0	10.9	8.0	9.9	6.4	6.2	6.4	5.2	4.5	5.3	5.9	+0.5
South	12.7	12.5	11.3	11.6	10.7	11.2	11.1	12.0	9.0	8.0	4.8	7.2	8.2	5.4	-2.8
West	13.7	13.9	9.0	10.4	11.8	10.1	8.0	8.4	8.3	6.5	6.7	6.9	5.1	4.9	-0.2
Population Density:															
Large MSA	13.3	12.7	10.2	10.4	10.6	9.5	11.4	7.5	7.2	6.8	6.6	6.4	7.0	4.9	-2.1
Other MSA	15.3	12.5	10.9	11.5	10.5	10.6	9.4	9.3	8.1	7.1	4.5	6.6	6.1	5.3	-0.8
Non-MSA	14.1	17.8	11.7	12.2	12.3	10.6	11.1	10.8	10.1	9.6	6.8	6.1	8.2	6.5	-1.7
Parental Education: [a]															
1.0–2.0 (Low)	16.4	19.2	15.1	17.0	19.0	16.0	17.5	13.5	10.9	10.3	5.1	10.2	10.2	6.8	-3.4
2.5–3.0	17.8	18.1	13.2	13.7	11.7	12.1	11.2	10.8	11.1	8.4	7.1	8.1	5.5	6.7	+1.3
3.5–4.0	14.5	13.9	10.9	12.6	11.4	10.5	9.3	9.3	8.8	8.7	5.6	6.4	6.1	5.9	-0.3
4.5–5.0	12.3	11.0	9.5	8.4	8.9	9.2	10.2	7.7	6.0	6.6	5.7	4.8	6.4	2.6	-3.8 ss
5.5–6.0 (High)	14.3	10.6	7.6	9.6	7.9	7.6	10.2	7.6	7.2	6.0	4.6	5.5	7.1	7.4	+0.3
Race/Ethnicity (2-year average): [b]															
White	15.8	15.7	13.7	12.2	11.4	10.7	11.0	10.1	9.4	8.8	7.2	6.6	7.6	7.0	-0.6
African American	3.8	3.7	3.7	4.0	4.4	4.2	3.1	3.1	3.0	3.2	2.8	1.9	1.1	0.9	-0.2
Hispanic	16.0	16.6	15.7	14.7	17.2	17.1	14.3	12.6	8.9	7.3	7.2	8.0	8.8	7.9	-0.9

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 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; *N* is one half of *N* indicated in Table S2. Data based on one of four forms beginning in 1997; *N* is one third of *N* indicated in Table S2.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 112
BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

<div align="center">Percentage reporting 5+ drinks in a row on one or more occasions</div>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	*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*
Total	—	33.0	35.1	35.4	36.4	36.6	38.0	37.6	38.1	36.2	32.0	33.1	33.8	31.0	31.3	27.0
Gender:																
Male	—	45.6	49.0	49.8	50.6	51.1	49.4	48.5	49.8	47.7	42.6	45.4	45.4	41.5	39.5	37.1
Female	—	21.4	23.5	22.6	24.2	23.9	26.5	27.3	27.4	25.0	22.4	22.4	23.1	22.2	23.8	16.5
College Plans:																
None or under 4 years	—	37.7	39.2	41.6	39.5	43.5	42.8	42.1	43.1	41.2	35.5	36.1	37.8	36.9	37.7	29.0
Complete 4 years	—	27.8	31.0	29.4	33.3	30.9	34.2	34.2	34.3	33.6	29.8	30.8	31.7	28.4	28.5	26.0
Region:																
Northeast	—	39.0	35.3	36.5	41.9	41.4	42.1	40.0	37.9	39.8	35.5	32.6	32.1	32.7	32.1	27.4
Midwest	—	35.8	37.6	39.9	39.0	42.3	43.6	45.3	45.1	43.7	34.2	40.8	41.3	38.5	38.2	31.4
South	—	26.6	33.9	31.8	34.0	30.5	33.9	31.7	35.1	31.5	26.6	29.4	30.7	25.7	27.5	23.8
West	—	31.0	31.6	32.0	28.3	31.1	28.5	28.1	31.3	29.4	33.8	27.5	29.8	28.5	27.4	25.1
Population Density:																
Large MSA	—	32.8	34.4	34.4	35.0	40.9	38.9	36.2	37.4	34.5	31.2	33.9	32.3	29.6	27.3	32.0
Other MSA	—	33.9	35.4	35.7	36.3	33.9	37.7	36.6	36.6	33.2	30.2	31.5	34.5	30.9	32.3	26.9
Non-MSA	—	32.1	35.2	35.7	37.6	37.0	37.6	39.8	40.6	41.4	35.1	35.0	33.9	32.6	32.9	22.6
Parental Education: [a]																
1.0–2.0 (Low)	—	30.7	31.9	33.6	32.8	31.1	32.3	35.0	38.4	26.8	27.4	28.5	32.9	31.3	26.9	28.1
2.5–3.0	—	37.5	36.4	37.8	38.0	38.8	42.9	37.5	37.4	39.2	33.6	34.2	34.3	31.0	32.2	26.7
3.5–4.0	—	32.9	34.8	34.4	36.5	37.6	39.2	41.6	39.1	37.1	32.1	32.9	34.9	29.4	32.8	24.9
4.5–5.0	—	33.9	34.1	36.2	38.2	36.0	31.7	35.3	39.1	39.9	35.9	34.4	34.7	32.8	31.2	27.7
5.5–6.0 (High)	—	27.2	38.0	28.7	35.5	37.6	38.5	38.9	36.5	30.2	27.4	33.8	29.7	31.4	26.5	32.3
Race/Ethnicity (2-year average): [b]																
White	—	—	35.5	36.8	37.6	38.5	40.1	40.9	40.8	40.0	37.1	35.3	35.8	35.2	34.4	32.5
African American	—	—	18.8	19.5	19.4	17.7	16.4	16.9	18.1	18.9	15.5	13.2	13.6	16.1	18.5	13.5
Hispanic	—	—	34.4	33.5	31.5	32.7	30.8	27.6	27.9	27.4	24.6	29.4	32.8	27.5	22.0	20.6

TABLE 112 (cont.)
BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	*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*
Total	28.5	25.4	25.5	24.6	27.6	29.2	26.7	28.5	25.6	27.5	26.7	26.1	21.4	23.7	22.4	21.4
Gender:																
Male	37.0	34.0	34.2	35.7	36.5	38.7	32.9	39.3	34.7	38.2	35.9	33.7	31.1	32.1	30.9	26.9
Female	20.1	17.6	18.1	15.5	19.5	19.2	21.2	19.5	17.0	17.6	18.0	18.2	12.9	15.6	15.3	16.2
College Plans:																
None or under 4 years	35.1	32.8	30.2	29.6	32.7	29.4	29.0	39.7	29.5	31.0	40.5	37.0	24.9	32.0	28.9	31.5
Complete 4 years	26.0	23.3	23.8	23.4	25.4	28.8	26.2	25.1	24.7	26.0	23.3	22.9	20.3	21.5	21.1	19.0
Region:																
Northeast	27.8	25.7	28.5	23.4	30.5	35.4	32.0	34.2	33.0	32.7	26.5	28.6	27.1	26.1	25.8	25.9
Midwest	34.7	32.5	27.6	28.3	30.2	29.9	25.7	31.4	28.9	32.4	33.9	28.9	24.8	26.2	26.2	22.1
South	24.2	22.9	25.2	24.8	27.2	27.5	24.1	25.5	21.3	20.0	19.7	22.4	16.8	21.8	20.2	20.6
West	27.3	18.4	20.8	19.7	21.8	24.6	27.6	25.6	22.8	29.4	27.9	26.3	19.2	20.9	18.0	18.1
Population Density:																
Large MSA	24.7	26.0	23.8	23.6	26.9	32.4	26.2	24.4	21.3	29.8	23.4	25.7	18.9	20.9	21.4	21.2
Other MSA	28.8	24.2	24.8	22.6	26.7	29.3	27.9	30.3	26.8	26.1	26.7	25.2	22.9	22.9	23.7	21.2
Non-MSA	31.0	27.2	28.1	28.7	30.0	26.6	25.0	29.5	28.1	27.4	30.2	28.1	21.7	28.2	21.0	22.1
Parental Education: [a]																
1.0–2.0 (Low)	34.9	23.4	27.3	23.7	28.9	23.8	18.7	23.5	22.1	16.8	28.2	32.0	20.1	18.5	17.0	19.3
2.5–3.0	29.2	26.6	26.1	25.3	27.6	25.0	26.0	26.5	27.7	24.3	31.9	24.5	22.9	27.0	21.3	23.2
3.5–4.0	29.4	25.2	26.6	24.2	25.6	29.3	28.3	31.9	26.5	29.1	21.4	27.4	20.5	26.3	23.0	23.9
4.5–5.0	26.2	23.9	24.1	24.1	27.6	28.1	29.1	29.3	24.2	28.7	28.7	24.4	23.3	20.9	25.5	19.6
5.5–6.0 (High)	25.7	26.9	26.1	26.0	32.2	41.0	28.3	27.6	24.3	35.1	28.0	27.3	19.0	20.2	21.8	19.3
Race/Ethnicity (2-year average): [b]																
White	30.6	29.6	27.6	27.3	29.0	31.3	31.4	31.3	30.0	28.8	31.0	30.2	26.4	25.3	26.1	25.8
African American	10.2	13.1	15.5	15.4	12.6	14.6	13.3	11.7	10.6	9.9	9.1	7.6	6.1	9.3	11.2	7.1
Hispanic	23.8	27.2	24.8	24.9	23.8	26.1	26.0	24.4	27.5	29.0	27.1	24.7	21.6	20.0	19.7	19.8

Percentage reporting 5+ drinks in a row on one or more occasions

TABLE 112 (cont.)
BEER: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

						Percentage reporting 5+ drinks in a row on one or more occasions								2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	22.0	20.9	20.8	19.5	16.8	18.8	17.3	16.8	13.6	11.5	14.7	11.2	11.5	+0.4
Gender:														
Male	27.7	27.7	28.0	26.3	24.2	25.1	23.3	22.3	17.5	14.7	20.5	14.4	15.8	+1.4
Female	16.1	15.1	14.3	12.4	10.2	12.3	11.8	11.7	10.0	7.6	9.8	8.1	7.6	-0.5
College Plans:														
None or under 4 years	24.2	30.9	26.7	25.9	21.1	21.3	25.6	18.7	16.6	13.3	21.7	16.5	19.9	+3.4
Complete 4 years	21.2	18.7	19.5	18.3	16.0	18.0	15.3	16.0	12.9	10.7	13.1	9.6	9.9	+0.3
Region:														
Northeast	29.5	23.7	26.0	25.2	17.7	24.9	20.9	18.9	20.0	15.0	19.8	12.1	12.2	+0.1
Midwest	24.3	21.0	23.6	23.3	21.5	18.6	19.8	14.4	13.7	12.7	19.0	10.8	9.9	-0.9
South	18.8	21.1	16.7	16.6	14.2	16.1	15.6	17.1	10.4	9.0	13.3	11.1	12.4	+1.3
West	18.6	18.7	18.8	16.0	15.1	18.5	14.2	16.7	14.0	12.7	9.9	11.0	11.4	+0.3
Population Density:														
Large MSA	25.1	22.7	21.0	17.8	17.7	22.4	17.3	17.4	14.8	11.5	14.0	12.4	11.5	-0.9
Other MSA	19.0	18.8	19.4	21.4	15.6	18.3	16.9	15.8	13.2	10.6	12.9	9.0	8.9	-0.2
Non-MSA	23.3	23.4	23.6	17.3	18.3	14.6	18.0	18.2	12.6	13.7	19.6	13.9	18.7	+4.8
Parental Education: [a]														
1.0–2.0 (Low)	21.5	14.0	21.8	12.3	15.8	22.5	15.4	19.6	12.5	15.1	7.7	11.7	11.3	-0.4
2.5–3.0	23.1	20.4	17.6	22.3	16.9	19.7	18.4	14.2	15.3	9.6	13.7	10.6	10.9	+0.3
3.5–4.0	21.1	19.8	21.2	19.9	16.1	18.9	19.2	19.3	10.6	10.2	15.9	9.3	11.6	+2.3
4.5–5.0	24.2	21.1	23.6	20.9	18.7	18.1	18.5	15.1	16.2	11.7	16.7	13.3	11.1	-2.2
5.5–6.0 (High)	21.0	27.6	19.6	15.8	15.6	15.9	12.1	17.0	12.6	13.6	17.2	11.3	12.2	+0.8
Race/Ethnicity (2-year average): [b]														
White	25.8	25.3	23.6	23.0	21.4	19.7	19.6	20.2	18.1	14.8	16.7	17.2	13.6	-3.6 ss
African American	5.0	5.7	8.2	6.1	4.8	5.3	5.9	7.7	6.8	4.3	3.1	3.7	3.4	-0.3
Hispanic	19.8	17.5	19.4	20.6	18.6	22.9	22.1	16.6	17.7	15.0	11.8	11.2	11.7	+0.5

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 S3 for the
number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1976–1988; N is one fifth of N
indicated in Table S3. Data based on one of six forms beginning in 1989; N is one sixth of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 113

LIQUOR: 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
Approximate weighted N =	—	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
Total	—	44.1	45.0	48.2	47.3	47.9	44.6	45.2	46.4	42.3	40.0	41.0	39.0	35.6	35.7	30.8
Gender:																
Male	—	44.4	44.7	48.9	48.5	48.8	45.3	45.2	48.8	43.3	40.3	43.7	42.8	38.5	39.6	36.9
Female	—	43.8	45.3	47.6	46.6	47.4	44.3	45.1	43.7	40.8	39.5	38.6	35.4	33.6	32.1	24.6
College Plans:																
None or under 4 years	—	44.6	47.8	49.3	46.1	51.4	46.9	47.5	47.4	44.6	41.0	38.9	39.4	36.8	38.1	30.6
Complete 4 years	—	43.8	42.5	47.7	48.5	45.1	43.0	43.6	45.3	40.6	39.6	41.8	39.0	35.0	35.0	30.4
Region:																
Northeast	—	52.5	47.4	47.8	56.7	53.2	49.5	50.8	50.8	46.4	42.1	37.2	43.3	36.1	40.3	34.5
Midwest	—	47.0	49.7	53.7	45.4	46.5	47.2	49.1	50.5	45.6	40.1	49.8	42.2	42.2	40.5	31.0
South	—	37.6	39.8	46.0	43.6	48.5	38.8	38.7	43.3	38.5	37.1	35.9	34.6	30.4	33.0	29.6
West	—	38.3	41.3	42.0	45.0	42.9	43.2	40.0	38.4	39.6	42.1	39.6	37.4	35.0	30.0	28.5
Population Density:																
Large MSA	—	47.3	45.4	49.3	52.0	51.7	44.4	48.5	48.1	40.8	37.7	41.2	39.9	36.0	36.4	33.8
Other MSA	—	44.7	46.0	48.3	47.1	48.4	45.9	45.6	45.5	40.9	39.3	39.9	40.5	36.3	33.5	31.1
Non-MSA	—	41.4	43.3	47.2	44.1	44.8	43.2	42.1	46.1	45.1	42.6	42.4	35.5	34.0	40.3	27.7
Parental Education: [a]																
1.0–2.0 (Low)	—	40.8	38.2	37.3	38.2	44.2	43.1	40.3	41.6	33.1	36.2	36.1	32.2	33.5	32.1	25.7
2.5–3.0	—	46.7	45.9	49.8	46.6	47.8	43.5	44.8	44.7	46.3	37.9	38.1	36.0	34.6	32.1	29.5
3.5–4.0	—	44.7	47.3	51.9	51.7	47.5	46.6	48.0	46.5	42.0	39.2	42.3	38.2	33.1	38.3	31.6
4.5–5.0	—	47.9	45.6	49.1	51.7	48.7	40.7	43.6	50.0	44.9	48.0	43.9	43.4	38.7	36.9	34.2
5.5–6.0 (High)	—	46.6	53.4	54.2	49.3	53.4	53.8	54.2	55.2	40.4	40.9	47.4	45.7	39.4	37.7	33.8
Race/Ethnicity (2-year average): [b]																
White	—	—	47.5	49.5	50.3	50.1	48.9	48.2	49.0	47.3	44.1	43.5	43.4	41.1	39.8	37.7
African American	—	—	21.2	19.9	23.3	27.5	25.1	21.5	25.3	23.7	18.5	17.4	15.0	16.0	16.8	14.4
Hispanic	—	—	47.7	48.8	43.3	47.2	45.6	41.2	35.6	35.4	42.1	40.4	36.9	31.6	24.6	21.0

Table continued on next page.

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TABLE 113 (cont.)

LIQUOR: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	31.3	28.6	31.4	28.0	34.3	34.7	34.6	37.3	34.3	36.0	35.1	36.0	34.3	35.6	36.4	34.2
Gender:																
Male	34.9	32.0	36.4	32.8	38.2	36.4	36.3	41.2	38.0	41.7	35.6	37.9	36.1	39.3	38.4	33.7
Female	28.0	25.9	27.3	23.2	30.9	32.6	33.4	33.3	30.0	30.7	33.7	33.8	32.9	32.2	34.9	33.9
College Plans:																
None or under 4 years	37.0	31.9	37.3	28.3	36.8	35.8	34.2	38.3	35.0	38.1	40.4	42.5	36.9	40.3	42.6	39.7
Complete 4 years	29.0	27.4	29.9	28.1	33.4	34.1	34.9	36.6	33.9	35.0	33.6	34.2	33.6	34.3	35.5	33.0
Region:																
Northeast	36.6	25.8	32.4	25.9	37.7	40.9	36.6	46.3	39.8	40.9	40.8	41.4	35.8	41.1	41.9	40.0
Midwest	33.5	33.5	32.1	29.0	35.4	36.2	35.2	36.6	33.7	40.5	37.4	39.6	37.4	35.4	39.3	35.2
South	28.1	27.1	34.7	28.1	34.9	33.6	32.9	33.9	32.1	28.3	31.7	32.9	30.7	33.3	33.7	32.5
West	29.0	26.3	24.0	28.2	28.7	27.8	35.1	37.2	34.5	38.5	33.3	31.8	35.4	33.8	32.3	30.9
Population Density:																
Large MSA	30.4	29.8	32.2	30.3	33.3	30.6	36.0	37.2	34.5	41.1	36.0	37.5	32.4	30.1	36.2	34.4
Other MSA	33.1	27.4	30.4	26.5	34.9	38.0	34.6	38.9	34.9	33.8	35.4	37.0	35.6	37.7	37.8	36.3
Non-MSA	29.1	30.0	32.7	28.1	34.3	32.4	33.4	33.9	33.3	34.0	33.9	32.3	34.3	37.4	34.2	30.2
Parental Education: [a]																
1.0–2.0 (Low)	29.7	25.4	29.1	23.6	26.8	24.7	27.7	33.5	35.3	30.8	28.2	29.4	27.6	29.5	30.9	30.2
2.5–3.0	32.6	29.9	29.4	28.2	34.8	37.5	31.8	33.5	33.7	28.7	36.3	33.5	35.2	34.0	33.0	36.7
3.5–4.0	33.6	29.0	34.1	25.8	32.4	34.7	36.4	40.6	32.7	40.0	35.4	37.3	35.7	38.2	33.8	34.7
4.5–5.0	27.4	25.9	32.2	29.3	35.7	30.1	35.8	38.2	33.4	35.2	38.3	38.2	36.5	36.4	43.3	33.8
5.5–6.0 (High)	33.5	33.1	29.9	32.0	41.1	42.1	40.4	38.3	40.8	47.8	34.5	38.8	33.0	36.6	38.4	35.9
Race/Ethnicity (2-year average): [b]																
White	35.0	32.9	32.5	32.6	34.1	37.2	38.5	39.5	37.6	37.2	38.8	38.9	37.8	37.8	39.8	39.5
African American	14.1	15.1	17.5	17.1	17.9	24.9	20.4	17.6	21.5	22.2	22.1	22.0	23.0	23.7	25.3	23.0
Hispanic	23.2	29.2	28.9	26.3	27.4	29.4	28.1	31.7	36.6	36.3	36.0	36.3	33.3	29.6	30.2	28.4

TABLE 113 (cont.)
LIQUOR: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	Percentage who used in last 30 days													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	34.1	32.4	33.2	29.8	29.8	31.2	31.0	28.1	26.1	25.1	26.8	21.8	22.4	+0.6
Gender:														
Male	36.2	33.8	35.2	31.9	31.1	32.3	31.8	29.2	26.0	25.6	26.7	20.0	22.2	+2.2
Female	31.4	30.7	30.9	27.3	28.6	30.4	29.8	27.6	26.3	24.1	27.2	23.3	22.3	-1.0
College Plans:														
None or under 4 years	37.5	38.0	40.6	34.9	29.5	30.0	33.6	25.3	27.8	20.5	29.3	21.4	27.1	+5.7
Complete 4 years	33.5	31.4	31.7	28.8	29.7	31.3	30.4	28.5	26.0	26.1	26.8	22.0	21.7	-0.3
Region:														
Northeast	41.2	37.1	37.7	38.5	38.0	41.8	33.4	29.7	35.9	29.6	28.7	24.4	21.4	-3.0
Midwest	38.1	33.4	34.7	31.1	30.4	27.9	32.5	30.9	23.6	26.3	30.1	22.3	23.5	+1.2
South	30.6	32.2	32.1	26.4	26.8	28.2	27.7	25.4	22.6	21.8	25.1	20.6	22.0	+1.3
West	29.8	28.7	29.3	27.6	28.2	31.7	32.1	28.8	26.9	27.0	25.2	21.6	23.0	+1.4
Population Density:														
Large MSA	37.4	37.1	38.7	30.1	34.3	36.5	35.7	29.9	26.8	25.7	28.3	21.1	24.0	+2.9
Other MSA	31.7	29.2	30.9	31.9	29.2	32.4	30.8	29.0	25.9	24.8	23.7	22.0	20.3	-1.6
Non-MSA	34.1	34.1	31.7	24.2	24.7	20.7	24.9	23.7	25.8	24.9	30.7	22.8	25.4	+2.6
Parental Education: [a]														
1.0–2.0 (Low)	27.1	33.3	32.5	22.5	28.7	28.8	24.7	21.7	27.3	24.3	10.8	16.8	16.6	-0.2
2.5–3.0	33.7	30.8	28.1	33.3	28.9	31.7	29.9	28.9	24.4	22.2	27.9	19.1	22.7	+3.7
3.5–4.0	33.2	33.1	33.9	29.3	29.8	32.4	34.6	29.1	23.4	24.4	28.1	22.9	23.3	+0.5
4.5–5.0	37.3	30.3	36.8	30.5	29.5	31.9	34.2	28.1	28.9	29.9	30.0	25.0	22.0	-3.0
5.5–6.0 (High)	39.4	37.5	35.9	28.7	35.3	30.3	26.6	32.5	28.6	24.5	34.5	27.5	27.2	-0.3
Race/Ethnicity (2-year average): [b]														
White	37.5	35.2	33.8	33.0	31.9	32.5	32.5	32.2	30.4	28.2	30.3	29.6	25.8	-3.8 s
African American	21.6	23.7	29.4	27.4	22.8	26.7	27.1	21.6	19.2	17.6	16.3	15.3	15.0	-0.4
Hispanic	27.5	29.3	30.5	30.5	30.9	30.9	30.6	29.1	26.4	25.4	22.6	18.7	17.9	-0.9

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1976–1988; N is one fifth of N indicated in Table S3. Data based on one of six forms beginning in 1989; N is one sixth of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 114

LIQUOR: Trends in 2-Week Prevalence of <u>5 or More Drinks in a Row</u> by Subgroups in <u>Grade 12</u>

Percentage reporting 5+ drinks in a row on one or more occasions

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	*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*
Total	—	19.8	19.9	22.0	22.8	23.0	21.3	23.8	22.0	21.3	19.6	21.4	20.5	18.2	20.0	16.8
Gender:																
Male	—	23.3	21.1	24.4	26.3	26.1	23.0	25.8	26.4	24.6	20.9	24.7	25.0	20.3	24.5	20.7
Female	—	16.1	18.5	19.6	19.8	20.2	19.7	21.9	17.8	18.2	18.2	18.6	16.2	16.6	15.7	12.8
College Plans:																
None or under 4 years	—	23.8	23.4	26.7	24.2	26.5	26.4	26.9	25.7	24.7	22.0	24.0	24.5	20.7	23.7	17.3
Complete 4 years	—	15.8	16.8	17.9	21.5	19.7	18.0	21.8	19.2	19.2	18.4	19.9	18.6	17.2	18.6	16.4
Region:																
Northeast	—	24.9	20.2	21.8	28.8	27.2	25.0	26.1	24.7	24.9	23.8	20.1	22.3	17.4	23.7	18.0
Midwest	—	22.1	23.3	24.0	23.0	23.7	22.9	27.5	24.0	24.1	19.3	25.9	21.9	23.1	21.4	17.7
South	—	16.0	16.4	22.5	20.6	22.1	18.0	19.6	20.7	20.2	17.0	19.1	18.7	15.2	18.6	15.4
West	—	14.8	19.2	16.2	18.5	18.2	19.2	20.1	17.0	15.3	19.8	19.6	19.6	17.2	17.5	16.5
Population Density:																
Large MSA	—	20.3	18.3	20.5	22.6	22.8	22.6	26.1	24.3	21.1	18.7	21.7	20.3	16.8	18.4	17.9
Other MSA	—	19.9	21.8	21.4	23.4	23.9	20.7	22.2	21.8	20.1	19.6	19.7	20.8	19.8	19.1	16.4
Non-MSA	—	19.4	18.8	23.8	22.3	22.1	21.2	24.1	20.5	23.0	20.2	23.9	20.2	16.6	23.7	16.8
Parental Education: [a]																
1.0–2.0 (Low)	—	22.0	18.1	20.9	19.1	22.0	24.3	21.0	21.5	21.0	19.6	19.0	20.6	19.9	17.6	18.0
2.5–3.0	—	22.8	20.4	23.7	23.6	23.9	21.3	24.7	23.6	25.5	20.4	24.2	21.2	21.6	18.1	16.4
3.5–4.0	—	17.4	21.5	22.0	22.9	20.5	24.9	25.2	19.9	19.7	18.1	20.1	18.1	15.7	23.2	15.0
4.5–5.0	—	18.0	16.7	18.6	24.7	24.8	14.7	21.3	22.6	20.0	20.2	20.4	21.8	16.7	20.9	18.5
5.5–6.0 (High)	—	14.0	24.9	22.5	23.2	23.6	19.5	28.1	20.4	17.5	20.6	22.0	22.2	16.4	16.3	19.4
Race/Ethnicity (2-year average): [b]																
White	—	—	20.5	22.1	23.6	24.1	23.3	24.2	24.5	23.0	22.0	22.0	22.6	21.3	21.0	20.7
African American	—	—	10.5	7.7	8.4	11.1	10.6	8.6	10.9	11.2	8.0	7.5	6.2	7.2	10.4	9.6
Hispanic	—	—	25.5	26.8	25.9	22.9	25.3	26.7	24.5	21.4	20.9	20.8	21.9	19.0	14.6	11.9

TABLE 114 (cont.)

LIQUOR: Trends in 2-Week Prevalence of <u>5 or More Drinks in a Row</u> by Subgroups in <u>Grade 12</u>

Percentage reporting 5+ drinks in a row on one or more occasions

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	17.4	16.0	18.2	17.1	20.2	21.6	21.1	23.6	22.3	23.8	22.7	25.6	21.1	23.8	25.0	23.3
Gender:																
Male	20.5	20.0	24.6	22.4	24.7	24.6	23.9	27.3	27.6	30.8	26.4	27.2	24.1	29.2	28.5	24.7
Female	14.4	12.6	13.2	12.6	16.2	17.7	18.7	20.0	16.1	17.4	18.8	23.6	18.9	18.2	22.0	22.0
College Plans:																
None or under 4 years	21.7	21.4	24.6	19.1	22.5	21.1	23.4	31.2	23.2	26.4	29.2	31.9	23.0	29.2	32.6	27.1
Complete 4 years	15.8	14.1	16.5	16.6	19.2	21.4	20.6	21.7	21.9	22.9	20.7	23.7	20.5	22.1	23.7	22.6
Region:																
Northeast	21.3	14.8	15.1	14.2	19.2	25.4	24.6	29.8	25.5	24.7	27.9	27.8	23.5	28.2	28.7	29.0
Midwest	19.0	19.0	18.9	17.7	21.5	22.0	20.6	23.6	19.9	29.7	21.5	28.1	24.8	23.4	28.3	26.2
South	15.3	15.5	21.7	17.6	21.8	21.9	20.0	21.7	21.7	17.4	20.4	24.3	17.4	21.6	22.8	20.5
West	15.2	13.7	13.6	18.0	16.4	16.3	20.5	22.3	23.6	26.1	24.3	22.7	20.7	23.4	21.2	19.8
Population Density:																
Large MSA	16.4	15.6	16.8	16.1	19.3	19.5	23.0	23.9	21.4	26.6	23.6	25.8	20.0	20.7	25.3	22.6
Other MSA	17.5	15.2	17.3	16.3	20.3	24.9	21.3	25.1	22.8	21.7	22.2	26.3	21.9	24.6	26.2	25.0
Non-MSA	18.1	17.9	20.7	19.5	21.1	17.7	18.7	20.3	22.2	24.1	22.6	24.0	21.2	25.5	22.5	21.0
Parental Education: [a]																
1.0–2.0 (Low)	19.9	15.9	20.7	14.4	15.2	14.7	16.7	23.9	25.5	24.4	15.2	18.4	17.9	17.8	18.5	19.1
2.5–3.0	18.1	17.9	18.3	18.5	19.7	22.1	18.3	21.3	20.7	17.8	25.4	24.2	24.2	25.9	22.1	22.7
3.5–4.0	18.6	15.9	19.7	16.2	20.7	20.4	23.3	25.4	23.6	25.8	21.8	24.4	21.1	26.2	23.5	26.1
4.5–5.0	16.4	13.5	17.4	17.7	21.6	18.0	22.2	24.3	20.6	24.5	24.9	29.0	21.0	22.2	29.8	24.5
5.5–6.0 (High)	13.3	16.5	16.0	18.8	22.0	31.3	23.5	23.0	22.8	30.4	22.4	31.0	21.0	20.3	28.7	20.3
Race/Ethnicity (2-year average): [b]																
White	19.0	18.0	18.7	19.4	20.4	22.3	23.4	24.7	24.4	24.3	25.3	26.3	25.4	24.6	26.9	27.5
African American	6.8	7.1	8.9	9.5	11.3	15.4	12.5	9.9	10.4	10.2	12.8	14.6	14.9	15.8	17.2	14.9
Hispanic	13.4	19.4	18.1	16.8	18.1	18.9	20.0	22.2	24.3	25.2	24.0	24.0	21.1	18.9	20.6	18.4

TABLE 114 (cont.)
LIQUOR: Trends in 2-Week Prevalence of <u>5 or More Drinks in a Row</u> by Subgroups in <u>Grade 12</u>

<div align="center">Percentage reporting 5+ drinks in a row on one or more occasions</div>

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	22.9	22.1	21.5	20.3	18.3	22.1	21.0	18.2	16.7	14.6	18.8	12.9	14.6	+1.7
Gender:														
Male	24.4	24.0	23.3	23.6	20.4	24.3	22.5	21.0	17.7	14.9	19.2	12.0	14.7	+2.7
Female	21.5	20.3	19.3	15.9	16.0	19.8	19.2	15.6	15.7	13.8	18.2	13.9	14.4	+0.5
College Plans:														
None or under 4 years	26.5	29.3	28.5	28.9	21.5	23.0	26.5	19.0	21.1	12.4	22.1	15.6	18.5	+2.9
Complete 4 years	22.1	20.5	19.9	18.6	17.7	21.4	19.8	17.9	15.9	14.9	18.3	12.4	14.1	+1.7
Region:														
Northeast	31.2	23.2	27.6	23.9	24.3	29.3	22.0	19.5	24.7	17.7	20.4	12.9	12.6	-0.2
Midwest	26.7	23.4	23.7	21.4	19.7	21.8	23.5	19.8	16.4	15.7	23.8	14.1	15.2	+1.1
South	19.0	21.2	18.7	19.2	15.4	19.7	18.8	15.9	13.9	12.6	16.5	12.1	15.0	+3.0
West	19.0	21.3	17.3	18.2	17.6	20.9	20.9	19.4	16.0	15.3	16.6	13.1	14.7	+1.6
Population Density:														
Large MSA	26.0	24.0	21.9	22.3	22.4	26.7	24.4	18.5	18.0	15.4	19.0	11.7	13.2	+1.6
Other MSA	21.4	20.3	21.8	20.8	17.7	21.4	19.9	18.8	16.4	14.2	16.6	13.5	13.7	+0.2
Non-MSA	21.6	23.8	20.1	16.2	14.0	16.8	19.2	16.5	15.6	14.6	22.8	13.7	19.6	+6.0
Parental Education: [a]														
1.0–2.0 (Low)	18.8	16.9	23.8	15.7	17.3	17.3	20.6	11.5	15.2	17.4	6.4	12.1	9.2	-2.9
2.5–3.0	22.0	20.1	17.8	25.5	16.5	24.2	18.0	17.3	16.3	12.9	22.2	11.8	15.9	+4.1
3.5–4.0	24.3	22.8	22.1	19.0	18.9	21.4	25.5	19.7	14.6	13.2	20.2	11.4	16.0	+4.6
4.5–5.0	24.1	22.0	24.5	20.5	20.5	24.1	23.0	18.3	19.4	17.1	18.7	16.3	13.5	-2.7
5.5–6.0 (High)	24.1	25.5	20.0	18.3	18.1	19.8	15.8	24.0	16.6	13.7	22.7	14.5	17.0	+2.5
Race/Ethnicity (2-year average): [b]														
White	25.8	23.9	22.3	21.7	20.9	21.5	22.7	22.2	19.5	16.7	19.1	19.4	16.6	-2.8 s
African American	13.7	17.1	21.7	18.8	12.3	13.8	16.8	13.6	11.7	10.5	9.1	8.6	9.2	+0.6
Hispanic	17.6	19.1	20.5	21.0	21.6	22.5	21.6	17.5	17.4	16.2	14.2	13.2	10.6	-2.6

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1976–1988; *N* is one fifth of *N* indicated in Table S3. Data based on one of six forms beginning in 1989; *N* is one sixth of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 115
WINE: 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[a]	1989	1990
Approximate weighted N =	—	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
Total	—	34.5	37.4	37.7	36.6	39.5	36.6	37.8	36.0	34.1	36.0	34.5	33.5	22.7	19.7	14.7
Gender:																
Male	—	34.1	35.5	34.8	33.9	38.1	35.3	35.6	33.8	30.3	34.2	30.8	29.3	20.7	18.9	16.1
Female	—	34.5	39.1	40.2	39.0	41.1	38.2	39.9	37.7	38.1	37.4	38.1	37.1	24.3	20.4	13.5
College Plans:																
None or under 4 years	—	31.5	33.1	33.8	33.8	37.1	32.8	36.3	34.5	33.7	34.6	31.5	28.2	19.7	18.6	11.9
Complete 4 years	—	38.0	41.4	41.5	38.5	41.0	39.1	39.5	37.2	34.0	37.3	36.2	35.7	24.0	20.5	16.0
Region:																
Northeast	—	45.2	42.6	47.5	45.3	48.0	51.6	51.4	46.0	41.5	43.9	32.0	35.6	27.7	22.1	15.0
Midwest	—	33.8	36.3	40.8	33.8	36.6	38.5	38.9	36.0	34.3	34.1	41.0	34.0	23.0	23.7	13.4
South	—	27.5	34.2	30.2	30.8	34.8	26.3	27.7	30.9	29.5	30.7	28.1	31.7	18.9	17.4	14.5
West	—	34.0	38.1	32.7	40.8	42.4	31.6	32.5	32.4	34.7	38.4	38.1	33.8	24.5	16.0	16.9
Population Density:																
Large MSA	—	46.6	47.0	45.6	44.2	46.9	46.0	46.3	45.0	36.7	40.7	36.6	35.3	27.6	20.6	15.3
Other MSA	—	33.0	36.5	36.8	36.0	42.1	34.6	36.6	32.4	34.0	36.4	36.0	34.9	22.0	20.5	16.8
Non-MSA	—	28.0	31.4	32.8	31.9	31.0	32.4	32.8	33.8	32.3	31.7	30.7	29.2	19.3	16.7	9.9
Parental Education: [b]																
1.0–2.0 (Low)	—	33.4	30.1	32.3	31.4	28.0	28.0	30.2	26.6	28.3	28.6	28.0	23.9	16.4	19.0	9.5
2.5–3.0	—	33.8	32.8	35.3	33.0	38.0	33.2	33.8	35.3	34.0	32.4	31.3	30.7	17.8	15.6	12.4
3.5–4.0	—	36.9	42.0	40.2	38.2	39.6	37.2	42.0	32.9	35.9	36.9	37.1	31.5	23.4	18.8	14.2
4.5–5.0	—	39.6	42.5	40.8	43.6	45.2	41.5	43.4	46.1	37.1	43.1	36.3	39.7	26.5	24.1	18.9
5.5–6.0 (High)	—	48.4	57.3	49.8	46.7	51.7	52.9	47.5	43.2	33.9	42.6	40.1	40.9	31.4	23.5	19.3
Race/Ethnicity (2-year average): [c]																
White	—	—	35.9	38.1	38.1	39.2	40.2	39.6	38.4	36.5	36.7	37.1	35.7	29.9	23.0	18.6
African American	—	—	36.2	30.8	27.4	27.9	24.9	26.0	28.9	24.4	21.3	21.0	21.8	18.4	15.0	11.2
Hispanic	—	—	42.9	38.5	30.0	31.0	27.3	26.8	28.3	30.9	37.0	37.4	33.0	22.2	15.0	14.2

TABLE 115 (cont.)

WINE: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
						Percentage who used in last 30 days										
Approximate weighted N =	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
Total	16.1	16.9	14.9	14.2	14.3	18.3	17.0	16.0	15.8	16.2	14.1	13.4	13.4	13.9	14.4	12.6
Gender:																
Male	16.9	17.2	15.9	13.8	13.2	18.1	16.7	17.4	17.6	17.7	12.8	13.2	13.9	13.8	13.8	11.6
Female	15.5	16.6	13.9	14.3	15.3	18.2	17.3	15.0	14.4	15.0	15.5	13.2	13.5	14.1	15.1	13.6
College Plans:																
None or under 4 years	16.1	12.6	16.5	11.7	10.6	14.5	14.2	19.0	11.9	12.0	15.9	11.7	13.8	12.7	14.4	13.9
Complete 4 years	16.4	18.4	14.4	14.8	15.3	19.3	18.0	15.3	16.8	17.1	13.3	13.7	13.5	14.5	14.3	11.9
Region:																
Northeast	22.1	18.5	15.2	15.9	14.2	23.4	19.4	18.7	23.5	20.8	19.2	17.3	12.5	18.2	15.2	13.9
Midwest	17.3	21.9	14.0	14.3	14.3	13.1	14.2	17.7	16.2	11.9	13.5	14.9	13.5	13.0	15.3	13.9
South	11.8	11.0	16.7	13.0	15.9	20.0	17.7	13.8	14.6	17.2	13.9	12.7	14.0	12.6	13.4	12.1
West	16.2	18.3	13.0	15.0	11.6	16.8	17.1	15.9	11.2	15.9	11.3	9.8	13.5	12.8	14.1	10.7
Population Density:																
Large MSA	13.9	17.0	20.0	16.8	14.8	19.5	18.2	19.5	17.4	20.4	16.7	17.2	11.1	12.5	16.9	15.0
Other MSA	17.8	19.0	15.0	14.4	15.1	18.6	18.2	15.9	16.5	14.6	11.5	11.8	15.0	15.4	14.0	12.8
Non-MSA	15.1	12.6	11.3	11.3	12.4	16.6	13.6	12.3	13.3	14.2	15.6	11.9	13.5	12.8	12.2	8.9
Parental Education: [b]																
1.0–2.0 (Low)	10.8	11.7	14.3	9.8	13.5	9.7	13.1	14.6	16.7	19.7	12.3	14.8	9.4	12.8	10.9	4.0
2.5–3.0	16.0	13.9	12.1	13.6	10.2	15.2	13.8	10.2	10.5	10.4	13.6	8.6	13.1	10.9	13.4	10.6
3.5–4.0	16.4	15.4	14.3	11.7	10.5	17.9	15.7	15.1	11.5	14.6	10.2	13.1	13.1	15.6	12.2	11.4
4.5–5.0	17.5	19.2	17.7	14.6	18.1	18.0	18.0	20.8	19.6	16.2	19.1	15.4	15.5	14.1	16.8	15.5
5.5–6.0 (High)	19.4	27.1	16.5	23.8	24.9	27.2	29.1	20.0	29.8	29.1	16.7	19.0	15.8	18.3	18.2	18.4
Race/Ethnicity (2-year average): [c]																
White	16.6	17.4	16.2	14.4	14.4	16.8	19.3	18.1	16.6	16.4	15.9	15.2	14.5	14.7	15.5	15.6
African American	10.2	11.7	14.5	17.6	13.6	12.8	11.1	9.9	9.3	9.5	10.9	8.5	8.0	7.9	7.8	6.1
Hispanic	10.9	14.9	14.3	14.2	15.0	13.8	13.5	13.4	16.4	17.9	12.9	9.4	12.2	13.5	13.1	10.5

TABLE 115 (cont.)
WINE: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	14.1	14.0	11.5	9.3	10.2	10.6	11.5	11.5	8.4	9.5	10.8	9.7	10.3	+0.6
Gender:														
Male	12.1	13.4	12.0	8.7	9.2	8.8	10.2	10.7	5.5	6.8	8.7	5.9	8.0	+2.1
Female	15.3	14.4	10.9	10.2	11.0	12.5	12.7	12.6	10.2	11.6	12.7	13.6	12.0	-1.5
College Plans:														
None or under 4 years	13.1	17.3	10.3	10.6	8.3	5.6	8.9	12.9	8.0	7.5	9.7	4.9	7.8	+2.9
Complete 4 years	14.4	13.4	11.6	9.0	10.6	11.9	12.1	11.1	8.7	9.6	11.2	11.2	11.0	-0.2
Region:														
Northeast	17.6	17.0	17.6	13.4	12.2	13.2	11.2	13.5	13.9	11.8	15.5	15.6	11.4	-4.1
Midwest	14.1	13.9	14.6	12.3	8.8	10.4	12.4	12.4	10.4	8.6	12.0	9.3	8.7	-0.6
South	13.9	13.3	7.6	6.8	10.0	9.3	10.5	10.9	6.3	8.6	9.2	10.2	11.7	+1.5
West	11.5	13.3	8.2	7.3	10.8	10.7	12.0	10.0	5.9	10.2	9.3	5.5	8.1	+2.6
Population Density:														
Large MSA	16.7	18.8	12.6	9.6	11.1	16.0	12.9	13.6	9.7	9.5	11.3	9.8	9.6	-0.2
Other MSA	13.5	13.0	12.3	10.3	11.0	9.4	10.3	11.5	7.6	8.2	11.2	8.7	10.2	+1.6
Non-MSA	11.3	11.0	8.3	6.6	7.4	5.6	12.2	8.7	7.9	12.4	9.4	11.7	11.5	-0.2
Parental Education: [b]														
1.0–2.0 (Low)	9.9	11.3	9.1	5.7	9.0	8.9	5.6	6.6	6.3	4.9	3.1	5.9	3.2	-2.7
2.5–3.0	9.0	11.9	8.8	9.5	5.8	9.0	10.5	7.9	7.2	7.0	9.3	6.7	5.4	-1.3
3.5–4.0	15.3	13.3	10.2	7.5	11.2	11.1	12.0	11.5	7.8	10.4	10.4	9.0	11.1	+2.1
4.5–5.0	16.4	13.7	13.6	12.3	8.8	11.6	14.9	10.8	9.4	10.6	11.7	12.1	12.0	-0.1
5.5–6.0 (High)	19.9	17.2	17.9	10.0	17.3	12.4	11.4	25.5	12.4	10.9	19.8	16.7	16.8	+0.1
Race/Ethnicity (2-year average): [c]														
White	15.4	14.3	12.8	11.5	10.8	11.5	12.2	13.0	12.1	10.6	11.8	13.3	12.7	-0.7
African American	6.5	11.2	11.6	7.6	8.8	10.4	10.5	7.7	5.4	6.7	6.6	4.5	7.3	+2.8
Hispanic	11.0	15.7	14.2	9.4	8.2	9.4	7.8	6.6	6.5	6.6	7.4	6.9	6.4	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1976–1988; *N* is one fifth of *N* indicated in Table S3. Data based on one of six forms beginning in 1989; *N* is one sixth of *N* indicated in Table S3.

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

[a]In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 116
WINE: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

<div align="center">Percentage reporting 5+ drinks in a row on one or more occasions</div>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988[a]	1989	1990
Approximate weighted N =	—	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
Total	—	12.5	13.1	13.5	12.9	13.2	13.0	14.9	14.3	13.0	12.8	13.8	12.7	7.8	6.8	4.9
Gender:																
Male	—	14.5	13.9	14.3	13.9	13.3	12.2	12.6	14.4	12.6	12.9	12.4	12.3	7.8	6.1	5.5
Female	—	10.4	12.1	12.8	12.0	12.8	13.5	16.8	13.9	13.1	12.5	14.6	12.8	7.7	7.3	4.3
College Plans:																
None or under 4 years	—	14.1	14.6	14.6	14.8	15.3	13.2	16.1	15.7	14.4	13.9	14.6	13.7	9.5	9.0	5.1
Complete 4 years	—	10.4	11.6	12.7	11.4	11.3	12.6	13.9	13.2	11.9	11.9	13.3	12.0	7.1	6.0	4.9
Region:																
Northeast	—	14.8	14.8	15.0	16.4	18.2	17.9	18.3	19.1	16.9	15.7	11.5	10.7	8.1	7.4	3.6
Midwest	—	13.8	12.9	15.4	12.6	12.2	13.9	16.0	13.6	14.1	12.3	17.2	13.5	7.8	6.9	3.9
South	—	10.1	11.8	11.7	11.8	11.6	10.0	12.4	12.5	11.0	10.9	12.9	13.1	6.8	6.7	5.4
West	—	10.8	13.4	10.9	10.4	11.6	9.8	12.0	13.1	10.9	13.3	12.2	13.2	9.5	6.3	7.0
Population Density:																
Large MSA	—	17.0	14.9	14.7	14.3	14.9	16.8	17.9	17.1	14.1	14.0	13.5	11.0	9.7	6.1	4.4
Other MSA	—	11.4	13.0	12.5	11.8	13.2	11.6	13.3	12.6	12.4	13.7	13.8	13.6	7.8	8.0	4.9
Non-MSA	—	10.7	11.8	14.0	13.1	12.0	11.8	14.7	14.4	13.0	10.6	13.9	12.9	6.0	4.8	5.2
Parental Education: [b]																
1.0–2.0 (Low)	—	14.0	16.4	14.9	12.7	10.2	13.7	15.7	12.1	12.8	11.9	14.7	12.2	8.2	8.3	4.6
2.5–3.0	—	13.4	12.0	13.7	12.4	15.4	13.1	12.1	16.8	14.6	12.1	13.6	13.0	7.2	6.2	5.4
3.5–4.0	—	11.7	14.0	12.2	10.3	13.0	13.4	16.7	12.4	15.0	13.1	14.9	12.1	7.5	6.3	5.4
4.5–5.0	—	12.4	9.4	12.9	16.5	12.7	11.2	14.9	14.4	10.2	13.4	12.2	13.3	7.7	8.0	4.3
5.5–6.0 (High)	—	14.4	15.4	15.0	16.5	12.0	14.2	21.2	12.5	7.7	14.5	12.9	12.3	9.5	5.0	4.4
Race/Ethnicity (2-year average): [c]																
White	—	—	12.0	13.1	13.4	13.1	13.4	14.4	14.8	13.8	13.3	13.6	13.4	10.4	7.5	6.0
African American	—	—	16.7	12.6	10.8	10.4	9.0	10.0	11.4	10.1	8.3	8.3	7.6	8.3	7.8	4.7
Hispanic	—	—	19.3	14.7	9.7	9.5	15.3	15.1	15.8	14.3	13.4	16.1	14.7	8.4	5.1	6.4

TABLE 116 (cont.)
WINE: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

	Percentage reporting 5+ drinks in a row on one or more occasions															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	5.8	5.7	5.8	4.9	5.8	7.0	6.4	6.4	5.0	5.4	5.9	4.7	5.0	4.9	5.4	4.4
Gender:																
Male	7.1	6.5	7.2	4.9	6.1	8.3	6.9	6.9	6.5	7.3	5.8	4.6	5.7	6.2	5.1	4.9
Female	4.6	4.5	4.4	4.9	5.6	5.7	6.1	5.8	3.8	3.6	5.3	4.1	4.3	3.5	5.6	4.1
College Plans:																
None or under 4 years	8.0	6.7	8.3	4.0	6.1	5.7	8.7	9.6	5.0	4.2	7.8	6.4	7.0	5.2	7.1	6.0
Complete 4 years	5.3	5.4	5.1	5.3	5.4	7.2	5.7	5.5	5.1	5.6	5.2	4.1	4.5	4.8	4.8	4.0
Region:																
Northeast	7.1	4.5	3.4	4.2	5.9	10.2	6.6	8.0	5.4	5.9	8.3	5.3	4.1	4.6	5.2	5.6
Midwest	5.6	7.2	4.6	4.6	6.3	5.7	5.5	6.4	6.4	5.3	4.5	4.6	5.5	5.1	6.1	5.0
South	5.1	4.1	8.2	4.7	6.9	6.7	7.2	5.7	5.0	5.2	5.8	3.9	5.4	4.9	5.1	3.6
West	6.0	7.1	5.3	6.5	3.0	6.1	6.3	6.5	3.2	5.5	6.1	5.8	4.5	4.9	5.3	4.1
Population Density:																
Large MSA	5.3	6.1	5.4	4.7	5.6	9.6	7.3	6.6	5.3	6.7	5.5	5.4	4.1	5.3	5.8	5.3
Other MSA	6.5	5.8	6.8	6.2	5.4	7.0	6.4	6.6	4.2	5.4	5.4	3.2	5.0	4.6	5.3	3.9
Non-MSA	4.9	5.1	4.5	3.2	6.6	4.9	5.6	5.8	6.2	3.9	7.0	6.7	5.9	5.0	5.2	4.1
Parental Education: [b]																
1.0–2.0 (Low)	5.7	8.0	12.4	4.9	6.1	4.2	5.2	10.7	8.2	11.3	8.0	8.2	6.8	6.4	5.6	4.3
2.5–3.0	6.8	4.8	5.3	3.8	5.6	6.5	6.8	6.0	3.5	3.7	5.6	4.6	6.6	4.4	5.3	2.8
3.5–4.0	6.5	4.1	4.3	5.5	4.2	7.1	4.8	5.7	4.1	5.3	4.7	4.5	4.6	6.5	4.6	3.6
4.5–5.0	4.9	6.1	6.0	3.7	5.6	4.4	8.1	7.6	4.7	4.8	7.2	4.4	4.1	4.1	4.7	5.2
5.5–6.0 (High)	3.5	8.3	4.4	8.4	11.1	13.0	8.2	4.5	8.8	6.5	5.5	4.4	4.2	4.2	8.1	7.3
Race/Ethnicity (2-year average): [c]																
White	5.3	5.5	5.0	4.8	5.2	6.2	6.9	6.5	5.4	4.7	4.8	4.9	5.0	4.9	5.1	5.2
African American	5.1	5.1	7.6	7.5	4.0	4.9	5.1	5.3	4.5	5.2	6.5	5.0	4.3	3.5	2.3	1.7
Hispanic	4.3	7.5	7.8	7.2	7.3	7.6	7.6	7.1	7.8	7.8	7.8	4.7	3.5	5.2	5.0	3.9

TABLE 116 (cont.)
WINE: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

	Percentage reporting 5+ drinks in a row on one or more occasions													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.1	5.0	4.0	3.7	3.5	3.9	4.0	4.9	4.5	3.6	4.4	3.6	3.6	0.0
Gender:														
Male	4.7	4.8	3.6	3.5	4.0	3.3	4.4	4.5	2.9	2.8	3.5	2.1	2.6	+0.5
Female	5.6	5.1	4.3	3.7	2.9	4.1	4.2	5.4	5.7	3.8	4.9	5.0	4.5	-0.6
College Plans:														
None or under 4 years	5.4	7.7	3.4	4.6	3.8	1.6	3.7	7.5	4.1	3.1	4.2	2.3	2.9	+0.6
Complete 4 years	5.1	4.3	3.9	3.3	3.5	4.4	3.7	4.1	4.7	3.3	4.4	4.0	3.7	-0.2
Region:														
Northeast	8.3	4.2	5.8	5.7	4.8	5.7	4.7	5.8	5.6	5.4	8.2	4.6	4.2	-0.4
Midwest	4.9	6.2	5.1	4.3	2.2	4.0	3.9	6.2	5.5	4.2	4.5	3.5	3.0	-0.4
South	4.4	4.7	2.7	2.7	4.1	3.4	3.9	4.5	4.6	2.8	3.5	4.6	4.0	-0.6
West	4.1	4.8	3.0	3.0	3.3	3.3	3.8	3.7	2.6	3.2	3.3	1.6	2.8	+1.3
Population Density:														
Large MSA	6.4	4.2	3.9	3.6	3.8	5.2	4.4	5.2	6.3	3.8	4.3	4.6	2.7	-1.9
Other MSA	5.3	5.4	4.2	4.2	4.0	3.5	3.2	4.8	3.4	2.6	5.1	2.4	4.0	+1.6
Non-MSA	2.9	5.2	3.8	2.4	2.1	3.0	5.4	4.8	4.1	5.7	3.2	4.4	3.9	-0.5
Parental Education: [b]														
1.0–2.0 (Low)	2.3	5.1	4.3	2.4	2.5	2.1	2.2	3.6	4.2	4.3	1.5	4.0	0.7	-3.3
2.5–3.0	3.1	5.2	3.5	3.4	3.0	4.1	5.7	3.1	5.4	2.8	5.2	2.0	1.4	-0.7
3.5–4.0	6.5	5.2	3.6	3.2	3.3	3.3	5.4	6.6	4.2	4.6	4.1	2.3	4.7	+2.4
4.5–5.0	5.3	3.9	5.3	4.5	3.6	5.2	3.6	3.7	3.4	2.9	4.4	4.8	3.6	-1.1
5.5–6.0 (High)	7.5	4.5	3.8	3.7	5.4	3.6	1.8	7.8	7.1	3.5	6.8	5.6	5.2	-0.4
Race/Ethnicity (2-year average): [c]														
White	5.2	4.9	4.1	4.1	4.0	3.6	3.7	5.1	5.8	4.4	4.6	4.8	4.0	-0.8
African American	2.6	3.8	4.5	4.3	3.6	4.0	4.4	4.1	2.9	3.7	3.1	1.5	3.2	+1.7
Hispanic	4.4	5.6	5.2	3.3	2.6	4.3	3.7	2.6	4.2	3.8	2.8	3.4	2.9	-0.5

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1976–1988; N is one fifth of N indicated in Table S3. Data based on one of six forms beginning in 1989; N is one sixth of N indicated in Table S3.

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

[a]In the 1988 questionnaires, a question on the use of wine coolers was added. This change may account for the discontinuity between the 1987 and 1988 use rates for wine.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 117
WINE COOLERS: Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004–2019
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	—
Total	14.8	15.1	16.1	15.9	15.3	17.5	15.9	15.6	16.5	14.8	15.3	12.9	12.4	—
Gender:														
Male	14.7	13.8	16.2	15.8	14.6	16.1	14.5	15.4	16.7	13.4	14.2	11.9	10.2	—
Female	14.6	16.2	16.0	16.2	15.6	18.7	16.9	15.8	16.3	15.9	15.9	13.3	14.3	—
College Plans:														
None or under 4 years	21.2	23.9	30.6	28.1	25.3	28.7	32.1	27.3	31.9	28.5	31.6	21.1	24.2	—
Complete 4 years	13.7	14.0	14.3	14.5	14.1	15.7	14.0	14.3	14.7	13.3	13.4	12.2	11.1	—
Region:														
Northeast	9.8	11.5	12.7	15.8	15.0	17.7	14.5	15.7	15.4	13.5	17.7	11.8	10.9	—
Midwest	14.5	14.6	15.7	15.0	13.9	18.5	16.1	16.2	17.6	17.0	14.8	12.1	15.5	—
South	17.4	18.1	17.8	16.7	17.0	17.5	16.6	16.2	18.6	14.6	16.8	15.0	12.7	—
West	14.8	14.2	17.3	15.9	13.9	16.0	15.3	14.0	12.7	13.3	11.4	11.3	8.9	—
Population Density:														
Large MSA	14.1	16.4	12.7	14.4	11.1	16.5	14.1	14.0	14.0	12.9	12.3	12.1	10.4	—
Other MSA	14.6	15.4	17.4	17.8	16.1	18.2	15.7	15.4	16.8	14.5	15.4	12.7	12.3	—
Non-MSA	15.8	13.4	17.3	13.2	15.8	17.3	17.9	17.6	18.9	17.5	18.3	14.4	14.7	—
Parental Education: [a]														
1.0–2.0 (Low)	19.3	18.7	18.5	21.1	20.4	21.7	22.2	20.7	30.2	22.1	25.1	22.8	18.2	—
2.5–3.0	16.9	16.6	19.9	17.7	17.6	20.2	19.2	17.8	19.7	18.1	19.7	14.3	15.4	—
3.5–4.0	12.9	16.8	17.2	18.4	15.7	18.4	16.8	16.6	17.5	14.3	19.6	15.7	15.8	—
4.5–5.0	13.9	11.8	13.5	12.0	12.5	15.4	11.9	13.6	13.1	11.8	9.0	9.8	8.1	—
5.5–6.0 (High)	13.5	12.5	11.9	14.7	13.2	13.8	13.5	14.2	11.4	12.1	8.2	9.0	8.7	—
Race/Ethnicity (2-year average): [b]														
White	—	14.4	15.1	15.1	14.9	16.4	16.5	15.4	16.0	15.9	15.0	14.0	12.6	—
African American	—	13.7	13.3	14.4	12.7	12.2	14.7	12.8	12.8	13.1	12.0	9.8	9.6	—
Hispanic	—	21.9	23.2	23.4	24.4	22.9	21.3	21.2	22.4	21.1	18.5	18.9	18.8	—

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 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; *N* is one half of *N* indicated in Table S1. Data based on one of four forms beginning in 1997; *N* is one third of *N* indicated in Table S1.   The category of wine coolers was dropped from the 8th- and 10th-grade questionnaires in 2004 to make space for a more general class of flavored alcoholic beverages.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 118
WINE COOLERS: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004–2019
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	—
Total	24.0	21.5	22.5	21.8	20.8	22.8	22.1	20.9	22.1	21.2	20.8	18.9	17.2	—
Gender:														
Male	23.9	19.8	20.5	21.9	19.4	21.8	20.6	19.0	20.5	19.6	19.8	16.0	14.8	—
Female	24.1	22.9	24.3	21.6	21.9	23.6	23.4	22.0	23.4	22.6	21.7	21.6	19.5	—
College Plans:														
None or under 4 years	31.1	26.7	27.6	28.4	28.9	33.0	28.4	29.3	33.4	32.6	31.6	30.2	23.8	—
Complete 4 years	22.5	20.5	21.4	20.4	19.4	21.0	21.1	19.3	20.3	19.5	19.1	17.2	16.2	—
Region:														
Northeast	23.2	19.0	24.1	21.6	18.5	20.3	21.0	19.1	21.7	18.8	21.5	18.1	18.7	—
Midwest	23.0	20.2	20.4	21.6	20.6	21.9	20.9	19.1	21.1	20.6	20.2	19.2	15.3	—
South	26.0	23.3	23.6	23.0	22.9	25.0	23.4	22.5	24.0	23.3	21.4	17.7	16.9	—
West	23.0	22.7	23.0	20.2	19.2	22.3	22.4	22.0	20.3	20.7	19.6	21.5	18.2	—
Population Density:														
Large MSA	23.1	21.6	21.5	21.2	16.4	19.3	20.2	16.9	23.1	19.8	19.9	17.4	17.0	—
Other MSA	23.8	22.3	22.4	22.6	20.7	23.7	22.2	21.9	21.3	19.7	19.7	18.7	16.4	—
Non-MSA	25.1	20.0	23.6	20.4	23.7	24.6	23.8	23.2	22.6	25.6	23.7	21.2	19.5	—
Parental Education: [a]														
1.0–2.0 (Low)	25.9	24.4	27.4	24.4	27.7	25.4	21.1	22.6	26.3	23.8	22.2	20.3	23.4	—
2.5–3.0	26.8	21.3	22.3	22.4	23.8	25.5	24.3	25.4	25.1	24.2	22.7	22.5	19.8	—
3.5–4.0	24.8	22.5	22.5	22.3	22.1	23.7	23.6	22.0	22.3	23.6	22.2	19.1	17.5	—
4.5–5.0	21.8	20.6	21.9	21.4	19.1	19.9	21.2	15.6	17.5	19.4	17.7	18.2	15.4	—
5.5–6.0 (High)	20.7	20.5	20.2	17.8	14.5	21.3	18.5	18.5	21.2	14.2	20.3	13.7	13.3	—
Race/Ethnicity (2-year average): [b]														
White	—	23.0	21.9	22.1	21.2	21.7	22.6	21.7	21.6	21.9	21.2	20.3	18.1	—
African American	—	19.9	19.3	20.6	20.0	16.6	16.1	17.6	17.0	18.1	18.3	15.3	15.2	—
Hispanic	—	26.3	26.2	24.7	24.9	28.1	28.0	24.1	24.5	25.2	24.5	22.3	21.7	—

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 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; *N* is one half of *N* indicated in Table S2. Data based on one of *four forms beginning in 1997; N* is one third of *N* indicated in Table S2. The category of wine coolers was dropped from the 8th- and 10th-grade questionnaires in 2004 to make space for a more general class of flavored alcoholic beverages.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 119

WINE COOLERS: 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
Approximate weighted N =	—	—	—	—	—	—	—	—	—	—	—	—	—	*16,300*	*16,700*	*15,200*
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	36.6	29.4	26.2
Gender:																
Male	—	—	—	—	—	—	—	—	—	—	—	—	—	30.8	25.5	22.7
Female	—	—	—	—	—	—	—	—	—	—	—	—	—	41.5	33.6	29.8
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	—	—	—	—	—	—	38.2	30.9	29.2
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	—	—	35.9	28.6	24.9
Region:																
Northeast	—	—	—	—	—	—	—	—	—	—	—	—	—	33.8	29.6	29.2
Midwest	—	—	—	—	—	—	—	—	—	—	—	—	—	37.9	33.0	28.6
South	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	25.7	22.9
West	—	—	—	—	—	—	—	—	—	—	—	—	—	42.7	31.3	24.7
Population Density:																
Large MSA	—	—	—	—	—	—	—	—	—	—	—	—	—	37.7	28.6	25.9
Other MSA	—	—	—	—	—	—	—	—	—	—	—	—	—	37.1	31.1	28.7
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	—	—	34.6	26.4	21.1
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	—	—	28.8	27.7	22.9
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	—	—	37.8	31.9	28.1
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	38.5	31.2	27.1
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	35.6	27.6	27.6
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	—	—	36.9	23.5	21.5
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.4	29.6
African American	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25.3	21.7
Hispanic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.2	23.3

TABLE 119 (cont.)
WINE COOLERS: Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	24.3	21.9	19.4	22.2	20.6	20.7	20.7	20.1	18.4	17.6	19.0	19.3	14.6	14.4	14.1	13.3
Gender:																
Male	22.1	19.1	15.1	16.9	15.5	17.7	15.9	15.0	15.6	15.6	14.1	12.0	9.4	11.2	8.7	9.2
Female	26.3	24.3	22.8	26.4	25.1	23.6	24.4	23.5	20.6	19.5	22.2	24.2	18.9	17.2	18.7	17.1
College Plans:																
None or under 4 years	29.3	21.9	20.5	22.8	22.7	20.0	17.8	21.8	22.8	21.2	23.1	21.8	17.2	16.7	18.6	17.5
Complete 4 years	22.8	22.0	19.2	22.3	19.8	20.9	21.6	19.6	17.3	16.1	17.7	18.8	14.0	13.7	13.2	12.3
Region:																
Northeast	21.0	19.6	18.9	15.4	14.6	21.1	17.2	20.8	22.1	19.1	18.4	17.8	15.9	14.7	17.3	13.3
Midwest	26.1	23.7	19.4	26.0	19.8	20.9	21.5	18.6	19.2	18.3	19.5	20.9	15.5	11.0	13.7	13.2
South	23.1	21.3	20.6	23.4	24.1	23.2	22.9	20.6	18.7	16.8	19.7	20.6	13.9	16.7	13.5	14.6
West	26.3	22.2	17.8	19.8	20.4	14.9	18.9	20.4	13.7	16.7	17.5	16.6	13.1	14.6	12.7	10.9
Population Density:																
Large MSA	20.9	21.2	20.4	21.2	20.7	22.7	23.9	22.5	14.7	19.8	18.1	20.5	12.8	14.2	13.5	10.7
Other MSA	28.1	21.0	19.0	23.3	19.8	19.3	19.1	19.4	17.5	15.0	18.5	18.4	13.7	13.8	13.2	14.4
Non-MSA	20.6	24.1	19.4	21.3	21.8	21.6	20.1	18.7	23.4	19.4	20.6	19.4	18.0	15.6	16.7	14.7
Parental Education: [a]																
1.0–2.0 (Low)	24.0	25.7	20.8	23.5	21.1	18.2	13.2	19.8	19.0	24.8	19.3	18.4	13.7	21.3	15.6	12.8
2.5–3.0	25.4	21.2	17.1	26.4	20.4	26.8	20.0	21.4	23.2	16.3	22.8	19.6	18.1	17.2	19.8	15.6
3.5–4.0	27.2	22.9	24.4	20.9	22.0	19.5	23.0	23.3	17.3	21.8	18.5	17.8	14.7	16.4	12.6	15.3
4.5–5.0	22.1	18.0	17.2	22.8	21.0	17.0	21.4	17.9	14.3	13.6	19.0	19.4	12.4	9.1	13.6	12.7
5.5–6.0 (High)	18.0	24.5	16.4	14.6	16.7	20.8	21.0	16.6	19.9	16.8	14.6	23.5	10.1	13.3	9.8	9.8
Race/Ethnicity (2-year average): [b]																
White	26.7	23.7	21.3	21.5	21.9	20.8	21.2	21.0	19.6	18.0	18.2	19.7	16.8	13.1	13.6	14.6
African American	20.9	18.2	17.6	18.3	17.6	22.1	21.1	18.4	15.5	12.4	17.0	17.0	15.8	19.4	18.4	10.9
Hispanic	22.3	26.7	22.9	22.9	26.0	22.0	19.8	18.2	17.4	20.7	20.0	16.7	16.0	19.7	19.4	13.8

TABLE 119 (cont.)
WINE COOLERS: Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	12.7	12.8	12.2	12.4	10.0	10.7	11.3	11.3	9.8	10.5	11.4	9.7	10.5	+0.7
Gender:														
Male	9.2	8.3	7.6	9.1	6.1	6.7	6.6	7.0	6.0	6.4	7.5	6.0	8.0	+2.0
Female	16.1	16.6	16.0	16.2	13.4	14.6	15.6	15.0	12.9	13.9	15.2	13.0	12.5	-0.5
College Plans:														
None or under 4 years	18.0	16.8	15.1	18.6	12.7	10.8	13.7	12.4	9.3	9.5	15.3	6.9	13.3	+6.3 s
Complete 4 years	11.5	12.0	11.4	11.3	9.5	10.8	10.8	10.8	10.2	10.5	10.6	10.7	9.8	-0.9
Region:														
Northeast	15.2	11.7	11.7	15.9	14.8	13.5	14.0	12.6	12.4	11.9	11.9	11.6	10.7	-0.9
Midwest	11.9	12.3	14.4	12.3	9.5	10.9	12.7	11.6	8.1	12.3	13.6	13.8	12.2	-1.6
South	13.0	15.1	10.1	12.8	9.8	9.4	9.3	12.6	10.0	9.7	10.8	10.3	11.0	+0.8
West	10.9	10.8	13.1	9.4	7.7	10.6	10.9	7.8	9.4	9.4	9.6	3.9	6.4	+2.4
Population Density:														
Large MSA	11.9	11.4	11.9	12.2	11.6	11.8	12.2	10.7	9.5	8.6	10.3	9.1	9.1	0.0
Other MSA	12.6	12.8	12.8	12.8	8.5	9.5	10.4	10.1	9.5	9.7	10.1	8.4	9.8	+1.4
Non-MSA	13.9	14.3	11.3	11.8	11.4	12.2	12.3	14.7	11.2	15.1	15.4	13.8	14.6	+0.8
Parental Education: [a]														
1.0–2.0 (Low)	18.4	17.3	17.4	13.5	12.8	10.6	11.0	10.0	13.0	9.9	8.4	5.9	6.3	+0.3
2.5–3.0	13.1	12.8	11.1	16.7	15.5	10.2	13.1	15.0	10.5	8.6	11.1	10.8	9.4	-1.3
3.5–4.0	13.5	12.3	14.5	11.6	7.7	11.9	12.7	11.3	9.8	12.0	14.7	9.2	9.1	0.0
4.5–5.0	10.8	11.1	11.0	10.9	8.5	12.3	11.0	9.0	8.8	11.2	11.9	11.6	13.3	+1.6
5.5–6.0 (High)	11.7	12.5	7.1	10.7	8.2	6.5	9.6	11.9	9.0	7.5	7.8	11.8	12.1	+0.2
Race/Ethnicity (2-year average): [b]														
White	13.1	11.4	11.1	12.5	12.0	10.8	11.2	11.6	11.1	10.8	12.5	13.7	13.3	-0.4
African American	11.8	16.8	18.5	13.0	8.3	8.9	10.9	10.4	8.9	10.0	8.9	6.8	7.5	+0.6
Hispanic	13.0	12.9	13.2	12.7	10.5	9.7	11.2	11.0	10.0	8.7	8.8	7.0	5.1	-1.9

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1988; *N* is one fifth of *N* indicated in Table S3. Data based on one of six forms beginning in 1989; *N* is one sixth of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 120
WINE COOLERS: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
								Percentage reporting 5+ drinks in a row on one or more occasions								
Approximate weighted N =	—	—	—	—	—	—	—	—	—	—	—	—	—	*16,300*	*16,700*	*15,200*
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	13.9	12.4	10.5
Gender:																
Male	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	11.3	9.9
Female	—	—	—	—	—	—	—	—	—	—	—	—	—	15.1	13.5	11.3
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	16.2	14.2
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	10.7	9.0
Region:																
Northeast	—	—	—	—	—	—	—	—	—	—	—	—	—	14.7	14.3	10.0
Midwest	—	—	—	—	—	—	—	—	—	—	—	—	—	14.2	13.1	12.0
South	—	—	—	—	—	—	—	—	—	—	—	—	—	11.2	11.2	9.3
West	—	—	—	—	—	—	—	—	—	—	—	—	—	17.4	12.0	11.0
Population Density:																
Large MSA	—	—	—	—	—	—	—	—	—	—	—	—	—	14.2	11.7	10.0
Other MSA	—	—	—	—	—	—	—	—	—	—	—	—	—	15.6	12.4	11.0
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	—	—	10.7	13.3	9.9
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	—	—	13.9	9.2	10.7
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6	13.8	13.3
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	13.6	14.9	9.3
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	11.7	10.5	11.3
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	—	—	11.4	7.4	6.3
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.6	12.3
African American	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.0	9.9
Hispanic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.5	6.0

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TABLE 120 (cont.)
WINE COOLERS: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

	Percentage reporting 5+ drinks in a row on one or more occasions															
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	10.2	10.4	8.5	8.9	9.0	8.4	9.4	9.5	7.7	8.8	9.7	10.0	7.1	7.5	7.2	7.1
Gender:																
Male	10.0	10.2	7.3	7.4	6.7	6.9	6.7	7.0	7.0	9.4	6.2	7.2	5.4	7.5	4.2	6.1
Female	10.2	10.3	9.5	10.0	10.8	9.7	11.3	11.0	7.8	8.4	11.4	11.4	8.2	8.0	9.7	8.0
College Plans:																
None or under 4 years	13.5	11.1	10.8	10.9	12.1	8.8	10.1	9.9	10.2	12.1	14.8	13.7	8.9	10.8	11.4	11.9
Complete 4 years	9.2	10.1	8.0	8.6	8.0	8.3	9.2	9.5	7.0	7.4	8.2	9.2	6.7	6.8	6.2	6.0
Region:																
Northeast	7.6	8.8	6.5	5.5	5.5	9.8	8.2	9.6	8.9	10.1	10.2	9.8	8.0	7.5	10.7	6.9
Midwest	10.9	12.0	8.0	9.9	7.0	9.2	9.7	7.3	7.0	10.8	8.9	12.0	8.8	6.4	6.6	7.3
South	8.8	10.3	11.1	9.3	11.5	8.7	9.7	10.5	8.8	5.9	10.9	9.6	6.7	8.6	6.6	8.3
West	13.2	9.7	6.2	10.0	10.4	4.8	9.7	10.2	5.6	10.1	8.4	8.4	5.0	7.1	5.7	5.1
Population Density:																
Large MSA	7.9	11.8	7.9	8.5	11.1	8.8	10.8	12.1	7.5	11.1	10.6	9.6	6.8	7.2	7.0	6.4
Other MSA	12.4	9.2	8.7	8.8	7.5	8.3	9.5	8.7	6.5	8.1	8.2	9.9	6.3	7.0	7.4	6.6
Non-MSA	8.2	11.7	8.6	9.6	9.1	8.2	7.8	7.9	9.7	7.4	11.3	10.7	8.9	8.9	7.1	9.1
Parental Education: [a]																
1.0–2.0 (Low)	12.5	13.1	12.2	11.4	11.7	9.6	6.8	13.2	8.3	16.8	14.1	14.6	9.3	11.9	8.3	12.0
2.5–3.0	10.9	9.5	6.9	10.4	9.5	11.4	9.8	11.0	9.2	8.8	12.6	9.9	9.4	9.5	9.9	8.2
3.5–4.0	12.0	11.1	11.1	8.8	8.5	6.8	10.6	9.9	7.7	8.8	7.3	9.9	6.1	9.1	6.2	7.4
4.5–5.0	9.2	8.8	7.4	9.2	9.2	7.2	8.6	7.7	7.2	8.6	10.7	10.7	5.9	4.2	6.8	7.4
5.5–6.0 (High)	3.7	10.6	5.6	4.8	7.5	7.7	9.5	7.9	5.8	7.0	6.1	8.0	5.9	5.5	5.2	3.4
Race/Ethnicity (2-year average): [b]																
White	10.7	10.3	9.5	8.6	8.6	8.1	8.7	8.8	7.6	7.6	8.9	10.2	8.4	6.4	6.9	7.5
African American	9.2	8.7	8.6	8.6	7.5	10.4	10.0	9.2	6.9	4.2	9.6	10.0	7.8	11.7	10.5	4.6
Hispanic	9.8	14.5	13.5	13.1	13.9	11.1	9.8	12.0	12.6	13.2	11.5	9.1	9.3	10.6	9.4	8.0

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TABLE 120 (cont.)
WINE COOLERS: Trends in 2-Week Prevalence of 5 or More Drinks in a Row by Subgroups in Grade 12

	Percentage reporting 5+ drinks in a row on one or more occasions													2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.8	7.3	6.2	6.4	4.9	5.4	5.3	5.8	5.0	4.3	6.3	5.0	4.9	-0.1
Gender:														
Male	4.8	4.5	3.5	5.7	3.6	3.0	4.1	4.1	2.5	2.2	4.4	2.8	4.1	+1.3
Female	7.0	9.6	8.7	7.0	6.1	7.2	6.4	7.2	6.8	5.6	8.1	6.5	5.6	-1.0
College Plans:														
None or under 4 years	11.1	8.2	9.4	9.9	6.2	6.7	7.9	6.2	5.4	5.2	8.8	6.9	5.8	-1.1
Complete 4 years	4.7	7.0	5.6	5.6	4.5	5.1	4.6	5.4	5.0	3.9	5.7	4.6	4.7	+0.1
Region:														
Northeast	6.1	7.4	5.9	7.5	9.4	6.1	6.0	5.0	4.5	5.5	8.6	5.2	5.8	+0.6
Midwest	6.0	8.1	7.8	6.1	5.0	4.6	6.9	5.4	4.6	7.7	8.1	6.5	4.8	-1.7
South	5.7	8.4	4.9	7.3	4.6	6.1	3.9	6.5	5.5	2.8	5.2	5.3	5.7	+0.4
West	5.5	4.6	6.7	4.3	2.5	4.9	5.0	5.6	5.1	3.1	4.9	3.2	2.5	-0.7
Population Density:														
Large MSA	5.3	6.3	4.8	7.1	4.9	6.8	6.3	5.3	4.8	3.6	6.7	5.8	4.4	-1.4
Other MSA	6.4	6.7	6.6	6.5	4.0	3.8	4.0	5.1	5.3	3.9	6.0	4.0	4.2	+0.3
Non-MSA	5.3	9.4	7.2	4.9	7.2	6.8	7.0	7.7	4.8	6.3	6.6	6.1	7.7	+1.5
Parental Education: [a]														
1.0–2.0 (Low)	8.8	9.1	9.7	7.5	8.4	4.9	8.3	5.5	7.6	1.0	4.1	7.5	1.6	-5.9
2.5–3.0	8.1	8.0	5.4	8.5	7.9	6.7	4.9	6.4	5.3	3.7	8.0	5.4	5.7	+0.2
3.5–4.0	5.6	6.8	8.6	5.6	4.0	5.0	6.6	6.9	4.6	5.8	8.2	2.7	4.3	+1.6
4.5–5.0	4.7	5.5	4.2	5.3	3.4	5.7	4.3	4.5	4.5	5.6	6.3	4.6	5.7	+1.1
5.5–6.0 (High)	4.1	8.3	3.8	5.2	3.5	3.0	4.6	6.0	5.3	2.5	3.6	7.0	5.0	-2.0
Race/Ethnicity (2-year average): [b]														
White	6.4	5.4	5.5	6.1	6.1	5.3	5.4	6.4	5.9	4.7	6.3	6.9	5.6	-1.2
African American	4.9	6.6	8.2	7.2	4.3	3.9	4.7	3.8	4.4	6.1	3.4	1.8	3.4	+1.6
Hispanic	7.9	8.1	8.8	7.4	5.6	5.4	5.8	5.2	5.7	4.1	4.5	5.7	4.0	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of five forms in 1988; N is one fifth of N indicated in Table S3. Data based on one of six forms beginning in 1989; N is one sixth of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 121
FLAVORED ALCOHOLIC BEVERAGES:
Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 30 days

	1991–2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	17,000	16,800	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	14.6	12.9	13.1	12.2	10.2	9.5	9.4	8.6	7.6	6.3	5.7	5.5	4.0	4.4	4.9	4.5	-0.4
Gender:																		
Male	—	12.7	11.4	10.8	10.4	9.2	9.1	8.3	8.3	6.1	5.8	5.1	5.2	3.5	3.7	3.9	3.7	-0.1
Female	—	16.3	14.4	15.3	13.4	10.9	9.7	10.3	8.6	9.1	6.7	5.9	5.8	4.5	5.2	6.1	5.3	-0.8
College Plans:																		
None or under 4 years	—	28.1	24.9	25.9	23.8	24.0	18.3	19.6	14.4	19.9	14.3	13.8	10.4	7.5	9.8	6.0	7.5	+1.5
Complete 4 years	—	13.3	11.8	11.8	11.1	9.0	8.7	8.6	8.3	6.7	5.8	5.1	5.2	3.7	3.8	4.9	4.2	-0.7
Region:																		
Northeast	—	14.9	11.0	12.2	9.7	9.2	8.8	9.2	5.4	7.2	4.7	4.9	4.2	2.3	2.0	4.8	2.7	-2.0
Midwest	—	16.2	12.6	12.9	12.0	10.5	9.1	8.2	7.8	5.2	6.3	5.6	5.5	4.0	4.4	4.7	5.1	+0.4
South	—	15.1	14.6	14.3	14.0	12.6	11.8	11.3	9.6	9.2	7.4	4.7	6.6	4.8	4.5	5.1	4.6	-0.5
West	—	11.7	11.9	12.0	10.9	7.2	6.7	7.6	10.4	7.6	5.9	7.8	4.5	3.7	5.9	5.0	5.1	+0.1
Population Density:																		
Large MSA	—	14.4	11.5	12.6	10.6	11.1	7.2	8.5	6.4	6.8	5.7	4.9	4.5	3.2	3.8	4.0	3.2	-0.7
Other MSA	—	14.2	14.0	13.0	12.4	9.7	9.7	10.0	9.7	8.0	7.2	5.3	6.0	4.0	4.5	5.6	4.1	-1.5
Non-MSA	—	15.6	12.8	13.9	14.2	10.2	12.0	9.0	9.6	8.2	5.5	7.4	5.8	5.1	4.9	4.9	7.7	+2.7
Parental Education: [a]																		
1.0–2.0 (Low)	—	19.5	19.5	18.7	21.1	19.3	14.7	11.2	12.7	11.7	12.3	9.5	11.5	10.0	7.7	6.0	4.4	-1.6
2.5–3.0	—	17.5	18.0	18.7	17.5	14.4	13.1	13.4	12.1	11.7	8.7	8.4	5.2	4.4	5.1	6.4	9.1	+2.7
3.5–4.0	—	17.8	16.2	13.4	12.3	11.7	11.4	10.5	10.3	7.8	7.9	7.0	6.4	3.4	4.9	5.6	6.1	+0.5
4.5–5.0	—	11.8	10.3	8.5	9.8	7.2	7.4	8.0	6.2	5.4	5.6	3.3	3.8	3.6	3.4	4.5	3.1	-1.4
5.5–6.0 (High)	—	11.5	7.3	9.9	7.1	6.5	4.7	4.9	6.2	4.7	2.8	4.1	4.0	2.1	3.1	4.5	3.3	-1.2
Race/Ethnicity (2-year average): [b]																		
White	—	—	13.8	12.6	12.1	11.1	9.8	9.0	8.5	7.4	6.4	5.5	5.1	4.4	3.7	4.2	4.9	+0.7
African American	—	—	12.0	11.0	10.1	9.2	8.5	8.0	7.7	8.8	7.3	4.2	4.3	3.9	3.8	3.2	2.3	-0.9
Hispanic	—	—	17.0	17.6	16.7	13.9	11.8	11.7	11.4	10.8	9.1	7.5	7.1	6.6	5.5	5.6	5.4	-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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in Table S1. In 2011 Skyy Blue and Zima were deleted from the list of examples.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 122
FLAVORED ALCOHOLIC BEVERAGES:
Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

							Percentage who used in last 30 days										2018–2019 change
	1991–2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	16,400	16,200	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	25.1	23.1	24.7	21.8	20.2	19.0	19.4	15.8	16.3	15.5	14.0	12.8	11.0	12.9	11.8	11.1	-0.7
Gender		;																
Male	—	24.5	20.3	22.4	18.8	17.0	17.0	18.8	13.8	13.5	13.7	12.4	10.5	8.4	9.9	11.2	10.2	-1.1
Female	—	25.6	25.8	26.9	24.7	22.9	20.9	19.8	17.7	18.5	16.7	15.7	14.9	13.4	15.7	12.5	11.9	-0.6
College Plans:																		
None or under 4 years	—	32.5	33.8	37.2	32.0	29.1	30.0	28.6	25.7	21.0	19.1	20.5	18.9	17.2	17.4	14.5	13.8	-0.7
Complete 4 years	—	24.2	21.7	23.1	20.6	19.1	17.8	18.4	14.7	15.8	15.0	13.3	12.3	10.3	12.2	11.6	10.7	-0.9
Region:																		
Northeast	—	26.6	22.4	26.3	23.2	22.2	18.6	18.3	17.5	19.4	15.6	14.4	12.4	11.0	13.9	13.4	12.7	-0.6
Midwest	—	22.5	23.4	23.5	21.2	20.0	17.6	19.1	14.3	14.5	13.9	12.3	12.6	9.0	11.0	10.6	13.0	+2.4
South	—	25.6	23.7	24.5	20.0	20.3	21.1	19.6	16.6	17.4	17.2	14.5	15.0	12.6	14.1	13.5	10.3	-3.1
West	—	26.5	22.5	25.4	23.6	19.0	17.9	20.3	15.1	14.0	15.0	14.8	9.7	10.6	12.5	9.1	9.6	+0.5
Population Density:																		
Large MSA	—	22.4	22.0	23.1	21.5	19.0	17.6	20.2	15.3	17.4	13.8	13.7	12.3	10.5	13.7	11.2	11.0	-0.2
Other MSA	—	26.1	23.1	25.5	21.4	20.9	19.6	19.0	15.8	16.2	16.4	14.5	12.4	9.7	12.5	12.5	10.7	-1.7
Non-MSA	—	26.5	24.4	25.5	23.0	20.5	19.7	18.9	16.5	14.7	15.7	13.2	14.5	15.6	13.0	11.2	12.3	+1.0
Parental Education: [a]																		
1.0–2.0 (Low)	—	27.3	24.9	25.8	25.5	21.8	23.5	26.4	17.6	17.0	16.4	14.6	13.6	9.3	15.5	14.8	13.5	-1.3
2.5–3.0	—	30.5	28.1	27.9	25.8	23.4	23.3	24.5	19.2	17.3	19.9	16.6	17.7	14.3	13.7	11.2	14.8	+3.6
3.5–4.0	—	25.0	23.6	28.5	23.1	21.2	18.8	20.2	17.5	15.6	16.3	16.2	13.6	11.4	13.0	12.6	11.1	-1.5
4.5–5.0	—	24.9	22.6	19.9	19.7	19.0	18.2	15.7	13.6	16.7	14.6	11.5	11.2	12.1	12.5	11.4	9.4	-2.0
5.5–6.0 (High)	—	20.8	17.3	23.7	16.9	16.2	14.3	15.4	12.3	17.5	10.5	13.3	10.9	7.8	12.3	10.3	10.4	+0.1
Race/Ethnicity (2-year average): [b]																		
White	—	—	25.7	25.1	24.0	21.8	20.0	19.0	17.4	16.5	16.5	15.8	14.8	13.2	13.2	14.1	13.6	-0.6
African American	—	—	16.1	15.5	15.9	15.2	14.2	14.8	14.0	10.7	9.6	8.1	8.1	8.4	7.0	6.5	6.2	-0.3
Hispanic	—	—	29.0	28.6	26.1	23.1	23.0	24.2	22.6	17.7	16.7	16.1	14.3	12.5	12.2	12.5	11.7	-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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in Table S2. In 2011 Skyy Blue and Zima were deleted from the list of examples.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 123
FLAVORED ALCOHOLIC BEVERAGES:
Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

Percentage who used in last 30 days

	1991–2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,600	14,700	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	31.1	30.5	29.3	29.1	27.4	27.4	24.1	23.1	21.8	21.0	19.9	20.8	18.3	20.2	18.1	18.5	+0.4
Gender:																		
Male	—	28.9	28.3	26.0	25.4	25.8	27.3	22.6	21.8	19.9	20.1	16.8	19.1	17.4	17.7	18.2	17.8	-0.4
Female	—	33.2	33.2	32.3	32.8	29.0	27.1	25.0	24.6	23.3	22.0	21.9	22.6	18.6	21.7	18.1	18.5	+0.4
College Plans:																		
None or under 4 years	—	34.7	34.2	32.9	37.0	29.0	35.6	26.8	26.2	22.6	25.8	22.8	24.8	18.1	20.3	20.3	16.6	-3.7
Complete 4 years	—	30.3	29.6	28.7	27.5	26.9	25.9	23.9	22.4	21.5	19.9	19.3	20.0	18.1	20.3	17.9	19.2	+1.3
Region:																		
Northeast	—	33.5	38.1	29.4	36.0	33.5	34.0	31.3	25.7	20.6	23.6	22.6	24.9	21.8	22.9	20.1	17.3	-2.8
Midwest	—	35.3	33.4	32.2	28.5	25.8	26.7	23.7	23.1	22.4	18.3	24.3	19.9	18.3	25.1	17.7	21.5	+3.9
South	—	25.9	25.9	27.0	28.8	26.9	27.2	23.3	22.1	19.3	19.9	17.6	21.3	16.9	20.0	18.3	16.6	-1.7
West	—	32.1	27.9	29.9	24.9	25.8	23.2	20.9	22.9	24.8	23.9	17.6	18.0	18.5	14.5	16.8	19.9	+3.0
Population Density:																		
Large MSA	—	27.0	29.9	32.3	30.8	28.7	27.0	26.4	25.3	22.5	23.4	18.7	21.9	18.2	17.9	16.7	14.5	-2.1
Other MSA	—	33.4	29.9	27.7	27.8	25.8	28.8	23.8	23.8	22.2	20.0	19.9	19.3	17.0	19.1	17.7	17.9	+0.2
Non-MSA	—	30.9	32.2	28.5	29.5	29.1	24.7	21.8	18.6	19.5	20.1	21.2	22.2	21.2	26.5	21.3	26.4	+5.1
Parental Education: [a]																		
1.0–2.0 (Low)	—	28.5	22.2	30.3	34.0	24.9	26.8	13.8	24.8	19.7	21.8	21.0	20.9	11.9	19.0	13.0	13.7	+0.7
2.5–3.0	—	31.0	33.3	30.6	32.4	28.3	28.2	27.8	26.1	24.0	24.8	21.5	19.0	20.5	19.5	18.9	17.1	-1.8
3.5–4.0	—	33.6	31.7	30.9	29.9	28.4	28.7	24.0	25.3	22.9	20.7	22.0	22.6	17.3	21.4	18.0	20.6	+2.5
4.5–5.0	—	29.4	30.2	28.8	27.6	27.6	24.4	26.1	20.0	21.7	20.0	16.1	23.9	21.1	19.1	22.6	19.6	-3.0
5.5–6.0 (High)	—	29.8	30.2	26.4	25.3	26.6	28.4	23.4	20.5	19.7	19.1	19.9	17.8	15.9	24.0	18.3	24.3	+5.9
Race/Ethnicity (2-year average): [b]																		
White	—	—	33.3	31.4	30.6	31.1	29.9	27.0	24.6	22.9	22.2	22.1	22.4	22.7	23.5	23.4	21.9	-1.5
African American	—	—	17.1	20.9	21.6	19.8	19.3	20.0	20.0	17.2	14.2	16.1	14.1	10.9	10.5	13.5	12.8	-0.6
Hispanic	—	—	28.6	32.2	34.5	26.2	25.2	24.7	25.5	26.8	21.9	16.3	18.6	21.4	16.5	13.9	14.6	+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 = .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 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 S3. In 2011 Skyy Blue and Zima were deleted from the list of examples.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 124
ALCOHOLIC BEVERAGES CONTAINING CAFFEINE:
Trends in Annual Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 12 months

	1991–2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	11.8‡	10.9	10.2	9.5	8.4	6.5	5.6	6.0	7.3	+1.3
Gender:											
Male	—	9.4‡	9.6	8.4	9.2	7.6	6.1	4.6	5.4	7.3	+1.9
Female	—	13.8‡	11.9	11.7	9.6	8.9	6.9	6.4	6.7	7.5	+0.8
College Plans:											
None or under 4 years	—	22.3‡	19.1	21.6	22.9	19.3	15.8	10.4	11.9	13.3	+1.4
Complete 4 years	—	11.0‡	10.2	9.4	8.4	7.6	5.7	5.2	5.3	6.6	+1.4
Region:											
Northeast	—	10.4‡	8.7	11.5	6.7	7.4	4.2	2.6	5.5	5.6	+0.1
Midwest	—	10.3‡	8.6	8.7	10.3	8.6	6.7	4.4	5.1	7.0	+1.9
South	—	12.9‡	12.4	11.4	9.0	7.7	6.6	6.1	5.6	7.6	+2.0
West	—	12.5‡	12.3	9.1	11.3	10.3	7.9	7.9	8.2	8.4	+0.2
Population Density:											
Large MSA	—	9.8‡	10.6	9.6	7.8	7.3	5.3	5.7	7.0	5.9	-1.2
Other MSA	—	13.4‡	10.9	10.5	9.6	7.8	6.6	5.3	5.9	7.6	+1.7
Non-MSA	—	11.4‡	11.3	10.5	11.4	11.1	8.4	6.1	4.7	8.6	+3.9 ss
Parental Education: [a]											
1.0–2.0 (Low)	—	19.0‡	13.8	13.4	13.8	12.5	9.9	8.7	8.7	12.7	+4.1
2.5–3.0	—	17.3‡	14.4	11.1	12.6	8.4	7.4	6.6	8.2	12.0	+3.7
3.5–4.0	—	13.8‡	13.3	13.1	10.9	11.5	8.7	7.2	6.6	7.9	+1.3
4.5–5.0	—	8.3‡	8.9	8.2	7.1	6.5	5.4	3.4	4.8	4.7	-0.1
5.5–6.0 (High)	—	7.0‡	6.9	8.8	6.5	4.8	4.8	4.4	4.2	5.3	+1.1
Race/Ethnicity (2-year average): [b]											
White	—	—	—	9.0	9.6	9.2	7.2	5.3	4.8	6.3	+1.5 ss
African American	—	—	—	7.3	5.9	5.6	4.8	3.7	4.2	5.7	+1.5
Hispanic	—	—	—	14.5	11.5	9.4	8.5	7.5	7.1	8.2	+1.0

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

Notes. ' — ' 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. ' ‡ ' indicates some change in the question. See relevant footnote for that drug. See relevant figure to assess the impact of the wording changes. See Table S1 for the number of subgroup cases. See appendix B for definition of variables in table. In 2012 the question text was changed from "…had an alcoholic beverage containing caffeine (like Four Loko or Joose)" to "…had an alcoholic beverage mixed with an energy drink (like Red Bull)." The data in 2011 and 2012 are not comparable due to this question change. Data based on one of four forms; N is one third of N indicated in Table S1.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 125
ALCOHOLIC BEVERAGES CONTAINING CAFFEINE:
Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

					Percentage who used in last 12 months						
	<u>1991–2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	2018–2019 <u>change</u>
Approximate weighted N =	—	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	—	22.5‡	19.7	16.9	14.3	12.8	10.6	9.9	9.8	8.4	-1.4
Gender:											
Male	—	20.4‡	19.7	17.0	13.8	12.8	10.6	9.5	11.0	8.9	-2.1
Female	—	24.7‡	19.8	16.7	14.7	12.7	10.8	10.2	8.3	7.8	-0.4
College Plans:											
None or under 4 years	—	34.1‡	29.9	26.7	23.9	21.4	19.5	18.2	17.9	12.9	-5.0 s
Complete 4 years	—	21.2‡	18.7	15.9	13.2	11.9	9.7	9.0	8.5	7.6	-0.8
Region:											
Northeast	—	26.4‡	19.9	18.4	12.2	14.2	11.0	9.4	8.8	9.8	+1.0
Midwest	—	17.4‡	18.5	15.5	13.4	12.2	9.1	8.4	9.6	6.0	-3.6 s
South	—	22.9‡	19.5	16.6	14.9	12.4	10.7	8.7	9.0	7.1	-2.0
West	—	24.7‡	21.1	17.7	16.0	12.9	11.6	13.1	12.2	12.2	0.0
Population Density:											
Large MSA	—	21.7‡	17.4	14.0	13.8	11.6	10.0	9.1	10.9	6.6	-4.4 ss
Other MSA	—	23.2‡	20.1	18.2	13.4	13.5	10.4	10.0	9.6	8.8	-0.8
Non-MSA	—	22.1‡	21.8	17.9	17.3	13.1	12.5	10.6	8.7	10.5	+1.8
Parental Education: [a]											
1.0–2.0 (Low)	—	33.8‡	23.7	21.7	16.8	18.4	12.4	12.7	13.5	10.5	-3.0
2.5–3.0	—	25.6‡	23.2	20.9	18.2	14.6	14.7	10.7	12.2	8.5	-3.7 s
3.5–4.0	—	25.5‡	22.8	19.7	16.2	14.1	11.6	10.3	10.7	8.8	-1.8
4.5–5.0	—	17.1‡	18.8	13.4	12.8	11.5	8.8	8.9	7.1	8.6	+1.5
5.5–6.0 (High)	—	17.0‡	12.4	12.7	9.8	10.7	8.6	8.7	8.5	7.3	-1.1
Race/Ethnicity (2-year average): [b]											
White	—	—	—	19.3	17.3	15.2	13.5	12.1	11.0	10.2	-0.8
African American	—	—	—	10.4	7.6	7.2	6.2	5.2	5.2	4.8	-0.5
Hispanic	—	—	—	20.3	16.6	13.9	11.4	10.7	10.8	9.0	-1.8

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

Notes.   ' — ' 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. ' ‡ ' indicates some change in the question. See relevant footnote for that drug. See relevant figure to assess the impact of the wording changes. See Table S2 for the number of subgroup cases. See appendix B for definition of variables in table. 'In 2012 the question text was changed from "…had an alcoholic beverage containing caffeine (like Four Loko or Joose)" to "…had an alcoholic beverage mixed with an energy drink (like Red Bull)." The data in 2011 and 2012 are not comparable due to this question change. Data based on one of four forms; *N* is one third of *N* indicated in Table S2.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 126
ALCOHOLIC BEVERAGES CONTAINING CAFFEINE:
Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 12</u>

	1975–2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
				Percentage who used in last 12 months							
Approximate weighted N =	—	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	26.4‡	26.4	23.5	20.0	18.3	17.0	16.9	14.7	12.3	-2.4 s
Gender:											
Male	—	26.6‡	28.8	26.9	21.7	19.6	19.0	18.7	15.9	12.4	-3.5 s
Female	—	25.9‡	23.7	20.1	18.5	17.4	14.4	15.3	12.9	11.5	-1.4
College Plans:											
None or under 4 years	—	29.4‡	28.7	29.7	23.7	22.5	18.3	19.9	17.7	16.5	-1.3
Complete 4 years	—	25.6‡	25.3	22.0	19.1	17.4	16.3	16.0	13.8	11.2	-2.6 s
Region:											
Northeast	—	29.7‡	28.7	23.6	22.5	21.1	17.4	21.5	14.5	10.9	-3.6
Midwest	—	26.6‡	30.2	23.1	23.0	18.5	18.5	18.6	15.2	12.8	-2.4
South	—	23.8‡	21.9	22.3	17.9	15.5	14.5	15.1	14.4	11.3	-3.1
West	—	27.8‡	26.4	25.6	18.7	20.6	19.9	15.4	14.9	15.4	+0.5
Population Density:											
Large MSA	—	27.9‡	27.7	25.2	20.3	18.5	17.5	16.8	13.3	11.1	-2.2
Other MSA	—	27.4‡	27.0	24.2	20.8	17.7	17.2	16.4	14.9	12.2	-2.7
Non-MSA	—	21.9‡	22.6	19.3	17.6	19.3	15.7	18.0	16.8	14.7	-2.2
Parental Education: [a]											
1.0–2.0 (Low)	—	26.5‡	20.3	22.4	21.5	17.0	18.4	14.3	12.0	12.0	0.0
2.5–3.0	—	28.1‡	25.9	23.1	19.5	19.2	14.8	17.1	15.9	12.5	-3.4
3.5–4.0	—	27.0‡	30.3	25.3	20.2	18.3	17.9	17.8	15.3	12.3	-2.9
4.5–5.0	—	24.7‡	26.8	22.8	20.5	19.3	17.6	16.1	15.4	13.1	-2.4
5.5–6.0 (High)	—	26.3‡	24.2	22.3	20.1	19.0	16.7	17.9	13.0	12.7	-0.3
Race/Ethnicity (2-year average): [b]											
White	—	—	—	28.1	24.6	22.2	21.0	20.3	19.1	15.8	-3.2 sss
African American	—	—	—	11.5	11.6	11.2	10.1	8.5	8.0	7.2	-0.8
Hispanic	—	—	—	23.0	18.9	16.3	15.9	15.4	12.5	10.8	-1.6

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

Notes.   ' — ' 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. ' ‡ ' indicates some change in the question. See relevant footnote for that drug. See relevant figure to assess the impact of the wording changes. See Table S3 for the number of subgroup cases. See appendix B for definition of variables in table. In 2012 the question text was changed from "…had an alcoholic beverage containing caffeine (like Four Loko or Joose)" to "…had an alcoholic beverage mixed with an energy drink (like Red Bull)." The data in 2011 and 2012 are not comparable due to this question change. Data based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 127

CIGARETTES: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

Percentage who used in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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*
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
5.5–6.0 (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
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
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
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

TABLE 127 (cont.)

CIGARETTES: Trends in <u>30-Day</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	8.7	7.1	6.8	6.5	7.1	6.1	4.9	4.5	4.0	3.6	2.6	1.9	2.2	2.3	+0.1
Gender:															
Male	8.1	7.5	6.7	6.7	7.4	6.2	4.6	4.0	3.5	3.3	2.5	1.8	2.1	1.7	-0.4
Female	8.9	6.4	6.7	6.0	6.8	5.7	4.9	4.7	4.2	3.7	2.6	1.9	2.0	2.8	+0.9 s
College Plans:															
None or under 4 years	23.2	23.9	21.1	19.5	22.8	18.2	17.3	15.0	13.1	11.7	9.9	5.5	6.1	6.3	+0.2
Complete 4 years	7.1	5.4	5.5	5.3	5.7	5.1	3.9	3.8	3.1	2.8	2.0	1.4	1.5	1.8	+0.3
Region:															
Northeast	6.7	3.7	5.9	5.6	6.0	4.4	4.2	3.5	3.4	2.2	2.0	1.2	1.6	1.2	-0.4
Midwest	9.3	7.8	8.1	7.0	8.6	6.4	3.9	4.4	3.5	4.5	3.2	2.6	2.4	1.8	-0.6
South	10.9	8.6	7.7	7.7	8.5	6.8	6.9	5.8	4.6	4.0	3.0	1.8	2.0	2.8	+0.8
West	5.7	5.8	5.2	4.6	4.0	6.1	3.0	3.0	3.9	2.9	2.0	2.0	2.5	2.7	+0.2
Population Density:															
Large MSA	6.4	4.7	5.2	4.2	4.8	4.0	3.6	2.5	2.8	2.2	1.4	1.5	1.3	1.3	0.0
Other MSA	8.8	7.6	7.5	6.9	7.6	7.0	5.1	4.3	3.7	3.5	2.3	1.9	2.0	2.2	+0.2
Non-MSA	11.6	9.5	7.9	8.5	9.2	7.7	6.9	8.0	6.6	5.9	5.6	2.6	3.8	4.2	+0.4
Parental Education:[a]															
1.0–2.0 (Low)	14.7	13.8	12.1	10.5	11.4	9.2	7.6	6.3	5.8	5.9	4.7	3.2	3.0	3.5	+0.5
2.5–3.0	12.5	10.2	8.7	8.8	10.2	9.8	7.4	6.5	6.2	4.6	3.6	2.7	2.1	3.8	+1.7 s
3.5–4.0	8.8	7.8	7.3	7.1	8.0	6.3	5.7	5.6	4.8	3.5	2.6	2.1	2.8	2.5	-0.3
4.5–5.0	5.5	3.9	4.7	4.4	4.9	3.9	3.0	2.4	2.6	2.5	2.0	1.3	1.5	1.3	-0.2
5.5–6.0 (High)	4.8	2.4	4.1	3.5	2.9	3.1	2.6	2.9	1.7	2.1	1.4	1.2	1.1	1.4	+0.3
Race/Ethnicity (2-year average):[b]															
White	9.3	8.1	7.2	7.3	7.6	7.2	5.8	4.7	4.4	4.2	3.4	2.6	1.9	2.1	+0.2
African American	6.0	5.1	4.6	4.4	4.3	4.1	4.0	3.5	2.6	2.2	2.1	1.7	1.4	1.2	-0.2
Hispanic	8.8	8.0	7.0	6.5	6.7	6.9	5.5	4.0	3.5	3.0	2.5	2.0	1.8	2.0	+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 S1 for the
number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 128
CIGARETTES: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

<div align="center">Percentage who used in last 30 days</div>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

TABLE 128
CIGARETTES: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

						Percentage who used in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	14.5	14.0	12.3	13.1	13.6	11.8	10.8	9.1	7.2	6.3	4.9	5.0	4.2	3.4	-0.9
Gender:															
Male	13.4	14.6	12.7	13.7	15.0	13.4	12.0	10.5	7.7	6.1	5.0	5.0	4.4	3.9	-0.5
Female	15.5	13.3	11.9	12.5	12.1	10.0	9.6	7.5	6.6	6.3	4.4	4.9	3.7	2.9	-0.8
College Plans:															
None or under 4 years	32.7	30.1	30.1	29.0	32.5	28.5	27.6	23.3	19.4	17.6	14.5	15.0	10.2	8.9	-1.3
Complete 4 years	12.1	11.8	10.0	11.3	11.3	9.9	9.0	7.4	5.8	5.1	3.8	3.7	3.2	2.3	-0.9 s
Region:															
Northeast	11.8	13.1	10.1	11.1	12.1	12.2	10.9	7.2	6.7	6.1	4.4	3.9	2.9	2.1	-0.8
Midwest	18.1	17.1	14.5	12.9	14.5	11.8	9.7	9.3	8.0	7.0	4.7	5.6	4.2	3.3	-0.9
South	15.6	14.4	14.0	16.7	15.4	13.8	13.6	11.8	7.7	7.0	5.5	4.9	5.5	3.7	-1.7 s
West	10.9	11.1	9.6	10.1	11.1	8.5	7.6	6.9	5.8	4.7	4.5	5.5	3.4	3.9	+0.5
Population Density:															
Large MSA	11.5	12.1	10.3	11.4	11.1	9.5	8.4	5.8	5.9	4.9	4.4	4.9	3.0	1.5	-1.5 ss
Other MSA	13.3	13.9	12.3	13.0	13.5	11.5	10.2	9.5	6.0	5.7	4.3	3.8	3.7	3.8	+0.1
Non-MSA	22.4	17.2	15.4	16.1	17.5	15.7	15.4	13.0	12.3	10.4	7.2	8.4	7.6	5.6	-2.0
Parental Education: [a]															
1.0–2.0 (Low)	20.4	17.5	15.7	18.2	18.8	14.6	15.4	12.8	9.7	9.3	5.5	7.1	5.5	3.9	-1.6
2.5–3.0	19.7	18.4	15.8	16.5	18.6	16.2	14.4	13.6	9.1	8.7	7.1	7.3	5.5	6.2	+0.7
3.5–4.0	15.5	14.7	13.9	13.8	15.1	12.7	11.2	10.2	8.4	7.8	5.3	5.0	4.7	3.6	-1.1
4.5–5.0	10.8	11.3	9.6	10.9	10.0	8.6	9.6	6.0	5.2	5.0	3.5	3.3	3.0	1.7	-1.3 s
5.5–6.0 (High)	10.0	9.7	7.8	8.9	7.7	8.0	7.1	4.9	4.9	3.3	3.4	3.6	3.0	2.1	-0.9
Race/Ethnicity (2-year average): [b]															
White	16.6	16.2	15.1	14.4	14.7	14.3	12.9	11.4	9.5	7.8	6.8	6.3	5.8	4.6	-1.2 ss
African American	8.0	7.1	6.5	6.8	6.7	7.1	6.7	5.3	4.2	3.8	2.6	2.1	1.8	1.5	-0.4
Hispanic	12.1	10.5	11.1	12.1	12.2	10.5	8.3	8.3	6.8	5.3	4.0	3.4	3.7	3.1	-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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 129

CIGARETTES: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

<p align="center">Percentage who used in last 30 days</p>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

TABLE 129 (cont.)

CIGARETTES: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

							Percentage who used in last 30 days								
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	28.3	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
Gender:																
Male	29.0	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
Female	27.5	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
College Plans:																
None or under 4 years	38.1	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
Complete 4 years	24.2	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
Region:																
Northeast	30.5	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
Midwest	34.6	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
South	25.4	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
West	23.2	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
Population Density:																
Large MSA	26.2	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
Other MSA	29.3	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
Non-MSA	28.6	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
Parental Education: [a]																
1.0–2.0 (Low)	31.3	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
2.5–3.0	28.7	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
3.5–4.0	28.4	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
4.5–5.0	26.9	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
5.5–6.0 (High)	27.1	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
Race/Ethnicity (2-year average): [b]																
White	32.2	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
African American	10.6	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
Hispanic	24.0	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

TABLE 129 (cont.)

CIGARETTES: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	21.6	20.4	20.1	19.2	18.7	17.1	16.3	13.6	11.4	10.5	9.7	7.6	5.7	-1.9 sss
Gender:														
Male	23.1	21.5	22.1	21.9	21.5	19.3	18.4	15.2	13.0	12.7	10.6	8.4	6.9	-1.4
Female	19.6	19.1	17.6	15.7	15.1	14.5	13.2	11.6	9.1	8.1	8.3	5.9	4.0	-1.9 sss
College Plans:														
None or under 4 years	32.4	32.4	31.2	31.2	32.2	27.9	28.9	25.3	21.9	19.2	16.5	14.6	10.7	-3.9 ss
Complete 4 years	19.0	17.6	17.3	16.3	15.6	14.7	13.0	10.8	8.9	8.4	8.0	5.2	4.0	-1.1 s
Region:														
Northeast	23.8	19.7	18.9	18.2	17.8	18.8	17.0	11.7	10.8	10.9	9.6	6.4	3.7	-2.7 ss
Midwest	24.7	22.1	25.7	21.5	21.8	21.0	16.5	13.8	12.7	12.0	9.6	7.3	5.7	-1.7
South	21.9	22.4	20.0	20.5	18.4	15.6	18.6	15.4	12.5	10.8	11.2	9.2	6.6	-2.7 ss
West	15.8	15.8	14.7	15.3	16.4	13.9	12.1	11.9	8.6	8.3	7.1	6.1	5.8	-0.3
Population Density:														
Large MSA	19.9	18.8	17.7	18.7	17.2	15.8	14.5	11.7	9.3	8.4	7.4	5.3	3.4	-1.9 ss
Other MSA	20.8	19.5	19.1	17.9	18.1	15.6	15.5	12.9	10.5	9.9	9.5	6.8	6.0	-0.8
Non-MSA	25.9	24.3	25.5	23.1	22.3	23.1	20.9	17.8	17.0	15.1	13.8	13.9	9.0	-4.9 sss
Parental Education: [a]														
1.0–2.0 (Low)	20.5	18.5	19.9	17.0	18.2	17.0	18.2	14.8	12.9	9.9	7.9	6.9	7.2	+0.3
2.5–3.0	24.7	22.4	23.2	21.6	22.4	19.0	18.2	16.1	13.9	12.0	11.3	8.0	6.6	-1.5
3.5–4.0	21.6	21.3	21.0	20.9	19.6	20.1	18.5	14.2	12.2	11.9	10.4	8.1	5.3	-2.8 sss
4.5–5.0	20.5	18.6	18.0	17.5	15.9	15.7	14.1	12.0	9.7	9.1	8.7	6.6	4.7	-1.9 s
5.5–6.0 (High)	18.4	19.2	15.3	12.8	14.3	11.2	9.5	9.4	7.5	7.6	8.1	5.9	4.2	-1.6
Race/Ethnicity (2-year average): [b]														
White	24.9	24.7	23.9	22.9	22.2	21.2	19.4	17.5	15.0	13.2	12.7	11.0	7.9	-3.0 sss
African American	10.8	10.3	9.8	10.1	9.7	8.6	9.6	9.0	6.9	6.0	5.0	4.1	3.2	-0.9
Hispanic	15.3	15.0	15.7	15.0	14.3	13.2	12.4	11.4	9.6	8.2	6.9	5.2	4.5	-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 = .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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 130
CIGARETTES: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 8

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	7.2	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
Gender:															
Male	8.1	6.9	8.8	9.5	9.2	10.5	9.0	8.1	7.4	7.0	5.9	5.4	4.4	4.3	3.9
Female	6.2	7.2	7.8	8.0	9.2	10.1	8.7	9.0	8.4	7.5	4.9	4.9	4.5	4.3	4.0
College Plans:															
None or under 4 years	18.5	20.1	21.5	22.6	22.5	26.0	25.4	25.2	25.2	21.7	17.7	17.1	16.1	15.4	14.4
Complete 4 years	5.3	5.1	6.4	6.8	7.5	8.0	6.9	6.6	5.9	5.6	3.9	3.9	3.2	3.1	2.9
Region:															
Northeast	7.2	7.1	7.1	8.6	9.2	11.0	8.8	6.1	7.2	6.9	6.1	3.7	2.9	3.3	3.2
Midwest	7.8	7.6	8.5	9.4	11.0	12.4	10.3	11.2	11.5	9.0	6.4	5.7	5.5	5.7	4.8
South	7.9	7.8	9.3	9.4	9.4	10.4	9.5	10.2	8.5	7.8	6.1	6.6	5.7	4.7	5.0
West	4.6	4.8	7.4	7.4	7.0	7.5	6.8	5.8	3.8	4.9	2.6	2.9	2.4	3.3	2.4
Population Density:															
Large MSA	6.3	6.3	5.7	6.6	7.6	9.5	7.0	6.7	5.4	5.6	4.1	3.2	3.0	3.5	2.3
Other MSA	7.7	7.2	9.1	9.5	9.3	10.2	8.7	7.9	7.4	6.3	5.4	5.1	4.3	4.1	4.1
Non-MSA	7.3	7.8	10.1	9.6	11.1	11.8	11.7	12.7	12.7	11.8	7.2	7.6	7.0	5.9	6.2
Parental Education: [a]															
1.0–2.0 (Low)	15.9	11.9	12.7	13.0	15.8	13.6	14.3	13.0	14.7	13.1	11.1	10.6	9.1	10.1	7.8
2.5–3.0	8.6	8.4	9.7	11.3	11.3	14.0	11.7	12.0	11.4	11.3	7.5	7.1	6.6	5.6	6.3
3.5–4.0	6.5	6.9	8.5	8.9	9.4	10.1	9.2	9.7	8.1	6.7	5.1	5.4	4.4	4.2	4.3
4.5–5.0	4.0	5.2	5.9	6.1	7.2	7.6	6.8	5.7	4.6	3.9	3.0	3.3	2.6	2.8	2.2
5.5–6.0 (High)	4.9	4.2	6.3	5.8	5.7	7.4	5.5	5.2	5.1	4.1	3.1	2.1	2.1	1.9	1.4
Race/Ethnicity (2-year average)> [b]															
White	—	7.7	8.8	9.7	10.5	11.7	11.4	10.4	9.7	9.0	7.5	6.0	5.3	4.7	4.6
African American	—	1.4	1.8	2.6	2.8	3.2	3.7	3.8	3.8	3.2	2.8	2.8	2.9	2.7	2.1
Hispanic	—	7.3	7.2	9.0	9.2	8.0	8.1	8.4	8.5	7.1	5.0	4.4	3.7	3.5	3.1

TABLE 130 (cont.)
CIGARETTES: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 8

Percentage who used daily in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	4.0	3.0	3.1	2.7	2.9	2.4	1.9	1.8	1.4	1.3	0.9	0.6	0.8	0.8	-0.1
Gender:															
Male	4.0	3.4	3.2	2.9	3.5	2.5	2.0	1.7	1.2	1.1	1.0	0.6	0.9	0.6	-0.3
Female	3.8	2.6	2.9	2.3	2.3	2.2	1.6	1.8	1.3	1.4	0.8	0.5	0.6	0.9	+0.3
College Plans:															
None or under 4 years	13.2	12.3	10.8	10.9	12.8	8.1	8.0	8.3	4.7	5.9	4.4	1.8	3.3	2.8	-0.5
Complete 4 years	2.9	2.2	2.3	1.9	2.0	1.9	1.4	1.4	1.0	0.9	0.5	0.4	0.4	0.5	+0.1
Region:															
Northeast	3.0	1.7	2.4	2.1	2.4	1.4	1.8	1.3	1.2	0.7	0.6	0.2	0.5	0.4	-0.1
Midwest	4.7	3.8	3.9	3.0	3.3	2.3	1.3	1.5	0.9	1.6	1.0	0.8	1.0	0.6	-0.4
South	5.3	3.8	3.7	3.2	3.8	2.9	2.9	2.6	1.9	1.5	1.0	0.6	0.8	0.8	0.0
West	1.8	1.9	2.0	2.0	1.4	2.3	0.8	1.2	1.1	1.1	0.9	0.6	1.0	1.2	+0.2
Population Density:															
Large MSA	2.3	1.6	2.2	1.6	1.7	1.2	1.4	0.8	1.1	0.6	0.4	0.4	0.5	0.4	-0.1
Other MSA	4.1	3.1	3.3	3.0	3.1	3.2	2.0	1.8	1.3	1.2	0.7	0.6	0.9	0.7	-0.1
Non-MSA	6.3	5.0	4.2	3.7	4.3	2.7	2.8	3.4	2.1	2.7	2.5	0.9	1.4	1.5	+0.1
Parental Education: [a]															
1.0–2.0 (Low)	7.3	5.5	5.4	6.2	4.2	3.9	2.6	2.7	2.6	1.7	2.2	1.1	1.0	1.1	+0.1
2.5–3.0	6.6	4.9	4.4	3.4	4.8	3.9	3.3	3.0	1.9	1.9	1.2	0.7	0.8	1.3	+0.5
3.5–4.0	3.8	3.6	3.0	2.5	2.8	2.9	2.2	2.0	1.6	1.6	0.6	0.6	1.1	0.6	-0.4
4.5–5.0	2.1	1.5	1.9	1.8	1.9	1.4	0.9	1.0	0.8	0.8	0.6	0.3	0.5	0.4	-0.1
5.5–6.0 (High)	1.8	0.7	1.9	1.4	1.0	0.9	1.0	1.0	0.5	0.4	0.5	0.3	0.5	0.7	+0.2
Race/Ethnicity (2-year average)> [b]															
White	4.6	3.9	3.3	3.2	3.2	3.0	2.4	2.0	1.7	1.4	1.2	0.9	0.6	0.7	+0.1
African American	1.9	2.1	1.9	2.0	1.9	1.5	1.6	1.5	1.2	0.9	0.5	0.4	0.5	0.5	-0.1
Hispanic	2.8	2.8	2.5	2.2	2.3	2.4	1.8	1.4	1.3	1.0	0.8	0.6	0.4	0.6	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 131

CIGARETTES: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 10

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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*
Total	12.6	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
Gender:															
Male	12.4	12.1	13.8	15.2	16.3	18.1	17.2	14.7	15.6	13.7	12.4	9.4	8.6	8.2	7.2
Female	12.5	12.4	14.3	13.7	16.1	18.6	18.5	16.8	15.9	14.1	11.9	10.8	9.0	8.2	7.7
College Plans:															
None or under 4 years	25.7	25.5	28.9	28.9	32.7	34.3	35.4	31.7	32.1	28.8	27.3	22.9	22.1	21.4	19.2
Complete 4 years	9.6	9.5	11.0	11.5	13.3	15.5	15.0	12.9	13.2	11.6	9.6	7.9	6.7	6.4	5.9
Region:															
Northeast	14.3	13.1	16.3	14.1	15.8	18.8	18.0	18.7	17.7	14.1	11.0	8.3	8.6	8.5	7.6
Midwest	14.3	14.3	15.1	16.9	17.6	20.6	19.5	17.3	19.6	16.3	13.2	11.5	10.2	7.4	8.6
South	12.8	11.4	13.9	15.5	19.3	20.5	20.5	17.1	16.3	15.7	14.3	11.3	10.1	11.0	8.8
West	9.1	10.7	10.9	9.7	9.4	10.7	11.1	8.8	9.1	7.8	7.0	7.8	6.0	5.2	4.0
Population Density:															
Large MSA	12.3	11.7	12.3	12.0	12.6	15.3	15.7	12.2	13.2	13.8	9.6	7.4	6.1	5.6	5.5
Other MSA	11.7	11.6	13.6	15.5	17.5	18.8	16.9	15.1	15.5	12.1	11.6	10.4	8.7	8.1	7.0
Non-MSA	14.3	14.5	16.9	15.5	18.4	20.8	22.5	21.1	19.7	17.5	16.3	13.1	13.7	12.3	11.4
Parental Education: [a]															
1.0–2.0 (Low)	16.0	17.8	19.3	15.5	20.0	19.3	17.7	17.4	20.1	18.9	12.9	14.1	15.3	11.4	9.9
2.5–3.0	15.5	13.9	16.9	17.6	21.6	23.1	22.1	21.3	19.1	17.6	16.2	14.7	12.7	11.5	11.1
3.5–4.0	12.0	11.8	13.6	15.9	17.0	19.4	18.9	14.9	16.6	14.2	12.2	10.0	8.8	9.3	7.9
4.5–5.0	10.6	10.5	10.7	11.5	12.6	14.8	15.6	12.9	13.0	11.5	9.7	6.8	5.8	5.4	5.2
5.5–6.0 (High)	9.6	9.0	10.5	9.6	10.3	13.6	12.0	11.1	11.2	9.8	8.3	6.4	4.5	4.2	4.4
Race/Ethnicity (2-year average): [b]															
White	—	14.5	15.3	16.5	17.6	20.0	21.4	20.3	19.1	17.7	15.5	13.3	11.4	10.0	9.1
African American	—	2.8	3.1	3.8	4.7	5.1	5.6	5.8	5.3	5.2	5.2	5.0	4.3	4.4	3.9
Hispanic	—	8.4	8.9	8.1	9.9	11.6	10.8	9.4	9.1	8.8	7.4	6.4	6.0	6.0	5.9

Table continued on next page.

TABLE 131 (cont.)

CIGARETTES: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 10</u>

Percentage who used daily in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	7.6	7.2	5.9	6.3	6.6	5.5	5.0	4.4	3.2	3.0	1.9	2.2	1.8	1.3	-0.5
Gender:															
Male	6.9	7.7	6.2	6.9	7.2	6.4	5.6	5.4	3.5	2.8	2.2	2.3	1.9	1.5	-0.4
Female	8.1	6.6	5.5	5.6	5.9	4.5	4.4	3.4	2.8	2.8	1.5	1.9	1.5	1.2	-0.3
College Plans:															
None or under 4 years	21.7	18.9	17.9	17.3	19.1	17.1	17.0	13.4	10.5	10.8	7.2	8.9	5.1	3.6	-1.4
Complete 4 years	5.6	5.6	4.3	5.0	5.0	4.2	3.7	3.4	2.3	2.0	1.2	1.4	1.2	0.9	-0.4
Region:															
Northeast	6.2	6.8	5.3	5.3	5.7	6.3	5.1	3.6	2.8	2.7	1.6	2.2	1.0	0.4	-0.6 s
Midwest	10.3	10.0	7.6	5.8	7.3	5.7	4.4	4.9	3.9	2.8	2.3	2.8	1.8	1.6	-0.2
South	8.4	7.2	6.9	8.5	7.9	6.6	6.9	5.7	3.4	3.6	2.2	2.1	2.6	1.5	-1.1
West	4.2	4.7	3.4	4.3	4.4	3.0	2.6	3.1	2.4	2.3	1.4	2.1	1.1	1.3	+0.2
Population Density:															
Large MSA	5.4	5.7	4.3	5.2	4.8	4.3	3.6	2.3	2.5	2.1	1.6	1.7	1.1	0.4	-0.7 s
Other MSA	6.7	7.2	6.2	6.0	6.3	5.3	4.7	4.8	2.6	2.5	1.6	1.5	1.4	1.6	+0.1
Non-MSA	13.2	9.6	7.5	8.5	9.7	7.6	7.4	6.8	5.7	5.5	3.2	4.9	3.8	2.2	-1.6 s
Parental Education: [a]															
1.0–2.0 (Low)	12.5	9.8	7.6	9.4	10.0	8.2	8.0	6.8	4.6	5.2	2.4	3.8	3.2	1.5	-1.7 s
2.5–3.0	11.9	10.8	8.7	8.7	10.1	8.9	7.5	7.2	4.7	4.6	3.0	3.5	2.8	2.5	-0.3
3.5–4.0	7.8	7.2	6.7	6.7	7.1	5.6	4.5	4.7	3.9	3.4	1.9	2.5	1.9	1.5	-0.5
4.5–5.0	4.4	5.5	3.8	4.6	3.9	3.3	4.3	2.8	1.8	2.1	1.2	1.1	1.0	0.4	-0.6 s
5.5–6.0 (High)	4.3	3.5	3.0	3.5	3.1	2.5	2.8	1.9	1.6	1.0	1.0	1.0	0.8	0.8	+0.0
Race/Ethnicity (2-year average): [b]															
White	8.7	8.8	8.0	7.1	7.4	7.1	6.2	5.7	4.8	3.5	2.8	2.5	2.4	1.9	-0.5 s
African American	3.3	3.2	3.0	3.2	3.5	3.5	2.9	2.6	2.3	2.1	1.3	0.9	1.0	0.8	-0.1
Hispanic	5.3	3.8	3.8	4.5	4.4	3.8	3.0	2.6	2.3	2.1	1.9	1.6	1.6	1.1	-0.4 s

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 132
CIGARETTES: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

Percentage who used daily in last 30 days

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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*
Total	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
Gender:																
Male	26.9	28.0	27.1	26.0	22.3	18.5	18.1	18.2	19.2	16.0	17.8	16.9	16.4	17.4	17.9	18.6
Female	26.4	28.8	30.0	28.3	27.8	23.5	21.7	23.2	22.2	20.5	20.6	19.8	20.6	18.1	19.4	19.3
College Plans:																
None or under 4 years	—	36.5	37.2	35.2	33.8	29.7	29.3	29.5	29.3	27.2	29.6	28.2	29.0	27.4	27.9	28.3
Complete 4 years	—	19.8	19.3	18.3	17.0	13.8	12.9	13.2	13.8	11.9	12.4	12.8	13.3	13.4	14.6	14.7
Region:																
Northeast	31.4	32.3	33.8	32.5	28.6	24.1	23.3	23.4	26.1	23.6	24.9	24.9	24.8	21.4	21.3	22.8
Midwest	28.6	30.2	29.4	28.6	27.0	22.0	23.0	24.0	23.4	20.4	22.4	19.9	20.3	19.0	23.0	22.2
South	26.2	29.1	28.7	26.4	25.8	22.6	19.1	20.2	19.4	17.7	16.0	15.8	15.7	17.7	17.1	16.5
West	17.3	19.4	19.2	19.1	17.0	14.0	13.1	12.7	13.0	12.4	14.2	13.4	14.9	14.0	13.8	14.8
Population Density:																
Large MSA	30.8	30.4	30.9	29.2	24.5	21.6	21.9	23.5	22.1	21.5	21.9	20.6	20.3	18.0	16.7	19.0
Other MSA	25.6	27.1	27.2	25.7	25.0	21.3	19.0	19.3	20.2	17.4	17.7	17.0	17.6	17.7	19.0	19.0
Non-MSA	25.8	29.5	29.1	28.7	26.5	21.2	20.7	21.3	21.7	18.2	19.9	19.8	19.3	18.8	20.9	19.5
Parental Education: [a]																
1.0–2.0 (Low)	27.2	32.7	29.6	28.6	29.1	23.7	24.1	24.6	24.0	23.2	22.7	20.4	19.7	19.2	17.1	16.7
2.5–3.0	27.2	31.3	31.5	30.3	26.5	24.7	22.5	23.1	23.2	21.5	21.8	21.4	21.1	19.6	21.5	21.0
3.5–4.0	22.1	25.8	28.1	24.8	24.5	19.4	19.0	19.7	18.8	16.4	19.3	19.4	17.8	17.5	19.0	19.3
4.5–5.0	22.9	24.5	23.7	23.2	21.2	16.6	16.1	16.8	17.5	14.1	16.0	13.9	16.5	16.5	17.2	18.3
5.5–6.0 (High)	17.4	22.8	21.7	22.8	20.6	15.0	13.9	14.5	17.2	14.1	11.2	13.6	16.6	15.1	15.8	16.5
Race/Ethnicity (2-year average): [b]																
White	—	—	28.9	28.3	26.9	23.9	21.4	21.6	22.1	21.0	20.4	20.6	20.5	20.6	21.1	21.8
African American	—	—	24.9	22.7	20.9	17.4	14.6	13.1	12.5	10.7	9.9	9.4	7.9	7.3	6.4	5.8
Hispanic	—	—	22.6	20.4	15.8	12.8	13.6	14.3	14.9	13.9	11.8	11.3	11.0	10.9	10.8	10.9

Table continued on next page.

TABLE 132 (cont.)

CIGARETTES: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	*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*
Total	18.5	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
Gender:																
Male	18.8	17.2	19.4	20.4	21.7	22.2	24.8	22.7	23.6	20.9	18.4	17.2	17.0	15.4	14.6	12.0
Female	17.9	16.7	18.2	18.1	20.8	21.8	23.6	21.5	22.2	19.7	18.9	16.1	14.0	15.0	11.9	11.8
College Plans:																
None or under 4 years	28.4	28.1	27.8	29.8	33.7	33.2	35.6	34.6	34.2	31.7	30.1	27.6	27.9	26.9	24.9	22.8
Complete 4 years	14.1	12.9	15.9	15.7	17.4	18.9	20.6	18.4	19.5	16.6	15.5	13.8	12.1	12.2	10.5	9.4
Region:																
Northeast	20.9	19.4	23.5	21.3	22.5	27.0	29.4	23.4	23.2	22.8	21.9	18.4	16.4	16.2	13.3	14.3
Midwest	23.0	19.0	21.3	23.8	25.7	26.1	28.0	27.8	25.9	23.6	25.2	22.5	18.2	18.5	16.3	13.2
South	16.4	16.7	18.5	19.3	21.7	20.5	22.6	21.8	24.2	19.4	15.5	16.6	16.3	15.8	15.4	13.3
West	13.9	13.3	13.0	12.4	14.5	13.8	17.5	15.5	17.3	16.9	13.4	9.5	11.8	10.1	7.6	7.0
Population Density:																
Large MSA	16.7	16.6	17.3	17.7	21.3	20.7	23.7	20.6	18.6	16.7	17.4	15.0	11.5	12.6	11.4	10.3
Other MSA	19.0	15.9	19.7	19.2	19.9	21.9	23.9	21.2	22.8	21.1	17.5	16.7	15.9	16.1	12.7	11.5
Non-MSA	19.0	20.3	19.2	21.6	24.8	24.1	26.8	27.2	28.5	24.5	23.9	19.8	21.4	18.0	18.2	16.2
Parental Education: [a]																
1.0–2.0 (Low)	21.2	16.5	17.6	16.9	21.3	21.1	21.9	21.7	23.8	22.8	16.4	12.4	15.1	14.2	11.7	11.4
2.5–3.0	19.8	20.4	20.2	22.4	24.6	24.4	26.0	24.7	26.9	22.9	21.9	19.8	18.3	19.4	18.3	16.1
3.5–4.0	18.5	16.9	18.9	18.9	21.6	21.2	23.8	23.8	23.6	21.2	19.9	19.1	16.5	16.3	14.4	12.3
4.5–5.0	16.2	15.0	18.9	18.7	19.7	22.4	24.9	20.6	20.6	18.6	17.9	14.1	13.0	13.7	11.7	10.4
5.5–6.0 (High)	16.1	12.8	16.6	17.3	18.5	20.0	22.9	17.4	19.0	15.2	13.4	14.3	11.3	10.3	8.1	8.3
Race/Ethnicity (2-year average): [b]																
White	21.5	20.5	21.4	22.9	23.9	25.4	27.8	28.3	26.9	25.7	23.8	21.8	19.5	18.3	17.1	15.3
African American	5.1	4.2	4.1	4.9	6.1	7.0	7.2	7.4	7.7	8.0	7.5	6.4	5.4	5.2	5.6	5.7
Hispanic	11.5	12.5	11.8	10.6	11.6	12.9	14.0	13.6	14.0	15.7	12.0	9.2	8.0	8.2	7.7	7.0

TABLE 132 (cont.)
CIGARETTES: Trends in 30-Day Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

	Percentage who used daily in last 30 days													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	12.3	11.4	11.2	10.7	10.3	9.3	8.5	6.7	5.5	4.8	4.2	3.6	2.4	-1.3 sss
Gender:														
Male	13.0	12.0	11.8	12.3	11.6	10.9	9.7	7.9	6.6	5.6	4.3	3.8	2.8	-1.1 s
Female	11.2	10.6	9.9	8.7	8.6	7.3	6.5	5.4	3.9	3.7	3.8	2.6	1.6	-1.0 ss
College Plans:														
None or under 4 years	22.5	21.1	20.9	21.6	21.0	18.4	18.8	14.0	14.1	10.3	8.7	8.6	5.6	-3.0 ss
Complete 4 years	9.9	9.0	8.6	8.2	7.9	7.0	5.8	5.0	3.5	3.4	3.1	1.9	1.3	-0.6 s
Region:														
Northeast	14.3	11.3	10.8	10.3	10.2	11.3	9.8	6.8	5.4	5.9	4.1	2.3	1.8	-0.5
Midwest	14.5	12.9	15.4	12.5	11.7	11.6	8.4	6.6	6.6	5.5	4.3	3.5	2.2	-1.3 s
South	12.9	13.1	11.4	12.3	10.8	9.0	10.5	8.2	6.1	5.0	5.2	4.9	2.7	-2.2 sss
West	7.4	7.0	5.9	6.7	7.9	5.8	4.6	4.5	3.5	3.0	2.7	2.5	2.4	-0.1
Population Density:														
Large MSA	10.3	8.9	8.6	9.9	9.2	8.3	7.2	5.4	4.0	3.4	2.8	2.1	1.2	-0.9 sss
Other MSA	11.7	11.2	11.0	9.9	9.5	8.2	7.9	6.3	5.0	4.7	4.0	3.3	2.3	-1.0
Non-MSA	16.6	14.8	15.1	14.0	13.7	13.5	11.8	9.6	9.4	7.2	7.3	7.1	4.5	-2.6 ss
Parental Education: [a]														
1.0–2.0 (Low)	14.6	11.9	11.2	8.9	9.9	9.6	10.2	6.9	7.2	5.0	3.8	3.7	2.9	-0.8
2.5–3.0	15.1	13.4	14.7	13.9	13.5	11.6	10.4	8.9	7.8	6.2	5.3	4.6	3.4	-1.1
3.5–4.0	12.3	12.5	11.5	11.6	10.7	11.2	10.0	6.7	5.8	5.2	4.6	3.9	2.4	-1.5 ss
4.5–5.0	11.2	9.0	9.0	8.7	8.2	7.1	6.4	5.8	3.7	3.6	3.6	2.3	1.2	-1.1 s
5.5–6.0 (High)	7.4	9.1	5.8	6.1	6.7	4.7	3.6	4.7	3.1	2.6	2.6	1.4	1.1	-0.2
Race/Ethnicity (2-year average): [b]														
White	14.5	14.3	13.9	13.5	13.0	12.1	10.9	9.3	7.3	6.1	5.8	5.0	3.5	-1.6 sss
African American	5.8	5.8	5.4	5.3	4.9	4.7	5.3	5.1	4.1	3.5	2.5	2.0	1.8	-0.2
Hispanic	6.6	6.7	6.4	5.7	5.3	4.9	4.7	4.1	3.7	2.9	1.9	1.8	1.9	+0.1

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 133

CIGARETTES: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Subgroups in Grade 8

Percentage who used half pack a day or more in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	3.1	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
Gender:															
Male	3.7	3.1	4.3	4.2	3.7	4.7	3.7	3.5	3.1	2.8	2.6	2.4	1.8	1.7	2.0
Female	2.4	2.7	2.7	2.9	3.2	3.7	3.1	3.3	3.3	2.6	2.0	1.9	1.7	1.7	1.3
College Plans:															
None or under 4 years	10.1	10.8	11.9	11.7	11.4	13.5	11.6	13.8	13.4	10.3	9.8	8.4	7.5	7.4	7.7
Complete 4 years	1.9	1.7	2.2	2.4	2.3	2.8	2.4	2.2	2.0	1.8	1.4	1.5	1.2	1.1	1.0
Region:															
Northeast	3.3	2.8	2.7	3.7	3.7	4.1	3.7	2.1	3.1	3.3	2.6	1.7	1.0	1.4	1.4
Midwest	3.3	3.2	3.5	3.9	4.4	5.3	4.1	4.6	5.7	3.4	3.1	2.7	2.1	2.3	2.2
South	3.4	3.3	4.6	3.9	3.6	4.5	3.7	4.8	2.9	2.8	2.7	2.5	2.6	1.8	1.9
West	1.9	2.0	2.2	2.6	1.8	2.7	2.2	1.6	1.2	1.3	0.7	0.9	0.8	1.2	0.9
Population Density:															
Large MSA	2.4	2.3	2.1	3.0	2.5	3.7	2.7	2.3	1.8	2.1	1.5	1.3	1.0	1.3	1.0
Other MSA	3.3	3.2	3.7	3.9	3.6	3.8	3.2	3.2	2.8	2.2	2.1	2.2	1.7	1.6	1.5
Non-MSA	3.4	3.3	5.0	3.7	4.3	5.8	4.8	5.6	5.9	4.6	3.9	3.1	3.1	2.4	2.9
Parental Education: [a]															
1.0–2.0 (Low)	7.9	6.5	6.4	5.1	8.2	6.5	6.4	6.2	6.2	7.1	5.2	4.6	3.7	5.6	2.9
2.5–3.0	3.7	3.4	3.9	4.9	4.1	6.4	4.8	5.2	4.8	3.8	3.6	2.8	2.9	2.1	2.8
3.5–4.0	2.5	2.6	3.6	3.4	3.6	3.2	3.5	3.7	3.4	2.3	2.0	2.2	1.8	1.5	1.9
4.5–5.0	1.6	1.8	2.3	2.6	2.0	2.8	2.2	2.0	1.5	1.4	0.9	1.2	0.7	0.8	0.6
5.5–6.0 (High)	1.8	1.5	2.2	2.2	1.5	2.7	1.8	2.1	1.8	1.5	1.4	1.1	0.9	0.6	0.5
Race/Ethnicity (2-year average): [b]															
White	—	3.3	3.8	4.2	4.2	4.6	4.6	4.2	4.0	3.6	3.2	2.8	2.3	1.9	1.9
African American	—	0.4	0.7	1.0	0.9	1.3	1.4	1.2	1.3	1.0	1.1	1.1	1.2	1.1	0.9
Hispanic	—	2.7	2.5	3.1	3.3	2.7	2.4	2.8	3.0	2.3	1.4	1.3	1.5	1.4	1.1

TABLE 133 (cont.)
CIGARETTES: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Subgroups in Grade 8

						Percentage who used half pack a day or more in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	1.5	1.1	1.2	1.0	0.9	0.7	0.6	0.7	0.5	0.4	0.3	0.2	0.3	0.2	-0.1
Gender:															
Male	1.7	1.3	1.4	1.2	1.1	0.7	0.8	0.9	0.5	0.5	0.4	0.2	0.3	0.2	-0.2
Female	1.3	0.8	0.9	0.7	0.7	0.6	0.3	0.5	0.4	0.3	0.2	0.1	0.2	0.2	0.0
College Plans:															
None or under 4 years	5.8	4.7	4.7	4.7	4.6	3.0	3.0	4.0	1.8	2.4	1.8	0.6	1.1	1.0	0.0
Complete 4 years	1.1	0.7	0.8	0.6	0.5	0.5	0.4	0.5	0.3	0.2	0.1	0.1	0.1	0.1	-0.1
Region:															
Northeast	1.2	0.8	0.9	0.8	0.6	0.2	0.7	0.4	0.4	0.3	0.2	0.1	0.3	0.2	-0.1
Midwest	1.9	1.2	1.6	1.1	1.0	0.8	0.5	0.5	0.3	0.4	0.2	0.3	0.6	0.2	-0.4
South	2.1	1.3	1.3	1.1	1.2	0.8	0.8	1.1	0.8	0.6	0.5	0.2	0.2	0.3	+0.1
West	0.6	0.9	0.6	0.7	0.5	1.0	0.3	0.6	0.3	0.3	0.3	0.2	0.4	0.1	-0.3
Population Density:															
Large MSA	0.9	0.7	0.7	0.5	0.4	0.3	0.4	0.5	0.3	0.2	0.2	0.1	0.2	0.2	0.0
Other MSA	1.6	1.1	1.3	1.1	0.9	1.0	0.6	0.7	0.5	0.4	0.3	0.2	0.3	0.2	-0.2
Non-MSA	2.3	1.7	1.6	1.3	1.4	0.8	0.8	1.3	0.9	0.9	0.7	0.4	0.5	0.3	-0.3
Parental Education: [a]															
1.0–2.0 (Low)	3.6	1.9	2.5	2.6	0.9	1.2	0.7	1.0	1.2	0.7	1.0	0.3	0.3	0.3	0.0
2.5–3.0	2.4	2.0	1.5	1.2	1.7	1.0	1.0	0.9	0.6	0.3	0.3	0.1	0.2	0.1	-0.1
3.5–4.0	1.3	1.3	1.0	0.8	0.9	0.8	0.7	0.7	0.6	0.4	0.1	0.3	0.4	0.1	-0.2
4.5–5.0	1.0	0.5	0.7	0.4	0.7	0.4	0.1	0.3	0.2	0.2	0.0	0.2	0.2	0.1	-0.1
5.5–6.0 (High)	0.6	0.2	0.9	0.7	0.2	0.2	0.4	0.7	0.1	0.2	0.2	0.0	0.1	0.1	0.0
Race/Ethnicity (2-year average): [b]															
White	1.9	1.5	1.2	1.2	1.1	0.9	0.7	0.7	0.6	0.4	0.3	0.3	0.3	0.2	-0.1
African American	0.8	0.9	0.8	0.8	0.6	0.4	0.4	0.6	0.6	0.4	0.3	0.3	0.3	0.3	-0.1
Hispanic	0.7	0.9	0.9	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.3	0.1	0.1	0.1	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 134
CIGARETTES: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Subgroups in Grade 10

Percentage who used half pack a day or more in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	6.5	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
Gender:															
Male	6.9	6.5	7.8	8.2	8.7	9.9	8.9	8.1	7.8	6.7	6.0	4.1	4.3	3.5	2.9
Female	6.0	5.1	6.2	6.7	7.7	9.0	8.2	7.8	7.3	5.6	5.1	4.6	3.8	2.9	3.2
College Plans:															
None or under 4 years	15.9	15.3	18.5	18.5	20.9	22.4	22.0	20.6	18.9	16.0	16.0	11.5	12.3	10.8	9.4
Complete 4 years	4.4	4.0	4.6	5.2	6.1	7.1	6.3	5.6	5.7	4.5	3.8	3.1	2.8	2.2	2.2
Region:															
Northeast	7.8	5.9	8.5	7.8	7.7	9.1	8.8	10.0	9.1	6.0	5.0	3.7	4.6	3.6	3.4
Midwest	7.1	7.3	7.7	8.3	9.5	10.9	9.3	9.1	9.9	8.1	6.0	4.8	5.0	3.0	3.3
South	7.2	5.5	7.1	8.7	10.3	11.0	10.2	8.9	7.8	7.1	6.5	5.5	4.5	4.3	3.7
West	4.0	5.0	4.3	4.2	3.4	5.0	4.4	3.0	3.0	2.2	3.3	2.5	2.3	1.8	1.7
Population Density:															
Large MSA	6.9	5.2	5.9	5.8	6.0	7.6	6.6	5.8	6.0	5.7	4.8	3.0	2.3	1.9	2.3
Other MSA	5.8	5.8	6.7	8.5	9.2	9.5	8.0	7.7	7.6	5.6	5.0	4.7	4.0	3.3	2.6
Non-MSA	7.6	6.9	8.7	7.8	9.2	11.5	12.0	11.0	9.4	7.8	7.5	5.7	7.3	5.2	5.4
Parental Education: [a]															
1.0–2.0 (Low)	9.9	10.7	10.8	8.1	12.0	12.1	10.8	9.0	11.3	10.7	7.6	7.4	8.6	6.6	4.6
2.5–3.0	8.9	6.9	8.5	10.1	12.2	13.1	11.4	11.6	10.4	8.5	8.3	7.0	6.3	5.3	4.9
3.5–4.0	5.8	5.4	7.3	8.0	8.6	10.2	8.8	7.4	7.4	5.9	5.3	4.0	4.2	3.8	3.2
4.5–5.0	4.7	4.7	4.3	5.4	5.0	6.2	6.5	5.9	5.5	4.3	3.9	2.4	2.2	1.4	1.8
5.5–6.0 (High)	4.5	3.7	3.9	4.0	4.0	5.7	4.8	5.4	4.5	3.6	2.6	2.0	1.4	1.0	1.6
Race/Ethnicity (2-year average): [b]															
White	—	7.4	7.7	8.6	9.3	10.5	11.0	10.4	9.9	8.5	7.1	6.2	5.5	4.7	3.9
African American	—	0.8	0.6	1.2	1.8	1.6	1.7	1.8	1.5	1.9	1.7	1.2	1.0	1.0	1.2
Hispanic	—	3.0	3.0	2.6	3.4	4.3	3.3	3.0	3.1	2.9	2.7	2.2	1.8	1.5	1.9

TABLE 134 (cont.)

CIGARETTES: Trends in <u>30-Day</u> Prevalence of Use of <u>Half Pack a Day</u> or More by Subgroups in <u>Grade 10</u>

						Percentage who used half pack a day or more in last 30 days									2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	3.3	2.7	2.0	2.4	2.4	1.9	1.5	1.5	1.2	1.0	0.6	0.7	0.7	0.5	-0.2
Gender:															
Male	3.1	2.9	2.4	2.7	3.0	2.5	1.7	1.9	1.5	1.1	0.8	0.7	0.8	0.7	-0.1
Female	3.3	2.5	1.7	2.0	1.8	1.2	1.3	1.1	0.9	0.8	0.4	0.4	0.4	0.4	0.0
College Plans:															
None or under 4 years	12.0	8.1	7.8	8.6	8.6	7.0	6.8	5.3	4.9	5.0	3.2	3.2	2.1	1.4	-0.8
Complete 4 years	2.1	2.0	1.3	1.7	1.7	1.3	1.0	1.0	0.8	0.5	0.3	0.3	0.4	0.3	0.0
Region:															
Northeast	3.2	2.5	1.2	2.2	2.6	2.3	1.1	1.4	0.9	0.9	0.5	0.9	0.3	0.1	-0.1
Midwest	4.5	4.2	3.3	2.7	2.7	2.2	1.5	1.8	1.7	1.0	0.9	0.7	0.8	0.7	-0.1
South	3.6	2.8	2.6	3.2	3.1	2.3	2.3	2.0	1.3	1.3	0.7	0.5	0.9	0.5	-0.5
West	1.3	1.3	0.7	1.0	1.1	0.5	0.8	0.7	0.8	0.7	0.4	0.7	0.5	0.7	+0.1
Population Density:															
Large MSA	1.8	2.0	1.1	1.6	1.6	1.3	0.9	0.8	0.7	0.6	0.5	0.6	0.5	0.2	-0.3
Other MSA	3.0	2.7	2.2	2.3	2.4	1.7	1.4	1.4	0.8	0.7	0.4	0.4	0.6	0.6	0.0
Non-MSA	6.3	4.0	3.1	3.7	3.8	3.0	2.6	2.7	3.0	2.4	1.5	1.4	1.3	1.0	-0.3
Parental Education: [a]															
1.0–2.0 (Low)	7.1	4.9	3.4	4.8	4.2	3.0	3.9	2.6	1.9	2.0	0.9	0.9	1.3	0.6	-0.7
2.5–3.0	5.6	4.5	3.2	3.7	4.5	3.6	2.5	2.6	1.9	1.3	0.9	1.2	1.1	0.8	-0.3
3.5–4.0	3.1	2.6	2.4	2.4	2.3	1.8	1.3	1.5	1.5	1.2	0.4	0.5	0.7	0.6	-0.1
4.5–5.0	1.5	1.6	1.1	1.4	1.1	0.9	1.0	0.9	0.5	0.7	0.4	0.3	0.3	0.1	-0.2 s
5.5–6.0 (High)	1.6	1.2	0.7	1.1	1.0	0.5	0.5	0.5	0.4	0.1	0.3	0.3	0.3	0.4	0.0
Race/Ethnicity (2-year average): [b]															
White	3.8	3.8	3.2	2.8	2.9	2.6	2.1	1.9	1.8	1.2	0.9	0.7	0.8	0.8	0.0
African American	1.3	1.2	0.9	1.1	1.4	1.3	0.9	0.8	1.0	0.9	0.6	0.4	0.4	0.3	-0.1
Hispanic	2.0	1.0	0.9	1.1	1.0	0.9	0.8	0.6	0.5	0.7	0.7	0.5	0.5	0.4	-0.1

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 135

CIGARETTES: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Subgroups in Grade 12

Percentage who used half pack a day or more in last 30 days

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate 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*
Total	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
Gender:																
Male	19.6	19.9	19.7	18.9	15.4	13.5	12.8	13.1	13.1	11.0	12.3	10.7	10.1	11.1	11.2	11.6
Female	16.1	18.0	18.9	18.0	17.1	14.7	13.8	14.7	13.6	12.8	12.0	11.6	12.5	9.7	10.7	10.8
College Plans:																
None or under 4 years	—	25.5	26.9	25.5	23.3	21.2	20.8	21.0	20.9	19.6	20.7	19.2	19.5	18.4	18.6	19.2
Complete 4 years	—	11.9	11.2	11.1	9.8	8.2	7.5	7.8	7.6	6.5	6.5	6.4	7.2	6.8	7.5	7.5
Region:																
Northeast	22.0	22.5	24.2	23.6	19.8	17.0	16.6	15.6	16.6	17.4	17.0	15.6	16.5	13.1	13.6	13.8
Midwest	18.8	20.3	20.3	19.8	17.4	15.4	16.0	17.3	17.1	13.0	14.9	12.3	12.3	11.5	14.2	13.7
South	16.8	19.0	18.5	17.0	16.1	14.5	12.0	13.3	12.4	11.3	9.7	10.0	9.4	10.1	9.7	9.4
West	11.3	12.4	11.5	12.2	10.8	8.3	7.3	7.1	6.4	7.4	7.6	6.5	8.1	7.7	6.9	8.3
Population Density:																
Large MSA	21.7	20.1	20.4	19.7	16.2	14.8	15.4	15.9	14.1	14.8	14.4	12.2	13.1	10.8	10.1	11.2
Other MSA	17.4	18.9	18.8	17.9	16.5	13.8	12.4	12.9	13.5	11.4	11.0	9.6	10.0	10.4	11.2	11.0
Non-MSA	15.9	19.0	19.5	19.3	16.7	14.7	13.6	14.2	14.0	11.5	12.9	13.3	12.5	10.7	12.1	12.1
Parental Education: [a]																
1.0–2.0 (Low)	18.6	21.3	20.0	19.2	19.5	16.3	16.0	17.1	17.1	16.4	16.1	15.6	13.8	11.2	11.5	10.2
2.5–3.0	17.7	21.4	22.2	21.0	17.6	16.8	15.6	15.9	15.2	14.8	14.2	13.3	13.9	12.4	13.5	13.4
3.5–4.0	13.9	17.4	18.3	16.9	15.2	12.8	12.5	13.3	11.9	10.5	12.0	11.0	10.5	10.3	10.7	11.6
4.5–5.0	15.9	15.9	14.8	15.4	12.6	10.3	10.1	10.1	10.5	8.0	9.5	6.8	8.9	8.6	9.2	10.2
5.5–6.0 (High)	9.1	15.9	14.6	14.5	13.6	9.8	8.8	9.3	9.3	7.9	5.4	7.4	8.4	8.3	8.4	7.9
Race/Ethnicity (2-year average): [b]																
White	—	—	20.3	20.2	18.6	16.4	15.0	15.1	15.2	14.2	13.6	13.1	12.9	12.9	12.9	13.3
African American	—	—	10.7	9.7	9.1	7.1	5.8	5.4	4.9	4.1	3.9	3.6	2.9	2.3	1.9	1.8
Hispanic	—	—	11.3	9.0	6.4	5.6	6.1	5.6	5.9	6.1	5.3	5.0	4.1	3.5	4.2	4.2

TABLE 135 (cont.)
CIGARETTES: Trends in 30-Day Prevalence of Use of Half Pack a Day or More by Subgroups in Grade 12

Percentage who used half pack a day or more in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	10.7	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
Gender:																
Male	11.6	10.4	11.6	12.7	13.2	13.6	15.5	13.5	14.5	11.4	10.2	10.0	9.5	8.0	8.0	6.2
Female	9.5	9.2	9.9	9.5	11.1	12.0	12.6	11.1	11.5	10.8	10.2	7.9	6.6	7.5	5.3	5.2
College Plans:																
None or under 4 years	18.7	19.1	18.7	19.6	22.6	23.1	23.5	23.7	23.2	20.3	19.3	17.5	17.2	16.0	15.2	13.0
Complete 4 years	7.1	6.5	8.1	8.2	8.9	10.0	11.0	8.9	10.1	8.1	7.6	6.7	5.5	5.6	4.6	3.9
Region:																
Northeast	12.9	11.1	14.7	12.2	13.4	17.0	19.4	13.6	13.4	13.6	12.3	10.9	8.7	9.0	7.5	7.9
Midwest	14.1	11.0	12.5	15.3	14.2	15.1	16.9	16.8	15.0	13.7	14.8	13.6	10.1	8.8	8.7	6.7
South	8.9	10.2	10.4	10.8	12.6	12.0	12.3	11.8	13.9	10.6	7.6	8.6	8.9	8.9	7.6	6.0
West	7.2	6.8	6.0	5.9	8.4	6.5	8.2	7.5	9.0	7.5	6.6	3.1	5.0	4.1	3.1	2.9
Population Density:																
Large MSA	10.2	9.9	9.1	10.2	12.3	11.6	12.8	11.0	9.6	8.2	9.4	7.6	5.4	6.0	5.2	4.8
Other MSA	10.7	8.4	11.2	10.5	11.1	12.8	14.3	11.7	12.6	11.6	9.4	8.7	8.4	8.2	6.3	5.0
Non-MSA	11.1	13.1	11.7	13.7	14.7	14.4	16.0	16.5	18.0	14.5	13.3	11.9	12.2	10.0	10.4	9.2
Parental Education: [a]																
1.0–2.0 (Low)	12.5	11.0	10.7	9.5	13.5	13.6	11.9	12.5	15.0	16.1	10.8	7.4	8.7	8.6	6.8	5.4
2.5–3.0	12.4	12.7	12.5	13.7	15.1	14.8	16.4	14.9	16.6	13.8	12.5	12.0	10.5	10.9	10.0	8.4
3.5–4.0	10.7	9.6	10.4	11.0	12.7	12.3	13.9	13.8	13.1	10.7	10.6	10.3	8.7	8.2	7.2	5.8
4.5–5.0	7.9	8.1	10.0	10.4	9.8	12.6	14.5	10.3	10.7	9.3	9.2	6.8	5.7	6.1	5.1	4.6
5.5–6.0 (High)	9.0	5.7	8.3	8.8	9.1	10.8	11.2	7.4	9.5	7.1	6.2	5.4	4.9	4.7	3.2	3.3
Race/Ethnicity (2-year average): [b]																
White	13.1	12.3	12.8	13.7	14.2	15.2	16.9	16.9	15.9	15.1	13.6	12.4	10.9	10.0	9.1	7.9
African American	1.8	1.8	1.5	1.7	2.2	2.5	2.8	2.5	2.4	2.6	2.4	2.1	1.7	1.6	1.8	2.1
Hispanic	4.0	4.6	4.5	4.0	4.1	5.3	5.8	5.2	5.8	7.0	5.3	3.8	3.0	2.9	2.9	2.6

TABLE 135 (cont.)
CIGARETTES: Trends in 30-Day Prevalence of Use of <u>Half Pack a Day</u> or More by Subgroups in <u>Grade 12</u>

<div align="center">Percentage who used half pack a day or more in last 30 days</div>

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	5.7	5.4	5.0	4.7	4.3	4.0	3.4	2.6	2.1	1.8	1.7	1.5	0.9	-0.6 s
Gender:														
Male	6.4	6.1	5.4	5.6	5.3	4.9	4.0	3.4	2.5	1.9	1.8	1.6	1.1	-0.5
Female	4.7	4.6	4.2	3.6	3.0	2.8	2.4	1.8	1.2	1.5	1.3	0.9	0.6	-0.3
College Plans:														
None or under 4 years	12.5	11.9	11.2	12.0	11.1	9.5	8.6	6.2	5.8	4.7	4.7	3.1	2.3	-0.8
Complete 4 years	4.0	3.8	3.6	3.1	2.8	2.6	2.1	1.7	1.1	1.0	0.9	0.8	0.5	-0.3
Region:														
Northeast	6.1	5.5	5.0	4.4	4.0	5.4	4.3	2.5	2.2	2.2	2.1	0.8	0.6	-0.2
Midwest	7.2	6.6	7.2	5.9	4.5	5.2	3.4	2.5	2.4	2.3	1.9	1.6	0.7	-0.9
South	6.4	6.5	5.3	5.5	5.2	4.0	4.3	3.3	2.4	1.9	2.0	2.1	1.2	-1.0 s
West	2.5	2.6	1.8	2.2	3.0	1.8	1.4	1.6	1.1	0.9	0.6	0.7	0.9	+0.2
Population Density:														
Large MSA	4.2	3.4	3.8	4.0	3.8	3.2	2.6	1.9	1.5	1.0	0.9	1.0	0.5	-0.5 s
Other MSA	5.3	5.3	4.6	4.2	3.9	3.4	2.8	2.4	1.9	1.8	1.8	1.2	0.8	-0.4
Non-MSA	8.8	8.2	7.5	6.9	6.2	6.8	6.0	4.1	3.6	2.9	2.6	3.1	2.1	-1.0
Parental Education: [a]														
1.0–2.0 (Low)	7.5	6.8	5.2	4.3	5.0	4.9	3.9	2.7	3.0	2.9	1.3	1.5	1.1	-0.4
2.5–3.0	7.6	6.9	7.2	6.4	6.2	5.3	5.0	3.1	3.2	2.4	2.3	1.4	1.3	-0.1
3.5–4.0	5.6	6.0	5.1	5.1	4.3	4.7	3.7	2.8	1.7	1.6	1.6	1.7	1.0	-0.8
4.5–5.0	4.7	3.7	3.6	3.2	2.7	2.3	2.4	2.1	1.3	1.3	1.5	0.8	0.4	-0.4
5.5–6.0 (High)	2.7	3.5	2.0	2.3	2.7	2.0	1.1	1.6	1.1	0.7	0.7	0.6	0.7	+0.1
Race/Ethnicity (2-year average): [b]														
White	7.1	7.1	7.0	6.6	6.0	5.4	4.8	3.9	2.9	2.3	2.2	2.1	1.4	-0.6 ss
African American	2.4	2.2	1.6	1.6	2.0	1.5	1.5	2.0	1.5	1.1	1.0	0.9	0.9	0.0
Hispanic	2.5	2.1	1.6	1.5	1.4	1.3	1.4	1.2	1.1	0.9	0.6	0.6	0.6	0.0

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 136
TOBACCO USING A HOOKAH: Trends in Annual
Prevalence of Use by Subgroups in Grade 12

	1975–2011	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
					Percent who used in last 12 months							
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	17.1	18.5	18.3	21.4	22.9	19.8	13.0	10.1	7.8	5.6	-2.2 s
Gender:												
Male	—	19.0	20.0	19.9	21.6	24.9	22.2	15.2	9.4	7.0	6.6	-0.5
Female	—	15.2	16.7	17.0	21.0	21.4	17.9	10.7	10.5	7.7	4.4	-3.3 s
College Plans:												
None or under 4 years	—	19.4	19.8	17.9	21.3	23.7	20.6	18.5	10.8	11.5	8.1	-3.4
Complete 4 years	—	16.2	18.6	18.4	21.5	22.8	19.5	11.6	10.2	7.1	5.0	-2.1
Region:												
Northeast	—	15.4	15.1	17.5	23.9	21.6	20.5	18.9	7.3	11.9	4.8	-7.1 ss
Midwest	—	17.9	21.3	18.6	18.9	26.2	24.2	13.5	10.5	8.7	4.7	-4.0
South	—	15.3	14.5	12.1	16.5	20.1	16.6	8.2	8.7	5.8	5.8	0.0
West	—	20.9	23.9	26.2	29.7	25.9	21.1	17.2	13.7	7.5	7.1	-0.3
Population Density:												
Large MSA	—	19.6	18.6	22.7	25.2	24.6	20.1	18.6	9.7	8.3	4.4	-3.9 ss
Other MSA	—	18.3	21.2	19.3	23.6	23.5	20.2	11.0	9.7	8.5	5.6	-3.0
Non-MSA	—	10.5	12.3	9.1	10.7	19.3	18.6	9.2	11.5	5.4	7.7	+2.3
Parental Education: [a]												
1.0–2.0 (Low)	—	16.8	19.8	18.1	19.2	17.9	16.4	10.7	8.1	8.3	6.7	-1.5
2.5–3.0	—	16.3	17.6	16.8	20.6	20.2	19.8	14.6	9.3	7.8	9.6	+1.8
3.5–4.0	—	18.7	18.1	19.4	23.7	22.9	21.3	15.2	12.7	10.5	6.3	-4.2 s
4.5–5.0	—	15.0	18.6	19.6	20.8	29.0	19.5	11.2	8.4	6.3	3.6	-2.6
5.5–6.0 (High)	—	21.3	20.6	17.6	20.4	22.0	23.8	10.6	12.7	5.9	3.4	-2.5
Race/Ethnicity (2-year data): [b]												
White	—	—	20.6	20.5	20.2	24.4	25.2	19.7	13.0	9.4	6.7	-2.7 sss
African American	—	—	6.0	5.9	8.6	10.3	9.5	8.7	8.3	7.3	4.8	-2.5
Hispanic	—	—	17.6	18.5	22.8	23.7	19.9	16.3	11.6	8.8	8.4	-0.4

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

Notes. ' — ' indicates data not available. Any apparent inconsistency between the change estimate and tne prevalence estimates for the two most recent years is due to rounding. See Table 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 S3. Beginning in 2016 data based on three of six forms; N is three sixths of N indicated in Table S3.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a]Parental education is an average score of mother's education and father's education. See appendix B for details.
[b]To 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 137
SMALL CIGARS: Trends in <u>Annual</u> Prevalence
of Use by Subgroups in <u>Grade 12</u>

	Percent who used in last 12 months										2018–
	1975–										2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =		*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	23.1	19.5	19.9	20.4	18.9	15.9	15.6	13.3	9.2	7.8	-1.4
Gender:												
Male	—	29.7	26.7	27.1	26.5	26.4	23.6	22.5	19.3	12.3	11.7	-0.6
Female	—	16.3	12.3	12.9	14.8	11.8	9.3	8.5	7.8	6.5	3.5	-3.0 s
College Plans:												
None or under 4 years	—	30.7	27.7	24.5	21.8	22.9	20.3	18.8	18.7	14.4	13.2	-1.2
Complete 4 years	—	21.4	17.8	19.0	20.1	18.0	14.9	14.6	12.4	7.8	6.1	-1.7
Region:												
Northeast	—	26.1	21.5	19.2	21.4	21.2	17.4	18.2	13.9	12.6	6.5	-6.0 s
Midwest	—	28.1	23.7	28.4	23.7	23.6	17.6	15.5	14.6	8.1	7.5	-0.5
South	—	19.8	14.2	12.8	19.8	18.2	14.4	14.2	13.0	9.2	8.9	-0.3
West	—	20.8	21.8	20.5	17.1	14.2	15.9	16.7	11.9	7.9	6.3	-1.6
Population Density:												
Large MSA	—	22.7	16.2	21.6	18.5	16.0	10.7	13.6	11.5	4.6	5.3	+0.7
Other MSA	—	23.5	21.9	19.5	22.4	20.3	17.9	16.7	13.8	11.1	8.5	-2.6
Non-MSA	—	22.5	18.4	18.3	18.3	19.4	19.7	16.1	14.9	12.5	9.8	-2.8
Parental Education: [a]												
1.0–2.0 (Low)	—	16.6	14.8	12.8	18.3	9.5	11.8	8.5	10.3	6.5	7.9	+1.3
2.5–3.0	—	23.6	16.2	18.6	17.5	17.6	15.9	15.8	11.1	9.8	6.0	-3.8
3.5–4.0	—	22.9	19.9	20.5	22.8	20.6	18.7	16.0	14.3	10.3	8.9	-1.4
4.5–5.0	—	25.9	19.4	23.2	22.1	20.8	14.8	16.3	14.9	9.3	8.1	-1.2
5.5–6.0 (High)	—	23.5	26.5	19.7	18.1	21.5	19.9	19.1	15.5	9.1	9.4	+0.3
Race/Ethnicity (2-year data): [b]												
White	—	—	25.8	24.3	23.9	24.2	22.0	20.6	19.6	15.1	11.3	-3.8 sss
African American	—	—	6.3	5.9	9.1	10.5	9.4	7.8	5.3	4.3	4.1	-0.2
Hispanic	—	—	17.9	13.6	16.0	13.7	10.0	10.4	8.5	5.9	5.2	-0.7

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

Notes. ' — ' 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 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 S3.

Caution: **Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.**
[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 138
Flavored Little Cigars or Cigarillos: Trends in 30-Day Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14600	14,400	16,900	15,300	14,000	13,600		—	13000	15,600	14,700	13,500	14,300	14,000		—	12400	12,900	11,800	12,600	13,300	12,900	
Total	—	4.1	4.1	2.8	2.6	2.6	2.2	-0.4	—	6.9	6.1	4.9	4.0	5.3	3.7	-1.6 s	—	11.9	11.4	9.5	10.1	8.9	7.7	-1.1
Gender:																								
Male	—	4.8	4.4	2.6	2.8	2.6	1.9	-0.7	—	8.2	7.5	5.8	4.9	6.1	4.3	-1.8	—	16.1	15.4	13.4	12.6	12.0	11.3	-0.7
Female	—	3.4	3.7	2.8	2.4	2.3	2.5	+0.3	—	5.8	4.8	3.7	3.0	4.4	3.2	-1.2	—	8.2	7.6	5.8	7.5	5.2	4.6	-0.7
College Plans:																								
None or under 4 years	—	10.0	9.8	10.0	8.5	7.1	6.2	-0.9	—	12.9	15.1	10.4	10.9	13.1	8.0	-5.2 s	—	19.6	18.4	12.6	17.4	14.4	11.0	-3.4
Complete 4 years	—	3.5	3.6	2.2	2.1	1.9	1.6	-0.3	—	6.5	5.2	4.2	3.0	4.4	2.9	-1.5 s	—	9.9	9.8	8.8	8.4	7.3	6.6	-0.8
Region:																								
Northeast	—	2.3	3.0	3.5	2.5	1.8	0.6	-1.3 s	—	7.3	5.2	2.9	4.0	3.3	2.0	-1.3	—	15.5	11.7	10.8	12.3	6.0	5.7	-0.3
Midwest	—	3.3	3.1	2.2	2.6	2.7	2.4	-0.3	—	7.2	6.2	4.2	3.3	4.9	3.8	-1.1	—	14.5	11.5	11.1	11.1	9.3	9.0	-0.2
South	—	4.8	4.8	3.3	2.5	2.6	2.9	+0.4	—	7.7	7.0	6.2	3.5	7.5	5.0	-2.4	—	10.7	11.7	8.4	10.1	10.0	7.6	-2.4
West	—	4.7	4.5	1.9	2.8	3.2	2.1	-1.1	—	5.3	5.5	5.4	5.3	3.8	2.6	-1.2	—	9.0	10.6	8.9	7.6	8.4	7.9	-0.5
Population Density:																								
Large MSA	—	4.2	3.4	2.2	2.2	2.2	1.9	-0.4	—	7.0	4.9	4.6	4.5	3.3	2.2	-1.1	—	7.9	9.0	7.4	9.1	6.8	5.5	-1.3
Other MSA	—	4.4	4.6	2.7	2.7	2.3	2.2	-0.1	—	6.3	5.2	4.8	2.8	6.3	4.1	-2.3	—	12.6	12.5	9.5	9.5	8.7	8.0	-0.7
Non-MSA	—	3.2	3.9	4.0	3.0	4.0	2.9	-1.1	—	8.5	10.6	6.0	6.0	6.0	5.2	-0.8	—	15.4	12.7	12.2	12.6	12.8	10.5	-2.3
Parental Education: a																								
1.0–2.0 (Low)	—	9.1	8.0	4.3	3.1	5.0	3.3	-1.7	—	10.5	7.9	5.8	5.2	2.9	6.7	+3.9 s	—	10.7	13.1	8.5	7.4	8.5	9.1	+0.5
2.5–3.0	—	6.0	4.5	3.1	4.9	2.8	3.2	+0.4	—	7.2	8.5	4.3	6.2	7.6	6.0	-1.5	—	14.8	14.3	9.7	10.0	9.0	8.5	-0.5
3.5–4.0	—	3.9	3.1	2.2	2.6	3.7	2.3	-1.4	—	10.8	6.2	5.1	4.1	6.7	4.1	-2.6	—	12.4	10.6	9.9	10.5	9.1	8.3	-0.8
4.5–5.0	—	2.2	3.4	2.7	1.9	1.5	1.7	+0.3	—	5.1	4.6	4.3	2.6	4.0	1.6	-2.4 s	—	10.4	11.8	10.4	10.7	9.2	5.2	-4.0 ss
5.5–6.0 (High)	—	2.1	2.6	1.8	1.3	1.0	1.3	+0.3	—	3.7	4.8	5.5	1.9	4.7	2.8	-1.9	—	9.6	6.9	6.9	10.9	7.5	9.0	+1.5
Race/Ethnicity (2-year data): b																								
White	—	—	2.6	2.7	2.2	2.0	2.0	-0.1	—	—	6.8	5.7	4.1	4.6	4.6	0.0	—	—	13.4	12.2	12.0	11.6	9.6	-1.9 sss
African American	—	—	4.2	3.1	2.8	3.5	3.2	-0.3	—	—	6.4	3.9	3.3	3.6	4.2	+0.6	—	—	8.8	8.0	6.5	5.6	4.7	-0.9
Hispanic	—	—	6.7	4.4	2.9	3.1	2.8	-0.3	—	—	5.9	4.7	4.6	5.1	5.3	+0.3	—	—	9.5	8.1	5.9	5.8	7.3	+1.5

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on two of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 139
Regular Little Cigars or Cigarillos: Trends in 30-Day Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,600	14,400	16,900	15,300	14,000	13,600		—	13,000	15,600	14,700	13,500	14,300	14,000		—	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	2.5	3.3	1.9	1.6	1.6	1.6	0.0	—	4.4	3.8	3.0	3.0	3.1	2.6	-0.4	—	7.0	7.8	6.1	6.6	5.8	4.9	-0.9
Gender:																								
Male	—	2.9	4.1	1.8	1.7	1.9	1.5	-0.4	—	5.9	4.9	3.8	3.9	3.5	3.3	-0.2	—	9.6	10.9	8.7	8.4	7.9	6.6	-1.3
Female	—	2.0	2.5	1.6	1.5	1.2	1.7	+0.5	—	2.9	2.9	2.0	2.0	2.5	2.0	-0.5	—	4.6	4.6	3.3	4.3	3.1	3.3	+0.2
College Plans:																								
None or under 4 years	—	8.5	9.5	6.9	5.4	5.5	4.6	-0.8	—	9.9	9.1	8.1	9.2	8.3	5.6	-2.7	—	13.6	14.6	8.8	12.0	11.1	8.3	-2.8
Complete 4 years	—	2.0	2.8	1.4	1.3	1.1	1.2	+0.1	—	4.0	3.3	2.4	2.1	2.4	2.1	-0.3	—	5.3	6.1	5.3	5.4	4.3	4.0	-0.3
Region:																								
Northeast	—	1.7	3.2	2.6	1.4	1.3	0.3	-1.0	—	4.7	4.4	2.3	2.9	2.4	1.2	-1.2	—	9.0	7.8	7.3	7.3	4.0	2.5	-1.5
Midwest	—	1.5	2.9	1.4	1.5	1.8	1.7	-0.1	—	3.9	4.1	2.7	2.7	3.1	2.0	-1.1	—	8.7	7.5	6.4	6.5	5.9	5.1	-0.8
South	—	3.8	4.0	2.3	1.7	1.5	2.4	+0.9	—	6.0	4.5	3.5	3.0	4.4	3.9	-0.5	—	6.8	8.7	6.4	7.8	7.1	5.2	-1.9
West	—	2.0	2.6	1.0	1.8	1.7	1.2	-0.5	—	2.5	1.9	3.1	3.3	1.4	2.1	+0.7	—	4.1	6.6	4.5	4.1	4.9	6.1	+1.2
Population Density:																								
Large MSA	—	2.2	3.3	1.2	1.5	1.3	1.1	-0.3	—	4.1	2.8	2.7	2.9	2.1	1.4	-0.7	—	4.8	6.0	5.4	4.9	5.4	3.7	-1.8
Other MSA	—	2.7	3.5	1.9	1.7	1.5	2.1	+0.5	—	3.6	3.5	2.8	2.1	3.4	3.2	-0.3	—	7.0	8.1	6.0	5.9	5.5	4.7	-0.8
Non-MSA	—	2.5	3.1	2.8	1.6	2.1	1.3	-0.7	—	7.1	6.4	4.1	5.2	3.7	3.3	-0.4	—	9.5	9.9	7.3	10.6	7.1	7.4	+0.2
Parental Education: a																								
1.0–2.0 (Low)	—	5.4	8.3	2.3	2.7	3.4	2.1	-1.4	—	7.4	5.5	4.3	3.2	3.3	4.6	+1.3	—	8.4	7.9	3.0	5.2	6.3	8.1	+1.8
2.5–3.0	—	3.3	3.1	2.1	3.1	1.8	1.6	-0.2	—	3.8	4.7	2.1	3.7	3.8	4.8	+1.0	—	7.9	10.9	6.5	7.8	5.6	5.4	-0.2
3.5–4.0	—	1.9	2.6	1.4	1.3	2.0	1.5	-0.5	—	6.6	3.3	4.0	3.9	4.3	2.6	-1.7	—	7.4	6.4	6.8	7.2	6.3	4.6	-1.7
4.5–5.0	—	1.9	2.7	1.7	1.0	0.8	1.1	+0.4	—	3.6	2.6	2.2	2.0	1.4	0.9	-0.5	—	5.3	7.9	6.3	5.8	5.6	2.0	-3.6 sss
5.5–6.0 (High)	—	1.8	2.6	1.2	0.4	0.8	0.9	+0.1	—	2.8	4.2	3.3	1.2	3.2	2.2	-1.0	—	5.7	4.7	4.6	5.5	4.1	6.7	+2.6
Race/Ethnicity (2-year data): b																								
White	—	—	2.1	2.0	1.3	1.1	1.1	0.0	—	—	4.2	3.6	2.8	2.9	2.6	-0.2	—	—	8.3	7.8	7.3	6.8	5.5	-1.3 s
African American	—	—	3.4	2.4	2.1	2.7	2.0	-0.6	—	—	4.8	3.4	2.9	3.2	3.8	+0.7	—	—	6.5	6.8	5.6	4.9	3.7	-1.2
Hispanic	—	—	4.0	2.9	1.8	2.0	1.8	-0.2	—	—	3.7	2.9	3.1	3.0	3.2	+0.2	—	—	6.1	4.9	3.6	4.1	5.3	+1.2

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on two of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

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.

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TABLE 140
Large Cigars: Trends in 30-Day
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,600	14,400	16,900	15,300	14,000	13,600		—	13,000	15,600	14,700	13,500	14,300	14,000		—	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	1.9	2.4	1.5	1.5	1.7	1.3	-0.3	—	3.9	3.4	2.3	2.6	2.8	2.1	-0.7	—	6.4	7.0	6.5	5.6	5.2	5.3	+0.1
Gender:																								
Male	—	2.8	3.6	1.8	1.6	2.0	1.5	-0.6	—	5.8	4.8	3.2	3.9	4.1	3.1	-0.9	—	10.7	11.9	10.7	8.5	8.3	8.6	+0.3
Female	—	1.1	1.2	1.1	1.3	1.2	1.2	0.0	—	2.2	2.1	1.2	1.3	1.3	1.2	-0.1	—	2.4	2.4	2.4	2.6	1.9	2.0	+0.2
College Plans:																								
None or under 4 years	—	6.2	7.5	6.3	5.3	5.2	3.3	-2.0	—	7.2	10.4	7.1	8.7	6.1	4.2	-2.0	—	11.9	12.2	8.3	9.1	8.3	7.4	-0.9
Complete 4 years	—	1.6	1.9	1.1	1.1	1.3	1.1	-0.2	—	3.7	2.7	1.7	1.8	2.3	1.8	-0.6	—	5.0	5.8	6.0	4.7	4.3	4.6	+0.3
Region:																								
Northeast	—	1.8	1.6	2.5	1.5	1.6	0.7	-0.9	—	6.1	3.7	2.2	1.2	1.9	1.2	-0.8	—	8.7	8.3	6.1	6.9	4.9	3.7	-1.2
Midwest	—	0.8	1.8	0.8	1.8	1.7	1.1	-0.5	—	3.8	3.2	3.0	2.9	3.2	1.7	-1.5	—	7.4	6.7	7.3	6.1	5.3	5.6	+0.3
South	—	2.7	2.9	1.9	1.2	1.4	1.6	+0.3	—	4.1	3.7	1.7	2.5	3.7	3.0	-0.7	—	5.9	6.2	5.5	5.2	6.5	5.4	-1.1
West	—	1.6	2.5	0.8	1.7	2.3	1.4	-0.9	—	2.1	2.8	2.5	3.5	1.5	1.7	+0.2	—	4.4	7.8	7.6	4.9	3.3	6.2	+2.9
Population Density:																								
Large MSA	—	2.2	1.8	0.8	1.5	0.8	0.9	+0.1	—	4.4	2.8	1.9	2.8	2.0	1.5	-0.4	—	4.4	5.9	6.1	4.7	3.8	4.4	+0.6
Other MSA	—	1.9	2.7	1.5	1.5	1.9	1.5	-0.4	—	2.9	2.6	2.1	1.7	2.9	2.2	-0.7	—	6.4	7.1	6.4	5.4	5.7	5.2	-0.5
Non-MSA	—	1.3	2.5	2.6	1.3	2.5	1.6	-0.9	—	5.5	6.4	3.4	4.8	3.8	2.9	-0.9	—	8.7	8.6	7.2	7.3	6.7	7.0	+0.4
Parental Education: a																								
1.0–2.0 (Low)	—	4.1	4.5	2.4	2.4	3.8	1.5	-2.3	—	4.2	5.7	2.5	1.6	3.0	1.5	-1.5	—	4.8	7.9	4.9	2.4	3.6	5.0	+1.5
2.5–3.0	—	2.8	2.7	1.5	2.3	1.7	2.2	+0.6	—	4.6	2.9	1.8	3.3	3.1	2.9	-0.2	—	6.1	5.8	5.8	5.7	4.6	5.4	+0.9
3.5–4.0	—	1.5	1.6	1.4	1.7	2.0	1.0	-0.9	—	4.9	2.3	1.9	3.7	3.9	3.4	-0.5	—	6.4	7.1	5.7	5.8	5.7	4.4	-1.3
4.5–5.0	—	1.2	1.8	1.0	1.0	1.0	0.8	-0.2	—	3.3	3.1	2.2	1.6	1.4	1.1	-0.3	—	7.0	8.2	7.5	6.3	5.0	3.4	-1.5
5.5–6.0 (High)	—	1.2	1.5	1.1	0.9	0.6	1.0	+0.4	—	3.8	3.3	3.4	1.9	2.9	1.7	-1.3	—	6.1	5.6	5.6	6.7	5.9	9.0	+3.1
Race/Ethnicity (2-year data): b																								
White	—	—	1.6	1.5	1.0	0.9	1.1	+0.1	—	—	4.1	3.3	2.8	3.1	2.8	-0.3	—	—	8.3	8.5	7.5	6.7	6.2	-0.4
African American	—	—	2.0	1.5	0.9	1.5	1.7	+0.3	—	—	3.5	2.2	1.7	1.8	1.3	-0.6	—	—	3.2	3.1	2.7	2.5	1.9	-0.6
Hispanic	—	—	3.4	2.3	1.7	2.1	1.6	-0.4	—	—	3.2	2.3	2.0	2.2	2.6	+0.4	—	—	5.0	4.7	3.5	3.2	4.1	+0.9

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on two of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

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

b To 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 141
Any Vaping:[c] Trends in 30-Day
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	—	14,400	16,900	16,900	14,000	13,600		—	—	15,600	14,700	13,500	14,300	14,000		—	—	12,900	11,800	12,600	13,300	12,900	
Total	—	—	8.0	6.2‡	6.6	10.4	12.2	+1.8	—	—	14.2	11.0‡	13.1	21.7	25.0	+3.3 s	—	—	16.3	12.5‡	16.6	26.7	30.9	+4.2 s
Gender:																								
Male	—	—	8.6	7.0‡	7.2	10.5	10.9	+0.4	—	—	17.2	12.1‡	13.3	21.2	24.9	+3.8 s	—	—	20.9	16.1‡	21.0	30.0	33.0	+2.9
Female	—	—	7.4	5.4‡	6.2	10.1	13.4	+3.3 ss	—	—	11.1	9.7‡	12.7	21.8	24.9	+3.1	—	—	11.2	9.1‡	12.8	23.8	28.8	+5.0 s
College Plans:																								
None or under 4 years	—	—	15.7	18.2‡	14.6	19.2	20.5	+1.3	—	—	26.0	19.3‡	22.0	25.8	33.8	+8.1 ss	—	—	25.8	17.7‡	21.8	29.2	36.6	+7.4 s
Complete 4 years	—	—	7.3	5.3‡	5.8	9.3	11.1	+1.9	—	—	13.0	9.9‡	12.0	21.0	23.3	+2.4	—	—	14.2	11.6‡	15.1	26.4	29.1	+2.7
Region:																								
Northeast	—	—	6.1	6.5‡	6.9	7.3	10.3	+3.0	—	—	14.0	8.4‡	12.8	24.0	25.0	+1.0	—	—	16.0	12.8‡	18.3	32.9	29.4	-3.5
Midwest	—	—	7.9	7.2‡	7.6	12.5	13.2	+0.6	—	—	14.7	11.3‡	15.9	23.4	25.3	+1.9	—	—	17.2	14.8‡	17.1	25.6	31.2	+5.6
South	—	—	8.8	5.7‡	5.5	9.9	13.1	+3.2	—	—	16.0	12.1‡	11.9	20.8	24.6	+3.8	—	—	15.4	10.7‡	15.0	24.7	30.7	+6.0 s
West	—	—	8.0	6.1‡	7.5	11.6	11.4	-0.2	—	—	10.9	11.1‡	12.6	19.4	25.2	+5.8	—	—	17.3	13.6‡	18.3	26.9	32.5	+5.6
Population Density:																								
Large MSA	—	—	6.7	5.6‡	5.3	9.5	9.8	+0.3	—	—	13.9	13.2‡	14.7	22.3	21.6	-0.6	—	—	13.5	12.8‡	16.6	22.2	25.3	+3.1
Other MSA	—	—	7.9	5.9‡	7.3	11.0	11.3	+0.3	—	—	13.8	9.0‡	12.3	21.7	25.5	+3.7	—	—	17.6	11.8‡	16.1	29.5	32.4	+2.9
Non-MSA	—	—	10.0	8.0‡	7.1	10.2	18.4	+8.2 sss	—	—	15.9	12.2‡	12.8	20.7	29.2	+8.5 sss	—	—	17.8	14.0‡	18.5	28.1	36.7	+8.6 ss
Parental Education:[a]																								
1.0–2.0 (Low)	—	—	9.7	10.3‡	10.1	12.7	16.3	+3.6	—	—	14.2	9.2‡	12.9	20.3	25.5	+5.3	—	—	11.5	13.2‡	12.2	17.9	23.7	+5.8
2.5–3.0	—	—	9.8	7.8‡	8.7	11.3	16.3	+5.0 ss	—	—	16.1	15.1‡	14.4	22.2	28.7	+6.5 s	—	—	18.6	12.2‡	17.4	25.7	32.3	+6.6 s
3.5–4.0	—	—	10.6	6.7‡	6.9	12.2	13.7	+1.5	—	—	18.3	11.4‡	13.5	22.9	27.7	+4.8 s	—	—	17.2	11.9‡	14.8	29.1	33.7	+4.6
4.5–5.0	—	—	5.6	5.8‡	5.6	9.7	11.1	+1.4	—	—	13.8	10.6‡	13.6	23.1	24.0	+0.9	—	—	18.0	13.1‡	20.7	32.3	30.9	-1.5
5.5–6.0 (High)	—	—	6.5	4.0‡	5.8	7.5	8.8	+1.3	—	—	9.8	9.4‡	12.0	21.4	21.4	0.0	—	—	11.4	12.2‡	17.5	31.0	31.7	+0.8
Race/Ethnicity (2-year data):[b]																								
White	—	—	—	6.4‡	—	8.7	14.2	+5.5 sss	—	—	—	14.8‡	—	21.5	29.3	+7.8 sss	—	—	—	17.4‡	—	28.0	36.5	+8.5 sss
African American	—	—	—	6.2‡	—	3.3	6.0	+2.7 s	—	—	—	6.4‡	—	7.0	16.6	+9.7 sss	—	—	—	6.5‡	—	8.3	14.3	+6.0 sss
Hispanic	—	—	—	8.4‡	—	9.3	10.5	+1.3	—	—	—	10.3‡	—	14.1	22.3	+8.2 ss	—	—	—	11.5‡	—	15.2	23.3	+8.1 sss

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

Notes.   ' — ' 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.

‡' indicates some change in the question. Se relevant footnote for that drug. See relevant figures to assess the impact of the change.

See Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on one of

four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and just flavoring. Beginning in 2017, data presented for any vaping

are based on these new questions. The 2017 results by race/ethnicity are based on data from the old version of the question in 2016 combined with the new version in 2017.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]In 2017, the surveys switched from asking about vaping in general to asking separately about vaping nicotine, marijuana, and just flavoring. Beginning in 2017, data presented for any vaping are based on these new questions.

TABLE 142
Vaping Nicotine: Trends in 30-Day
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	—	—	—	15,300	14,000	13,600		—	—	—	—	13,500	14,300	14,000		—	—	—	—	12,600	13,300	12,900	
Total	—	—	—	—	3.5	6.1	9.6	+3.4 sss	—	—	—	—	8.2	16.1	19.9	+3.8 s	—	—	—	—	11.0	20.9	25.5	+4.5 s
Gender:																								
Male	—	—	—	—	3.7	6.8	8.8	+1.9	—	—	—	—	8.2	16.2	20.3	+4.2 ss	—	—	—	—	14.3	24.1	28.1	+4.0
Female	—	—	—	—	3.3	5.3	10.3	+5.0 sss	—	—	—	—	8.1	15.9	19.5	+3.6 s	—	—	—	—	8.0	18.4	22.9	+4.5 s
College Plans:																								
None or under 4 years	—	—	—	—	9.2	12.8	16.4	+3.6	—	—	—	—	13.5	20.4	26.8	+6.5 s	—	—	—	—	14.5	22.9	29.9	+7.0 s
Complete 4 years	—	—	—	—	2.9	5.3	8.7	+3.4 sss	—	—	—	—	7.6	15.6	18.7	+3.1 s	—	—	—	—	10.2	20.7	23.9	+3.2
Region:																								
Northeast	—	—	—	—	3.2	4.4	8.4	+4.0 ss	—	—	—	—	7.9	18.1	20.0	+1.8	—	—	—	—	11.3	25.3	24.9	-0.4
Midwest	—	—	—	—	4.1	9.2	11.2	+2.1	—	—	—	—	10.3	18.3	20.9	+2.5	—	—	—	—	11.5	20.9	27.4	+6.5
South	—	—	—	—	3.2	5.2	9.6	+4.4 ss	—	—	—	—	7.5	15.7	19.3	+3.7	—	—	—	—	10.1	19.2	25.2	+6.0 s
West	—	—	—	—	3.8	6.1	9.0	+2.9	—	—	—	—	7.5	12.9	20.0	+7.1 s	—	—	—	—	11.7	20.8	23.9	+3.1
Population Density:																								
Large MSA	—	—	—	—	2.5	6.0	7.4	+1.3	—	—	—	—	9.7	17.9	15.9	-2.0	—	—	—	—	10.0	17.2	19.4	+2.2
Other MSA	—	—	—	—	3.7	6.7	9.1	+2.4 s	—	—	—	—	7.1	14.8	20.2	+5.4 s	—	—	—	—	10.7	23.1	26.7	+3.6
Non-MSA	—	—	—	—	4.5	5.0	14.6	+9.6 sss	—	—	—	—	8.5	16.4	26.0	+9.6 sss	—	—	—	—	13.0	22.3	32.6	+10.3 sss
Parental Education: a																								
1.0–2.0 (Low)	—	—	—	—	5.9	5.7	11.6	+5.9 ss	—	—	—	—	5.7	16.4	19.3	+2.9	—	—	—	—	7.8	11.4	15.2	+3.8
2.5–3.0	—	—	—	—	3.8	5.8	13.3	+7.5 sss	—	—	—	—	10.1	16.4	22.6	+6.2 s	—	—	—	—	11.7	17.9	25.8	+7.9 ss
3.5–4.0	—	—	—	—	3.8	8.1	10.7	+2.5	—	—	—	—	8.2	14.7	21.8	+7.1 ss	—	—	—	—	9.6	21.5	28.0	+6.5 ss
4.5–5.0	—	—	—	—	3.5	5.8	9.4	+3.6 sss	—	—	—	—	8.5	17.9	20.0	+2.1	—	—	—	—	14.7	28.2	27.0	-1.2
5.5–6.0 (High)	—	—	—	—	2.8	4.8	6.9	+2.1	—	—	—	—	7.9	18.1	17.9	-0.2	—	—	—	—	10.5	27.1	28.1	+1.1
Race/Ethnicity (2-year data): b																								
White	—	—	—	—	—	5.5	12.1	+6.6 sss	—	—	—	—	—	16.4	25.8	+9.4 sss	—	—	—	—	—	22.9	32.4	+9.5 sss
African American	—	—	—	—	—	1.6	3.5	+1.9 s	—	—	—	—	—	2.7	9.5	+6.8 sss	—	—	—	—	—	4.6	10.1	+5.6 sss
Hispanic	—	—	—	—	—	4.7	6.9	+2.2 s	—	—	—	—	—	8.5	15.6	+7.1 sss	—	—	—	—	—	7.7	13.9	+6.1 sss

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on one of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 143
Vaping Marijuana: Trends in 30-Day
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	—	—	—	15,300	14,000	13,600		—	—	—	—	13,500	14,300	14,000		—	—	—	—	12,600	13,300	12,900	
Total	—	—	—	—	1.6	2.6	3.9	+1.3 ss	—	—	—	—	4.3	7.0	12.6	+5.6 sss	—	—	—	—	4.9	7.5	14.0	+6.5 sss
Gender:																								
Male	—	—	—	—	1.8	2.9	3.3	+0.4	—	—	—	—	4.7	6.9	13.6	+6.7 sss	—	—	—	—	7.2	9.5	14.7	+5.1 sss
Female	—	—	—	—	1.6	2.3	4.5	+2.1 sss	—	—	—	—	3.8	6.9	11.6	+4.8 sss	—	—	—	—	2.9	5.5	13.0	+7.5 sss
College Plans:																								
None or under 4 years	—	—	—	—	4.9	8.7	8.2	-0.5	—	—	—	—	8.7	9.3	19.5	### sss	—	—	—	—	5.8	8.3	17.1	+8.7 sss
Complete 4 years	—	—	—	—	1.2	1.8	3.3	+1.5 sss	—	—	—	—	3.7	6.6	11.2	+4.6 sss	—	—	—	—	4.5	7.1	12.7	+5.6 sss
Region:																								
Northeast	—	—	—	—	1.3	1.2	3.5	+2.3 ss	—	—	—	—	6.1	9.5	13.9	+4.4 s	—	—	—	—	6.7	13.9	16.4	+2.5
Midwest	—	—	—	—	1.3	1.1	3.5	+2.4 sss	—	—	—	—	4.4	6.1	11.7	+5.7 ss	—	—	—	—	4.1	3.8	12.9	+9.1 sss
South	—	—	—	—	1.6	2.7	3.1	+0.5	—	—	—	—	2.6	4.8	11.2	+6.4 sss	—	—	—	—	3.5	5.0	11.6	+6.6 sss
West	—	—	—	—	2.5	5.2	5.9	+0.7	—	—	—	—	5.4	9.7	15.0	+5.3 s	—	—	—	—	6.9	10.7	18.9	+8.3 ss
Population Density:																								
Large MSA	—	—	—	—	0.8	2.7	3.2	+0.4	—	—	—	—	5.7	8.8	14.2	+5.4 ss	—	—	—	—	7.1	9.2	14.1	+4.9 sss
Other MSA	—	—	—	—	1.9	3.1	4.6	+1.4	—	—	—	—	3.8	6.8	13.0	+6.2 sss	—	—	—	—	4.3	7.4	15.0	+7.5 sss
Non-MSA	—	—	—	—	2.2	1.3	3.7	+2.4 sss	—	—	—	—	3.4	4.6	8.8	+4.2 sss	—	—	—	—	2.8	4.5	11.3	+6.8 sss
Parental Education: a																								
1.0–2.0 (Low)	—	—	—	—	3.0	5.3	6.1	+0.8	—	—	—	—	5.1	8.8	15.7	+6.9 s	—	—	—	—	4.8	7.7	13.6	+5.9 s
2.5–3.0	—	—	—	—	2.9	3.9	6.6	+2.7 s	—	—	—	—	5.5	7.8	14.1	+6.2 sss	—	—	—	—	5.4	7.9	14.8	+6.9 sss
3.5–4.0	—	—	—	—	1.2	3.2	3.9	+0.7	—	—	—	—	4.1	7.7	15.1	+7.4 sss	—	—	—	—	3.8	7.4	14.2	+6.8 sss
4.5–5.0	—	—	—	—	1.0	1.4	2.9	+1.4 s	—	—	—	—	3.7	6.3	10.6	+4.3 ss	—	—	—	—	4.9	7.5	12.3	+4.8 ss
5.5–6.0 (High)	—	—	—	—	1.2	0.6	2.4	+1.8 ss	—	—	—	—	4.5	6.5	10.0	+3.5 s	—	—	—	—	5.7	8.5	14.5	+6.1 sss
Race/Ethnicity (2-year data): b																								
White	—	—	—	—	—	1.5	3.2	+1.8 sss	—	—	—	—	—	6.1	12.5	+6.4 sss	—	—	—	—	—	6.7	13.9	+7.3 sss
African American	—	—	—	—	—	1.2	2.4	+1.2	—	—	—	—	—	2.6	10.1	+7.5 sss	—	—	—	—	—	2.5	8.0	+5.5 sss
Hispanic	—	—	—	—	—	3.1	5.4	+2.3 ss	—	—	—	—	—	5.7	14.4	+8.7 sss	—	—	—	—	—	6.8	14.1	+7.3 sss

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on one of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 144
Vaping Just Flavoring: Trends in 30-Day
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 30 days

	8th Graders								10th Graders								12th Graders							
	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1991–2013	2014	2015	2016	2017	2018	2019	2018–2019 change	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	—	—	—	15,300	14,000	13,600		—	—	—	—	13,500	14,300	14,000		—	—	—	—	12,600	13,300	12,900	
Total	—	—	—	—	5.3	8.1	7.7	-0.4	—	—	—	—	9.2	13.1	10.5	-2.6 s	—	—	—	—	9.7	13.5	10.7	-2.8 ss
Gender:																								
Male	—	—	—	—	6.0	8.1	6.9	-1.2	—	—	—	—	9.4	12.9	10.1	-2.9 s	—	—	—	—	11.6	15.0	11.0	-4.0 ss
Female	—	—	—	—	4.8	8.0	8.6	+0.6	—	—	—	—	8.9	13.1	11.0	-2.1	—	—	—	—	7.9	11.8	10.2	-1.6
College Plans:																								
None or under 4 years	—	—	—	—	11.5	13.2	13.0	-0.2	—	—	—	—	15.4	16.2	15.7	-0.5	—	—	—	—	13.0	15.3	13.5	-1.8
Complete 4 years	—	—	—	—	4.8	7.4	7.1	-0.4	—	—	—	—	8.4	12.6	9.6	-3.1 ss	—	—	—	—	8.6	13.0	9.8	-3.2 ss
Region:																								
Northeast	—	—	—	—	5.2	5.6	6.4	+0.7	—	—	—	—	8.8	13.4	9.1	-4.3	—	—	—	—	10.4	15.2	7.8	-7.4 ss
Midwest	—	—	—	—	7.0	10.3	8.2	-2.1	—	—	—	—	10.8	15.2	9.5	-5.7 sss	—	—	—	—	9.8	13.7	10.7	-3.0
South	—	—	—	—	4.1	7.5	8.8	+1.3	—	—	—	—	8.5	12.8	11.4	-1.4	—	—	—	—	9.1	13.6	11.3	-2.3
West	—	—	—	—	5.8	8.7	6.4	-2.3	—	—	—	—	8.8	11.3	11.2	-0.2	—	—	—	—	9.9	11.9	12.0	+0.1
Population Density:																								
Large MSA	—	—	—	—	4.5	7.2	5.4	-1.8	—	—	—	—	8.6	11.9	6.3	-5.6 sss	—	—	—	—	8.8	9.7	7.0	-2.7 s
Other MSA	—	—	—	—	5.8	8.6	6.8	-1.8	—	—	—	—	9.6	13.7	11.1	-2.6	—	—	—	—	9.7	15.6	11.4	-4.2 s
Non-MSA	—	—	—	—	5.4	8.3	13.6	+5.3 sss	—	—	—	—	8.8	13.7	16.2	+2.5	—	—	—	—	11.0	15.2	15.3	+0.2
Parental Education: a																								
1.0–2.0 (Low)	—	—	—	—	7.5	8.5	10.9	+2.4	—	—	—	—	8.7	14.9	15.0	+0.1	—	—	—	—	7.5	11.4	11.4	0.0
2.5–3.0	—	—	—	—	7.4	8.1	10.8	+2.7	—	—	—	—	10.3	14.5	13.8	-0.6	—	—	—	—	9.4	13.9	13.0	-1.0
3.5–4.0	—	—	—	—	5.5	9.9	8.2	-1.7	—	—	—	—	10.6	14.5	11.5	-3.0	—	—	—	—	8.1	16.9	12.0	-4.9 s
4.5–5.0	—	—	—	—	4.6	7.8	7.2	-0.6	—	—	—	—	8.7	12.4	8.7	-3.7 s	—	—	—	—	12.1	14.5	8.4	-6.1 sss
5.5–6.0 (High)	—	—	—	—	4.5	6.9	5.3	-1.7	—	—	—	—	8.6	11.7	7.2	-4.5 s	—	—	—	—	11.1	11.3	7.8	-3.5
Race/Ethnicity (2-year data): b																								
White	—	—	—	—	—	7.2	9.3	+2.1 s	—	—	—	—	—	13.1	12.4	-0.7	—	—	—	—	—	13.5	11.2	-2.3 s
African American	—	—	—	—	—	2.4	4.4	+2.0	—	—	—	—	—	4.8	6.6	+1.9	—	—	—	—	—	5.6	6.2	+0.6
Hispanic	—	—	—	—	—	7.2	6.3	-0.8	—	—	—	—	—	9.4	9.7	+0.3	—	—	—	—	—	9.6	9.4	-0.2

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on one of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

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

b To 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 145

SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
3.5–4.0	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
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
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
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
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
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

Percentage who used in last 30 days

TABLE 145 (cont.)
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Use by Subgroups in Grade 8

							Percentage who used in last 30 days								2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	3.7	3.2	3.5	3.7	4.1	3.5	2.8	2.8	3.0	3.2	2.5	1.7	2.1	2.5	+0.4
Gender:															
Male	5.3	4.7	5.5	6.3	6.3	4.9	4.0	3.8	3.8	4.0	3.6	2.2	3.0	3.3	+0.3
Female	2.1	1.7	1.5	1.4	1.9	1.9	1.5	1.9	2.2	2.3	1.4	1.3	1.1	1.6	+0.5
College Plans:															
None or under 4 years	11.3	8.9	12.7	11.1	14.0	11.1	11.5	9.2	9.6	11.3	9.1	7.2	6.7	7.5	+0.8
Complete 4 years	2.9	2.7	2.7	3.1	3.2	2.8	2.1	2.4	2.4	2.4	2.0	1.2	1.4	1.8	+0.5
Region:															
Northeast	2.9	1.5	2.5	3.2	3.9	2.9	2.6	1.8	1.3	1.7	1.9	1.9	2.0	1.0	-1.0
Midwest	4.0	2.9	3.4	3.0	4.8	3.3	2.1	1.4	2.7	2.8	2.4	1.4	2.0	2.5	+0.5
South	4.6	4.1	5.2	5.6	5.0	4.3	3.6	4.7	3.7	4.0	3.3	1.9	1.5	3.8	+2.3 ss
West	2.2	2.8	1.8	1.8	1.9	2.6	2.0	2.0	3.2	3.0	1.6	1.6	3.1	1.5	-1.6
Population Density:															
Large MSA	1.9	1.9	2.8	2.5	2.3	1.8	1.4	1.7	1.8	1.8	1.0	1.3	1.2	1.4	+0.2
Other MSA	3.1	3.1	3.1	3.6	4.7	3.7	3.1	2.6	2.7	2.8	2.6	1.6	2.0	2.4	+0.4
Non-MSA	7.1	5.3	5.4	5.8	5.0	5.4	4.2	4.9	5.2	5.8	4.7	2.7	3.5	4.5	+0.9
Parental Education: [a]															
1.0–2.0 (Low)	5.9	4.9	5.4	5.3	5.2	6.6	4.2	4.1	5.6	4.4	3.4	2.9	1.8	4.0	+2.2
2.5–3.0	3.9	3.7	5.1	5.5	6.0	4.2	3.8	3.5	4.4	4.0	2.8	2.3	3.1	3.5	+0.4
3.5–4.0	3.7	3.1	3.8	4.9	4.1	3.3	3.2	3.7	3.0	3.6	3.2	2.2	2.9	3.0	+0.1
4.5–5.0	3.1	2.5	2.4	2.9	3.3	2.7	2.0	1.6	1.9	2.5	2.0	1.0	1.5	2.0	+0.5
5.5–6.0 (High)	3.4	2.3	2.3	1.4	2.5	1.5	1.4	1.8	1.9	1.9	1.2	0.5	0.9	1.4	+0.5
Race/Ethnicity (2-year average): [b]															
White	3.7	3.8	3.9	4.4	4.9	4.6	3.6	3.1	3.4	3.5	3.4	2.6	1.9	2.1	+0.2
African American	2.1	2.3	2.4	2.6	2.2	1.8	1.8	2.2	2.0	2.2	2.4	1.9	1.8	2.3	+0.5
Hispanic	3.1	2.9	2.4	2.5	2.6	3.2	3.1	2.4	2.6	2.7	2.2	1.9	2.0	2.3	+0.3

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 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 S1. In 2011 snus and dissolvable tobacco were added to the list of examples.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 146
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

<div align="center">Percentage who used in last 30 days</div>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

TABLE 146 (cont.)
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Use by Subgroups in Grade 10

	Percentage who used in last 30 days														2018-2019
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	5.7	6.1	5.0	6.5	7.5	6.6	6.4	6.4	5.3	4.9	3.5	3.8	3.9	3.2	-0.7
Gender:															
Male	10.2	10.2	8.2	11.1	13.0	11.5	11.2	11.1	8.9	7.9	5.8	6.1	6.2	5.3	-1.0
Female	1.2	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.8	1.3	1.5	1.4	1.4	0.0
College Plans:															
None or under 4 years	14.9	14.0	14.6	17.5	21.8	17.9	16.8	18.6	17.9	12.3	10.1	10.2	10.2	6.2	-4.1 s
Complete 4 years	4.5	5.0	3.8	5.3	5.8	5.2	5.3	5.1	4.1	4.0	2.8	2.9	2.9	2.7	-0.2
Region:															
Northeast	4.5	5.9	3.3	6.6	6.7	5.6	4.3	6.4	4.1	4.8	2.7	3.0	3.4	1.9	-1.5
Midwest	7.5	6.3	7.2	7.7	9.2	6.4	7.9	6.9	5.7	5.1	3.3	4.4	4.2	3.1	-1.1
South	6.0	8.3	6.5	7.7	9.1	7.9	8.1	6.9	6.8	5.5	4.6	3.8	5.1	3.5	-1.6
West	4.1	3.3	2.2	3.3	4.0	5.4	4.0	5.4	3.6	3.6	2.9	3.8	2.0	3.7	+1.8
Population Density:															
Large MSA	3.9	4.1	3.4	4.8	5.1	4.6	3.6	5.1	4.1	3.5	2.7	3.4	3.3	1.8	-1.5
Other MSA	5.3	5.8	4.4	6.3	7.0	6.1	6.3	5.3	4.4	4.3	2.9	2.6	3.4	3.3	-0.1
Non-MSA	9.6	9.9	8.7	9.3	12.1	10.2	10.5	11.2	9.5	8.6	6.8	7.2	5.9	5.4	-0.5
Parental Education:[a]															
1.0–2.0 (Low)	7.4	6.1	5.0	7.9	6.5	6.4	7.2	5.6	4.7	4.7	2.4	3.4	3.0	4.6	+1.6
2.5–3.0	7.1	6.9	6.5	7.4	9.1	8.8	7.7	8.4	6.7	7.1	4.9	3.6	4.6	3.6	-1.0
3.5–4.0	5.7	6.4	5.4	7.4	8.7	7.2	7.5	6.9	5.8	4.2	4.0	4.6	3.8	2.5	-1.3
4.5–5.0	4.9	6.1	4.6	5.4	7.0	5.2	6.1	5.9	4.3	5.0	3.0	3.6	4.2	3.5	-0.7
5.5–6.0 (High)	5.3	4.8	2.9	5.6	6.0	5.3	3.8	5.3	4.6	3.8	2.8	3.6	4.0	2.6	-1.4
Race/Ethnicity (2-year average):[b]															
White	6.9	7.3	7.3	7.5	9.1	9.1	8.0	8.1	7.7	6.5	5.7	5.3	5.5	5.0	-0.5
African American	3.2	3.3	2.8	2.6	2.3	2.2	2.3	2.2	2.5	2.8	2.4	1.9	1.4	1.8	+0.4
Hispanic	3.4	2.7	2.6	2.9	2.8	3.4	4.4	3.4	3.0	3.1	1.9	1.7	2.4	2.7	+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 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 S2. In 2011 snus and dissolvable tobacco were added to the list of examples.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 147
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]
Approximate weighted N =	—	—	—	—	—	—	—	—	—	—	—	15,200	16,300	16,300	16,700	—
Total	—	—	—	—	—	—	—	—	—	—	—	11.5	11.3	10.3	8.4	—
Gender:																
Male	—	—	—	—	—	—	—	—	—	—	—	22.3	22.8	19.9	15.9	—
Female	—	—	—	—	—	—	—	—	—	—	—	1.6	0.7	1.7	1.2	—
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	—	—	—	—	14.5	15.5	13.1	9.6	—
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	9.8	9.0	8.8	7.7	—
Region:																
Northeast	—	—	—	—	—	—	—	—	—	—	—	9.5	7.3	5.9	5.0	—
Midwest	—	—	—	—	—	—	—	—	—	—	—	13.5	11.3	10.8	8.3	—
South	—	—	—	—	—	—	—	—	—	—	—	12.2	13.7	12.1	9.8	—
West	—	—	—	—	—	—	—	—	—	—	—	9.3	11.7	10.9	9.1	—
Population Density:																
Large MSA	—	—	—	—	—	—	—	—	—	—	—	9.0	6.4	7.7	6.8	—
Other MSA	—	—	—	—	—	—	—	—	—	—	—	8.9	10.5	8.5	7.6	—
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	17.1	17.5	16.1	11.7	—
Parental Education: [b]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	8.6	11.7	10.7	5.3	—
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	14.4	11.5	10.7	7.0	—
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	11.5	12.1	10.6	9.0	—
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	10.4	11.7	11.8	10.2	—
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	7.7	8.1	7.2	8.4	—
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 147 (cont.)

SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 30 days

	1991[a]	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted 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
Total	—	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
Gender:																
Male	—	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
Female	—	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
College Plans:																
None or under 4 years	—	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
Complete 4 years	—	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
Region:																
Northeast	—	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
Midwest	—	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
South	—	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
West	—	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
Population Density:																
Large MSA	—	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
Other MSA	—	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
Non-MSA	—	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
Parental Education: [b]																
1.0–2.0 (Low)	—	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
2.5–3.0	—	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
3.5–4.0	—	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
4.5–5.0	—	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
5.5–6.0 (High)	—	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
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
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
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

TABLE 147 (cont.)
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Use by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	6.6	6.5	8.4	8.5	8.3	7.89	8.1	8.4	6.1	6.6	4.9	4.2	3.5	-0.7
Gender:														
Male	11.9	11.8	15.8	15.7	14.2	13.49	14.6	14.3	10.7	11.9	9.9	7.6	5.7	-2.0
Female	1.2	1.0	1.7	1.7	1.8	1.58	1.4	2.1	1.6	1.5	0.7	1.0	1.1	+0.1
College Plans:														
None or under 4 years	11.7	12.4	14.2	14.4	17.5	14.96	16.1	15.0	14.3	11.7	11.4	8.3	7.1	-1.3
Complete 4 years	5.3	5.0	7.3	7.3	6.4	6.01	6.2	6.5	4.4	5.1	3.4	3.0	2.5	-0.5
Region:														
Northeast	5.3	7.5	7.1	7.6	8.2	7.14	5.6	9.6	5.8	6.7	7.6	3.0	2.5	-0.5
Midwest	9.1	7.2	14.1	12.2	7.8	10.49	11.2	11.8	6.9	7.4	3.5	6.3	3.0	-3.4
South	7.9	6.1	7.1	7.8	8.9	7.73	9.3	5.9	6.1	7.5	5.6	4.9	4.5	-0.4
West	2.8	5.6	4.6	6.7	7.7	5.92	5.2	8.4	5.7	4.3	3.4	1.5	2.7	+1.2
Population Density:														
Large MSA	3.9	2.6	4.4	5.9	5.3	6.35	7.1	3.8	3.1	3.4	2.6	1.7	1.6	-0.1
Other MSA	6.8	6.2	7.7	7.9	8.4	6.39	7.4	9.8	5.1	7.3	5.4	4.3	2.5	-1.7
Non-MSA	10.1	11.8	15.0	13.8	12.4	14.11	11.4	11.1	13.5	10.2	7.8	8.4	9.2	+0.8
Parental Education: [b]														
1.0–2.0 (Low)	5.3	3.4	2.8	6.1	2.2	5.26	7.9	6.3	6.6	5.5	1.9	0.6	2.9	+2.3
2.5–3.0	9.8	7.2	10.4	8.2	9.3	10.04	7.9	9.3	7.1	7.1	5.4	5.0	4.0	-0.9
3.5–4.0	5.3	6.8	9.4	8.7	8.2	8.46	6.7	8.1	6.5	6.7	6.3	5.2	3.9	-1.3
4.5–5.0	6.6	6.5	7.7	9.8	9.9	8.43	10.5	9.5	6.0	7.8	6.0	4.9	3.2	-1.8
5.5–6.0 (High)	5.8	6.3	8.7	7.5	6.3	4.72	7.7	7.9	4.9	6.2	3.6	4.5	3.4	-1.1
Race/Ethnicity (2-year average): [c]														
White	8.3	8.6	10.5	12.1	11.8	11.31	11.0	11.4	10.2	9.6	9.4	7.7	5.6	-2.0 ss
African American	1.8	2.0	1.5	2.2	1.8	1.0	2.4	2.6	1.3	2.0	2.4	1.7	1.3	-0.4
Hispanic	2.7	2.3	2.5	3.7	3.9	2.53	2.3	3.4	3.6	1.8	1.1	1.2	1.5	+0.3

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 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 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.

[a]Prevalence 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.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 148

SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 8

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	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
Gender:															
Male	3.1	3.4	2.9	3.2	2.2	2.9	1.7	1.8	1.6	1.5	2.5	1.5	1.4	1.7	1.2
Female	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.1	0.2	0.2	0.3	0.2
College Plans:															
None or under 4 years	4.1	5.6	4.4	5.4	3.5	5.1	3.6	6.1	3.8	2.7	4.5	4.5	4.0	3.8	2.4
Complete 4 years	1.2	1.2	1.1	1.4	0.9	1.0	0.6	0.5	0.5	0.7	0.9	0.5	0.5	0.7	0.5
Region:															
Northeast	1.2	0.9	0.6	0.8	0.6	0.8	0.6	0.4	0.1	0.4	0.7	0.6	0.8	1.0	0.1
Midwest	1.5	1.6	1.6	1.4	1.1	2.0	1.2	1.3	0.9	1.3	1.1	1.1	0.6	0.6	0.3
South	2.4	3.0	2.2	3.3	1.8	2.0	1.5	1.3	1.6	1.3	2.1	1.0	1.3	1.7	1.4
West	0.6	0.8	1.0	0.9	0.8	0.8	0.2	0.7	0.3	0.2	0.1	0.2	0.2	0.3	0.2
Population Density:															
Large MSA	0.5	0.6	0.7	0.7	0.4	0.4	0.5	0.4	0.3	0.2	0.3	0.4	0.7	0.4	*
Other MSA	1.2	1.9	1.5	1.0	0.9	1.2	0.8	0.6	0.8	0.8	0.8	0.6	0.6	0.6	0.5
Non-MSA	3.3	2.8	2.5	4.6	2.6	3.4	1.6	2.6	1.8	2.0	2.9	1.8	1.5	2.6	1.9
Parental Education: [a]															
1.0–2.0 (Low)	2.8	3.5	2.0	3.0	2.2	1.5	3.2	2.6	0.9	1.4	1.8	2.2	1.8	2.8	1.4
2.5–3.0	2.2	2.6	1.9	2.7	1.7	3.1	1.1	1.5	1.6	1.4	2.1	1.0	1.0	1.1	0.5
3.5–4.0	1.4	1.2	1.8	1.9	1.2	1.7	0.9	1.3	0.8	1.3	0.3	1.0	0.8	0.8	0.8
4.5–5.0	0.8	1.3	1.1	1.1	0.9	0.3	0.8	0.5	0.5	0.4	0.5	0.3	0.2	0.7	0.8
5.5–6.0 (High)	1.0	0.9	0.6	0.7	0.8	0.8	0.4	0.5	0.4	0.4	1.7	0.9	1.1	0.8	0.4
Race/Ethnicity (2-year average): [b]															
White	—	2.0	2.0	2.0	1.9	1.7	1.5	1.2	1.1	1.1	1.2	1.0	0.7	0.9	0.9
African American	—	0.3	0.4	0.7	0.6	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.2
Hispanic	—	0.8	0.9	0.9	0.7	1.1	0.9	0.8	1.0	0.8	0.8	0.8	0.9	0.9	0.4

TABLE 148 (cont.)
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 8

						Percentage who used daily in last 30 days									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,500	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	0.7	0.8	0.8	0.8	0.9	0.8	0.5	0.5	0.5	0.8	0.6	0.4	0.3	0.5	+0.2
Gender:															
Male	1.1	1.6	1.2	1.4	1.5	1.5	0.8	0.9	0.9	1.2	1.2	0.5	0.5	0.8	+0.3
Female	0.3	0.1	0.4	0.3	0.3	0.2	0.1	0.1	0.3	0.3	0.1	0.2	0.1	0.2	+0.1
College Plans:															
None or under 4 years	4.0	3.2	5.0	2.5	4.0	3.6	2.3	1.9	3.1	3.3	2.8	2.3	1.4	1.3	-0.1
Complete 4 years	0.4	0.6	0.4	0.7	0.6	0.6	0.4	0.4	0.3	0.5	0.4	0.2	0.1	0.4	+0.3 s
Region:															
Northeast	0.6	0.2	0.9	1.1	0.7	0.7	0.5	0.1	0.1	0.2	0.6	0.8	0.2	0.2	0.0
Midwest	0.5	0.5	0.4	0.6	0.9	0.6	0.2	0.4	0.3	0.4	0.4	0.2	0.2	0.5	+0.2
South	1.1	1.5	1.3	1.3	1.5	1.1	0.7	0.9	0.8	1.1	1.0	0.5	0.4	0.9	+0.5
West	0.4	0.4	0.3	0.1	0.2	0.4	0.5	0.3	0.8	0.8	0.2	0.1	0.5	0.2	-0.3
Population Density:															
Large MSA	0.3	0.4	0.4	0.5	0.4	0.2	0.2	0.1	0.2	0.4	0.1	0.3	0.1	0.3	+0.2
Other MSA	0.6	0.7	0.7	0.6	1.1	0.8	0.5	0.5	0.2	0.5	0.7	0.3	0.3	0.4	0.0
Non-MSA	1.6	1.7	1.5	1.7	1.1	1.7	1.0	1.2	1.8	1.8	1.3	0.7	0.7	1.2	+0.5
Parental Education: [a]															
1.0–2.0 (Low)	1.3	1.9	1.5	1.6	1.0	1.6	0.3	0.9	1.5	0.7	0.9	0.3	0.0	0.6	+0.6
2.5–3.0	0.9	1.0	1.3	0.9	1.9	0.9	0.6	0.8	1.3	1.3	0.6	0.8	0.3	0.7	+0.4
3.5–4.0	0.7	0.8	0.8	1.3	0.8	0.9	1.0	0.6	0.2	0.3	0.6	0.5	0.6	0.5	0.0
4.5–5.0	0.6	0.6	0.3	0.4	0.4	0.7	0.3	0.3	0.0	0.7	0.2	0.1	0.0	0.4	+0.4
5.5–6.0 (High)	0.5	0.5	0.6	0.2	0.2	0.1	0.2	0.2	0.6	0.4	0.8	0.3	0.2	0.3	+0.2
Race/Ethnicity (2-year average): [b]															
White	0.7	0.9	0.9	0.9	1.0	1.0	0.9	0.7	0.8	0.9	0.9	0.7	0.5	0.4	0.0
African American	0.5	0.5	0.7	1.0	0.7	0.5	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.6	+0.2
Hispanic	0.5	0.5	0.4	0.3	0.4	0.4	0.3	0.1	0.1	0.3	0.3	0.2	0.3	0.4	+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. ' * ' indicates less than 0.05% but greater than 0%. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years thus provide more stable estimates. See appendix B for details on how race/ethnicity is defined.

1991–1996 and on two of four forms beginning in 1997;   N is one half of N indicated in Table S1.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 149
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 10

Percentage who used daily in last 30 days

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	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
Gender:															
Male	6.3	6.3	6.4	5.9	5.2	4.2	4.0	4.3	3.2	3.9	4.5	3.0	3.7	3.0	3.4
Female	0.2	0.1	0.3	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.3	0.2	0.1	0.2	0.3
College Plans:															
None or under 4 years	7.6	8.5	8.8	6.5	7.8	5.4	6.3	6.4	3.6	5.9	6.6	4.6	4.8	5.0	5.4
Complete 4 years	2.3	1.9	2.2	2.2	1.9	1.6	1.5	1.5	1.2	1.2	1.5	1.0	1.3	1.1	1.3
Region:															
Northeast	1.8	1.0	1.7	3.0	2.0	1.3	1.5	1.2	1.2	0.9	1.1	0.8	1.6	2.1	1.3
Midwest	3.1	2.9	2.5	2.4	2.5	2.1	1.4	2.1	2.0	2.1	2.1	1.3	1.3	0.8	1.7
South	4.7	4.5	5.2	3.3	4.1	3.3	3.5	3.8	2.0	2.8	3.6	2.6	3.0	2.6	2.8
West	2.7	2.9	3.1	3.6	1.1	1.0	1.7	0.8	0.7	1.0	0.9	1.1	0.8	0.6	1.2
Population Density:															
Large MSA	1.5	1.6	1.1	1.0	1.5	0.6	0.8	1.0	0.8	1.6	0.8	1.3	1.2	0.8	0.8
Other MSA	3.1	2.8	3.2	3.5	2.3	2.3	1.7	1.5	1.0	1.0	1.7	1.4	1.5	1.3	1.4
Non-MSA	5.0	4.9	5.3	4.2	4.9	3.6	4.6	5.0	3.5	3.8	5.0	2.6	3.5	3.4	4.2
Parental Education: [a]															
1.0–2.0 (Low)	2.5	3.9	4.1	3.2	3.6	1.7	3.8	2.6	1.7	2.4	3.8	1.7	1.7	1.5	2.0
2.5–3.0	4.8	5.0	4.3	3.8	3.4	3.4	2.0	2.8	1.7	2.3	3.2	1.2	2.1	1.8	2.6
3.5–4.0	3.3	2.8	3.1	3.0	2.8	1.4	2.4	2.7	1.6	1.6	1.5	2.0	1.9	2.4	2.0
4.5–5.0	2.5	1.7	2.5	2.7	2.9	2.3	1.7	1.8	1.6	1.9	1.9	1.5	1.7	0.7	1.7
5.5–6.0 (High)	2.5	1.6	2.7	1.7	1.0	1.4	1.9	0.7	0.8	0.8	1.9	1.3	1.4	0.9	1.2
Race/Ethnicity (2-year average): [b]															
White	—	3.8	3.9	3.8	3.3	2.9	2.5	2.7	2.4	2.1	2.4	2.3	2.1	2.1	2.1
African American	—	0.5	0.4	0.6	0.5	0.4	0.4	0.4	0.3	0.4	0.9	0.8	0.4	0.6	0.8
Hispanic	—	1.1	1.0	0.8	1.2	1.2	1.3	1.3	0.8	0.8	1.0	0.5	0.4	0.9	1.0

TABLE 149 (cont.)
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 10

Percentage who used daily in last 30 days

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
Approximate weighted N =	16,200	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	1.7	1.6	1.4	1.9	2.5	1.7	2.0	1.9	1.8	1.6	1.0	0.6	1.0	0.9	-0.1
Gender:															
Male	3.3	2.9	2.6	3.7	4.7	3.3	3.9	3.5	3.4	3.1	1.7	1.2	1.8	1.6	-0.2
Female	*	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.1	0.2	0.4	+0.2
College Plans:															
None or under 4 years	6.8	4.4	6.2	7.7	8.2	5.2	6.2	7.6	7.7	5.8	4.3	2.4	3.6	2.4	-1.2
Complete 4 years	1.0	1.2	0.8	1.3	1.8	1.3	1.6	1.2	1.2	1.2	0.7	0.4	0.7	0.7	0.0
Region:															
Northeast	0.8	1.4	0.5	1.5	2.3	1.2	1.2	1.7	0.9	1.4	0.5	0.8	1.1	0.8	-0.3
Midwest	2.2	1.6	2.4	2.8	2.3	1.7	2.5	1.7	1.9	1.8	0.7	0.4	0.9	0.8	-0.1
South	2.3	2.6	2.1	2.3	3.7	2.4	2.9	2.7	3.1	2.3	1.7	0.8	1.5	1.3	-0.2
West	0.9	0.4	0.2	0.6	0.8	0.9	0.9	1.0	0.5	0.7	0.8	0.4	0.4	0.6	+0.2
Population Density:															
Large MSA	1.1	1.0	0.7	1.0	1.4	1.2	0.7	1.1	0.9	1.0	0.9	0.6	0.8	0.5	-0.3
Other MSA	1.4	1.5	1.1	1.9	2.6	1.0	1.7	1.5	1.3	1.1	0.7	0.3	0.9	1.0	+0.1
Non-MSA	3.2	2.6	3.2	3.1	3.8	3.5	4.5	3.7	4.7	4.1	2.0	1.5	1.7	1.5	-0.2
Parental Education: [a]															
1.0–2.0 (Low)	3.6	2.0	1.0	2.9	2.5	2.0	1.5	1.1	2.2	1.5	0.5	0.1	0.5	1.3	+0.8
2.5–3.0	2.9	2.1	1.7	2.3	3.4	2.8	3.4	3.0	2.9	3.2	1.7	0.5	1.3	1.2	-0.1
3.5–4.0	1.3	1.6	1.9	2.2	3.0	1.4	2.2	2.0	2.3	0.7	1.3	0.8	1.0	1.3	+0.2
4.5–5.0	1.1	1.4	1.3	1.3	1.7	1.4	1.7	1.2	1.2	2.1	0.6	0.6	1.0	0.8	-0.2
5.5–6.0 (High)	1.3	1.1	0.1	1.7	2.0	1.4	1.3	1.1	0.9	1.1	0.7	0.7	1.1	0.5	-0.7
Race/Ethnicity (2-year average): [b]															
White	2.2	2.1	2.1	2.4	3.1	2.8	2.4	2.7	2.6	2.4	1.8	1.2	1.3	1.2	-0.1
African American	0.8	0.6	0.4	0.4	0.6	0.9	0.8	0.7	0.8	1.0	0.9	0.4	0.3	1.0	+0.7 s
Hispanic	0.7	0.3	0.2	0.4	0.5	0.7	0.9	0.5	0.4	0.3	0.3	0.3	0.2	0.4	+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. ' * ' indicates less than 0.05% but greater than 0%. Any apparent inconsistency between the change estimate and the prevalence estimates for the two most recent years is due to rounding. See Table 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 S2.

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 150
SMOKELESS TOBACCO: Trends in 30-Day Prevalence of Daily Use by Subgroups in Grade 12

Percentage who used daily in last 30 days

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990[a]
Approximate weighted N =	—	—	—	—	—	—	—	—	—	—	—	15,200	16,300	16,300	16,700	—
Total	—	—	—	—	—	—	—	—	—	—	—	4.7	5.1	4.3	3.3	—
Gender:																
Male	—	—	—	—	—	—	—	—	—	—	—	10.0	10.7	8.6	6.8	—
Female	—	—	—	—	—	—	—	—	—	—	—	0.1	0.1	0.5	0.0	—
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	—	—	—	—	7.1	7.8	5.8	4.2	—
Complete 4 years	—	—	—	—	—	—	—	—	—	—	—	3.3	3.7	3.5	2.7	—
Region:																
Northeast	—	—	—	—	—	—	—	—	—	—	—	4.6	2.1	2.3	1.3	—
Midwest	—	—	—	—	—	—	—	—	—	—	—	4.5	4.5	3.5	2.2	—
South	—	—	—	—	—	—	—	—	—	—	—	6.1	7.4	6.3	4.2	—
West	—	—	—	—	—	—	—	—	—	—	—	2.9	5.5	4.0	4.9	—
Population Density:																
Large MSA	—	—	—	—	—	—	—	—	—	—	—	3.4	3.3	3.0	3.0	—
Other MSA	—	—	—	—	—	—	—	—	—	—	—	3.3	4.3	2.5	2.8	—
Non-MSA	—	—	—	—	—	—	—	—	—	—	—	7.8	8.5	8.9	4.6	—
Parental Education: [b]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	—	—	—	—	1.9	5.6	5.3	1.8	—
2.5–3.0	—	—	—	—	—	—	—	—	—	—	—	7.6	6.9	3.2	3.9	—
3.5–4.0	—	—	—	—	—	—	—	—	—	—	—	3.5	4.7	5.4	3.1	—
4.5–5.0	—	—	—	—	—	—	—	—	—	—	—	3.9	5.0	4.7	4.6	—
5.5–6.0 (High)	—	—	—	—	—	—	—	—	—	—	—	3.3	2.1	3.5	1.2	—
Race/Ethnicity (2-year average): [c]																
White	—	—	—	—	—	—	—	—	—	—	—	—	5.8	5.4	4.5	—
African American	—	—	—	—	—	—	—	—	—	—	—	—	0.6	1.0	0.5	—
Hispanic	—	—	—	—	—	—	—	—	—	—	—	—	0.8	2.1	2.1	—

							Percentage who used daily in last 30 days								
	1991[a]	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted 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*
Total	—	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
Gender:																
Male	—	7.8	6.4	7.2	7.2	7.1	8.6	6.0	5.7	6.5	5.6	4.3	4.6	5.6	4.7	4.3
Female	—	0.5	0.4	0.3	0.1	0.1	0.2	0.0	0.0	0.4	0.3	0.0	0.0	0.2	0.2	0.1
College Plans:																
None or under 4 years	—	7.4	4.3	6.6	6.5	6.8	9.1	6.5	3.4	7.9	4.7	2.4	5.3	5.0	7.1	6.1
Complete 4 years	—	3.3	3.1	2.8	2.7	2.6	2.7	2.3	2.6	2.0	2.1	1.4	1.4	2.0	1.5	1.2
Region:																
Northeast	—	1.8	1.9	4.5	2.2	3.2	3.5	0.5	1.0	1.3	1.5	1.6	2.7	1.9	2.1	1.9
Midwest	—	4.0	4.4	4.7	4.9	4.1	7.0	4.0	3.4	5.0	2.8	2.2	1.1	3.0	3.8	2.1
South	—	5.4	4.0	3.5	4.2	3.1	3.6	4.6	4.0	4.0	3.8	2.4	2.6	3.7	2.7	3.0
West	—	5.1	1.7	3.2	1.6	2.9	3.0	1.8	1.9	1.6	2.6	1.3	2.2	1.7	1.0	1.0
Population Density:																
Large MSA	—	2.0	1.7	2.0	2.1	2.6	3.3	0.9	0.5	0.9	1.4	0.4	0.5	0.8	1.0	1.4
Other MSA	—	4.2	3.0	3.6	3.2	1.9	3.3	2.4	3.1	3.7	2.6	2.0	2.2	2.2	2.4	1.6
Non-MSA	—	6.5	5.2	6.7	5.8	6.7	7.7	7.6	4.9	5.3	5.0	3.8	4.2	6.2	4.8	4.4
Parental Education: [b]																
1.0–2.0 (Low)	—	6.7	3.9	6.6	2.7	2.2	1.3	2.2	2.1	2.9	4.0	2.2	4.9	3.0	2.2	1.3
2.5–3.0	—	4.8	3.5	3.8	4.7	3.6	5.8	5.2	3.7	4.2	3.2	1.7	1.4	4.2	3.5	3.3
3.5–4.0	—	5.2	3.3	3.3	2.9	3.6	3.7	2.6	3.5	3.9	2.8	2.1	2.0	2.0	3.7	1.7
4.5–5.0	—	2.4	3.7	3.9	3.5	4.6	3.9	3.0	1.9	2.1	2.7	2.4	2.8	2.6	1.8	2.6
5.5–6.0 (High)	—	2.6	1.8	2.7	2.7	1.1	5.0	2.5	2.1	2.5	2.5	0.2	1.8	1.9	0.4	1.3
Race/Ethnicity (2-year average): [c]																
White	—	—	4.8	4.7	4.6	4.1	5.0	5.2	4.3	4.3	4.4	3.5	2.9	3.2	3.5	3.4
African American	—	—	0.3	0.7	0.6	0.3	0.2	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.2
Hispanic	—	—	1.6	0.7	1.2	2.2	1.9	0.8	0.4	0.9	0.6	0.3	0.7	1.1	0.7	0.4

TABLE 150 (cont.)

SMOKELESS TOBACCO: Trends in <u>30-Day</u> Prevalence of <u>Daily</u> Use by Subgroups in <u>Grade 12</u>

	Percentage who used daily in last 30 days													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	2.8	2.7	2.9	3.1	3.1	3.2	3.0	3.4	2.9	2.7	2.0	1.6	1.1	-0.5
Gender:														
Male	5.6	5.6	5.8	5.9	6.0	5.7	5.7	6.5	5.8	5.1	4.0	3.2	1.9	-1.3
Female	0.2	0.0	0.4	0.2	0.0	0.3	0.0	0.1	0.0	0.3	0.2	0.3	0.2	-0.1
College Plans:														
None or under 4 years	5.3	6.6	6.4	7.5	7.8	8.4	7.8	8.8	8.6	5.1	6.7	3.6	3.0	-0.7
Complete 4 years	2.1	1.9	2.3	2.1	2.2	2.0	1.8	1.9	1.7	1.9	1.0	1.1	0.5	-0.6
Region:														
Northeast	1.9	1.8	2.1	2.4	3.8	3.2	1.6	3.9	2.1	2.1	1.4	1.1	0.4	-0.8
Midwest	3.9	3.1	4.4	5.3	4.1	3.7	4.9	5.6	3.8	1.9	2.0	2.8	1.3	-1.6
South	4.2	2.7	3.7	3.7	2.9	4.3	2.9	2.5	3.3	3.6	3.0	1.6	1.5	-0.1
West	0.1	3.0	0.7	0.6	1.9	1.3	2.2	2.3	2.0	2.2	0.7	0.6	0.6	-0.1
Population Density:														
Large MSA	1.6	0.5	0.9	0.9	1.6	2.1	1.4	0.9	0.4	1.2	0.3	0.5	0.0	-0.5 ss
Other MSA	2.4	2.1	2.4	2.0	2.9	1.9	2.3	3.5	2.9	3.1	2.3	1.6	1.0	-0.6
Non-MSA	5.8	6.8	6.7	9.2	5.9	8.1	7.0	6.4	7.1	4.0	4.1	3.6	3.2	-0.4
Parental Education: [b]														
1.0–2.0 (Low)	2.5	0.7	1.2	2.2	0.8	3.1	2.0	0.6	1.2	1.8	0.0	.	1.0	+1.0
2.5–3.0	3.8	3.4	3.5	3.9	4.7	5.9	3.0	3.8	4.1	3.5	3.1	2.3	1.3	-1.0
3.5–4.0	2.7	2.9	2.5	2.9	2.9	3.1	3.0	3.8	3.5	2.1	2.6	2.8	0.7	-2.1 s
4.5–5.0	3.1	2.7	3.5	3.2	3.5	2.3	3.7	4.4	2.7	3.2	2.3	1.6	0.9	-0.7
5.5–6.0 (High)	1.8	2.2	3.1	2.8	0.8	1.9	1.5	2.4	1.8	3.3	0.4	0.9	1.3	+0.4
Race/Ethnicity (2-year average): [c]														
White	3.4	3.8	4.5	4.7	4.6	4.6	4.3	4.6	4.7	4.4	4.1	3.4	2.0	-1.4 ss
African American	0.8	0.9	0.6	1.5	1.4	0.3	0.6	1.3	0.6	0.7	1.1	0.8	0.3	-0.4
Hispanic	0.7	0.6	0.2	0.4	0.5	0.5	0.4	0.5	0.8	0.5	0.0	0.2	0.2	0.0

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 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 S3.

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

[a]Prevalence 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.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 151
DISSOLVABLE TOBACCO PRODUCTS: Trends in Annual Prevalence of Use by Subgroups in Grade 8

	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600	
Total	—	1.0	1.1	1.1	0.9	0.7	0.6	0.6	1.1	+0.5 s
Gender:										
Male	—	0.8	1.5	1.3	1.1	0.7	0.8	0.9	1.4	+0.5
Female	—	1.0	0.8	1.0	0.8	0.6	0.5	0.3	0.8	+0.5
College Plans:										
None or under 4 years	—	4.4	4.5	6.1	3.3	4.5	3.5	2.1	2.6	+0.5
Complete 4 years	—	0.8	0.9	0.7	0.7	0.3	0.3	0.4	0.8	+0.5 s
Region:										
Northeast	—	0.3	0.5	1.4	0.5	0.2	0.3	0.6	1.1	+0.5
Midwest	—	0.8	0.4	0.5	1.0	0.4	0.2	0.1	0.8	+0.8
South	—	1.4	1.7	1.2	1.2	1.1	1.0	1.0	1.4	+0.4
West	—	1.1	1.3	1.4	0.7	0.5	0.8	0.3	0.7	+0.4
Population Density:										
Large MSA	—	1.2	1.0	1.2	0.8	0.8	0.5	0.8	1.3	+0.4
Other MSA	—	0.7	1.1	0.8	1.0	0.5	0.8	0.4	1.0	+0.6
Non-MSA	—	1.3	1.3	1.7	0.9	1.0	0.4	0.4	0.8	+0.4
Parental Education: [a]										
1.0–2.0 (Low)	—	1.2	2.6	2.4	1.3	2.1	1.1	0.6	1.1	+0.6
2.5–3.0	—	1.3	0.7	1.9	1.1	0.7	0.3	0.3	1.7	+1.4 s
3.5–4.0	—	1.4	1.7	0.8	1.4	0.8	0.7	0.2	1.0	+0.8
4.5–5.0	—	0.7	0.7	0.8	0.6	0.2	0.4	0.5	0.8	+0.3
5.5–6.0 (High)	—	0.6	0.8	0.8	0.2	0.2	0.8	0.8	0.9	+0.1
Race/Ethnicity (2-year data): [b]										
White	—	—	0.8	1.0	0.9	0.4	0.3	0.3	0.5	+0.1
African American	—	—	1.2	1.0	1.0	1.1	0.9	1.4	2.0	+0.6
Hispanic	—	—	1.7	1.6	1.2	0.9	0.9	0.8	0.9	+0.1

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

Notes.   ' — ' 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S1.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 152
DISSOLVABLE TOBACCO PRODUCTS: Trends in Annual
Prevalence of Use by Subgroups in Grade 10

Percentage who used in last 12 months

	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	1.6	1.2	1.3	1.1	0.9	0.6	1.1	0.8	-0.3
Gender:										
Male	—	2.3	2.0	1.9	1.4	1.3	0.9	1.6	1.5	0.0
Female	—	0.9	0.6	0.7	0.6	0.5	0.3	0.5	0.0	-0.4 ss
College Plans:										
None or under 4 years	—	5.6	2.8	5.9	4.1	3.0	1.3	1.9	1.4	-0.5
Complete 4 years	—	1.2	1.0	0.8	0.7	0.7	0.5	0.9	0.7	-0.3
Region:										
Northeast	—	0.5	1.0	1.1	0.6	1.1	0.1	1.2	0.3	-1.0 s
Midwest	—	1.7	1.2	0.9	1.0	1.0	0.9	1.2	0.5	-0.7
South	—	1.7	1.6	1.3	0.9	0.9	0.5	0.8	0.4	-0.4
West	—	2.1	0.9	1.9	1.6	0.7	1.0	1.1	1.9	+0.7
Population Density:										
Large MSA	—	1.4	0.8	1.1	0.7	0.7	0.6	1.2	0.2	-1.0 s
Other MSA	—	1.5	1.0	1.0	1.0	0.9	0.6	0.9	1.0	+0.1
Non-MSA	—	1.9	2.2	2.6	1.7	1.2	0.7	1.2	1.1	-0.1
Parental Education: [a]										
1.0–2.0 (Low)	—	2.2	1.4	0.5	2.8	0.9	0.9	1.5	0.2	-1.4 s
2.5–3.0	—	2.2	2.0	1.2	1.6	1.2	0.1	1.9	0.3	-1.6 s
3.5–4.0	—	2.3	1.0	2.2	0.7	0.9	0.7	0.7	0.2	-0.5
4.5–5.0	—	0.6	1.1	0.9	0.6	0.6	0.7	0.8	1.9	+1.0
5.5–6.0 (High)	—	1.1	0.9	0.7	0.8	0.7	0.3	0.8	0.7	-0.2
Race/Ethnicity (2-year data): [b]										
White	—	—	1.4	1.3	1.1	0.7	0.6	0.9	1.0	+0.2
African American	—	—	0.8	1.2	1.3	1.1	0.7	0.5	0.4	-0.1
Hispanic	—	—	1.4	1.0	1.0	1.4	1.4	1.2	0.9	-0.3

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

Notes. ' — ' 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table.Data based on one of four forms; *N* is one third of *N* indicated in S2.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 153
DISSOLVABLE TOBACCO PRODUCTS: Trends in Annual
Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	2009–2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	1.5	1.6	1.9	1.1	1.4	1.1	1.4	1.3	1.1	-0.2
Gender:											
Male	—	1.8	2.4	3.3	1.1	1.8	1.2	2.3	1.0	1.8	+0.8
Female	—	1.0	0.4	0.5	0.7	0.7	0.6	0.2	0.7	0.4	-0.3
College Plans:											
None or under 4 years	—	3.0	1.7	3.9	4.6	2.3	4.1	1.0	3.4	2.6	-0.8
Complete 4 years	—	1.1	1.6	1.3	0.3	1.0	0.5	1.2	0.4	0.6	+0.3
Region:											
Northeast	—	1.3	1.4	1.3	0.3	1.1	0.7	0.5	0.6	0.4	-0.2
Midwest	—	0.5	0.8	2.0	0.8	0.5	0.2	1.3	2.3	0.4	-1.9 ss
South	—	2.4	2.2	1.5	1.5	2.5	2.0	1.8	1.5	1.4	-0.1
West	—	1.5	2.0	2.7	1.3	0.6	0.6	1.5	0.5	2.3	+1.8
Population Density:											
Large MSA	—	1.7	1.7	1.8	1.9	0.7	0.9	1.0	2.1	1.0	-1.1 s
Other MSA	—	1.4	1.4	1.6	0.8	1.8	1.3	1.5	0.9	1.1	+0.1
Non-MSA	—	1.5	2.1	2.7	0.7	1.4	1.0	1.9	0.8	1.7	+0.9
Parental Education: [a]											
1.0–2.0 (Low)	—	0.6	1.1	3.8	2.5	1.9	1.6	4.0	1.9	0.8	-1.1
2.5–3.0	—	2.7	2.5	1.0	1.9	0.6	1.4	1.5	0.8	1.0	+0.3
3.5–4.0	—	1.1	1.6	2.3	1.0	1.0	2.2	0.7	0.8	1.5	+0.7
4.5–5.0	—	0.5	1.3	1.5	0.1	2.1	0.3	0.4	0.3	0.5	+0.2
5.5–6.0 (High)	—	1.9	0.7	1.7	0.1	0.4	0.0	1.3	1.4	0.3	-1.1
Race/Ethnicity (2-year data): [b]											
White	—	—	1.6	1.8	1.5	1.2	0.9	0.5	0.8	0.8	0.0
African American	—	—	1.5	1.8	1.9	2.4	2.7	2.5	1.7	2.1	+0.4
Hispanic	—	—	1.0	1.4	1.1	0.5	1.0	1.4	1.1	1.0	-0.1

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

Notes.   ' — ' 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 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 S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 154
SNUS: Trends in Annual Prevalence of Use
by Subgroups in Grade 8

	Percentage who used in last 12 months									2018–2019 change
	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	—	2.4	2.0	2.2	1.9	2.2	1.1	1.3	1.5	+0.2
Gender:										
Male	—	3.3	3.3	3.1	3.0	3.3	1.7	2.1	1.9	-0.2
Female	—	1.5	0.8	1.5	1.0	1.0	0.5	0.7	1.0	+0.4
College Plans:										
None or under 4 years	—	9.0	7.4	8.9	6.0	9.5	4.7	3.7	4.5	+0.8
Complete 4 years	—	2.0	1.6	1.6	1.5	1.5	0.8	1.0	1.1	+0.1
Region:										
Northeast	—	1.8	1.1	1.4	1.2	1.1	0.5	0.7	0.6	-0.1
Midwest	—	2.0	1.2	2.2	2.4	1.3	0.8	0.7	1.5	+0.8
South	—	3.4	3.3	2.4	2.3	3.5	1.6	2.1	2.0	-0.1
West	—	1.6	1.4	2.2	1.0	1.4	1.0	1.1	1.3	+0.2
Population Density:										
Large MSA	—	1.2	1.6	1.1	0.8	1.0	0.5	0.9	1.3	+0.4
Other MSA	—	2.4	1.8	1.7	1.7	2.1	1.0	0.9	1.1	+0.2
Non-MSA	—	4.5	3.0	4.6	3.9	4.0	2.3	2.9	2.8	-0.1
Parental Education: [a]										
1.0–2.0 (Low)	—	2.2	3.0	3.1	1.1	3.2	1.2	0.7	1.8	+1.1
2.5–3.0	—	3.9	2.0	3.5	2.7	2.6	1.5	0.8	2.7	+1.9 s
3.5–4.0	—	3.9	3.0	2.2	1.7	2.4	1.5	1.5	2.1	+0.6
4.5–5.0	—	1.5	1.4	1.4	2.1	1.3	0.7	2.2	1.4	-0.7
5.5–6.0 (High)	—	1.1	1.3	1.2	0.9	0.9	1.0	1.1	0.3	-0.7
Race/Ethnicity (2-year data): [b]										
White	—	—	2.7	2.6	2.7	2.5	1.9	1.4	1.6	+0.3
African American	—	—	0.9	0.7	0.9	1.4	1.4	1.4	1.7	+0.3
Hispanic	—	—	1.8	1.5	1.0	1.3	1.3	0.9	0.9	0.0

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

Notes.   ' — ' 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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in S1.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 155
SNUS: Trends in Annual Prevalence of Use
by Subgroups in Grade 10

					Percentage who used in last 12 months					
	1991–2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000	
Total	—	6.9	5.2	4.5	4.0	3.0	2.6	3.1	2.3	-0.8
Gender:										
Male	—	12.1	9.3	7.5	6.5	5.1	4.5	5.6	4.4	-1.2
Female	—	2.1	1.3	1.7	1.7	1.1	0.8	0.7	0.5	-0.2
College Plans:										
None or under 4 years	—	17.5	16.0	15.1	8.2	9.1	7.1	7.8	4.0	-3.9 s
Complete 4 years	—	5.8	4.0	3.4	3.6	2.3	2.1	2.4	2.1	-0.3
Region:										
Northeast	—	6.2	5.5	3.3	4.0	2.6	1.8	2.4	1.1	-1.3
Midwest	—	7.8	6.7	5.7	4.8	2.9	3.1	3.4	2.2	-1.2
South	—	8.4	5.0	5.2	4.7	3.6	3.6	4.1	2.5	-1.6
West	—	4.2	3.8	3.5	2.1	2.6	1.4	1.7	2.9	+1.2
Population Density:										
Large MSA	—	4.1	3.1	3.4	2.9	2.0	2.8	2.2	0.7	-1.5 ss
Other MSA	—	7.4	4.8	3.9	3.7	2.5	1.5	2.8	2.4	-0.4
Non-MSA	—	9.6	8.9	8.1	6.7	6.2	5.2	5.1	4.7	-0.4
Parental Education: [a]										
1.0–2.0 (Low)	—	4.9	4.8	3.4	3.8	2.1	2.1	2.8	2.0	-0.8
2.5–3.0	—	8.5	6.9	4.3	5.3	4.0	2.6	3.3	1.6	-1.7
3.5–4.0	—	8.3	6.2	5.2	3.8	3.7	3.4	4.3	2.0	-2.3 s
4.5–5.0	—	6.3	3.4	4.7	3.9	2.9	2.1	3.0	4.4	+1.4
5.5–6.0 (High)	—	5.4	4.7	4.4	3.7	1.8	2.8	2.2	0.9	-1.3
Race/Ethnicity (2-year data): [b]										
White	—	—	8.1	7.1	6.0	4.9	4.1	4.4	4.3	-0.1
African American	—	—	1.6	1.4	2.2	2.1	1.1	0.6	1.0	+0.3
Hispanic	—	—	2.6	1.2	1.1	1.6	1.5	1.3	1.0	-0.2

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

Notes. ' — ' 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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in S2.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 156
SNUS: Trends in Annual Prevalence of Use
by Subgroups in Grade 12

	1975–2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	7.9	7.9	7.7	5.8	5.8	5.8	4.2	4.7	2.7	-2.1 ss
Gender:											
Male	—	13.9	14.1	14.6	9.9	10.5	9.9	7.2	7.6	4.5	-3.1 s
Female	—	1.9	1.2	1.4	1.5	1.3	1.4	1.2	1.1	0.7	-0.4
College Plans:											
None or under 4 years	—	15.1	12.2	13.6	16.0	12.8	14.0	7.0	8.0	6.2	-1.9
Complete 4 years	—	6.2	6.6	6.1	3.5	4.4	4.0	3.4	3.5	1.7	-1.9 ss
Region:											
Northeast	—	7.8	8.0	7.3	6.0	7.8	5.1	4.3	2.3	2.1	-0.1
Midwest	—	10.6	8.3	8.3	7.1	5.6	7.3	3.4	8.1	3.0	-5.1 s
South	—	6.4	8.8	8.9	5.0	6.8	6.2	5.7	5.0	2.4	-2.6 s
West	—	7.1	6.2	5.5	5.9	2.9	4.1	2.6	2.6	3.4	+0.7
Population Density:											
Large MSA	—	6.9	6.1	6.7	3.7	3.6	3.1	3.1	3.6	1.5	-2.1 s
Other MSA	—	6.5	7.8	7.9	5.2	6.8	6.4	3.9	4.5	2.6	-1.9
Non-MSA	—	12.2	10.8	8.6	9.6	6.9	8.3	6.4	7.5	4.8	-2.7
Parental Education: [a]											
1.0–2.0 (Low)	—	2.9	4.8	9.2	4.5	4.4	4.0	3.7	2.9	2.8	-0.1
2.5–3.0	—	8.8	8.9	5.7	7.5	4.3	3.4	4.5	4.2	2.6	-1.6
3.5–4.0	—	9.4	6.8	9.7	5.5	6.0	6.4	4.1	4.8	2.8	-2.0
4.5–5.0	—	8.1	10.0	7.5	6.3	7.8	7.7	3.4	4.9	1.7	-3.2 s
5.5–6.0 (High)	—	5.4	6.2	6.7	2.5	5.3	5.3	5.3	4.4	3.0	-1.4
Race/Ethnicity (2-year data): [b]											
White	—	—	10.2	9.9	9.1	8.1	7.6	6.8	6.2	4.3	-1.8 ss
African American	—	—	3.4	3.3	2.1	2.2	3.0	2.2	1.1	2.1	+0.9
Hispanic	—	—	4.4	4.6	2.9	2.8	3.2	1.9	1.8	1.9	+0.1

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

Notes. ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 157
STEROIDS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

Percentage who used in last 12 months

	<u>1991</u>	<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>
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*
Total	1.0	1.1	0.9	1.2	1.0	0.9	1.0	1.2	1.7	1.7	1.6	1.5	1.4	1.1	1.1
Gender:															
Male	1.8	1.7	1.4	1.8	1.3	1.1	1.3	1.6	2.5	2.2	2.3	1.8	1.8	1.3	1.2
Female	0.3	0.5	0.3	0.6	0.8	0.7	0.7	0.7	0.9	1.0	1.0	1.2	1.1	1.0	0.9
College Plans:															
None or under 4 years	2.2	2.4	2.2	2.5	2.2	1.5	2.4	2.8	4.0	3.6	3.1	3.6	2.7	3.2	2.4
Complete 4 years	0.8	0.9	0.7	1.0	0.9	0.8	0.8	1.0	1.4	1.5	1.5	1.3	1.3	0.9	0.9
Region:															
Northeast	0.7	1.1	0.6	1.0	1.0	1.1	1.0	1.1	1.6	1.7	1.8	1.2	1.1	0.8	0.6
Midwest	1.1	1.2	1.0	1.0	1.1	0.8	1.0	1.2	1.6	1.8	1.7	1.6	1.7	1.2	1.1
South	1.2	1.1	1.0	1.6	1.1	0.9	0.9	1.4	1.9	1.8	1.9	1.9	1.6	1.3	1.3
West	0.7	0.9	0.7	1.0	1.0	0.8	1.1	0.9	1.4	1.3	0.9	1.2	1.2	1.0	1.0
Population Density:															
Large MSA	0.8	1.0	0.8	0.9	0.9	0.8	0.9	1.0	1.3	1.6	1.6	1.1	1.0	1.0	0.8
Other MSA	1.2	1.2	0.9	1.2	1.2	0.9	0.9	1.2	1.9	1.5	1.7	1.6	1.5	1.1	1.1
Non-MSA	1.0	0.9	0.9	1.5	0.9	0.9	1.2	1.4	1.7	2.0	1.6	2.1	1.8	1.3	1.3
Parental Education: [b]															
1.0–2.0 (Low)	1.8	1.2	1.2	1.6	1.3	0.9	1.4	1.7	2.2	2.5	2.0	1.8	1.3	1.5	2.1
2.5–3.0	1.1	1.2	0.8	1.6	1.3	0.7	0.9	1.1	1.9	2.1	1.6	1.7	1.9	1.4	1.0
3.5–4.0	1.0	1.0	1.1	1.3	0.8	0.9	1.2	1.4	1.6	1.3	1.9	1.9	1.6	1.0	1.1
4.5–5.0	0.7	0.9	0.8	0.8	0.8	1.2	0.9	1.1	1.4	1.6	1.5	1.0	1.3	1.2	1.1
5.5–6.0 (High)	1.0	1.3	0.6	0.9	1.5	0.9	1.2	1.1	2.0	1.6	1.7	1.6	1.0	0.7	0.7
Race/Ethnicity (2-year average): [c]															
White	—	1.1	1.0	1.0	1.1	0.9	0.9	1.1	1.5	1.9	1.8	1.7	1.6	1.3	1.0
African American	—	0.7	0.6	0.8	0.9	0.7	0.6	0.7	0.8	0.7	0.8	1.2	1.2	0.9	0.9
Hispanic	—	1.2	1.1	1.1	1.3	1.5	1.4	1.4	1.8	1.8	1.5	1.5	1.7	1.7	1.2

TABLE 157 (cont.)
STEROIDS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 8</u>

	Percentage who used in last 12 months														2018-2019
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>change</u>
Approximate weighted N =	*16,500*	*16,100*	*15,700*	*15,000*	*15,300*	*16,000*	*15,100*	*14,600*	*14,600*	*14,400*	*16,900*	*15,300*	*14,000*	*13,600*	
Total	0.9	0.8	0.9	0.8	0.5	0.7	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.8	+0.1
Gender:															
Male	1.2	1.1	1.2	1.0	0.7	1.0	0.8	0.7	0.6	0.5	0.5	0.6	0.6	0.7	+0.1
Female	0.6	0.4	0.5	0.5	0.3	0.4	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.9	+0.2
College Plans:															
None or under 4 years	2.4	2.7	2.3	2.2	1.4	1.4	1.4	1.6	1.4	1.1	1.1	1.3	1.0	1.5	+0.4
Complete 4 years	0.7	0.6	0.8	0.7	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	+0.1
Region:															
Northeast	0.6	0.5	0.8	0.8	0.5	0.5	0.5	0.6	0.6	0.5	0.2	0.8	0.5	0.6	+0.1
Midwest	0.8	0.7	0.9	0.7	0.7	0.9	0.5	0.3	0.6	0.6	0.6	0.6	0.6	0.8	+0.2
South	1.1	1.0	1.1	0.7	0.5	0.8	0.8	0.8	0.6	0.6	0.6	0.4	0.7	0.7	0.0
West	0.7	0.8	0.6	0.9	0.4	0.6	0.5	0.5	0.4	0.4	0.6	0.8	0.7	1.0	+0.3
Population Density:															
Large MSA	0.8	0.7	0.8	0.4	0.4	0.3	0.6	0.6	0.3	0.5	0.5	0.4	0.6	0.6	0.0
Other MSA	0.8	0.8	0.9	0.9	0.7	0.8	0.6	0.6	0.6	0.4	0.4	0.7	0.7	0.8	+0.1
Non-MSA	1.2	1.0	1.0	0.9	0.4	1.2	0.6	0.7	0.7	0.7	0.9	0.9	0.7	1.1	+0.4
Parental Education: [b]															
1.0–2.0 (Low)	1.0	1.7	1.7	2.1	0.7	1.0	0.6	0.6	0.8	0.8	0.8	0.8	0.6	0.6	0.0
2.5–3.0	0.9	0.9	1.0	0.7	0.5	0.9	0.6	0.7	0.5	0.7	0.5	0.7	1.0	1.2	+0.2
3.5–4.0	1.0	0.8	1.0	0.9	0.5	0.9	0.4	0.6	0.7	0.3	0.5	0.5	0.7	0.6	-0.2
4.5–5.0	0.7	0.4	0.7	0.5	0.6	0.5	0.5	0.3	0.5	0.6	0.5	0.7	0.5	0.9	+0.4
5.5–6.0 (High)	1.1	0.8	0.8	0.6	0.5	0.8	0.9	0.8	0.6	0.5	0.6	0.6	0.4	0.7	+0.2
Race/Ethnicity (2-year average): [c]															
White	0.9	0.8	0.8	0.7	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.0
African American	0.8	0.8	0.7	0.7	0.7	0.5	0.7	0.8	0.7	0.6	0.5	0.6	0.6	0.6	+0.1
Hispanic	0.9	0.7	0.7	0.9	0.8	0.7	0.4	0.5	0.6	0.5	0.6	0.6	0.7	0.8	+0.1

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 S1 for the number of subgroup cases. See appendix B for definition of variables in table. In 2006 the question text was changed slightly in half of the questionnaire forms. An examination of the data did not show any effect from the wording change. In 2007 the remaining forms were changed in a like manner. In 2008 the question text was changed slightly in half of the questionnaire forms. An examination of the data did not show any effect from the wording change. In 2009 the remaining forms were changed in a like manner.

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 158
STEROIDS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
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
Total	1.1	1.1	1.0	1.1	1.2	1.2	1.2	1.2	1.7	2.2	2.1	2.2	1.7	1.5	1.3
Gender															
Male	1.9	1.9	1.7	1.9	2.0	1.7	1.8	1.9	2.8	3.6	3.3	3.2	2.3	2.3	1.8
Female	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.8	1.0	1.2	1.1	0.9	0.7
College Plans															
None or under 4 years	1.7	1.3	1.9	2.1	2.1	2.1	2.4	1.9	2.6	3.6	3.2	3.0	2.7	2.9	1.9
Complete 4 years	0.9	1.0	0.8	0.9	1.1	1.0	1.0	1.1	1.6	1.9	1.9	2.1	1.5	1.4	1.2
Region															
Northeast	1.2	0.9	1.0	1.0	1.1	1.0	0.9	1.4	2.0	1.8	1.9	2.0	1.9	1.4	1.5
Midwest	1.0	1.1	1.2	1.1	1.2	1.4	1.2	1.1	1.8	2.1	1.5	1.8	1.9	1.4	1.2
South	1.0	1.2	1.0	1.3	1.3	1.4	1.4	1.4	1.7	2.5	2.5	2.5	1.5	1.9	1.5
West	1.0	1.2	0.8	1.1	1.3	0.6	1.3	0.9	1.4	2.1	2.3	2.4	1.4	1.4	0.9
Population Density															
Large MSA	1.5	0.9	0.8	0.8	0.8	0.8	1.0	0.8	1.2	2.3	1.9	2.1	1.4	1.2	0.9
Other MSA	1.0	1.0	0.9	1.1	1.4	1.2	1.2	1.3	1.9	2.0	2.0	2.3	1.5	1.5	1.4
Non-MSA	0.8	1.4	1.4	1.5	1.4	1.5	1.5	1.5	2.0	2.5	2.4	2.1	2.6	2.1	1.5
Parental Education [b]															
1.0–2.0 (Low)	0.7	0.9	1.5	1.8	1.2	1.7	1.7	1.3	1.2	2.3	1.6	1.6	1.9	1.5	1.8
2.5–3.0	1.3	1.1	1.0	0.9	1.1	0.7	1.1	1.1	1.7	2.2	2.1	2.0	1.9	1.8	1.2
3.5–4.0	1.0	1.2	1.1	0.8	1.6	1.2	1.4	1.7	2.0	2.0	2.3	2.8	1.9	1.7	1.0
4.5–5.0	0.9	1.0	0.8	1.4	1.1	1.2	1.0	0.9	1.5	2.4	2.0	2.0	1.6	1.5	1.5
5.5–6.0 (High)	1.2	1.4	1.1	1.1	1.0	1.1	1.1	1.1	2.4	2.2	2.1	3.0	1.3	1.2	1.3
Race/Ethnicity (2-year average) [c]															
White	—	1.0	1.0	1.0	1.2	1.3	1.3	1.3	1.5	2.1	2.3	2.4	2.3	1.8	1.6
African American	—	0.7	0.8	0.8	0.7	0.7	0.5	0.5	0.7	1.2	1.6	1.2	0.8	0.7	0.9
Hispanic	—	1.2	1.4	1.3	0.9	1.1	1.2	1.2	1.5	1.8	2.1	2.1	1.8	1.6	1.3

TABLE 158 (cont.)
STEROIDS: [a] Trends in <u>Annual</u> Prevalence of Use by Subgroups in <u>Grade 10</u>

	Percentage who used in last 12 months														2018-2019 change
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	*16,200*	*16,100*	*15,100*	*15,900*	*15,200*	*14,900*	*15,000*	*12,900*	*13,000*	*15,600*	*14,700*	*13,500*	*14,300*	*14,000*	
Total	1.2	1.1	0.9	0.8	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.8	+0.2
Gender															
Male	1.9	1.7	1.4	1.2	1.3	1.4	1.3	1.3	1.1	1.0	0.9	0.8	0.6	1.1	+0.5 ss
Female	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.6	0.6	0.0
College Plans															
None or under 4 years	2.3	1.9	2.6	1.6	2.6	2.1	2.3	1.2	2.5	1.5	1.2	1.7	0.9	1.0	+0.1
Complete 4 years	1.1	0.9	0.7	0.7	0.8	0.8	0.7	0.8	0.6	0.7	0.7	0.6	0.6	0.8	+0.2
Region															
Northeast	0.9	1.1	0.8	1.2	1.1	0.8	0.8	1.0	0.5	1.1	0.5	0.7	0.7	0.8	+0.1
Midwest	1.2	1.2	1.0	0.7	0.7	0.8	0.7	0.8	0.7	0.7	0.9	0.8	0.7	0.6	-0.1
South	1.6	1.3	1.0	0.7	1.2	1.2	1.0	0.8	1.2	0.7	0.9	0.7	0.7	1.0	+0.3
West	0.9	0.7	0.8	0.6	0.8	0.7	0.7	0.8	0.6	0.6	0.5	0.6	0.4	0.8	+0.4
Population Density															
Large MSA	1.0	0.8	0.7	0.9	0.9	0.6	0.9	0.9	0.8	0.7	0.4	0.6	0.7	0.5	-0.2
Other MSA	1.3	1.1	1.0	0.7	0.9	1.0	0.8	0.9	0.6	0.7	0.8	0.7	0.6	0.9	+0.3
Non-MSA	1.4	1.3	1.1	0.7	1.1	1.1	0.7	0.8	1.2	1.0	1.1	0.8	0.7	1.2	+0.5
Parental Education [b]															
1.0–2.0 (Low)	1.4	1.0	1.5	1.0	1.5	0.5	1.1	1.0	0.6	0.4	0.7	1.2	0.4	1.0	+0.6
2.5–3.0	1.5	1.4	1.0	0.9	1.0	0.9	0.9	0.9	0.6	0.6	0.7	0.6	0.5	0.6	+0.1
3.5–4.0	1.3	1.0	0.9	0.7	0.9	0.8	0.7	1.2	1.0	0.9	0.9	0.9	0.9	1.0	+0.1
4.5–5.0	0.9	1.1	0.8	0.7	0.7	1.1	0.9	0.5	0.7	0.9	0.5	0.6	0.5	0.5	0.0
5.5–6.0 (High)	1.4	0.9	1.0	0.9	1.2	1.0	0.7	0.7	0.8	0.5	1.0	0.4	0.6	1.2	+0.6
Race/Ethnicity (2-year average) [c]															
White	1.3	1.2	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	+0.2
African American	1.1	0.9	0.8	0.7	1.0	1.3	1.0	0.9	1.0	1.0	0.7	0.7	0.6	0.4	-0.2
Hispanic	1.0	0.7	1.1	1.3	0.8	0.6	0.8	0.9	0.5	0.6	0.4	0.4	0.6	0.7	+0.1

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 S2 for the number of subgroup cases. See appendix B for definition of variables in table. In 2006 the question text was changed slightly in half of the questionnaire forms. An examination of the data did not show any effect from the wording change. In 2007 the remaining forms were changed in a like manner. In 2008 the question text was changed slightly in half of the questionnaire forms. An examination of the data did not show any effect from the wording change. In 2009 the remaining forms were changed in a like manner.

[a] Only drug use not under a doctor's orders is included here.

[b] Parental education is an average score of mother's education and father's education. See appendix B for details.

[c] To 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 159
STEROIDS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1975–1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Approximate weighted N =	—	16,700	15,200	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
Total	—	1.9	1.7	1.4	1.1	1.2	1.3	1.5	1.4	1.4	1.7	1.8	1.7	2.4	2.5	2.1	2.5	1.5
Gender																		
Male	—	2.8	2.6	2.4	2.1	2.5	2.1	2.4	2.2	2.5	2.8	3.1	2.5	3.8	3.8	3.2	3.3	2.6
Female	—	0.9	0.3	0.2	0.1	0.1	0.5	0.6	0.4	0.5	0.3	0.6	0.9	1.1	1.3	1.1	1.7	0.4
College Plans																		
None or under 4 years	—	2.3	2.2	2.1	2.1	2.0	1.9	2.0	2.3	2.3	2.1	3.6	2.0	4.6	4.1	2.6	2.8	2.1
Complete 4 years	—	1.6	1.3	1.2	0.8	0.9	1.1	1.2	1.1	1.2	1.4	1.3	1.6	1.8	2.0	2.0	2.4	1.2
Region																		
Northeast	—	2.0	1.3	1.2	0.6	1.5	1.5	1.6	1.5	2.1	0.9	1.3	1.9	4.5	2.1	3.0	3.8	1.6
Midwest	—	1.5	1.3	1.4	1.4	0.8	2.2	1.5	2.1	2.1	2.3	1.6	2.3	1.7	2.8	1.8	2.4	1.6
South	—	2.1	2.2	1.7	0.6	1.6	1.0	1.7	1.3	0.5	1.6	2.6	1.5	2.1	2.5	1.8	2.2	1.6
West	—	1.9	1.7	1.0	2.3	1.1	0.8	1.0	0.3	1.6	1.7	1.2	1.1	2.1	2.4	2.2	2.0	1.0
Population Density																		
Large MSA	—	1.6	1.3	1.1	1.0	0.7	1.1	1.4	1.3	0.8	2.1	1.3	1.7	1.9	2.0	2.1	2.6	1.4
Other MSA	—	2.3	1.5	1.4	1.4	0.9	1.5	1.3	1.3	1.7	1.5	2.0	2.0	2.9	3.0	2.1	2.9	1.4
Non-MSA	—	1.1	2.4	1.6	0.8	2.2	1.3	2.1	1.5	1.6	1.6	1.9	1.2	2.0	2.1	2.3	1.8	1.7
Parental Education [b]																		
1.0–2.0 (Low)	—	0.6	1.1	2.0	2.1	1.1	2.8	1.1	1.5	3.4	3.0	1.5	1.3	2.1	3.6	2.9	4.9	2.1
2.5–3.0	—	2.1	2.0	0.6	0.9	1.3	1.7	1.3	1.9	1.4	1.4	0.8	1.6	3.2	3.0	1.3	2.9	1.3
3.5–4.0	—	2.6	2.3	1.6	1.3	1.5	1.1	1.1	1.3	1.1	1.1	2.5	1.9	1.9	2.8	2.7	2.5	1.7
4.5–5.0	—	1.3	1.1	1.6	0.9	1.3	0.6	2.0	1.1	1.2	1.9	2.2	1.4	1.9	2.3	2.3	1.8	1.3
5.5–6.0 (High)	—	2.1	1.0	0.5	0.8	0.8	1.2	1.4	1.1	1.3	1.5	1.1	2.4	2.2	1.0	1.4	2.4	1.2
Race/Ethnicity (2-year average) [c]																		
White	—	—	1.6	1.3	1.3	1.2	1.1	1.4	1.3	1.2	1.5	1.7	1.8	2.1	2.5	2.4	2.4	2.1
African American	—	—	1.8	1.2	0.5	1.1	1.8	1.2	1.4	1.5	0.9	0.7	1.0	1.2	1.0	1.1	1.3	1.6
Hispanic	—	—	2.3	3.3	1.8	0.9	1.7	1.3	0.6	1.6	2.4	2.9	2.4	2.1	2.2	1.8	2.4	2.0

TABLE 159 (cont.)

STEROIDS: [a] Trends in Annual Prevalence of Use by Subgroups in Grade 12

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018-2019 change
							Percentage who used in last 12 months								
Approximate weighted N =	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	1.8	1.4	1.5	1.5	1.5	1.2	1.3	1.5	1.5	1.7	1.0	1.1	1.1	1.0	-0.1
Gender															
Male	2.7	2.3	2.5	2.5	2.5	1.8	1.7	2.2	2.0	2.5	1.3	1.4	1.5	1.4	-0.1
Female	0.7	0.6	0.4	0.4	0.3	0.5	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.6	+0.2
College Plans															
None or under 4 years	2.7	2.1	3.1	2.9	3.3	1.6	1.4	2.7	1.8	1.8	2.1	2.3	2.2	3.0	+0.8
Complete 4 years	1.5	1.3	1.1	1.2	1.1	1.1	1.1	1.1	1.3	1.5	0.8	0.7	0.7	0.5	-0.2
Region															
Northeast	2.0	1.6	2.2	1.3	1.7	1.2	1.6	1.0	2.1	1.1	0.9	0.8	0.6	1.5	+1.0
Midwest	1.5	1.3	1.7	1.4	1.6	0.6	0.9	1.6	0.9	1.6	1.1	0.9	1.4	0.8	-0.6
South	2.0	2.0	1.4	1.7	1.5	1.5	1.6	1.9	1.4	1.9	1.1	1.4	1.4	1.1	-0.3
West	1.5	0.5	0.9	1.4	1.1	1.5	1.0	0.9	1.5	2.0	1.0	0.8	0.7	0.7	0.0
Population Density															
Large MSA	1.6	1.0	0.9	1.3	1.2	1.0	1.4	1.1	0.8	1.8	0.7	0.6	1.4	1.1	-0.3
Other MSA	1.6	1.5	1.4	1.7	1.5	1.4	1.2	1.1	1.9	1.9	1.3	1.0	1.0	0.9	-0.1
Non-MSA	2.2	1.9	2.4	1.1	1.6	1.2	1.0	2.8	1.1	1.2	0.9	1.8	0.9	1.3	+0.3
Parental Education [b]															
1.0–2.0 (Low)	2.8	3.0	2.1	1.7	1.6	2.2	1.5	3.3	1.9	1.1	1.5	1.4	1.6	1.1	-0.5
2.5–3.0	1.8	1.6	1.6	1.8	2.2	1.3	1.0	1.5	1.4	1.1	0.9	1.4	1.3	0.5	-0.7
3.5–4.0	1.7	1.1	1.3	1.6	1.6	1.5	1.1	0.8	1.1	2.1	1.1	0.7	0.7	1.8	+1.1
4.5–5.0	1.3	1.1	1.4	1.3	0.7	0.6	1.0	1.7	1.2	1.9	0.7	1.0	1.3	0.6	-0.7
5.5–6.0 (High)	1.5	1.5	1.5	0.9	1.4	0.8	1.8	0.5	1.4	1.9	1.2	0.6	0.7	0.8	0.0
Race/Ethnicity (2-year average) [c]															
White	1.6	1.5	1.5	1.5	1.5	1.3	1.2	1.3	1.1	1.3	1.4	0.9	0.8	0.8	0.0
African American	1.7	1.6	1.4	1.5	1.7	1.8	1.6	1.4	2.7	2.2	1.3	2.2	2.4	1.8	-0.6
Hispanic	2.3	2.3	1.3	1.0	1.3	1.4	1.0	1.1	1.4	1.3	1.0	0.7	1.1	1.4	+0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of six forms in 1989–1990; *N* is one sixth of *N* indicated in Table S3. Data based on two of six forms in 1991–2005; *N* is two sixths of *N* indicated in Table S3. Data based on three of six forms beginning in 2006; *N* is three sixths of *N* indicated in Table S3. In 2006 there were no changes in the two forms containing the original version of the question text. A slightly altered version of the question was added to a third form. An examination of the data did not show any effect from the wording change. In 2007 the forms containing the original version were changed in a like manner. In 2008 the question wording was changed slightly in two of the questionnaire forms. An examination of the data did not show any effect from the wording changes. In 2009 the remaining form was changed in a like manner.

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

[a]Only drug use not under a doctor's orders is included here.

[b]Parental education is an average score of mother's education and father's education. See appendix B for details.

[c]To 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 160
MARIJUANA[c]: Trends in <u>Lifetime</u> Prevalence of Daily Use for a Month or More by Subgroups in <u>Grade 12</u>

<p style="color:red; text-align:center;">Percentage who used daily for month or more in lifetime</p>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	—	—	—	—	—	—	*17,700*	*16,300*	*15,900*	*16,000*	*15,200*	*16,300*	*16,300*	*16,700*	*15,200*
Total [d]	—	—	—	—	—	—	—	20.5	16.8	16.3	15.6	14.9	14.7	12.8	11.5	10.0
Gender:																
Male	—	—	—	—	—	—	—	20.1	18.1	17.2	17.7	16.6	16.2	14.8	12.7	10.6
Female	—	—	—	—	—	—	—	18.0	13.5	12.9	12.0	11.6	12.2	9.6	9.7	7.9
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	22.5	20.3	18.9	19.6	17.2	18.0	14.5	15.3	12.8
Complete 4 years	—	—	—	—	—	—	—	13.8	10.5	10.7	10.6	11.0	11.1	9.8	9.1	7.4
Region:																
Northeast	—	—	—	—	—	—	—	25.1	20.4	24.1	20.9	21.5	17.0	13.1	14.6	10.4
Midwest	—	—	—	—	—	—	—	21.1	15.9	12.8	16.3	11.3	12.7	10.3	13.4	10.8
South	—	—	—	—	—	—	—	15.7	12.7	14.0	8.9	11.3	11.9	10.9	8.1	8.7
West	—	—	—	—	—	—	—	20.8	21.4	17.6	18.5	18.3	19.7	19.0	12.3	11.0
Population Density:																
Large MSA	—	—	—	—	—	—	—	23.8	20.0	19.4	18.1	17.0	16.7	14.0	10.6	8.3
Other MSA	—	—	—	—	—	—	—	20.3	18.2	16.6	16.0	14.9	15.0	14.9	12.4	11.7
Non-MSA	—	—	—	—	—	—	—	17.9	12.6	13.2	12.8	13.2	12.2	7.6	10.4	8.2
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	20.9	15.5	15.4	15.0	17.2	11.2	11.9	8.4	9.3
2.5–3.0	—	—	—	—	—	—	—	20.1	15.5	16.8	15.3	13.3	15.6	10.0	10.4	10.4
3.5–4.0	—	—	—	—	—	—	—	20.1	14.7	15.9	15.2	14.5	14.2	12.8	14.0	8.0
4.5–5.0	—	—	—	—	—	—	—	16.8	17.0	10.8	12.8	12.4	14.2	14.5	8.5	10.3
5.5–6.0 (High)	—	—	—	—	—	—	—	12.8	15.3	14.8	11.8	14.6	11.4	10.0	13.5	7.5
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	18.2	16.2	15.8	15.0	15.1	14.6	13.0	11.4
African American	—	—	—	—	—	—	—	—	11.3	9.9	9.8	9.2	8.6	6.9	6.2	4.2
Hispanic	—	—	—	—	—	—	—	—	19.5	14.8	11.0	11.8	11.3	11.4	9.4	8.3

TABLE 160 (cont.)
MARIJUANA[c]: Trends in Lifetime Prevalence of Daily Use for a Month or More by Subgroups in Grade 12

Percentage who used daily for month or more in lifetime

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total [d]	9.0	8.4	9.6	11.3	12.1	15.7	18.8	18.0	17.9	17.0	18.0	15.5	16.4	17.8	14.5	16.6
Gender:																
Male	10.5	8.3	10.7	13.3	12.9	18.7	19.7	19.5	18.5	18.8	20.3	17.2	17.1	19.9	15.8	17.0
Female	6.4	7.5	7.2	8.5	7.9	10.7	15.2	13.9	14.4	13.7	13.8	11.7	12.5	12.3	11.1	13.3
College Plans:																
None or under 4 years	11.5	11.2	11.6	16.1	14.2	21.5	22.6	22.1	22.1	19.1	22.8	20.5	22.2	24.5	20.0	24.8
Complete 4 years	6.5	5.9	7.7	8.6	9.2	11.9	14.9	13.4	14.2	13.7	13.8	11.7	11.9	13.4	11.4	12.2
Region:																
Northeast	10.3	8.7	12.0	12.2	12.8	21.3	24.6	22.7	17.9	19.8	23.4	20.7	20.8	19.5	15.5	17.7
Midwest	8.4	8.0	9.3	11.0	13.6	14.6	16.5	16.1	14.3	13.8	18.4	16.3	15.0	17.9	16.6	16.3
South	7.4	5.9	8.3	11.8	11.2	12.7	14.9	15.6	19.1	14.7	12.7	14.6	15.5	18.6	15.8	17.1
West	11.3	13.4	10.4	10.2	10.6	17.0	23.0	20.6	20.4	21.9	21.2	11.7	15.4	14.3	8.9	15.2
Population Density:																
Large MSA	7.2	8.4	8.6	10.3	13.9	15.3	18.8	18.0	16.3	18.4	19.7	15.2	14.0	17.0	13.7	18.7
Other MSA	11.1	8.9	10.2	13.6	11.3	18.2	20.1	19.7	19.2	18.3	17.5	15.1	19.0	19.5	14.6	14.2
Non-MSA	7.1	7.6	9.6	8.4	11.2	11.6	16.2	14.4	17.1	13.0	17.1	16.8	14.8	15.5	15.3	18.2
Parental Education: [a]																
1.0–2.0 (Low)	9.6	12.4	7.2	10.3	10.0	14.1	16.1	18.0	13.9	20.9	16.7	13.7	16.4	17.2	11.1	26.5
2.5–3.0	7.1	8.3	10.8	8.8	11.2	16.3	20.2	16.5	15.6	16.6	16.7	17.7	15.0	17.5	18.0	15.4
3.5–4.0	9.3	8.6	9.8	12.6	11.5	15.1	14.9	17.6	18.0	16.0	19.4	13.3	14.1	18.4	12.9	16.5
4.5–5.0	8.2	4.9	8.0	10.2	9.4	13.2	18.1	14.7	18.7	12.7	15.2	16.0	14.6	16.1	11.1	12.6
5.5–6.0 (High)	7.9	6.5	6.4	9.6	10.1	14.3	14.1	16.0	9.1	17.5	9.8	6.9	10.6	11.4	11.6	9.9
Race/Ethnicity (2-year average): [b]																
White	9.6	8.7	9.4	10.8	11.0	13.0	16.8	17.7	16.7	16.2	17.1	16.7	16.2	17.1	16.9	16.3
African American	2.6	2.9	4.2	7.3	9.7	10.3	11.2	13.3	14.5	13.6	12.4	10.2	8.7	11.0	11.9	12.7
Hispanic	10.7	11.7	7.9	7.5	9.1	13.0	18.3	18.2	21.1	24.3	16.8	13.2	10.8	10.9	11.0	11.6

TABLE 160 (cont.)
MARIJUANA[c]: Trends in Lifetime Prevalence of Daily Use for a Month or More by Subgroups in Grade 12

						Percentage who used daily for month or more in lifetime								2018-2019
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total [d]	15.7	15.1	14.9	15.5	17.4	18.2	15.8	13.7	12.4	14.3	13.9	12.3	14.9	+2.6
Gender:														
Male	17.5	15.3	16.8	17.4	20.4	21.6	18.4	15.5	13.1	17.2	15.7	12.3	16.2	+3.9
Female	12.6	12.8	10.7	11.5	12.0	11.9	11.7	10.9	9.8	10.3	10.5	9.3	11.7	+2.3
College Plans:														
None or under 4 years	21.8	23.4	18.6	21.9	26.4	28.0	24.3	22.9	19.0	19.2	22.5	18.5	16.4	-2.2
Complete 4 years	13.3	11.0	11.8	12.5	13.9	14.1	12.5	10.3	9.7	11.5	10.4	8.1	12.3	+4.3 ss
Region:														
Northeast	19.0	19.7	14.2	16.0	18.6	17.6	17.5	15.9	13.6	12.3	13.6	9.7	15.4	+5.7
Midwest	17.1	13.8	17.0	15.4	15.9	15.7	14.5	11.3	10.8	11.1	13.5	14.6	14.3	-0.4
South	14.2	13.3	15.9	14.8	17.5	16.7	14.2	12.8	13.8	15.5	13.6	11.0	14.2	+3.2
West	13.9	15.6	11.2	16.4	17.8	23.2	18.2	15.6	10.4	16.6	14.9	14.0	17.2	+3.2
Population Density:														
Large MSA	14.2	18.3	13.8	16.6	18.6	20.2	16.8	13.8	12.5	17.3	14.1	12.2	15.6	+3.4
Other MSA	16.2	13.5	15.4	16.5	17.1	18.2	16.3	14.0	11.6	10.9	14.0	11.5	15.2	+3.7
Non-MSA	16.8	14.8	15.1	11.5	16.1	14.9	13.3	13.0	14.2	17.8	13.2	14.3	12.6	-1.7
Parental Education: [a]														
1.0–2.0 (Low)	15.8	17.7	13.8	13.6	16.4	20.6	21.4	12.5	12.9	13.7	17.4	10.9	15.8	+4.9
2.5–3.0	18.0	18.5	16.2	14.5	15.2	18.3	18.0	17.2	15.2	13.3	15.0	10.3	15.7	+5.4
3.5–4.0	15.7	12.3	13.2	17.2	16.5	16.5	16.9	13.6	11.9	16.2	13.3	11.7	15.1	+3.4
4.5–5.0	13.3	12.1	11.5	10.8	16.5	16.4	12.7	11.5	10.2	12.3	9.1	9.8	11.8	+2.0
5.5–6.0 (High)	12.2	9.2	11.0	10.7	15.6	13.9	8.1	5.4	6.6	9.3	7.5	8.4	7.7	-0.7
Race/Ethnicity (2-year average): [b]														
White	15.9	15.0	14.3	14.3	15.3	16.8	16.2	13.7	11.2	11.5	12.5	11.6	11.2	-0.4
African American	13.9	10.4	10.8	14.7	14.6	14.5	13.7	14.0	14.1	14.3	14.9	12.8	13.3	+0.5
Hispanic	13.8	13.9	13.0	12.8	15.4	19.0	18.5	15.8	13.6	12.8	14.7	12.2	12.6	+0.3

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 S3 for the number of subgroup cases. Data based on one of six forms; N is one sixth of N indicated in Table S3. See appendix B for definition of variables in table.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To derive percentages for each racial subgroup, data for the specified year and the previous year have been combined to increase subgroup sample sizes

[c]These estimates are based on data that have been cleaned to account for inconsistency with related questions.

[d]Total prevalence includes respondents who are missing data on some subgroups, and thus may appear inconsistent with subgroup prevalence values.

TABLE 161

NONPRESCRIPTION DIET PILLS: Trends in Annual Prevalence of Legal Use by Subgroups in Grade 12

<p style="text-align:center">Percentage who used in last 12 months</p>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	—	—	—	—	—	—	*17,700*	*16,300*	*15,900*	*16,000*	*15,200*	*16,300*	*16,300*	*16,700*	*15,200*
Total	—	—	—	—	—	—	—	20.5	20.5	18.8	16.9	15.3	13.9	12.2	10.9	10.4
Gender:																
Male	—	—	—	—	—	—	—	10.7	10.6	9.2	9.0	6.9	6.4	4.9	4.3	4.3
Female	—	—	—	—	—	—	—	29.6	30.0	27.5	24.4	23.2	21.1	18.8	17.2	16.7
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	23.3	21.4	18.2	20.7	16.1	14.9	13.1	11.9	13.2
Complete 4 years	—	—	—	—	—	—	—	17.5	19.0	18.8	14.7	15.0	13.3	11.7	10.9	9.7
Region:																
Northeast	—	—	—	—	—	—	—	19.1	18.5	18.4	16.5	14.9	14.3	10.5	10.4	11.5
Midwest	—	—	—	—	—	—	—	24.6	23.3	20.2	19.2	16.6	15.0	13.7	15.0	11.1
South	—	—	—	—	—	—	—	18.2	19.2	19.6	14.9	13.9	13.1	12.0	9.3	10.0
West	—	—	—	—	—	—	—	18.9	21.1	15.8	17.3	16.4	13.5	12.1	8.7	8.9
Population Density:																
Large MSA	—	—	—	—	—	—	—	19.7	18.7	17.3	17.1	15.0	13.0	12.1	10.3	7.4
Other MSA	—	—	—	—	—	—	—	20.0	22.8	18.6	17.1	15.6	13.7	12.4	10.9	11.2
Non-MSA	—	—	—	—	—	—	—	21.7	19.2	20.5	16.5	15.2	15.2	11.9	11.7	11.7
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	19.5	15.9	19.2	14.6	12.0	13.5	13.4	9.5	5.1
2.5–3.0	—	—	—	—	—	—	—	21.6	21.3	18.2	17.8	15.6	13.1	12.0	9.9	12.3
3.5–4.0	—	—	—	—	—	—	—	20.6	20.2	20.6	18.0	16.6	14.5	11.5	11.8	9.2
4.5–5.0	—	—	—	—	—	—	—	19.3	22.4	17.4	16.8	15.0	15.9	12.0	10.4	12.0
5.5–6.0 (High)	—	—	—	—	—	—	—	21.0	22.3	19.1	17.1	15.7	11.6	13.6	13.4	12.2
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	23.2	22.2	20.4	18.4	16.3	14.7	13.4	12.5
African American	—	—	—	—	—	—	—	—	6.6	8.1	6.4	5.5	7.5	6.9	4.3	2.9
Hispanic	—	—	—	—	—	—	—	—	11.6	12.6	14.8	10.8	7.8	7.9	9.6	9.8

TABLE 161 (cont.)

NONPRESCRIPTION DIET PILLS: Trends in Annual Prevalence of Legal Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	8.8	8.4	8.0	9.3	9.8	9.3	9.8	9.6	10.2	11.1	11.8	15.1	13.0	10.7	10.0	9.4
Gender:																
Male	3.0	4.3	3.2	2.5	3.5	3.7	4.9	4.3	4.0	4.9	6.2	8.1	6.9	6.5	6.0	5.7
Female	14.2	12.2	12.3	15.0	15.1	14.1	14.6	15.4	15.7	17.2	15.6	20.0	17.5	14.1	13.2	12.5
College Plans:																
None or under 4 years	8.9	10.5	9.7	10.8	11.5	10.8	12.0	10.7	9.1	10.0	9.4	17.8	13.9	10.4	11.5	12.1
Complete 4 years	8.6	8.0	7.3	9.3	9.3	8.6	9.2	10.1	10.4	11.5	11.6	13.8	12.6	10.5	9.3	8.6
Region:																
Northeast	5.7	6.3	7.6	8.6	8.2	10.1	8.1	8.6	8.6	8.0	12.8	16.7	11.6	11.9	9.1	12.0
Midwest	10.7	9.3	8.4	11.8	11.8	9.5	10.2	10.4	10.4	12.6	15.5	14.4	14.4	9.1	10.0	9.9
South	9.0	7.7	9.2	8.9	10.8	9.4	11.5	10.1	11.2	12.9	9.9	16.7	13.6	10.5	10.4	9.2
West	8.8	10.3	5.4	7.4	6.3	7.9	7.8	8.6	9.3	9.3	8.6	12.4	11.7	12.2	10.1	6.5
Population Density:																
Large MSA	7.7	7.4	7.3	8.5	10.7	8.5	9.4	9.5	9.0	8.3	12.3	13.9	12.5	9.8	7.9	8.0
Other MSA	9.2	8.4	6.8	9.9	8.9	9.3	8.7	9.1	9.5	11.5	11.5	13.6	10.8	11.5	10.7	9.9
Non-MSA	9.1	9.2	10.5	9.1	10.1	10.0	12.3	11.0	12.6	13.6	11.7	19.8	17.7	10.3	11.1	10.3
Parental Education: [a]																
1.0–2.0 (Low)	9.4	10.6	6.9	11.0	8.9	8.3	14.4	11.8	9.9	9.8	5.6	12.7	15.8	7.0	10.5	6.9
2.5–3.0	8.6	8.9	8.9	11.0	10.9	8.5	10.5	8.9	11.1	13.1	15.0	17.7	13.8	14.1	11.1	13.3
3.5–4.0	8.2	7.9	7.8	10.6	11.5	9.7	8.8	9.9	10.5	11.6	14.1	15.6	11.1	10.7	10.2	9.0
4.5–5.0	9.3	6.6	8.0	8.5	7.5	8.8	10.7	11.6	11.2	12.7	9.0	14.8	11.5	9.0	8.9	8.6
5.5–6.0 (High)	8.5	8.2	6.2	5.3	9.2	8.4	9.4	9.6	7.4	7.4	7.9	8.5	13.4	10.1	7.5	6.4
Race/Ethnicity (2-year average): [b]																
White	11.0	9.8	9.2	9.7	10.9	10.9	10.8	11.2	11.2	11.8	12.9	14.8	15.4	13.1	11.3	10.7
African American	3.5	3.0	4.5	6.1	5.3	4.3	5.3	4.9	4.2	5.5	6.5	5.5	4.6	4.8	4.5	4.2
Hispanic	5.6	4.6	7.1	7.1	7.5	7.0	8.2	9.3	9.8	10.0	9.1	13.2	12.7	7.9	7.5	7.7

TABLE 161 (cont.)
NONPRESCRIPTION DIET PILLS: Trends in <u>Annual</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

	Percentage who used in last 12 months													2018-2019 change
	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	6.7	7.2	6.1	4.3	4.9	5.5	5.3	6.4	5.1	4.5	4.0	3.5	3.1	-0.4
Gender:														
Male	3.4	4.2	3.0	2.4	3.0	3.7	2.6	3.7	1.6	1.6	2.7	2.0	1.6	-0.5
Female	9.2	9.9	9.3	6.0	6.1	7.0	7.3	8.6	8.3	7.1	4.5	4.5	3.9	-0.6
College Plans:														
None or under 4 years	4.4	10.2	9.4	4.3	6.1	5.2	5.2	12.0	4.8	4.7	3.4	3.8	3.5	-0.3
Complete 4 years	7.1	6.8	5.6	4.5	4.4	5.5	4.8	5.0	5.1	4.6	3.5	3.6	2.9	-0.7
Region:														
Northeast	7.2	6.3	4.6	3.5	3.2	4.8	5.7	8.1	5.0	4.6	3.6	3.8	2.5	-1.3
Midwest	7.4	8.0	6.0	5.4	5.8	4.3	5.8	6.4	6.3	4.4	3.6	3.9	2.1	-1.7
South	6.9	6.5	6.8	3.8	4.7	7.4	6.0	6.5	4.5	4.9	5.0	3.7	3.1	-0.6
West	5.3	8.0	6.6	4.7	5.4	4.8	3.3	4.6	5.3	3.9	2.8	2.8	5.5	+2.7
Population Density:														
Large MSA	4.8	6.8	5.2	3.9	4.2	6.1	5.7	4.4	4.6	3.2	3.3	2.8	3.1	+0.3
Other MSA	7.4	7.0	5.8	5.0	4.3	5.6	4.7	7.2	5.0	5.2	3.9	3.5	3.3	-0.2
Non-MSA	8.3	7.9	8.0	3.1	7.3	4.6	6.1	7.1	6.3	4.9	5.2	4.9	2.8	-2.1
Parental Education: [a]														
1.0–2.0 (Low)	5.8	7.4	5.9	4.4	5.5	8.9	5.9	6.1	4.4	4.2	2.4	2.1	5.0	+2.9
2.5–3.0	8.8	7.8	8.2	4.6	4.7	4.5	6.9	6.1	4.9	5.0	5.6	3.6	2.2	-1.4
3.5–4.0	6.0	7.5	5.9	5.0	6.0	4.9	5.4	7.9	8.0	5.1	3.1	4.8	2.0	-2.7 s
4.5–5.0	5.0	8.7	4.9	3.7	4.7	5.7	3.1	6.3	4.4	4.7	4.1	3.7	3.2	-0.5
5.5–6.0 (High)	7.4	3.0	6.5	4.9	2.7	3.7	3.4	4.2	3.0	3.0	3.3	4.0	2.1	-1.9
Race/Ethnicity (2-year average): [b]														
White	9.3	8.1	7.2	4.8	4.3	4.9	4.8	5.6	6.0	5.7	5.0	4.4	3.4	-1.0 s
African American	3.2	2.5	3.4	4.4	3.0	3.3	3.6	4.3	3.6	1.8	2.4	3.0	2.4	-0.6
Hispanic	4.9	5.2	7.2	6.4	5.5	5.6	5.6	5.1	5.0	4.4	2.6	1.9	2.9	+1.0

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 S3 for the number of subgroup cases. Data based on one of six forms; N is one sixth of N indicated in Table S3. See appendix B for definition of variables in table.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 162

NONPRESCRIPTION STAY-AWAKE PILLS: Trends in Annual Prevalence of Legal Use by Subgroups in Grade 12

<div align="center">Percentage who used in last 12 months</div>

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Approximate weighted N =	—	—	—	—	—	—	—	*17,700*	*16,300*	*15,900*	*16,000*	*15,200*	*16,300*	*16,300*	*16,700*	*15,200*
Total	—	—	—	—	—	—	—	11.8	12.3	13.9	18.2	22.3	25.2	26.4	23.0	23.4
Gender:																
Male	—	—	—	—	—	—	—	12.8	13.8	15.4	19.7	22.3	25.5	27.6	24.8	22.3
Female	—	—	—	—	—	—	—	10.0	10.5	12.5	17.0	22.2	25.0	25.2	21.7	24.5
College Plans:																
None or under 4 years	—	—	—	—	—	—	—	11.4	10.8	12.5	15.5	18.1	23.1	23.3	21.8	22.9
Complete 4 years	—	—	—	—	—	—	—	10.5	12.6	14.0	20.4	24.9	26.5	27.5	24.1	24.1
Region:																
Northeast	—	—	—	—	—	—	—	9.6	9.5	11.9	18.2	20.4	26.4	23.8	18.4	22.0
Midwest	—	—	—	—	—	—	—	15.1	16.8	16.3	18.4	24.5	26.8	27.5	29.1	28.4
South	—	—	—	—	—	—	—	9.6	10.7	12.0	13.3	19.8	20.9	25.6	20.4	20.6
West	—	—	—	—	—	—	—	13.5	11.5	16.0	25.6	25.5	28.9	28.9	24.0	22.9
Population Density:																
Large MSA	—	—	—	—	—	—	—	11.5	11.1	12.2	17.7	19.0	25.6	23.2	20.9	19.0
Other MSA	—	—	—	—	—	—	—	12.4	14.5	14.0	19.1	24.1	24.1	27.7	22.9	25.1
Non-MSA	—	—	—	—	—	—	—	11.3	10.5	15.4	17.4	22.1	27.0	27.4	25.2	24.5
Parental Education: [a]																
1.0–2.0 (Low)	—	—	—	—	—	—	—	8.8	8.2	8.3	10.9	12.0	15.0	17.1	18.1	15.3
2.5–3.0	—	—	—	—	—	—	—	10.6	10.1	13.9	15.5	19.5	22.8	22.5	21.6	23.2
3.5–4.0	—	—	—	—	—	—	—	12.6	13.5	13.5	21.3	26.5	30.0	28.4	26.0	25.6
4.5–5.0	—	—	—	—	—	—	—	13.2	15.3	16.1	24.0	23.7	29.9	30.3	24.0	28.0
5.5–6.0 (High)	—	—	—	—	—	—	—	13.0	16.7	18.0	20.2	28.7	24.9	32.3	25.1	22.3
Race/Ethnicity (2-year average): [b]																
White	—	—	—	—	—	—	—	—	13.6	15.0	18.7	23.7	27.7	30.4	29.8	27.7
African American	—	—	—	—	—	—	—	—	2.0	3.0	3.6	4.4	5.5	6.2	6.0	6.4
Hispanic	—	—	—	—	—	—	—	—	5.7	8.3	8.4	9.7	13.8	15.6	16.5	14.1

TABLE 162 (cont.)

NONPRESCRIPTION STAY-AWAKE PILLS: Trends in Annual Prevalence of Legal Use by Subgroups in Grade 12

Percentage who used in last 12 months

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Approximate weighted N =	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
Total	22.2	20.4	19.2	20.7	20.3	19.0	19.7	19.0	15.7	15.0	17.3	14.9	12.5	11.8	10.4	10.0
Gender:																
Male	22.3	20.9	19.7	20.3	19.7	18.2	17.4	19.5	14.5	14.0	17.8	13.9	9.3	11.1	9.4	10.2
Female	22.0	20.2	17.6	20.4	20.1	18.7	21.0	18.0	15.9	15.9	16.5	14.6	14.3	12.3	10.3	9.4
College Plans:																
None or under 4 years	21.0	20.5	18.6	20.1	21.1	18.2	21.8	18.5	14.3	15.5	18.9	16.1	14.3	13.0	11.2	9.1
Complete 4 years	22.3	21.0	18.7	20.6	19.7	18.3	19.1	18.4	15.1	14.7	16.5	14.0	11.9	11.4	9.3	9.8
Region:																
Northeast	18.3	18.2	20.2	21.2	18.4	22.5	19.1	17.6	16.0	10.2	14.7	13.9	10.9	14.0	8.0	8.3
Midwest	31.8	25.7	22.0	26.2	24.2	19.8	23.8	22.0	17.3	19.3	24.4	18.9	12.9	12.3	13.4	14.1
South	16.1	17.6	18.7	20.2	18.8	17.5	20.1	18.8	15.6	13.8	15.4	13.5	11.6	9.7	11.0	9.7
West	23.4	20.0	14.9	13.7	19.1	16.5	13.3	16.8	13.3	16.3	12.4	13.2	14.9	12.5	8.0	7.0
Population Density:																
Large MSA	16.7	15.2	16.7	18.4	18.9	14.4	15.5	15.3	9.6	11.0	15.7	11.9	9.2	8.3	7.4	7.7
Other MSA	25.3	21.2	19.8	21.1	19.3	20.2	18.4	21.1	18.4	15.2	14.3	14.7	12.6	13.6	11.7	10.2
Non-MSA	21.7	23.4	19.9	22.3	23.6	20.7	26.8	18.9	17.3	19.3	24.3	19.3	16.5	12.2	11.4	12.7
Parental Education: [a]																
1.0–2.0 (Low)	14.9	16.2	11.0	16.6	13.2	11.5	18.2	11.7	7.9	7.3	15.3	8.9	10.3	5.9	4.2	6.1
2.5–3.0	20.2	22.8	19.0	18.1	18.1	19.0	21.0	16.5	13.4	15.1	17.1	13.4	12.0	13.9	9.7	9.0
3.5–4.0	23.9	22.4	18.6	21.6	24.3	17.4	17.6	19.9	18.3	17.0	20.3	16.5	11.4	13.5	12.8	11.4
4.5–5.0	25.1	20.0	21.1	24.4	20.4	23.2	20.2	20.3	15.6	16.7	16.2	14.9	12.7	11.3	9.7	10.0
5.5–6.0 (High)	25.8	17.8	20.2	18.4	17.3	17.4	19.3	22.6	14.9	13.4	13.6	15.7	14.5	11.4	8.3	8.9
Race/Ethnicity (2-year average): [b]																
White	27.4	25.8	24.0	23.7	23.9	23.3	23.1	23.2	20.7	18.2	19.9	19.5	16.0	14.2	12.8	11.6
African American	5.1	3.5	3.5	3.6	4.8	4.4	5.3	6.2	3.6	3.0	4.2	3.2	2.2	1.9	2.3	2.6
Hispanic	11.6	11.9	13.3	14.2	12.3	9.5	9.6	10.1	12.3	11.8	10.6	12.3	9.4	5.6	5.7	6.9

TABLE 162 (cont.)

NONPRESCRIPTION STAY-AWAKE PILLS: Trends in Annual Prevalence of Legal Use by Subgroups in Grade 12

	Percentage who used in last 12 months													2018-2019 change
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	7.6	6.3	4.8	3.2	3.9	3.8	3.2	3.5	2.7	2.5	2.5	2.4	1.8	-0.6
Gender:														
Male	7.8	5.2	5.9	3.2	2.8	3.9	2.9	2.8	2.1	2.3	2.6	1.9	1.8	0.0
Female	7.1	7.0	3.5	3.1	4.6	3.8	3.4	3.6	2.7	2.5	1.7	2.7	1.3	-1.5 s
College Plans:														
None or under 4 years	9.5	9.5	3.9	3.0	5.1	4.4	3.0	4.4	3.1	1.1	2.1	5.0	2.6	-2.4
Complete 4 years	7.1	5.3	4.7	3.3	3.6	3.5	2.9	3.3	2.4	2.8	2.0	1.4	1.4	0.0
Region:														
Northeast	5.7	6.7	5.6	3.0	2.7	3.0	4.0	2.6	2.9	1.9	1.5	1.8	1.4	-0.4
Midwest	10.9	6.6	6.1	3.1	4.2	3.1	3.1	4.2	4.6	2.8	1.7	2.9	1.6	-1.3
South	7.4	5.9	4.6	3.3	2.8	4.2	2.7	3.9	2.3	2.0	3.7	1.9	2.1	+0.2
West	6.3	6.2	3.0	3.2	6.2	4.5	3.4	2.8	1.5	3.3	1.8	3.2	1.9	-1.3
Population Density:														
Large MSA	5.3	7.2	4.9	2.8	3.9	2.5	2.6	2.0	2.0	1.2	1.8	1.5	1.6	+0.1
Other MSA	8.9	5.0	4.4	3.8	3.8	4.1	3.3	3.9	2.8	3.0	2.7	2.3	2.0	-0.3
Non-MSA	8.3	8.1	5.9	2.3	4.1	5.1	3.7	4.6	3.5	3.1	3.1	4.2	1.7	-2.4
Parental Education: [a]														
1.0–2.0 (Low)	3.7	6.0	3.3	1.8	3.5	6.5	2.8	3.8	3.6	1.4	0.7	1.9	2.3	+0.3
2.5–3.0	9.5	6.7	4.7	1.6	4.3	4.7	3.1	2.0	2.2	2.0	3.9	3.0	2.2	-0.7
3.5–4.0	7.6	7.4	3.7	3.9	5.1	3.3	4.8	3.2	2.4	3.0	1.8	3.5	1.5	-2.0
4.5–5.0	6.2	4.9	4.5	3.3	3.1	3.3	2.0	3.5	2.8	3.0	2.6	0.9	1.2	+0.3
5.5–6.0 (High)	9.7	5.4	5.7	5.5	2.9	2.4	2.3	6.2	1.7	1.4	1.5	1.9	1.6	-0.3
Race/Ethnicity (2-year average): [b]														
White	10.6	8.4	6.3	4.4	3.8	4.0	3.6	3.3	3.3	3.3	2.5	2.2	2.0	-0.2
African American	1.2	1.2	3.0	3.3	2.0	2.2	2.3	2.1	1.8	1.2	1.1	1.1	2.5	+1.4
Hispanic	5.2	4.4	4.4	2.7	2.7	4.5	4.0	3.3	2.5	1.4	1.3	1.8	1.5	-0.3

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 S3 for the number of subgroup cases. Data based on one of six forms; N is one sixth of N indicated in Table S3. See appendix B for definition of variables in table.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 163
STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Lifetime</u> Prevalence of Legal Use by Subgroups in <u>Grade 8</u>

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
							Percentage who used in lifetime										
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	8.3	9.3	8.3	8.1	7.8	8.2	7.6	7.7	7.1	7.2	7.1	7.5	6.6	7.1	6.5	-0.6
Gender:																	
Male	—	9.3	11.2	9.4	9.9	9.2	9.3	8.6	9.1	8.8	7.9	8.3	8.9	7.6	8.6	7.9	-0.7
Female	—	7.2	7.4	7.3	6.5	6.8	7.1	6.4	6.4	5.4	6.7	6.0	6.0	5.2	6.1	4.9	-1.1
College Plans:																	
None or under 4 years	—	14.4	16.6	10.8	10.8	7.7	11.1	11.3	10.3	12.4	12.2	9.6	13.5	8.6	11.1	10.2	-0.9
Complete 4 years	—	7.6	8.6	8.0	7.8	7.9	7.9	7.2	7.5	6.7	6.9	6.8	7.0	6.4	6.6	6.1	-0.5
Region:																	
Northeast	—	7.8	7.9	7.2	9.0	8.5	6.3	6.0	5.6	7.1	7.2	5.7	5.6	5.8	8.1	6.7	-1.4
Midwest	—	8.5	8.6	8.8	6.7	7.0	8.9	8.2	7.6	6.7	7.1	7.5	8.7	7.7	7.0	5.7	-1.3
South	—	9.3	10.2	9.3	9.9	9.5	8.9	7.5	9.4	8.8	7.7	8.6	9.4	7.7	9.3	7.1	-2.1
West	—	6.7	9.7	6.8	6.6	5.6	7.4	8.4	6.0	4.6	6.7	4.9	4.2	4.5	3.2	6.2	+3.1 s
Population Density:																	
Large MSA	—	7.2	7.6	7.1	7.2	6.5	7.2	7.5	6.4	6.1	6.4	6.3	6.2	6.9	6.3	5.9	-0.4
Other MSA	—	10.0	10.3	9.0	9.32	8.2	8.9	7.7	8.1	7.1	8.2	7.4	8.3	6.5	8.8	6.3	-2.5
Non-MSA	—	6.9	10.0	8.5	7.0	8.6	7.9	7.6	8.7	8.4	6.4	7.4	7.5	6.7	4.7	7.9	+3.2 s
Parental Education: [a]																	
1.0–2.0 (Low)	—	12.1	12.0	9.0	11.2	11.0	7.2	8.6	7.7	4.2	4.9	7.4	7.2	4.3	7.8	4.7	-3.1
2.5–3.0	—	7.9	10.6	9.1	7.8	7.5	8.9	8.0	8.8	6.0	7.2	7.6	8.5	6.4	5.9	8.4	+2.6
3.5–4.0	—	9.7	7.9	8.7	6.8	8.0	7.3	8.4	7.4	8.3	7.4	7.4	7.0	6.2	6.9	7.3	+0.4
4.5–5.0	—	6.9	9.0	7.5	8.6	7.5	8.3	7.1	7.8	7.8	7.6	7.0	7.4	6.9	8.4	6.6	-1.8
5.5–6.0 (High)	—	8.2	8.5	8.8	9.7	8.1	9.2	6.9	6.2	6.7	6.6	6.7	6.4	8.2	7.9	4.9	-2.9
Race/Ethnicity (2-year average): [b]																	
White	—	—	9.3	9.5	9.1	9.0	9.0	8.3	8.1	8.3	8.3	8.2	8.5	8.4	8.4	8.5	0.0
African American	—	—	6.4	5.8	6.7	7.2	7.0	6.4	6.1	6.6	6.0	5.7	6.1	6.9	7.2	4.7	-2.5 sss
Hispanic	—	—	7.5	7.4	6.6	6.1	5.8	7.1	6.4	4.1	4.9	5.5	5.2	4.2	3.9	4.4	+0.5

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 164
STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Lifetime</u> Prevalence of Legal Use by Subgroups in <u>Grade 10</u>

							Percentage who used in lifetime										2018–2019 change
	<u>1991-2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	
Approximate weighted N =	—	*14,500*	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	8.7	8.5	8.4	7.8	8.2	8.6	7.2	8.0	8.3	6.8	8.8	7.1	6.5	8.2	6.6	-1.6
Gender:																	
Male	—	10.4	9.2	9.6	9.3	9.1	10.0	8.1	8.8	10.9	8.3	9.9	7.4	7.4	9.4	7.7	-1.7
Female	—	6.9	7.7	7.4	6.4	7.3	7.2	6.4	7.2	5.7	5.3	7.7	6.8	5.6	6.9	5.5	-1.4
College Plans:																	
None or under 4 years	—	12.6	14.7	10.6	13.3	14.4	12.8	10.2	11.7	11.7	12.5	15.0	12.4	9.6	11.7	11.6	-0.1
Complete 4 years	—	8.2	7.6	8.1	7.2	7.6	8.2	6.9	7.6	8.0	6.1	8.2	6.6	6.2	7.5	5.6	-1.9 s
Region:																	
Northeast	—	9.1	6.4	7.0	6.8	7.5	7.4	6.1	8.0	9.2	6.2	8.9	6.5	5.6	5.7	5.7	0.0
Midwest	—	8.0	7.9	8.6	8.9	9.9	10.3	9.0	6.7	9.1	7.8	8.5	6.3	5.4	11.2	6.8	-4.5 ss
South	—	10.2	10.8	9.3	8.7	9.7	9.9	8.8	10.5	9.2	8.6	10.3	9.0	8.0	8.2	5.9	-2.3 s
West	—	6.8	7.6	8.0	6.4	5.2	5.8	3.6	6.0	6.0	3.5	6.6	5.6	6.2	6.6	8.0	+1.5
Population Density:																	
Large MSA	—	7.5	7.5	6.8	6.7	8.5	8.1	6.4	6.9	8.2	5.8	8.6	6.1	6.1	7.1	3.6	-3.5 s
Other MSA	—	9.4	9.2	9.2	7.3	8.3	8.7	7.3	8.7	8.2	6.9	9.0	7.0	6.9	8.4	8.6	+0.2
Non-MSA	—	8.6	8.5	9.0	10.5	7.7	9.3	8.1	8.1	8.8	8.1	8.8	9.2	6.4	9.0	6.2	-2.8 s
Parental Education: [a]																	
1.0–2.0 (Low)	—	6.6	8.7	8.0	5.8	7.3	9.0	5.4	7.2	7.8	4.0	7.4	5.5	6.0	7.4	4.1	-3.3
2.5–3.0	—	8.6	9.0	8.8	8.2	7.9	10.6	8.3	9.6	8.5	5.2	8.0	7.1	6.8	7.5	5.9	-1.6
3.5–4.0	—	8.2	9.8	7.7	8.3	7.6	8.4	7.5	6.9	9.3	7.0	10.0	6.4	6.3	7.8	8.1	+0.2
4.5–5.0	—	8.7	7.4	8.8	7.6	8.5	7.9	7.0	8.4	8.5	6.8	7.6	6.8	7.2	9.7	7.2	-2.4
5.5–6.0 (High)	—	10.0	8.0	8.8	7.9	10.3	8.8	6.0	8.4	8.9	8.6	10.4	8.9	6.4	8.6	6.7	-1.9
Race/Ethnicity (2-year average): [b]																	
White	—	—	9.8	9.4	9.2	8.9	9.4	9.1	8.7	9.4	9.0	9.4	9.7	8.5	9.3	9.6	+0.3
African American	—	—	5.2	6.7	6.0	4.8	6.1	6.8	5.7	5.9	5.6	6.3	6.7	5.1	4.1	3.9	-0.2
Hispanic	—	—	5.6	5.4	4.8	5.3	5.9	5.1	5.9	5.0	3.7	4.5	4.5	4.6	5.5	4.4	-1.1

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 165
STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Lifetime</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

								Percentage who used in lifetime									2018–2019 change
	1991-2004	2005[c]	2006[c]	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	*14,500*	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	8.5	7.8	7.6	8.6	8.2	8.3	8.4	9.0	9.6	9.1	9.9	8.4	8.6	8.6	7.9	-0.7
Gender:																	
Male	—	12.0	10.2	10.1	10.3	8.7	9.8	10.3	10.5	10.9	9.7	9.6	9.8	10.1	10.3	9.6	-0.7
Female	—	5.3	5.4	4.9	7.0	6.5	6.3	6.4	7.4	7.9	8.0	8.7	6.2	6.7	6.2	6.2	-0.1
College Plans:																	
None or under 4 years	—	12.3	11.1	10.8	13.6	13.4	11.2	13.2	11.4	12.7	12.4	14.8	10.8	10.0	10.4	10.6	+0.2
Complete 4 years	—	7.8	7.0	6.9	7.5	7.2	7.6	7.4	8.4	8.8	8.1	9.1	7.6	7.9	7.7	7.1	-0.6
Region:																	
Northeast	—	8.8	9.8	7.8	9.5	7.4	7.7	8.3	8.0	6.7	7.4	7.5	7.5	9.7	8.3	4.5	-3.8 sss
Midwest	—	9.3	6.0	7.8	8.5	8.9	9.6	8.9	9.0	9.1	9.6	11.2	9.1	9.5	9.0	8.1	-0.9
South	—	9.2	9.5	8.5	8.4	10.3	9.1	9.2	10.3	10.8	11.3	12.9	9.4	9.1	9.0	9.3	+0.3
West	—	6.2	5.2	5.5	8.3	4.5	5.8	6.7	8.2	10.2	6.1	5.4	6.5	6.3	7.6	7.5	-0.1
Population Density:																	
Large MSA	—	7.1	8.7	8.5	10.2	7.1	7.2	7.5	9.8	10.6	8.1	9.2	8.8	7.6	8.4	6.2	-2.2 s
Other MSA	—	9.9	7.1	7.6	8.6	8.1	9.4	9.8	9.1	9.9	9.3	10.4	8.2	9.0	8.6	8.6	0.0
Non-MSA	—	7.5	7.8	6.3	6.9	9.7	7.0	6.4	7.7	7.6	9.7	9.8	8.3	9.4	8.9	9.1	+0.2
Parental Education: [a]																	
1.0–2.0 (Low)	—	7.7	7.0	5.8	5.4	7.5	8.5	6.9	5.9	10.4	8.6	8.3	6.6	5.9	3.2	6.6	+3.4 s
2.5–3.0	—	7.1	8.4	6.3	6.5	6.5	7.2	7.1	9.6	8.8	8.1	7.1	7.1	7.9	7.5	6.1	-1.4
3.5–4.0	—	9.0	6.2	7.6	10.3	8.1	8.8	7.8	8.7	9.2	8.5	10.3	7.5	7.7	9.1	7.3	-1.8
4.5–5.0	—	8.1	8.5	7.2	8.3	8.4	8.6	8.7	9.1	9.3	8.6	11.0	9.4	11.7	9.2	8.5	-0.6
5.5–6.0 (High)	—	11.3	8.7	11.2	10.2	11.1	8.2	10.7	11.1	12.4	12.2	11.0	11.2	7.8	11.9	8.7	-3.1
Race/Ethnicity (2-year average): [b]																	
White	—	—	9.1	8.5	9.2	9.9	9.5	9.6	10.4	10.7	10.5	11.0	11.1	10.3	10.8	9.8	-0.9
African American	—	—	5.4	4.6	4.6	5.5	6.5	6.2	6.5	6.8	7.1	7.9	7.5	7.6	7.9	8.1	+0.3
Hispanic	—	—	6.0	5.8	5.6	5.1	5.7	6.1	5.4	5.8	5.7	5.1	4.9	5.0	4.5	3.8	-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 = .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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Data from one of the questionnaire forms was omitted in 2005 due to an error in the skip pattern in the questionnaire. For the 2006 results by race/ethnicity, data from the remaining form in 2005 were double-weighted to account for the omission of the other form.

TABLE 166
STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 8</u>

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	3.9	3.5	3.1	3.5	3.7	3.4	3.3	3.5	3.4	3.2	3.6	3.7	3.4	3.7	2.8	-0.9
Gender:																	
Male	—	4.7	4.8	4.0	4.5	4.6	3.7	4.3	4.6	4.0	4.0	4.6	4.6	4.0	4.7	3.9	-0.8
Female	—	3.0	2.1	2.2	2.4	3.0	3.1	2.4	2.5	2.8	2.6	2.8	2.7	2.5	2.9	1.6	-1.3 s
College Plans:																	
None or under 4 years	—	4.9	6.0	3.9	3.6	3.0	5.0	2.3	4.1	5.5	2.6	5.9	6.3	3.0	5.9	3.5	-2.4
Complete 4 years	—	3.7	3.2	3.0	3.4	3.7	3.3	3.4	3.4	3.3	3.3	3.3	3.5	3.4	3.4	2.7	-0.7
Region:																	
Northeast	—	4.2	3.0	3.1	3.1	5.0	2.1	2.6	2.9	3.8	2.9	3.6	2.5	3.6	4.1	4.2	0.0
Midwest	—	4.4	3.1	3.3	2.7	2.7	3.8	4.0	4.1	3.6	3.8	4.1	4.6	4.0	3.9	2.6	-1.3
South	—	3.7	4.1	3.3	4.8	4.3	3.9	3.1	4.4	3.9	3.5	3.8	4.8	4.1	4.8	2.5	-2.3 ss
West	—	3.3	3.0	2.5	2.4	2.7	3.0	3.7	1.7	2.1	2.3	2.6	1.6	1.4	1.2	2.4	+1.2
Population Density:																	
Large MSA	—	3.7	2.5	2.7	3.8	4.0	3.0	3.2	3.0	3.4	2.5	3.2	2.5	3.5	3.3	2.2	-1.1
Other MSA	—	4.5	4.1	3.0	3.3	3.8	3.8	3.4	4.0	3.4	3.9	4.1	4.3	3.2	4.6	2.7	-1.9 s
Non-MSA	—	3.0	3.6	3.9	3.3	3.0	3.0	3.4	3.0	3.7	2.7	2.9	3.9	3.6	2.1	3.7	+1.6
Parental Education: [a]																	
1.0–2.0 (Low)	—	4.3	3.9	2.8	3.1	3.5	2.2	2.0	2.5	1.9	2.0	2.0	1.7	2.2	4.1	0.9	-3.2 s
2.5–3.0	—	3.2	3.7	3.1	2.2	3.2	2.8	3.0	3.6	2.6	2.8	3.1	2.8	3.1	1.5	3.0	+1.5
3.5–4.0	—	3.7	2.7	2.5	2.5	3.3	3.3	2.9	3.1	3.3	3.6	3.3	4.2	2.9	2.6	2.8	+0.2
4.5–5.0	—	3.9	2.9	3.2	4.2	3.6	3.3	3.9	3.6	4.0	3.8	4.0	3.9	4.1	5.5	3.5	-2.0
5.5–6.0 (High)	—	4.7	4.0	3.9	5.8	5.3	4.1	3.5	3.5	3.8	3.1	4.4	3.9	4.5	4.3	2.9	-1.3
Race/Ethnicity (2-year average): [b]																	
White	—	—	4.2	3.7	4.0	4.6	4.5	4.1	4.3	4.3	4.2	4.5	5.2	5.2	5.2	4.6	-0.6
African American	—	—	2.1	2.2	2.5	2.7	1.8	1.9	2.4	2.6	2.7	2.7	2.0	1.9	2.0	0.9	-1.1 s
Hispanic	—	—	2.5	1.9	1.3	1.5	1.7	2.0	1.7	1.3	1.4	1.6	1.6	1.0	0.9	1.6	+0.7 s

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 167
STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 10</u>

Percentage who said "Yes, I take them now."

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	3.4	2.8	2.8	2.9	3.3	3.1	2.8	3.8	3.7	3.4	4.2	3.0	3.0	3.9	2.9	-1.0
Gender:																	
Male	—	4.1	3.5	3.2	3.4	3.6	4.1	3.0	4.4	4.8	4.2	5.0	3.1	3.5	4.7	3.1	-1.6
Female	—	2.7	2.1	2.5	2.4	3.1	2.1	2.7	3.4	2.5	2.7	3.3	2.8	2.5	3.1	2.7	-0.5
College Plans:																	
None or under 4 years	—	4.8	4.1	3.5	3.2	6.9	4.7	3.3	2.4	5.0	6.1	6.6	4.4	4.1	4.8	4.3	-0.5
Complete 4 years	—	3.2	2.6	2.7	2.9	3.0	2.9	2.8	4.0	3.6	3.1	3.9	2.9	3.0	3.7	2.7	-1.0
Region:																	
Northeast	—	3.3	1.9	2.4	2.9	2.1	2.7	2.9	3.3	5.8	3.3	4.0	2.9	2.5	2.6	2.0	-0.6
Midwest	—	3.5	2.9	3.1	3.9	5.2	3.3	3.1	4.1	4.5	3.7	4.6	3.4	2.3	5.2	3.3	-1.9
South	—	4.2	3.4	3.5	2.9	4.1	3.6	3.5	5.3	3.3	4.3	5.0	3.7	4.1	4.5	2.4	-2.1 s
West	—	2.0	2.5	2.0	2.1	1.4	2.5	1.4	1.8	2.0	2.0	2.4	1.8	2.7	2.4	3.9	+1.5
Population Density:																	
Large MSA	—	2.9	2.5	2.2	3.2	3.4	3.3	3.2	3.4	4.6	3.7	4.0	2.6	2.8	3.8	1.6	-2.2 s
Other MSA	—	3.9	3.0	3.1	2.7	3.2	2.9	2.5	4.1	3.4	3.1	4.7	2.5	3.5	4.1	3.9	-0.2
Non-MSA	—	3.1	2.6	3.1	3.2	3.4	3.2	3.0	3.9	3.3	3.5	3.1	5.3	2.2	3.5	2.5	-1.0
Parental Education: [a]																	
1.0–2.0 (Low)	—	2.6	3.6	1.8	1.7	1.5	1.4	1.8	1.9	1.4	1.1	0.9	1.0	1.7	2.3	1.5	-0.8
2.5–3.0	—	2.7	1.7	2.1	3.1	2.7	3.2	3.1	4.0	3.1	2.1	2.8	1.3	2.8	2.7	2.4	-0.3
3.5–4.0	—	3.7	3.4	3.1	2.3	2.9	3.5	1.8	4.3	3.2	3.1	4.4	2.5	3.3	3.1	2.9	-0.2
4.5–5.0	—	2.9	2.6	2.9	2.8	3.6	2.9	3.6	3.6	4.5	3.4	4.2	4.3	3.1	5.3	3.4	-1.9
5.5–6.0 (High)	—	5.1	3.1	3.3	4.2	5.5	4.6	3.4	4.1	6.1	6.2	6.0	3.9	3.7	5.5	4.3	-1.2
Race/Ethnicity (2-year average): [b]																	
White	—	—	3.8	3.3	3.5	3.7	3.8	3.6	4.0	4.7	4.7	5.1	5.1	4.1	4.7	4.8	+0.1
African American	—	—	1.2	1.9	1.8	1.3	1.2	1.9	2.8	2.2	1.0	1.4	1.4	1.2	1.5	1.9	+0.4
Hispanic	—	—	1.3	1.3	1.1	1.6	1.6	1.3	1.7	1.4	0.9	1.0	0.9	1.5	2.1	1.1	-1.0 ss

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 168
STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

	1991-2004	2005[c]	2006[c]	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
							Percentage who said "Yes, I take them now."										
Approximate weighted N =	—	*14,500*	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	2.9	2.3	2.6	2.9	2.9	3.0	3.3	3.8	4.4	3.8	4.0	3.9	3.4	3.5	3.2	-0.2
Gender:																	
Male	—	4.1	2.6	3.7	3.0	2.6	3.6	3.5	3.9	4.5	3.4	4.4	4.7	3.6	3.9	4.2	+0.3
Female	—	1.8	2.0	2.0	2.6	3.2	2.5	3.2	3.8	4.2	4.0	2.9	3.0	3.3	3.1	2.4	-0.7
College Plans:																	
None or under 4 years	—	5.3	2.4	3.6	3.3	1.8	3.9	3.9	3.4	5.1	3.4	4.0	2.9	2.9	3.3	3.2	0.0
Complete 4 years	—	2.5	2.3	2.4	2.9	3.0	2.9	3.2	3.8	4.2	3.8	4.0	3.8	3.7	3.3	3.3	0.0
Region:																	
Northeast	—	3.5	3.0	2.7	3.2	2.0	3.2	3.3	3.1	3.1	3.6	2.5	3.3	4.8	3.2	1.7	-1.5 s
Midwest	—	2.7	2.0	3.3	2.9	2.7	4.0	4.6	5.0	3.7	4.5	5.0	3.8	4.0	3.8	4.2	+0.4
South	—	2.7	2.6	2.8	2.8	4.3	3.3	3.2	3.7	5.4	4.8	5.2	4.1	3.1	3.8	3.3	-0.6
West	—	3.0	1.6	1.2	2.9	1.6	1.4	2.3	3.1	4.5	1.6	2.1	4.0	2.6	2.7	3.2	+0.4
Population Density:																	
Large MSA	—	2.3	2.2	2.9	3.7	2.9	2.7	3.0	3.9	5.0	3.5	3.9	4.7	3.6	3.3	2.5	-0.8
Other MSA	—	3.5	2.4	2.4	2.9	2.7	3.5	4.5	4.5	4.9	3.9	4.2	4.1	3.5	3.4	3.6	+0.2
Non-MSA	—	2.3	2.3	2.4	2.1	3.1	2.3	1.2	2.0	2.3	3.9	3.3	2.1	3.1	3.9	3.7	-0.2
Parental Education: [a]																	
1.0–2.0 (Low)	—	2.2	1.0	1.4	1.9	1.3	2.6	2.8	2.5	3.7	1.9	2.0	2.7	1.0	1.0	0.8	-0.1
2.5–3.0	—	2.0	1.4	2.4	1.9	1.6	2.3	2.2	3.2	4.1	2.9	1.9	2.0	3.0	2.6	2.0	-0.5
3.5–4.0	—	2.9	2.1	2.4	2.8	2.8	3.2	3.6	3.2	3.9	2.8	3.1	3.4	2.5	3.4	3.2	-0.1
4.5–5.0	—	3.3	3.2	2.1	3.6	3.0	2.9	3.6	4.2	4.3	4.2	5.2	5.1	5.8	3.9	3.7	-0.2
5.5–6.0 (High)	—	3.8	3.0	4.3	3.8	5.9	4.7	4.8	6.5	6.9	8.0	6.9	5.2	4.4	6.9	4.9	-2.1
Race/Ethnicity (2-year average): [b]																	
White	—	—	3.1	2.9	3.3	3.5	3.7	4.3	4.8	4.8	4.7	4.9	5.2	4.8	4.6	4.4	-0.2
African American	—	—	0.6	1.1	1.2	1.3	1.5	1.3	1.8	2.8	2.3	1.5	1.4	2.4	2.8	2.4	-0.4
Hispanic	—	—	1.1	0.9	1.2	1.6	1.8	1.7	1.5	1.7	2.0	1.4	1.4	2.1	1.6	1.1	-0.5

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

[c] Data from one of the questionnaire forms was omitted in 2005 due to an error in the skip pattern in the questionnaire. For the 2006 results by race/ethnicity, data from the remaining form in 2005 were double-weighted to account for the omission of the other form.

TABLE 169
NON-STIMULANT-TYPE ADHD DRUGS:
Trends in Lifetime Prevalence of Legal Use by Subgroups in Grade 8

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
								Percentage who used in lifetime									
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	7.3	7.9	6.3	6.3	5.8	5.8	6.1	5.1	5.1	4.8	5.1	5.7	4.9	4.4	4.5	+0.1
Gender:																	
Male	—	7.6	8.7	6.7	6.8	6.5	6.6	6.7	5.2	5.7	6.1	5.7	6.7	5.3	5.1	5.6	+0.5
Female	—	7.0	6.8	5.9	5.7	5.1	4.9	5.4	4.9	4.4	3.6	4.6	4.8	4.2	3.6	3.5	-0.1
College Plans:																	
None or under 4 years	—	11.1	12.9	8.1	7.3	8.9	8.8	11.7	8.8	11.5	7.7	7.8	10.0	7.6	6.3	10.2	+3.9
Complete 4 years	—	6.9	7.4	6.0	6.2	5.5	5.4	5.7	4.9	4.6	4.6	4.8	5.3	4.6	4.2	3.8	-0.4
Region:																	
Northeast	—	7.4	6.0	4.3	5.1	6.1	4.6	5.0	4.2	4.7	5.6	5.2	7.1	4.7	5.5	4.8	-0.7
Midwest	—	6.9	8.8	7.6	6.7	5.3	6.2	5.5	5.5	3.8	4.7	4.8	5.4	5.3	4.4	4.1	-0.3
South	—	7.9	7.5	6.6	7.2	5.8	6.4	7.0	5.7	5.6	5.1	4.8	5.2	5.3	4.4	5.6	+1.2
West	—	6.5	9.3	5.3	5.3	6.0	5.0	6.2	4.1	6.0	4.0	5.9	5.8	3.9	3.5	3.0	-0.5
Population Density:																	
Large MSA	—	5.3	7.8	4.5	6.0	4.0	5.3	5.6	4.4	4.3	4.3	4.6	6.0	4.2	3.9	4.5	+0.6
Other MSA	—	8.0	7.8	7.7	6.7	6.8	6.6	6.7	4.7	5.3	5.4	4.9	5.3	5.7	4.7	5.0	+0.3
Non-MSA	—	8.6	8.4	5.9	5.9	5.8	4.4	5.7	6.9	5.9	4.3	6.2	6.0	4.0	4.4	3.3	-1.1
Parental Education: [a]																	
1.0–2.0 (Low)	—	8.7	8.1	4.5	7.0	7.7	7.1	9.1	8.0	5.4	3.4	6.2	4.6	3.6	4.2	4.1	-0.2
2.5–3.0	—	9.6	6.7	7.4	5.5	6.0	5.8	6.2	4.4	4.4	4.1	4.9	6.0	6.0	4.1	4.8	+0.7
3.5–4.0	—	8.1	10.1	6.5	6.4	5.5	5.4	7.1	5.9	6.4	5.9	4.7	5.3	4.6	5.8	4.7	-1.1
4.5–5.0	—	5.5	8.0	5.6	6.9	5.0	5.2	5.3	5.0	4.1	4.8	5.2	6.4	6.2	4.6	4.9	+0.4
5.5–6.0 (High)	—	6.6	5.4	6.6	6.3	7.1	5.9	5.4	4.6	5.5	5.1	4.7	6.2	3.4	3.7	4.1	+0.4
Race/Ethnicity (2-year average): [b]																	
White	—	—	7.7	7.6	7.3	6.7	5.8	5.6	5.5	5.0	5.2	5.6	6.6	6.4	5.0	4.7	-0.3
African American	—	—	6.0	5.0	4.3	4.8	4.9	5.6	4.8	4.0	4.1	3.6	3.7	4.9	5.2	4.6	-0.6
Hispanic	—	—	6.5	5.3	3.7	4.7	6.0	6.6	6.0	5.1	4.7	4.1	4.2	3.8	3.1	3.2	+0.1

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 170
NON-STIMULANT-TYPE ADHD DRUGS:
Trends in Lifetime Prevalence of Legal Use by Subgroups in Grade 10

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	8.3	8.3	6.7	6.8	6.8	6.1	6.4	5.2	4.9	5.8	5.8	5.2	4.6	5.1	5.2	0.0
Gender:																	
Male	—	9.5	9.2	8.0	7.4	8.9	6.6	6.7	6.4	5.7	7.1	6.4	5.8	5.6	6.1	6.4	+0.4
Female	—	7.0	7.5	5.2	6.2	4.8	5.5	6.2	4.1	4.0	4.5	5.1	4.7	3.7	4.0	3.8	-0.1
College Plans:																	
None or under 4 years	—	12.6	10.1	9.5	10.5	14.0	10.1	10.6	11.2	7.1	8.7	12.1	6.4	6.2	7.9	7.9	0.0
Complete 4 years	—	7.7	8.0	6.3	6.3	6.1	5.6	5.9	4.5	4.7	5.4	5.1	5.0	4.5	4.5	4.5	+0.1
Region:																	
Northeast	—	8.6	8.8	6.5	6.1	7.0	5.7	7.2	5.3	4.7	5.2	4.9	6.1	5.3	4.1	5.6	+1.6
Midwest	—	6.9	7.4	6.8	7.7	7.7	5.9	6.7	3.8	4.8	6.8	5.4	4.6	3.8	5.7	5.3	-0.4
South	—	10.6	9.6	7.2	8.2	7.2	7.0	6.6	6.1	5.0	6.1	6.9	5.5	4.4	5.6	3.9	-1.7
West	—	6.6	7.0	6.1	4.6	5.4	5.3	5.1	5.2	5.1	4.7	5.1	4.8	5.4	4.6	6.9	+2.3
Population Density:																	
Large MSA	—	6.0	7.2	6.1	4.3	6.2	6.1	5.1	5.3	5.5	5.0	5.4	5.0	4.5	4.2	4.1	-0.1
Other MSA	—	9.2	8.4	6.5	7.1	7.5	5.7	6.8	4.9	4.8	5.6	5.4	5.6	5.0	4.9	5.6	+0.7
Non-MSA	—	9.3	9.7	8.2	9.6	6.4	6.8	7.4	5.6	4.4	7.6	7.3	4.6	3.9	6.9	5.8	-1.1
Parental Education: [a]																	
1.0–2.0 (Low)	—	8.2	10.5	6.6	5.1	7.0	6.2	6.3	7.5	5.6	4.7	7.5	2.8	5.9	4.9	2.0	-2.8
2.5–3.0	—	8.7	7.6	6.0	8.3	6.9	6.5	7.7	4.3	4.3	5.7	5.3	4.9	2.2	4.2	5.4	+1.1
3.5–4.0	—	7.4	9.7	7.4	7.1	5.3	6.4	5.6	5.3	5.8	7.1	5.1	5.6	4.7	5.8	4.3	-1.5
4.5–5.0	—	9.1	7.4	6.3	7.4	7.2	5.5	5.9	5.9	4.4	4.5	6.1	5.5	5.2	4.3	5.9	+1.6
5.5–6.0 (High)	—	8.6	8.3	6.3	5.1	7.8	6.4	6.8	4.0	5.7	6.3	6.1	5.5	5.4	6.3	7.5	+1.2
Race/Ethnicity (2-year average): [b]																	
White	—	—	9.4	8.3	7.4	7.4	6.9	6.8	6.2	5.4	5.9	6.3	5.9	5.1	5.7	6.6	+0.9
African American	—	—	4.7	5.0	4.2	4.6	6.1	4.9	3.2	4.0	5.3	5.1	4.3	5.0	3.6	2.0	-1.6 s
Hispanic	—	—	4.9	4.5	5.0	5.7	4.8	5.6	6.4	4.3	3.5	4.7	5.4	4.9	4.4	3.8	-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 = .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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 171
NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Lifetime</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

						Percentage who used in lifetime											2018–2019 change
	1991-2004	2005[c]	2006[c]	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	*14,500*	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	6.2	6.1	7.0	6.4	5.4	6.7	5.8	5.9	5.4	5.6	5.6	5.8	6.4	6.1	5.7	-0.4
Gender:																	
Male	—	7.0	6.1	8.3	7.0	6.5	7.7	6.4	5.8	7.1	6.0	6.1	6.8	7.6	6.4	6.2	-0.2
Female	—	5.0	5.7	5.6	6.5	4.0	5.6	5.2	5.6	3.8	4.8	5.1	4.8	5.3	4.7	4.8	+0.1
College Plans:																	
None or under 4 years	—	9.2	7.6	9.4	9.9	6.7	9.0	8.0	8.1	6.3	7.4	7.3	7.3	9.0	6.4	7.9	+1.5
Complete 4 years	—	5.3	5.8	6.4	5.5	5.0	6.1	5.2	5.4	4.9	5.0	5.4	5.4	5.7	5.9	5.0	-0.9
Region:																	
Northeast	—	6.0	5.9	7.6	8.0	5.1	4.9	5.4	6.5	5.5	6.5	5.8	6.8	7.7	6.6	4.0	-2.6 s
Midwest	—	5.8	5.5	7.1	6.8	6.1	8.4	5.0	6.3	5.6	6.9	6.4	6.7	7.2	6.5	6.6	+0.1
South	—	7.6	7.4	7.6	5.2	5.7	7.0	6.8	5.8	5.9	6.2	6.9	5.7	7.0	6.3	5.6	-0.7
West	—	4.5	4.4	5.1	6.7	4.4	5.7	5.6	5.3	4.3	3.0	2.8	4.6	4.2	5.0	6.1	+1.1
Population Density:																	
Large MSA	—	5.1	6.1	6.9	6.6	5.6	7.3	5.4	6.1	5.3	6.7	4.5	6.3	6.3	5.8	5.6	-0.2
Other MSA	—	7.9	6.2	7.3	6.3	5.0	6.2	6.3	6.2	4.7	5.5	6.2	5.4	6.8	6.5	5.4	-1.0
Non-MSA	—	3.8	5.8	6.3	6.4	6.2	7.2	5.5	4.9	7.0	4.6	6.2	6.2	5.8	5.8	6.3	+0.6
Parental Education: [a]																	
1.0–2.0 (Low)	—	5.2	4.3	5.5	6.6	6.0	5.1	4.9	5.8	4.7	6.2	5.0	5.7	6.0	3.8	8.3	+4.5 ss
2.5–3.0	—	4.1	6.2	5.7	6.4	3.4	6.1	4.5	4.8	5.2	4.5	5.4	3.8	7.7	4.1	4.7	+0.6
3.5–4.0	—	7.6	5.9	6.9	7.0	5.2	6.6	5.9	5.6	4.8	5.0	4.1	6.0	5.8	5.3	4.9	-0.4
4.5–5.0	—	6.8	6.4	8.1	4.7	6.5	7.9	6.5	6.1	6.2	5.7	6.5	6.4	6.3	8.1	5.2	-2.9 s
5.5–6.0 (High)	—	6.4	6.8	7.8	7.5	6.4	6.6	6.8	7.0	6.3	8.5	7.4	6.3	6.7	9.8	6.8	-3.0
Race/Ethnicity (2-year average): [b]																	
White	—	—	6.6	7.3	7.3	6.3	6.7	6.9	6.1	5.9	6.1	6.5	6.9	7.1	7.3	6.5	-0.9
African American	—	—	4.9	4.9	5.0	4.7	5.8	5.5	5.9	5.5	5.6	5.5	4.5	6.3	7.7	9.1	+1.5
Hispanic	—	—	4.2	4.0	4.7	4.5	4.5	5.2	5.1	4.3	3.7	3.8	3.9	4.4	3.3	2.6	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Data from one of the questionnaire forms was omitted in 2005 due to an error in the skip pattern in the questionnaire. For the 2006 results by race/ethnicity, data from the remaining form in 2005 were double-weighted to account for the omission of the other form.

TABLE 172
NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 8</u>

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	2.2	1.9	1.4	1.6	1.2	1.4	1.5	1.2	1.4	1.2	1.2	2.0	1.1	1.2	1.4	+0.2
Gender:																	
Male	—	2.4	2.3	1.6	1.7	1.2	1.5	1.9	1.1	1.6	2.0	1.2	2.0	1.1	1.6	2.0	+0.5
Female	—	1.9	1.5	1.3	1.5	1.1	1.3	0.9	1.1	1.0	0.6	1.0	1.8	1.0	0.9	0.9	0.0
College Plans:																	
None or under 4 years	—	2.5	3.8	1.3	3.1	1.6	2.1	3.9	1.6	4.2	1.1	3.4	4.0	2.8	3.5	2.8	-0.8
Complete 4 years	—	2.1	1.7	1.4	1.5	1.1	1.3	1.2	1.2	1.2	1.3	0.9	1.6	1.0	0.9	1.3	+0.3
Region:																	
Northeast	—	2.4	2.5	1.1	1.8	1.0	1.1	1.1	1.5	1.3	0.6	0.8	1.8	1.3	1.4	1.0	-0.4
Midwest	—	2.0	2.7	1.9	1.7	0.7	1.8	1.7	1.3	0.7	1.5	1.6	1.4	1.2	1.0	1.2	+0.2
South	—	2.2	1.6	1.5	1.8	1.3	1.4	1.4	1.2	1.8	1.3	1.1	2.4	1.3	1.6	1.6	0.0
West	—	2.0	1.3	0.8	1.2	1.5	1.0	1.4	1.0	1.7	1.2	1.2	1.9	0.6	0.6	1.5	+0.9
Population Density:																	
Large MSA	—	1.4	1.7	0.9	1.9	1.0	1.2	1.3	1.3	1.4	1.1	0.6	2.2	1.2	1.0	0.9	-0.1
Other MSA	—	2.3	2.1	1.9	1.5	1.4	1.6	1.7	1.2	1.5	1.4	1.2	1.8	1.0	1.3	1.5	+0.2
Non-MSA	—	2.9	1.9	1.1	1.6	0.9	1.1	1.2	0.9	1.2	1.0	1.9	2.0	1.1	1.3	2.0	+0.7
Parental Education: [a]																	
1.0–2.0 (Low)	—	2.8	1.2	1.2	1.3	2.1	1.1	1.7	0.4	0.7	0.9	2.4	0.7	0.7	0.4	1.6	+1.2
2.5–3.0	—	2.4	1.4	1.1	0.9	0.5	0.7	1.4	0.8	1.0	0.5	1.1	1.9	1.1	0.7	0.8	+0.1
3.5–4.0	—	2.3	2.8	0.9	1.9	0.4	1.2	1.7	1.0	1.9	2.4	0.8	1.4	1.2	1.6	2.0	+0.4
4.5–5.0	—	1.8	1.8	1.8	1.6	1.9	1.6	1.3	2.0	1.3	1.2	1.3	1.7	1.7	2.1	1.3	-0.8
5.5–6.0 (High)	—	2.3	1.5	2.2	2.3	1.2	1.6	1.4	1.4	2.0	0.9	0.3	3.3	0.7	0.5	1.8	+1.3 s
Race/Ethnicity (2-year average): [b]																	
White	—	—	2.3	2.0	1.9	1.6	1.4	1.6	1.5	1.2	1.2	1.4	1.9	1.9	1.5	1.6	+0.2
African American	—	—	1.3	0.9	0.9	1.1	1.5	1.5	1.0	1.4	1.3	0.7	1.0	1.7	1.7	0.9	-0.7
Hispanic	—	—	1.0	0.8	0.7	0.6	0.5	1.0	1.0	0.9	1.2	0.8	1.1	1.2	0.5	0.5	0.0

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 173
NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 10</u>

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	2.3	2.3	1.6	1.7	1.9	1.6	1.3	1.3	1.3	1.4	1.7	1.2	1.0	1.4	1.8	+0.3
Gender:																	
Male	—	2.6	2.7	1.8	1.9	2.2	2.1	1.3	1.6	1.2	1.9	1.8	1.4	0.9	1.3	1.9	+0.6
Female	—	1.9	2.0	1.4	1.4	1.5	1.2	1.3	0.9	1.2	1.0	1.6	1.0	1.0	1.4	1.6	+0.2
College Plans:																	
None or under 4 years	—	4.4	2.6	2.5	1.8	4.4	3.5	2.8	2.3	2.5	1.0	3.2	1.8	1.5	1.7	2.1	+0.5
Complete 4 years	—	2.0	2.2	1.4	1.6	1.7	1.4	1.0	1.2	1.2	1.4	1.6	1.1	0.9	1.2	1.7	+0.5
Region:																	
Northeast	—	3.1	2.6	1.6	1.6	2.9	1.4	1.0	1.4	2.0	1.2	1.6	1.2	1.2	1.2	2.0	+0.8
Midwest	—	2.2	2.2	2.3	2.6	2.5	1.2	1.3	0.7	1.1	1.7	2.4	1.3	1.4	1.5	1.6	+0.1
South	—	2.2	2.5	1.4	1.9	1.4	2.4	1.3	1.7	1.1	1.9	1.5	1.2	0.7	1.6	1.1	-0.5
West	—	1.8	2.0	1.0	0.7	1.2	1.1	1.4	1.1	1.3	0.5	1.4	1.1	1.0	1.3	2.9	+1.6
Population Density:																	
Large MSA	—	1.5	1.9	1.5	0.9	2.3	2.1	1.2	1.3	1.5	1.2	1.6	1.1	0.9	1.3	1.4	0.0
Other MSA	—	2.7	2.7	1.6	1.9	2.0	1.2	1.0	1.3	1.5	1.5	1.7	1.3	1.1	1.4	2.1	+0.8
Non-MSA	—	2.3	2.2	1.7	2.2	1.2	1.8	1.9	1.2	0.8	1.6	2.0	1.3	1.1	1.8	1.5	-0.3
Parental Education: [a]																	
1.0–2.0 (Low)	—	1.4	3.2	2.5	1.2	1.3	1.5	1.5	0.5	1.4	0.7	0.3	1.0	1.8	1.2	0.7	-0.5
2.5–3.0	—	1.6	1.5	0.6	1.8	1.9	1.6	1.4	1.0	0.8	0.6	1.1	0.8	0.3	1.1	1.9	+0.9
3.5–4.0	—	2.5	2.5	1.5	1.4	1.0	2.0	1.2	0.9	2.2	2.0	1.6	0.8	1.3	1.2	1.0	-0.1
4.5–5.0	—	2.9	2.6	1.7	2.2	2.7	1.4	1.3	1.8	0.9	1.5	2.2	1.3	0.7	1.4	1.8	+0.4
5.5–6.0 (High)	—	2.2	2.5	2.0	1.6	2.8	1.6	1.0	1.9	1.4	1.4	2.3	1.9	1.3	2.1	3.2	+1.1
Race/Ethnicity (2-year average): [b]																	
White	—	—	2.6	2.3	1.9	2.0	2.0	1.6	1.3	1.3	1.5	2.1	2.0	1.3	1.4	2.0	+0.6 s
African American	—	—	1.7	1.2	0.7	0.7	1.0	1.0	0.8	1.6	1.7	0.9	0.5	0.6	0.7	0.5	-0.2
Hispanic	—	—	1.3	0.8	1.1	1.6	1.1	1.0	1.3	0.7	0.2	0.5	0.4	0.5	0.7	1.1	+0.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 174
NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

	1991-2004	2005[c]	2006[c]	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	*14,500*	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	1.6	1.6	1.7	1.9	1.5	2.3	1.9	1.8	1.8	2.2	1.5	2.1	2.5	2.6	2.3	-0.3
Gender:																	
Male	—	1.3	1.4	1.3	1.1	1.5	2.3	1.7	1.6	2.4	2.2	1.8	2.5	2.5	2.3	2.7	+0.4
Female	—	1.6	1.8	1.6	2.2	1.6	2.3	1.9	2.0	1.3	2.2	1.0	1.6	2.3	2.1	2.0	-0.1
College Plans:																	
None or under 4 years	—	2.9	0.8	2.5	2.2	1.5	3.2	3.3	2.7	1.7	3.6	2.0	1.7	3.3	3.3	3.0	-0.3
Complete 4 years	—	1.2	1.7	1.6	1.9	1.5	2.1	1.5	1.6	1.6	1.9	1.4	2.0	2.3	2.4	2.2	-0.1
Region:																	
Northeast	—	2.5	1.5	2.4	3.9	1.1	1.9	2.8	1.5	2.2	2.2	1.5	3.2	2.1	2.6	1.4	-1.2
Midwest	—	1.6	1.5	1.7	2.0	1.9	2.8	1.5	2.5	1.6	2.7	1.8	2.4	3.1	2.8	2.9	+0.1
South	—	1.5	1.9	1.9	1.1	1.9	2.4	2.3	1.4	2.1	2.3	1.7	1.9	2.7	2.5	1.9	-0.6
West	—	0.8	1.1	0.8	1.8	0.7	1.9	1.1	1.8	1.3	1.8	0.8	1.3	1.8	2.6	3.5	+0.9
Population Density:																	
Large MSA	—	1.4	1.9	1.7	2.4	1.8	1.7	1.9	1.8	2.6	2.4	1.2	1.9	2.5	3.0	2.1	-0.9
Other MSA	—	1.9	1.3	2.1	1.7	1.2	2.5	2.0	2.1	1.3	2.5	1.6	2.4	3.0	2.2	2.4	+0.1
Non-MSA	—	1.0	1.5	1.1	1.9	1.7	2.7	1.6	1.1	1.9	1.5	1.6	1.7	1.4	2.7	2.5	-0.2
Parental Education: [a]																	
1.0–2.0 (Low)	—	0.3	2.2	1.0	2.2	1.3	3.3	1.8	2.3	2.2	3.8	1.6	2.2	2.1	1.6	3.4	+1.8
2.5–3.0	—	1.5	0.9	1.5	1.9	0.9	2.2	1.6	1.6	1.8	1.7	0.9	1.8	3.4	1.3	1.8	+0.5
3.5–4.0	—	2.4	1.3	1.9	1.8	1.4	2.4	1.6	1.8	1.3	1.7	0.9	2.0	2.3	2.5	2.1	-0.4
4.5–5.0	—	1.7	1.6	1.6	1.5	2.1	2.3	2.2	1.6	1.7	2.4	1.5	1.7	2.5	3.3	2.1	-1.2
5.5–6.0 (High)	—	0.9	2.8	2.3	2.7	1.2	1.8	1.6	2.1	2.8	2.8	2.6	2.5	2.5	3.9	2.8	-1.0
Race/Ethnicity (2-year average): [b]																	
White	—	—	1.7	1.7	1.9	1.7	2.1	2.4	1.9	1.7	2.0	2.1	2.2	2.7	3.0	2.8	-0.2
African American	—	—	2.0	1.8	2.0	1.5	1.5	1.9	1.9	1.8	2.4	2.0	1.1	1.7	2.5	3.0	+0.5
Hispanic	—	—	1.2	1.3	1.2	1.4	1.7	1.1	1.4	2.0	1.8	1.1	0.9	1.8	1.2	0.7	-0.5

Percentage who said "Yes, I take them now."

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Data from one of the questionnaire forms was omitted in 2005 due to an error in the skip pattern in the questionnaire. For the 2006 results by race/ethnicity, data from the remaining form in 2005 were double-weighted to account for the omission of the other form.

TABLE 175
EITHER STIMULANT-TYPE OR NON-STIMULANT-TYPE ADHD DRUGS:
Trends in Lifetime Prevalence of Legal Use by Subgroups in Grade 8

							Percentage who used in lifetime										2018–2019 change
	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	13.7	15.8	13.4	13.1	12.8	12.8	12.4	11.6	11.5	11.2	11.4	12.1	10.9	11.0	9.8	-1.2
Gender:																	
Male	—	14.9	18.0	14.8	14.7	14.5	14.5	13.7	13.3	13.6	12.7	12.8	14.2	12.5	13.1	11.9	-1.2
Female	—	12.4	13.2	12.1	11.5	11.4	11.3	10.9	10.0	9.4	9.9	10.2	10.0	8.6	9.2	7.5	-1.7
College Plans:																	
None or under 4 years	—	20.6	24.2	17.9	17.1	15.8	17.2	18.8	16.7	21.5	17.2	14.2	20.6	15.7	16.5	17.0	+0.5
Complete 4 years	—	12.9	14.9	12.9	12.7	12.6	12.4	11.9	11.3	10.8	10.8	11.1	11.4	10.3	10.2	8.9	-1.3
Region:																	
Northeast	—	12.9	12.0	10.6	13.7	14.3	9.9	11.0	9.7	11.0	11.5	10.1	11.6	10.2	12.5	10.2	-2.3
Midwest	—	14.2	15.3	14.7	12.5	11.6	13.8	12.0	11.4	10.0	11.0	11.8	12.3	12.4	10.6	8.8	-1.8
South	—	15.1	16.5	14.7	15.0	14.2	14.1	13.2	13.9	13.6	11.8	13.0	13.4	12.2	13.1	10.9	-2.1
West	—	11.3	17.8	11.3	10.8	11.0	11.6	12.7	8.9	10.0	10.1	9.0	9.6	7.7	6.6	8.5	+1.9
Population Density:																	
Large MSA	—	11.4	14.1	11.1	12.3	10.1	11.3	11.9	10.6	10.1	9.8	10.3	11.0	10.8	9.9	9.7	-0.2
Other MSA	—	15.7	16.2	14.7	14.3	14.2	14.3	13.2	11.7	11.4	12.5	11.5	12.6	11.1	12.8	9.8	-3.0
Non-MSA	—	13.1	17.6	13.9	11.6	13.2	11.4	11.7	13.1	13.7	10.3	12.6	12.3	10.4	8.7	9.9	+1.2
Parental Education: [a]																	
1.0–2.0 (Low)	—	18.8	17.8	12.6	17.5	17.0	13.9	15.3	12.5	8.6	7.8	12.7	10.9	7.4	11.5	8.7	-2.8
2.5–3.0	—	14.3	16.3	15.6	11.9	12.9	13.9	13.0	12.4	9.4	10.6	11.1	14.2	12.3	9.3	11.6	+2.3
3.5–4.0	—	15.7	16.2	14.2	12.6	12.6	11.7	14.0	12.1	13.4	11.5	11.4	10.9	9.8	11.4	10.0	-1.4
4.5–5.0	—	11.3	15.5	11.7	13.3	12.0	12.5	11.3	12.0	11.5	11.9	12.2	12.6	12.0	12.9	10.2	-2.7
5.5–6.0 (High)	—	13.0	13.4	13.5	14.8	13.7	13.7	11.5	9.6	11.8	11.1	10.8	11.7	11.5	10.7	7.9	-2.7
Race/Ethnicity (2-year average): [b]																	
White	—	—	15.2	15.7	15.0	14.4	13.8	13.1	12.7	12.3	12.7	13.4	14.4	13.9	12.8	12.3	-0.6
African American	—	—	11.0	9.5	9.8	11.3	11.5	10.3	9.4	10.1	9.6	8.8	9.2	10.9	11.2	8.0	-3.2 ss
Hispanic	—	—	12.4	11.7	9.7	10.4	11.2	12.2	10.7	8.2	8.5	8.2	8.2	7.4	6.7	7.1	+0.4

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 176
EITHER STIMULANT-TYPE OR NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Lifetime</u> Prevalence of Legal Use by Subgroups in <u>Grade 10</u>

	Percentage who used in lifetime																2018–2019 change
	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	14.3	14.2	12.9	12.8	13.0	12.7	12.0	12.0	11.7	11.3	13.1	11.5	10.1	12.1	9.8	-2.3 s
Gender:																	
Male	—	16.5	15.2	15.1	14.8	15.5	14.1	13.2	13.8	14.6	13.8	14.9	12.4	11.8	14.5	12.0	-2.5
Female	—	12.0	12.9	10.8	10.9	10.5	11.3	11.0	10.3	8.7	8.8	11.3	10.5	8.4	9.6	7.7	-1.9
College Plans:																	
None or under 4 years	—	19.2	20.9	16.6	20.1	20.9	19.3	16.7	17.7	15.9	19.6	21.9	16.4	14.1	17.2	15.6	-1.6
Complete 4 years	—	13.6	13.2	12.4	11.8	12.2	11.9	11.5	11.4	11.2	10.3	12.2	10.9	9.6	11.1	8.6	-2.5 s
Region:																	
Northeast	—	14.3	11.8	12.2	11.4	11.5	11.8	12.0	12.2	12.5	10.2	13.0	11.4	9.1	8.9	9.0	+0.1
Midwest	—	12.8	12.9	13.7	14.5	14.2	13.3	13.6	9.6	12.4	13.4	12.5	10.0	7.9	15.7	10.8	-4.9 s
South	—	17.6	17.8	13.2	14.2	15.2	14.7	13.5	15.3	12.4	13.2	15.0	13.6	11.5	12.8	8.3	-4.5 sss
West	—	11.3	12.0	12.3	10.2	10.0	9.5	7.9	9.8	9.6	7.0	10.7	9.7	10.8	9.4	12.0	+2.6
Population Density:																	
Large MSA	—	12.0	12.3	11.2	10.3	12.8	11.7	10.8	11.4	11.8	9.6	12.6	10.4	9.0	10.4	6.6	-3.8 s
Other MSA	—	15.5	15.1	13.7	12.3	13.6	12.9	12.0	12.1	11.5	11.2	12.7	11.7	10.8	12.3	11.6	-0.7
Non-MSA	—	14.7	14.7	13.9	17.4	12.0	13.6	13.6	12.6	12.0	14.4	14.8	12.6	9.7	14.1	10.5	-3.6 s
Parental Education: [a]																	
1.0–2.0 (Low)	—	11.9	16.0	11.5	9.6	12.7	12.6	11.0	12.3	11.4	7.2	12.7	7.8	10.7	10.9	5.5	-5.4 s
2.5–3.0	—	15.0	14.6	12.6	14.0	12.3	14.5	14.4	12.5	11.6	9.8	12.1	11.1	8.3	10.8	8.6	-2.2
3.5–4.0	—	12.9	16.1	12.8	14.0	11.1	12.6	11.5	11.2	12.8	12.5	13.7	10.8	10.2	12.0	11.4	-0.6
4.5–5.0	—	14.8	12.2	13.5	13.2	13.5	11.8	11.2	13.0	11.8	10.5	12.0	11.8	10.9	13.3	10.2	-3.1
5.5–6.0 (High)	—	15.9	13.5	12.6	10.7	15.6	13.5	11.1	11.6	12.3	13.3	15.1	13.0	10.4	13.6	11.9	-1.8
Race/Ethnicity (2-year average): [b]																	
White	—	—	16.0	15.0	14.3	14.1	13.9	13.7	13.2	13.3	13.4	14.1	14.1	12.4	13.7	14.1	+0.5
African American	—	—	8.8	10.4	9.1	8.4	10.5	9.9	8.3	9.2	9.3	9.7	10.0	9.3	7.4	5.9	-1.5
Hispanic	—	—	8.7	8.5	8.6	9.8	9.6	9.3	10.5	7.4	5.9	8.0	8.8	8.7	8.4	7.1	-1.3

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 177
EITHER STIMULANT-TYPE OR NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Lifetime</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

								Percentage who used in lifetime										2018–
	1991-2004	2005[c]	2006[c]	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	12.4	11.7	12.1	13.1	11.0	12.7	12.2	12.7	13.2	12.6	13.7	12.7	13.0	12.7	11.1	-1.6
Gender:																	
Male	—	15.8	13.2	15.7	14.6	13.0	14.7	14.3	14.4	15.5	13.5	13.4	14.5	15.3	14.6	13.0	-1.7
Female	—	8.8	9.6	8.6	11.5	9.1	10.1	9.9	10.8	10.6	11.0	12.6	10.2	10.2	9.7	8.8	-0.9
College Plans:																	
None or under 4 years	—	16.7	16.3	15.7	18.8	17.3	16.1	17.4	16.6	16.3	16.9	18.9	15.5	15.1	14.8	14.4	-0.4
Complete 4 years	—	11.3	10.6	11.2	11.2	10.6	11.8	11.0	11.8	12.2	11.4	13.0	11.6	12.1	11.8	10.1	-1.7
Region:																	
Northeast	—	13.1	13.8	12.2	14.2	11.2	11.1	12.0	13.1	10.5	12.0	11.5	13.1	15.4	12.5	7.9	-4.6 ss
Midwest	—	12.7	9.7	12.5	12.0	12.9	14.7	12.3	12.9	12.5	13.7	15.5	13.4	14.1	13.3	12.4	-0.9
South	—	13.9	14.0	13.3	12.3	14.0	13.6	13.0	13.0	14.8	14.7	17.3	13.7	13.7	12.9	12.1	-0.9
West	—	8.6	8.1	9.2	12.5	7.2	10.3	10.9	12.0	13.2	8.5	7.9	9.7	9.4	11.8	10.0	-1.8
Population Density:																	
Large MSA	—	10.4	12.6	12.4	14.5	10.9	12.4	10.6	13.4	13.9	12.3	12.4	13.6	12.0	12.2	10.0	-2.2
Other MSA	—	14.6	11.1	12.6	12.5	11.2	13.3	14.1	13.2	13.3	12.6	14.5	12.0	13.4	13.0	11.3	-1.6
Non-MSA	—	9.9	11.6	10.5	10.6	14.2	11.8	9.8	10.5	11.8	12.9	14.0	12.9	13.5	12.9	12.4	-0.5
Parental Education: [a]																	
1.0–2.0 (Low)	—	10.1	10.3	9.5	10.7	11.1	11.5	10.4	9.7	13.1	12.1	11.1	11.9	10.2	6.3	11.0	+4.7 s
2.5–3.0	—	10.0	12.5	10.8	10.1	8.9	10.5	10.0	12.5	12.2	11.6	11.5	9.6	13.4	10.5	8.9	-1.6
3.5–4.0	—	13.6	10.4	12.2	14.4	11.8	13.1	11.7	12.5	12.4	11.4	13.2	11.9	11.4	12.4	10.4	-1.9
4.5–5.0	—	12.1	12.3	12.2	11.2	12.8	14.4	13.0	12.8	13.4	12.5	15.4	13.8	15.7	14.7	11.3	-3.4
5.5–6.0 (High)	—	15.3	12.2	15.2	15.2	14.9	13.4	14.9	14.8	17.0	17.5	16.0	15.8	13.7	19.0	12.9	-6.1 s
Race/Ethnicity (2-year average): [b]																	
White	—	—	13.0	13.1	13.6	13.8	14.0	14.4	14.5	14.5	14.3	15.3	15.8	15.3	15.8	14.0	-1.8 s
African American	—	—	8.3	8.0	8.0	8.8	10.4	9.7	9.7	10.1	10.6	11.1	11.0	11.7	11.7	13.0	+1.3
Hispanic	—	—	9.0	8.7	8.9	8.0	8.1	8.9	8.2	8.4	8.4	8.1	8.0	8.4	7.2	5.8	-1.4

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Data from one of the questionnaire forms was omitted in 2005 due to an error in the skip pattern in the questionnaire. For the 2006 results by race/ethnicity, data from the remaining form in 2005 were double-weighted to account for the omission of the other form.

TABLE 178
EITHER STIMULANT-TYPE OR NON-STIMULANT-TYPE ADHD DRUGS:
Trends in Current Prevalence of Legal Use by Subgroups in Grade 8

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	6.1	5.2	4.5	5.1	4.9	4.7	4.9	4.7	5.0	4.6	4.9	5.6	4.7	5.2	3.8	-1.4 s
Gender:																	
Male	—	7.1	6.9	5.6	6.3	5.9	5.0	6.3	5.8	5.7	6.1	5.9	6.6	5.6	6.8	5.0	-1.8
Female	—	5.0	3.3	3.3	3.9	4.1	4.4	3.5	3.6	4.0	3.4	4.0	4.5	3.6	4.0	2.6	-1.4
College Plans:																	
None or under 4 years	—	7.1	8.6	5.3	6.9	4.6	6.5	6.3	5.5	9.0	3.7	9.0	9.6	6.3	9.8	5.3	-4.5
Complete 4 years	—	5.9	4.8	4.4	4.9	4.9	4.5	4.8	4.7	4.7	4.8	4.5	5.2	4.5	4.6	3.6	-1.0
Region:																	
Northeast	—	6.2	5.0	4.1	4.8	6.1	3.5	4.1	4.4	5.0	3.7	4.5	4.4	4.8	5.9	5.1	-0.9
Midwest	—	6.9	5.2	5.5	4.8	3.6	5.3	5.8	5.3	4.7	5.3	5.9	6.2	5.6	5.1	3.6	-1.5
South	—	5.9	5.7	4.6	6.5	5.7	5.3	4.7	5.6	5.9	5.1	5.1	6.7	5.6	6.9	3.5	-3.4 ss
West	—	5.6	4.4	3.5	3.6	4.2	3.8	5.0	2.8	3.8	3.7	3.6	3.7	2.3	2.0	3.5	+1.4
Population Density:																	
Large MSA	—	5.5	4.1	3.9	5.4	4.9	4.1	4.9	4.7	5.0	3.9	4.1	4.9	5.0	4.6	2.9	-1.7
Other MSA	—	6.7	5.8	4.7	5.1	5.3	5.4	5.2	5.2	5.0	5.4	5.6	6.0	4.4	6.5	3.9	-2.6 s
Non-MSA	—	5.7	5.6	5.0	4.6	4.1	3.9	4.4	3.8	5.0	3.9	4.5	5.6	5.1	3.4	4.8	+1.4
Parental Education: [a]																	
1.0–2.0 (Low)	—	7.0	4.5	3.7	4.9	4.7	3.3	3.7	2.9	2.9	2.9	4.4	2.7	3.0	4.9	2.1	-2.8
2.5–3.0	—	5.3	5.0	4.5	3.0	3.9	3.6	4.5	4.3	3.8	3.4	4.0	5.0	4.7	2.3	4.0	+1.6
3.5–4.0	—	6.1	5.3	3.4	4.4	4.1	4.3	4.7	4.2	5.1	5.8	4.4	5.4	4.1	4.5	4.1	-0.4
4.5–5.0	—	5.9	4.5	4.7	5.8	5.6	4.7	5.2	5.8	5.3	5.5	5.7	5.9	5.7	8.2	4.3	-3.9 ss
5.5–6.0 (High)	—	7.1	5.3	6.2	8.4	6.2	6.1	5.3	4.5	6.1	4.3	5.3	6.5	5.7	5.4	4.0	-1.4
Race/Ethnicity (2-year average): [b]																	
White	—	—	6.4	5.5	5.9	6.3	5.9	5.8	6.0	5.8	5.7	6.3	7.5	7.3	7.0	6.2	-0.8
African American	—	—	3.3	3.2	3.5	3.8	3.2	3.1	3.1	4.0	4.2	3.5	3.1	3.8	3.9	1.9	-2.0 ss
Hispanic	—	—	3.4	2.7	2.2	2.3	2.4	3.0	2.7	2.2	2.7	2.6	2.5	2.1	1.6	2.3	+0.7

Percentage who said "Yes, I take them now."

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 179
EITHER STIMULANT-TYPE OR NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 10</u>

Percentage who said "Yes, I take them now."

	1991-2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	14,500	14,200	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	5.6	4.8	4.2	4.5	5.0	4.6	4.2	5.1	5.0	4.8	5.8	4.3	4.0	5.1	4.4	-0.7
Gender:																	
Male	—	6.4	5.6	4.8	5.2	5.7	5.8	4.5	5.8	6.3	5.9	6.8	4.7	4.5	6.2	5.0	-1.2
Female	—	4.5	3.9	3.7	3.8	4.3	3.2	4.0	4.5	3.6	3.7	4.9	3.8	3.5	4.2	3.8	-0.4
College Plans:																	
None or under 4 years	—	8.7	6.2	5.4	4.8	9.9	7.7	6.2	3.9	7.5	7.7	9.3	6.5	5.4	5.6	6.3	+0.7
Complete 4 years	—	5.2	4.5	4.0	4.4	4.5	4.2	4.0	5.2	4.7	4.4	5.5	4.1	3.9	4.9	4.0	-0.9
Region:																	
Northeast	—	6.0	3.8	4.0	4.3	4.4	4.0	4.1	4.8	7.4	4.6	5.8	4.1	3.2	3.5	3.4	-0.1
Midwest	—	5.7	4.7	5.1	6.2	7.3	4.1	4.5	4.6	5.6	5.3	6.5	4.7	3.4	6.5	4.9	-1.5
South	—	6.2	5.7	4.6	4.8	5.5	6.0	4.9	7.2	4.5	5.9	6.7	5.1	5.1	5.8	3.4	-2.5 s
West	—	3.9	4.2	2.9	2.6	2.4	3.4	2.9	2.9	3.3	2.7	3.5	3.1	3.6	3.6	6.2	+2.6
Population Density:																	
Large MSA	—	4.6	4.0	3.2	4.1	5.5	4.9	4.5	4.8	5.8	4.9	5.6	3.7	3.6	4.9	2.7	-2.2 s
Other MSA	—	6.4	5.4	4.8	4.3	5.0	4.2	3.8	5.2	5.0	4.5	6.3	3.9	4.6	5.2	5.6	+0.4
Non-MSA	—	4.9	4.4	4.2	5.5	4.3	5.0	4.8	5.3	4.0	5.3	4.7	6.5	3.3	5.1	4.0	-1.1
Parental Education: [a]																	
1.0–2.0 (Low)	—	3.5	5.7	3.6	2.6	2.3	3.0	3.5	2.3	2.7	1.7	1.3	2.2	3.1	3.3	2.4	-0.9
2.5–3.0	—	4.2	3.2	2.8	4.6	4.4	4.7	4.7	5.1	3.7	2.8	3.9	2.3	3.3	3.4	4.2	+0.9
3.5–4.0	—	5.9	5.1	4.5	3.7	3.8	5.3	3.1	5.2	5.3	5.1	6.0	3.5	4.4	4.2	3.7	-0.5
4.5–5.0	—	5.6	4.9	4.5	5.0	5.8	4.2	4.9	5.2	5.6	4.8	5.9	5.7	3.9	6.8	4.6	-2.2
5.5–6.0 (High)	—	7.6	5.3	5.1	5.2	8.1	5.7	4.7	6.1	7.5	7.7	8.4	5.4	4.9	7.2	7.1	-0.1
Race/Ethnicity (2-year average): [b]																	
White	—	—	6.1	5.3	5.2	5.5	5.4	5.1	5.4	6.1	6.2	7.0	7.0	5.4	6.0	6.5	+0.5
African American	—	—	2.6	2.7	2.6	2.1	2.3	3.1	3.8	4.0	2.8	2.2	1.9	1.8	2.2	2.6	+0.4
Hispanic	—	—	2.2	1.7	1.9	2.8	2.7	2.3	2.8	1.9	1.3	1.7	1.4	1.9	2.6	2.1	-0.5

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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 180
EITHER STIMULANT-TYPE OR NON-STIMULANT-TYPE ADHD DRUGS:
Trends in <u>Current</u> Prevalence of Legal Use by Subgroups in <u>Grade 12</u>

Percentage who said "Yes, I take them now."

	1991-2004	2005[c]	2006[c]	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	*14,500*	*14,200*	*14,500*	*14,000*	*13,700*	*14,400*	*14,100*	*13,700*	*12,600*	*12,400*	*12,900*	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	4.5	3.7	4.1	4.4	4.3	5.2	5.1	5.5	6.0	5.5	5.3	5.6	5.7	5.9	5.0	-0.9
Gender:																	
Male	—	5.5	3.9	5.2	3.9	3.9	5.8	5.2	5.5	6.5	5.1	5.7	6.7	5.9	6.1	6.0	-0.1
Female	—	3.4	3.5	3.4	4.6	4.5	4.6	4.9	5.4	5.6	5.7	4.0	4.4	5.3	5.1	4.0	-1.0
College Plans:																	
None or under 4 years	—	8.2	3.2	5.9	5.2	3.1	6.5	6.9	5.8	6.9	6.3	5.6	4.0	5.5	6.5	5.3	-1.2
Complete 4 years	—	3.7	3.7	3.8	4.4	4.3	4.9	4.6	5.3	5.7	5.2	5.4	5.6	5.9	5.4	4.9	-0.5
Region:																	
Northeast	—	6.3	4.1	4.7	5.9	3.0	5.0	6.3	4.8	5.1	5.5	3.8	6.0	7.1	5.4	3.0	-2.4
Midwest	—	4.0	3.5	5.0	4.5	4.5	6.7	6.3	7.2	5.0	6.1	6.8	5.7	7.1	6.3	6.4	+0.1
South	—	4.2	4.2	4.5	3.9	5.8	5.4	4.9	4.8	7.4	6.6	6.6	5.9	5.6	6.2	4.9	-1.3
West	—	4.0	2.7	2.1	4.5	2.3	3.3	3.3	4.8	5.7	3.2	3.0	4.7	4.0	5.3	4.8	-0.5
Population Density:																	
Large MSA	—	3.5	3.7	4.5	5.7	4.5	4.3	4.6	5.6	6.9	5.4	5.1	6.4	6.1	6.2	4.3	-1.9
Other MSA	—	5.6	3.6	4.2	4.3	3.7	6.0	6.4	6.3	6.2	5.7	5.7	6.0	6.2	5.4	5.2	-0.3
Non-MSA	—	3.5	3.8	3.4	3.5	4.9	4.4	2.6	3.0	4.3	5.3	4.8	3.6	4.2	6.4	5.5	-0.9
Parental Education: [a]																	
1.0–2.0 (Low)	—	2.7	3.3	2.3	4.2	2.3	5.1	4.8	3.7	5.7	4.8	3.3	4.8	3.0	2.6	4.1	+1.4
2.5–3.0	—	3.7	2.0	3.8	3.2	2.5	4.4	3.6	4.8	5.7	4.4	2.8	3.4	5.9	4.1	3.4	-0.6
3.5–4.0	—	5.0	3.3	4.1	4.1	3.9	5.2	5.3	5.0	5.1	4.2	4.1	5.2	4.3	5.6	4.6	-1.0
4.5–5.0	—	5.0	4.6	3.7	4.8	4.8	5.4	5.6	5.7	5.8	5.7	6.5	6.8	8.3	6.8	5.0	-1.8
5.5–6.0 (High)	—	4.8	5.3	6.2	6.5	7.4	6.5	6.3	8.3	9.9	11.0	9.0	6.9	7.0	10.4	7.1	-3.2
Race/Ethnicity (2-year average): [b]																	
White	—	—	4.6	4.5	4.9	4.9	5.6	6.6	6.6	6.4	6.3	6.4	7.0	7.2	7.5	6.7	-0.8
African American	—	—	2.3	2.5	3.0	2.7	3.0	3.2	3.2	4.1	4.3	3.2	2.5	3.8	4.8	4.9	+0.1
Hispanic	—	—	2.3	2.2	2.4	2.8	3.1	2.5	2.7	3.3	3.5	2.5	2.3	3.5	2.6	1.8	-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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data are based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Data from one of the questionnaire forms was omitted in 2005 due to an error in the skip pattern in the questionnaire. For the 2006 results by race/ethnicity, data from the remaining form in 2005 were double-weighted to account for the omission of the other form.

TABLE 181
Any Nicotine Use[c]: Trends in <u>30-Day</u>
Prevalence of Use by Subgroups in <u>Grade 12</u>

	1976–2013	2014	2015	2016	2017	2018	2019	2018–2019 change
					12th Graders			
Approximate weighted N =	—	—	—	—	12,600	13,300	12,900	
Total	—	—	—	—	25.6	32.5	33.6	+1.1
Gender:								
Male	—	—	—	—	29.9	36.5	37.9	+1.3
Female	—	—	—	—	20.7	28.0	28.9	+0.8
College Plans:								
None or under 4 years	—	—	—	—	37.0	42.7	37.6	-5.1
Complete 4 years	—	—	—	—	22.8	28.5	30.8	+2.4
Region:								
Northeast	—	—	—	—	29.8	37.9	33.6	-4.3
Midwest	—	—	—	—	24.5	30.9	36.1	+5.2
South	—	—	—	—	27.2	35.1	32.6	-2.5
West	—	—	—	—	21.2	26.1	32.4	+6.3
Population Density:								
Large MSA	—	—	—	—	23.4	25.4	28.8	+3.4
Other MSA	—	—	—	—	24.0	35.3	34.6	-0.7
Non-MSA	—	—	—	—	32.2	38.0	38.6	+0.6
Parental Education: [a]								
1.0–2.0 (Low)	—	—	—	—	19.5	23.6	30.9	+7.4
2.5–3.0	—	—	—	—	28.5	32.6	37.1	+4.5
3.5–4.0	—	—	—	—	25.5	32.9	34.2	+1.3
4.5–5.0	—	—	—	—	28.1	36.0	30.0	-6.0
5.5–6.0 (High)	—	—	—	—	24.1	32.5	32.3	-0.2
Race/Ethnicity (2-year data): [b]								
White	—	—	—	—	—	36.1	46.8	+10.8 sss
African American	—	—	—	—	—	13.4	23.3	+9.9 ss
Hispanic	—	—	—	—	—	17.9	38.5	+20.6 sss

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

Notes. ' — ' 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 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 S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

[c]Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, smokeless tobacco, or vaping nicotine.

TABLE 182

Any Nicotine Use other than Vaping[c]: Trends in 30-Day
Prevalence of Use by Subgroups in Grade 12

	Percentage who used in past 30 days							
	12th Graders							2018–2019 change
	1976–2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =	—	—	—	—	*12,600*	*13,300*	*12,900*	
Total	—	—	—	—	20.6	18.5	15.7	-2.7
Gender:								
Male	—	—	—	—	24.5	23.9	20.0	-3.9
Female	—	—	—	—	16.1	12.9	11.1	-1.8
College Plans:								
None or under 4 years	—	—	—	—	32.2	29.7	20.4	-9.3 s
Complete 4 years	—	—	—	—	17.6	14.4	13.2	-1.2
Region:								
Northeast	—	—	—	—	24.4	14.9	11.7	-3.2
Midwest	—	—	—	—	18.5	17.1	15.7	-1.4
South	—	—	—	—	23.5	23.1	16.3	-6.8 ss
West	—	—	—	—	15.4	14.5	17.8	+3.3
Population Density:								
Large MSA	—	—	—	—	18.6	13.5	13.4	-0.2
Other MSA	—	—	—	—	19.3	19.2	15.9	-3.3
Non-MSA	—	—	—	—	26.4	24.9	18.8	-6.0
Parental Education: [a]								
1.0–2.0 (Low)	—	—	—	—	17.0	14.2	20.5	+6.3
2.5–3.0	—	—	—	—	23.7	21.9	16.2	-5.8
3.5–4.0	—	—	—	—	19.9	21.4	14.1	-7.3 ss
4.5–5.0	—	—	—	—	22.5	16.2	11.7	-4.5
5.5–6.0 (High)	—	—	—	—	18.4	13.2	16.9	+3.6
Race/Ethnicity (2-year data): [b]								
White	—	—	—	—	—	23.4	18.2	-5.2 sss
African American	—	—	—	—	—	10.1	8.1	-2.0
Hispanic	—	—	—	—	—	13.2	15.6	+2.4

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

Notes. ' — ' 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 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 S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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.

[c] Includes use of any of the following: cigarettes, large cigars, flavored small cigars, regular small cigars, tobacco using a hookah, or smokeless tobacco.

TABLE 183
Use of Marijuana Under a Doctor's Orders: Trends in Lifetime
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in lifetime

| | 8th Graders | | | | | 10th Graders | | | | | 12th Graders | | | | |
	1991–2016	2017	2018	2019	2018–2019 change	1991–2016	2017	2018	2019	2018–2019 change	1976–2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	*15,300*	*14,000*	*13,600*		—	*13,500*	*14,300*	*14,000*		—	*12,600*	*13,300*	*12,900*	
Total	—	1.1	1.1	1.3	+0.2	—	1.1	1.3	2.0	+0.7	—	1.5	1.2	2.0	+0.8 s
Gender:															
Male	—	1.1	1.1	1.3	+0.3	—	1.0	1.6	2.2	+0.6	—	1.9	1.3	1.8	+0.5
Female	—	0.9	1.0	1.2	+0.2	—	1.2	0.9	1.7	+0.8	—	1.2	0.8	1.2	+0.4
College Plans:															
None or under 4 years	—	2.2	1.1	3.0	+1.8	—	2.8	1.2	3.2	+2.0	—	4.1	1.7	3.2	+1.5
Complete 4 years	—	0.8	1.0	1.0	0.0	—	0.8	1.3	1.6	+0.4	—	0.8	0.8	1.4	+0.6 s
Region:															
Northeast	—	0.4	0.8	0.9	+0.1	—	0.7	1.0	1.8	+0.8	—	0.7	1.2	1.4	+0.2
Midwest	—	0.4	0.7	1.0	+0.3	—	1.1	1.0	1.5	+0.5	—	0.2	0.7	0.8	+0.1
South	—	1.6	1.2	1.4	+0.2	—	0.8	1.6	2.3	+0.7	—	1.4	1.4	1.7	+0.3
West	—	1.2	1.5	1.5	-0.1	—	1.8	1.2	2.2	+1.0	—	3.2	1.5	4.8	+3.2 s
Population Density:															
Large MSA	—	1.0	0.8	1.5	+0.7	—	0.8	0.9	1.8	+0.8	—	1.6	1.4	1.7	+0.3
Other MSA	—	1.4	1.1	1.1	0.0	—	1.4	1.5	2.3	+0.8	—	1.0	1.1	2.4	+1.3 s
Non-MSA	—	0.3	1.7	1.4	-0.4	—	0.7	1.4	1.8	+0.4	—	2.3	1.1	1.5	+0.4
Parental Education: a															
1.0–2.0 (Low)	—	1.0	2.5	1.5	-1.1	—	1.8	1.5	2.1	+0.6	—	2.5	1.2	2.4	+1.2
2.5–3.0	—	0.9	1.3	2.1	+0.8	—	2.4	2.2	2.8	+0.6	—	2.4	1.0	2.8	+1.8 s
3.5–4.0	—	1.0	1.1	0.7	-0.4	—	0.8	0.6	2.1	+1.5 ss	—	1.2	1.5	1.7	+0.2
4.5–5.0	—	0.5	0.4	1.1	+0.7	—	0.3	1.3	1.3	+0.1	—	0.6	1.0	1.3	+0.3
5.5–6.0 (High)	—	1.0	0.7	1.2	+0.5	—	0.7	0.7	1.8	+1.1	—	1.0	1.0	1.1	0.0
Race/Ethnicity (2-year data): b															
White	—	—	0.7	0.9	+0.1	—	—	0.6	1.2	+0.6 ss	—	—	0.8	0.9	+0.2
African American	—	—	1.3	1.1	-0.2	—	—	2.1	2.2	+0.1	—	—	1.8	1.6	-0.2
Hispanic	—	—	1.1	1.6	+0.4	—	—	1.8	1.7	-0.1	—	—	1.8	2.4	+0.6

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

Notes.   ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on one of four forms; *N* is one third of *N* indicated in S1 and S2. For 12th graders only: Data based on two of six forms; *N* is two sixths of *N* indicated in Table S3.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 184
Powdered Alcohol: Trends in Annual
Prevalence of Use by Subgroups in Grades 8, 10, and 12

Percentage who used in last 12 months

	8th Graders						10th Graders						12th Graders					
	1991–2015	2016	2017	2018	2019	2018–2019 change	1991–2015	2016	2017	2018	2019	2018–2019 change	1976–2015	2016	2017	2018	2019	2018–2019 change
Approximate weighted N =	—	*16,900*	*15,300*	*14,000*	*13,600*		—	*14,700*	*13,500*	*14,300*	*14,000*		—	*11,800*	*12,600*	*13,300*	*12,900*	
Total	—	1.0	0.8	0.8	1.2	+0.5	—	1.3	0.8	1.2	1.0	-0.2	—	1.7	1.0	1.3	1.4	+0.1
Gender:																		
Male	—	1.3	0.9	0.8	1.2	+0.4	—	1.8	1.0	1.5	1.4	-0.1	—	1.9	1.3	1.4	2.2	+0.8
Female	—	0.8	0.6	0.7	1.3	+0.5	—	0.8	0.7	0.9	0.5	-0.4	—	1.3	0.5	0.7	0.5	-0.2
College Plans:																		
None or under 4 years	—	4.5	2.4	2.1	2.7	+0.6	—	3.2	2.3	1.6	1.8	+0.2	—	4.1	1.2	2.8	2.9	0.0
Complete 4 years	—	0.7	0.6	0.6	1.0	+0.4	—	1.0	0.6	1.1	0.8	-0.4	—	1.1	0.7	0.7	0.9	+0.2
Region:																		
Northeast	—	0.4	0.6	1.1	1.2	+0.1	—	1.4	0.7	2.2	0.4	-1.8 s	—	1.2	0.7	0.8	1.3	+0.5
Midwest	—	0.8	0.6	0.1	0.7	+0.7	—	1.2	0.4	1.4	0.7	-0.7	—	1.8	1.0	1.5	0.5	-0.9 s
South	—	1.2	0.8	0.7	1.4	+0.7	—	1.3	0.9	0.7	0.6	-0.2	—	2.1	1.3	1.5	1.6	+0.1
West	—	1.2	1.1	1.2	1.5	+0.3	—	1.3	1.1	1.2	2.4	+1.2	—	1.3	0.6	1.3	2.1	+0.8
Population Density:																		
Large MSA	—	1.1	0.9	0.9	1.3	+0.4	—	0.9	0.7	1.7	0.6	-1.1 s	—	1.7	1.1	1.6	2.2	+0.6
Other MSA	—	0.9	0.9	0.8	1.4	+0.6	—	1.3	0.7	1.2	1.1	-0.1	—	1.8	1.1	1.1	1.0	-0.1
Non-MSA	—	0.9	0.5	0.4	0.9	+0.5	—	2.0	1.4	0.8	1.5	+0.7	—	1.6	0.6	1.5	1.1	-0.4
Parental Education: a																		
1.0–2.0 (Low)	—	2.0	1.5	1.8	0.2	-1.5	—	1.3	2.2	2.1	0.6	-1.5	—	3.8	1.7	2.4	2.7	+0.3
2.5–3.0	—	1.1	0.1	1.1	1.9	+0.9	—	2.3	0.3	1.7	0.3	-1.4	—	1.6	1.7	1.7	1.1	-0.6
3.5–4.0	—	1.4	0.8	0.5	1.2	+0.7	—	1.0	1.1	1.1	1.8	+0.7	—	2.1	0.5	0.9	1.2	+0.3
4.5–5.0	—	0.7	0.9	0.5	1.0	+0.5	—	0.6	0.3	0.7	1.2	+0.5	—	0.8	0.4	0.5	0.7	+0.1
5.5–6.0 (High)	—	0.4	0.7	0.3	1.1	+0.8	—	1.4	0.2	1.1	0.2	-0.9	—	1.2	0.7	1.0	0.8	-0.2
Race/Ethnicity (2-year data): b																		
White	—	—	0.6	0.6	0.8	+0.2	—	—	0.8	0.7	1.0	+0.3	—	—	1.0	0.7	0.7	-0.1
African American	—	—	1.3	1.2	1.5	+0.2	—	—	1.3	0.9	1.1	+0.2	—	—	1.5	0.9	2.6	+1.7 s
Hispanic	—	—	1.3	1.1	1.3	+0.2	—	—	1.6	2.1	1.6	-0.5	—	—	1.3	1.2	1.8	+0.5

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

Notes. ' — ' 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 Tables S1, S2, and S3 for the number of subgroup cases. See appendix B for definition of variables in table. For 8th and 10th graders only: Data based on one of four forms; N is one third of N indicated in S1 and S2. For 12th graders only: Data based on two of six forms; N is two sixths of N indicated in Table S3.

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

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

b To 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 185
ENERGY DRINKS: Trends in Daily Prevalence
of Use by Subgroups in Grade 8

	1975–					Percent who used daily						2018–2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	18.6	17.7	16.3	14.2	12.8	12.1	11.3	10.1	10.3	10.5	+0.3
Gender:												
Male	—	22.5	20.3	17.6	16.4	14.9	14.0	12.8	12.5	13.8	12.2	-1.6
Female	—	15.2	15.0	14.9	11.9	10.5	10.2	9.8	6.9	6.4	8.8	+2.4 s
College Plans:												
None or under 4 years	—	32.2	37.5	36.9	32.2	25.9	27.7	25.0	20.2	20.4	21.0	+0.6
Complete 4 years	—	17.1	16.1	14.9	12.8	11.5	10.5	9.9	8.9	8.8	9.0	+0.2
Region:												
Northeast	—	19.7	14.9	12.3	12.5	11.5	8.2	8.8	6.6	11.2	9.5	-1.7
Midwest	—	18.0	17.3	13.8	15.4	12.5	11.5	11.6	8.6	8.4	10.6	+2.3
South	—	20.4	19.6	18.2	16.7	14.1	14.7	12.4	11.2	10.1	10.9	+0.9
West	—	15.5	17.0	18.7	9.9	11.7	10.5	11.0	11.8	11.8	10.6	-1.2
Population Density:												
Large MSA	—	14.1	15.8	13.6	12.4	12.4	9.4	10.4	8.7	8.8	9.3	+0.5
Other MSA	—	21.3	18.1	16.3	13.0	12.6	11.7	11.3	11.2	11.0	10.0	-1.0
Non-MSA	—	18.5	19.8	20.9	19.5	13.9	16.7	13.0	9.4	10.9	13.9	+3.0
Parental Education: [a]												
1.0–2.0 (Low)	—	23.5	26.5	22.9	20.8	17.7	15.4	15.8	11.6	12.2	15.3	+3.1
2.5–3.0	—	23.2	23.4	21.7	17.4	15.1	15.8	13.0	13.1	10.9	13.9	+3.0
3.5–4.0	—	18.8	18.6	18.9	13.7	12.3	11.2	10.9	11.1	11.4	11.6	+0.2
4.5–5.0	—	15.5	12.4	11.8	11.4	9.7	8.9	9.1	7.9	8.3	9.0	+0.6
5.5–6.0 (High)	—	11.5	10.8	9.0	9.9	9.4	6.9	8.3	5.3	9.6	6.9	-2.7
Race/Ethnicity (2-year data): [b]												
White	—	—	16.5	14.7	12.8	10.3	10.7	10.4	9.0	8.3	9.5	+1.2
African American	—	—	19.1	18.2	15.8	14.3	13.3	13.1	14.0	13.1	9.8	-3.3 ss
Hispanic	—	—	22.6	22.6	18.5	15.2	14.5	13.4	11.9	10.7	10.8	+0.2

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

Notes. ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 186
ENERGY DRINKS: Trends in Daily Prevalence of Use by Subgroups in Grade 10

	Percent who used daily											2018–2019 change
	1975–2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	13.6	11.4	10.8	10.3	9.6	7.8	9.2	8.8	9.1	10.5	+1.4
Gender:												
Male	—	17.0	14.1	13.8	12.5	11.4	9.0	10.8	9.9	10.9	12.8	+1.9
Female	—	10.0	8.9	7.8	8.1	7.8	6.3	6.8	7.3	7.3	8.2	+0.9
College Plans:												
None or under 4 years	—	28.1	23.9	27.2	18.7	20.4	15.3	17.4	21.6	17.5	18.9	+1.4
Complete 4 years	—	11.8	9.9	9.1	9.3	8.2	7.0	8.0	7.1	7.7	8.9	+1.2
Region:												
Northeast	—	11.0	9.3	7.1	8.1	6.7	7.0	7.2	8.1	9.8	8.1	-1.7
Midwest	—	12.0	11.1	12.1	8.6	7.8	6.7	8.7	9.8	10.0	10.0	0.0
South	—	15.8	14.3	11.6	11.2	10.5	7.8	10.0	6.8	8.7	10.0	+1.3
West	—	14.3	9.1	11.5	12.5	12.3	9.6	10.0	11.2	8.3	13.3	+5.0 s
Population Density:												
Large MSA	—	11.0	10.4	10.4	9.3	8.5	7.5	7.6	8.3	8.6	7.3	-1.3
Other MSA	—	13.6	10.0	9.6	9.9	7.8	7.8	9.3	8.3	8.8	11.2	+2.4
Non-MSA	—	17.4	15.5	14.1	12.7	15.7	8.5	11.9	11.0	10.6	13.9	+3.3
Parental Education: [a]												
1.0–2.0 (Low)	—	18.8	16.5	15.7	19.4	13.4	10.7	12.2	14.3	14.9	9.5	-5.4 s
2.5–3.0	—	18.1	16.5	15.2	15.3	14.0	10.6	12.6	9.2	9.3	12.3	+3.0
3.5–4.0	—	14.0	10.7	10.6	10.2	9.0	7.4	8.7	8.7	9.8	10.6	+0.9
4.5–5.0	—	8.3	7.6	8.0	5.5	7.5	5.7	7.3	6.7	6.7	8.5	+1.8
5.5–6.0 (High)	—	8.9	8.3	6.9	6.3	5.4	5.4	5.4	4.9	6.9	8.6	+1.6
Race/Ethnicity (2-year data): [b]												
White	—	—	11.7	10.0	9.1	9.0	8.0	7.8	8.6	8.8	9.9	+1.1
African American	—	—	13.6	11.5	10.2	10.2	10.3	8.7	7.6	8.0	8.7	+0.7
Hispanic	—	—	14.2	14.1	14.7	11.8	9.2	9.3	9.8	10.1	9.7	-0.4

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

Notes. ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 187
ENERGY DRINKS: Trends in Daily Prevalence
of Use by Subgroups in Grade 12

	Percent who used daily											2018–2019 change
	1975–2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	12.3	9.5	9.2	8.2	8.3	7.8	9.8	9.4	10.1	11.6	+1.5
Gender:												
Male	—	14.8	11.6	10.7	10.7	10.1	9.0	11.2	12.7	12.2	15.0	+2.9
Female	—	8.9	7.5	7.5	5.8	6.4	6.7	7.8	6.3	7.6	7.9	+0.3
College Plans:												
None or under 4 years	—	18.5	14.1	16.5	15.3	18.8	13.3	19.7	15.1	18.4	22.7	+4.3
Complete 4 years	—	11.1	8.4	7.6	6.3	5.8	6.4	7.8	8.0	7.8	8.2	+0.4
Region:												
Northeast	—	15.7	7.2	8.6	9.7	9.5	4.5	11.2	7.3	7.7	8.4	+0.7
Midwest	—	10.7	8.9	7.2	7.5	9.1	10.6	8.3	10.9	12.4	12.7	+0.4
South	—	11.9	10.3	12.4	8.2	7.4	6.5	12.4	10.8	9.8	11.7	+1.9
West	—	12.4	10.4	7.8	7.8	8.3	9.5	5.5	7.2	10.0	13.0	+3.0
Population Density:												
Large MSA	—	10.6	8.2	9.6	8.7	6.9	8.4	9.1	10.5	9.4	9.1	-0.2
Other MSA	—	11.7	8.8	9.0	7.0	8.3	7.5	10.1	8.4	8.7	11.2	+2.4
Non-MSA	—	16.3	12.9	9.4	10.2	10.2	7.4	10.3	9.8	14.8	16.9	+2.1
Parental Education: [a]												
1.0–2.0 (Low)	—	19.0	10.8	14.1	17.4	12.3	10.6	12.8	16.0	11.1	9.4	-1.7
2.5–3.0	—	16.9	12.9	10.9	7.6	14.1	9.0	11.5	10.3	12.4	11.7	-0.7
3.5–4.0	—	11.2	10.5	11.8	8.2	7.0	6.9	11.8	9.3	9.7	14.7	+4.9 s
4.5–5.0	—	10.1	5.9	5.3	5.7	4.9	6.8	4.7	6.2	7.7	10.0	+2.3
5.5–6.0 (High)	—	3.5	8.4	5.6	5.3	4.8	6.2	9.2	6.4	9.8	6.4	-3.4
Race/Ethnicity (2-year data): [b]												
White	—	—	10.4	8.1	7.6	8.5	9.1	9.3	9.5	10.1	11.5	+1.4
African American	—	—	8.9	10.7	10.4	7.9	7.6	8.9	10.2	8.1	9.2	+1.1
Hispanic	—	—	11.8	12.8	10.9	7.9	6.2	5.8	9.1	8.7	7.9	-0.8

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

Notes. ' — ' 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 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 S3.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a] Parental education is an average score of mother's education and father's education. See appendix B for details.
[b] To 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 188
ENERGY SHOTS: Trends in Daily Prevalence
of Use by Subgroups in Grade 8

	Percent who used daily										2018–
	1975–2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019 change
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	6.4	6.8	5.7	5.6	4.2	5.3	4.4	4.0	3.7	4.6	+0.9
Gender:												
Male	—	7.6	8.5	6.6	6.8	4.6	6.6	5.1	5.4	5.2	5.5	+0.3
Female	—	5.3	5.2	4.7	4.3	3.7	4.2	3.7	2.4	1.9	3.6	+1.8 ss
College Plans:												
None or under 4 years	—	12.9	17.5	17.7	18.7	12.3	14.2	13.4	6.9	8.2	9.5	+1.3
Complete 4 years	—	5.7	6.0	4.8	4.7	3.4	4.4	3.4	3.5	3.0	3.9	+0.9
Region:												
Northeast	—	7.8	5.8	4.0	3.4	2.8	2.5	3.1	2.9	4.0	3.9	-0.1
Midwest	—	5.1	6.0	5.6	6.2	3.6	5.1	3.9	2.9	2.7	3.2	+0.4
South	—	7.4	7.9	6.5	7.6	5.4	7.0	5.0	5.1	4.3	6.3	+2.1 s
West	—	5.4	6.7	5.7	3.4	4.0	4.4	4.8	3.7	3.7	3.9	+0.2
Population Density:												
Large MSA	—	5.3	6.7	5.5	5.0	4.6	4.6	4.6	3.8	4.1	4.4	+0.3
Other MSA	—	7.4	7.6	5.2	4.7	4.1	4.8	4.1	4.7	3.2	4.4	+1.2
Non-MSA	—	5.8	5.3	7.1	8.7	4.0	7.5	4.7	2.5	4.3	5.5	+1.2
Parental Education: [a]												
1.0–2.0 (Low)	—	9.6	14.0	9.0	8.6	8.0	6.8	8.7	5.6	6.6	7.9	+1.3
2.5–3.0	—	8.1	8.7	7.2	6.3	5.4	6.2	4.0	5.1	3.3	5.5	+2.3 s
3.5–4.0	—	5.1	6.8	6.8	6.0	3.5	4.8	3.6	4.0	3.4	4.0	+0.6
4.5–5.0	—	5.5	4.7	3.4	4.4	2.8	3.8	3.7	3.2	2.7	3.5	+0.8
5.5–6.0 (High)	—	4.6	4.1	3.2	3.7	2.8	4.0	2.2	2.2	3.7	3.3	-0.3
Race/Ethnicity (2-year data): [b]												
White	—	—	5.2	4.4	3.4	3.2	2.9	3.2	2.7	2.5	3.0	+0.6
African American	—	—	7.0	7.7	8.1	7.1	6.6	6.5	6.4	5.8	5.9	+0.1
Hispanic	—	—	10.4	10.1	7.1	5.2	6.3	6.4	5.6	4.6	4.9	+0.2

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

Notes.   ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S3.

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

[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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 189
ENERGY SHOTS: Trends in <u>Daily</u> Prevalence
of Use by Subgroups in <u>Grade 10</u>

	1975–					Percent who used daily						2018–2019
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>change</u>
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	4.3	4.6	4.0	4.0	3.4	2.6	3.3	3.3	3.8	4.1	+0.3
Gender:												
Male	—	5.7	5.8	4.8	5.0	4.3	3.0	3.7	4.3	4.8	5.9	+1.1
Female	—	2.8	3.4	2.9	2.8	2.5	2.1	2.8	2.1	2.7	2.2	-0.6
College Plans:												
None or under 4 years	—	10.0	8.6	9.9	6.0	9.9	7.0	5.9	9.8	6.5	7.4	+0.9
Complete 4 years	—	3.6	4.1	3.4	3.6	2.7	2.1	2.9	2.5	3.3	3.5	+0.2
Region:												
Northeast	—	3.8	5.0	3.2	2.9	2.8	2.1	3.0	3.3	3.1	2.4	-0.7
Midwest	—	3.8	3.5	4.6	3.1	2.5	2.5	3.1	3.0	4.0	2.9	-1.0
South	—	5.5	5.9	3.5	4.6	4.0	2.2	3.8	2.8	4.4	4.8	+0.4
West	—	3.4	3.6	4.4	4.9	3.9	3.9	3.1	4.2	3.1	5.1	+2.0
Population Density:												
Large MSA	—	4.0	4.4	4.3	4.1	3.1	2.8	3.2	3.5	2.8	2.4	-0.4
Other MSA	—	3.9	4.2	3.5	3.8	2.4	2.2	3.2	3.0	4.1	4.7	+0.7
Non-MSA	—	5.4	5.7	4.4	4.2	6.3	3.4	4.0	3.6	4.7	5.2	+0.5
Parental Education: [a]												
1.0–2.0 (Low)	—	6.5	7.5	8.9	7.4	4.2	3.6	5.4	5.4	6.8	5.0	-1.9
2.5–3.0	—	5.8	5.8	5.0	5.8	5.0	3.6	3.3	2.9	3.3	5.1	+1.9
3.5–4.0	—	4.5	3.9	3.7	3.8	2.9	2.0	3.5	3.1	4.6	4.1	-0.5
4.5–5.0	—	2.4	3.1	2.4	2.2	2.6	2.4	2.3	2.6	2.0	2.2	+0.3
5.5–6.0 (High)	—	3.1	4.1	2.3	2.7	2.0	0.9	2.3	1.6	3.0	3.3	+0.4
Race/Ethnicity (2-year data): [b]												
White	—	—	3.6	3.3	2.6	2.4	2.4	2.4	2.2	2.7	3.4	+0.8 s
African American	—	—	7.4	6.9	6.7	6.4	4.6	4.7	5.1	4.9	5.7	+0.8
Hispanic	—	—	5.2	5.7	5.4	4.5	3.4	3.9	4.7	4.8	4.2	-0.5

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

Notes.   ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; *N* is one third of *N* indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 190
ENERGY SHOTS: Trends in Daily Prevalence of Use by Subgroups in Grade 12

	Percent who used daily											2018–
	1975–											2019
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	4.3	4.0	2.7	2.5	2.1	3.1	4.1	3.8	4.2	4.1	-0.1
Gender:												
Male	—	5.9	4.5	2.9	3.4	1.6	2.9	4.7	5.1	5.2	5.0	-0.2
Female	—	2.2	3.4	2.7	1.7	2.1	3.0	3.2	2.4	2.3	2.9	+0.6
College Plans:												
None or under 4 years	—	8.9	5.9	4.3	4.1	5.7	4.5	8.4	6.8	7.8	11.3	+3.5
Complete 4 years	—	3.4	3.4	2.4	1.9	1.2	2.6	2.9	2.9	3.0	2.0	-1.0
Region:												
Northeast	—	4.7	5.4	2.9	4.3	2.4	1.5	4.7	3.4	5.1	4.1	-1.0
Midwest	—	3.3	4.3	2.4	1.2	2.2	2.9	2.5	3.8	4.0	3.1	-0.9
South	—	4.8	4.5	3.1	2.3	2.4	4.0	4.7	5.2	4.4	5.1	+0.7
West	—	4.2	2.0	2.6	3.1	1.5	3.0	4.2	2.0	3.4	3.0	-0.4
Population Density:												
Large MSA	—	2.8	2.4	3.1	3.2	2.6	3.3	4.5	4.2	4.8	4.3	-0.5
Other MSA	—	4.7	4.6	2.2	2.0	1.5	3.5	3.6	3.4	3.7	4.0	+0.3
Non-MSA	—	5.2	4.8	3.6	2.8	3.0	1.8	4.7	4.1	4.0	3.9	-0.2
Parental Education: [a]												
1.0–2.0 (Low)	—	9.0	5.0	5.2	6.7	4.0	5.6	8.1	8.5	8.4	7.7	-0.7
2.5–3.0	—	6.5	4.8	3.3	1.9	2.5	3.6	5.0	4.5	5.2	3.0	-2.2
3.5–4.0	—	3.6	5.2	3.4	2.2	2.3	3.2	3.2	2.9	2.9	5.3	+2.4
4.5–5.0	—	2.3	2.9	1.3	2.1	0.6	2.7	2.5	2.6	2.9	2.1	-0.8
5.5–6.0 (High)	—	2.1	2.2	1.9	1.7	1.0	1.9	3.1	1.9	2.1	1.1	-0.9
Race/Ethnicity (2-year data): [b]												
White	—	—	3.1	2.8	1.9	1.8	2.2	2.6	2.7	3.3	3.3	+0.1
African American	—	—	6.6	6.9	4.6	3.7	4.5	6.6	8.1	6.0	6.1	+0.1
Hispanic	—	—	5.7	4.0	3.5	2.6	3.0	4.2	4.1	3.9	3.9	+0.1

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

Notes.   ' — ' 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 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 S3.

Caution: Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.
[a] Parental education is an average score of mother's education and father's education. See appendix B for details.
[b] To 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 191
EITHER ENERGY DRINKS OR ENERGY SHOTS: Trends in Daily Prevalence of Use by Subgroups in Grade 8

	1975–					Percent who used daily						2018–
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019 change
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	19.5	18.9	17.2	15.4	13.5	13.0	12.3	11.1	11.4	11.7	+0.4
Gender:												
Male	—	23.2	22.0	18.8	18.2	15.7	15.2	14.1	14.0	15.2	13.4	-1.7
Female	—	16.0	15.7	15.4	12.4	11.2	10.9	10.5	7.5	7.0	9.8	+2.8 s
College Plans:												
None or under 4 years	—	34.0	40.9	39.9	36.4	27.5	29.1	28.6	21.8	22.1	23.0	+0.9
Complete 4 years	—	17.9	17.1	15.5	13.8	12.0	11.4	10.7	9.9	9.8	9.9	+0.2
Region:												
Northeast	—	20.9	16.2	12.4	12.9	11.7	8.9	9.7	7.7	12.6	10.2	-2.4
Midwest	—	18.7	18.3	14.6	16.3	13.3	12.1	12.1	9.9	8.9	11.2	+2.3
South	—	21.5	21.0	19.4	19.0	15.2	16.2	13.3	12.2	11.5	12.9	+1.3
West	—	16.0	18.1	19.5	10.4	12.2	11.1	12.8	12.8	12.7	11.5	-1.2
Population Density:												
Large MSA	—	15.6	17.0	14.4	13.7	13.3	10.1	11.4	9.7	10.2	10.6	+0.4
Other MSA	—	21.9	19.4	17.3	14.0	13.3	12.6	12.2	12.6	11.7	11.3	-0.4
Non-MSA	—	19.2	20.8	21.5	21.3	14.3	18.0	14.3	9.7	12.5	14.6	+2.1
Parental Education: [a]												
1.0–2.0 (Low)	—	24.9	28.7	24.6	22.5	18.7	16.2	18.2	13.2	14.2	17.6	+3.4
2.5–3.0	—	24.0	24.6	22.4	18.5	15.9	17.0	14.2	14.4	12.3	15.2	+2.9
3.5–4.0	—	19.4	20.3	19.9	15.0	12.8	12.3	11.4	11.8	12.0	12.3	+0.3
4.5–5.0	—	16.3	13.4	12.0	12.8	10.3	9.5	9.9	9.2	9.0	9.6	+0.6
5.5–6.0 (High)	—	12.4	11.7	9.5	10.9	10.2	7.8	8.8	5.7	11.0	7.7	-3.4
Race/Ethnicity (2-year data): [b]												
White	—	—	17.3	15.6	13.4	11.8	11.3	11.1	9.7	9.1	10.4	+1.3
African American	—	—	20.4	19.3	17.5	16.9	14.7	14.6	15.1	14.0	11.3	-2.7
Hispanic	—	—	24.0	24.2	20.1	16.0	15.7	14.9	13.4	12.0	12.3	+0.3

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

Notes.   ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 192

EITHER ENERGY DRINKS OR ENERGY SHOTS: Trends in <u>Daily</u> Prevalence
of Use by Subgroups in <u>Grade 10</u>

	1975–2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2018–2019 change
						Percent who used daily						
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	14.4	12.4	11.8	11.3	10.1	8.4	10.0	9.5	9.9	11.6	+1.7
Gender:												
Male	—	17.8	15.4	14.8	13.7	12.3	9.8	11.6	10.8	12.0	14.4	+2.4
Female	—	10.7	9.6	8.6	8.8	8.0	6.7	7.7	7.8	7.7	8.7	+1.0
College Plans:												
None or under 4 years	—	29.0	25.8	28.8	20.7	22.4	17.2	19.0	22.8	18.0	20.5	+2.5
Complete 4 years	—	12.5	10.9	10.0	10.0	8.6	7.6	8.7	7.7	8.5	9.9	+1.4
Region:												
Northeast	—	11.8	10.9	7.9	8.2	7.5	7.3	8.0	8.8	10.2	9.6	-0.6
Midwest	—	12.6	11.7	12.9	9.6	8.2	7.2	9.6	10.4	10.7	10.9	+0.3
South	—	16.8	15.3	12.8	12.7	11.0	8.4	10.9	7.4	9.8	11.5	+1.7
West	—	14.8	10.1	12.3	13.3	12.9	10.8	10.7	12.0	9.0	13.8	+4.9 s
Population Density:												
Large MSA	—	11.8	11.4	11.5	10.2	9.4	8.4	8.3	9.1	9.2	8.1	-1.1
Other MSA	—	14.5	11.1	10.5	10.9	8.1	8.1	10.0	8.8	9.8	12.6	+2.8
Non-MSA	—	17.9	16.3	15.0	13.8	16.2	9.2	13.1	11.8	11.1	15.0	+3.9
Parental Education: [a]												
1.0–2.0 (Low)	—	20.4	17.3	18.1	21.4	13.9	11.5	14.1	15.1	15.9	11.8	-4.1
2.5–3.0	—	19.3	17.3	16.5	16.1	14.9	11.2	13.9	10.1	9.9	14.0	+4.1 s
3.5–4.0	—	14.6	11.8	11.3	11.5	9.4	8.1	9.6	9.5	11.0	11.4	+0.4
4.5–5.0	—	8.7	8.4	8.3	5.8	8.1	6.4	7.7	7.1	6.9	8.7	+1.9
5.5–6.0 (High)	—	9.9	9.8	7.6	7.1	5.7	5.6	5.9	5.4	7.8	9.7	+1.9
Race/Ethnicity (2-year data): [b]												
White	—	—	12.4	10.7	9.7	9.3	8.4	8.4	9.0	9.3	10.6	+1.4 s
African American	—	—	15.8	13.4	11.8	11.9	11.7	9.9	9.4	9.7	10.3	+0.7
Hispanic	—	—	15.2	15.6	16.3	10.6	9.9	10.4	10.9	10.8	10.6	-0.2

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

Notes. ' — ' 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 S3 for the number of subgroup cases. See appendix B for definition of variables in table. Data based on one of four forms; N is one third of N indicated in Table S3.

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

[a] Parental education is an average score of mother's education and father's education. See appendix B for details.

[b] To 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 193
EITHER ENERGY DRINKS OR ENERGY SHOTS: Trends in <u>Daily</u> Prevalence
of Use by Subgroups in <u>Grade 12</u>

	Percent who used daily										2018–2019 change
	1975–2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Approximate weighted N =		14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900	
Total	—	13.5	11.0	9.9	9.1	9.3	9.0	10.9	10.9	11.2	12.8	+1.5
Gender:												
Male	—	16.0	13.7	11.1	11.9	10.7	10.2	12.6	14.8	14.1	16.7	+2.6
Female	—	9.9	8.5	8.4	6.6	7.5	7.8	8.5	7.1	7.9	8.6	+0.7
College Plans:												
None or under 4 years	—	21.5	16.9	17.7	16.1	20.9	15.7	22.3	16.4	20.1	25.5	+5.3
Complete 4 years	—	11.8	9.7	8.2	7.2	6.3	7.3	8.4	9.2	8.7	8.7	0.0
Region:												
Northeast	—	16.2	9.8	9.0	11.2	10.9	5.5	13.2	8.2	10.7	10.0	-0.6
Midwest	—	11.7	10.7	7.7	8.1	9.3	12.3	8.8	13.0	12.8	13.8	+0.9
South	—	13.4	11.9	13.6	9.2	8.6	8.3	13.6	12.7	10.8	13.1	+2.3
West	—	13.5	10.8	8.3	8.7	9.1	9.6	6.2	7.9	10.8	13.3	+2.4
Population Density:												
Large MSA	—	11.7	9.2	9.9	10.1	8.7	10.1	10.1	11.8	11.2	10.8	-0.4
Other MSA	—	12.6	10.9	9.5	7.8	8.8	8.6	11.0	9.3	9.7	12.1	+2.3
Non-MSA	—	18.1	13.6	10.8	10.8	11.1	8.2	11.6	12.7	14.8	17.7	+2.9
Parental Education:[a]												
1.0–2.0 (Low)	—	21.4	13.0	16.6	20.0	14.5	13.5	13.4	18.0	13.0	13.3	+0.3
2.5–3.0	—	19.0	13.9	11.3	8.1	14.8	10.3	12.5	12.7	14.1	12.3	-1.8
3.5–4.0	—	12.2	12.8	12.6	9.2	7.7	7.9	12.6	10.3	9.9	16.5	+6.6 ss
4.5–5.0	—	10.7	7.4	5.7	6.3	5.2	8.0	6.3	7.7	9.1	10.3	+1.2
5.5–6.0 (High)	—	3.9	8.7	5.7	6.3	5.1	6.9	9.2	6.4	10.7	6.4	-4.3
Race/Ethnicity (2-year data):[b]												
White	—	—	11.6	9.1	8.1	10.0	9.7	10.0	10.4	11.1	12.4	+1.2
African American	—	—	11.1	13.3	12.2	11.8	10.3	11.2	12.8	10.4	10.6	+0.1
Hispanic	—	—	13.8	13.7	12.4	7.3	7.8	7.3	9.9	9.3	9.2	0.0

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

Notes.   ' — ' 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 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 S3.

Caution: **Limited sample sizes (see Notes above). Use caution in interpreting subgroup trends.**
[a]Parental education is an average score of mother's education and father's education. See appendix B for details.

[b]To 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.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total	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
Gender																
Male	8,600	8,800	8,600	8,300	8,100	8,400	8,600	8,600	7,800	7,900	7,500	7,000	7,600	8,100	8,000	7,800
Female	8,600	9,300	9,200	8,600	8,700	8,800	9,300	8,900	8,400	8,300	8,300	7,600	8,400	8,500	8,400	8,200
College Plans																
None or under 4 years	2,300	2,400	2,100	2,000	1,900	2,200	1,900	1,800	1,700	1,600	1,600	1,300	1,600	1,600	1,600	1,500
Complete 4 years	14,600	15,400	15,400	14,700	14,800	14,800	15,800	15,600	14,500	14,500	14,100	13,400	14,500	15,000	14,800	14,600
Region																
Northeast	3,000	3,700	3,900	3,400	3,100	3,200	3,400	3,300	3,000	2,800	2,900	2,800	3,200	3,200	3,200	2,900
Midwest	5,300	5,300	4,700	4,200	4,300	4,600	4,100	4,300	4,200	4,300	4,000	4,000	4,100	4,000	3,700	3,500
South	6,300	6,200	6,400	6,300	6,600	6,300	7,200	6,600	6,100	6,300	5,900	5,400	6,300	6,300	6,300	6,300
West	2,900	3,400	3,300	3,400	3,500	3,700	3,900	3,900	3,400	3,300	3,400	2,900	2,900	3,500	3,600	3,800
Population Density																
Large MSA	4,500	5,700	5,500	4,400	5,200	5,200	5,000	4,800	4,800	4,900	4,700	4,500	4,900	5,000	5,400	5,400
Other MSA	8,400	8,300	8,800	8,300	7,800	8,400	9,000	8,800	7,900	7,900	7,500	6,900	7,700	7,900	7,400	7,300
Non-MSA	4,600	4,600	4,000	4,600	4,500	4,200	4,600	4,500	4,000	3,900	4,000	3,700	3,900	4,100	4,000	3,800
Parental Education																
1.0–2.0 (Low)	1,400	1,700	1,700	1,600	1,500	1,500	1,500	1,300	1,300	1,300	1,300	1,100	1,100	1,200	1,400	1,400
2.5–3.0	4,400	4,600	4,500	4,100	3,900	4,300	4,000	3,900	3,800	3,700	3,400	3,200	3,400	3,400	3,400	3,300
3.5–4.0	4,100	4,300	4,300	4,200	4,000	4,100	4,300	4,100	3,800	3,900	4,000	3,500	3,700	4,000	3,700	3,800
4.5–5.0	4,100	4,100	4,100	3,900	3,900	3,900	4,500	4,500	4,000	3,900	3,900	3,800	4,200	4,300	4,200	4,000
5.5–6.0 (High)	2,200	2,300	2,300	2,200	2,300	2,200	2,600	2,700	2,200	2,200	2,100	2,100	2,400	2,500	2,600	2,300
Race/Ethnicity (2-year average) [a]																
White	—	21,900	22,000	20,900	19,800	20,200	21,400	21,300	19,800	18,900	18,600	17,600	18,400	20,400	20,500	19,500
African American	—	4,200	4,800	5,500	5,600	5,300	4,700	4,900	5,000	4,800	4,500	4,500	4,400	3,900	3,800	4,000
Hispanic	—	3,400	3,600	4,000	4,000	4,000	4,200	4,100	4,100	4,000	4,100	3,900	3,400	3,200	3,600	4,700

TABLE S1 (cont.)
Approximate Weighted *N*s by Subgroups in Grade 8

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	16,100	15,700	15,000	15,300	16,000	15,100	14,600	14,600	14,400	16,900	15,300	14,000	13,600
Gender													
Male	7,800	7,600	7,100	7,100	7,600	7,200	7,000	6,800	6,700	8,000	7,200	6,500	6,500
Female	7,900	7,600	7,400	7,800	7,900	7,400	7,100	7,200	7,200	8,200	7,500	6,800	6,600
College Plans													
None or under 4 years	1,300	1,200	1,100	1,200	1,100	980	900	1,000	1,000	1,200	1,300	1,400	1,500
Complete 4 years	14,400	14,000	13,500	13,800	14,500	13,700	13,300	13,000	12,900	15,100	13,300	11,800	11,400
Region													
Northeast	2,400	2,600	2,500	2,500	2,900	2,800	2,500	2,400	2,200	2,800	2,600	2,500	2,400
Midwest	3,600	3,400	3,400	3,700	3,400	3,200	3,400	3,200	3,000	3,700	3,200	3,100	2,800
South	6,400	5,600	5,700	5,600	6,200	5,800	5,400	5,600	5,900	6,500	6,000	5,100	5,100
West	3,700	4,100	3,400	3,500	3,500	3,300	3,300	3,400	3,300	3,900	3,500	3,300	3,300
Population Density													
Large MSA	5,000	5,100	4,500	4,600	5,400	5,200	4,800	4,700	4,300	5,500	4,600	4,500	4,300
Other MSA	7,800	7,500	7,300	7,500	7,300	6,900	6,800	6,800	7,100	8,200	7,600	6,700	6,800
Non-MSA	3,300	3,100	3,200	3,200	3,300	3,000	3,000	3,100	3,000	3,200	3,100	2,700	2,500
Parental Education													
1.0–2.0 (Low)	1,400	1,300	1,200	1,400	1,300	1,300	1,400	1,300	1,400	1,600	1,600	1,400	1,200
2.5–3.0	3,100	2,800	2,700	2,800	2,700	2,500	2,400	2,400	2,500	2,800	2,600	2,400	2,100
3.5–4.0	3,700	3,500	3,300	3,400	3,500	3,000	2,900	3,100	2,900	3,300	3,100	2,700	2,500
4.5–5.0	3,900	4,100	3,900	3,800	4,100	3,900	3,900	3,600	3,500	4,300	3,600	3,400	3,500
5.5–6.0 (High)	2,300	2,300	2,100	2,200	2,700	2,600	2,400	2,300	2,200	2,700	2,400	2,100	2,600
Race/Ethnicity (2-year average) [a]													
White	18,300	17,300	16,400	16,000	16,700	16,300	14,800	13,100	12,700	13,800	13,700	12,200	11,900
African American	3,900	4,000	4,100	4,000	3,700	3,500	3,500	4,100	4,300	4,100	3,600	2,900	3,000
Hispanic	5,400	5,100	4,700	5,000	5,200	5,200	5,500	5,700	6,200	7,200	8,000	7,300	5,600

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

Notes. ' — ' indicates data not available. See appendix B for definition of variables in table.

Caution: **The *N*s in this table are based on the entire sample at each grade level. Some drug use questions are asked only in some of the questionnaire forms rather than in all, in which case these *N*s need to be adjusted appropriately. Look under Notes in each table to see if only a fraction of the sample was asked about that drug. If there is no such indication, the entire sample received the question.**

[a] *N*s for each racial subgroup represent the combination of the specified year and the previous year. Data 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.

Approximate Weighted *N*s by Subgroups in Grade 10

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Total	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	
Gender																	
Male	7,200	7,000	7,300	7,700	8,300	7,500	7,400	7,100	6,300	6,800	6,600	6,900	7,500	7,900	7,900	7,900	
Female	7,400	7,400	7,800	7,900	8,400	7,800	7,800	7,700	7,000	7,200	7,100	7,100	8,000	8,300	8,000	8,000	
College Plans																	
None or under 4 years	2,600	2,400	2,500	2,700	2,500	2,300	2,200	2,200	1,900	1,900	1,900	2,000	2,100	1,900	1,800	1,800	
Complete 4 years	11,900	12,000	12,400	12,800	14,200	13,000	13,000	12,500	11,500	12,100	11,900	12,100	13,400	14,300	14,100	14,100	
Region																	
Northeast	2,700	3,000	2,900	3,100	3,300	3,100	3,300	3,100	3,000	2,800	2,700	2,600	3,400	3,600	3,500	3,200	
Midwest	3,700	3,800	4,800	4,700	4,400	3,900	3,900	3,600	3,100	3,700	4,100	3,700	4,000	4,600	4,500	4,300	Table continued on next page.
South	4,900	5,000	4,900	5,200	6,100	5,600	5,500	5,200	4,700	5,000	5,000	5,100	4,900	4,900	5,000	5,300	
West	3,500	3,000	2,700	2,800	3,200	3,000	2,800	3,100	2,800	2,800	2,200	2,900	3,500	3,300	3,200	3,400	
Population Density																	
Large MSA	3,400	3,700	3,500	4,100	4,700	4,300	4,300	4,300	3,700	4,000	3,900	4,300	4,900	5,000	4,900	5,100	
Other MSA	7,400	7,300	7,600	7,500	8,200	7,500	7,300	7,000	6,700	6,700	6,700	6,800	7,800	7,800	7,600	7,900	
Non-MSA	4,000	3,800	4,200	4,200	4,100	3,800	3,900	3,700	3,200	3,600	3,400	3,200	3,100	3,600	3,700	3,200	
Parental Education																	
1.0–2.0 (Low)	1,300	1,300	1,300	1,300	1,200	1,100	1,300	1,300	1,100	1,200	1,200	1,300	1,200	1,300	1,100	1,100	
2.5–3.0	3,900	3,900	4,100	4,100	4,100	3,600	3,700	3,700	3,200	3,200	3,200	3,300	3,500	3,400	3,200	3,200	
3.5–4.0	3,900	3,900	4,100	4,300	4,600	4,300	4,100	4,000	3,600	3,700	3,700	3,700	4,200	4,200	4,100	4,300	
4.5–5.0	3,500	3,400	3,500	3,700	4,000	3,900	3,700	3,500	3,300	3,500	3,400	3,500	3,900	4,300	4,400	4,500	
5.5–6.0 (High)	1,800	1,700	1,700	1,800	2,300	1,900	1,900	1,800	1,700	1,900	1,800	1,700	2,100	2,400	2,400	2,300	
Race/Ethnicity (2-year average) [a]																	
White	—	19,600	20,700	22,000	22,900	22,400	20,900	19,800	18,400	18,200	18,600	18,000	18,500	19,900	20,400	21,100	
African American	—	3,900	3,600	3,300	3,300	3,100	3,200	3,600	3,600	3,100	2,800	3,400	4,600	4,600	4,300	3,900	
Hispanic	—	2,600	2,700	2,800	2,900	3,000	3,200	3,500	3,200	3,100	3,400	3,600	3,600	3,500	3,500	3,300	

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	16,100	15,100	15,900	15,200	14,900	15,000	12,900	13,000	15,600	14,700	13,500	14,300	14,000
Gender													
Male	7,800	7,000	7,600	7,200	7,200	7,200	6,100	6,200	7,600	7,100	6,500	6,800	6,600
Female	7,900	7,700	8,000	7,700	7,400	7,500	6,500	6,400	7,600	7,200	6,600	7,000	7,100
College Plans													
None or under 4 years	1,800	1,600	1,500	1,600	1,500	1,300	1,300	1,200	1,400	1,400	1,400	1,800	2,000
Complete 4 years	14,000	13,200	14,100	13,400	13,200	13,400	11,400	11,500	13,900	12,900	11,700	12,000	11,600
Region													
Northeast	3,200	2,800	3,400	3,000	2,600	2,900	2,400	2,500	3,100	2,800	2,300	2,600	2,300
Midwest	3,900	3,600	3,700	3,700	3,800	3,800	3,200	3,000	3,600	3,200	3,100	3,300	3,200
South	5,100	4,800	5,200	5,200	5,100	4,900	4,100	4,400	5,500	5,100	4,800	5,200	5,300
West	3,900	3,900	3,600	3,300	3,400	3,400	3,200	3,100	3,400	3,600	3,300	3,100	3,200
Population Density													
Large MSA	5,200	4,700	5,200	5,200	4,900	4,700	3,800	4,500	5,100	4,800	4,200	4,600	4,400
Other MSA	7,600	7,300	7,300	6,600	6,600	7,100	6,400	6,000	7,600	7,300	6,600	6,800	7,100
Non-MSA	3,300	3,100	3,400	3,400	3,400	3,200	2,700	2,500	2,900	2,600	2,700	2,900	2,500
Parental Education													
1.0–2.0 (Low)	1,200	1,300	1,300	1,400	1,200	1,100	1,100	1,100	1,300	1,400	1,300	1,500	1,400
2.5–3.0	3,300	3,000	3,000	3,000	3,000	2,600	2,400	2,300	2,400	2,400	2,300	2,500	2,500
3.5–4.0	4,400	3,800	4,000	3,800	3,900	3,800	3,100	3,100	3,600	3,400	3,000	3,200	3,200
4.5–5.0	4,300	4,000	4,300	3,900	3,800	4,100	3,500	3,600	4,300	3,800	3,400	3,500	3,600
5.5–6.0 (High)	2,100	2,000	2,400	2,200	2,000	2,500	2,000	2,100	2,800	2,500	3,000	2,200	2,200
Race/Ethnicity (2-year average) [a]													
White	20,800	18,300	17,900	18,400	17,600	17,600	16,000	13,900	15,700	16,000	13,500	13,100	13,200
African American	3,400	3,600	3,600	3,400	3,200	3,100	2,900	2,900	3,000	3,300	3,700	3,800	3,700
Hispanic	3,800	4,500	4,500	4,600	4,500	4,100	4,100	4,300	4,400	5,100	5,300	5,400	5,700

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

Notes.   ' — ' indicates data not available. See appendix B for definition of variables in table.

Caution: **The *N*s in this table are based on the entire sample at each grade level. Some drug use questions are asked**

only in some of the questionnaire forms rather than in all, in which case these *N* s need to be adjusted appropriately.

Look under Notes in each table to see if only a fraction of the sample was asked about that drug. If there is no such

indication, the entire sample received the question.

[a]*N*s for each racial subgroup represent the combination of the specified year and the previous year. Data 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 S3
Approximate Weighted *N*s by Subgroups in Grade 12

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Total	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
Gender																
Male	4,300	6,900	7,100	8,500	7,500	7,500	8,400	8,500	7,800	7,600	7,600	7,100	7,700	7,700	8,000	7,700
Female	5,200	7,000	7,600	9,000	8,000	7,800	8,600	8,600	8,000	7,800	8,000	7,700	8,200	8,200	8,300	7,100
College Plans																
None or under 4 years	—	6,500	6,700	8,100	6,800	6,300	6,700	7,200	6,300	5,900	5,600	5,100	5,000	4,700	4,800	4,200
Complete 4 years	—	6,800	7,200	8,600	8,000	8,500	9,700	9,200	8,800	8,900	9,300	9,100	10,300	10,600	11,000	10,100
Region																
Northeast	2,200	3,400	3,700	4,400	3,800	3,600	4,100	4,600	3,900	3,200	3,700	3,600	3,500	3,200	3,200	3,300
Midwest	2,900	4,500	4,600	5,200	4,800	4,700	5,300	5,200	4,600	4,500	4,400	4,300	4,400	4,300	4,500	4,200
South	3,000	4,300	4,600	6,000	4,800	4,800	5,300	5,300	5,200	5,300	4,900	4,700	5,200	5,600	6,100	5,000
West	1,400	2,200	2,200	2,500	2,600	2,700	2,800	2,600	2,600	2,900	3,000	2,600	3,200	3,200	2,900	2,700
Population Density																
Large MSA	2,100	3,700	4,000	4,600	4,000	3,900	4,500	4,800	4,200	4,100	4,200	3,700	4,200	4,400	4,000	3,800
Other MSA	4,000	5,700	6,200	8,000	6,800	6,700	7,100	7,300	6,800	6,900	6,900	7,000	8,000	7,700	8,800	7,700
Non-MSA	3,400	5,000	4,900	5,500	5,200	5,200	5,900	5,600	5,300	4,900	4,900	4,500	4,100	4,200	3,900	3,700
Parental Education																
1.0–2.0 (Low)	1,700	2,200	2,600	3,100	2,500	2,300	2,400	2,700	2,200	1,900	1,800	1,800	1,700	1,600	1,700	1,600
2.5–3.0	3,000	4,300	5,400	6,200	5,600	5,300	5,800	5,900	5,500	5,100	5,100	4,600	4,500	4,500	4,600	4,300
3.5–4.0	1,600	2,500	3,200	4,000	3,600	3,600	4,200	4,200	3,900	4,000	4,000	3,800	4,300	4,400	4,500	4,100
4.5–5.0	1,100	1,600	2,200	2,800	2,600	2,700	3,100	2,900	2,800	2,900	3,000	2,900	3,400	3,500	3,500	3,100
5.5–6.0 (High)	440	710	1,100	1,200	1,200	1,300	1,500	1,300	1,200	1,400	1,500	1,500	1,800	1,900	1,700	1,600
Race/Ethnicity (2-year average) [a]																
White	—	—	23,400	26,500	27,500	25,600	26,300	27,300	26,200	24,700	24,200	23,600	23,800	24,200	24,000	23,400
African American	—	—	3,300	3,700	3,500	3,500	4,000	4,000	3,900	4,000	4,000	3,500	3,200	3,600	3,900	3,500
Hispanic	—	—	890	1,000	940	740	930	1,300	1,300	1,200	1,200	1,500	1,900	2,100	2,400	2,500

	<u>1991</u>	<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>
Total	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
Gender																
Male	7,400	7,400	7,500	6,900	7,200	6,700	7,100	7,100	6,300	5,800	5,800	5,800	6,600	6,800	6,800	6,600
Female	7,200	7,900	8,200	8,000	7,800	7,100	7,700	7,500	6,700	6,400	6,500	6,600	7,400	7,200	7,300	7,100
College Plans																
None or under 4 years	4,000	3,700	3,700	3,400	3,300	2,600	3,200	3,100	2,800	2,600	2,500	2,400	2,800	2,800	2,600	2,500
Complete 4 years	10,300	11,200	11,600	11,100	11,200	10,800	11,000	11,100	10,200	9,300	9,600	9,700	11,100	11,000	11,300	11,000
Region																
Northeast	2,800	2,800	2,700	2,700	2,800	3,000	3,300	2,800	2,500	2,500	2,400	2,500	3,100	3,100	2,900	2,600
Midwest	4,000	4,400	4,600	4,000	4,300	3,800	4,100	3,800	3,600	3,100	3,700	3,300	3,600	3,800	3,600	3,500
South	5,100	5,600	5,800	5,700	5,400	5,100	5,300	5,700	4,900	4,500	4,100	4,300	4,900	5,000	5,200	5,200
West	3,100	3,000	3,200	3,000	2,900	2,400	2,700	2,900	2,600	2,700	2,600	2,800	3,000	2,700	3,000	2,900
Population Density																
Large MSA	3,600	3,600	3,700	4,300	4,400	3,400	4,100	4,300	3,800	3,800	3,800	4,000	4,600	4,200	4,300	4,700
Other MSA	7,200	8,200	7,800	7,100	7,000	7,000	7,500	7,500	6,200	5,800	5,800	5,900	6,500	6,800	7,000	6,200
Non-MSA	4,200	4,000	4,800	4,000	4,000	3,900	3,800	3,400	3,600	3,200	3,200	3,000	3,500	3,600	3,400	3,300
Parental Education																
1.0–2.0 (Low)	1,500	1,400	1,600	1,400	1,200	1,100	1,300	1,200	960	860	1,000	980	1,200	1,000	1,100	1,100
2.5–3.0	4,100	4,100	4,300	3,700	3,700	3,300	3,600	3,700	3,200	3,000	2,900	2,800	3,400	3,400	3,200	3,100
3.5–4.0	4,200	4,600	4,500	4,300	4,400	3,800	4,100	4,300	3,900	3,600	3,600	3,800	4,200	4,000	3,900	4,000
4.5–5.0	3,100	3,400	3,600	3,500	3,700	3,500	3,500	3,300	3,200	3,100	3,200	3,100	3,400	3,600	3,600	3,600
5.5–6.0 (High)	1,500	1,700	1,700	1,800	1,800	2,100	2,100	2,000	1,800	1,600	1,600	1,500	1,800	2,000	2,100	1,900
Race/Ethnicity (2-year average) [a]																
White	21,900	21,500	22,000	21,800	21,600	20,700	19,800	20,200	19,500	17,700	16,200	16,300	17,800	19,600	19,600	18,600
African American	3,200	3,900	4,200	3,600	3,300	3,200	3,600	3,700	3,400	3,300	3,100	2,900	3,000	3,200	3,000	3,000
Hispanic	2,400	2,600	2,900	3,100	2,700	2,600	2,800	3,000	2,500	2,200	2,600	3,100	3,100	2,800	2,900	3,500

TABLE S3 (cont.)
Approximate Weighted *N*s by Subgroups in Grade 12

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	14,500	14,000	13,700	14,400	14,100	13,700	12,600	12,400	12,900	11,800	12,600	13,300	12,900
Gender:													
Male	6,500	6,400	6,300	6,700	6,800	6,600	5,900	5,700	5,700	5,400	5,600	5,800	5,900
Female	7,400	6,900	6,700	7,100	6,700	6,600	6,100	6,100	6,300	5,600	6,100	6,400	6,300
College Plans													
None or under 4 years	2,400	2,300	2,100	2,100	2,100	2,100	2,200	2,000	1,900	1,900	2,000	2,300	2,500
Complete 4 years	11,300	10,800	10,800	11,300	11,200	10,900	9,700	9,600	10,200	9,100	9,700	9,700	9,400
Region													
Northeast	2,700	2,400	2,600	2,700	2,400	2,300	2,200	2,400	2,200	1,900	2,000	2,100	2,300
Midwest	3,200	3,500	3,500	3,200	3,400	3,600	3,100	2,500	2,700	2,500	2,800	3,000	3,000
South	5,500	5,000	4,800	5,400	5,100	4,400	4,300	4,700	5,100	4,700	4,800	5,100	5,400
West	3,100	3,100	2,800	3,100	3,200	3,400	3,000	2,800	2,900	2,700	3,000	3,100	2,200
Population Density													
Large MSA	4,700	3,700	3,900	4,200	4,300	4,300	3,800	3,500	4,100	3,700	4,300	4,600	4,200
Other MSA	6,600	7,100	6,900	7,300	6,900	6,700	6,200	6,300	6,300	5,700	5,700	6,000	6,200
Non-MSA	3,200	3,200	2,900	2,900	2,900	2,700	2,600	2,600	2,500	2,400	2,600	2,600	2,500
Parental Education													
1.0–2.0 (Low)	1,100	1,200	1,400	1,400	1,200	1,200	1,200	1,200	1,300	1,200	1,400	1,600	1,500
2.5–3.0	3,200	3,000	2,900	3,000	2,800	2,800	2,500	2,400	2,500	2,300	2,500	2,600	2,500
3.5–4.0	4,200	3,900	3,700	4,000	3,900	3,700	3,500	3,400	3,200	3,000	3,200	3,200	3,200
4.5–5.0	3,600	3,500	3,300	3,500	3,600	3,600	3,300	3,200	3,400	3,000	2,900	3,100	3,100
5.5–6.0 (High)	1,800	1,700	1,600	1,600	1,900	1,800	1,500	1,300	1,600	1,400	1,600	1,600	1,700
Race/Ethnicity (2-year average) [a]													
White	18,200	17,300	16,300	16,400	16,500	16,300	15,600	14,100	13,400	12,800	12,200	12,500	13,000
African American	3,200	3,500	3,100	3,000	3,400	3,200	2,700	2,800	3,300	3,400	3,200	2,800	2,500
Hispanic	3,700	4,000	4,400	4,500	4,000	3,700	3,900	4,000	4,200	4,000	4,500	5,700	5,700

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

Notes.   ' — ' indicates data not available. See appendix B for definition of variables in table.

Caution: **The *N*s in this table are based on the entire sample at each grade level. Some drug use questions are asked only in some of the questionnaire forms rather than in all, in which case these *N*s need to be adjusted appropriately. Look under Notes in each table to see if only a fraction of the sample was asked about that drug. If there is no such indication, the entire sample received the question.**

[a]*N*s for each racial subgroup represent the combination of the specified year and the previous year. Data 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.