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MONITORING THE FUTURE PANEL STUDY ANNUAL REPORT

National data on substance use among adults ages 19 to 60, 1976-2021

Sponsored by the National Institute on Drug Abuse at the National Institutes of Health

monitoring the future

a continuing study of American youth

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Chapter 1

Monitoring the Future Panel Study Design

Overview

Monitoring the Future (MTF) is an ongoing research program conducted at the University of Michigan's Institute for Social Research under a series of investigator-initiated, competing research grants from the National Institute on Drug Abuse beginning in 1975. The integrated MTF study includes annual surveys of nationally representative samples of 8th, 10th, and 12th grade students, as well as a subset of 12th grade students followed into adulthood from each graduating class. Repeating these annual cross-sectional surveys over time provides data to examine behavior change across history in consistent age segments of the adult population, as well as among key subgroups.

The panel study now has over 108,000 individuals, with approximately 28,500 surveyed each year including young adults ages 19 to 30 and adults ages 35 to 60. These data, gathered on national samples over such a large portion the lifespan, are extremely rare and can provide needed insight into the epidemiology, etiology, and life course history of substance use and relevant behaviors, attitudes, and other factors. The current report is the latest in a series of publications dating back to 1986 and updated annually since then, all available at monitoringthefuture.org.

Participants

Young Adults (Ages 19 to 30)

In 2021, young adults (N=4,909) were from the 12th grade classes of 2009 to 2020 and provided data at modal ages 19 to 30 (see Table 1). Each individual participates in a young adult follow up survey every two years. However, because each cohort's follow up sample is split into two random subsamples that are surveyed in alternate years (at ages 19/20, 21/22, 23/24, 25/26, 27/28, 29/30), a representative sample of people from each 12th grade class is obtained every year.

Adults (Ages 35 to 60)

In 2021, adults ages 35 to 60 (N=5,636) were from the 12th grade classes of 2004, 1999, 1994, 1989, 1984, and 1979 and provided data at modal ages 35, 40, 45, 50, 55, and 60, respectively (see Table 1). In the analyses in this report, combined prevalence estimates for adults ages 35 to 50 are reported.

Research Design & Procedures: Base Year

The MTF panel first samples participants in 12th grade, which corresponds to modal age 18. The methods and findings regarding this base year survey are available elsewhere. Briefly, 12th graders have been surveyed in the spring of each year since 1975. Typically, each year's data collection of 12th graders takes place in 120–140 public and private high schools selected to provide an accurate representative cross-section of 12th graders throughout the contiguous United States. In 2020, due to the school shutdowns that came with the COVID-19 pandemic in March 2020, only 36 schools participated in data collection for 12th graders. Analyses of the 2020 12th grade data indicated that the curtailed sample did not differ from the

nationally representative results from previous years in terms of sociodemographic characteristics.[1]

The final year of high school, 12th grade, is a strategic starting point at which to begin longitudinal panel surveys to monitor drug use and related attitudes of youth through adulthood. Completion of high school represents the end of an important developmental period in the United States, demarcating both the end of universal education and, for many, the end of living full time in the parental home. Therefore, it provides an important base year from which to follow individuals as they transition to adulthood. There is also a practical advantage: it is the final point at which a reasonably good national sample of an age-specific cohort can be drawn from schools. However, a limitation of the MTF study design is the exclusion of individuals who dropped out of high school before graduation—approximately 5–15% of each age cohort nationally. The dropout rate has been declining in recent years; it was 5% in 2020, according to U.S. Census statistics.[2] Because the proportion of students who drop out is small and remains relatively constant from year to year, drop out omission should introduce little or no bias in analyses of trends.

A multistage random sampling procedure is used to secure the nationwide sample of 12th graders each year. Stage 1 is the selection of particular geographic primary areas from within each of 105 strata in the U.S. Stage 2 is the selection of one or more high schools in each area (with probability proportionate to the student enrollment size for 12th grade). Stage 3 is the selection of 12th graders within each high school. Weights are assigned to compensate for differential probabilities of selection at each stage of

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[1] Miech, R., Leventhal, A., Johnston, L., O'Malley, P. M., Patrick, M. E., & Barrington-Trimis, J. (2021). Trends in use and perceptions of nicotine vaping among US youth from 2017 to 2020. *JAMA Pediatrics, 175*(2), 185.

[2] United States Census Bureau. CPS Historical Time Series Tables on School Enrollment. Released August 2021. Accessed April 11, 2022.

sampling. Final weights are normalized to average 1.0, so that the weighted number of cases approximately equals the unweighted number of cases overall. In order for us to be able to check observed trends in any given one-year interval, schools participate in the study for two consecutive years on a staggered schedule, with one half being replaced with a new randomly-selected half sample of schools each year. Therefore, in any given year about half of the schools in the sample are participating for the first time and the other half are participating for their second and final year.

Because many survey questions are needed to cover all of the topic areas in the MTF study, much of the survey content is divided into six different questionnaire forms that are randomly distributed to participants in equal proportions. (Five questionnaire forms were used between 1975 and 1988.) About one third of each form consists of key, or "core," variables common to all forms. All demographic and key drug variables are contained in this core set of measures. Many other specific drugs that have been added over time are in one or more forms but not in the core set. All tables in this report list the sample sizes upon which the statistics are based, stated in terms of the weighted number of cases which, as explained above, is roughly equivalent to the actual number of cases.

Research Design & Procedures: Panel Study

Each year from the 12,000–19,000 12th graders originally surveyed, a panel subsample (N~2450[3]) is selected. At that point they are randomly assigned to begin longitudinal follow up one year later (age 19) or two years later (age 20). Each participant is surveyed every other year through age 29/30 (i.e., at ages 19/20, 21/22, 23/24, 25/26, 27/28, 29/30). Young adults are given the

[3] Only students providing (a) contact information necessary for longitudinal follow up and (b) valid data on sex are eligible for panel subsample selection. As noted previously, 12th grade data collection in 2020 was curtailed due to the COVID-19 pandemic, and all 12th grade students providing contact information and valid data on sex were selected with certainty (n=1,225).

same questionnaire form (of 6 forms) as they were originally given in 12th grade. Starting at age 35, participants are surveyed every 5 years, currently through age 60. At ages 35 to 60, there is only a single questionnaire form at each age that is given to all participants. The panel design is illustrated in Table 1. Typically, panel data are collected in April through October.

Oversampling Based on Substance Use

In order to ensure that drug using populations are adequately represented in the panel surveys, 12th graders reporting 20 or more occasions of marijuana use in the previous 30 days (i.e., daily or near daily users) or any use of the other illicit drugs in the previous 30 days are selected with higher probability (by a factor of 3.0) than the remaining 12th graders. Differential weighting is then used to compensate for these differential sampling probabilities. Because those in the drug using stratum receive a weight of 0.33 in the calculation of all statistics to correct for their overrepresentation at the selection stage, there are actually more panel respondents than are reported in the weighted numbers given in the tables.

Data Collection Procedures

Survey mode. Up through 2017, all panel surveys were conducted by mailing paper surveys. In 2018 and in 2019, one random half of those aged 19 to 30 received the standard MTF panel procedures with mailed paper surveys; the other random half received new web-push procedures and were encouraged to complete web-based surveys. Analyses of the web-push experiment among young adults documented that, once sociodemographic characteristics were controlled, there were very few differences in substance use prevalence estimates by condition or survey mode.[4] We combined the

[4] Patrick, M. E., Couper, M. P., Jang, B. J., Laetz, V., Schulenberg, J. E., O'Malley, P. M., Bachman, J., & Johnston, L. D. (2022). Building on a sequential mixed-mode research design in the Monitoring the Future Study. *Journal of Survey Statistics and Methodology, 10*(1), 149-160.

responses from the two modes in both 2019 and 2020, and the results from combining the two modes are shown in this volume (and in the two previous editions). In 2020, the web-push condition became the standard at age 19 to 30. Also in 2020, we began the transition to web-push survey administration for ages 35 to 60, with one random half receiving the standard MTF mailed surveys and the other half receiving the web-push procedures. Results of the web-push experiment among adults again documented very few differences in substance use prevalence estimates.[5] Therefore, we have combined responses from the two survey modes in the estimates shown here.

Mail-based procedures. Using information provided by 12th grade respondents, contact is maintained with the subset of individuals selected for inclusion in the follow up panels. Newsletters are sent to them each year, providing a short summary of study results on a variety of survey topics. Name and address corrections are requested from both the U.S. Postal Service and the individual. Panel questionnaires are sent in the spring to each individual based on their scheduled panel participation, with an incentive check (currently $25); reminder letters and postcards are sent at fixed intervals thereafter; telephone callers attempt to gather updated location information and prompt response. If requested by the respondent, a second copy of the questionnaire is sent. No questionnaire content is administered by phone. If a respondent asks not to be contacted further, the request is honored.

Patrick, M. E., Couper, M. P., Parks, M. J., Laetz, V., & Schulenberg, J. E. (2021). Comparison of a web-push survey research protocol with a mailed paper and pencil protocol in the Monitoring the Future panel survey. *Addiction, 116*(1), 191-199.
Patrick, M. E., Couper, M. P., Jang, B., Laetz, V. B., Schulenberg, J., Johnston, L. D., Bachman, J., O'Malley, P. M. (2019). Two-year follow-up of the sequential mixed-mode experiment in the U.S. National monitoring the future study. *Survey Practice, 12*(1).

[5] Patrick, M. E., Pang, Y. C., Terry-McElrath, Y. M., Laetz, V., & Couper, M. P. (in press). Comparison of a web-push vs. mailed survey protocol in the Monitoring the Future panel study among adults ages 35 to 60. *Drug and Alcohol Dependence Reports.*

Web-push procedures. The web-push condition follows many of the standard mail-based procedures, including initial contact, mailing of newsletters, survey invitation with incentive check, and follow up contact with nonrespondents. In the web-push procedures, respondents are given access to respond online (i.e., a link and PIN), and then they are later offered a paper survey if they do not respond to the web survey. They are also contacted by email and text message (with their permission). We ensure confidentiality of web-based responses by immediately encrypting data. By design, respondents can pause their web surveys and then easily get back into them; we email reminders to both nonrespondents as well as respondents with a partially completed survey. The web-based surveys are optimized for a variety of operating systems and devices, including computers, tablets, and smartphones. Those who do not respond to the web survey within a month are sent paper versions of the surveys. In the process of telephoning nonrespondents, web surveys and paper surveys are offered.

Panel Attrition & Retention

Longitudinal studies—including MTF—experience attrition. Survey response rates in general have been declining,[6] and response is typically differentially associated with health risks including substance use.[7] A vital feature of the MTF panel study is the very low cost per respondent, which allows us to survey such large numbers of respondents.

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[6] U.S. Bureau of Labor Statistics. Household and establishment survey response rates. Updated June 1, 2022. Accessed June 21, 2022.

[7] Keyes, K. M., Jager, J., Platt, J., Rutherford, C., Patrick, M. E., Kloska, D. D., & Schulenberg, J. (2020). When does attrition lead to biased estimates of alcohol consumption? Bias analysis for loss to follow-up in 30 longitudinal cohorts. *International Journal of Methods in Psychiatric Research*, *29*(4), e1842.
McCabe, S.E., & West, B.T. (2016). Selective nonresponse bias in population- based survey estimates of drug use behaviors in the United States. *Social Psychiatry & Psychiatric Epidemiology, 51*(1), 141-153.

Response Rates

Response rates by cohort and data collection wave are shown in Table 2. The largest drop in response rates occurs at the first follow up. Average response rates across the five most recent cohorts to complete each follow up survey were 35.7% for the first follow up at age 19/20 (cohorts 2015–2019), and 36.2% for the second through sixth follow ups at ages 21–30 (cohorts 2004–2017). Due to cohort differences in the propensity to respond, response rates are higher among earlier than later cohorts: 35–41% at ages 35 to 45 and 39–55% at ages 50 to 60. Response rates within cohort tend to decline with the length of the follow up interval.

The impact of the change from paper to web-push methodology on response rates has been examined. We found a significant difference in response rates by survey condition combining across ages 19 to 30 in 2019; the web-push response rate was 39.1% (95% confidence interval [CI] = 37.89, 40.2). This was significantly higher than the standard MTF response rate of 35.1% (95% CI = 33.96, 36.29).[8] In 2020, when the web-push condition was the standard procedure for ages 19 to 30, the overall response rate was 41%. No significant differences between survey modes were observed among respondents ages 35–60 in 2020.[9]

The response rates are respectable, especially given the relatively low data collection costs and the extended period over which respondents are followed. Weights can be used to adjust for attrition.

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[8] Patrick, M. E., Couper, M. P., Parks, M. J., Laetz, V., & Schulenberg, J. E. (2020). Comparison of a web-push survey research protocol with a mailed paper and pencil protocol in the Monitoring the Future panel survey. *Addiction 116*(1), 191-199.

[9] Patrick, M. E., Pang, Y. C., Terry-McElrath, Y. M., Laetz, V., & Couper, M. P. (in press). Comparison of a web-push vs. mailed survey protocol in the Monitoring the Future panel study among adults ages 35 to 60. *Drug and Alcohol Dependence Reports.*

Impact of Panel Attrition

An important purpose of the MTF panel study is to estimate drug prevalence levels among U.S. high school graduates as they move across adulthood. Thus, we have always been concerned about making appropriate adjustments to account for panel attrition. Our standard adjustment for this publication series uses a drug specific post-stratification procedure in which we reweight each cohort's panel sample so that the 12th grade use distribution for a specific drug is the same for the panel respondents as it was for all of the 12th grade students from which they were selected. This procedure is carried out separately for cigarettes, alcohol, and marijuana, as well as other illicit drugs (combined). As expected, it produces prevalence estimates in the panel data that are somewhat higher than those uncorrected for attrition. However, the adjustments are relatively modest. In the MTF panel, we have extensive data from the 12th grade surveys for panel nonrespondents; these data can be used to make additional adjustments.

We are not able to adjust for the absence of students who dropped out prior to 12th grade. Because nearly all college students have completed high school, the omission of high school dropouts should have almost no effect on college student prevalence estimates, but this omission does affect the estimates for noncollege young adults and the combined young adult estimates. The omission of about 5–15% of each cohort[10] who dropped out prior to 12th grade likely means that drug use estimates reported here are likely somewhat lower than would be observed for the age group as a whole. Nevertheless, the year to year trends should be little affected by the limitations in sample coverage.

[10] United States Census Bureau. CPS Historical Time Series Tables on School Enrollment. Released August 2021. Accessed April 11, 2022.

Chapter 2

Young Adult Substance Use Prevalence and Trends

Executive Summary

The most prevalent substances used by young adults ages 19 to 30 in 2021 were:

	Past 12 months	**Past 30 days**
Alcohol	81.8%	66.3%
Marijuana (any mode)	42.6%	28.5%
Vaping Nicotine	21.8%	16.1%
Vaping Marijuana	18.7%	12.4%
Cigarettes	18.6%	9.0%
Other Drugs[1]	18.3%	7.5 %

In addition, binge drinking (having 5+ drinks in a row in the past 2 weeks) was reported by 32.0%, and daily marijuana use (20+ occasions in the past 30 days) was reported by 10.8% of young adults in 2021.

There were **notable significant changes from 2020 to 2021** among young adults ages 19 to 30:

- Increases in vaping marijuana in the past 30 days from 2020 to 2021.

[1] An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin).

- A decrease in daily drinking and an increase in binge drinking among young adults from 2020 to 2021, thereby returning to the pre-pandemic levels of 2019.
- Increases in vaping nicotine in the past 30 days among young adults from 2020 to 2021.
- Decreases in the non-medical use of narcotics other than heroin among young adults from 2020 to 2021.
- Decreases in the non-medical use of some stimulants from 2020 to 2021, including amphetamines, Adderall, cocaine, and methamphetamines.

In 2021, young adults had **historically high prevalence levels** of:

- Marijuana use: In 2021, marijuana use in the past 12 months and past 30 days among young adults has reached the highest levels ever recorded (since 1988).
- Nicotine vaping in the past 30 days: Since it was first measured in 2017, nicotine vaping in the past 30 days has nearly tripled among young adults to 16.1% in 2021. Nicotine vaping in the past 12 months was reported by 21.8%, just below the all-time high of 23.6% in 2019.
- High-intensity drinking: In 2021, 13.1% of young adults had 10+ drinks in a row in the past 2 weeks, which was the highest recorded since it was first measured in 2005.
- Hallucinogens other than LSD: In 2021, 6.3% of young adults reported use in the past 12 months, which was the highest recorded (since 1988).

In 2021, young adults had **historically low prevalence levels** of:

- Cigarette smoking: Smoking among young adults has been declining steadily since 2004, with large and significant decreases in past 12-month use, past 30 day use, daily use, and smoking a half pack per day or more over the past 5 years and 10 years. Cigarette smoking in the past 30

days decreased by more than half in the past decade, from 21.2% in 2011 to 9.0% in 2021.

- Alcohol use: Measures of drinking in the past 12 months, past 30 days, daily drinking, and binge drinking have been decreasing over the past 10 years.
- Narcotics (opioids): Narcotics other than heroin, Vicodin, and OxyContin were all at record low levels among young adults in 2021.

Introduction

Longitudinal panel studies that track the same individuals across several years are extremely valuable for examining developmental changes with age and long-term connections across the life course. At the same time, the multiple cohort sequential design of MTF provides a useful snapshot of each age group in a given year. In this chapter, we present the most recent prevalence of substance use among young adults (ages 19 to 30) and describe recent historical trends comparing these estimates to young adults in previous years. The data are presented in a series of figures and tables ordered by substance and timeframe of use (e.g., past 12 months, past 30 days). In the figures, estimates for ages 19 to 30 are combined, and the significance of trend estimates across 1, 5, and 10 years is provided. In the tables, estimates for young adults are provided in 2-year age groupings (e.g., modal ages 19 and 20) and, for comparison, with estimates from adolescents at age 18 (presented elsewhere) and adults ages 35 to 60 (discussed in the next chapter). Previous trends have been reported annually and are available elsewhere.

Most Common Substances: Prevalence

The prevalence estimates (this section) and trends (the following section) are first presented for the most commonly used substances including marijuana, alcohol, cigarettes, vaping, and any drug other than marijuana.

Estimates for other specific substances are presented in the final section of the chapter.

Marijuana

The legal status of marijuana at the state level, as well as how it is talked about in the literature and society at large, is changing. The term "marijuana" is increasingly being replaced with the term "cannabis." However, in our surveys and this publication we predominantly continue to use the term marijuana (as does NIDA[2]). We continue to update our surveys about modes of use; the estimates here include use of marijuana in any form.

12 month. Marijuana use in the past 12 months was reported by 42.6% of young adults in 2021 (Figure 1), with the highest prevalence at ages 21–22 (44.7%; Table 3).

30 day. Marijuana use in the past 30 days was reported by 28.5% of young adults in 2021 (Figure 2), with the highest levels for ages 21–26 at 29–31% (Table 4).

Daily. Current daily marijuana use (defined as using on 20 or more occasions in the past 30 days) was reported by 10.8% of young adults in 2021 (Figure 3), ranging from 9.1% at age 21–22, to 12.0% at ages 23–24 (Table 5).

Vaping marijuana. In particular, vaping marijuana in the past 12 months was reported by 18.7% of young adults in 2021 (Figure 4). Vaping marijuana in the past 30 days was reported by 12.4% of young adults in 2021 (Figure 5), with the highest prevalence at ages 19–20 at 13.6%.

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[2] National Institute on Drug Abuse. Cannabis (Marijuana).

Alcohol

12 month. Alcohol use in the past 12 months was reported by 81.8% of young adults in 2021 (Figure 6); it rose sharply with age, reaching 87.7% at age 25–28 (Table 7).

30 day. Two-thirds (66.3%) of young adults reported drinking in the past 30 days in 2021 (Figure 7); peaking at 74.8% at ages 25–26 (Table 8).

Daily. Current daily drinking (defined as 20 or more occasions in the past 30 days) was reported by 4.1% of young adults in 2021 (Figure 8). It increased across the age strata, from 1.8% at ages 19–20 to 5.6% at ages 29–30 (Table 9).

Binge drinking (i.e., having 5+ drinks in a row) was reported by 32.0% of young adults in the past 2 weeks in 2021 (Figure 9). Prevalence was 23.4% at ages 19–20 and 32.4–35.4% at ages 21–30, reflecting a recent shift upward in the peak age.[3]

High-intensity drinking[4] (i.e., having 10+ drinks in a row) was reported by 13.1% of young adults in the past 2 weeks (Figure 10); 3.7% reported having 15+ drinks in a row in the past 2 weeks (Figure 11).

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[3] Jager, J., Keyes, K., Son, D., Patrick, M., Platt, J., & Schulenberg, J. (2022). Age 18–30 trajectories of binge drinking frequency and prevalence across the past 30 years for men and women: Delineating when and why historical trends reversed across age. *Development and Psychopathology,* 1-15.
Patrick, M. E., Terry-McElrath, Y. M., Lanza, S. T., Jager, J., Schulenberg, J. E., & O'Malley, P. M. (2019). Shifting age of peak binge drinking prevalence: Historical changes in normative trajectories among young adults aged 18 to 30. *Alcoholism: Clinical and Experimental Research, 43*, 287-298.

[4] Patrick, M. E., Terry-McElrath, Y. M., Miech, R. A., Schulenberg, J. E., O'Malley, P. M., & Johnston, L. D. (2017). Age-specific prevalence of binge and high-intensity drinking among U.S. young adults: Changes from 2005 to 2015. *Alcoholism: Clinical and Experimental Research, 41*(7), 1319-1328.
Patrick, M. E., Terry-McElrath, Y. M., Kloska, D. D., & Schulenberg, J. E. (2016). High-intensity drinking among young adults in the United States: Prevalence, frequency, and developmental change. *Alcoholism: Clinical and Experimental Research, 40*, 1905-1912.

Cigarettes

12 month. Cigarette use in the past 12 months was reported by 18.6% of young adults in 2021 (Figure 12).

30 day. Cigarette use in the past 30 days was reported by 9.0% of young adults in 2021 (Figure 13), with the highest levels of 10.8–12.6% at ages 27–30 (Table 12).

Daily. Daily smoking was reported by 4.4% of young adults in 2021 (Figure 14), increasing from 2.5% at ages 19–20 to 6.8–7.8% at ages 27–30 (Table 13). Smoking a half pack or more per day was reported by 2.4% of young adults (Figure 15).

Vaping Nicotine

12 month. Vaping nicotine in the past 12 months was reported by 21.8% of young adults in 2021 (Figure 16).

30 day. Vaping nicotine in the past 30 days was reported by 16.1% of young adults in 2021 (Figure 17), and highest at ages 19–22 (22.0–22.8%; Table 15).

Any Drug Other Than Marijuana

An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin).

Lifetime. Lifetime prevalence of using any drug other than marijuana ranged from 22% at age 19/20 to 46% at ages 27–30 (Figure 41).

12 month. Use of any drug other than marijuana was reported by 18.3% of young adults (Figure 18), increasing from 14.0% at ages 19–20 to 16.9–20.5% at ages 21–30 (Table 16).

Most Common Substances: Trends

We focus on recent trends in substance use among young adults ages 19 to 30 combined (shown in Figures 1 through 38). Data are given for each year in which they are available for that full age band. We present trends for one year (the percentage point change between 2020 and 2021), 5 years (the percentage point change between 2016 and 2021), and 10 years (the percentage point change between 2011 and 2021).

Marijuana

In 2021, marijuana use among young adults reached the highest levels ever recorded since the indices were first available in 1988 (Figures 1 to 3). Marijuana use in the past 12 months among young adults has increased over the past 10 years (from 29.4% in 2011) and past 5 years (from 33.8% in 2016) to 42.6% in 2021 (Figure 1). Similarly, marijuana use in the past 30 days over the past 5 years (from 20.6% in 2016) and the past 10 years (from 17.1% in 2011) to 28.5% in 2021 (Figure 2). Current daily marijuana use among young adults also reached a new peak of 10.8% in 2021 (Figure 3), reflecting significant change over the past 5 years (from 7.5% in 2016) and 10 years (from 5.7% in 2011). However, the 1 year change from 2020 to 2021 was not significant for use in the past 12 months (Figure 1), past 30 days (Figure 2), or daily marijuana use (Figure 3).

Vaping marijuana was reported by 18.7% of young adults in the past year (Figure 4). The prevalence of vaping marijuana in the past 30 days increased among young adults, from 10.8% in 2020 to 12.4% in 2021 (Figure 5). Questions about vaping marijuana were added to the young adult surveys in 2017, with 30 day prevalence more than doubling from 2017 to 2019 and then remaining fairly steady from 2019 through 2021.

Alcohol

Alcohol use in the past 12 months among young adults in 2021 stayed at 81.8%, unchanged from 2020 (Figure 6). However, there were significant downward trends in use among young adults in the past 5 years (from 83.5% in 2016) and 10 years (from 83.8% in 2011). Alcohol use in the past 30 days showed a similar pattern, with no significant change over 1 year, but statistically significant decreases in the past 5 years (from 69.7% in 2016) and 10 years (from 68.9% in 2011; Figure 7). Among young adults, current daily drinking has decreased over the past 1 year (from 5.3% in 2020), 5 years (from 5.6% in 2016), and 10 years (from 5.2% in 2011), to 4.1% in 2021 (Figure 8).

Binge drinking (5+ drinks in a row in the past two weeks) among young adults showed a pattern of rebounding from a historic low during the COVID-19 pandemic in 2020 (when it reached 28.0%), back to 32.0% which was even with pre-pandemic levels (Figure 9). However, this was still a decrease over the past 10 years (down from 35.5% in 2011).

High-intensity drinking has not followed the same pattern: in fact, having 10+ drinks in a row in the past two weeks has increased over the past 5 (from 9.6% in 2016) and 10 (from 11.0% in 2011) years to 13.1% in 2021 (Figure 10).

Cigarettes

Cigarette smoking among young adults has been declining steadily since 2004 and reached new historic lows in 2021. The 1 year trends were not significant, although there were large and significant decreases in past 12-month use, past 30-day use, daily use, and smoking a half pack or more per day over the past 5 years and 10 years (Figures 12 to 15). For example, cigarette use in the past 30 days decreased by more than half in the past decade (Figure 13). This pattern of significant decline follows appreciable

declines to historic lows among high school seniors and is consistent with a cohort effect working its way up the age spectrum (Tables 11 through 14).

Vaping Nicotine

Questions about vaping nicotine were added to the young adult surveys in 2017. The prevalence of vaping nicotine in the past 12 months was level from 2020 to 2021 (at 21.8%), but remained near the high of 23.6% in 2019. The prevalence of vaping nicotine in the past 30 days increased significantly from 2020 (13.7%) to 2021 (16.1%) among young adults (Figure 17). Since it was first measured 4 years ago, the prevalence of nicotine vaping has nearly tripled among young adults (from 6.2% past 30-day use in 2017; Figure 17).

Any Drug Other Than Marijuana

An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin). Past 12 month use of non-medical use of any drug other than marijuana remained steady among young adults (at 18.3%), with no significant change in the past 1, 5, or 10 years (Figure 18). As summarized below, this lack of significant change was due to a mix of significant increases, significant decreases, and no significant changes in the drugs that constitute this index.

Other Substances: Prevalence and Trends

MTF includes specific questions about many individual substances. Below are prevalence levels and trends for use in the past 12 months among young adults for non-medical use of hallucinogens, narcotics (opioids), sedatives/tranquilizers, stimulants, and tobacco in other forms. Additional data are also available.[5]

[5] Monitoring the Future: Restricted-Use Panel Data, United States, 1976-2019 (ICPSR 37072)

Hallucinogens

Hallucinogen use was reported by 8.1% of young adults in 2021 (Figure 20), ranging from 7.4–9.7% across ages 19 to 30 (Table 17). The 1 year change was not significant, although there were significant longer-term increases across the past 5 years (from 4.6% in 2016) and 10 years (from 3.4% in 2011; Figure 20).

LSD use was reported by 4.2% of young adults in 2021 which was level from 2020 to 2021 but has increased significantly over the past 5 and 10 years (from 1.6% in 2011 and 3.0% in 2016; Figure 21).

Hallucinogens other than LSD significantly increased from 2020 (5.2%) to 2021 (6.3%; Figure 22), and over the past 5 and 10 years (Figure 22).

MDMA (ecstasy, Molly) was the exception among hallucinogens, with prevalence at 2.6% of young adults in 2021 (Figure 23) reflecting significant decreases over the past 1 year (from 4.5% in 2020) and 5 years (from 4.8% in 2016).

Narcotics (Opioids)

Heroin use was uncommon, at only 0.2% among young adults (Figure 24), and has significantly decreased over the past 10 years from 0.4% in 2011.

Use of **narcotics other than heroin** was reported by 1.7% of young adults (Figure 25), which was a significant decrease over the past 1 year (from 2.6% in 2020), 5 years (form 5.2% in 2016), and 10 years (from 7.7% in 2011). Its peak was 8.9% in 2006 (Figure 25). Correspondingly, past 12 month use of Vicodin showed a significant 5 year decline of 1.5 percentage points to 1.3% in 2021; its peak was 9.2% in 2009 (Figure 27). OxyContin appeared to have

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leveled at very low prevalence over the past 5 years (1.5% in 2021), which was a decrease over the past 10 years (from 2.7% in 2011; Figure 26).

Sedatives & Tranquilizers

Sedative (barbiturate) use was reported by 1.4% of young adults in 2021 (Figure 28), with significant decreasing trends over the past 1 year (from 2.2% in 2020), 5 years (from 2.6% in 2016), and 10 years (from 3.0% in 2011). In 2021 prevalence was at an all-time low for young adults.

Tranquilizer use was reported by 3.2% of young adults in 2021 (Figure 29), which is level with 2020 but part of a longer-term decline over the past 5 years (from 5.0% in 2016) and 10 years (from 5.8% in 2011).

Stimulants

Amphetamine use was reported by 5.6% of young adults in 2021 (Figure 30), ranging from 3.3% at ages 19–20 to 7.1% at ages 21–24 (Table 25). Use declined significantly among young adults over the past 1 year (from 6.6% in 2020), 5 years (from 6.9% in 2016), and 10 years (from 6.6% in 2011; Figure 30).

Adderall, an amphetamine stimulant also used in the treatment of ADHD, was reported by 0.2% of young adults in 2021 (Figure 31), after a decline from 2020 (0.8%) and across the past 5 years (from 0.6% in 2016).

Ritalin, a stimulant widely prescribed for the treatment of attention deficit hyperactivity disorder or ADHD, was reported by 1.3% of young adults in 2021 (Figure 32).

Cocaine use was reported by 5.5% of young adults in 2021 (Figure 33), peaking at 7.3% at ages 25–26 and then declining through age 30 (Table 26). The prevalence declined significantly from 2020 (6.8%) to 2021 (5.5%), reversing the longer-term trend of increasing over the past 10 years, during which the all-time low was 3.8% in 2013 (Figure 33).

Methamphetamine use has remained at 0.2–1.0% for young adults since 2008 (Figure 34), although there was a significant decrease from 2020 (0.8%) to 2021 (0.2%).

Tobacco, Other Forms

Various forms of nicotine and tobacco use (in addition to cigarettes and vaping nicotine, reported above) include:

Small cigars. Use of small cigars has been trending downward over the past 1, 5, and 10 years, reaching a new low of 10.2% of young adults in 2021 (Figure 35).

Hookah. Smoking tobacco with a hookah has decreased significantly over the past 1, 5, and 10 years, with prevalence of use in the past 12 months at 6.3% of young adults in 2021 (Figure 36).

Snus. Use of snus in the past 12 months was reported by 3.2% of young adults in 2021, which is a substantial decrease over the past 10 years (from 5.8% in 2011; Figure 38).

Chapter 3

Adult Substance Use Prevalence and Trends

Executive Summary

The most prevalent substances used by adults ages 35 to 50 in 2021 were:

	Past 12 months	Past 30 days
Alcohol	84.8%	71.4%
Marijuana	24.9%	15.8%
Cigarettes	14.5%	10.4%
Other Drugs[1]	11.2%	5.5 %

In addition, binge drinking (having 5+ drinks in a row in the past 2 weeks) was reported by 24.5%, and daily marijuana use (20+ occasions in the past 30 days) was reported by 5.9% of adults ages 35 to 50 in 2021.

There were **notable significant changes from 2020 to 2021** among adults ages 35 to 50:

- Marijuana use in the past 12 months and past 30 days increased significantly from 2020 to 2021 among adults ages 35 to 50, reaching the highest levels recorded by the survey (since 2008).

[1] An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin).

- Nicotine vaping among adults ages 35 to 50 remained low, but there was a significant increase in use in the past 30 days from 2020 (1.1%) to 2021 (1.9%). This remained lower than the level of 3.8% in 2019 when it was first assessed at these ages.
- There was a 1 year change in daily drinking in 2021 which returned it to pre-pandemic levels (down from 12.0% in 2020 to 9.2% in 2021).

Longer-term trends among adults ages 35 to 50 in the past 10 years include:

- Marijuana use in the past 12 months and past 30 days have approximately doubled in the past 10 years (from 12.6% and 7.4% in 2011 to 24.9% and 15.8% in 2021, respectively), with the majority of the increase in the past 5 years.
- Alcohol use in the past 30 days and binge drinking in the past 2 weeks have also increased in the past 10 years (from 68.9% in 2011 to 71.4% in 2021 and from 21.7% in 2011 to 24.5% in 2021, respectively).
- In the past decade, cigarette smoking continued to decrease for smoking in the past 12 months (20.4% in 2011 to 14.5% in 2021) and past 30 days (16.5% in 2011 to 10.4% in 2021).
- Over the past 10 years, we have seen significant increases in amphetamine use (from 1.1% in 2011 to 2.7% in 2021) and decreases in sedative use (from 2.7% in 2011 to 2.0% in 2021).
- Over the past 5 years, there has been an increase in the use of hallucinogens (from 0.8% in 2016 to 2.5% in 2021).
- There has been a decrease in use of narcotics other than heroin over the past 5 years (from 5.1% in 2016 to 3.4% in 2021).

Introduction

MTF has been following individuals from age 18 throughout adulthood since 1976. These surveys currently include follow-ups through age 60. In this chapter, we present the most recent prevalence estimates of substance use among adults ages 35 to 50 combined and for separate age groups from 35 to 60 (ages 55 and 60 are not included in the combined adult estimates because of differences in developmental stage and measurement), and we describe recent historical trends comparing these estimates to previous years. The data are presented in a series of figures and tables ordered by substance and timeframe of use (e.g., past 12 months, past 30 days). In the figures, estimates for ages 35 to 50 are combined, and the significance of trend estimates across 1, 5, and 10 years is provided. In the tables, estimates from adolescents at age 18 (presented elsewhere) and young adults ages 19 to 30 (discussed in the previous chapter) are provided for comparison.

Adjusted Lifetime Prevalence Estimates

Having longitudinal data allows us to compare participants' most recent responses about ever having used a substance in their lifetime to an adjusted lifetime prevalence estimate which aggregates data across multiple data collections. These estimates are shown in Figures 39 through 47.

To be categorized as a lifetime user for the adjusted lifetime prevalence estimate, a participant must have reported either lifetime use in the most recent data collection and/or reported some use in their lifetime on at least two earlier data collections. Respondents ages 18 through 20 cannot have their responses adjusted on the basis of 2 earlier data collections; therefore, adjusted lifetime prevalence estimates are calculated only for ages 21 and older.

We believe that the truth lies somewhere between both estimates: the lower estimate may be depressed by tendencies to forget, forgive, repress, or

conceal earlier use, whereas the upper estimate may include earlier response errors, intentional exaggerations, or incorrect definitions of drugs that respondents appropriately revised in later surveys.[2]

Most Common Substances: Prevalence

The prevalence estimates (this section) and trends (the following section) are first presented for the most commonly used substances including marijuana, alcohol, cigarettes, vaping, and any drug other than marijuana. Estimates for other specific substances are presented in the final section of the chapter.

Marijuana

The legal status of marijuana at the state level, as well as how it is talked about in the literature and society at large, is changing. The term "marijuana" is increasingly being replaced with the term "cannabis." However, in our surveys and this publication, we predominantly continue to use the term marijuana (as does NIDA[3]). We continue to update our surveys about modes of use; the estimates here include use of marijuana in any form.

Lifetime. Among adults, lifetime prevalence was lowest for those 45 and 50 (at 70.6% and 71.0%, respectively). These respondents graduated from high school in 1994 and 1989, when marijuana and other drugs were at or near historic lows across the past four decades, suggesting a cohort effect. The highest lifetime prevalence levels were for those ages 55 (77.9%) and 60

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[2] For a more detailed discussion see Johnston, L. D., & O'Malley, P. M. (1997). The recanting of earlier-reported drug use by young adults. In L. Harrison & A. Hughes (Eds.), The validity of self-reported drug use: Improving the accuracy of survey estimates (NIDA Research Monograph No-167). Washington, DC: National Institute on Drug Abuse. Accessed at https://archives.drugabuse.gov/sites/default/files/monograph167_0.pdf

[3] National Institute on Drug Abuse. Cannabis (Marijuana).

(76.9%), who were in high school during years of peak marijuana use (Figure 39).

12 month. Prevalence of marijuana use in the past 12 months for those ages 35 to 50 combined was 24.9% in 2021 (Figure 1) and declined with age from 31.0% at ages 35 to 14.7% at age 60 (Table 3).

30 day. Marijuana use in the past 30 days was reported by 15.8% of adults ages 35 to 50 in 2021 (Figure 2) and ranged from 19.2% at age 35 to 9.5% at age 55 (Table 4).

Daily. Current daily marijuana use (defined as using on 20 or more occasions in the past 30 days) for ages 35 to 50 was 5.9% in 2021 (Figure 3), ranging from 9.3% at age 35 to 3.6% at age 50 (Table 5).

Vaping marijuana (Figure 4) was not common among adults. Among those ages 35 to 50, only 2.9% had vaped marijuana in the past 12 months (Figure 4) and 0.9% had vaped marijuana in the past 30 days (Figure 5).

Alcohol

Lifetime. The vast majority of adults reported lifetime alcohol use, with 97.4–99.0% of those ages 35 to 60 ever drinking (Figure 40).

12 month. Alcohol use in the past 12 months was also very high, with 84.8% of those ages 35 to 50 reporting it in 2021 (Figure 6). Across age, past 12-month alcohol use declined from 88.6% of those at age 35 to 79.3% of those at age 60 (Table 7).

30 day. 71.4% of adults ages 35 to 50 used alcohol in the past 30 days in 2021 (Figure 7), ranging from 73.1%-73.3 of those at ages 35 and 40 to 65.8% of those at age 60 (Table 8).

Daily. Current daily drinking (defined as 20 or more occasions in the past 30 days) was 9.2% for those ages 35 to 50 in 2021 (Figure 8). Unlike other

measures of alcohol use, daily drinking increased across age stratum, from 9.4% at age 35 to 14.2% at age 60 (Table 9).

Binge drinking (i.e., having 5+ drinks in a row in the past 2 weeks) was reported by 24.5% of those ages 35 to 50 in 2021 (Figure 9). Its prevalence ranged from 24.8–26.3% at ages 35–40, 21.5–23.8% at ages 45–55, and 16.9% at age 60 (Table 10).

Cigarettes

12 month. Among adults ages 35 to 50, 14.5% smoked cigarettes in the past 12 months (Figure 12), with prevalence decreasing across age from 15.6% at age 35 to 13.1% at age 60 (Table 11).

30 day. 1 out of 10 adults ages 35 to 50 smoked cigarettes in the past 30 days in 2021 (Figure 13), fairly level across age from 11.6% at age 35 to 9.7% at age 60 (Table 12).

Daily. Daily smoking in the past 30 days was reported by 7.5% of those ages 35 to 50 (Figure 14), with an inconsistent variability across specific age from 7.1–9.5% from 35 to 60. (Table 13). Smoking a half pack or more per day was reported by 5.1% of those ages 35 to 50 (Figure 15), but highest among those ages 55–60 (6.7–7.5%). Of all daily smokers at age 60, about 74% were smoking half pack a day or more.

Vaping Nicotine

Vaping nicotine was not common among adults. Among those ages 35 to 50, 2.9% vaped nicotine in the past 12 months (Figure 16) and 1.9% had vaped nicotine in the past 30 days (Figure 17).

Any Drug Other Than Marijuana

An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin). This is

reported for ages 35 to 50 only, because some drugs are no longer measured after age 50.

Lifetime. Lifetime prevalence of using any drug other than marijuana ranged from 42% at age 35 to 55% at age 45 (Figure 41).

12 month. 11.2% of adults ages 35 to 50 reported using any drug in the index other than marijuana in the past 12 months (Figure 18), ranging from 14.2% at age 35 to 8.9% at age 50 (Table 16).

Most Common Substances: Trends

In this section we focus on recent trends over the past 1 year, past 5 years, and past 10 years in substance use among middle adults ages 35 to 50 combined (shown in Figures 1 through 38). Data are given for each year in which they are available for that full age band. We present 1 year trends (i.e., the percentage point change between 2020 and 2021), 5 year trends (i.e., the percentage point change between 2016 and 2021), and 10 year trends (i.e., the percentage point change between 2011 and 2021) and whether these trends were statistically significant. Data on ages 55 and 60 have been available for only 9 and 4 years, respectively, so they are not yet included in the adult trend analysis (although their estimates are presented in the given tables).

Marijuana

Among those ages 35 to 50 combined, the prevalence of marijuana use in the past 12 months has nearly doubled in the past 10 years (from 12.6% in 2011 to 24.9% in 2021); the majority of this increase has been in the past 5 years (from 14.9% in 2016). There was also a significant 1 year increase from 2020 (22.7%) to 2021 (Figure 1). A similar pattern was seen for marijuana use in the past 30 days, which was 7.4% in 2011, 8.9% in 2016, 13.7% in 2020, and 15.8% in 2021 (Figure 2). Daily marijuana use was level

from 2020 to 2021, but there were significant trends over the past 5 years and 10 years (2.6% in 2011, 3.0% in 2016, 5.9% in 2021; Figure 3).

Alcohol

Alcohol use among those ages 35 to 50 has been flat, with few significant trends in the past 10 years. Prevalence remains high, at 84.8% in the past 12 months, 71.4% in the past 30 days, 9.2% drinking daily (defined as 20 or more times in the past 30 days), and 24.5% reporting binge drinking (5+ drinks in a row) in the past 2 weeks (Figures 6 to 9). There are two notable exceptions to the overall stable trends. First, we observed a 1-year decrease from 2020 to 2021 in daily drinking (from 12.0% in 2020 to 9.2% in 2021; Figure 8); the prevalence returned to pre-pandemic levels in 2021. Second, there has been a gradual upward trend over the past 10 years in alcohol use in the past 30 days (from 68.9% in 2011 to 71.4% in 2021; Figure 7) and binge drinking in the past 2 weeks (from 21.7% in 2011 to 24.5% in 2021; Figure 9).

Cigarettes

Cigarette use has been steadily declining among those ages 35 to 50. Smoking in the past 12 months and past 30 days decreased over the past 5 and 10 years; however, the additional drop from 2020 to 2021 did not reach statistical significance in either case. Prevalence of adults ages 35 to 50 smoking half a pack or more per day has trended downward in the past 1, 5, and 10 years, to 5.1% in 2021. In 2020 during the early months of the COVID-19 pandemic, half pack a day smoking had increased to 7.0% but has now returned to match the low of 5.0% in 2019.

Vaping Nicotine

Nicotine vaping among those ages 35 to 50 remained low, although there was a significant 1 year increase in 30 day use, from 1.1% in 2020 to 1.9% in

2021. This remained lower than the level of 3.8% in 2019, which was the first year the questions were included at these ages (Figure 17).

Any Drug Other Than Marijuana

The index for the non-medical use of any drug other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin). Among those ages 35 to 50 it has remained stable over the past 10 years. In 2021, 11.2% reported using drugs other than marijuana in the past 12 months (Figure 18).

MTF includes specific questions about many individual substances. Below are prevalence levels and trends for use in the past 12 months among adults ages 35 to 50 for hallucinogens, narcotics (opioids), sedatives/tranquilizers, stimulants, and tobacco in other forms. Additional data are also available.[4]

Hallucinogens

Hallucinogen use in the past 12 months was reported by 2.5% of adults ages 35 to 50 in 2021 (Figure 20), and increased significantly over the past 5 years (from 0.8% in 2016) and 10 years (from 0.7% in 2011). Use ranged from 4.5% at age 35 to 0.7% at age 50 (Table 17).

Narcotics (Opioids)

Heroin use among adults ages 35 to 50 was 0.2% in 2021, with no significant change over the past 10 years (Figure 24).

Use of **narcotics other than heroin** was reported by 3.4% in 2021, with a decrease over the past 5 years (from 5.1% in 2016) and 10 years (from 4.7%

[4] Monitoring the Future: Restricted-Use Panel Data, United States, 1976-2019 (ICPSR 37072) https://www.icpsr.umich.edu/web/NAHDAP/studies/37072

in 2011; Figure 25). Use of heroin (Table 21) and narcotics other than heroin (Table 22) varied inconsistently by age.

Sedatives & Tranquilizers

Sedative use in the past 12 months was reported by 2.0% of those ages 35 to 50 in 2021 (Figure 28), which was a decrease over the past 10 years from 2.7% in 2011. Use was between 1.5 and 2.5% at each age (Table 23).

Tranquilizer use in the past 12 months was reported by 4.1% of those ages 35 to 50, with no significant changes in the past 10 years (Figure 29). Use ranged from 2.9–4.8% age all ages from 35 to 60 (Table 24).

Stimulants

Amphetamine use was reported by 2.7% of adults ages 35 to 50 in 2021 (Figure 30), ranging from 3.8% at age 35 to 0.6% at ages 55 and 60 (Table 25). There was a positive 10 year trend (up from 1.1% in 2011), but no significant 1 or 5 year trends.

Cocaine use was reported by 2.5% of adults ages 35 to 50 in 2021 (Figure 33), with no significant changes in the past 10 years. By age stratum, there was a range of 4.2% at age 35 descending to 0.8% at age 60 (Table 26).

Chapter 4

College and Noncollege Young Adult Substance Use

Executive Summary

In 2021, differences in substance use for college vs. noncollege young adults ages 19 to 22 showed that:

- Noncollege young adults had higher prevalence of using marijuana in the past 30 days, using marijuana daily, daily cigarette smoking, nicotine vaping in the past 12 months and 30 days, and past 12 month use of hallucinogens, narcotics, sedatives, and tranquilizers.
- College students had higher prevalence of drinking in the past 12 months, drinking in the past 30 days, binge drinking in the past 2 weeks, and past 12 months use of cocaine.
- However, noncollege young adults had higher prevalence of high-intensity drinking (10+ drinks) in the past 2 weeks.
- Daily cigarette smoking remained more prevalent among noncollege young adults.

Trends over time revealed that:

- The gap between college and noncollege young adults in cigarette use narrowed as prevalence among both groups declined over the past two decades, such that they had similar levels of smoking cigarettes in the past 12 months and past 30 days in 2021.

- The pandemic-related dip in binge drinking in 2020 and rebound to match pre-pandemic levels in 2021 that was observed for young adults overall (see Chapter 2) was most notable in college students, and in particular in college women.
- In 2021 amphetamine use overall was similar for college and noncollege young adults, although the prevalence of non-medical use of Adderall was higher for college than noncollege young adults.

Introduction

The Monitoring the Future (MTF) study tracks multiple forms of substance use among U.S. college students and has done so for over four decades. This chapter focuses on the current prevalence and trends of drug use among college students and noncollege young adults, focusing on the typical college-attending ages of 19 to 22 (i.e., one to four years after high school).

MTF has been able to generate an unparalleled national sample of college students and same-aged young adults not in college every year since 1980 by following national samples of sequential high school classes after they graduate. The graduating class of 1976 was the first such class followed after high school graduation, and by 1980 the survey included college students 1 to 4 years past high school. The MTF follow up samples have provided excellent coverage of the U.S. college student population for over 4 decades (1980–2021); previous results are available elsewhere.

MTF draws the college sample prospectively in the senior year of high school, so it has considerable advantages for generating a broadly representative sample, compared to relying on institution-based samples. In addition, the "before, during, and after college" design permits examination of the many changes associated with the college experience. The design also generates comparable panel data for young adults who are not attending college in the four years after high school, an important segment of the

young adult population in its own right, but also as a comparison group for college students.

Definition of College Students

Ages 19 to 22. We compare college students and nonstudents during the most typical ages for college attendance. According to statistics available from the United States Census Bureau[1] and the National Center on Education Statistics,[2] this age band encompasses about 73% of all undergraduate college students enrolled full time in 2019.

Full time students. College students are defined here as young adults one to four years past high school who report that they were taking courses as full-time students in a 2-year or 4-year college or university at the beginning of March of the year in question. In other words, we consider full-time students at 2-year colleges, such as community colleges, and 4-year colleges and universities as college students. Nonstudents include those who are attending part time and those who previously attended college but are not currently attending. Full-time college students as defined here now constitute over three fifths (62%) of the entire follow up sample 1 to 4 years past high school, with roughly 800–1,500 respondents in the college sample each year.

The changing sex composition of college students is relevant to interpreting differences over time. The proportion of college students who are women has risen substantially since 1980. In 1980, women were about 50% of the college respondents, but in 2021 they were 63%. Below, we include prevalence and trends separately for college men and women to permit an

[1] U.S. Census Bureau, October 2014. Available at: http://www.census.gov/

[2] National Center on Education Statistics. Fall 2019 Enrollment. Available at: https://nces.ed.gov/

assessment of what effect these changing proportions may have on the overall prevalence estimates.[3]

Noncollege young adults. The MTF panels also include high school graduates 1 to 4 years past high school who were not attending college full time. Having data for both groups is a rare and valuable feature of the MTF panel. As more young adults attend college, noncollege young adults comprise relatively smaller sample sizes (and thus lead to less precision in our estimates for noncollege young adults). Each year, roughly 500–1,700 respondents constitute the noncollege group 1 to 4 years beyond high school. If data from the missing high school dropout segment—which has declined from around 15% to roughly 5% of a class cohort—were available for inclusion as part of the noncollege segment, any difference between the two groups in terms of their substance use would likely be greater.

Most Common Substances: Prevalence for College and Noncollege

The prevalence estimates (this section) and trends (the following section) are first presented for the most commonly used substances including marijuana, alcohol, cigarettes, vaping, and any drug other than marijuana. Estimates for other specific substances are presented in the final section of the chapter.

Marijuana

12 month. Prevalence of marijuana use (in any form) in the past 12 months was similar for college (40.3%) and noncollege young adults (44.3%) in 2021 (Table 27).

[3] In 2018, 2019, and 2020 only, the total sample included a small proportion who were missing on sex.

30 day. Prevalence of marijuana use in the past 30 days was higher for noncollege (32.4%) than for college young adults (24.2%) (Table 28).

Daily. The prevalence of current daily marijuana use was higher for noncollege (14.3%) compared to college young adults (5.6%; Table 29).

Vaping marijuana. Prevalence of vaping marijuana was similar for college and noncollege young adults in the past 12 months (19.5% vs. 21.3%) and in the past 30 days (11.8% vs. 15.3%; Figure 50 and Tables 27, 28).

Alcohol

12 month & 30 day. College young adults had significantly higher prevalence than noncollege young adults of alcohol use in the past 12 months (76.4% vs. 68.6%) and past 30 days (59.6% vs. 48.4%) (Figure 52 & Tables 27, 28).

Daily. The prevalence of daily drinking was higher for noncollege than college young adults (3.5% vs. 2.1%; Table 29).

Binge drinking. In 2021, college students had a higher prevalence of binge drinking in the past 2 weeks than noncollege young adults (30.4% vs. 24.5%; Table 29). Binge drinking had typically been more prevalent among college students than noncollege youth over the years prior to 2020, but in 2020 converged at 24%. The gap opened again in 2021 after a significant increase for college but not noncollege young adults (Figure 54).

High-intensity drinking. The prevalence of high-intensity drinking (i.e., 10+ drinks in a row) in the past 2 weeks was higher for noncollege than college young adults (15.1% vs. 10.5%; Table 29), which was the opposite of the pattern for binge drinking.

Cigarettes

12 month & 30 day. The prevalence of cigarette smoking had historically been higher among noncollege young adults, although the gap closed considerably in 2021. College and noncollege young adults had similar prevalence levels of smoking in the past 12 months (16.6% vs. 17.6%) and past 30 days (5.9% vs. 7.4%; Tables 27, 28) in 2021.

Daily smoking. Noncollege young adults continued to have higher prevalence of daily smoking (3.6% vs. 0.9%) and a half a pack a day or more smoking (1.8% vs. 0.6%) than college students in 2021 (Table 29).

Vaping Nicotine

12 month & 30 day. The prevalence of nicotine vaping was higher among noncollege than college students in 2021 over the past 12 months (31.7% vs. 28.0%) and past 30 days (25.4% vs. 20.4%; Tables 27, 28). This was a reversal from 2018 and 2019 when college students had a higher prevalence of vaping nicotine (Figure 58).

Any Drug Other Than Marijuana

An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin).

12 month & 30 day. Use of drugs other than marijuana was only slightly higher among noncollege than college young adults in 2021, over the past 12 months (16.6% vs 14.6%) and the past 30 days (7.1% vs. 5.8%; Tables 27, 28).

Other Substances: Prevalence for College and Noncollege

MTF includes specific questions about many individual substances. Below are prevalence levels and trends for use in the past 12 months for college and noncollege young adults for hallucinogens, narcotics (opioids), sedatives/tranquilizers, stimulants, and tobacco in other forms. Additional data are also available.[4]

Hallucinogens

The use of hallucinogens was somewhat higher among noncollege than college young adults in 2021, for use in the past 12 months (9.1% vs. 6.8%), LSD (5.7% vs. 4.3%), hallucinogens other than LSD (6.4% vs. 4.6%), and MDMA (ecstasy, Molly) (2.4% vs. 1.6%). Ketamine use was higher among college than noncollege young adults (1.4% v. 0.6%; Table 27).

Narcotics (Opioids)

Use of heroin and narcotics other than heroin without medical supervision in the past 12 months was higher for noncollege than college young adults in 2021 (0.5% vs. 0.1% for heroin; 1.7% vs. 0.9% for other narcotics). For specific drugs, Vicodin use was rare but more common among college than noncollege young adults (0.8% vs. 0.4%), while the prevalence of OxyContin use in the past 12 months was higher for noncollege than college young adults (3.3%[5] vs. 0.3%; Table 27).

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[4] Monitoring the Future: Restricted-Use Panel Data, United States, 1976-2019 (ICPSR 37072) https://www.icpsr.umich.edu/web/NAHDAP/studies/37072

[5] The prevalence of OxyContin, a subclass of narcotics other than heroin, is asked on three questionnaire forms; the prevalence of narcotics other than heroin is asked on all six forms. When the prevalence of OxyContin slightly exceeds the prevalence of narcotics other than heroin, this is likely due to random variation in relatively small sample sizes with very low prevalence estimates.

Sedatives & Tranquilizers

Noncollege young adults had somewhat higher prevalence levels than college young adults for use of sedatives (barbiturates) (2.0% vs. 0.9%) and tranquilizers (3.6% vs. 1.7%) in the past 12 months in 2021 (Table 27).

Stimulants

Amphetamine use without a doctor's prescription in the past 12 months was similar for college and noncollege young adults (5.2% vs. 5.0%; Table 27). Amphetamine use prior to 2020 was typically higher among college than noncollege young adults, likely due to amphetamine use (and particularly use of Adderall) for study purposes.

Adderall. Use of Adderall, a subclass of amphetamines, without medical supervision was higher for college than noncollege young adults in 2021 (4.3% vs. 2.2% in the past 12 months; Table 27).

Ritalin. The nonmedical use of Ritalin, another but now less common stimulant drug prescribed for ADHD, was low among college and noncollege young adults in 2021 (1.7% and 0.9%, respectively, in the past 12 months; Table 27).

Cocaine use in the past 12 months was higher among college than noncollege young adults (3.9% vs. 3.3%) in 2021 (Table 27).

Methamphetamine use was the same for college and noncollege young adults at 0.3% in the past 12 months 2021 (Table 27).

Tobacco, Other Forms

Various forms of nicotine and tobacco use (in addition to cigarettes and vaping nicotine, reported above) are assessed. Other tobacco use in the past 12 months is similar for college and noncollege young adults for small cigars (both 8.8% in 2021) and snus (3.5% for college, 3.1% for noncollege in 2021; Table 27). Noncollege young adults had a higher prevalence than college

young adults of using tobacco with a hookah (6.7% vs. 4.5% in the past 12 months in 2021; Table 27).

Trends for College and Noncollege Young Adults: Most Common Substances

Marijuana

Marijuana use trends showed that, for both college and noncollege young adults, there were no significant trends over the past 1 or 5 years, but there has been an increase over the past 10 years in use in the past 30 days (from 19.4% to 24.2% from 2011 to 2021 for college; from 24.0% to 32.4% for noncollege; Figure 48).

Alcohol

Trends in alcohol use showed that the prevalence of alcohol use in the past 30 days has been fairly flat among college students over the past 10 years (at 59.6% in 2021), but decreasing among noncollege young adults over the past 5 years (from 59.2% in 2016) and 10 years (from 55.9% in 2011) to 48.4% in 2021. In the longer term, since 1982 the predominant trend has been one of decline for both groups (Figure 52).

Binge drinking. As noted in the overall trends for young adults in Chapter 2, there was a rebound in prevalence of binge drinking from 2020 to 2021. Figure 54 shows that this was concentrated in the college students. There was a significant increase from the pandemic-related low of 24.2% in 2020 to 30.4% in 2021, which was similar to the few years before the pandemic (Figure 54). There was still an overall 10 year trend of decreasing binge drinking among college students (from 36.1% in 2011 to 30.4% in 2021). The pandemic-related low and rebound was not seen for noncollege young adults. Among noncollege young adults, there has been a negative trend over the past 10 years (from 31.6% in 2011 to 24.5% in 2021; Figure 54).

Cigarettes

Trends in cigarette use showed very large and continuing decreases for both college and noncollege young adults over the past 5 and 10 years (Figure 56). However, in 2021, there was a non-significant increase in smoking in the past 30 days among college students (from 4.1% in 2020 to 5.9% in 2021), and a large and significant decrease among noncollege young adults by almost half—from 13.1% in 2020 to 7.4% in 2021. This shift brought the gap in prevalence of cigarette smoking among college and noncollege young adults to smaller than ever previously observed since 1980.

Any Drug Other Than Marijuana

There were no significant changes in past 30 day use of any drug other than marijuana from 2020 to 2021 among either college or noncollege young adults. However, there were significant trends of decreasing use of drugs other than marijuana among college students over the past 5 and 10 years and for noncollege young adults over the past 5 (but not 10) years (Figure 60).

Sex Differences among College Students: Most Common Substances

Marijuana

In 2021, marijuana use in the past 30 days was nearly the same for college men and women, due to somewhat stable levels of use among men and an increasing trend among women in college over the past 10 years (from 16.1% in 2011 to 24.2% in 2021; Figure 49).

Alcohol

In 2021, alcohol use in the past 30 days was nearly identical across sex, with trends flat for both college men and women over the past 10 years (Figure 53). Prior to 2000, college men consistently had a higher 30 day prevalence.

For binge drinking, there was a significant increase from 2020 to 2021 for college women but not college men, indicating that the pandemic-related low and rebound was especially concentrated in college women (Figure 55).

Cigarettes

Trends in prevalence of cigarette use in the past 30 days were similar for college men and women, with a significant decrease over the past 10 years, but not over in the past 1 or 5 years (Figure 57).

Vaping Nicotine

The prevalence of vaping nicotine observed for college men and women was virtually the same in 2021, with nonsignificant trends from 2020 to 2021. However, there was a sex difference with college men reporting a higher prevalence of nicotine vaping in 2019 that has now vanished (Figure 59).

Any Drug Other Than Marijuana

Trends in 30 day use of any drugs other than marijuana have been non-significant and relatively flat among both college men and women over the past 10 years (Figure 61).

Chapter 5

Demographic Subgroup Differences

Executive Summary

Men had significantly higher prevalence levels of substance use than women in 2021 for many measures of the most commonly used substances. In particular:

- Men had higher prevalence than women among young adults ages 19 to 30 and adults ages 35 to 50 for: marijuana use in the past 12 months and past 30 days and for alcohol use in the past 30 days.
- Men had higher prevalence among young adults ages 19 to 30 but not adults ages 35 to 50 for: cigarette use in the past 30 days, vaping nicotine in the past 30 days, and use of any drug other than marijuana in the past 12 months and past 30 days.
- Trends over time showed that sex differences have been narrowing for marijuana use (since about 2010), alcohol use (since about 1994), and binge drinking (since about 1989) among young adults.
- Sex differences have grown for cigarette use among young adults, with men having an increasingly greater prevalence than women since around 2007.

Trends have tended to be relatively similar by region over time, although there were some significant differences in specific substances in 2021.

- Marijuana use prevalence in the past 12 months was higher in the Northeast and West than the South (with Midwest not significantly differing from any of the other regions).
- Alcohol use in the past 30 days and binge drinking prevalence levels were higher in the Northeast and Midwest than South and West
- The prevalence levels of cigarette use and nicotine vaping in the past 30 days were higher in the Midwest than West (with Northeast and South not differing significantly from any other region).

Significant differences by racial/ethnic subgroups in 2021 showed that:

- White young adults reported the highest prevalence levels of alcohol use, binge drinking, cigarette smoking, nicotine vaping, and use of any drug other than marijuana.

Introduction

Trends in the prevalence of use are charted separately for young adults ages 19 to and adults ages 35 to 50 for different timeframes (e.g., 12 months, 30 days) by sex, geographic region of the country, and race/ethnicity. Trends are also shown in tables following each figure. Subgroup difference in trends by sex, region of the U.S., and race/ethnicity for respondents ages 19 to 30 and 35 to 50 are presented in Figures 62 through 109. Subgroup data for young adult ages 19 to 30 are available since 1988 and for middle adults ages 35 to 50 since 2008. Sample sizes for subgroups shown range in size from 150 to 6800 each year, depending on the variable and the year, with the smallest sample sizes being for Black and Hispanic young adults and adults.

Sex

Since the beginning of the study sex has been coded as male or female based on the question “What is your sex” asked in high school at age 18. However,

in more recent surveys additional questions are asked and additional response options (e.g., nonbinary) are included. As data become available on larger portions of the population, we will be able to examine differences among sexual and gender minority groups.

Region

For the region of the U.S., respondents are asked in what state they resided as of March of the year in which they completed the survey. States are then grouped into four regions defined by the U.S. census: Northeast, Midwest, South, and West.[1]

Race/Ethnicity

Trends by race/ethnicity are shown for the three largest subgroups: Black, Hispanic, and White. Since 2005, the survey question has been, "How do you describe yourself? (Select one or more responses.)" Responses include: Black or African American; the following four which are combined for the Hispanic category: Mexican American or Chicano, Cuban American, Puerto Rican, Other Hispanic or Latino; Asian American; White (Caucasian); American Indian or Alaska Native; Native Hawaiian or Other Pacific Islander. Trends for additional subgroups—such as Asian, American Indian, and Multiracial—are not shown here due to smaller subgroup sample sizes (and due to variation in substance use across these smaller categories, making them into an “other” category would not be informative).

[1] States are grouped into regions as follows: Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont,); Midwest (Illinois, Indiana, Iowa, Kansas, Ohio, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin); South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia); West (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

Most Common Substances

Results are reported for the most prevalent substances, including marijuana, alcohol, cigarettes, vaping nicotine, and any drug other than marijuana. Differences for other subgroups and other substances have been reported elsewhere can be examined in the data available for use by researchers.[2]

Subgroup Differences & Trends by Substance

Marijuana

Sex. Marijuana use among young adults and adults in the past 12 months (Figures 62 and 65) and past 30 days (Figures 68 and 71) was slightly higher for men than women. The gap has narrowed in the past 3 to 4 years as women's use has increased to catch up with men's, and the gap is now significant only for young adult use in the past 30 days (Figure 68).

Region. Trends in marijuana use by geographic region have been similar over time. In 2021, prevalence of use in the past 12 months among young adults was higher in the Northeast (46.4%) and the West (46.1%) than the South (38.4%), with the Midwest (42.3%) not being significantly different from any of the other regions (Figure 63). There were no differences for use in the past 30 days among young adults in 2021 (Figure 69). For adults ages 35 to 50, marijuana use in the past 12 months was significantly higher for the Northeast and the West than the South, with the Midwest not significantly different than other regions (Figure 66). The West was also significantly higher than the South for use in the past 30 days among adults ages 35 to 50, although the Midwest and Northeast were not significantly different than other regions (Figure 72).

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[2] Monitoring the Future: Restricted-Use Panel Data, United States, 1976-2019 (ICPSR 37072) https://www.icpsr.umich.edu/web/NAHDAP/studies/37072

Race/Ethnicity. In 2021 Black and White young adults reported similarly high prevalence of marijuana use in the past 12 months and past 30 days, followed by Hispanic young adults; however, these differences were significant only for Black vs. Hispanic for use in the past 30 days (Figures 64 and 70). This ranking has shifted over time; the first time that the prevalence was higher among Black than White young adults was in 2014 for past 12 month use in 2012 for past 30 days use. From the late 1980s through 2007, White young adults consistently had significantly higher prevalence of marijuana use than Black and Hispanic young adults. For adults ages 35 to 50, there were no significant differences by race/ethnicity in 2021 (Figures 67 and 73).

Alcohol

Sex. Alcohol use in the past 30 days among young adults has shown narrowing differences by sex, and the difference between prevalence among men (68.0%) and women (65.4%) was not significant in 2021 (Figure 74). Among adults ages 35 to 50, the sex differences have been more consistent, with prevalence of alcohol use in the past 30 days higher for men (74.5%) than women (69.1%) in 2021 (Figure 77). Binge drinking (5+ drinks) in the past 2 weeks showed a similar pattern, with a narrowing gap among young adults (38.5% of men and 28.0% of women in 2021; Figure 80) and a more persistent difference among adults (34.4% of men and 17.6% of women in 2021; Figure 83).

Region. Alcohol use is typically somewhat higher in the Northeast and Midwest regions than in the South and West; this pattern held in 2021 regarding drinking in the past 30 days (Figure 75 for young adults, Figure 78 for adults) and binge drinking (Figure 81 for young adults, Figure 84 for adults).

Race/Ethnicity. Differences in alcohol use have been quite consistent over time, with White young adults having the highest prevalence of alcohol use in the past 30 days, followed by Black (58.6%) and Hipanic (56.6%) young adults (Figure 76). For binge drinking, the time-limited decrease associated with the COVID-19 pandemic in 2020 was seen for White young adults only (Figure 82); the same pattern held with the highest prevalence among White young adults in 2021. The pattern was largely replicated among adults ages 35 to 50, although there were no significant differences by race/ethnicity in this age group (Figures 79 and 85).

Cigarettes

Sex. The sex difference in cigarette use among young adults has grown across the life of the study, again with a significant decline for women from 2020 to 2021. In 2021, cigarette use in the past 30 days was significant different by sex and reported by 12.0% of young adult men compared to 7.1% of young adult women (Figure 86). However, for adults ages 35 to 50 in 2021, there was no sex difference in cigarette smoking in the past 30 days (Figure 89).

Region. Cigarette smoking among young adults has tended to be slightly higher in the Midwest and lowest in the West. In 2021, prevalence of smoking in the past 30 days was 11.0% in the Midwest, 9.5% in the Northeast, 8.2% in the South, and 7.2% in the West (Figure 87). All four regions have shown a considerable and mostly parallel decline in past 30 day smoking since the mid-2000s. Among adults ages 35 to 50, cigarette smoking was most prevalent in the Midwest (14.0%) compared to other regions (7.4–9.7%) in 2021, after a significant decline in cigarette use in the South from 2020 to 2021. All four regions have shown a decline in past 30 day smoking since 2008, when data were first available for this age group (Figure 90).

Race/Ethnicity. White young adults have consistently had the highest prevalence of smoking cigarettes in the past 30 days, and this persisted in 2021 (10.8% of White vs. 5.0% of Hispanic and 4.6% of Black young adults; Figure 88). This pattern was also observed for adults, although differences were not statistically significant (Figure 91).

Vaping Nicotine

Sex. The prevalence of nicotine vaping in the past 30 days was significantly higher for young adult men than women (19.5% vs. 14.0%) in 2021 (Figure 92), although there was no sex difference among adults (1.9% vs. 1.8% in 2021; Figure 95).

Region. There were significant increases in nicotine vaping in the past 30 days among young adults in the Midwest, Northeast, and South from 2020 to 2021. In 2021, the prevalence of vaping nicotine was somewhat higher for the Midwest (18.9%) compared to the West (13.9%), with the Northeast (16.5%) and South (15.2%) in between (Figure 93). These differences were not seen for adults ages 35 to 50 (all levels 1.4–2.3% in 2021; Figure 96).

Race/Ethnicity. White young adults have consistently had the highest prevalence of nicotine vaping, and prevalence grew again in this group from 2020 (15.8%) to 2021 (18.9%), although it was stable among Hispanic (8.7%) and Black (5.1%) young adults (Figure 94). Nicotine vaping prevalence also increased among White adults, nearly doubling from 1.2% in 2020 to 2.1% in 2021, although differences by race/ethnicity were not significant in 2021 (Figure 97).

Any Drug Other Than Marijuana

An index of non-medical use of any drugs other than marijuana includes hallucinogens (including LSD), cocaine, amphetamines, sedatives (barbiturates), tranquilizers, and narcotics (including heroin).

Sex. In 2021, young adult men continued to have higher prevalence levels of use of any illicit drug other than marijuana in the past 12 months (21.0% vs. 16.7%; Figure 98) and past 30 days (9.2% vs. 6.5%; Figure 104). Among adults there were no consistent sex differences (Figures 101 and 107).

Region. Prevalence of use of any drug other than marijuana among young adults in the past 12 months and 30 days was highest in the West (22.2% and 8.7%) and Northeast (18.6% and 8.7%) compared to South (16.0% and 6.9%) and Midwest (18.1% and 6.7%) in 2021 (Figures 99 and 105). There were no significant differences by region for use in the past 30 days (Figure 105). Among adults ages 35 to 50, there were no significant differences by region in 2021 (Figures 102 and 108).

Race/Ethnicity. White young adults continued to have the highest prevalence of using any drug other than marijuana in the past 12 months in 2021 (20.5%), although this was no longer significantly different than prevalence among Hispanic young adults (15.3%). Black young adults had the lowest prevalence (9.4%) in 2021, and this has been true since this age group was first surveyed in 1988 (Figure 100). Among young adults there were no significant racial/ethnic differences for use of any illicit drug in the past 30 days in 2021 (Figure 106). However, Black young adults have had the lowest prevalence of using any illicit drug other than marijuana for as long as data on this full age band were first available in 1988. These patterns held for use among adults ages 35 to 50, as well, with White adults having the highest prevalence in 2021 in the past 12 months and past 30 days (11.6% and 5.7%), followed by Hispanic (7.9% and 3.4%) and Black (5.0% and 4.7%) adults; however, differences were smaller and only differences between White and Black groups of adults were statistically significant (Figures 103 and 109). The rankings of all three groups across years were less consistent than among the young adults, with Black and Hispanic adults having more variability due to smaller sample sizes.

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TABLE 1
Monitoring the Future Panel Study Administration
by Cohort, 1976-2021

12th Grade	Ages 19/20		Ages 21/22		Ages 23/24		Ages 25/26		Ages 27/28		Ages 29/30		Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1993	1998	2003	2008	2013	2018
1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1994	1999	2004	2009	2014	2019
1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1995	2000	2005	2010	2015	2020
1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1996	2001	2006	2011	2016	2021
1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1997	2002	2007	2012	2017	
1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1998	2003	2008	2013	2018	
1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1999	2004	2009	2014	2019	
1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	2000	2005	2010	2015	2020	
1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	2001	2006	2011	2016	2021	
1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	2002	2007	2012	2017		
1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	2003	2008	2013	2018		
1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2004	2009	2014	2019		
1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	2020		
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2006	2011	2016	2021		
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2007	2012	2017			
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2013	2018			
1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2009	2014	2019			
1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2010	2015	2020			
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2011	2016	2021			
1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2012	2017				
1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2013	2018				
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2014	2019				
1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020				
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2016	2021				
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2017					
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2018					
2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2019					
2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020					
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2021					
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017						
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018						
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019						
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020						
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021						
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021							
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021								
2012	2013	2014	2015	2016	2017	2018	2019	2020	2021									
2013	2014	2015	2016	2017	2018	2019	2020	2021										
2014	2015	2016	2017	2018	2019	2020	2021											
2015	2016	2017	2018	2019	2020	2021												
2016	2017	2018	2019	2020	2021													
2017	2018	2019	2020	2021														
2018	2019	2020	2021															
2019	2020	2021																
2020	2021																	

TABLE 2
Monitoring the Future Panel Study Weighted Response Rates (Proportion Responding) by Cohort, 1976-2021

Cohort	N per Cohort	Ages 19/20	Ages 21/22	Ages 23/24	Ages 25/26	Ages 27/28	Ages 29/30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	2224	0.722	0.799	0.793	0.769	0.744	0.740	0.673	0.639	0.601	0.576	0.545	0.530
1977	2358	0.847	0.825	0.811	0.763	0.754	0.721	0.686	0.642	0.636	0.598	0.564	0.551
1978	2411	0.848	0.818	0.799	0.763	0.742	0.704	0.656	0.618	0.608	0.587	0.544	0.531
1979	2437	0.854	0.815	0.767	0.770	0.741	0.706	0.655	0.599	0.585	0.564	0.540	0.524
1980	2458	0.835	0.811	0.786	0.770	0.725	0.698	0.658	0.601	0.576	0.566	0.543	
1981	2458	0.844	0.788	0.781	0.725	0.698	0.675	0.607	0.567	0.542	0.506	0.479	
1982	2437	0.841	0.783	0.753	0.704	0.670	0.622	0.573	0.573	0.532	0.509	0.464	
1983	2426	0.815	0.787	0.728	0.694	0.654	0.605	0.555	0.550	0.502	0.470	0.464	
1984	2438	0.803	0.763	0.717	0.689	0.631	0.590	0.503	0.499	0.467	0.453	0.438	
1985	2467	0.805	0.728	0.696	0.649	0.593	0.565	0.491	0.475	0.462	0.429		
1986	2461	0.762	0.725	0.680	0.620	0.578	0.539	0.509	0.478	0.432	0.398		
1987	2466	0.738	0.701	0.667	0.596	0.558	0.543	0.501	0.458	0.420	0.386		
1988	2456	0.766	0.733	0.667	0.619	0.602	0.553	0.517	0.470	0.443	0.444		
1989	2478	0.744	0.701	0.630	0.574	0.539	0.516	0.465	0.425	0.399	0.395		
1990	2470	0.727	0.653	0.593	0.551	0.525	0.488	0.426	0.405	0.373			
1991	2473	0.743	0.665	0.609	0.551	0.518	0.491	0.435	0.394	0.370			
1992	2479	0.751	0.678	0.635	0.570	0.536	0.527	0.460	0.425	0.377			
1993	2449	0.707	0.661	0.604	0.550	0.511	0.517	0.444	0.390	0.370			
1994	2467	0.694	0.654	0.583	0.538	0.521	0.481	0.423	0.379	0.374			
1995	2469	0.698	0.635	0.582	0.543	0.549	0.500	0.443	0.409				
1996	2440	0.691	0.615	0.562	0.545	0.516	0.493	0.432	0.389				
1997	2457	0.653	0.579	0.542	0.542	0.488	0.478	0.405	0.361				
1998	2454	0.641	0.561	0.544	0.509	0.465	0.455	0.384	0.353				
1999	2459	0.613	0.532	0.559	0.480	0.467	0.452	0.383	0.371				
2000	2456	0.593	0.576	0.534	0.474	0.458	0.435	0.374					
2001	2448	0.557	0.574	0.502	0.471	0.463	0.432	0.363					
2002	2453	0.611	0.575	0.520	0.490	0.472	0.437	0.377					
2003	2449	0.604	0.526	0.488	0.463	0.421	0.400	0.365					
2004	2450	0.580	0.520	0.491	0.453	0.414	0.379	0.347					
2005	2450	0.534	0.519	0.488	0.421	0.396	0.378						
2006	2452	0.506	0.502	0.474	0.439	0.386	0.394						
2007	2452	0.552	0.492	0.481	0.426	0.402	0.399						
2008	2454	0.552	0.490	0.449	0.397	0.405	0.396						
2009	2453	0.506	0.461	0.404	0.347	0.352	0.351						
2010	2450	0.485	0.433	0.400	0.364	0.371	--[a]						
2011	2450	0.472	0.409	0.366	0.349	0.364							
2012	2452	0.442	0.384	0.380	0.389	--[a]							
2013	2450	0.423	0.361	0.357	0.392								
2014	2450	0.382	0.365	0.375	--[a]								
2015	2451	0.335	0.337	0.376									
2016	2450	0.348	0.366	--[a]									
2017	2452	0.354	0.344										
2018	2450	0.367	--[a]										
2019	2447	0.382											
2020	1225[d]	--[a]											

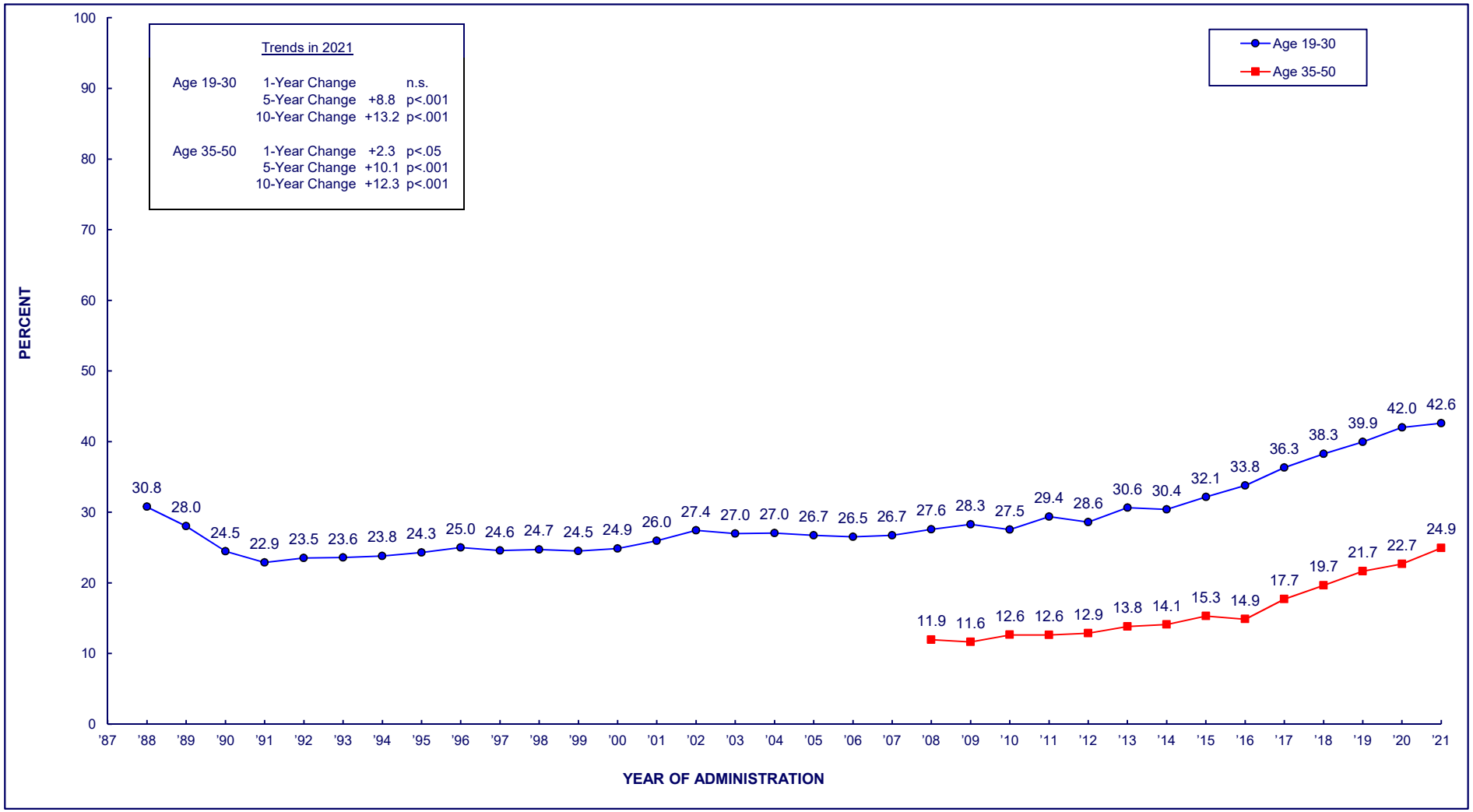
[a] Response rates not reported as only the first half sample of the noted cohort has been able to complete participation at the specified follow up age as of 2021 data collection.

FIGURE 1

MARIJUANA

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 3
MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	44.5												
1977	47.6												
1978	50.2	52.8											
1979	50.8	51.0											
1980	48.8	49.7	50.1										
1981	46.1	49.0	51.1										
1982	44.3	44.9	45.8	46.0									
1983	42.3	43.0	45.4	43.8									
1984	40.0	41.4	42.1	38.6	38.3								
1985	40.6	40.3	40.9	42.0	39.2								
1986	38.8	39.1	39.6	36.6	34.1	32.5							
1987	36.3	35.8	37.4	33.7	35.4	31.4							
1988	33.1	36.2	33.7	32.0	29.7	26.7	25.4						
1989	29.6	32.2	31.6	27.3	26.2	26.8	24.7						
1990	27.0	28.4	28.2	26.6	24.1	22.6	20.0						
1991	23.9	25.4	26.8	23.2	21.8	20.9	21.0						
1992	21.9	26.9	26.9	26.6	23.5	21.2	20.1						
1993	26.0	27.9	26.1	26.5	22.2	21.3	18.8						
1994	30.7	29.3	29.2	24.6	22.6	20.1	19.0	14.5					
1995	34.7	31.8	28.1	25.8	24.4	20.4	18.2	17.2					
1996	35.8	34.2	30.6	25.8	21.7	20.6	19.5	16.3					
1997	38.5	34.8	30.6	25.1	23.3	18.0	18.0	17.5					
1998	37.5	37.2	31.9	25.5	21.2	19.9	16.9	14.9	17.1				
1999	37.8	37.9	31.5	27.4	21.8	18.2	16.0	14.7	13.8				
2000	36.5	37.0	33.2	26.9	22.7	18.8	18.4	13.8	13.7				
2001	37.0	35.4	37.5	28.3	25.0	19.4	17.1	14.8	12.5				
2002	36.2	36.4	34.3	31.8	24.5	19.4	17.5	13.7	14.6				
2003	34.9	35.9	33.1	30.0	24.3	21.2	17.0	13.0	13.4	14.0			
2004	34.3	34.5	32.5	27.7	27.6	22.4	16.4	13.0	13.9	11.9			
2005	33.6	34.9	32.6	26.8	26.4	19.7	18.9	12.9	14.3	11.7			
2006	31.5	33.2	31.1	28.5	24.0	20.9	19.9	11.4	11.0	11.6			
2007	31.7	33.1	30.5	29.3	24.7	24.4	18.3	10.8	11.6	12.6			
2008	32.4	32.1	33.3	27.4	25.9	23.6	22.3	14.2	10.7	11.1	11.7		
2009	32.8	33.2	33.7	29.5	25.2	23.3	22.5	12.6	12.2	11.6	10.1		
2010	34.8	30.6	34.0	30.5	25.5	22.3	21.5	14.6	12.0	12.7	11.4		
2011	36.4	34.4	34.8	31.8	27.0	25.8	20.9	17.7	10.6	11.6	10.8		
2012	36.4	34.0	34.0	30.3	25.6	26.5	19.8	14.4	12.5	12.3	12.2		
2013	36.4	35.5	36.7	34.3	28.4	25.2	22.4	17.1	14.3	11.9	11.9	12.1	
2014	35.1	38.0	34.7	30.5	28.8	25.6	24.1	20.0	12.6	11.7	12.6	11.5	
2015	34.9	38.6	37.8	32.7	33.5	26.9	22.2	21.1	14.7	13.3	12.8	12.8	
2016	35.6	41.4	40.7	36.4	29.0	30.1	26.0	19.7	16.7	11.8	11.7	12.8	
2017	37.1	38.3	41.1	38.7	34.7	34.9	30.4	23.8	17.8	15.2	14.3	15.0	
2018	35.9	40.5	44.3	43.0	36.4	32.0	34.3	24.7	22.0	19.2	12.9	16.2	16.2
2019	35.7	39.8	45.3	40.8	38.5	36.1	39.1	26.2	25.8	17.4	17.9	15.9	14.3
2020	35.2	40.2	47.2	44.5	43.9	40.9	35.2	26.8	27.2	21.2	17.1	16.0	18.2
2021	30.5	39.5	44.7	44.3	43.7	43.0	40.5	31.0	27.6	25.1	17.2	15.6	14.7

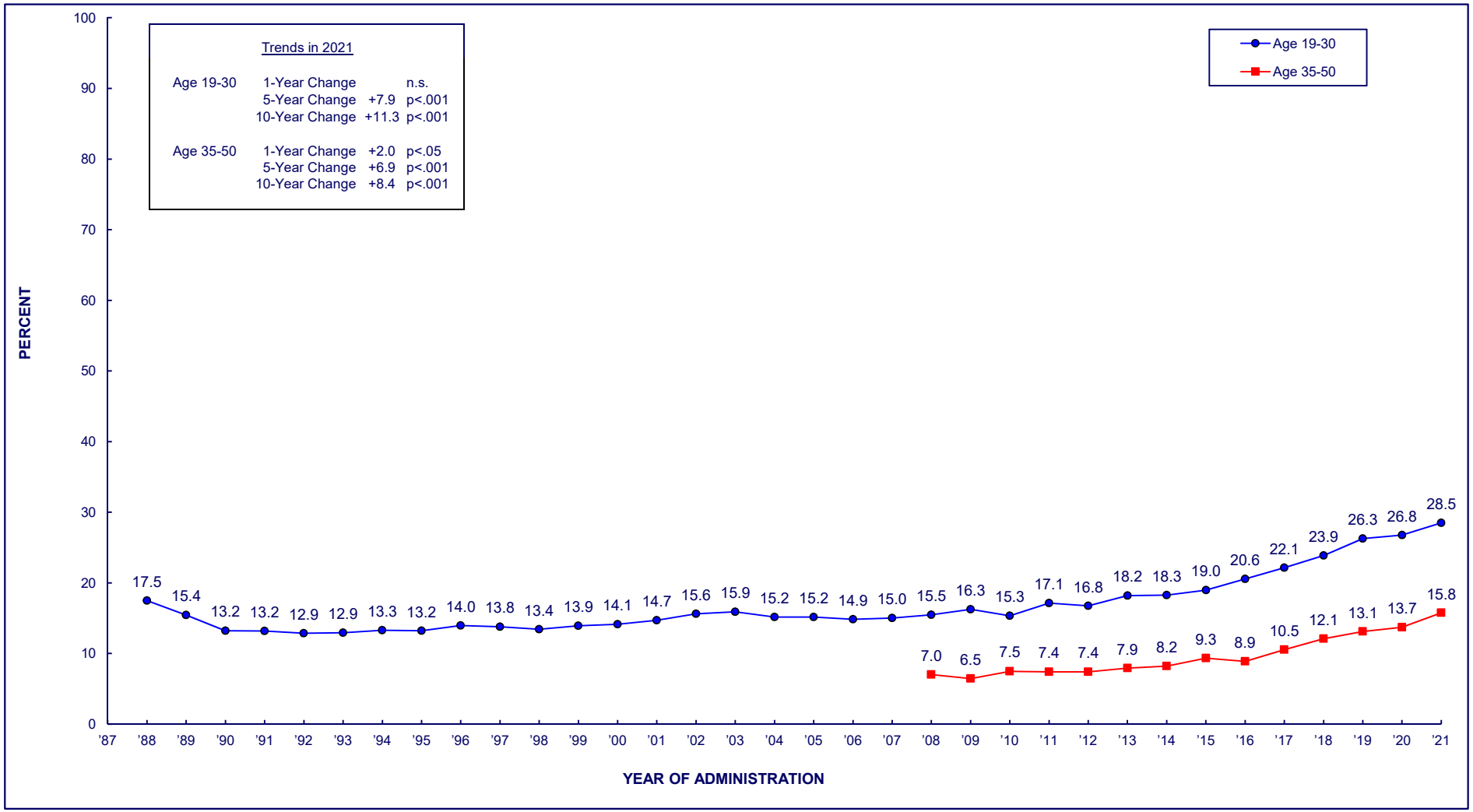
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 2

MARIJUANA

Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 4
MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

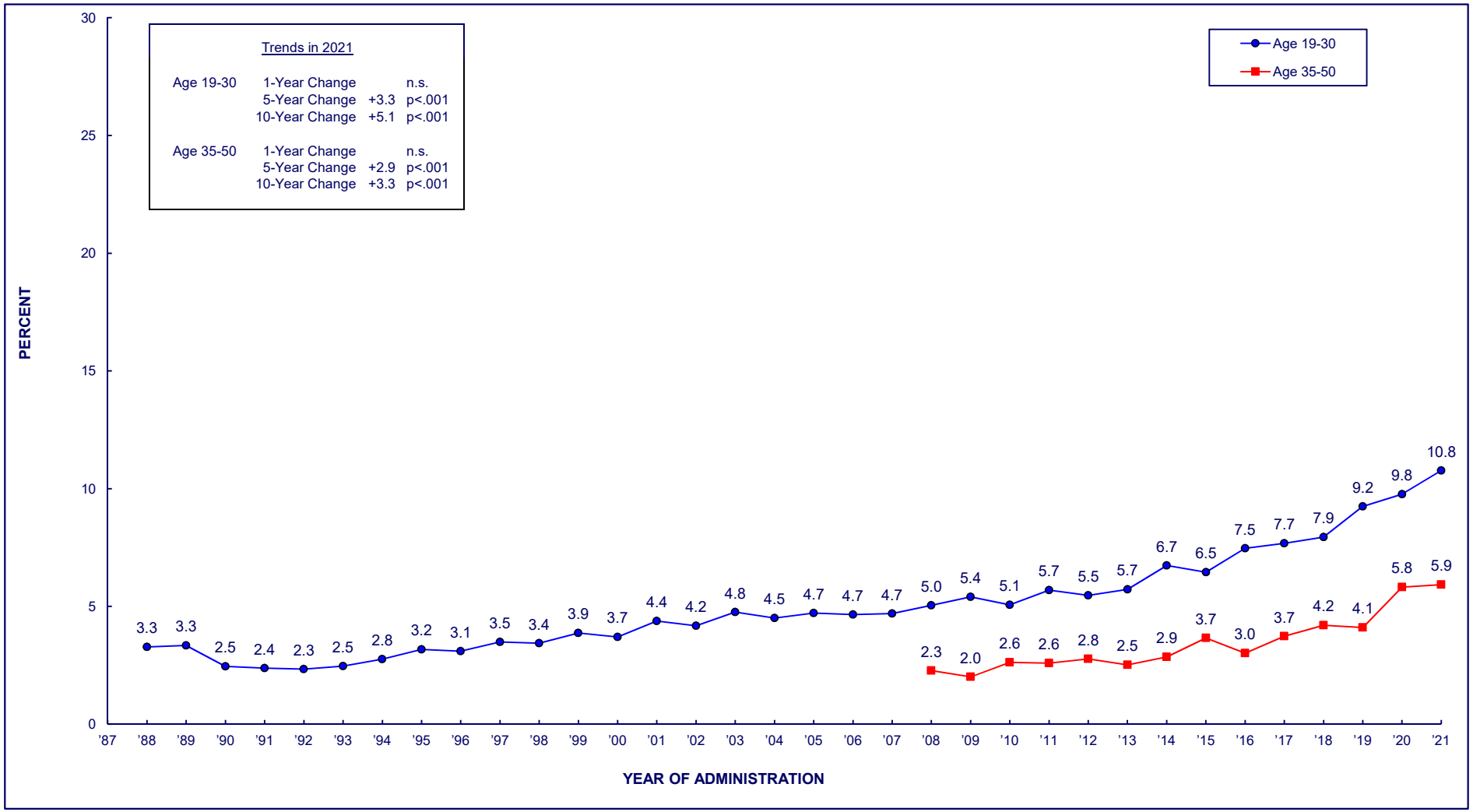
Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	32.2												
1977	35.4												
1978	37.1	38.0											
1979	36.5	37.5											
1980	33.7	33.9	35.9										
1981	31.6	34.2	35.3										
1982	28.5	28.6	29.1	30.3									
1983	27.0	25.7	29.3	29.7									
1984	25.2	24.6	26.4	25.4	24.9								
1985	25.7	22.8	25.2	26.8	24.8								
1986	23.4	22.9	23.3	23.0	19.9	20.7							
1987	21.0	20.4	21.8	19.6	21.5	20.3							
1988	18.0	20.1	18.5	17.4	17.2	16.1	15.4						
1989	16.7	16.3	15.9	15.6	14.7	14.7	15.0						
1990	14.0	15.2	14.3	13.4	13.4	12.9	11.5						
1991	13.8	13.2	14.7	13.0	13.0	13.5	12.7						
1992	11.9	14.1	14.7	12.5	12.6	12.0	12.2						
1993	15.5	14.6	13.8	13.6	12.4	12.3	11.2						
1994	19.0	15.3	16.5	13.3	12.9	11.6	11.4	8.7					
1995	21.2	18.7	15.4	12.2	11.7	10.4	10.8	11.1					
1996	21.9	19.9	16.4	14.2	12.6	11.0	10.5	8.8					
1997	23.7	19.9	18.9	14.0	10.5	10.1	9.4	10.7					
1998	22.8	20.1	17.5	13.8	11.8	10.5	9.0	9.1	10.5				
1999	23.1	23.1	17.8	15.3	12.0	8.9	9.3	8.8	8.3				
2000	21.6	22.3	19.8	14.7	12.5	10.7	9.8	8.3	8.5				
2001	22.4	21.0	22.9	14.9	14.5	10.3	8.3	8.8	8.3				
2002	21.5	22.2	20.1	17.2	14.8	9.9	9.0	8.9	8.1				
2003	21.2	22.5	18.2	18.9	14.5	12.2	8.9	7.1	8.2	8.4			
2004	19.9	20.7	18.3	15.6	15.1	12.0	8.5	7.8	8.3	6.5			
2005	19.8	18.9	17.9	14.1	15.9	11.9	11.9	7.0	8.1	7.2			
2006	18.3	17.5	17.4	16.2	14.0	13.1	10.1	6.2	6.7	6.3			
2007	18.8	18.4	18.0	16.2	13.6	13.5	10.4	5.8	6.7	6.9			
2008	19.4	17.9	17.8	16.2	13.3	14.2	12.9	7.8	6.6	6.4	7.2		
2009	20.6	19.5	20.0	16.0	15.3	13.3	12.1	5.9	6.8	7.3	5.9		
2010	21.4	18.0	18.0	17.3	13.6	13.5	11.0	8.9	7.1	7.3	6.8		
2011	22.6	20.4	21.9	18.1	15.5	15.0	10.9	10.1	6.5	7.3	5.9		
2012	22.9	21.6	19.8	18.0	14.0	14.6	11.5	9.1	6.5	6.6	7.3		
2013	22.7	21.8	23.0	20.0	15.8	13.9	13.7	10.4	8.2	5.7	7.5	7.6	
2014	21.2	24.3	21.2	17.8	17.4	15.1	13.2	11.1	6.8	7.1	8.1	8.1	
2015	21.3	22.6	22.5	19.0	20.7	15.4	12.8	13.2	8.8	7.8	8.0	8.6	
2016	22.5	24.9	25.1	22.3	18.0	18.2	15.3	10.8	10.5	7.2	7.4	6.4	
2017	22.9	22.0	25.7	24.6	21.8	21.1	17.8	13.9	10.8	8.2	9.4	9.6	
2018	22.2	24.1	27.5	26.1	21.7	21.5	22.7	15.1	13.8	11.3	8.4	9.9	4.7
2019	22.3	26.5	30.5	25.4	25.3	25.6	24.5	16.0	16.4	10.2	10.3	10.9	5.0
2020	21.1	23.8	29.3	28.9	29.1	26.2	23.3	16.6	16.9	12.4	10.1	10.0	7.7
2021	19.5	26.2	29.4	29.2	30.8	27.9	27.2	19.2	17.1	16.1	11.4	9.5	9.9

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

FIGURE 3

MARIJUANA

Trends in 30-Day Prevalence of Daily Use
among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 5
MARIJUANA
Trends in 30-Day Prevalence of Daily Use among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	8.2												
1977	9.1												
1978	10.7	10.5											
1979	10.3	10.9											
1980	9.1	8.1	10.9										
1981	7.0	7.9	9.4										
1982	6.3	6.6	6.4	8.1									
1983	5.5	5.2	6.2	6.7									
1984	5.0	4.7	5.3	5.5	6.0								
1985	4.9	4.6	4.5	5.8	6.1								
1986	4.0	3.5	4.1	4.9	3.6	4.8							
1987	3.3	3.4	3.9	4.3	5.0	4.6							
1988	2.7	3.5	3.5	3.1	3.4	3.0	3.2						
1989	2.9	2.8	3.1	3.0	3.3	4.1	3.2						
1990	2.2	2.3	2.5	2.7	2.7	2.4	2.2						
1991	2.0	2.1	2.4	2.1	2.5	2.6	2.6						
1992	1.9	1.4	2.6	2.3	2.6	2.5	2.9						
1993	2.4	2.3	2.3	2.7	2.5	2.3	2.7						
1994	3.5	3.1	2.9	3.1	2.7	2.2	2.4	2.3					
1995	4.6	4.7	3.4	3.3	2.3	2.5	2.5	2.6					
1996	4.9	4.9	3.2	2.3	3.1	2.5	2.2	2.3					
1997	5.8	5.4	5.3	2.6	2.5	2.7	2.3	3.5					
1998	5.6	5.2	5.2	3.1	2.4	2.3	2.4	2.7	3.2				
1999	6.0	6.2	4.6	5.1	3.1	2.8	2.5	1.9	2.1				
2000	6.0	6.0	5.5	3.8	3.4	2.0	2.2	2.7	2.6				
2001	5.8	6.1	7.0	4.7	4.6	2.3	2.6	2.3	1.8				
2002	6.0	6.0	6.0	5.5	2.7	2.5	2.3	3.0	3.0				
2003	6.0	6.5	6.0	6.6	3.5	4.0	1.9	2.1	2.4	2.6			
2004	5.6	6.0	5.1	5.3	5.5	2.9	2.0	2.5	1.8	2.0			
2005	5.0	6.4	4.6	4.5	5.9	3.0	3.9	2.1	1.9	2.1			
2006	5.0	5.2	5.3	5.3	5.0	4.3	2.5	2.8	2.3	1.4			
2007	5.1	5.1	4.9	5.2	4.1	5.7	3.2	1.9	2.3	2.7			
2008	5.4	4.1	6.1	5.4	5.5	4.3	4.8	2.2	2.2	2.7	2.0		
2009	5.2	5.8	6.3	5.8	5.1	3.7	5.4	1.7	2.1	2.2	2.0		
2010	6.1	6.0	5.1	5.8	4.0	5.3	4.0	3.8	2.3	2.2	2.2		
2011	6.6	6.6	6.3	6.9	5.8	4.6	3.7	2.7	2.7	2.7	2.3		
2012	6.5	6.2	6.1	5.7	5.1	5.1	4.5	3.6	2.6	2.2	2.7		
2013	6.5	6.2	7.8	6.2	5.8	5.1	2.9	3.3	2.3	2.4	2.1	2.7	
2014	5.8	7.9	7.7	6.8	6.1	6.1	5.7	5.1	1.4	2.6	2.5	2.4	
2015	6.0	7.9	6.3	7.0	7.0	5.5	4.7	5.3	4.1	2.5	2.9	2.8	
2016	6.0	7.0	8.8	9.6	6.6	6.2	6.7	3.7	3.4	2.8	2.2	2.7	
2017	5.9	6.2	9.0	9.2	8.0	6.6	6.9	5.1	4.5	2.7	2.6	3.2	
2018	5.8	7.1	8.6	7.5	8.3	8.4	8.0	5.2	3.5	3.4	3.8	4.4	2.0
2019	6.4	7.6	10.8	9.6	9.7	9.6	8.3	6.4	2.4	3.0	3.3	2.9	2.5
2020	6.9	7.7	11.9	10.8	9.9	11.0	7.5	7.1	5.2	3.8	3.3	4.5	2.7
2021	5.8	9.6	9.1	12.0	11.9	10.0	11.8	9.3	6.0	5.4	3.6	4.0	3.8

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

FIGURE 4

VAPING MARIJUANA

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group

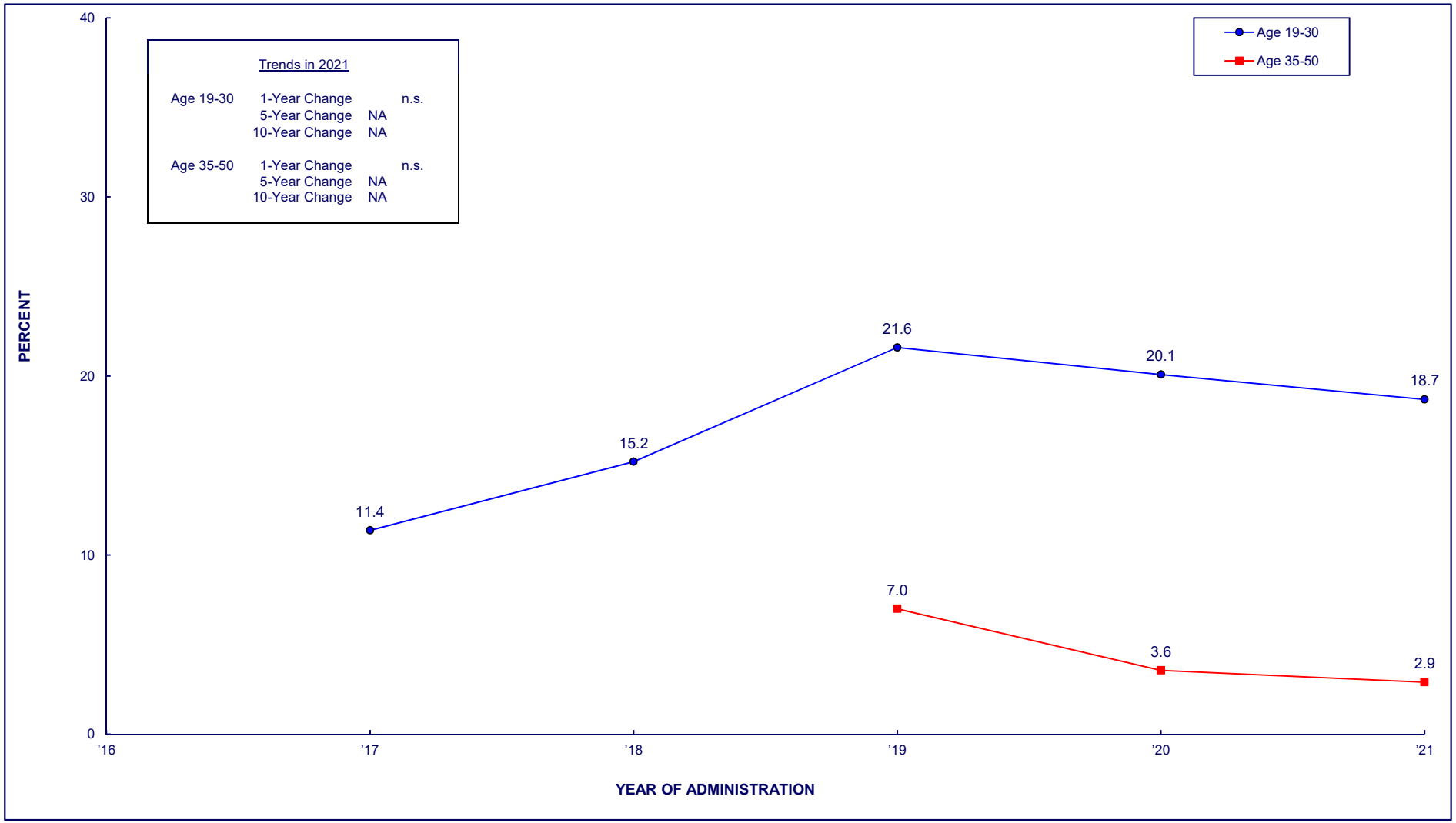
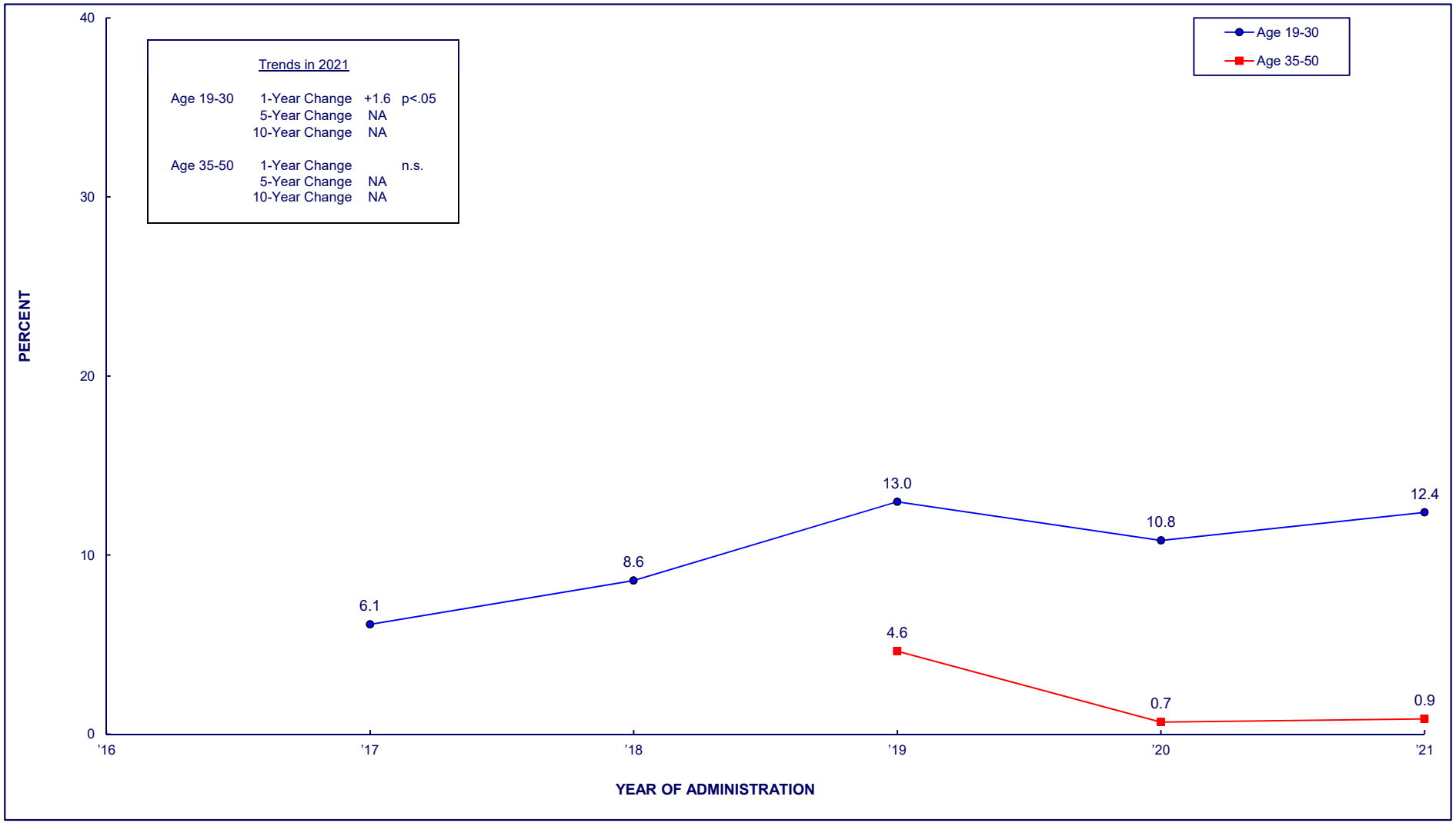


FIGURE 5

VAPING MARIJUANA

Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 6
VAPING MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
2017	4.9	6.0	6.1	8.4	4.6	7.4	4.1						
2018	7.5	9.8	10.1	10.5	10.0	6.4	5.7						
2019	14.0	14.3	14.7	11.3	11.4	12.1	14.3	6.8	6.5	2.4	3.2	2.9	2.5
2020	12.2	13.6	12.6	11.3	10.1	9.4	7.9	1.1	0.9	0.3	0.5	*	0.2
2021	12.4	13.6	12.8	13.0	12.8	10.3	11.6	1.6	0.6	0.6	0.7	0.3	0.3

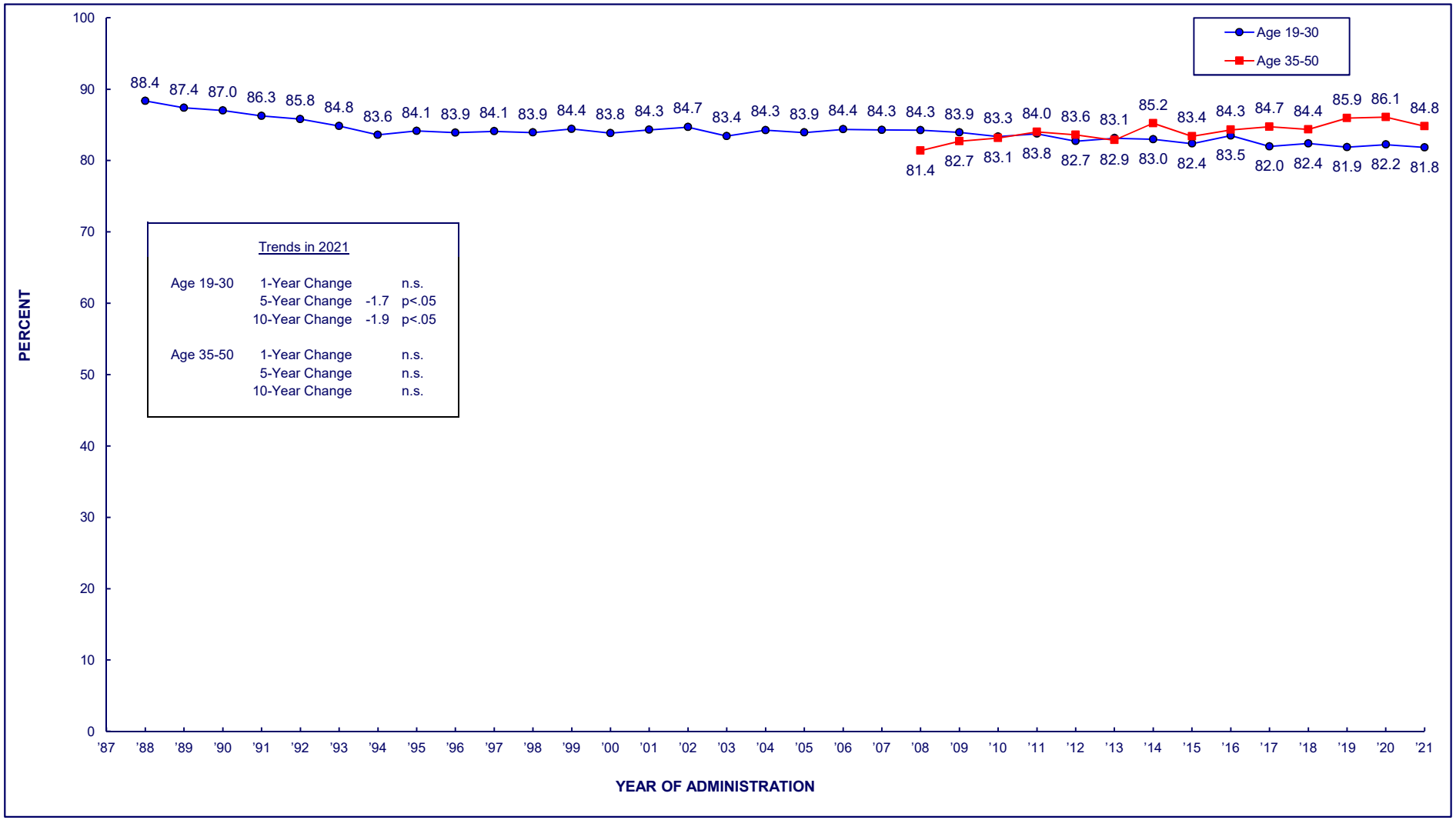
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 6

ALCOHOL

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 7
ALCOHOL
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	85.7												
1977	87.0												
1978	87.7	89.8											
1979	88.1	90.6											
1980	87.9	89.0	90.2										
1981	87.0	90.6	91.6										
1982	86.8	88.6	91.8	90.0									
1983	87.3	88.5	91.8	91.7									
1984	86.0	88.7	89.1	90.4	88.2								
1985	85.6	88.5	89.8	91.6	89.9								
1986	84.5	88.2	90.1	88.1	88.8	87.8							
1987	85.7	88.2	90.8	89.7	90.5	87.8							
1988	85.3	86.6	89.5	89.7	89.4	87.7	87.2						
1989	82.7	87.5	89.1	88.7	87.5	88.0	86.0						
1990	80.6	85.6	89.6	88.2	87.5	86.4	86.9						
1991	77.7	84.6	89.0	88.1	87.7	85.3	85.0						
1992	76.8	81.9	87.9	89.1	86.7	85.6	84.5						
1993	76.0	80.6	85.9	87.8	87.8	85.7	83.2						
1994	73.0	78.2	84.4	86.6	86.0	84.5	82.6	82.5					
1995	73.7	78.3	85.7	87.8	86.7	85.7	83.3	82.1					
1996	72.5	79.6	84.4	85.7	85.9	85.3	84.7	83.5					
1997	74.8	79.2	85.1	85.4	86.4	85.9	83.7	82.3					
1998	74.3	79.7	86.3	84.9	83.8	85.3	84.2	82.3	77.3				
1999	73.8	79.6	85.5	85.2	85.0	85.4	85.4	81.0	80.0				
2000	73.2	79.7	86.2	87.2	84.2	82.9	83.7	81.0	80.3				
2001	73.3	77.6	87.0	86.7	86.3	84.2	84.3	82.7	81.5				
2002	71.5	78.0	85.8	88.0	88.3	84.7	83.6	85.1	80.0				
2003	70.1	75.0	84.3	87.6	86.4	83.6	83.9	82.6	81.6	78.9			
2004	70.6	75.2	86.8	87.2	87.9	86.1	83.5	86.7	79.8	79.2			
2005	68.6	77.3	84.4	86.6	85.6	85.3	84.8	85.8	81.6	80.3			
2006	66.5	77.9	83.6	88.2	86.4	86.9	84.0	83.7	80.5	82.8			
2007	66.4	72.9	87.8	87.8	86.1	85.8	85.9	84.0	85.2	80.7			
2008	65.5	72.3	88.6	86.6	86.4	84.7	87.8	84.3	82.0	80.3	79.0		
2009	66.2	71.4	85.2	89.3	88.2	87.2	84.8	83.5	86.6	81.3	79.7		
2010	65.2	68.8	83.4	89.2	86.7	86.6	86.7	85.0	86.1	81.1	80.3		
2011	63.5	71.5	82.1	88.3	90.6	86.4	85.1	89.0	84.4	80.6	82.1		
2012	63.5	70.3	81.8	85.0	89.4	86.7	84.2	87.2	83.0	84.4	80.2		
2013	62.0	68.4	82.8	84.7	87.9	89.6	86.6	86.7	83.5	81.5	79.7	76.9	
2014	60.2	67.3	84.0	85.3	85.5	90.2	86.4	89.2	84.1	84.8	83.3	77.9	
2015	58.2	67.9	84.3	85.0	83.7	85.8	88.4	85.9	81.9	85.3	80.6	78.4	
2016	55.6	67.6	86.5	85.0	84.4	85.2	90.8	87.3	85.7	83.0	81.5	80.5	
2017	55.7	63.9	83.8	87.6	84.3	84.4	85.7	87.9	83.5	84.6	83.2	81.2	
2018	53.3	63.0	83.5	89.7	86.8	85.7	86.1	87.0	86.4	84.2	79.9	80.8	77.5
2019	52.1	64.3	82.0	86.7	87.8	85.4	83.9	88.3	87.1	83.1	85.7	81.7	77.3
2020	55.3	64.0	82.9	85.7	88.9	87.0	85.3	89.4	84.8	85.8	84.7	80.4	78.9
2021	46.5	65.6	81.4	84.4	87.7	87.7	84.1	88.6	85.5	84.2	81.4	79.4	79.3

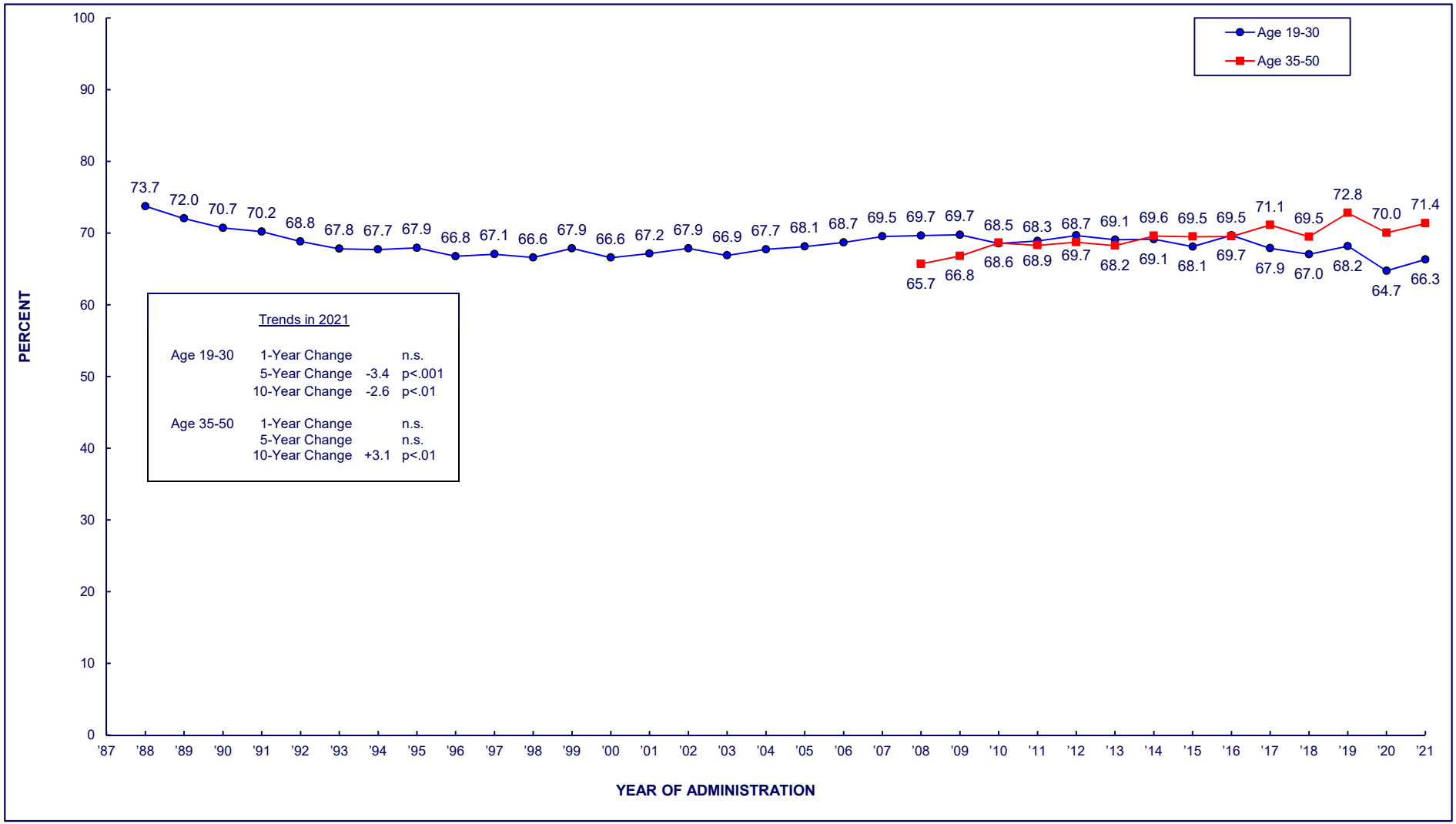
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 7

ALCOHOL

Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 8
ALCOHOL
Trends in 30-Day Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

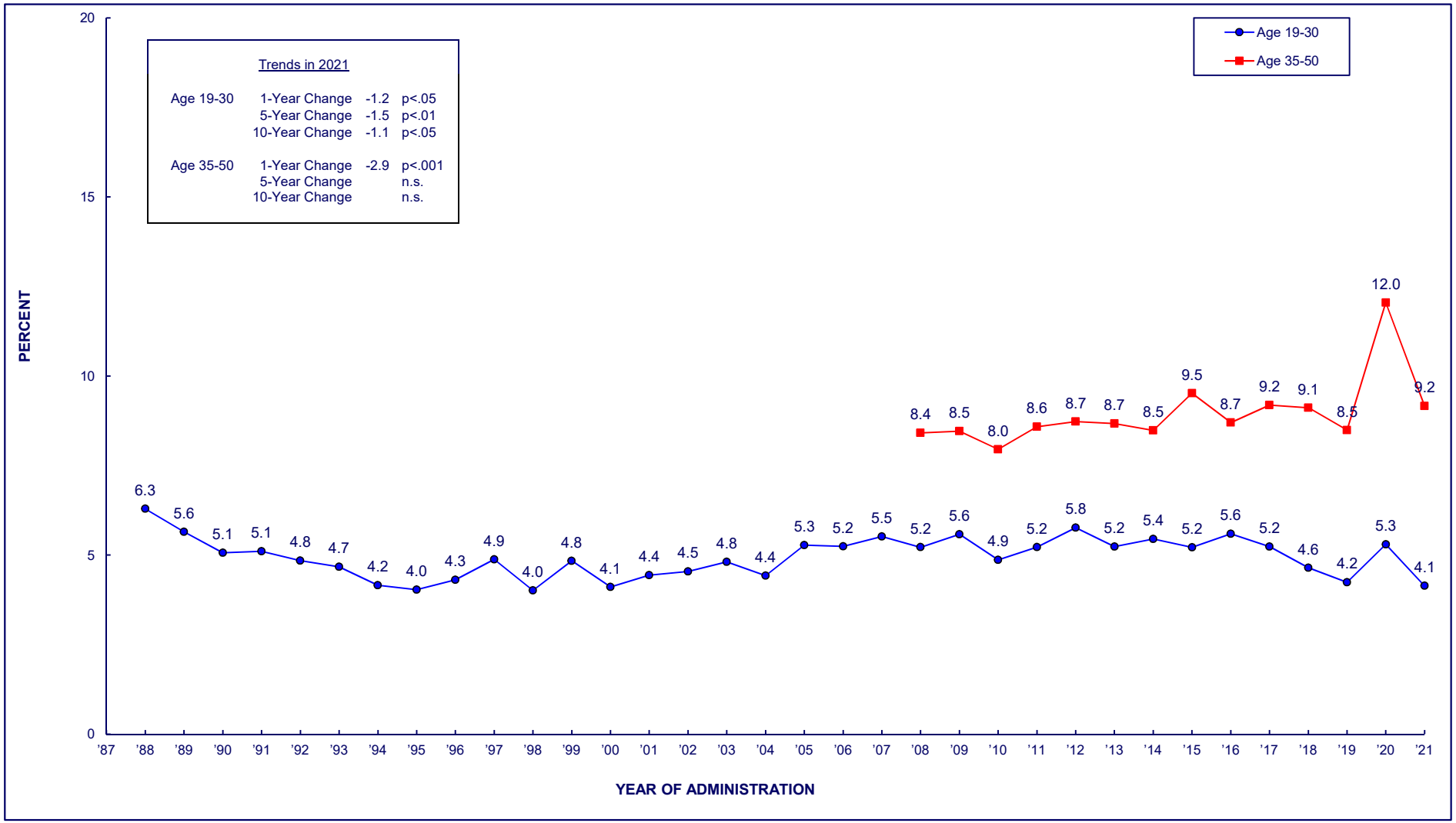
Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	68.3												
1977	71.2												
1978	72.1	75.8											
1979	71.8	76.5											
1980	72.0	76.6	78.3										
1981	70.7	77.0	80.5										
1982	69.7	75.7	79.9	77.9									
1983	69.4	73.9	79.3	78.9									
1984	67.2	73.6	78.1	77.6	75.2								
1985	65.9	73.3	75.9	79.7	76.8								
1986	65.3	72.9	77.2	75.7	76.3	73.6							
1987	66.4	72.5	77.2	74.9	77.7	75.0							
1988	63.9	69.6	76.2	75.9	74.1	74.6	72.1						
1989	60.0	69.8	73.8	72.2	72.5	73.9	72.3						
1990	57.1	66.6	74.1	73.6	71.4	70.9	70.2						
1991	54.0	64.5	75.3	72.4	71.6	69.8	69.6						
1992	51.3	61.0	72.7	73.0	69.8	69.1	69.2						
1993	51.0	60.5	71.6	73.1	69.9	68.3	66.2						
1994	50.1	59.9	70.4	70.1	70.4	69.9	67.0	65.1					
1995	51.3	59.2	70.4	72.3	71.8	68.0	67.0	66.8					
1996	50.8	58.1	69.5	69.2	68.5	69.3	68.0	64.7					
1997	52.7	59.0	69.1	69.3	70.9	70.4	65.8	65.3					
1998	52.0	59.7	69.4	70.3	66.3	68.7	66.1	62.9	59.8				
1999	51.0	62.0	69.2	70.2	70.0	70.2	67.4	64.2	64.2				
2000	50.0	59.1	70.5	71.5	68.7	64.6	65.2	64.0	63.1				
2001	49.8	59.0	71.8	70.6	68.7	66.5	66.2	63.7	65.6				
2002	48.6	59.2	71.9	71.9	71.2	67.9	65.4	67.3	65.4				
2003	47.5	56.7	69.5	72.7	69.1	67.2	66.5	63.7	66.2	62.2			
2004	48.0	56.7	72.4	72.8	72.4	68.8	64.5	70.3	63.7	65.7			
2005	47.0	59.0	70.1	71.2	73.0	70.3	65.7	68.5	65.1	65.4			
2006	45.3	57.6	69.7	73.8	70.4	72.8	68.7	63.3	62.3	66.7			
2007	44.4	54.7	74.5	73.1	73.8	71.9	69.8	67.5	66.9	64.1			
2008	43.1	53.8	74.4	74.0	73.9	69.8	73.4	65.0	66.3	67.9	63.7		
2009	43.5	52.9	72.9	78.4	75.1	70.7	71.5	65.6	71.0	66.5	64.5		
2010	41.2	51.2	71.6	74.6	73.6	72.2	69.1	67.7	72.7	67.0	67.1		
2011	40.0	52.3	69.3	75.7	76.4	71.8	69.6	71.1	68.6	65.2	68.3		
2012	41.5	54.1	70.5	73.5	76.7	73.4	70.8	69.5	68.0	72.0	65.7		
2013	39.2	51.5	70.5	72.7	75.9	73.9	71.1	70.0	69.0	67.2	66.7	61.9	
2014	37.4	50.1	71.1	71.0	73.2	77.3	73.2	73.1	67.8	71.6	66.5	64.4	
2015	35.3	47.9	70.1	73.1	70.0	74.2	74.7	72.5	68.1	69.7	67.8	65.9	
2016	33.2	49.2	73.0	73.9	71.6	72.3	76.1	72.2	69.4	69.1	67.6	68.7	
2017	33.2	46.0	72.7	74.1	71.7	68.9	71.5	72.5	71.5	69.7	70.8	66.3	
2018	30.2	44.4	68.8	75.1	73.0	69.6	72.1	70.7	72.2	71.2	63.9	66.9	61.1
2019	29.3	45.6	68.4	73.8	75.0	71.9	72.6	73.8	73.3	71.0	73.3	66.0	63.9
2020	33.6	42.4	64.6	69.4	72.7	69.7	69.9	73.9	71.7	67.9	67.4	63.5	62.0
2021	25.8	46.1	64.7	69.8	74.8	73.5	68.6	73.1	73.3	71.6	67.8	67.0	65.8

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

FIGURE 8

ALCOHOL

Trends in 30-Day Prevalence of Daily Use
among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 9
ALCOHOL
Trends in 30-Day Prevalence of Daily Use among Respondents of Modal Ages 18 through 60, by Age Group

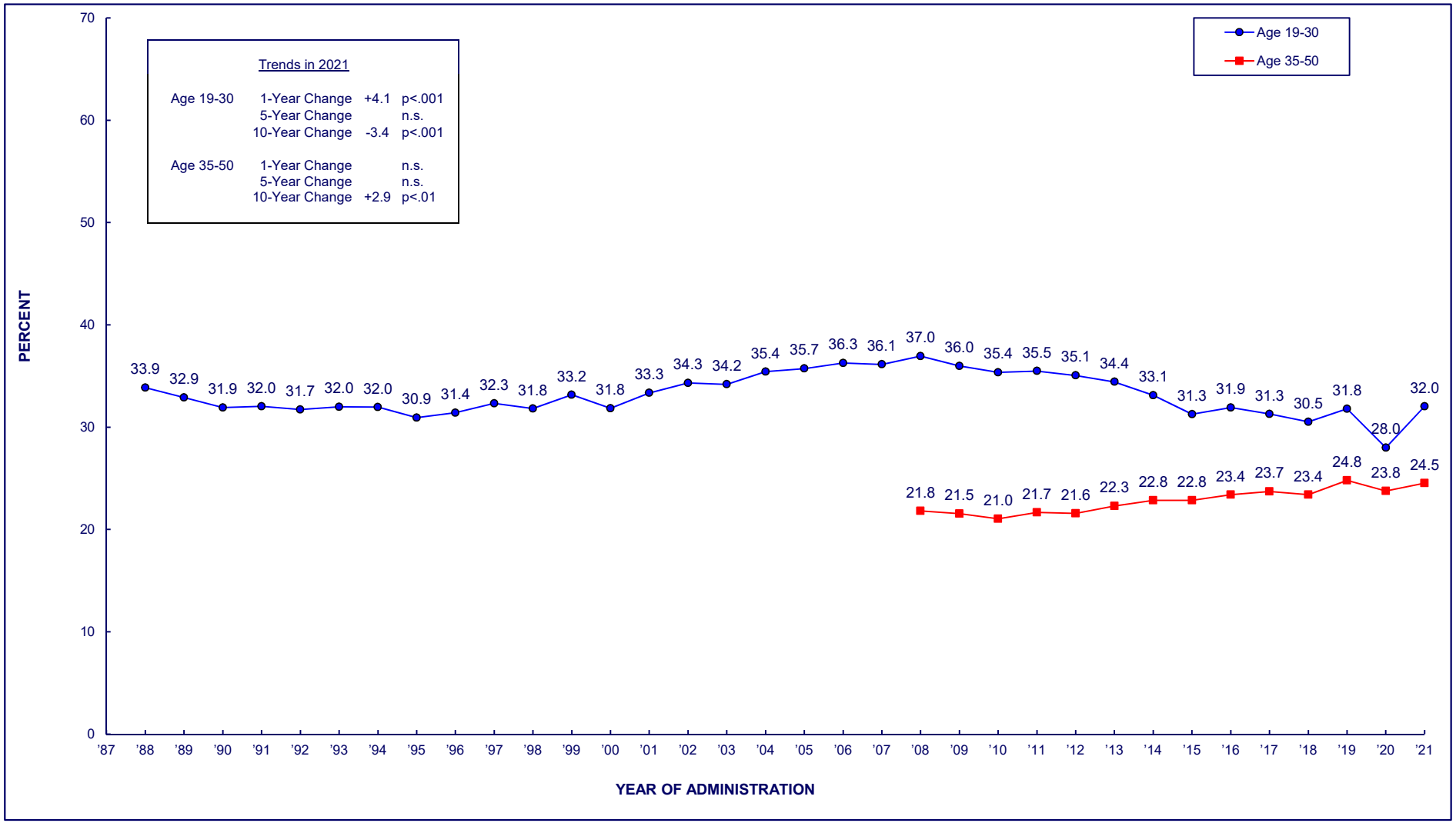
Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	5.6												
1977	6.1												
1978	5.7	7.6											
1979	6.9	7.7											
1980	6.0	7.0	8.4										
1981	6.0	7.2	7.7										
1982	5.7	7.5	7.8	8.2									
1983	5.5	5.3	8.0	8.5									
1984	4.8	5.8	7.7	6.8	7.5								
1985	5.0	5.6	6.4	7.3	7.5								
1986	4.8	5.3	6.3	6.2	5.3	7.3							
1987	4.8	5.7	7.0	6.1	6.9	7.2							
1988	4.2	4.8	7.2	6.2	6.3	5.7	7.6						
1989	4.2	4.7	5.0	5.1	6.0	6.9	5.6						
1990	3.7	4.0	4.9	5.3	4.8	4.9	5.6						
1991	3.6	3.7	4.9	5.4	4.9	6.2	5.9						
1992	3.4	3.3	4.4	4.2	6.1	4.4	5.8						
1993	2.5	3.2	5.1	4.9	5.1	4.7	4.6						
1994	2.9	3.3	3.9	3.7	3.3	5.4	5.0	7.2					
1995	3.5	3.1	3.5	4.1	4.4	4.7	4.1	5.5					
1996	3.7	2.7	5.1	4.8	3.7	3.6	5.1	7.5					
1997	3.9	4.8	4.6	4.5	5.1	4.2	5.9	4.8					
1998	3.9	3.6	5.7	3.9	3.4	3.1	3.4	6.0	6.9				
1999	3.4	4.1	5.9	4.7	5.1	4.3	5.2	5.2	7.5				
2000	2.9	3.9	5.3	4.2	3.8	3.5	3.9	5.2	6.5				
2001	3.6	3.6	6.2	4.6	5.0	2.7	4.3	5.8	7.5				
2002	3.5	3.9	5.6	5.0	5.4	3.7	3.8	4.8	6.6				
2003	3.2	3.6	5.7	6.5	4.6	5.1	3.5	3.9	7.8	7.8			
2004	2.8	3.7	5.7	5.5	4.3	3.5	3.8	6.3	6.6	9.0			
2005	3.1	3.6	6.0	5.8	6.0	4.6	5.8	6.1	7.2	8.5			
2006	3.0	4.3	5.9	5.7	5.2	5.8	4.5	5.3	7.0	9.5			
2007	3.1	3.4	6.1	6.0	6.5	6.2	5.1	8.1	6.1	8.8			
2008	2.8	2.3	5.5	6.3	6.4	6.3	4.8	5.4	7.2	9.9	11.0		
2009	2.5	2.5	5.7	6.5	5.9	6.5	7.1	6.9	8.5	9.3	9.2		
2010	2.7	1.8	5.4	4.9	5.6	5.7	6.1	6.0	7.8	7.2	10.5		
2011	2.1	2.4	6.1	5.2	5.7	7.0	5.3	7.6	7.4	7.7	11.3		
2012	2.5	3.0	4.9	6.4	5.9	7.5	7.2	6.3	8.3	9.5	10.6		
2013	2.2	2.7	4.9	4.9	6.9	6.5	5.8	6.7	8.7	8.4	10.8	10.5	
2014	1.9	2.9	5.6	5.2	5.7	5.8	7.6	8.0	7.3	8.8	9.8	10.0	
2015	1.9	1.6	3.9	5.2	5.6	7.5	7.8	9.8	8.6	10.0	9.6	11.2	
2016	1.3	2.0	6.0	4.5	6.4	7.5	6.8	7.9	8.5	8.7	9.7	14.5	
2017	1.6	1.1	4.4	6.4	5.5	6.9	6.4	8.7	8.0	10.0	10.0	11.1	
2018	1.2	1.4	3.5	6.0	5.0	5.5	6.4	8.0	8.0	9.9	10.4	11.1	12.3
2019	1.7	0.4	4.3	3.6	5.8	4.7	6.3	7.6	8.6	8.7	9.0	11.3	11.9
2020	2.7	1.3	3.1	4.6	7.8	6.9	8.2	12.2	11.8	13.1	11.1	12.8	12.6
2021	0.9	1.8	3.5	4.0	4.7	5.3	5.6	9.4	7.3	10.8	9.1	10.4	14.2

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

FIGURE 9

ALCOHOL

Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 10
ALCOHOL
Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	37.1												
1977	39.4												
1978	40.3	41.1											
1979	41.2	42.1											
1980	41.2	42.7	40.7										
1981	41.4	43.1	43.6										
1982	40.5	41.7	41.6	37.1									
1983	40.8	40.9	42.3	39.3									
1984	38.7	41.0	40.4	35.1	33.7								
1985	36.7	41.2	40.4	37.3	33.3								
1986	36.8	41.2	40.8	35.8	31.5	30.1							
1987	37.5	37.2	41.0	36.6	33.3	32.2							
1988	34.7	37.3	42.0	37.0	30.7	28.0	26.7						
1989	33.0	36.9	39.3	35.4	31.7	29.8	26.3						
1990	32.2	36.0	38.1	35.5	32.0	28.9	25.2						
1991	29.8	37.0	40.3	34.4	31.5	28.8	24.3						
1992	27.9	34.0	39.9	34.9	31.8	29.2	25.7						
1993	27.5	34.6	40.3	35.0	32.1	29.0	25.1						
1994	28.2	34.5	40.5	32.9	30.9	28.5	27.5	21.1					
1995	29.8	31.7	38.5	35.6	28.7	26.9	26.3	20.0					
1996	30.2	32.7	38.2	36.3	30.0	29.7	24.9	21.9					
1997	31.3	36.5	40.2	33.4	31.5	29.3	26.5	22.3					
1998	31.5	34.5	39.7	35.3	31.3	28.9	26.6	20.4	19.7				
1999	30.8	35.3	40.2	38.1	33.0	32.0	26.9	21.4	20.5				
2000	30.0	35.3	40.6	37.0	31.5	29.1	24.0	22.2	18.3				
2001	29.7	36.3	42.4	38.2	33.7	29.2	27.3	20.6	21.3				
2002	28.6	36.0	40.7	39.4	34.9	28.9	25.8	22.9	20.8				
2003	27.9	33.6	39.9	39.3	35.1	31.1	26.4	22.4	20.7	20.1			
2004	29.2	35.5	41.7	40.4	36.4	31.3	26.9	21.6	20.2	19.2			
2005	27.1	36.3	40.4	39.2	37.7	31.5	29.1	23.0	22.2	19.6			
2006	25.4	33.9	42.2	43.2	36.0	32.5	29.1	22.5	20.0	19.8			
2007	25.9	31.4	45.8	39.8	38.3	33.4	28.4	23.6	20.4	19.4			
2008	24.6	30.7	42.1	42.2	40.0	35.0	31.9	24.4	21.9	20.9	20.0		
2009	25.2	28.1	41.2	41.7	39.5	34.2	32.1	21.8	25.1	21.8	17.9		
2010	23.2	28.2	39.3	40.1	36.6	35.6	32.6	23.0	21.6	22.1	17.8		
2011	21.6	29.8	39.2	39.9	38.7	35.0	30.4	25.7	22.2	20.0	19.1		
2012	23.7	29.5	39.1	37.5	36.3	35.1	32.8	24.3	22.2	21.0	19.0		
2013	22.1	27.2	40.2	37.7	37.0	33.6	30.9	24.4	24.3	20.1	20.3	17.0	
2014	19.4	28.2	38.4	33.6	32.2	35.5	31.0	24.0	22.3	23.4	21.9	17.7	
2015	17.2	23.7	34.8	35.0	34.8	31.6	27.7	29.2	20.3	20.5	22.0	18.9	
2016	15.5	23.1	38.2	34.7	34.7	30.3	29.8	25.3	22.6	24.2	21.7	19.1	
2017	16.6	22.1	39.8	31.2	33.8	31.4	28.7	27.5	24.5	23.2	19.8	16.9	
2018	13.8	20.0	33.7	36.3	32.9	30.9	30.2	27.3	23.0	24.1	19.3	18.7	16.0
2019	14.4	20.5	35.3	33.9	36.7	32.6	31.2	28.1	23.1	23.5	24.6	22.2	17.7
2020	16.8	17.2	31.4	30.6	31.5	30.5	27.2	26.2	26.0	22.6	21.1	20.1	16.2
2021	11.8	23.4	32.5	34.6	35.4	34.1	32.4	24.8	26.3	23.8	23.4	21.5	16.9

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

FIGURE 10

ALCOHOL

Trends in Two-Week Prevalence of High-Intensity Drinking (10+ Drinks in a Row) among Respondents of Modal Ages 19 through 30

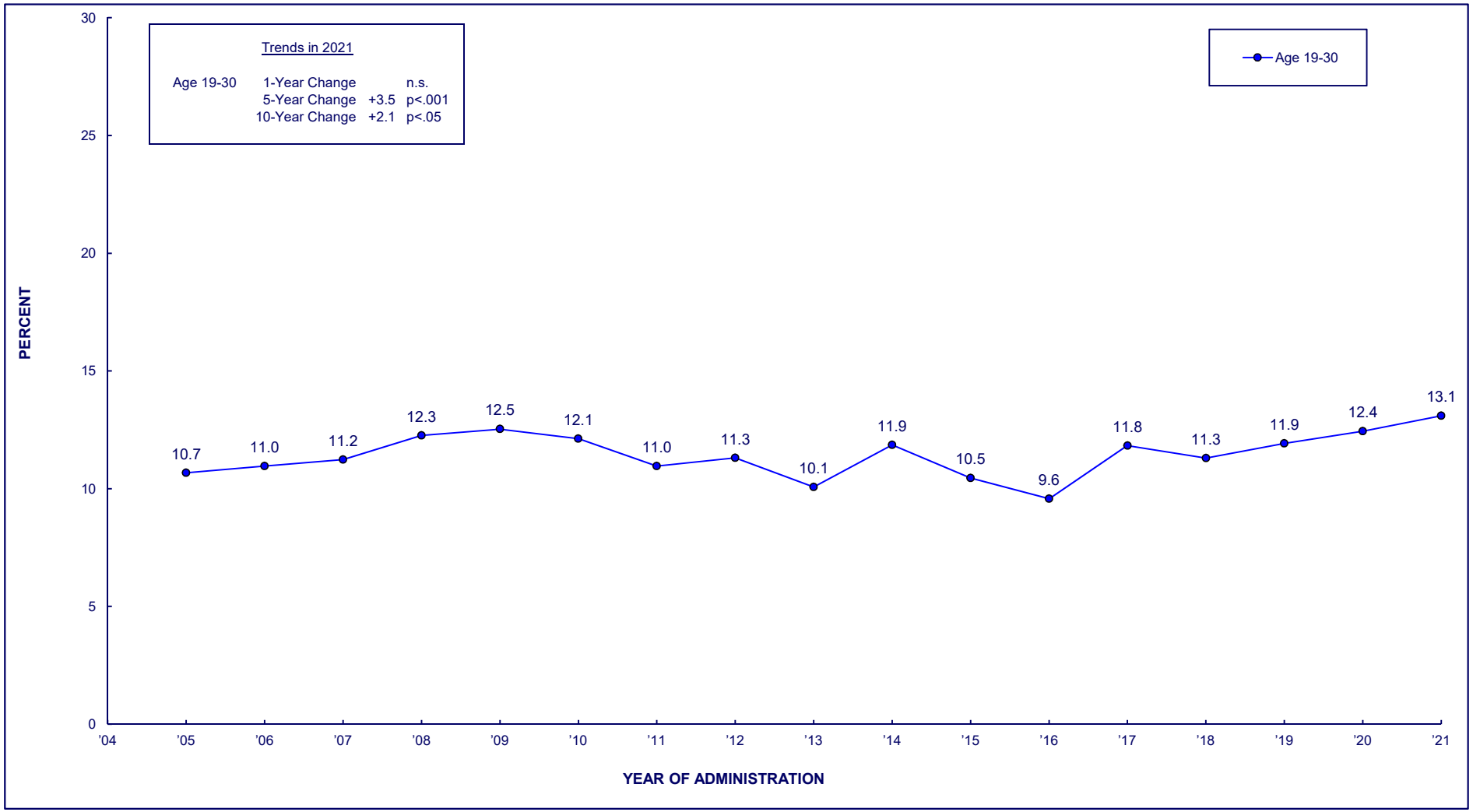


FIGURE 11

ALCOHOL

Trends in Two-Week Prevalence of High-Intensity Drinking (15+ Drinks in a Row) among Respondents of Modal Ages 19 through 30

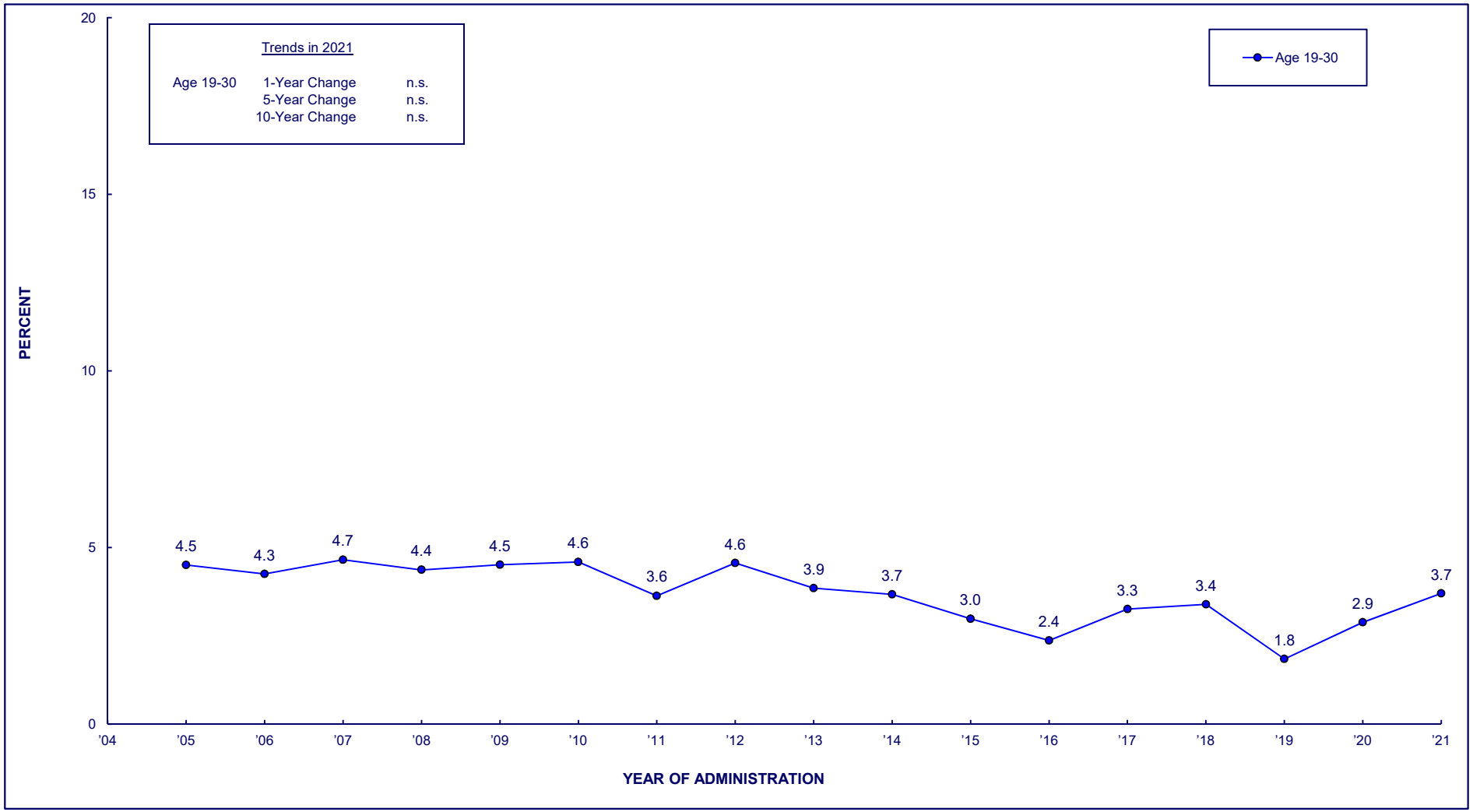
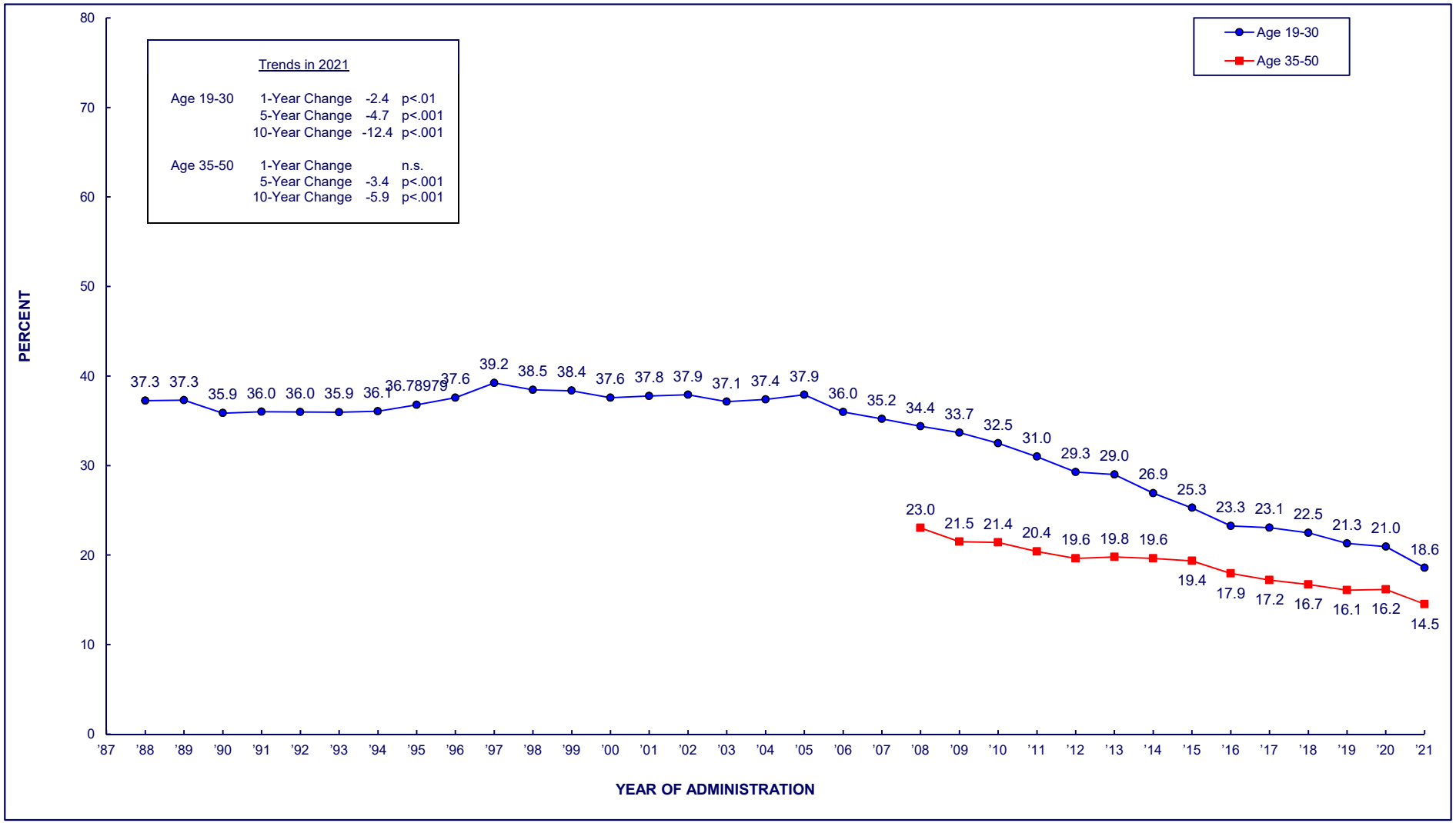


FIGURE 12

CIGARETTES

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 11
CIGARETTES
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1988	42.3	39.9	36.9	34.2	34.7	34.7						
1989	41.9	39.1	38.7	36.5	33.0	35.6						
1990	40.8	39.6	36.9	35.4	31.5	32.6						
1991	41.4	39.6	37.3	34.8	33.8	30.7						
1992	41.2	41.3	37.6	33.0	33.9	29.8						
1993	42.7	41.1	36.8	34.4	31.8	31.1						
1994	44.1	40.5	37.9	34.7	31.9	30.7						
1995	44.6	42.3	37.2	35.5	32.2	31.0						
1996	46.1	43.8	40.1	36.0	33.1	29.6						
1997	48.7	45.0	40.0	38.6	34.7	31.6						
1998	47.4	46.1	41.6	37.7	33.7	30.3						
1999	48.5	45.3	43.0	35.2	32.2	31.5						
2000	45.6	44.7	41.0	37.2	35.4	29.0						
2001	44.9	46.6	42.1	39.2	32.6	29.2						
2002	41.5	42.8	41.1	37.0	33.0	31.6						
2003	39.4	41.1	41.8	35.3	35.1	30.0	26.8	25.2	24.4			
2004	39.7	43.1	41.3	37.4	33.1	29.1	27.0	24.5	23.1			
2005	39.9	39.6	41.1	40.3	34.9	31.4	24.9	24.9	25.3			
2006	35.0	38.0	38.2	38.4	34.8	31.3	24.4	21.8	21.8			
2007	34.6	37.0	37.0	37.2	35.0	30.6	23.8	22.5	20.8			
2008	33.6	35.6	37.1	34.5	34.2	31.3	26.8	23.2	20.0	22.0		
2009	32.7	36.9	35.4	31.9	32.2	32.6	23.5	20.4	21.8	20.3		
2010	29.8	35.4	33.7	34.6	31.4	29.9	23.5	18.4	21.3	22.4		
2011	30.2	34.0	33.5	31.9	27.8	28.1	26.7	17.7	18.1	19.2		
2012	26.9	29.4	31.6	31.4	29.9	26.3	23.7	16.3	19.3	19.0		
2013	28.0	31.2	32.0	29.6	27.9	24.9	22.0	20.6	18.1	18.4	16.9	
2014	26.0	28.6	28.6	25.1	26.5	26.6	25.6	17.6	18.1	17.7	17.7	
2015	24.7	26.3	26.8	27.5	25.7	20.3	25.7	18.5	13.8	20.3	17.9	
2016	18.1	25.9	24.9	24.4	23.0	22.8	21.9	19.1	14.9	16.3	15.5	
2017	17.6	26.5	25.4	26.8	22.7	19.0	20.5	19.6	13.2	15.5	16.2	
2018	18.4	21.9	27.2	22.7	22.4	22.6	20.3	17.6	15.7	13.4	16.5	15.1
2019	16.0	24.3	22.8	23.0	21.6	20.1	18.4	17.6	13.7	15.0	15.2	13.9
2020	19.6	22.5	21.4	23.6	20.3	18.1	20.2	17.6	16.2	11.7	15.6	15.6
2021	16.6	17.5	20.4	18.4	20.1	18.5	15.6	15.5	13.5	13.7	13.7	13.1

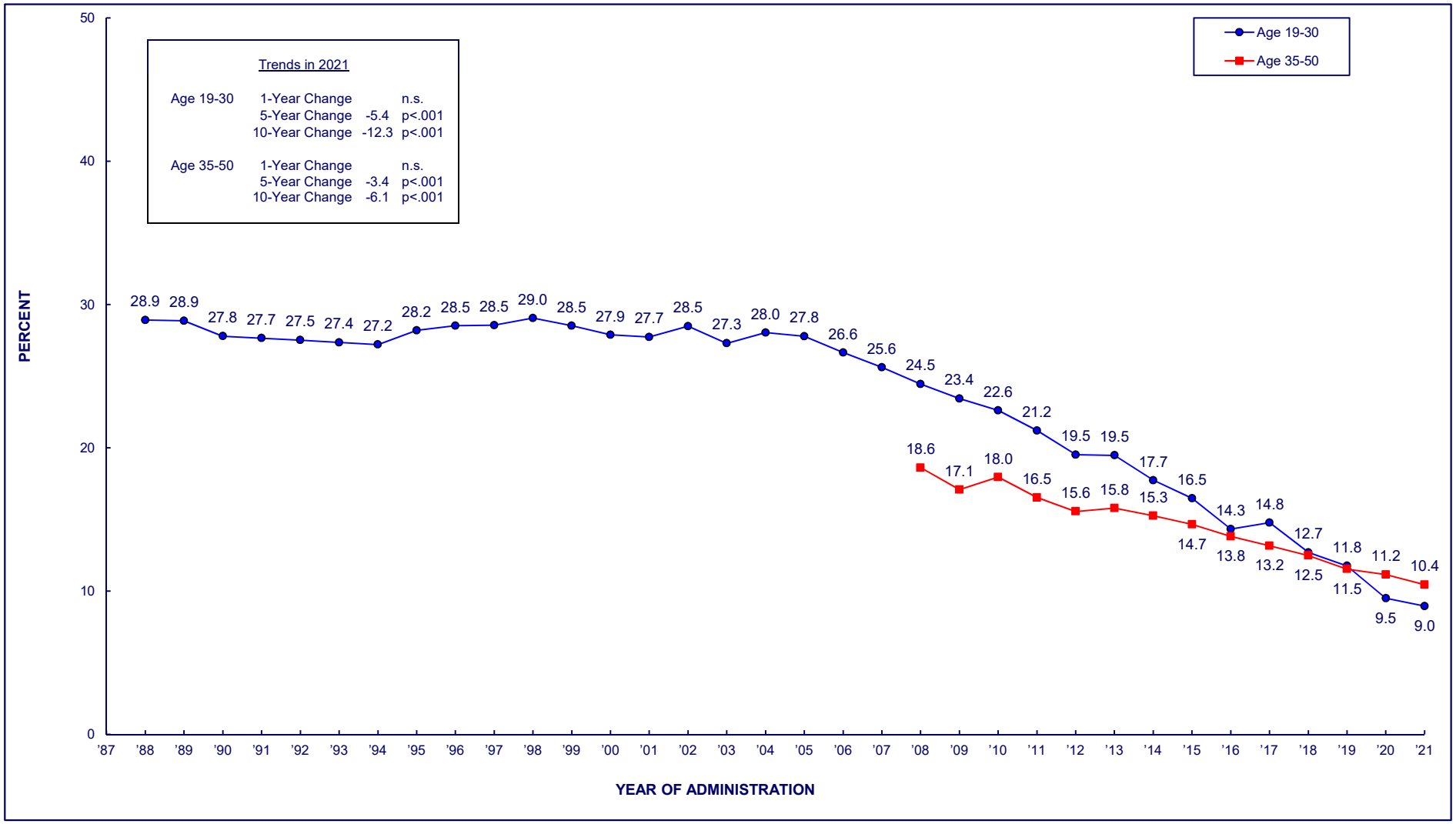
Source.

FIGURE 13

CIGARETTES

Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 12
CIGARETTES
Trends in 30-Day Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

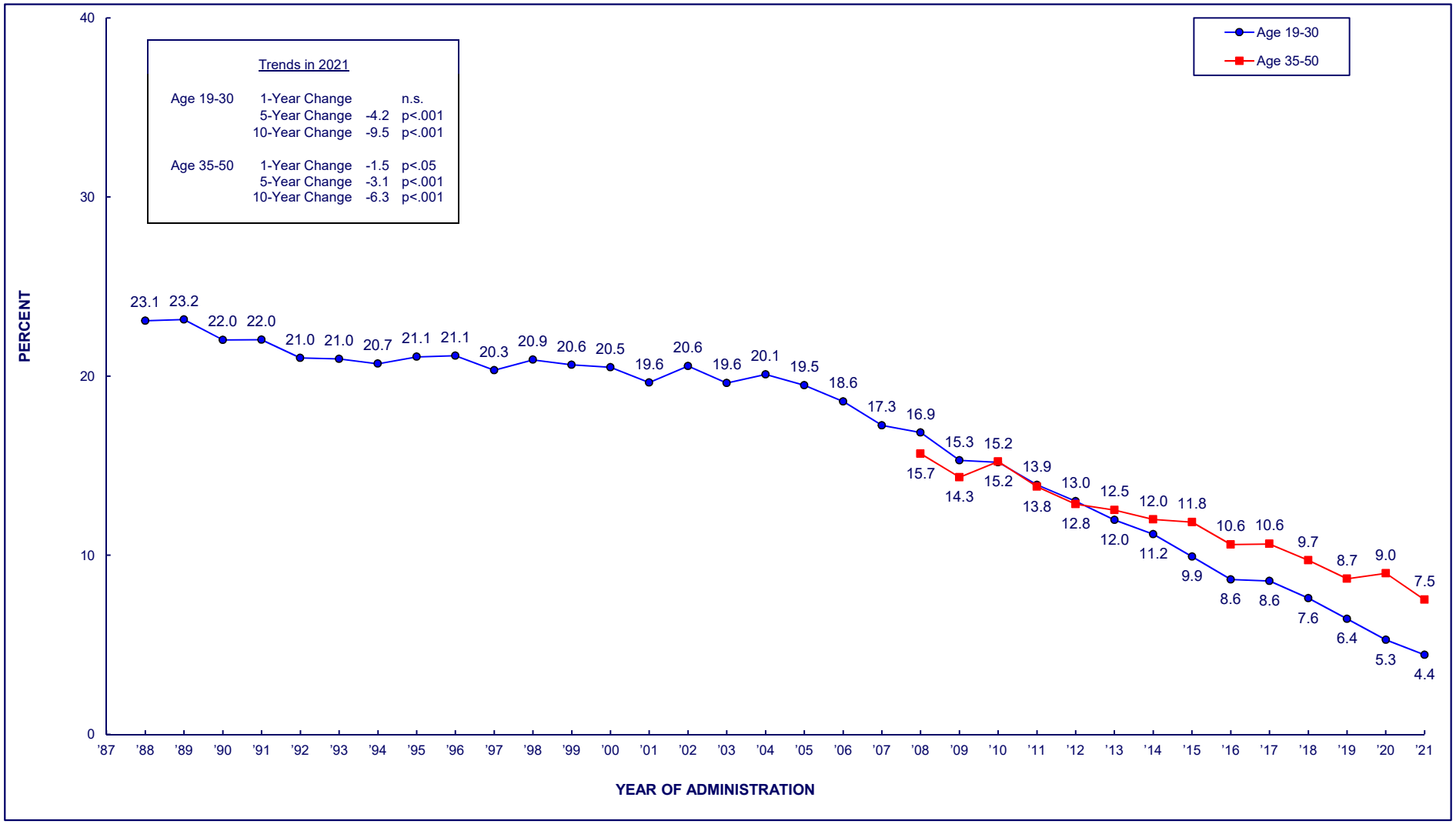
Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	38.8												
1977	38.4												
1978	36.7	39.3											
1979	34.4	39.3											
1980	30.5	36.0	37.9										
1981	29.4	34.9	37.5										
1982	30.0	32.1	36.2	36.7									
1983	30.3	32.5	33.5	36.5									
1984	29.3	31.5	32.2	33.6	33.7								
1985	30.1	30.9	32.4	31.9	35.3								
1986	29.6	30.0	32.0	29.9	31.3	32.5							
1987	29.4	30.1	32.4	31.7	28.2	32.3							
1988	28.7	28.4	29.8	29.9	27.3	29.1	28.9						
1989	28.6	27.7	29.4	29.4	29.5	27.2	30.2						
1990	29.4	27.2	28.6	27.8	28.4	26.5	27.8						
1991	28.3	27.6	28.3	28.5	28.3	28.2	24.4						
1992	27.8	29.5	29.0	28.4	26.3	27.8	23.8						
1993	29.9	29.0	29.2	28.1	27.7	25.4	25.8						
1994	31.2	31.3	28.8	27.0	26.4	25.0	25.5	24.8					
1995	33.5	33.4	31.8	28.0	25.7	26.8	25.2	26.1					
1996	34.0	34.0	32.3	30.1	26.8	26.0	23.4	25.4					
1997	36.5	34.0	32.3	29.1	27.6	24.9	24.6	22.3					
1998	35.1	33.9	33.7	30.9	29.9	25.6	23.1	23.6	24.3				
1999	34.6	36.1	33.4	32.4	25.6	22.9	22.7	22.6	23.5				
2000	31.4	32.2	33.6	29.5	28.2	26.5	21.2	24.0	23.5				
2001	29.5	32.8	34.0	31.1	28.6	24.2	20.4	20.4	22.9				
2002	26.7	29.8	32.6	31.9	27.3	24.7	24.4	21.9	18.9				
2003	24.4	27.0	30.5	31.0	27.0	26.3	22.0	20.1	21.9	20.7			
2004	25.0	27.9	31.3	31.5	29.6	25.9	21.9	20.0	20.0	20.2			
2005	23.2	27.5	29.2	29.3	30.7	26.3	23.5	19.1	21.4	22.1			
2006	21.6	24.6	27.3	28.1	29.1	26.3	24.4	17.7	17.3	18.9			
2007	21.6	22.6	27.8	26.7	27.5	26.6	22.9	17.8	18.3	17.6			
2008	20.4	21.8	24.5	26.5	24.5	25.7	24.0	20.4	17.8	17.3	18.8		
2009	20.1	21.2	25.2	24.1	22.6	23.9	24.0	17.3	16.2	17.8	17.0		
2010	19.2	19.6	22.8	23.0	24.3	22.5	23.9	18.3	15.2	18.3	19.9		
2011	18.7	18.5	23.3	22.0	23.4	19.6	20.5	19.7	15.1	15.3	16.0		
2012	17.1	16.8	18.9	20.4	20.7	22.0	18.6	18.0	12.8	15.9	15.4		
2013	16.3	18.4	20.8	21.4	19.5	20.0	16.5	17.8	16.6	13.4	15.3	14.0	
2014	13.6	15.8	18.9	18.3	16.3	18.1	19.0	18.0	13.5	15.4	14.5	14.6	
2015	11.4	14.8	17.0	18.1	18.0	15.2	15.5	18.4	13.8	10.3	16.7	15.3	
2016	10.5	9.2	15.5	14.9	15.4	15.6	14.8	16.1	13.5	12.1	13.7	13.2	
2017	9.7	9.6	17.3	16.9	17.6	14.8	12.0	15.1	14.3	10.3	12.9	12.9	
2018	7.6	10.5	10.9	14.7	13.0	12.4	14.6	13.0	12.9	12.9	11.1	13.8	13.4
2019	5.7	8.4	13.0	10.2	12.5	14.1	12.2	11.4	13.5	10.8	10.6	12.4	11.5
2020	7.5	8.1	7.4	10.0	10.5	10.2	10.7	11.8	13.0	11.4	9.0	11.7	12.6
2021	4.1	6.1	7.0	8.8	8.4	12.6	10.8	11.6	10.2	8.9	11.1	10.3	9.7

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

FIGURE 14

CIGARETTES

Trends in 30-Day Prevalence of Daily Use
among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 13
CIGARETTES
Trends in 30-Day Prevalence of Daily Use among Respondents of Modal Ages 18 through 60, by Age Group

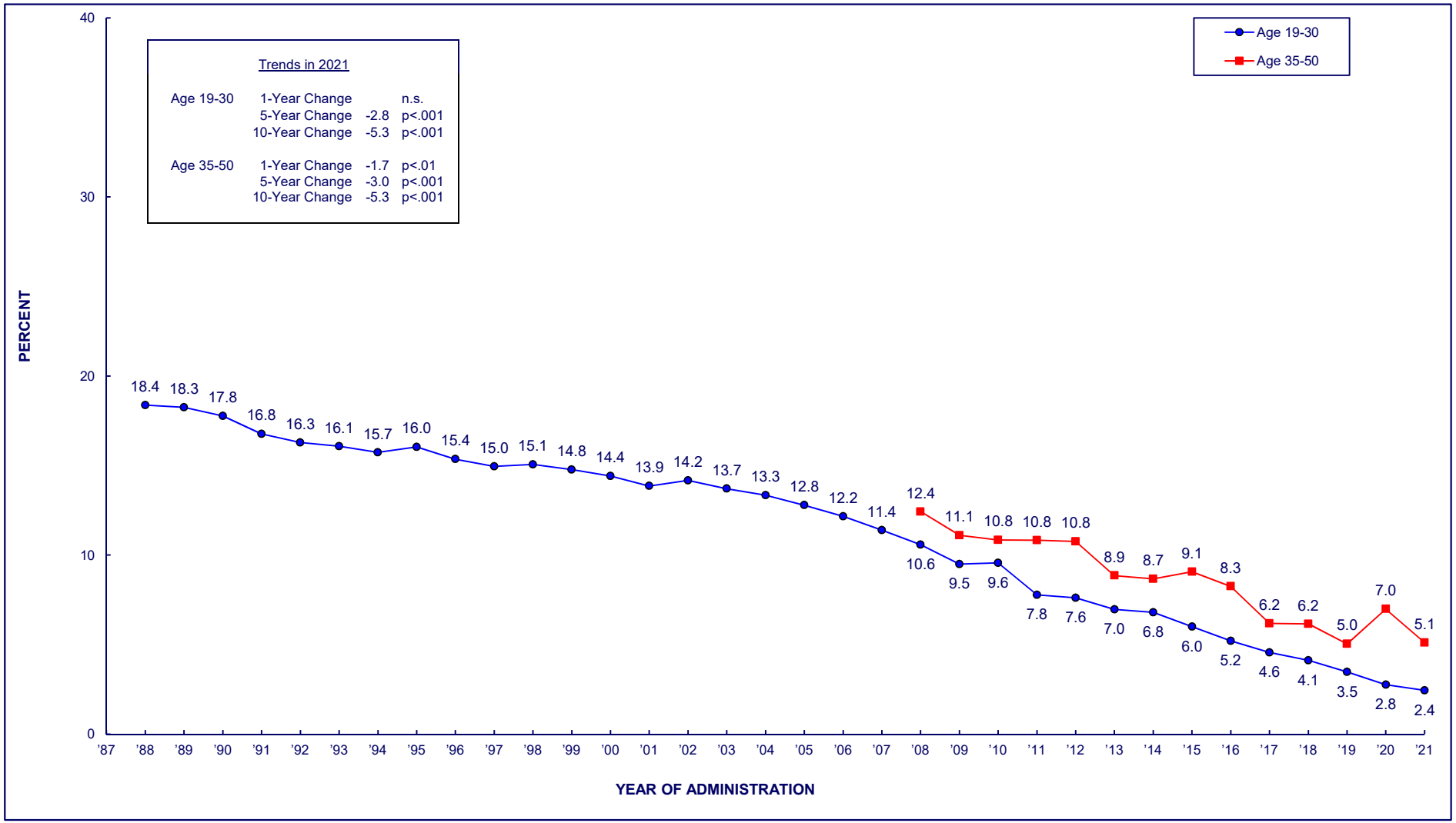
Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	28.8												
1977	28.8												
1978	27.5	31.0											
1979	25.4	31.2											
1980	21.3	29.3	31.1										
1981	20.3	26.0	31.4										
1982	21.1	23.9	28.6	30.1									
1983	21.2	24.4	26.0	30.6									
1984	18.7	24.1	25.3	27.8	28.7								
1985	19.5	23.2	25.3	25.1	30.4								
1986	18.7	21.9	24.4	25.2	27.3	27.6							
1987	18.7	22.5	24.2	26.0	23.7	27.9							
1988	18.1	19.5	22.3	24.0	22.9	25.0	25.4						
1989	18.9	18.9	22.5	23.3	25.0	22.9	26.4						
1990	19.1	19.2	20.2	22.2	23.3	22.2	24.2						
1991	18.5	19.4	20.6	22.5	22.8	23.9	21.0						
1992	17.2	20.5	21.2	20.9	20.3	21.8	20.3						
1993	19.0	21.1	20.5	20.1	21.9	20.1	21.7						
1994	19.4	21.9	21.1	19.9	19.8	20.5	20.9	22.5					
1995	21.6	22.2	24.0	20.0	19.2	20.9	20.1	23.0					
1996	22.2	22.5	22.8	22.8	21.1	19.4	18.6	22.1					
1997	24.6	22.7	21.4	21.5	19.2	17.6	19.7	18.3					
1998	22.4	23.8	22.8	21.2	21.9	19.5	17.2	20.4	21.7				
1999	23.1	25.6	24.2	21.4	19.6	16.0	17.2	19.7	20.9				
2000	20.6	22.7	25.1	21.2	20.1	19.7	15.8	20.1	20.8				
2001	19.0	21.9	23.6	22.4	20.9	17.2	14.4	16.4	20.1				
2002	16.9	20.6	23.9	23.5	19.8	18.1	17.4	18.2	16.7				
2003	15.8	18.8	20.8	21.5	20.4	19.8	16.4	16.3	19.0	19.0			
2004	15.6	18.2	21.5	23.3	22.7	18.2	16.7	14.8	16.6	17.8			
2005	13.6	17.6	19.2	20.4	22.5	18.6	18.9	14.5	18.5	20.1			
2006	12.2	14.4	17.7	19.5	22.0	20.2	18.3	13.5	14.6	16.7			
2007	12.3	12.9	18.3	17.5	19.2	19.3	16.8	13.9	15.8	15.4			
2008	11.4	14.3	16.1	17.9	17.4	18.3	17.4	16.5	14.7	14.6	16.8		
2009	11.2	12.8	14.9	16.2	15.3	16.5	16.7	13.7	12.7	15.6	15.4		
2010	10.7	11.1	15.5	15.3	16.2	16.2	17.3	14.3	12.3	16.4	18.0		
2011	10.3	10.2	15.0	13.7	17.0	13.4	14.8	15.7	11.8	13.6	14.2		
2012	9.3	9.5	11.5	13.1	14.1	16.0	14.3	13.4	10.5	13.8	13.5		
2013	8.5	10.8	12.0	13.1	10.9	13.8	11.3	12.4	13.5	11.0	13.2	13.2	
2014	6.7	8.1	10.8	11.1	11.6	12.1	13.5	13.4	9.7	12.0	13.0	12.9	
2015	5.5	6.8	10.0	11.0	11.4	9.1	11.3	13.5	11.6	8.5	14.2	13.4	
2016	4.8	3.5	8.3	8.6	9.7	10.4	10.9	11.3	9.9	9.9	11.3	11.6	
2017	4.2	4.8	8.7	9.6	9.4	10.9	7.4	11.4	11.4	8.3	11.4	11.2	
2018	3.6	5.9	4.4	8.2	7.6	8.9	10.3	9.5	9.9	10.3	9.2	12.2	12.4
2019	2.4	3.4	5.8	5.4	8.6	7.8	7.4	7.9	8.7	9.0	9.0	11.2	9.5
2020	3.1	3.4	3.7	5.2	6.0	6.6	6.8	9.4	10.7	9.4	7.0	10.5	11.7
2021	2.0	2.5	1.5	3.5	4.4	7.8	6.8	7.1	7.1	7.0	8.7	9.5	9.1

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

FIGURE 15

CIGARETTES

Trends in 30-Day Prevalence of Smoking a Half Pack or More per Day among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 14

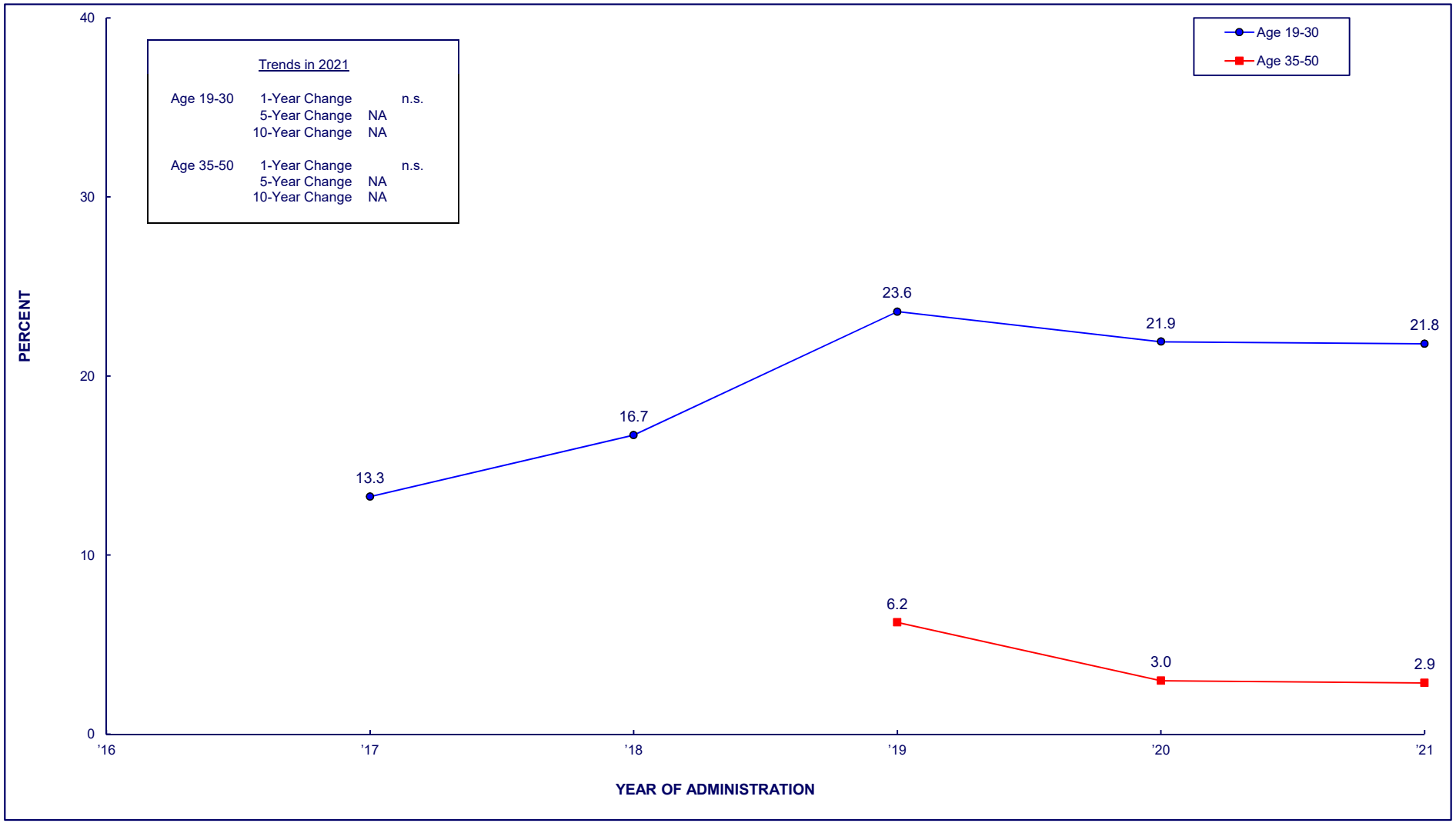
CIGARETTES

Trends in 30-Day Prevalence of Smoking a Half Pack or More per Day among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	19.2												
1977	19.4												
1978	18.8	23.8											
1979	16.5	24.6											
1980	14.3	21.9	25.2										
1981	13.5	19.3	25.3										
1982	14.2	18.0	23.0	24.6									
1983	13.8	17.2	19.7	25.1									
1984	12.3	17.2	21.2	22.8	24.1								
1985	12.5	16.6	20.4	20.8	24.8								
1986	11.4	16.2	19.3	21.1	22.0	23.2							
1987	11.4	15.6	19.3	21.6	19.9	23.3							
1988	10.6	13.8	17.3	18.4	18.6	20.6	22.3						
1989	11.2	13.0	16.4	18.6	20.6	19.0	22.0						
1990	11.3	14.3	15.0	17.4	19.6	18.2	20.5						
1991	10.7	12.7	14.1	17.4	18.2	19.0	16.7						
1992	10.0	14.5	15.1	15.5	15.8	17.9	17.0						
1993	10.9	14.5	14.5	15.2	17.4	16.3	17.9						
1994	11.2	15.0	15.6	15.0	15.0	15.9	16.8	19.1					
1995	12.4	15.2	18.1	15.3	14.2	16.3	16.5	19.1					
1996	13.0	14.7	15.7	16.1	15.0	14.8	15.2	18.5					
1997	14.3	15.4	14.7	16.4	13.2	12.8	15.9	15.4					
1998	12.6	16.9	16.2	14.5	15.5	14.8	12.2	16.3	18.7				
1999	13.2	16.3	16.4	14.8	15.0	12.4	13.2	17.3	17.2				
2000	11.3	14.6	17.2	14.1	14.8	14.7	12.5	15.7	17.2				
2001	10.3	13.9	15.9	15.8	15.1	12.6	11.4	13.4	15.9				
2002	9.1	12.8	14.4	15.9	14.1	13.9	14.0	13.0	13.6				
2003	8.4	11.7	13.8	15.4	14.0	14.8	12.7	12.4	14.9	16.8			
2004	8.0	11.6	12.7	15.2	15.6	12.8	12.5	10.9	14.2	15.4			
2005	6.9	10.1	12.1	13.9	13.6	13.1	14.1	11.3	16.0	16.4			
2006	5.9	8.8	10.9	12.8	14.0	13.6	13.5	10.7	12.2	14.2			
2007	5.7	7.5	10.7	10.6	14.3	13.0	12.6	10.5	12.1	12.3			
2008	5.4	7.3	9.8	11.5	10.9	12.0	12.3	12.4	11.6	12.2	13.9		
2009	5.0	7.4	9.1	8.6	10.3	11.8	10.5	11.1	8.5	13.0	12.2		
2010	4.7	6.7	9.3	9.6	11.3	10.1	10.7	10.8	9.1	13.3	14.4		
2011	4.3	4.5	7.9	8.2	9.7	7.6	9.2	10.8	8.7	11.0	11.1		
2012	4.0	4.6	7.3	8.2	7.7	10.4	7.8	10.8	7.7	10.6	11.2		
2013	3.4	5.4	6.5	8.1	6.4	8.5	7.1	8.9	10.2	8.7	10.3	11.1	
2014	2.6	4.3	6.4	7.1	7.5	7.5	8.0	8.7	7.0	9.1	10.5	10.8	
2015	2.1	3.6	5.1	7.0	6.6	6.2	7.7	9.1	9.2	6.4	11.4	11.2	
2016	1.8	1.8	4.4	5.4	5.7	6.8	6.9	8.3	7.4	7.7	8.9	9.0	
2017	1.7	2.7	3.8	5.9	4.8	5.8	4.1	6.2	7.8	5.8	8.9	8.9	
2018	1.5	2.3	2.3	4.3	4.2	5.7	5.7	6.2	6.7	7.3	6.4	9.3	9.7
2019	0.9	1.8	1.9	2.7	5.7	3.4	5.1	5.0	5.5	7.0	7.0	9.2	7.5
2020	1.4	1.0	1.2	2.8	3.1	4.6	4.0	7.0	7.8	7.8	5.2	8.9	9.3
2021	0.8	1.3	0.9	2.1	1.6	5.3	3.6	3.8	4.7	5.1	6.7	7.5	6.7

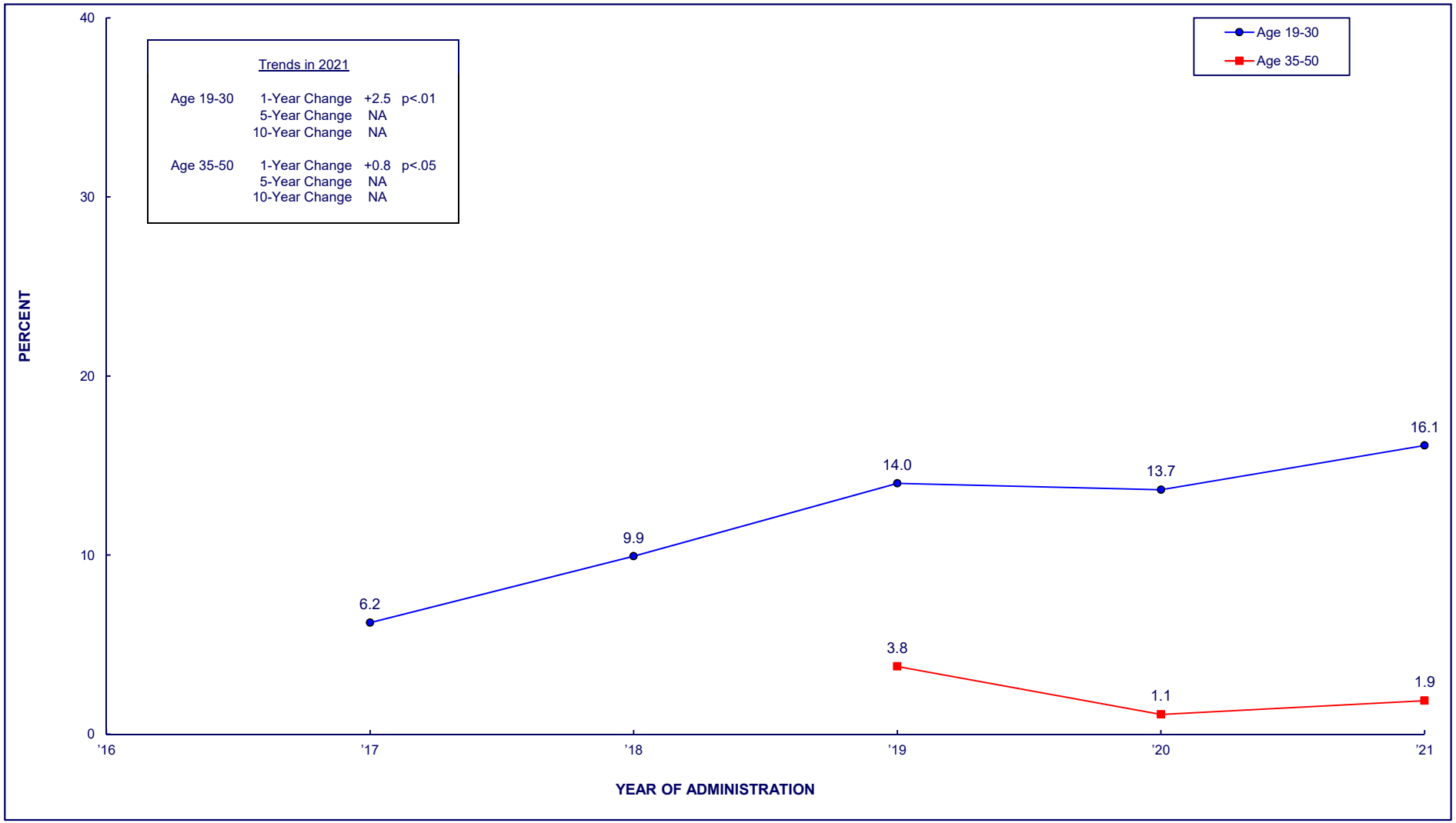
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 16
VAPING NICOTINE
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

FIGURE 17
VAPING NICOTINE
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 15
VAPING NICOTINE
Trends in 30-Day Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
2017	11.0	7.4	6.0	8.3	3.6	7.2	4.8						
2018	20.9	15.8	13.1	10.5	8.2	6.1	7.2						
2019	25.5	22.4	18.9	14.6	10.7	9.3	9.4	5.3	4.1	2.7	3.1	3.1	1.7
2020	24.7	20.6	20.3	13.1	12.2	9.7	6.0	1.8	0.8	0.9	0.9	0.6	0.6
2021	19.6	22.0	22.8	18.9	13.9	10.3	9.2	4.0	1.5	1.4	1.0	0.8	0.3

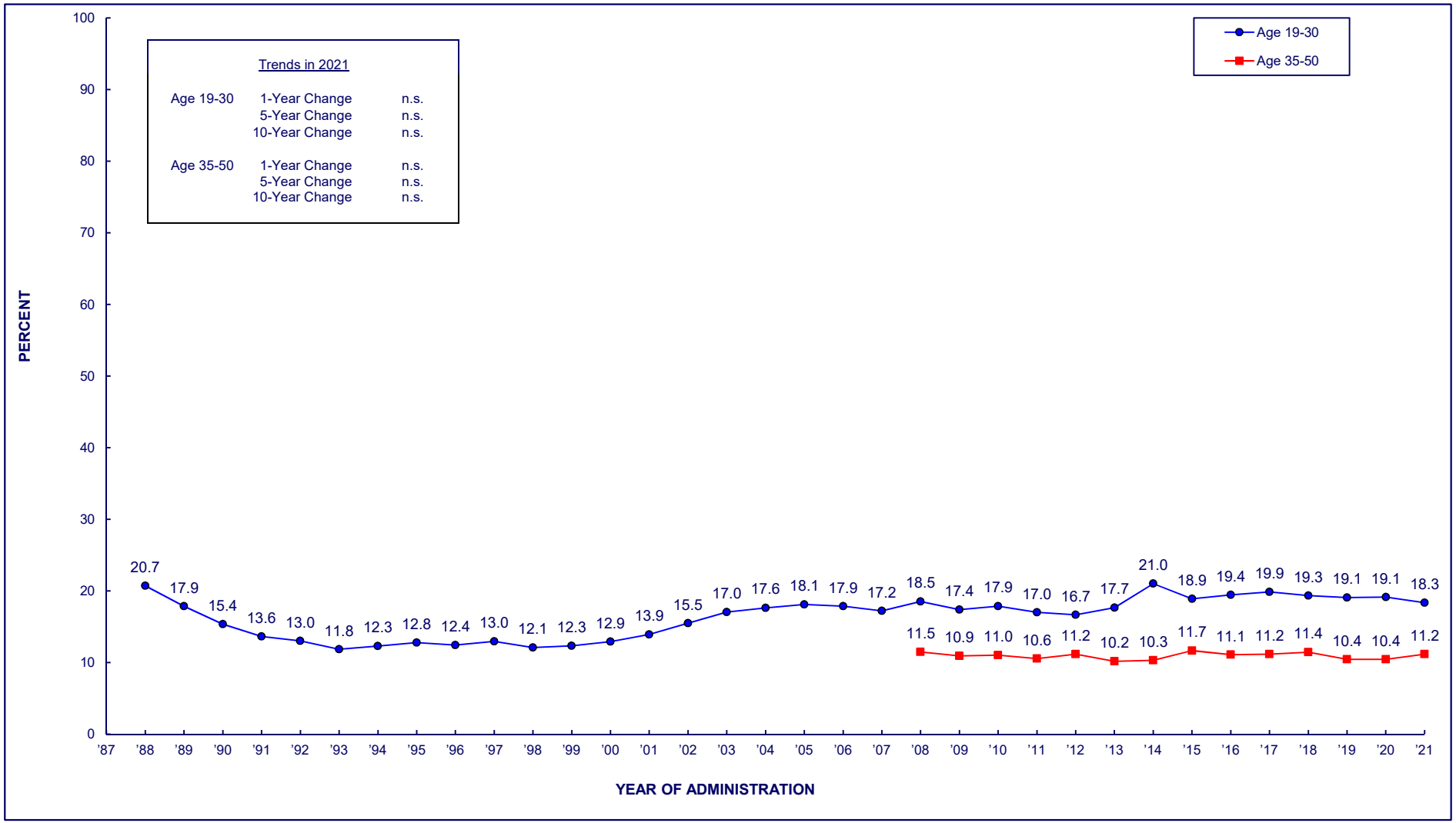
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 18

ANY DRUG OTHER THAN MARIJUANA

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 16
ANY DRUG OTHER THAN MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 50 [1], by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50
1976	25.4										
1977	26.0										
1978	27.1	28.6									
1979	28.2	30.2									
1980	30.4	33.3	35.5								
1981	34.0	34.2	37.0								
1982	30.1	32.4	34.2	35.4							
1983	28.4	29.8	33.7	33.2							
1984	28.0	27.5	31.6	29.4	30.2						
1985	27.4	26.9	29.5	33.4	30.3						
1986	25.9	24.7	29.1	29.3	25.5	26.5					
1987	24.1	22.2	25.6	22.6	25.7	23.3					
1988	21.1	21.3	22.8	21.1	21.0	20.4	20.0				
1989	20.0	17.6	19.4	18.8	17.6	18.2	17.4				
1990	17.9	16.5	17.4	17.5	16.6	15.2	12.4				
1991	16.2	13.8	14.9	14.6	14.4	13.6	13.2				
1992	14.9	13.4	15.4	14.8	13.4	13.2	11.6				
1993	17.1	13.5	13.5	12.9	13.0	11.5	9.9				
1994	18.0	14.6	14.1	12.9	12.0	11.1	10.8	11.2			
1995	19.4	18.6	15.2	11.5	11.6	10.9	11.0	10.4			
1996	19.8	17.4	13.7	13.1	10.0	10.7	10.3	11.4			
1997	20.7	17.6	17.7	12.1	10.7	8.4	11.0	10.0			
1998	20.2	17.3	15.3	12.9	10.8	8.9	7.8	8.2	9.3		
1999	20.7	18.7	14.1	14.8	11.6	8.6	8.1	9.3	7.9		
2000	20.4	19.6	17.0	15.0	12.5	9.9	7.4	9.3	7.7		
2001	21.6	18.0	20.0	14.1	13.3	11.4	9.9	8.8	7.3		
2002	20.9	19.6	18.9	17.2	14.6	11.4	10.9	9.6	9.7		
2003	19.8	19.9	20.7	20.1	14.5	15.1	11.6	9.5	6.7	8.9	
2004	20.5	20.2	21.2	21.2	16.3	14.6	11.8	11.0	8.3	9.3	
2005	19.7	20.2	20.5	18.0	19.7	14.2	15.8	10.5	9.4	8.4	
2006	19.2	18.1	22.0	19.4	16.9	15.1	15.3	10.8	9.8	10.3	
2007	18.5	17.8	19.7	19.1	17.0	16.9	13.0	11.0	11.3	10.7	
2008	18.3	16.8	19.5	21.3	19.1	18.0	16.5	13.7	11.3	10.7	10.0
2009	17.0	14.6	22.9	17.6	17.8	14.1	17.2	13.3	10.4	9.6	10.3
2010	17.3	17.2	20.0	20.1	19.5	15.8	14.5	12.5	9.3	11.5	10.8
2011	17.6	17.4	18.2	19.3	17.3	15.8	13.7	13.6	9.6	9.8	9.4
2012	17.0	17.0	17.9	18.8	15.0	17.2	13.7	12.5	10.8	11.3	10.2
2013	17.8	16.7	23.4	18.3	15.1	16.8	14.4	13.0	9.6	9.5	8.6
2014	15.9	21.1	23.4	20.8	21.7	18.7	20.3	15.0	8.9	9.1	8.7
2015	15.2	15.6	21.6	22.5	19.7	18.2	15.5	16.3	10.6	9.9	10.5
2016	14.3	18.9	23.6	18.8	18.2	19.8	16.7	14.5	12.2	9.0	9.2
2017	13.3	17.1	19.1	22.9	22.3	19.0	17.3	15.0	11.2	9.5	9.3
2018	12.4	14.2	22.1	22.1	17.8	19.1	19.9	13.7	10.6	10.7	10.9
2019	11.5	12.6	20.9	19.3	20.4	20.2	20.7	12.9	11.0	9.7	8.2
2020	11.4	15.3	20.0	21.2	22.2	18.5	17.6	13.3	12.1	9.3	7.7
2021	7.2	14.0	16.9	20.5	20.3	20.0	18.1	14.2	10.3	11.6	8.9

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

[1]Questions about the use of hallucinogens were not included in the questionnaires for 55- and 60-year-olds. Therefore, we only present estimates through age 50 here.

FIGURE 19

ANY DRUG OTHER THAN MARIJUANA

Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group

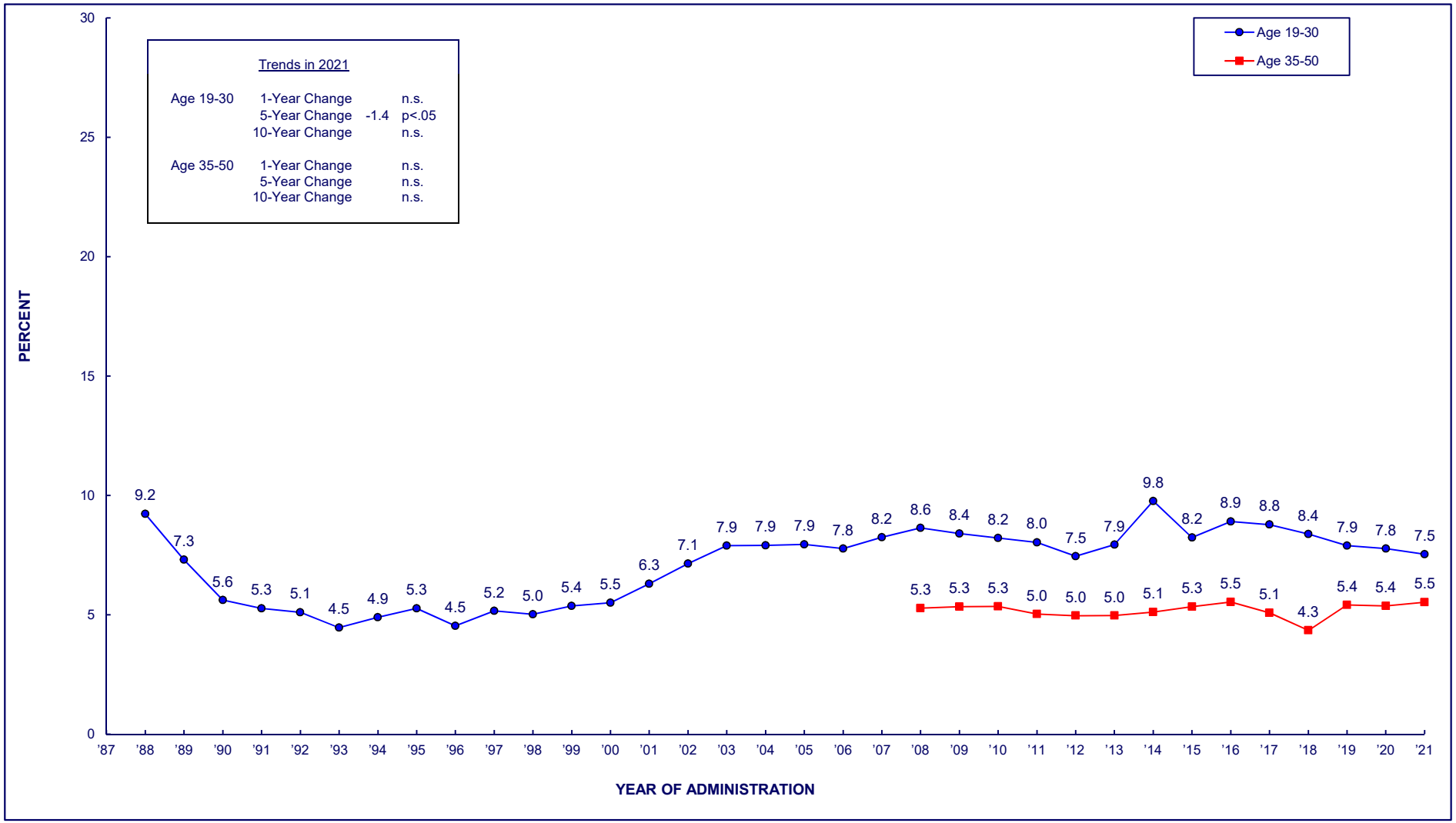
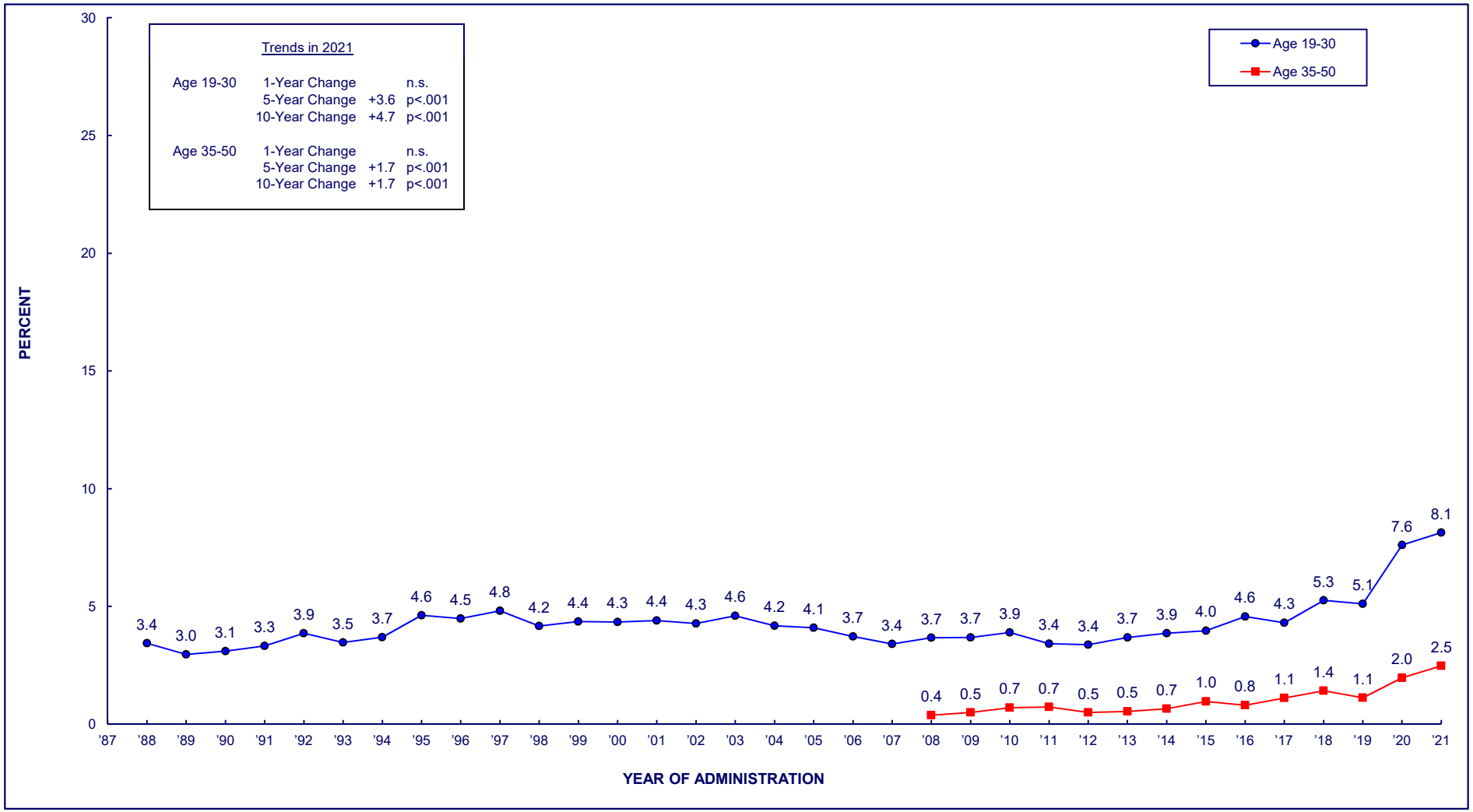


FIGURE 20

HALLUCINOGENS

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 17
HALLUCINOGENS [1]
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 50, [2] by Age Group

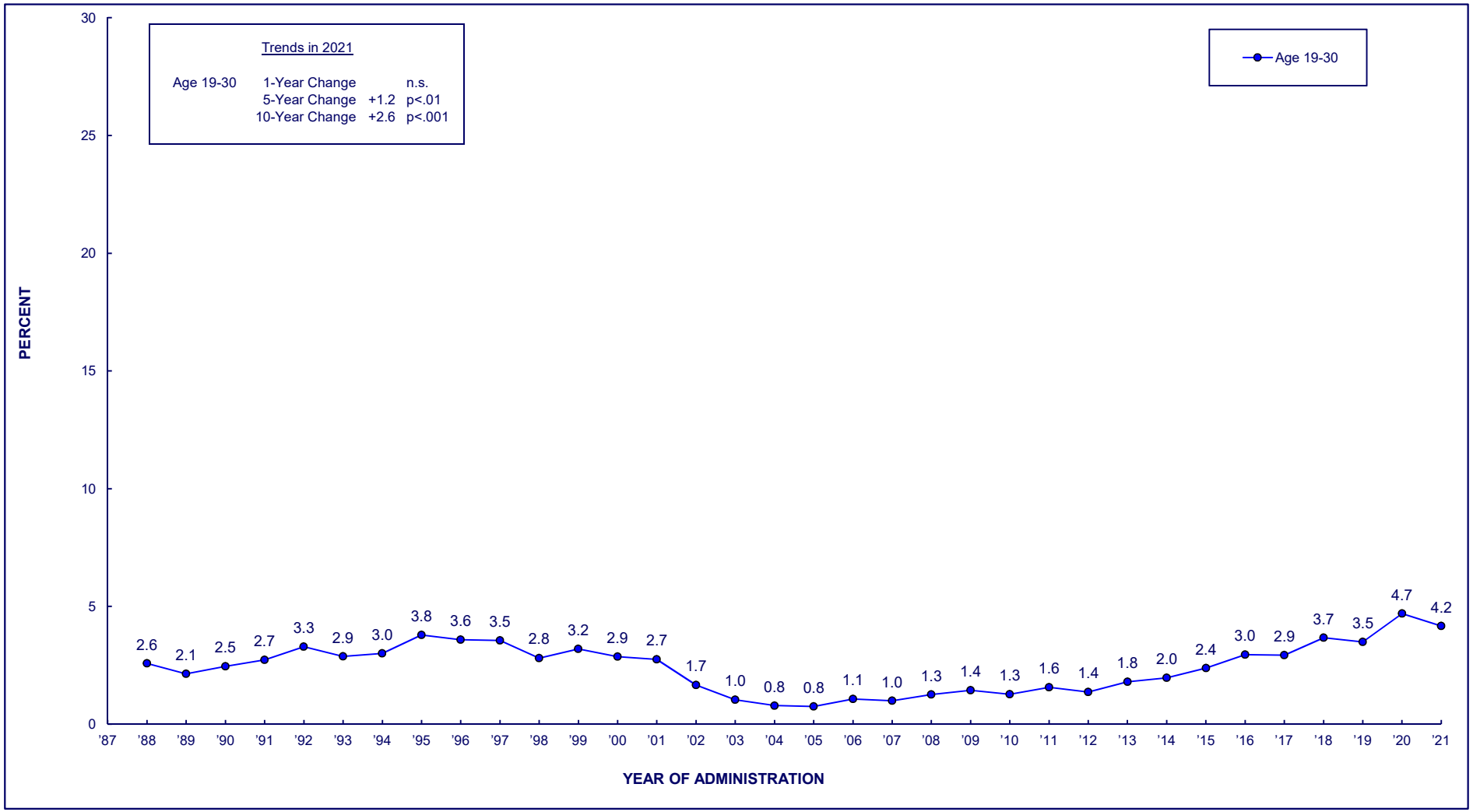
Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50
1976	9.4										
1977	8.8										
1978	9.6	9.5									
1979	9.9	10.9									
1980	9.3	9.7	10.1								
1981	9.0	8.6	10.9								
1982	8.1	9.9	9.3	8.1							
1983	7.3	7.2	7.4	7.4							
1984	6.5	6.0	7.5	5.4	4.7						
1985	6.3	5.1	5.7	4.9	4.7						
1986	6.0	6.3	5.7	4.6	3.0	2.4					
1987	6.4	5.9	5.2	3.7	2.4	2.7					
1988	5.5	5.8	5.8	3.8	2.5	1.3	2.1				
1989	5.6	5.8	4.3	3.8	2.0	1.7	1.4				
1990	5.9	6.3	5.0	4.4	2.3	1.8	1.2				
1991	5.8	6.2	5.7	4.4	3.2	2.4	1.5				
1992	5.9	6.7	7.2	4.2	3.7	2.2	1.9				
1993	7.4	6.9	5.0	4.7	3.0	2.1	1.3				
1994	7.6	6.7	6.8	4.3	3.0	2.4	1.5	0.8			
1995	9.3	9.6	6.6	4.9	3.7	2.3	1.9	0.7			
1996	10.1	10.1	6.2	5.4	3.2	2.2	1.4	0.5			
1997	9.8	9.6	8.0	5.0	3.7	1.8	1.6	1.0			
1998	9.0	8.1	6.7	5.2	3.2	2.0	1.4	0.6	0.8		
1999	9.4	9.4	6.8	5.9	2.7	1.7	1.4	0.8	0.5		
2000	8.1	8.0	7.4	4.9	3.9	2.6	1.7	0.5	0.9		
2001	9.1	9.0	8.1	4.6	3.1	1.8	1.7	0.8	0.2		
2002	6.6	7.3	5.8	5.2	2.8	2.2	2.0	0.3	0.7		
2003	5.9	7.7	7.1	5.8	2.8	2.5	1.5	0.6	0.5	0.6	
2004	6.2	6.3	6.7	4.4	3.2	2.6	1.4	1.0	0.5	0.3	
2005	5.5	6.4	5.3	4.0	4.3	2.1	2.1	0.3	0.4	0.1	
2006	4.9	5.8	5.3	4.6	2.1	2.4	1.5	0.4	0.1	0.1	
2007	5.4	5.4	4.8	3.5	2.7	2.6	1.3	0.4	0.4	0.2	
2008	5.9	5.2	5.5	3.3	3.2	1.7	2.9	1.1	0.2	0.1	0.2
2009	4.7	4.7	5.8	3.7	2.8	2.4	2.2	0.8	0.5	0.3	0.3
2010	5.5	5.3	5.1	4.7	3.5	2.3	2.1	1.8	0.6	0.3	0.2
2011	5.2	4.6	5.3	3.2	3.0	2.4	1.7	1.4	0.8	0.7	0.1
2012	4.8	5.3	3.9	3.7	2.6	2.1	2.3	1.1	0.2	0.6	0.1
2013	4.5	5.0	4.7	4.1	2.7	2.7	2.6	1.2	0.5	0.3	0.1
2014	4.0	5.6	4.7	4.3	3.2	2.8	2.4	1.4	0.2	0.7	0.4
2015	4.2	4.6	5.6	3.4	4.6	2.9	2.7	2.8	0.8	0.1	0.4
2016	4.3	4.6	5.7	4.8	5.4	2.9	4.2	1.5	1.0	0.2	0.5
2017	4.4	4.6	4.9	5.8	5.0	3.6	2.2	1.7	1.4	0.9	0.5
2018	4.3	5.9	5.9	5.7	4.1	6.3	3.8	2.1	1.1	0.5	0.1
2019	4.6	6.3	6.2	4.7	4.5	3.7	5.3	1.0	0.8	0.3	0.4
2020	5.3	7.4	10.6	8.8	8.2	4.9	5.5	2.9	1.6	1.0	0.5
2021	4.1	7.7	7.8	9.7	8.5	7.6	7.4	4.5	2.7	2.3	0.7

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

[1]Unadjusted for the possible underreporting of PCP.

[2]Questions about the use of hallucinogens were not included in the questionnaires for 55- and 60-year-olds.

FIGURE 21
LSD
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30



(Age-specific data provided in the following table.)

TABLE 18
LSD
Trends in 12-Month Prevalence among Respondents of Modal Ages 18 through 35, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35 [1]
1976	6.4							
1977	5.5							
1978	6.3	6.2						
1979	6.6	8.1						
1980	6.5	7.2	7.9					
1981	6.5	6.4	8.0					
1982	6.1	7.7	6.9	6.0				
1983	5.4	5.4	4.9	4.6				
1984	4.7	4.3	5.1	3.1	2.7			
1985	4.4	3.3	3.3	2.9	2.9			
1986	4.5	4.5	4.4	2.7	1.5	1.6		
1987	5.2	4.7	3.7	2.2	1.6	1.8		
1988	4.8	4.9	4.2	2.9	1.6	0.8	1.5	
1989	4.9	4.5	3.2	2.7	1.4	1.1	0.8	
1990	5.4	5.3	4.0	3.5	1.8	1.5	0.8	
1991	5.2	5.4	5.0	3.8	2.5	1.9	1.0	
1992	5.6	6.3	6.0	3.5	3.2	1.6	1.4	
1993	6.8	6.2	4.3	3.5	2.4	1.8	1.0	
1994	6.9	6.2	5.7	3.2	2.4	1.6	1.0	0.6
1995	8.4	8.2	5.5	4.1	2.6	1.7	1.4	0.4
1996	8.8	8.7	4.9	4.6	2.0	1.6	1.0	0.5
1997	8.4	7.8	5.5	4.0	2.6	1.3	0.8	0.5
1998	7.6	5.9	4.4	3.5	2.1	1.0	1.0	0.3
1999	8.1	7.7	4.5	4.3	1.9	1.2	0.8	0.6
2000	6.6	6.3	4.9	2.6	2.5	1.6	1.0	0.3
2001	6.6	6.4	4.7	2.5	1.7	1.3	1.1	0.5
2002	3.5	3.3	1.8	2.2	1.0	0.7	0.9	*
2003	1.9	1.9	1.2	1.4	0.6	0.6	0.4	*
2004	2.2	1.5	1.4	0.7	0.5	0.3	0.2	0.4
2005	1.8	1.5	1.0	0.7	0.7	0.1	0.4	0.1
2006	1.7	2.1	1.4	1.1	0.6	0.7	0.2	0.1
2007	2.1	1.5	1.3	1.4	0.9	0.6	0.3	—
2008	2.7	2.0	2.7	0.9	0.8	0.4	0.5	—
2009	1.9	2.2	2.7	1.4	1.0	0.6	0.2	—
2010	2.6	2.4	1.5	1.7	1.1	0.6	0.2	—
2011	2.7	2.6	2.7	1.5	1.1	0.4	0.9	—
2012	2.4	2.5	1.6	1.6	1.3	0.7	0.3	—
2013	2.2	2.9	2.9	2.0	1.5	0.7	0.7	—
2014	2.5	3.5	2.7	2.2	1.5	1.1	0.7	—
2015	2.9	3.1	4.1	2.1	2.9	0.9	1.1	—
2016	3.0	3.9	3.5	3.3	3.5	1.6	2.2	—
2017	3.3	3.0	3.8	4.2	3.4	2.5	0.8	—
2018	3.2	5.1	4.6	3.2	2.4	4.2	2.4	—
2019	3.6	4.7	4.3	2.9	3.7	2.2	3.2	—
2020	3.9	5.1	7.5	4.8	5.4	2.9	2.2	—
2021	2.5	5.1	4.6	3.9	4.9	3.4	2.9	—

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

Notes. ' * ' indicates a percentage of less than 0.05%. ' — ' indicates data not available.

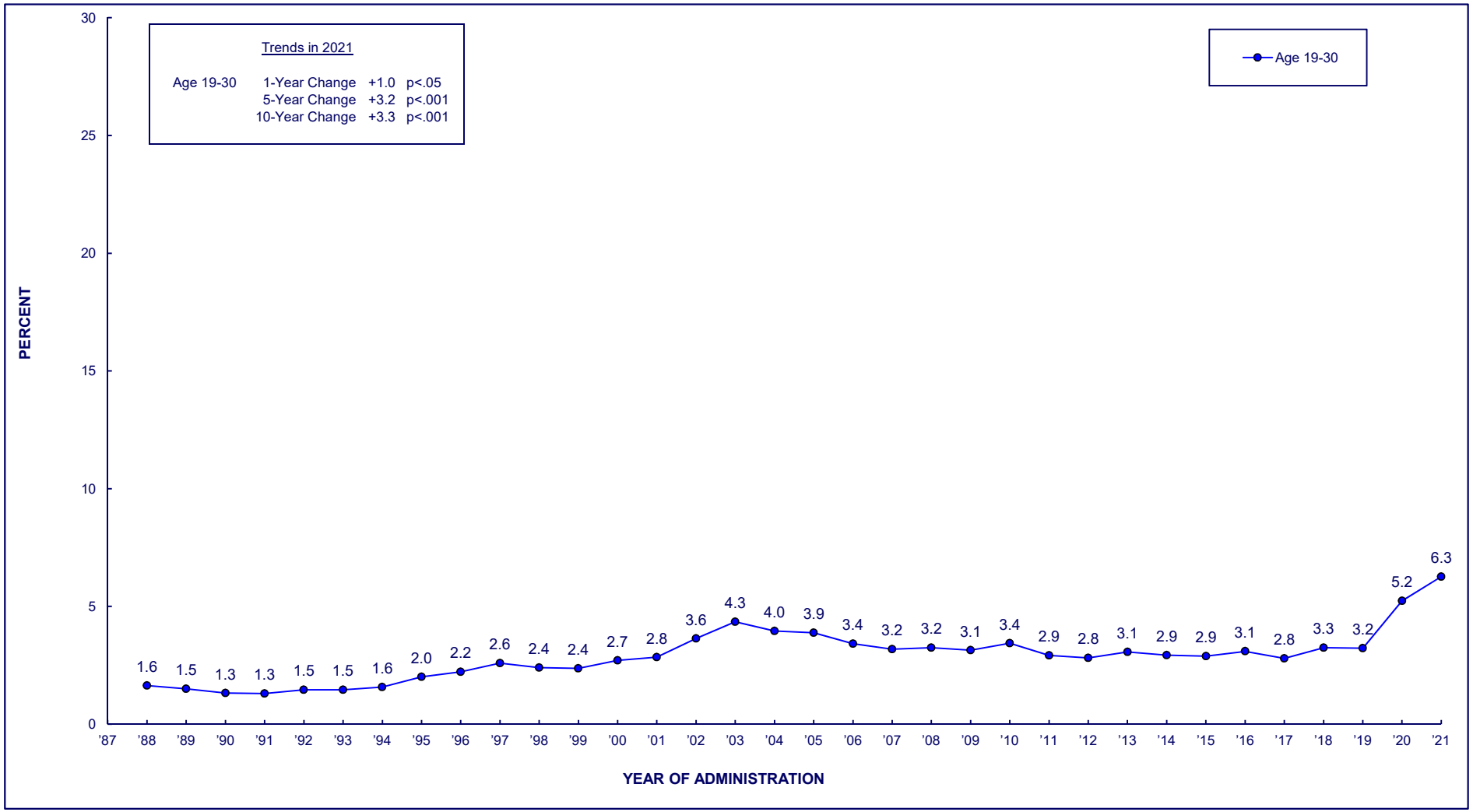
[1]Questions about LSD use were not included in the questionnaires administered to the 40-, 45-, 50-, 55-, and 60-year-olds, or the 35-year-olds after 2006.

FIGURE 22

HALLUCINOGENS OTHER THAN LSD

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 30



(Age-specific data provided in the following table.)

TABLE 19
HALLUCINOGENS OTHER THAN LSD [1]
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 35, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35 [2]
1976	7.0							
1977	6.9							
1978	7.3	7.1						
1979	6.8	7.3						
1980	6.2	5.4	5.8					
1981	5.6	4.6	6.5					
1982	4.7	6.1	5.2	4.0				
1983	4.1	3.9	4.3	4.2				
1984	3.8	3.2	4.1	3.5	3.0			
1985	3.6	3.2	3.7	2.8	2.7			
1986	3.0	3.6	2.6	2.7	2.0	1.4		
1987	3.2	2.5	2.7	2.4	1.3	1.5		
1988	2.1	2.4	3.2	1.8	1.2	0.7	0.9	
1989	2.2	3.0	2.0	1.9	1.2	0.8	0.9	
1990	2.1	2.6	2.4	1.6	1.0	0.7	0.6	
1991	2.0	2.6	2.2	1.4	1.3	1.0	0.6	
1992	1.7	1.9	3.1	1.9	1.5	0.8	0.8	
1993	2.2	2.8	1.9	2.2	1.4	0.9	0.8	
1994	3.1	2.2	3.1	2.0	1.3	1.2	0.9	0.5
1995	3.8	3.9	3.2	1.9	1.8	1.1	0.7	0.3
1996	4.4	4.4	3.5	2.8	1.6	0.9	0.7	0.1
1997	4.6	5.1	5.2	2.3	1.6	1.0	1.1	0.6
1998	4.6	4.8	3.7	3.1	1.8	1.4	0.7	0.5
1999	4.3	4.2	4.2	3.6	1.5	0.9	0.8	0.4
2000	4.4	4.6	4.7	3.7	2.1	1.6	1.1	0.3
2001	5.9	5.5	5.9	3.0	1.9	0.9	1.0	0.4
2002	5.4	6.5	5.2	4.1	2.5	1.7	1.6	0.3
2003	5.4	7.3	6.9	5.5	2.5	2.2	1.3	0.6
2004	5.6	6.0	6.3	4.0	3.1	2.4	1.4	0.8
2005	5.0	6.2	5.0	3.7	4.0	2.1	1.9	0.2
2006	4.6	5.3	4.9	4.2	2.0	2.1	1.4	0.4
2007	4.8	5.2	4.7	3.0	2.4	2.5	1.2	—
2008	5.0	4.7	4.5	3.0	2.8	1.6	2.6	—
2009	4.2	4.1	4.5	3.1	2.4	2.2	2.2	—
2010	4.8	4.9	4.6	3.9	3.0	2.1	2.0	—
2011	4.3	3.9	4.3	2.6	2.8	2.3	1.3	—
2012	4.0	4.4	3.3	3.0	1.9	1.9	2.1	—
2013	3.7	4.1	3.7	3.4	2.2	2.4	2.3	—
2014	3.0	4.2	3.5	3.0	2.5	2.3	2.0	—
2015	2.9	3.5	3.4	2.4	3.2	2.5	2.3	—
2016	2.7	2.9	4.2	3.4	2.8	1.8	3.5	—
2017	2.9	3.2	2.5	3.7	3.5	2.2	1.9	—
2018	2.7	2.9	3.5	4.0	2.8	3.5	2.9	—
2019	2.7	3.8	3.8	2.8	3.0	2.4	3.5	—
2020	2.8	5.1	7.3	6.4	5.2	3.3	4.0	—
2021	2.9	5.2	5.4	7.4	6.8	6.7	5.9	—

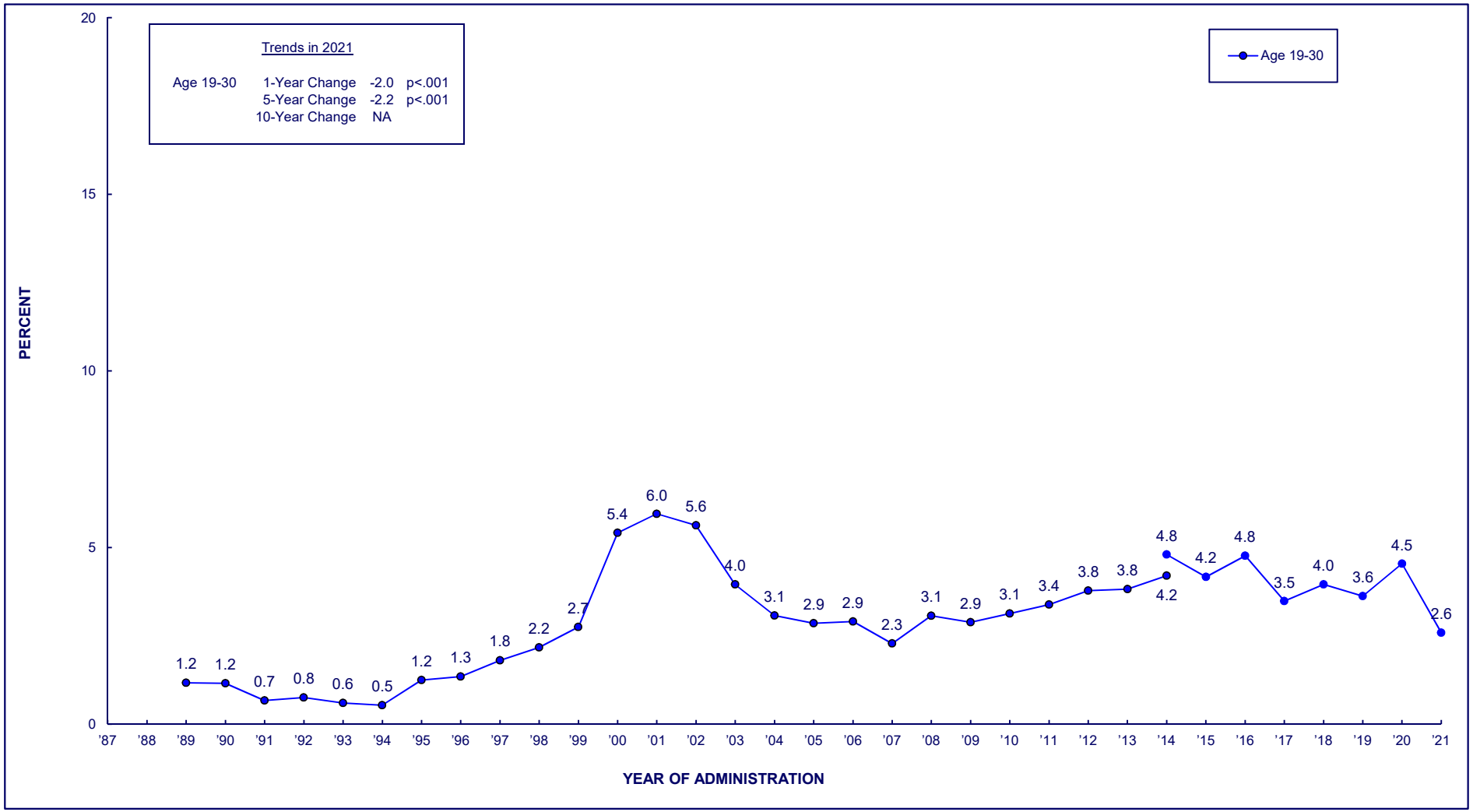
Source. The Monitoring the Future study, the University of Michigan.

Notes. '— ' indicates data not available.

[1]Unadjusted for the possible underreporting of PCP.

[2]Questions about the use of hallucinogens other than LSD were not included in the questionnaires administered to the 40-, 45-, 50-, 55-, and 60-year-olds, or the 35-year-olds after 2006.

FIGURE 23
MDMA (ECSTASY, MOLLY)
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30



(Age-specific data provided in the following table.)

TABLE 20
MDMA (Ecstasy, Molly)
Trends in 12-Month Prevalence among Respondents of Modal Ages 18 through 30, [1,2] by Age Group

	Age 18		Ages 19–20		Ages 21–22		Ages 23–24		Ages 25–26		Ages 27–28		Ages 29–30	
Year	Original	Revised	Original	Revised	Original	Revised	Original	Revised	Original	Revised	Original	Revised	Original	Revised
1989			1.9		2.1		1.3		0.3		1.0		0.1	
1990			2.2		2.0		1.5		1.0		0.7		0.3	
1991			0.6		1.1		1.0		0.6		0.6		0.7	
1992			1.8		1.7		0.4		0.8		0.4		*	
1993			1.1		0.5		1.2		0.5		0.7		*	
1994			0.6		1.4		0.9		0.2		0.4		0.3	
1995			2.2		2.1		1.3		1.2		1.4		0.3	
1996	4.6		3.7		1.9		1.1		1.1		0.7		0.5	
1997	4.0		3.1		3.9		1.3		1.6		0.5		1.4	
1998	3.6		4.0		3.7		2.3		1.8		2.3		*	
1999	5.6		4.9		4.6		3.3		3.4		1.8		0.7	
2000	8.2		9.1		9.8		7.0		6.9		2.6		2.4	
2001	9.2		11.0		10.8		6.8		4.3		4.1		2.6	
2002	7.4		6.3		9.3		8.3		4.4		2.6		2.4	
2003	4.5		5.3		5.3		5.2		3.4		3.1		1.2	
2004	4.0		4.2		2.4		3.2		4.0		3.7		0.9	
2005	3.0		4.1		3.3		2.8		2.3		2.5		2.0	
2006	4.1		3.8		3.4		3.6		2.0		2.1		2.2	
2007	4.5		3.1		2.7		2.6		1.9		1.9		1.4	
2008	4.3		4.7		4.7		2.0		2.7		2.1		2.0	
2009	4.3		3.4		3.9		3.4		2.7		1.8		1.9	
2010	4.5		5.0		4.8		4.4		1.6		1.8		1.0	
2011	5.3		4.8		4.7		3.7		2.5		2.3		2.0	
2012	3.8		5.8		5.5		4.2		2.6		2.1		2.2	
2013	4.0		5.0		5.9		4.9		3.3		2.0		1.6	
2014	3.6	5.0	5.2	5.4	5.9	5.4	4.8	2.2	4.4	7.9	3.3	3.8	1.8	4.9
2015	—	3.6	—	5.2	—	4.2	—	4.8	—	4.5	—	3.5	—	2.6
2016	—	2.7	—	5.1	—	6.9	—	4.2	—	4.3	—	4.8	—	3.3
2017	—	2.6	—	1.8	—	4.8	—	5.7	—	3.3	—	2.3	—	2.9
2018	—	2.2	—	3.1	—	4.5	—	4.5	—	3.9	—	3.8	—	4.1
2019	—	2.2	—	2.2	—	5.0	—	3.6	—	4.4	—	3.2	—	3.4
2020	—	1.8	—	3.6	—	5.4	—	5.2	—	5.1	—	3.9	—	4.1
2021	—	1.1	—	0.7	—	3.2	—	2.6	—	3.4	—	3.1	—	2.4

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

Notes. ' * ' indicates a percentage of less than 0.05%. ' — ' indicates data not available.

[1]Questions about use of ecstasy (MDMA, Molly) were not included in the questionnaires administered to those ages 35+.

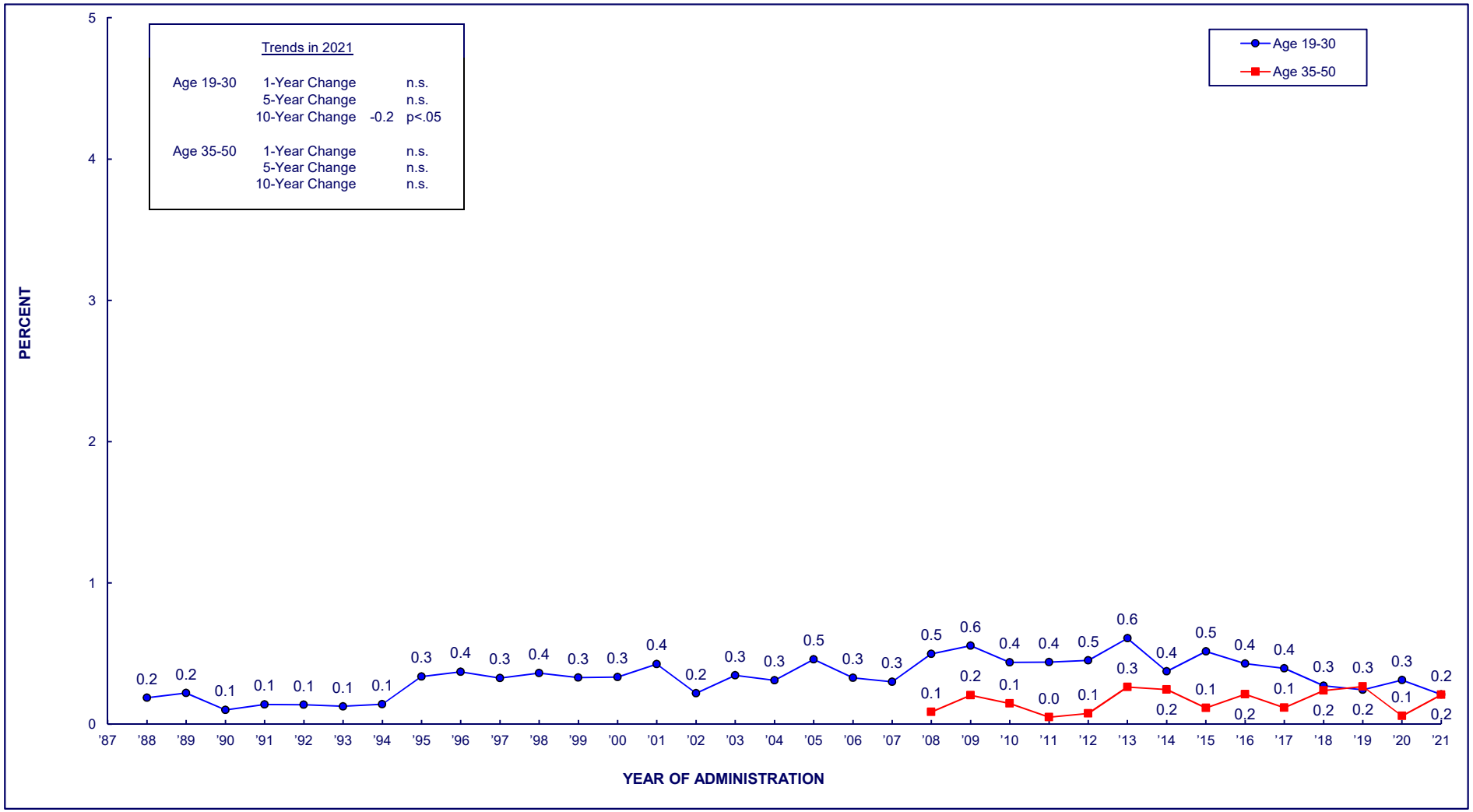
[2]In 2014, a version of the question was added to an additional form that included "molly" in the description. In 2015 the remaining forms changed to this updated wording. Data for both versions of the question are included here.

FIGURE 24

HEROIN

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 21
HEROIN
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	0.8												
1977	0.8												
1978	0.8	0.4											
1979	0.5	0.3											
1980	0.5	0.2	0.6										
1981	0.5	0.5	0.4										
1982	0.6	0.2	0.4	0.2									
1983	0.6	0.2	0.3	0.6									
1984	0.5	0.2	0.3	0.2	0.2								
1985	0.6	0.1	0.3	0.2	0.3								
1986	0.5	0.1	0.2	0.1	0.2	0.3							
1987	0.5	0.2	0.3	0.1	0.3	0.3							
1988	0.5	0.1	0.2	0.1	0.1	0.3	0.2						
1989	0.6	0.2	0.2	0.1	0.1	0.2	0.3						
1990	0.5	*	0.1	0.1	0.1	*	*						
1991	0.4	0.1	0.2	0.2	0.1	0.1	0.2						
1992	0.6	0.1	0.3	0.2	0.1	0.2	0.1						
1993	0.5	0.1	0.2	0.2	0.1	0.2	*						
1994	0.6	0.1	0.1	0.1	0.2	0.2	0.3	0.3					
1995	1.1	0.5	0.4	0.6	0.1	0.1	0.4	0.2					
1996	1.0	0.7	0.5	0.3	0.3	0.1	0.2	0.2					
1997	1.2	0.4	0.7	0.1	0.3	0.2	0.3	0.1					
1998	1.0	1.1	0.4	0.2	0.3	0.1	0.1	0.1	0.4				
1999	1.1	0.6	0.4	0.5	0.2	0.3	0.1	0.4	*				
2000	1.5	0.7	0.5	0.4	0.3	0.1	0.1	0.1	0.1				
2001	0.9	1.0	0.5	0.5	0.3	0.3	0.2	0.1	0.1				
2002	1.0	0.4	0.1	0.3	0.3	0.1	0.2	0.2	0.3				
2003	0.8	0.4	0.4	0.5	0.1	0.6	0.2	0.3	0.2	0.2			
2004	0.9	0.4	0.5	0.3	0.2	0.1	0.3	0.1	*	0.2			
2005	0.8	0.6	0.7	0.3	0.2	0.4	0.5	*	*	*			
2006	0.8	0.5	0.6	0.3	0.4	*	0.1	0.3	0.2	0.1			
2007	0.9	0.3	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1			
2008	0.7	0.6	0.9	0.6	0.3	0.2	0.3	0.1	*	*	0.2		
2009	0.7	0.8	0.7	0.7	0.5	0.3	0.3	0.4	*	0.1	0.3		
2010	0.9	0.4	0.3	0.8	0.6	0.3	0.2	0.3	0.1	*	0.2		
2011	0.8	0.4	0.4	0.6	0.5	0.4	0.3	0.0	0.1	0.1	*		
2012	0.6	0.4	0.6	0.3	0.7	0.3	0.4	0.1	0.1	0.1	0.1		
2013	0.6	0.5	0.8	0.6	0.8	0.6	0.4	0.6	0.2	0.2	0.1	*	
2014	0.6	0.2	0.3	0.4	0.7	0.4	0.2	0.6	*	0.1	0.3	0.2	
2015	0.5	0.2	0.3	0.8	0.7	0.5	0.6	0.1	*	*	0.3	*	
2016	0.3	0.1	0.4	0.5	0.6	0.5	0.5	0.6	*	0.1	0.2	0.1	
2017	0.4	*	0.2	0.5	0.4	0.7	0.5	0.1	0.1	0.3	*	0.1	
2018	0.4	0.1	0.2	0.3	0.3	0.4	0.3	0.4	0.3	0.2	0.1	0.1	*
2019	0.4	*	0.1	0.4	0.1	0.4	0.5	0.3	0.4	0.3	*	0.2	0.1
2020	0.3	0.2	0.1	0.1	0.7	0.5	0.3	0.2	*	*	*	*	*
2021	0.1	0.3	0.2	0.1	0.3	*	0.4	0.5	0.1	0.1	0.2	0.1	0.2

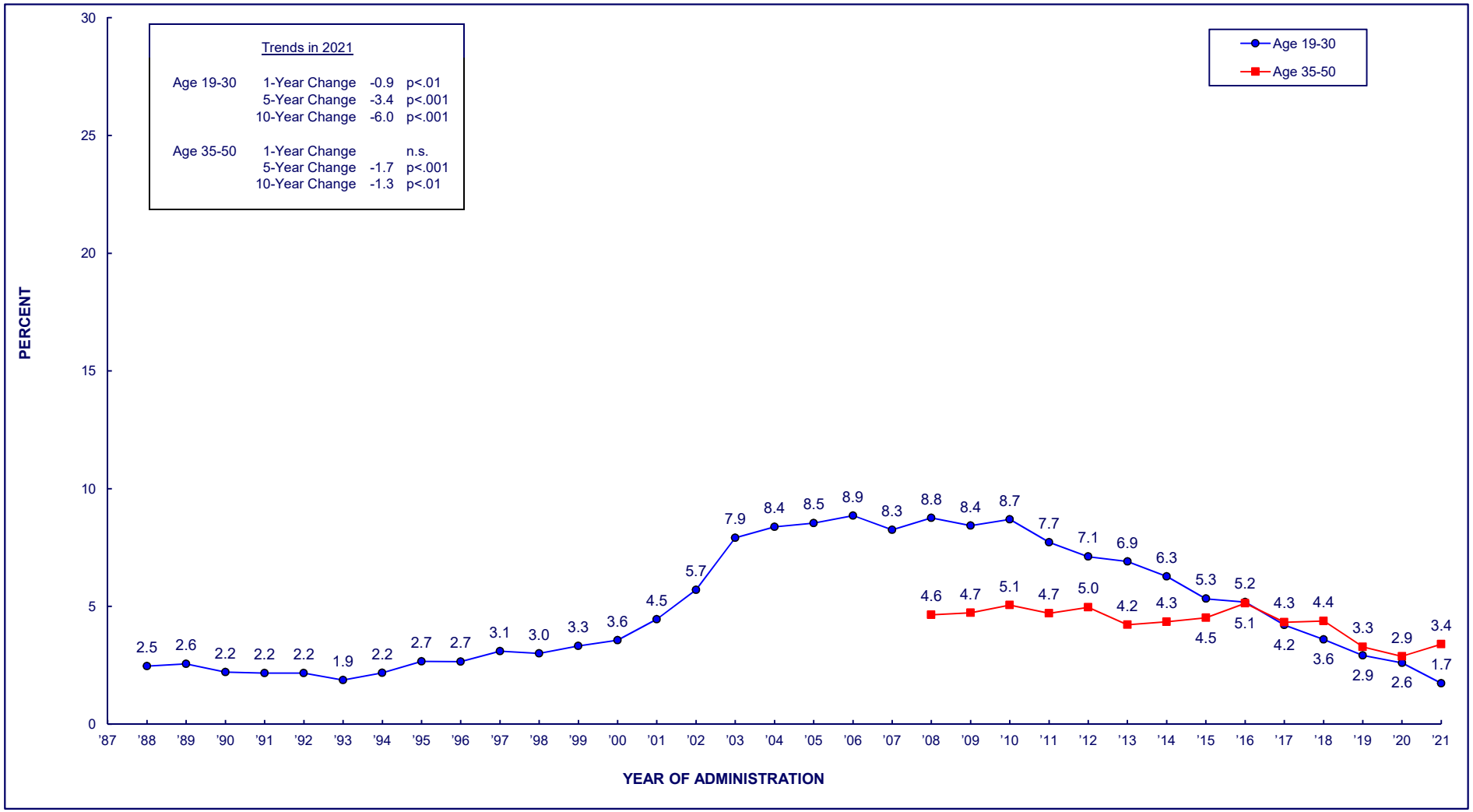
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 25

NARCOTICS OTHER THAN HEROIN

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 22
NARCOTICS OTHER THAN HEROIN [1]
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	5.7												
1977	6.4												
1978	6.0	4.7											
1979	6.2	4.7											
1980	6.3	5.6	4.9										
1981	5.9	4.9	5.0										
1982	5.3	4.4	3.5	4.4									
1983	5.1	4.2	4.0	3.3									
1984	5.2	3.9	3.3	3.5	2.7								
1985	5.9	3.4	3.8	3.8	3.4								
1986	5.2	4.2	3.8	2.7	2.0	2.7							
1987	5.3	3.7	3.6	2.4	2.5	3.0							
1988	4.6	3.1	3.6	2.3	2.5	1.6	2.2						
1989	4.4	3.0	3.4	2.4	2.4	2.9	2.1						
1990	4.5	3.9	2.7	2.7	2.3	1.5	1.5						
1991	3.5	3.2	2.4	2.4	2.4	1.8	1.8						
1992	3.3	2.2	3.4	2.2	2.6	1.7	1.9						
1993	3.6	2.5	2.9	2.0	2.0	1.4	1.3						
1994	3.8	2.7	2.9	2.6	1.8	2.1	1.7	1.7					
1995	4.7	4.7	3.1	2.5	1.8	2.4	1.9	1.6					
1996	5.4	4.7	2.6	2.9	2.1	2.0	2.1	1.8					
1997	6.2	4.3	5.0	2.7	2.2	2.0	2.6	2.0					
1998	6.3	4.3	4.3	3.5	3.0	1.9	1.5	1.2	1.7				
1999	6.7	5.5	4.2	4.1	3.0	1.8	1.8	2.1	1.4				
2000	7.0	6.2	5.0	4.2	2.9	2.1	2.5	2.1	1.7				
2001	6.7	7.0	6.8	4.3	3.7	3.1	2.9	2.4	1.6				
2002	9.4	8.3	8.9	8.2	6.0	4.3	4.2	4.4	3.4				
2003	9.3	9.9	9.6	9.7	6.4	6.7	5.1	3.4	2.3	2.8			
2004	9.5	10.4	9.2	9.5	7.9	7.5	5.4	4.8	2.9	3.4			
2005	9.0	9.9	10.2	7.6	8.8	6.9	7.8	4.3	3.4	3.1			
2006	9.0	8.6	11.5	9.5	8.5	7.0	7.7	5.6	4.5	3.5			
2007	9.2	8.2	9.4	9.4	8.5	8.1	6.1	3.8	5.8	4.4			
2008	9.1	8.6	8.4	10.5	9.4	8.6	7.1	7.4	4.7	3.2	3.3		
2009	9.2	6.4	11.0	8.0	9.8	6.7	8.9	6.0	4.7	4.1	4.0		
2010	8.7	8.1	9.2	10.0	10.1	7.8	6.9	6.7	4.0	5.0	4.7		
2011	8.7	7.7	7.7	7.8	9.0	7.6	6.7	5.8	4.9	4.0	4.2		
2012	7.9	6.5	7.0	7.9	7.1	8.2	6.0	6.3	4.7	4.6	4.4		
2013	7.1	7.1	6.9	7.2	6.9	6.8	6.5	6.6	4.1	3.0	3.1	2.5	
2014	6.1	5.3	6.5	5.9	7.6	6.2	6.1	6.2	3.6	4.2	3.5	3.0	
2015	5.4	3.6	4.7	6.4	5.9	5.4	6.0	5.6	4.5	3.6	4.6	3.4	
2016	4.8	3.7	5.8	4.7	5.9	5.9	4.9	7.0	5.6	4.5	3.6	3.9	
2017	4.2	3.6	3.3	4.1	4.7	4.6	5.0	5.2	4.8	3.9	3.5	3.6	
2018	3.4	2.2	3.6	3.6	3.1	4.3	4.5	5.5	4.1	3.9	4.2	3.5	2.6
2019	2.7	1.4	2.9	2.9	2.1	3.6	4.4	3.0	3.4	2.8	3.9	1.9	2.0
2020	2.1	2.1	2.1	2.4	2.6	3.1	3.2	4.2	2.6	3.1	1.8	2.4	3.1
2021	1.0	1.0	1.4	0.8	2.3	2.3	2.6	3.3	3.2	4.3	2.8	2.2	2.8

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

[1]In 2002 the question text was changed on half of the questionnaire forms for 18- to 30-year-olds. The list of examples of narcotics other than heroin was updated. Talwin, laudanum, and paregoric—all of which had negligible rates of use by 2001—were replaced by Vicodin, OxyContin, and Percocet. The 2001 data presented here are based on all forms. The 2002 data are based on the changed forms only. In 2003 the remaining forms were changed to the new wording. The data are based on all forms in 2003. Beginning in 2002 data were based on the changed question text for 35- and 40-year-olds.

FIGURE 26
OXYCONTIN
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

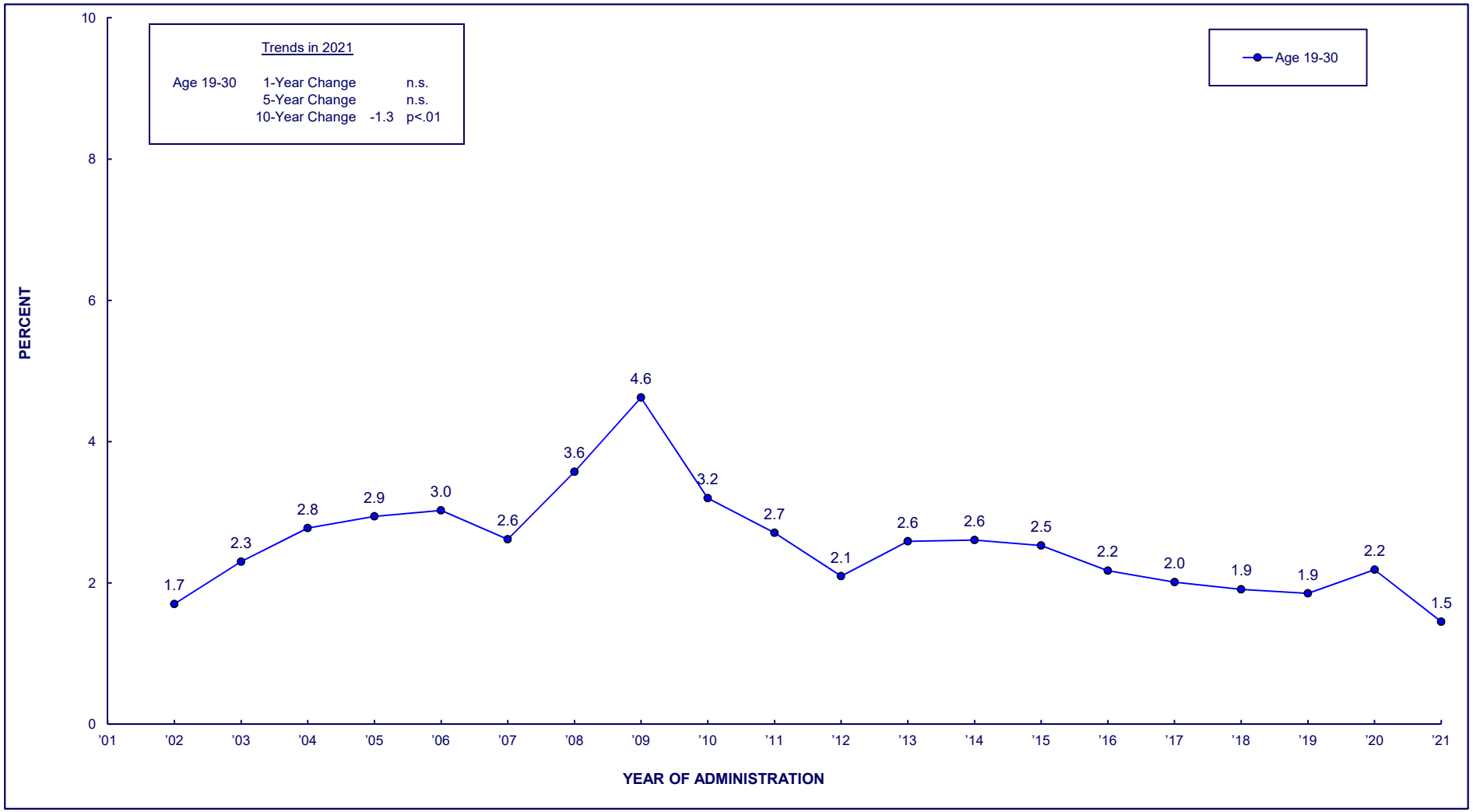


FIGURE 27
VICODIN
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

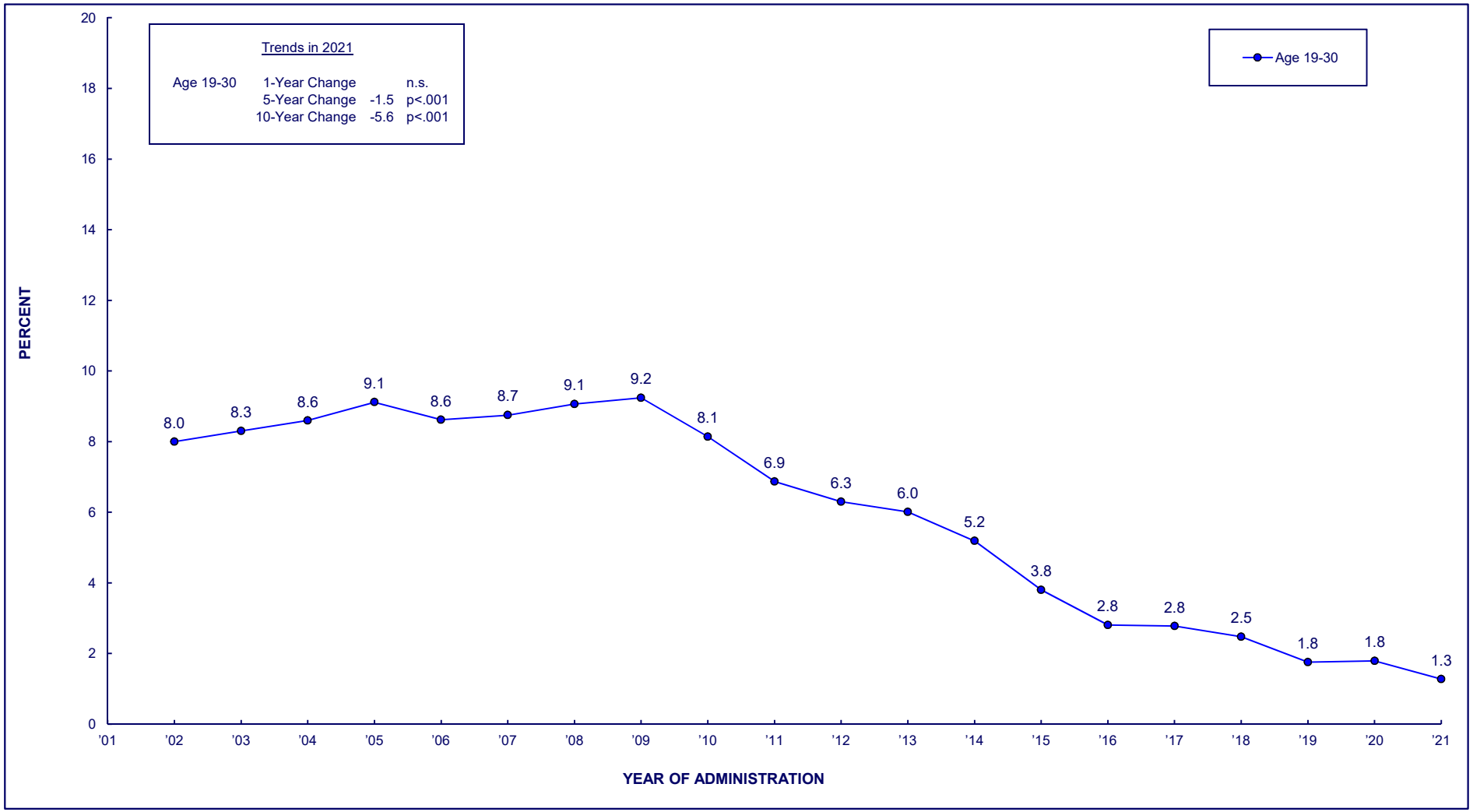
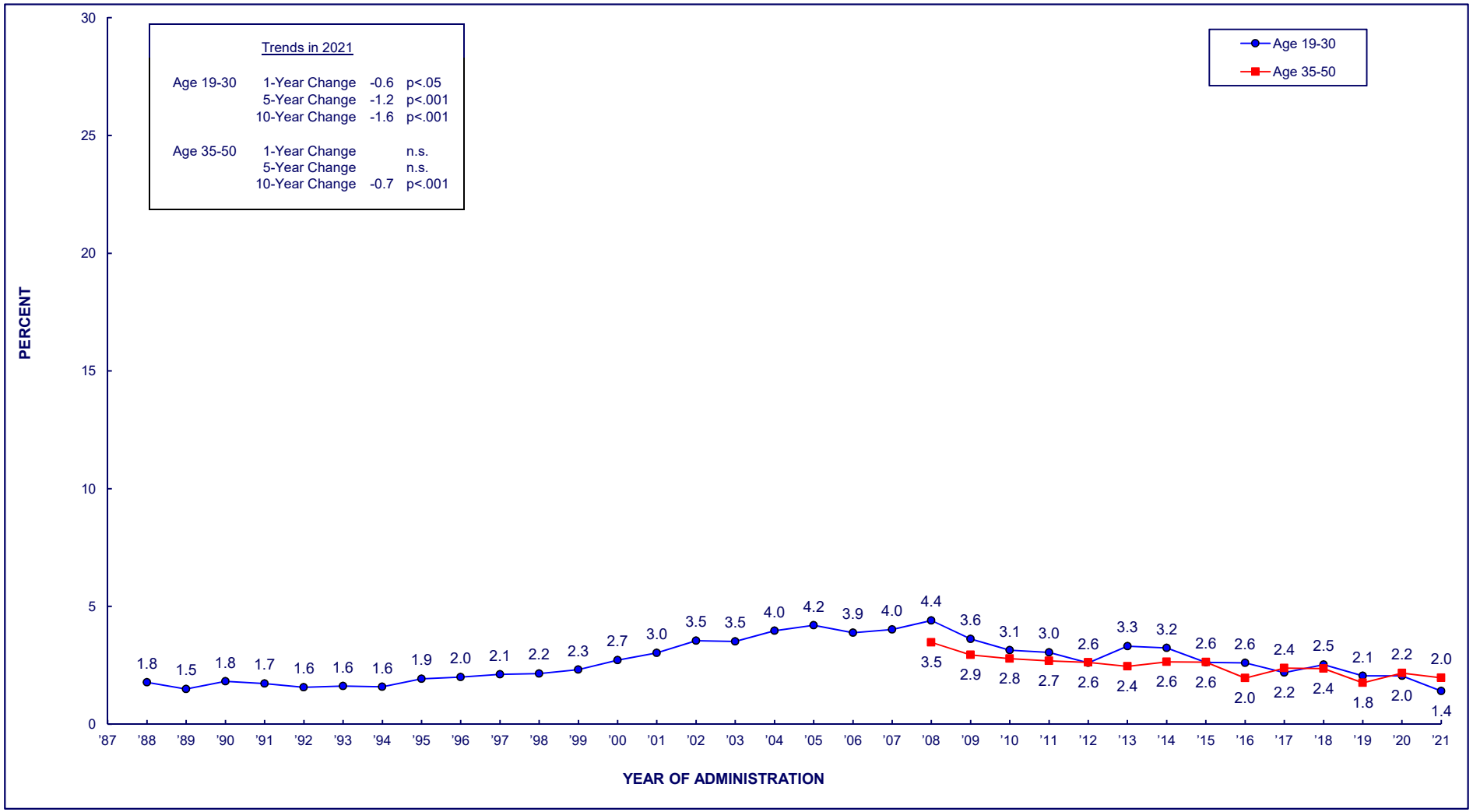


FIGURE 28

SEDATIVES (BARBITURATES)

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 23

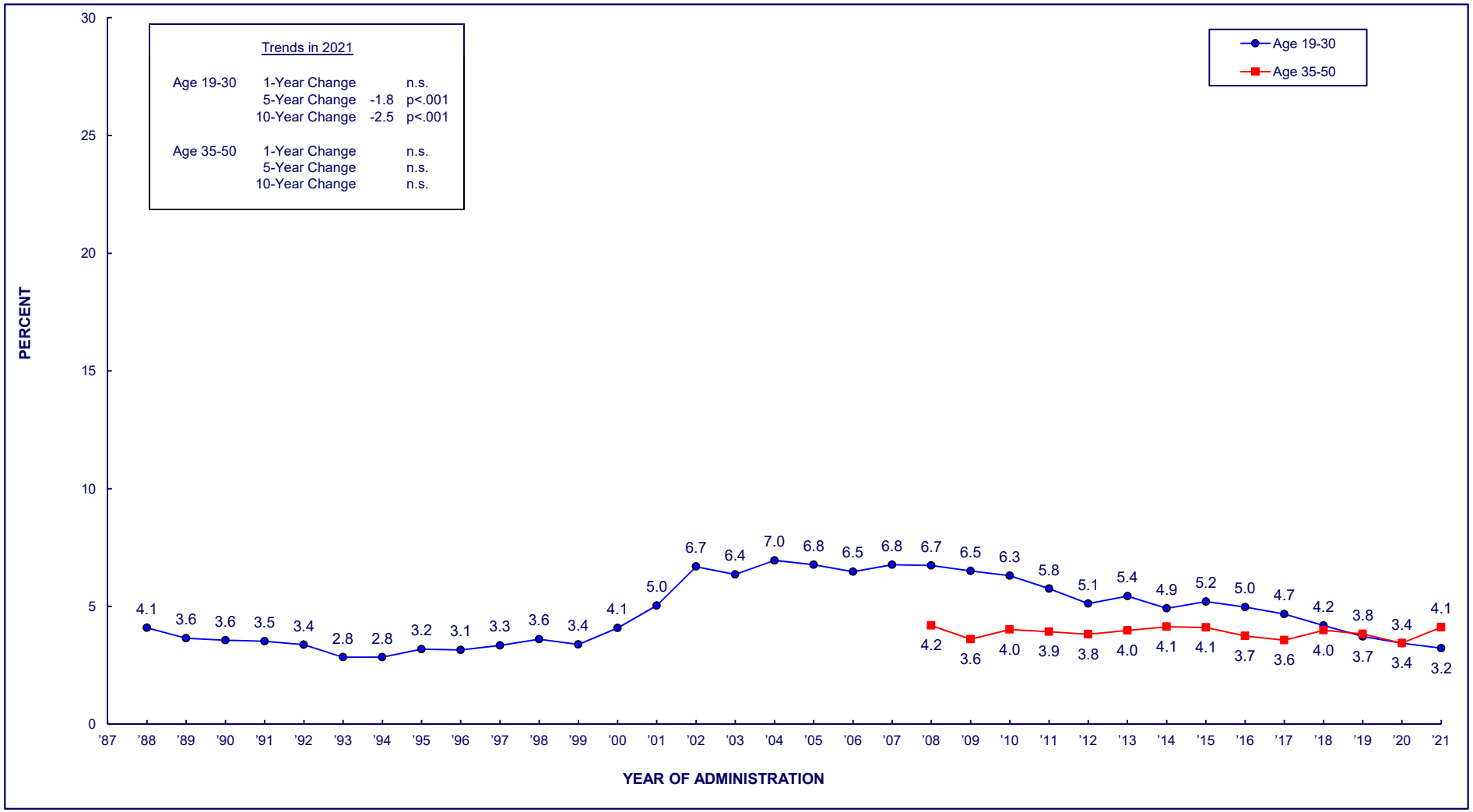
SEDATIVES (BARBITURATES)

Trends in 12-Month Prevalence among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	9.6												
1977	9.3												
1978	8.1	6.4											
1979	7.5	6.9											
1980	6.8	4.5	5.7										
1981	6.6	4.7	5.8										
1982	5.5	4.4	4.1	4.1									
1983	5.2	3.5	3.1	3.7									
1984	4.9	3.5	2.5	2.6	3.3								
1985	4.6	2.0	2.3	3.0	3.4								
1986	4.2	2.2	2.9	2.3	1.8	2.4							
1987	3.6	1.9	2.7	1.5	2.1	2.3							
1988	3.2	2.2	1.9	2.1	1.7	1.2	2.1						
1989	3.3	1.6	1.8	1.8	1.3	1.7	1.4						
1990	3.4	1.7	1.7	2.3	2.2	1.8	1.6						
1991	3.4	1.8	1.4	2.0	2.5	1.4	1.6						
1992	2.8	1.7	1.8	1.7	1.5	1.4	2.0						
1993	3.4	1.9	1.6	1.7	1.8	2.3	1.1						
1994	4.1	2.3	2.2	1.7	1.1	1.6	1.4	1.9					
1995	4.7	3.4	2.6	1.4	1.2	1.4	1.7	1.7					
1996	4.9	3.3	2.4	2.2	1.0	1.7	1.6	1.6					
1997	5.1	4.0	3.5	1.5	1.5	1.0	1.8	1.3					
1998	5.5	3.8	3.1	2.4	1.7	1.5	1.0	1.1	0.9				
1999	5.8	5.0	2.5	3.2	1.8	1.1	1.2	1.6	1.5				
2000	6.2	4.9	3.9	4.3	2.2	1.4	0.9	0.9	1.6				
2001	5.7	5.2	4.8	3.4	2.7	2.1	1.3	1.8	1.4				
2002	6.7	5.8	3.8	4.4	2.9	2.3	1.7	1.4	1.0				
2003	6.0	5.2	4.8	3.9	2.5	3.1	1.5	1.3	0.7	1.0			
2004	6.5	6.0	4.4	5.0	3.3	2.8	1.9	1.2	1.0	1.0			
2005	7.2	5.1	5.0	3.8	4.0	2.8	4.4	1.4	1.3	1.4			
2006	6.6	4.3	4.8	4.7	3.3	2.3	3.7	1.0	1.2	1.5			
2007	6.2	4.4	4.1	4.6	3.8	4.0	3.2	3.8	2.4	2.5			
2008	5.8	5.4	4.9	5.0	4.0	4.1	2.9	3.5	3.7	3.5	3.2		
2009	5.2	3.5	5.6	2.9	4.1	2.6	2.9	3.1	2.9	2.7	3.0		
2010	4.8	3.0	3.8	3.5	2.6	3.5	2.5	3.0	1.9	3.2	3.0		
2011	4.3	2.9	2.8	3.5	4.1	2.7	2.2	4.1	2.2	2.0	2.5		
2012	4.5	2.6	2.8	3.1	1.9	2.9	2.2	3.1	2.8	2.3	2.3		
2013	4.8	3.1	3.6	3.6	4.2	2.7	2.6	2.6	2.7	2.7	1.8	2.2	
2014	4.3	3.4	3.9	3.1	2.8	2.6	3.5	3.7	2.6	2.3	2.1	1.6	
2015	3.6	2.1	3.5	3.1	2.5	2.3	2.2	2.3	2.2	2.7	3.3	2.7	
2016	3.0	2.5	3.1	2.8	2.0	2.9	2.4	2.2	1.9	2.1	1.6	2.5	
2017	2.9	2.0	2.1	2.2	2.5	2.3	2.1	3.1	2.1	2.2	2.2	1.6	
2018	2.7	2.1	2.2	3.1	2.3	2.8	2.8	2.5	2.3	1.9	2.8	1.9	1.7
2019	2.5	2.2	2.5	2.1	1.3	2.7	1.6	1.7	1.7	1.6	2.0	2.7	2.1
2020	2.4	2.0	1.4	2.4	2.4	1.9	2.2	2.8	2.2	1.9	1.9	2.0	2.1
2021	1.8	1.2	1.6	1.5	1.4	1.3	1.4	1.5	1.6	2.5	2.1	2.1	2.4

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

FIGURE 29
TRANQUILIZERS
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 24
TRANQUILIZERS
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	10.3												
1977	10.8												
1978	9.9	9.4											
1979	9.6	9.8											
1980	8.7	8.8	9.0										
1981	8.0	7.4	7.3										
1982	7.0	5.6	7.2	8.6									
1983	6.9	5.1	5.8	6.6									
1984	6.1	5.4	5.4	5.6	6.7								
1985	6.1	4.4	4.5	6.2	7.1								
1986	5.8	4.2	5.4	5.2	5.4	6.8							
1987	5.5	4.0	5.5	4.1	5.8	6.2							
1988	4.8	3.5	4.5	4.2	4.3	4.8	4.6						
1989	3.8	3.4	3.5	3.8	2.9	4.6	4.1						
1990	3.5	3.0	3.6	3.8	5.0	3.3	3.9						
1991	3.6	2.7	3.2	4.0	3.9	3.8	4.2						
1992	2.8	2.2	3.8	3.4	4.5	3.4	3.7						
1993	3.5	2.1	3.1	3.2	3.7	3.8	2.7						
1994	3.7	1.9	2.9	3.1	3.3	3.6	3.2	3.1					
1995	4.4	3.7	3.5	3.0	3.1	3.4	3.5	3.6					
1996	4.6	3.5	3.7	3.0	2.4	2.9	3.1	3.6					
1997	4.7	4.7	3.6	2.9	1.9	2.0	4.1	3.0					
1998	5.5	4.2	4.5	3.7	3.6	2.9	2.4	2.2	3.0				
1999	5.8	4.1	4.2	4.2	3.5	2.6	2.1	3.4	2.0				
2000	5.7	5.5	5.3	5.3	3.7	3.0	2.7	3.2	3.0				
2001	6.9	6.1	7.1	5.4	5.3	3.9	4.2	4.3	3.7				
2002	7.7	8.8	7.8	6.4	7.0	4.9	5.0	4.0	4.2				
2003	6.7	8.0	7.0	7.2	6.3	5.2	4.3	3.8	2.2	2.9			
2004	7.3	8.0	8.1	8.3	6.8	5.6	4.8	3.6	3.5	3.1			
2005	6.8	6.5	8.5	6.3	7.7	4.3	7.4	4.4	3.8	2.9			
2006	6.6	6.1	7.6	6.8	5.6	6.2	6.6	4.0	3.5	4.0			
2007	6.2	5.7	7.6	7.5	7.4	7.6	5.0	3.5	4.5	3.9			
2008	6.2	7.1	6.3	8.1	6.7	5.7	6.5	5.6	3.1	3.8	4.2		
2009	6.3	4.3	7.7	7.1	7.4	5.7	7.2	5.0	4.1	2.5	2.9		
2010	5.6	5.2	6.6	7.2	7.2	5.2	6.4	4.4	3.7	4.3	3.8		
2011	5.6	5.3	5.2	6.6	7.2	5.2	5.1	6.2	3.0	3.8	2.7		
2012	5.3	4.8	4.3	5.9	5.1	6.6	4.1	3.1	3.3	4.6	4.3		
2013	4.6	4.8	4.8	6.8	4.6	6.1	5.5	4.7	3.8	3.3	4.1	2.6	
2014	4.7	5.0	3.8	3.8	6.0	5.1	5.7	6.4	3.9	2.9	3.5	2.7	
2015	4.7	4.7	4.9	5.6	5.2	4.8	6.1	5.6	4.0	3.8	3.1	3.9	
2016	4.9	4.2	7.0	4.9	3.6	5.1	5.0	3.9	3.6	3.9	3.7	2.9	
2017	4.7	3.8	4.2	4.9	5.4	5.0	4.6	4.5	4.0	1.9	3.9	3.3	
2018	3.9	3.5	3.9	4.7	3.9	4.0	5.1	4.9	3.1	4.1	3.8	3.1	2.6
2019	3.4	2.4	3.7	3.1	4.3	4.3	4.4	4.6	4.6	3.5	2.6	3.5	2.9
2020	3.2	2.7	3.2	3.6	4.3	3.4	3.2	3.9	4.0	3.3	2.7	3.3	3.2
2021	1.2	1.9	3.1	2.6	3.3	4.0	4.4	4.2	3.5	4.8	3.9	2.9	3.1

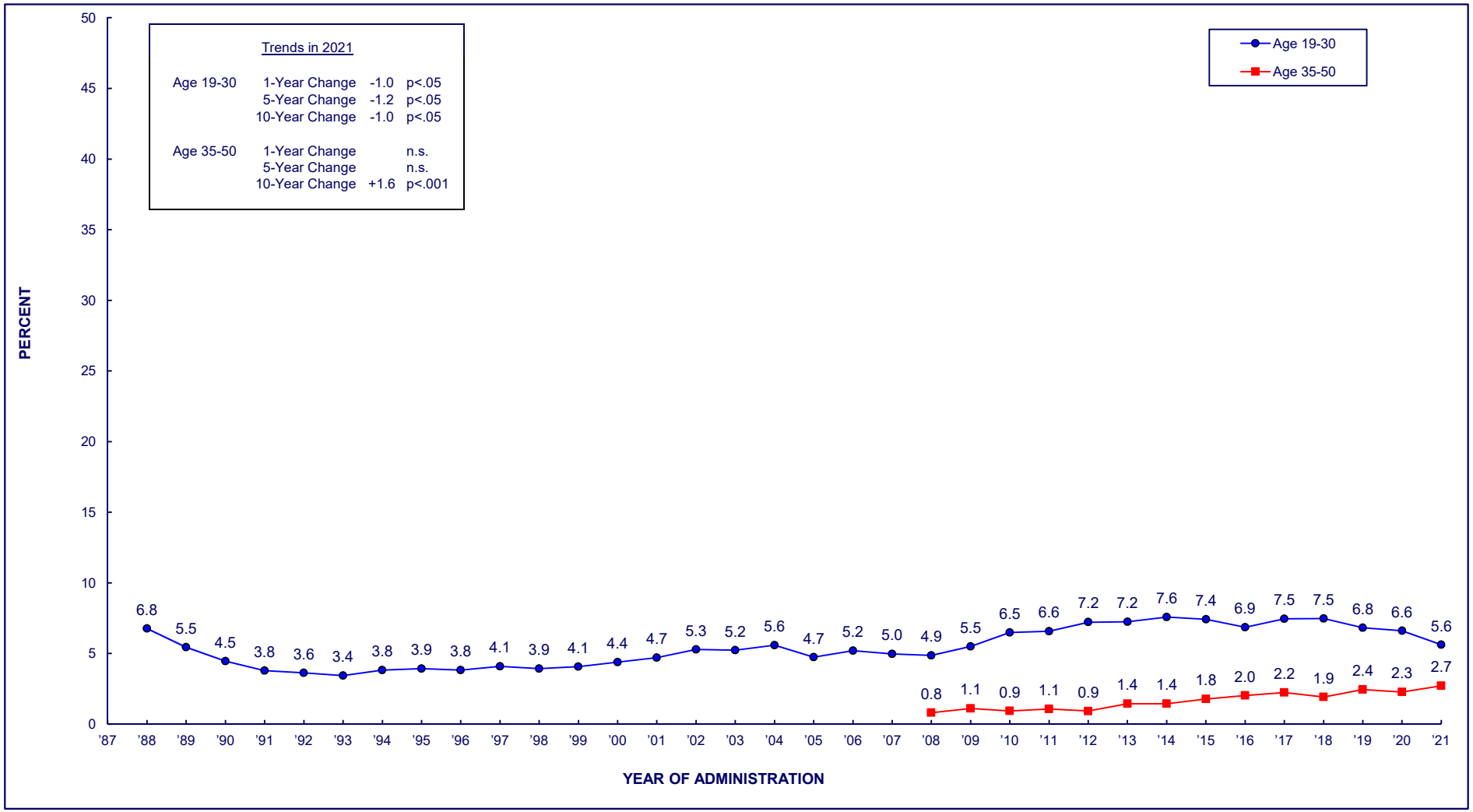
Source. The Monitoring the Future study, the University of Michigan.

FIGURE 30

AMPHETAMINES

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 25
AMPHETAMINES
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	15.8												
1977	16.3												
1978	17.1	18.2											
1979	18.3	21.5											
1980	20.8	23.8	25.5										
1981	26.0	25.5	26.7										
1982	20.3	23.9	22.4	21.8									
1983	17.9	19.7	19.9	18.3									
1984	17.7	15.8	17.4	14.0	14.9								
1985	15.8	14.5	13.0	14.1	12.5								
1986	13.4	11.0	13.0	11.4	8.6	9.1							
1987	12.2	9.1	9.9	7.9	8.3	7.9							
1988	10.9	9.2	8.1	7.6	6.4	5.0	5.5						
1989	10.8	6.9	6.8	5.1	5.5	4.3	5.0						
1990	9.1	6.6	5.5	5.3	4.0	4.3	2.7						
1991	8.2	4.9	4.9	3.8	3.4	4.0	2.9						
1992	7.1	5.6	4.3	4.0	2.7	3.5	3.3						
1993	8.4	5.4	4.8	3.8	2.9	2.6	2.4						
1994	9.4	5.4	5.3	4.5	3.9	2.9	2.6	2.4					
1995	9.3	7.2	5.7	3.0	3.5	2.7	2.5	1.9					
1996	9.5	6.5	4.9	4.1	2.5	2.5	2.6	1.9					
1997	10.2	5.9	7.3	3.8	3.2	2.0	2.7	1.7					
1998	10.1	7.5	5.0	4.3	2.9	2.3	1.8	1.7	1.7				
1999	10.2	7.9	5.0	4.5	3.4	2.6	2.4	1.9	1.2				
2000	10.5	9.3	6.0	4.8	3.6	2.7	1.4	1.8	1.4				
2001	10.9	8.7	7.9	5.2	3.6	3.2	1.9	1.9	1.0				
2002	11.1	9.1	7.1	5.8	3.9	3.3	2.1	1.2	1.4				
2003	9.9	8.6	7.5	5.8	3.1	3.6	2.6	2.2	1.0	1.4			
2004	10.0	8.5	6.7	7.1	4.6	3.9	2.2	1.5	1.1	0.9			
2005	8.6	7.0	6.8	5.0	3.8	2.6	3.0	1.2	0.8	0.5			
2006	8.1	6.5	7.6	6.1	4.4	3.3	2.9	1.4	1.6	1.4			
2007	7.5	6.7	7.5	5.9	4.2	3.3	2.1	1.5	0.8	1.1			
2008	6.8	5.9	6.7	5.7	4.0	4.1	2.6	0.7	1.1	0.9	0.6		
2009	6.6	6.2	9.0	5.4	5.3	3.5	2.9	1.9	0.9	0.7	1.0		
2010	7.4	8.3	9.0	7.7	5.9	4.3	3.2	1.3	0.7	0.8	0.8		
2011	8.2	8.7	8.8	8.8	5.3	3.8	3.2	1.4	0.6	1.3	1.0		
2012	7.9	9.3	9.4	8.4	5.8	5.5	4.3	1.4	1.0	1.0	0.4		
2013	9.2	8.6	9.5	7.5	5.6	5.7	2.9	2.2	1.5	1.2	1.0	0.7	
2014	8.1	9.9	9.6	6.9	7.7	5.9	5.3	2.5	1.5	0.9	0.9	0.2	
2015	7.7	7.6	10.6	8.4	7.4	5.4	5.0	3.5	1.9	1.0	1.0	0.4	
2016	6.7	9.1	9.4	6.3	5.8	5.7	5.1	3.3	2.9	0.9	1.1	0.7	
2017	5.9	6.7	9.5	8.4	7.3	7.2	5.7	4.1	2.2	2.1	0.7	0.9	
2018	5.5	5.5	8.8	10.1	6.6	6.6	7.5	2.5	2.1	1.2	1.9	1.0	0.7
2019	4.5	5.6	8.8	6.7	6.8	6.5	6.6	4.3	2.5	1.9	1.2	1.1	0.6
2020	4.3	5.6	7.5	8.5	7.0	6.1	4.9	3.5	3.1	1.8	1.0	0.8	0.6
2021	2.3	3.3	7.1	7.1	5.8	5.5	4.9	3.8	3.1	2.3	1.9	0.6	0.6

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

FIGURE 31
ADDERALL
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

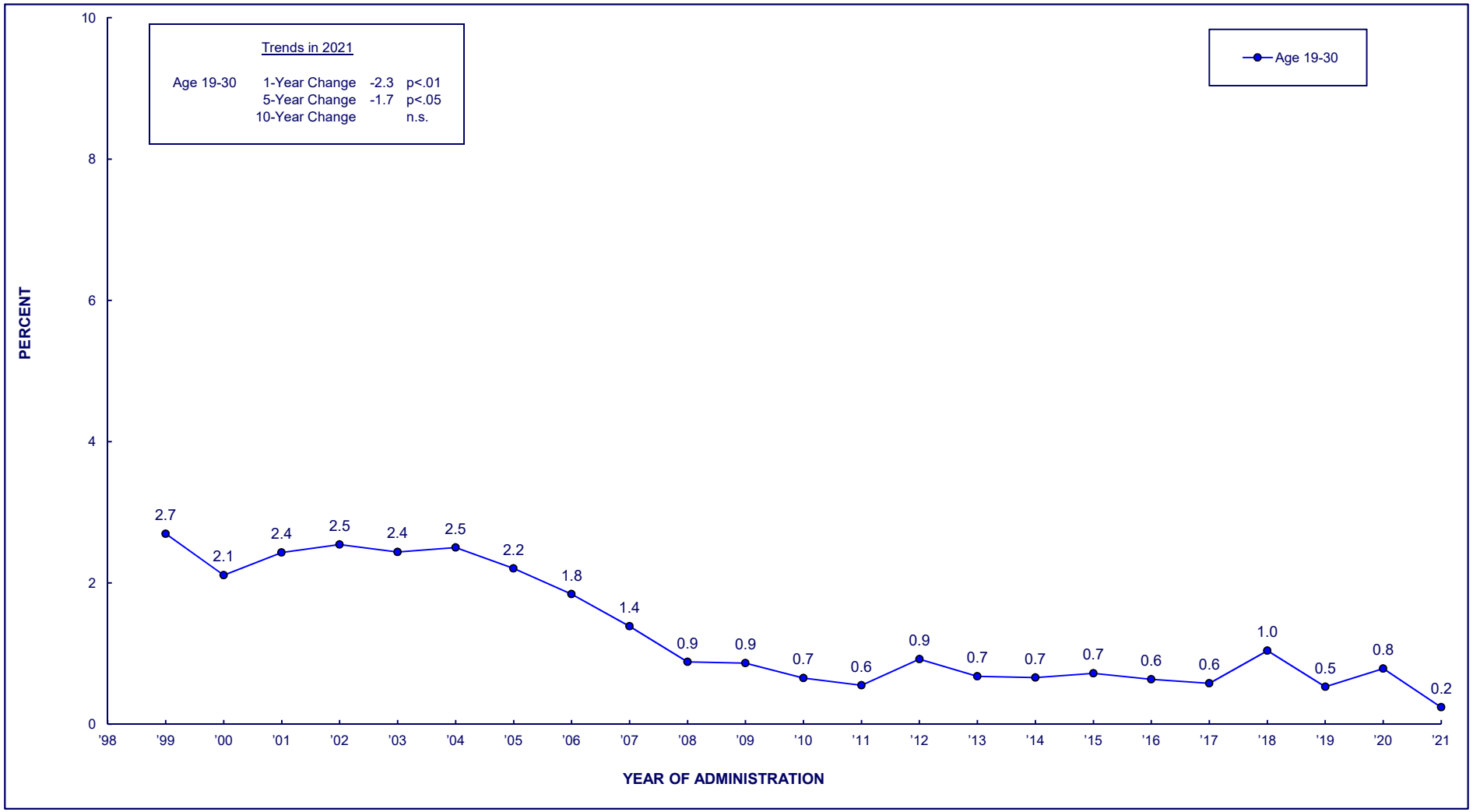


FIGURE 32
RITALIN
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

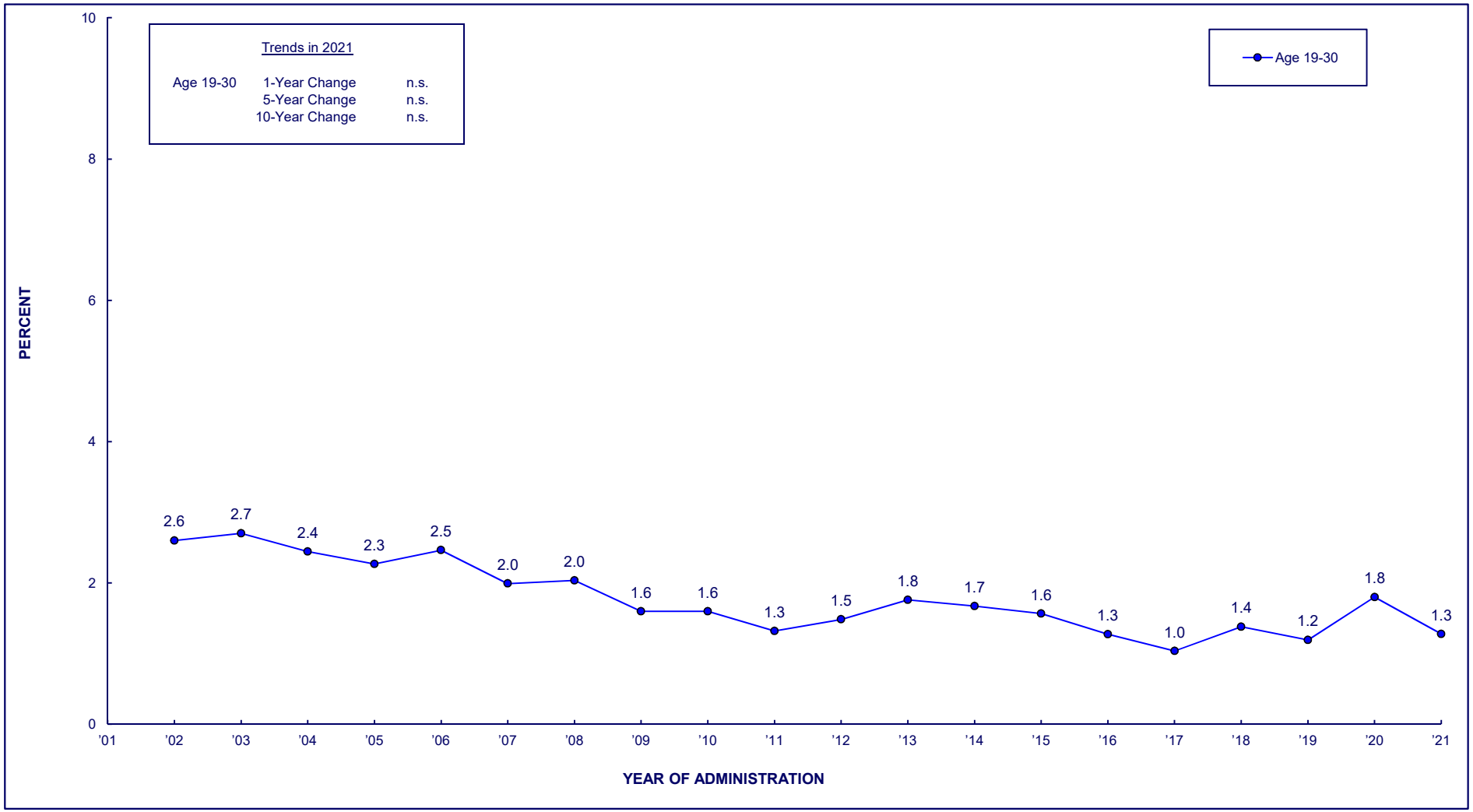
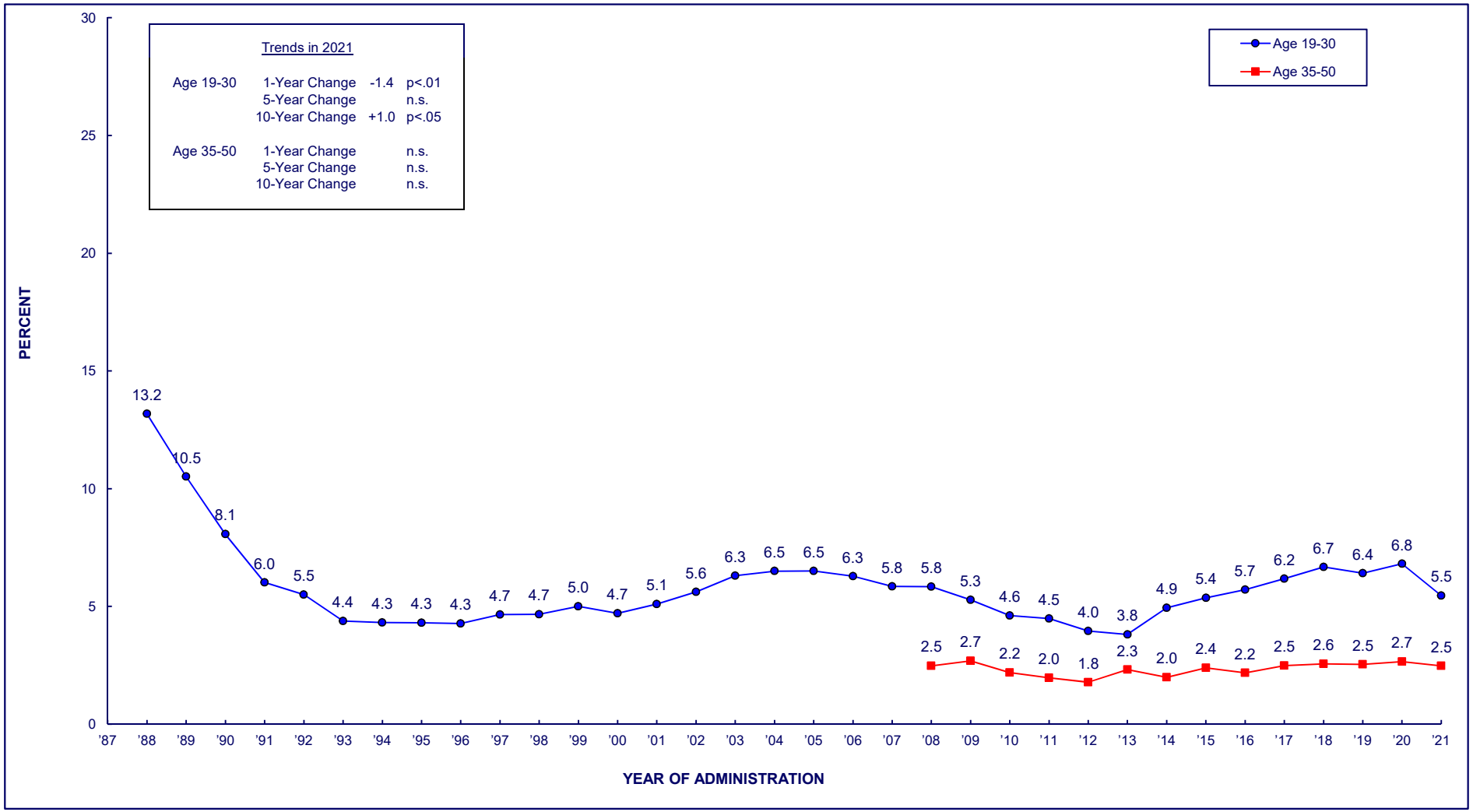


FIGURE 33

COCAINE

Trends in 12-Month Prevalence

among Respondents of Modal Ages 19 through 50, by Age Group



(Age-specific data provided in the following table.)

TABLE 26
COCAINE
Trends in 12-Month Prevalence
among Respondents of Modal Ages 18 through 60, by Age Group

353.0

Year	Age 18	Ages 19–20	Ages 21–22	Ages 23–24	Ages 25–26	Ages 27–28	Ages 29–30	Age 35	Age 40	Age 45	Age 50	Age 55	Age 60
1976	6.0												
1977	7.2												
1978	9.0	11.8											
1979	12.0	15.0											
1980	12.3	16.3	19.8										
1981	12.4	15.9	20.5										
1982	11.5	16.9	21.6	22.9									
1983	11.4	13.8	21.2	20.8									
1984	11.6	14.6	20.6	20.2	21.1								
1985	13.1	15.4	19.2	23.5	21.6								
1986	12.7	15.9	20.4	22.8	19.7	19.9							
1987	10.3	13.4	16.0	16.2	17.4	15.6							
1988	7.9	10.6	14.1	15.1	15.2	14.2	14.0						
1989	6.5	7.6	11.8	12.0	10.7	12.2	11.6						
1990	5.3	5.6	8.7	9.5	9.9	9.9	8.1						
1991	3.5	3.8	6.1	7.2	7.4	6.9	6.7						
1992	3.1	3.7	5.1	6.5	6.6	7.2	6.7						
1993	3.3	3.2	4.1	4.6	6.3	5.8	4.7						
1994	3.6	3.2	3.9	4.8	4.2	5.4	6.0	4.7					
1995	4.0	3.9	4.3	4.5	4.6	4.6	4.5	4.3					
1996	4.9	3.7	4.2	4.8	3.8	4.3	4.3	5.1					
1997	5.5	4.5	5.8	4.9	4.3	3.7	4.3	4.1					
1998	5.7	5.3	6.0	5.2	3.7	3.9	3.7	4.4	4.5				
1999	6.2	5.7	5.6	6.8	5.0	3.9	3.6	4.6	4.1				
2000	5.0	5.8	6.3	6.3	4.8	3.6	2.7	3.9	3.5				
2001	4.8	6.0	7.5	5.4	5.4	4.8	2.8	3.5	3.0				
2002	5.0	6.5	7.0	6.0	5.6	4.0	4.4	3.6	3.7				
2003	4.8	6.3	7.4	8.3	5.4	5.5	4.9	2.7	3.1	3.4			
2004	5.3	6.3	8.6	8.4	6.7	5.2	3.6	3.3	3.3	3.9			
2005	5.1	6.4	7.5	6.7	8.2	5.7	4.5	2.8	2.8	2.9			
2006	5.7	5.7	8.4	6.9	6.6	5.2	4.7	2.5	3.0	3.4			
2007	5.2	5.8	7.2	5.8	6.4	5.9	4.1	2.0	2.7	3.6			
2008	4.4	5.0	7.3	5.8	6.5	5.3	5.2	3.3	2.0	2.7	2.0		
2009	3.4	3.2	6.9	6.9	4.5	4.7	5.6	2.5	2.2	3.4	2.6		
2010	2.9	3.4	4.9	5.9	4.8	4.7	4.0	2.6	2.0	2.4	1.8		
2011	2.9	3.9	4.3	6.1	6.0	3.4	3.3	2.9	1.3	2.1	1.6		
2012	2.7	3.4	3.5	5.4	3.8	4.2	3.3	2.3	1.5	1.5	1.8		
2013	2.6	2.6	4.8	4.2	4.4	3.5	3.4	3.3	2.2	2.0	1.7	1.0	
2014	2.6	4.6	4.7	4.7	5.9	5.2	4.6	3.1	1.8	1.5	1.7	1.3	
2015	2.5	4.5	4.7	7.0	6.9	5.2	3.7	4.6	1.6	1.7	1.9	0.9	
2016	2.3	3.0	6.6	6.0	4.2	4.7	4.2	3.0	2.3	1.4	2.1	1.4	
2017	2.7	3.0	6.6	5.6	7.2	4.0	4.0	4.9	2.1	1.5	1.5	1.5	
2018	2.3	3.9	5.9	9.2	6.0	5.2	5.5	3.1	2.9	2.9	1.3	1.5	1.5
2019	2.2	3.5	7.5	7.4	7.4	6.8	5.8	3.7	3.4	2.4	0.8	1.2	0.8
2020	2.9	4.0	6.1	8.7	10.0	6.4	5.4	4.8	3.6	1.4	1.3	1.5	1.1
2021	1.2	2.1	5.3	6.7	7.3	6.6	4.7	4.2	2.3	2.1	1.6	1.2	0.8

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

FIGURE 34
METHAMPHETAMINE
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

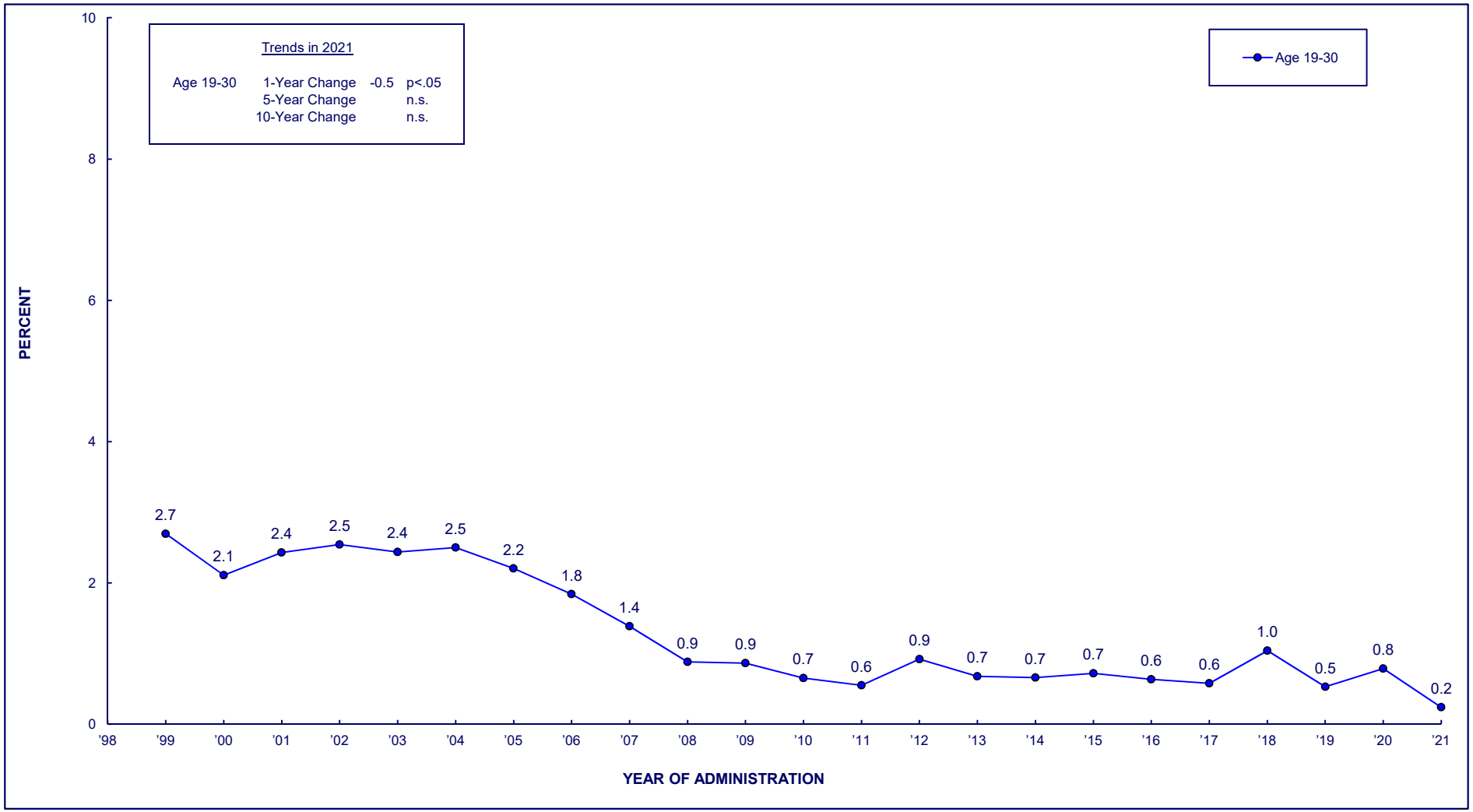


FIGURE 35
SMALL CIGARS
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

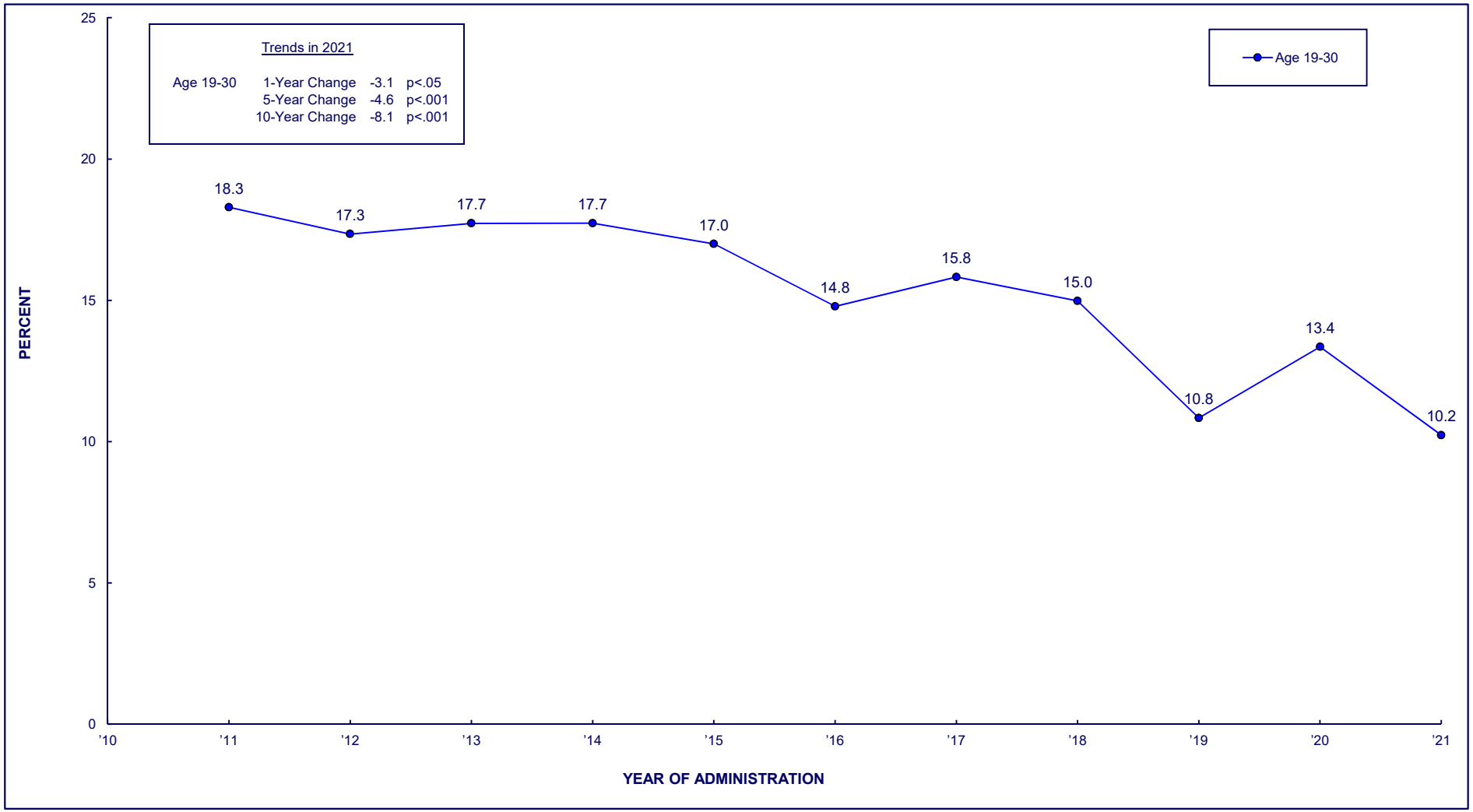


FIGURE 36
TOBACCO WITH A HOOKAH
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

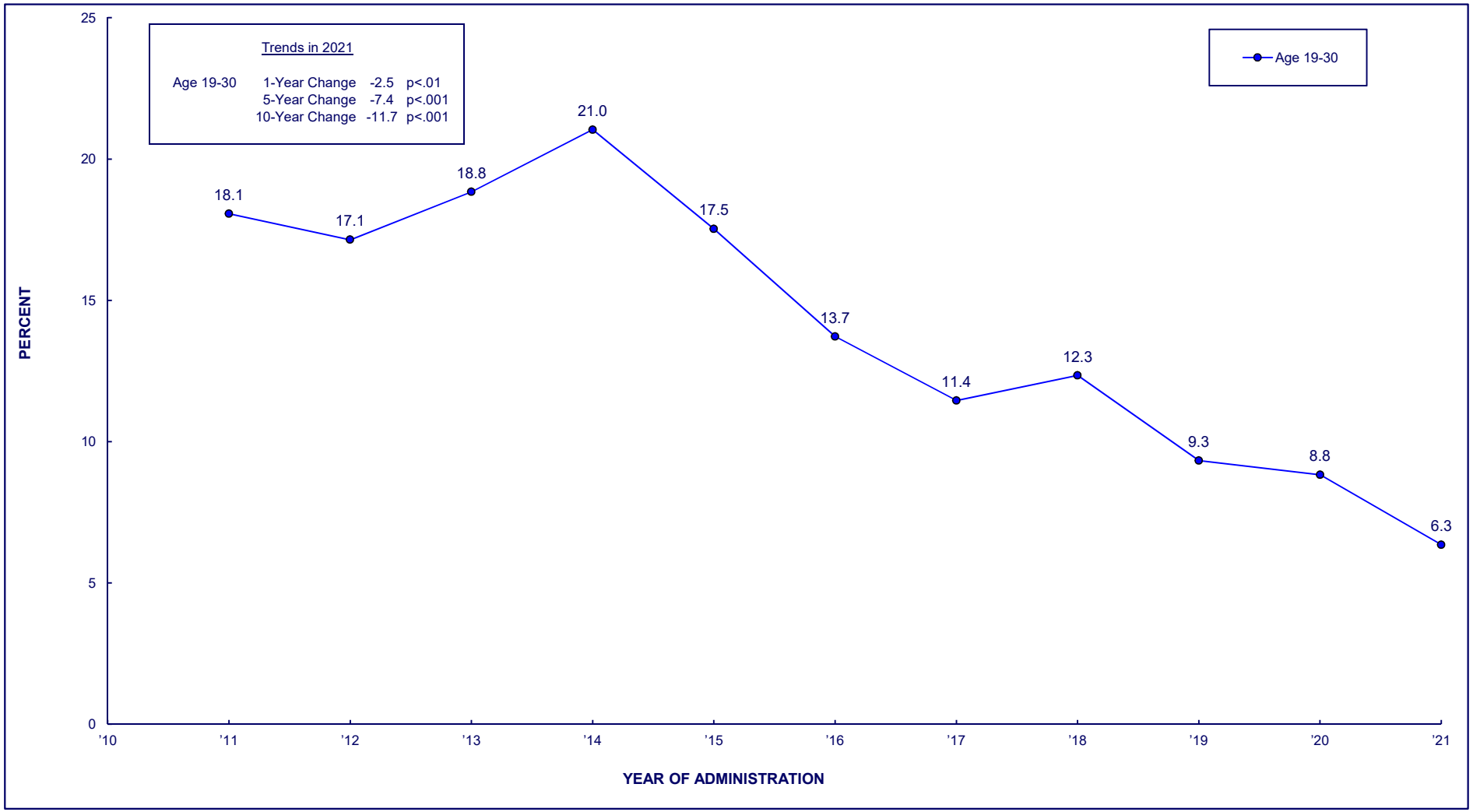


FIGURE 37
DISSOLVABLE TOBACCO
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

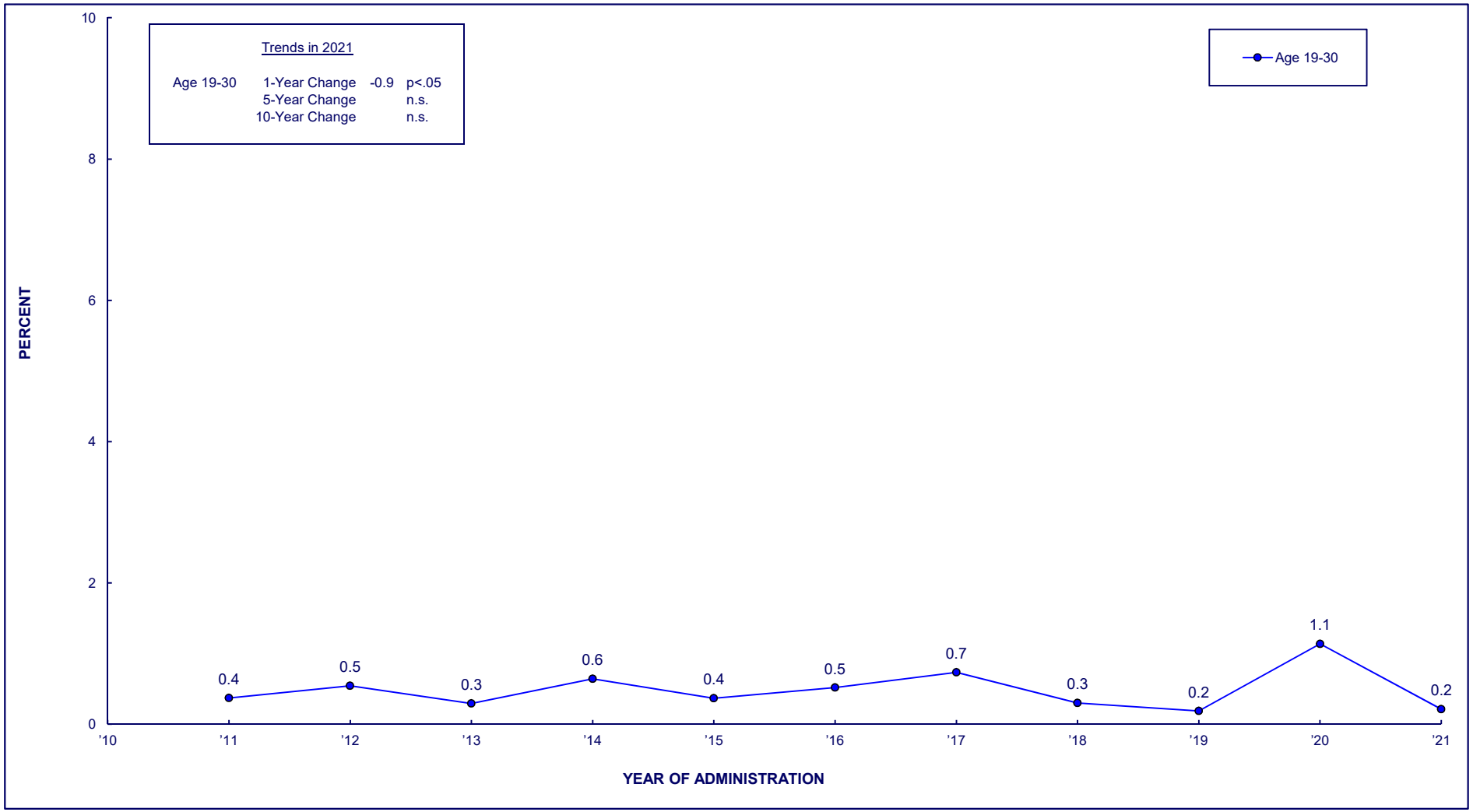


FIGURE 38
SNUS
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30

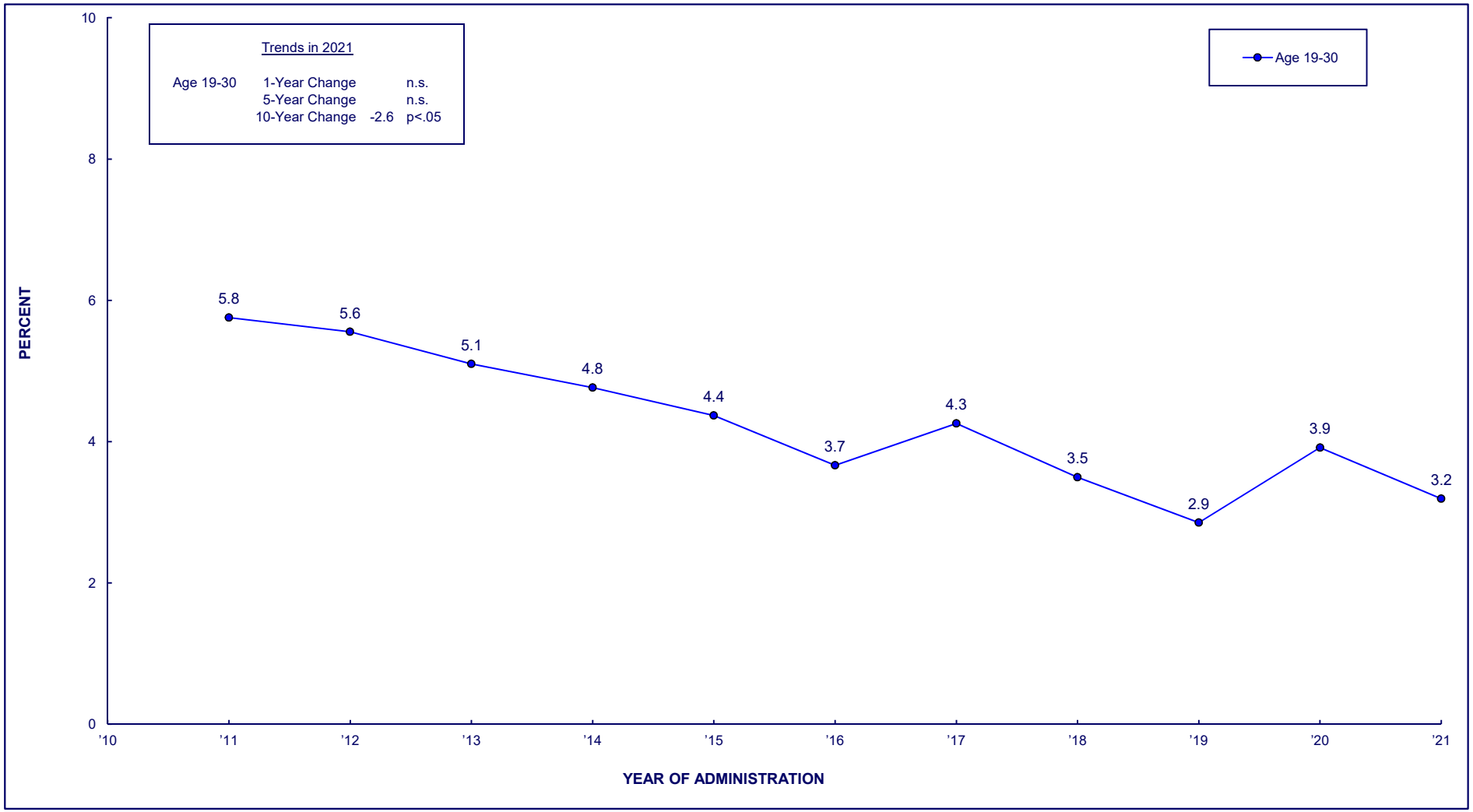
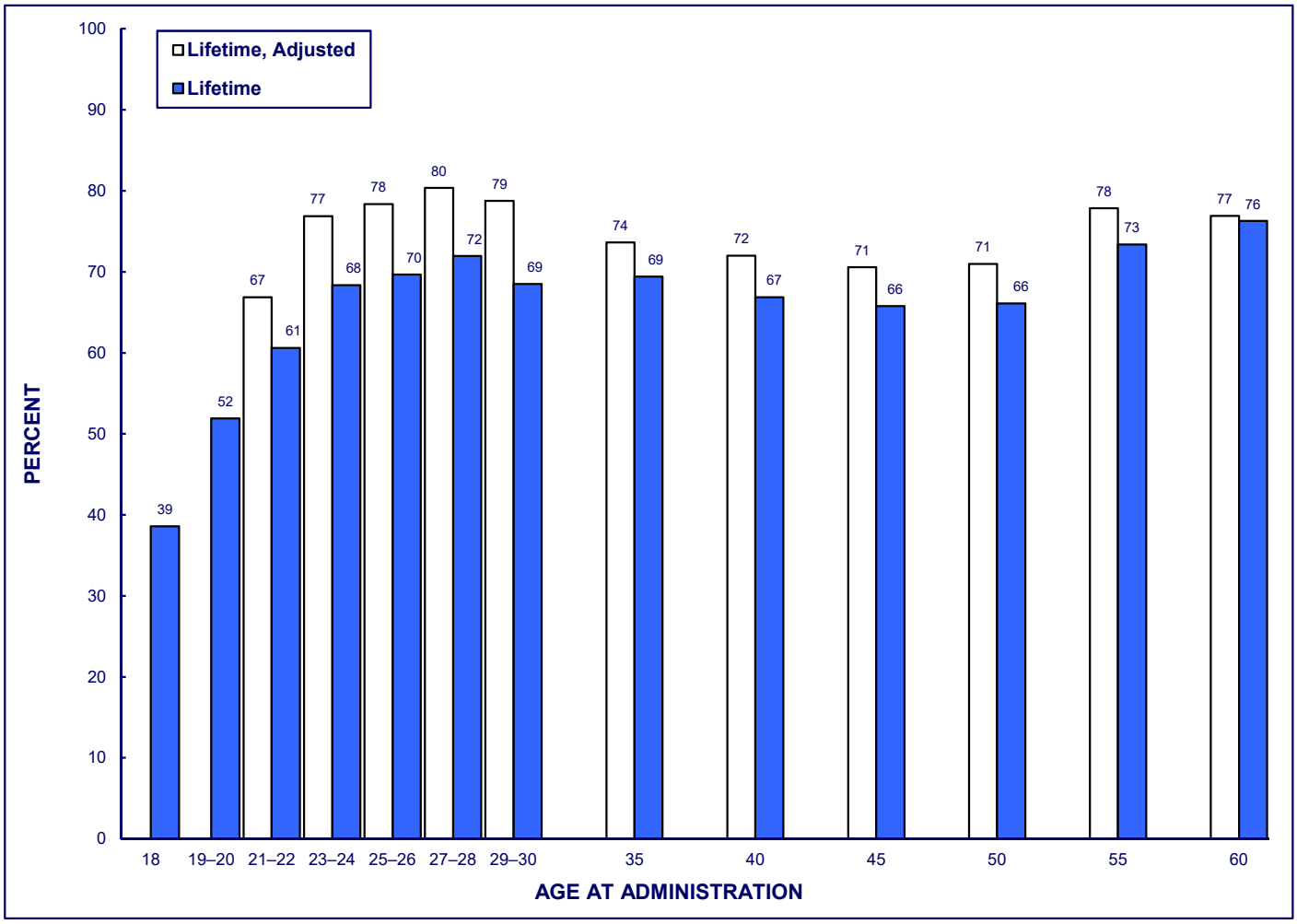


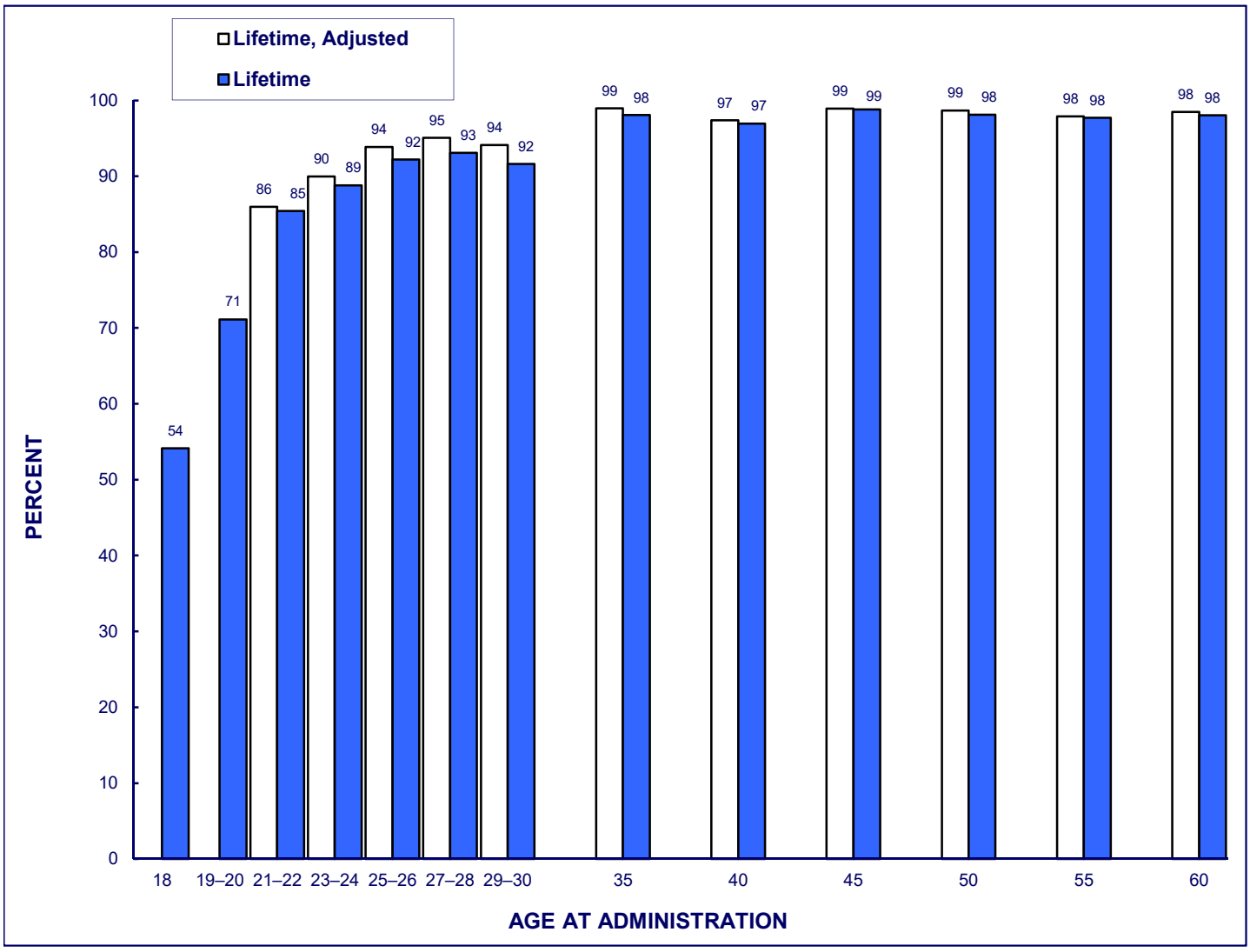
FIGURE 39
MARIJUANA
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding some bars with the same number may have uneven height.

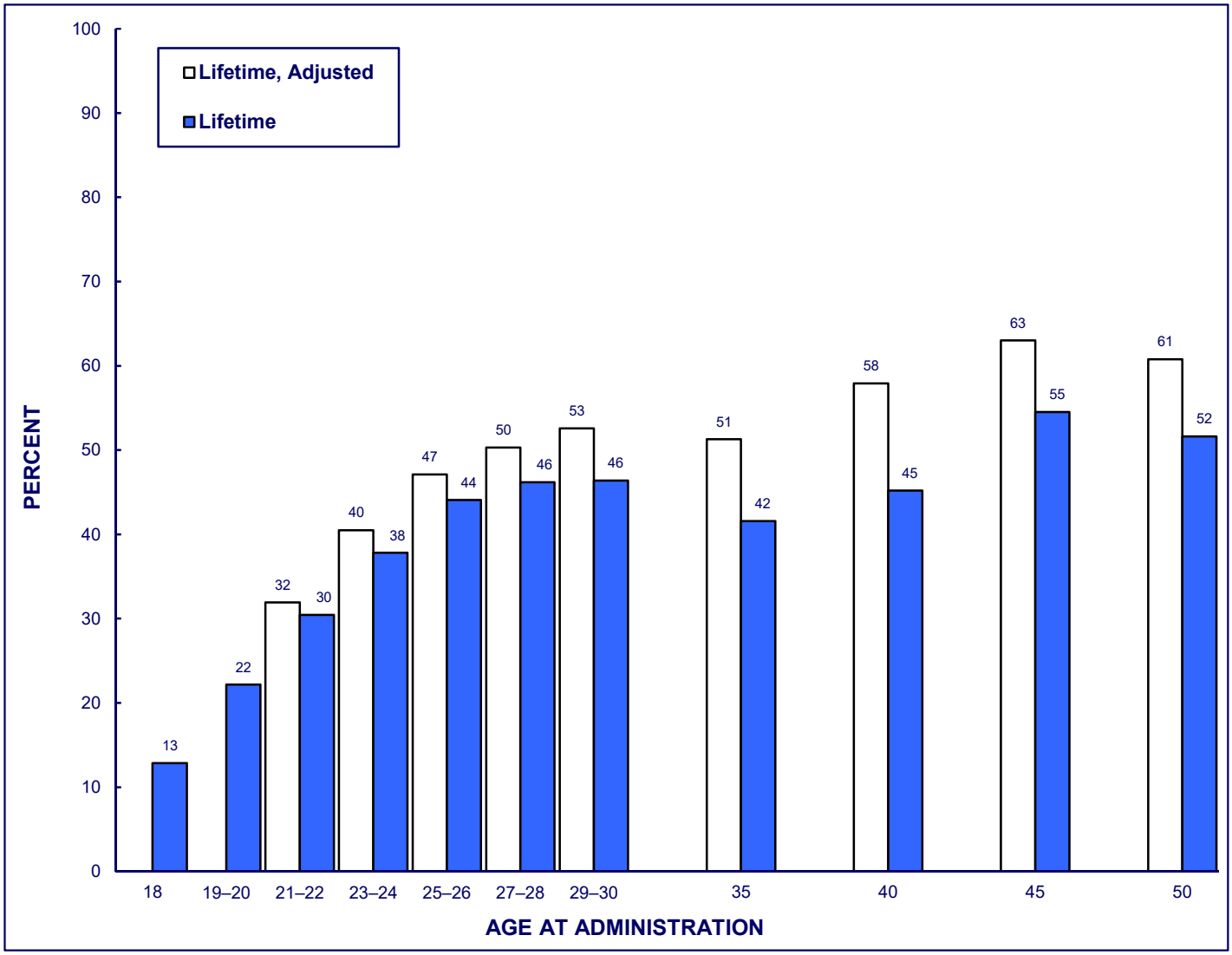
FIGURE 40
ALCOHOL
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding, some bars with the same number may have uneven height.

FIGURE 41
ANY DRUG OTHER THAN MARIJUANA
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 50 by Age Group, 2021

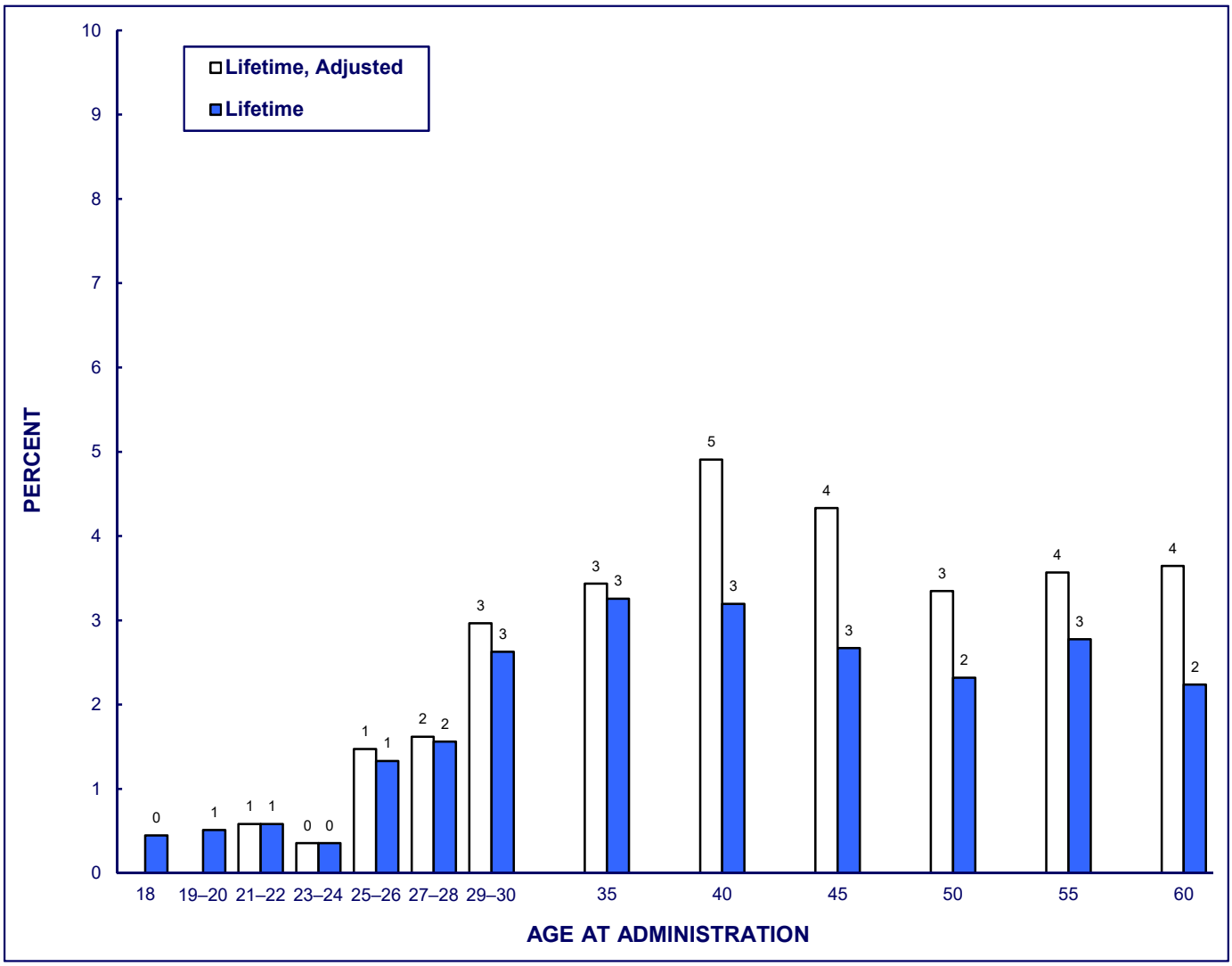


Source. The Monitoring the Future study, the University of Michigan.

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.

Due to rounding, some bars with the same number may have uneven height.

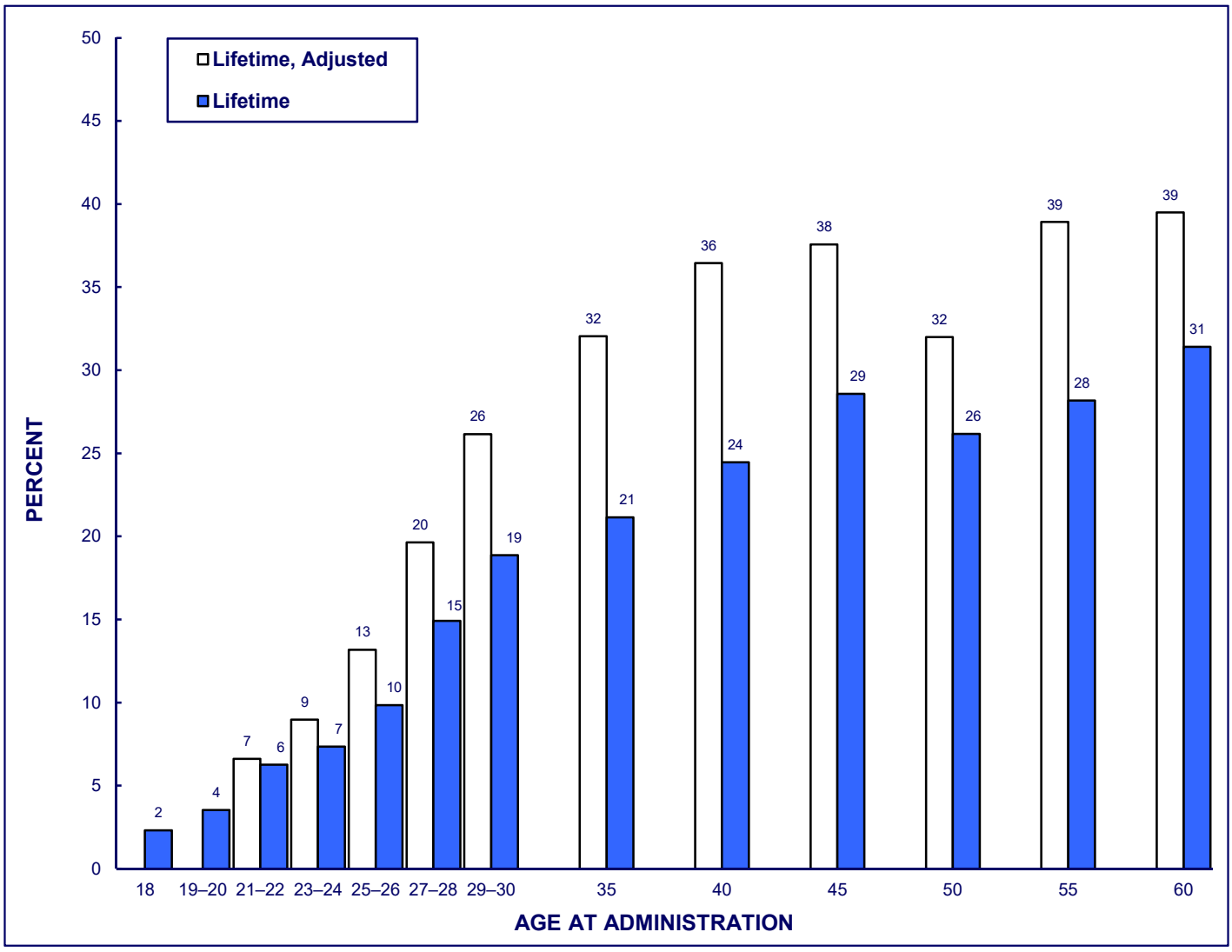
FIGURE 42
HEROIN
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding, some bars with the same number may have uneven height.

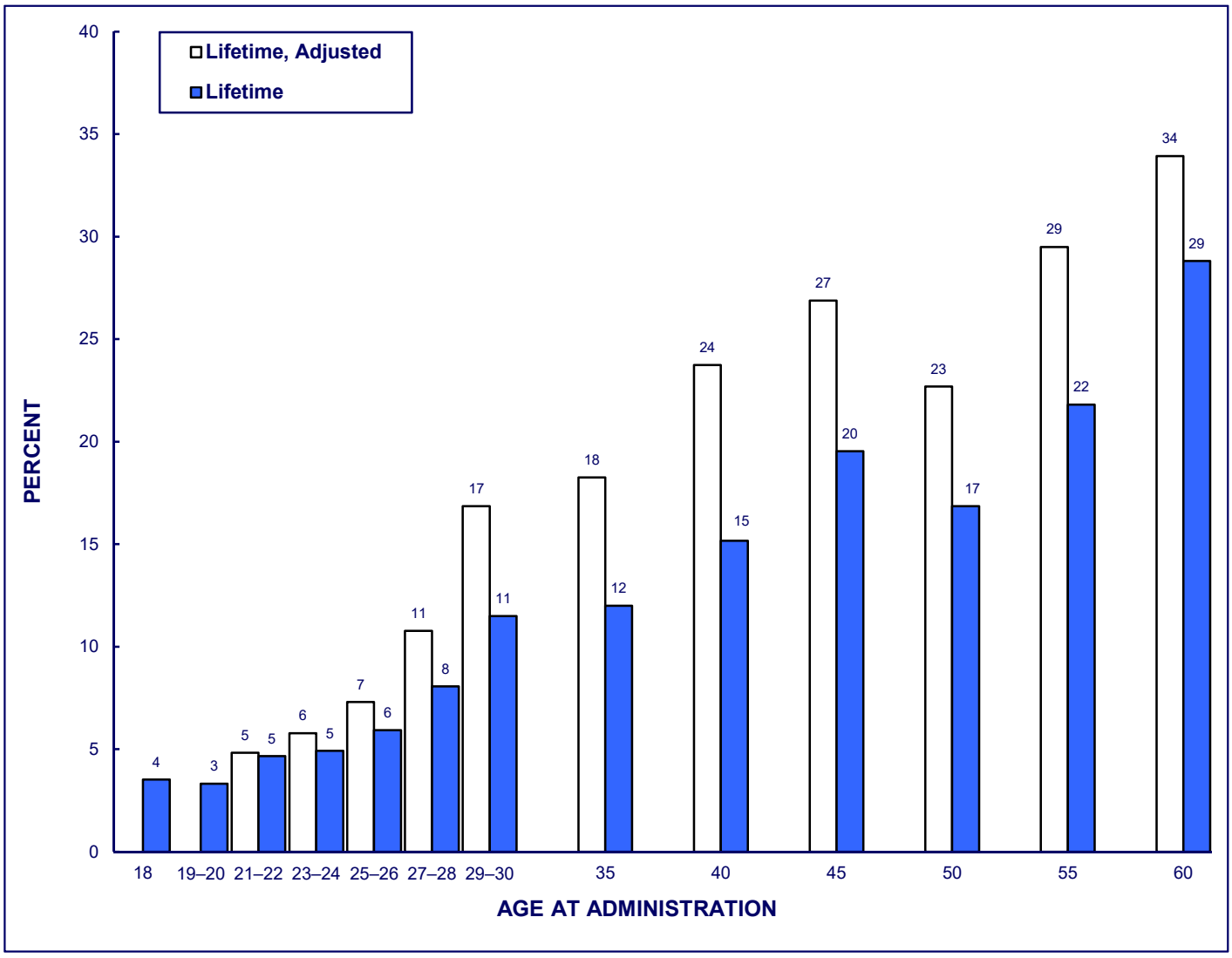
FIGURE 43
NARCOTICS OTHER THAN HEROIN
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding, some bars with the same number may have uneven height.

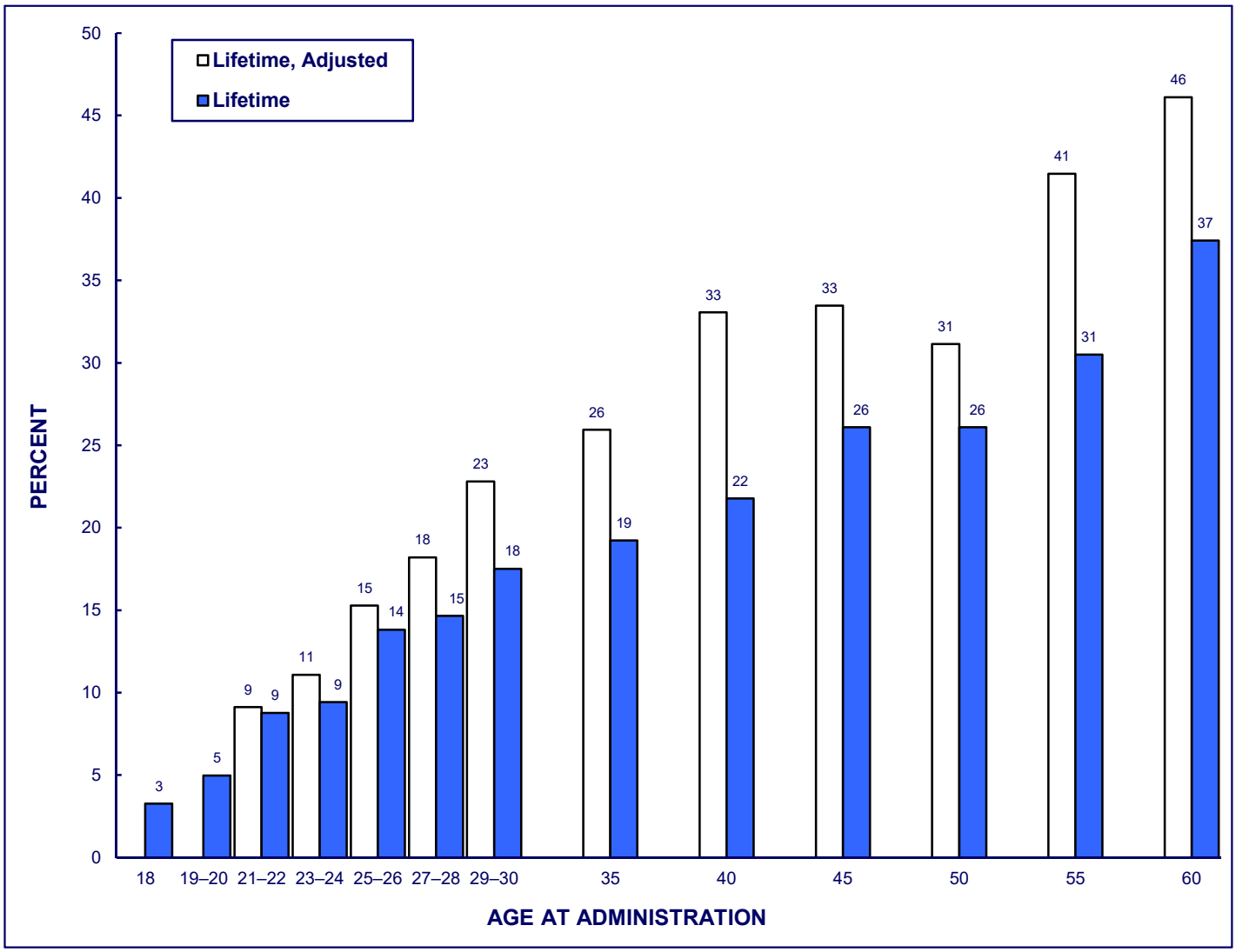
FIGURE 44
SEDATIVES (BARBITURATES)
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding, some bars with the same number may have uneven height.

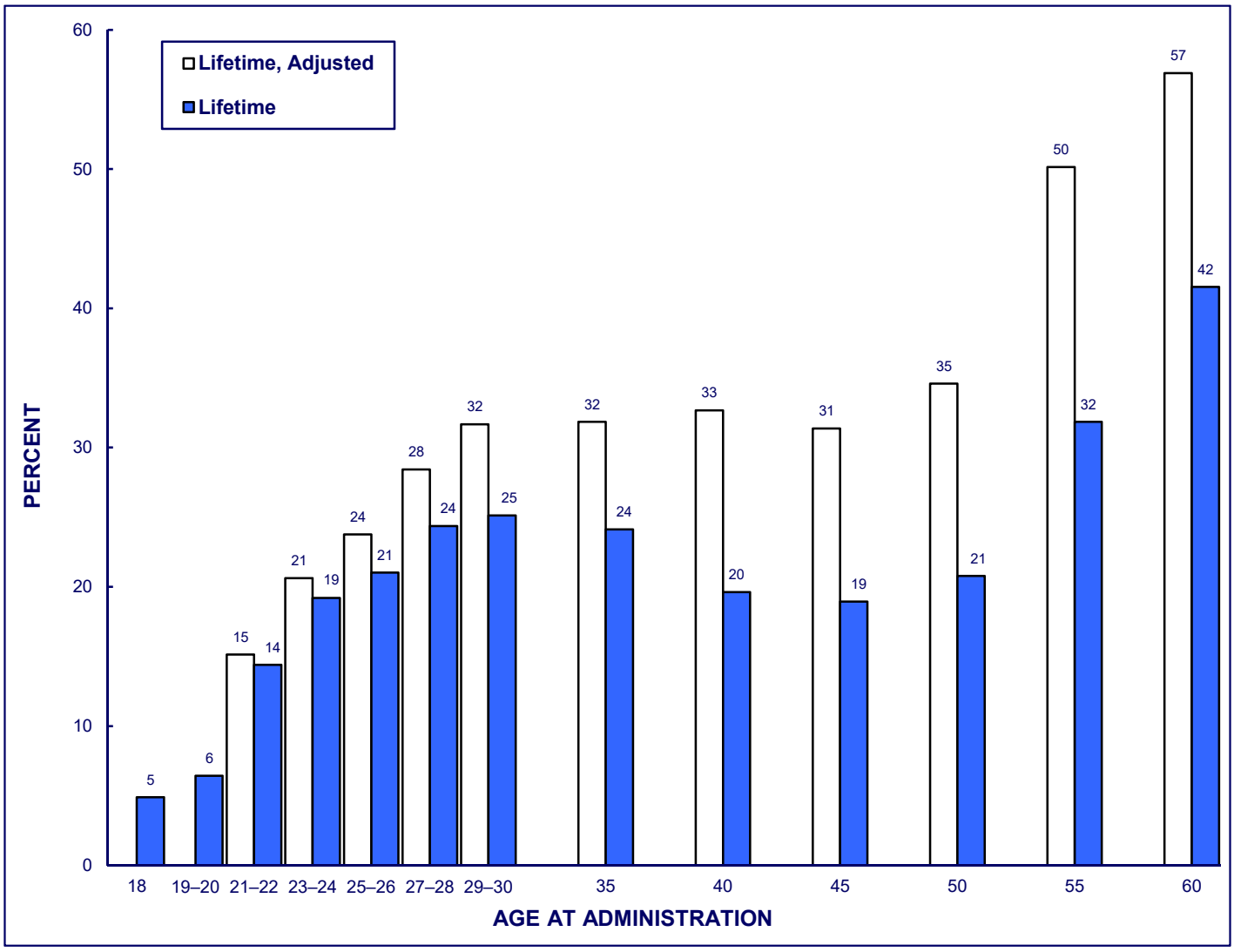
FIGURE 45
TRANQUILIZERS
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding, some bars with the same number may have uneven height.

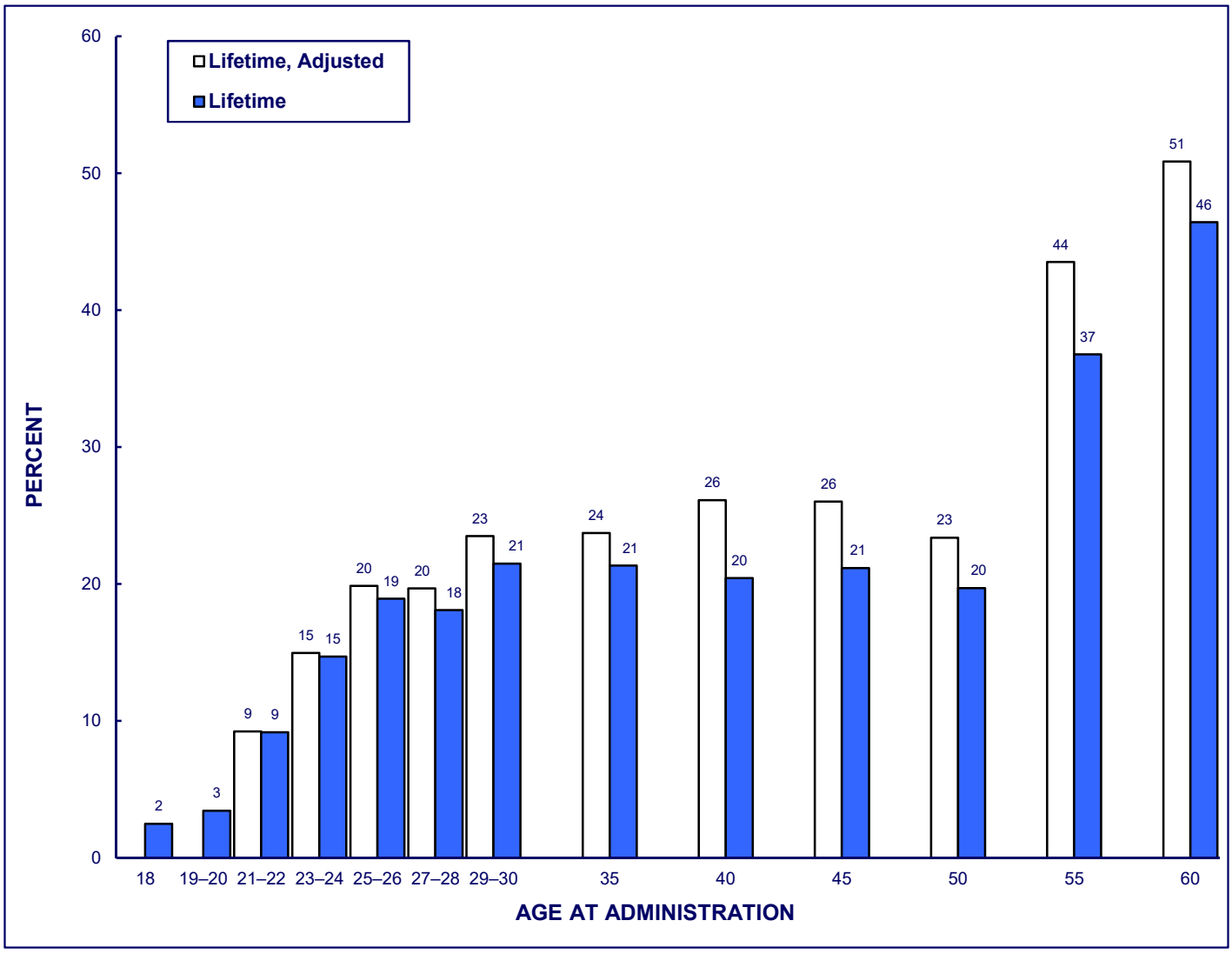
FIGURE 46
AMPHETAMINES
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding, some bars with the same number may have uneven height.

FIGURE 47
COCAINE
Adjusted and Unadjusted Lifetime Prevalence among Respondents of Modal Ages 18 through 60 by Age Group, 2021



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

Notes. Lifetime prevalence estimates were adjusted for inconsistency in self-reports of drug use over time. See text for discussion.
Due to rounding some bars with the same number may have uneven height.

TABLE 27

12-Month Prevalence of Use for Various Types of Drugs, 2021: Full-Time College Students vs. Noncollege Youth among Respondents 1 to 4 Years beyond High School by Gender

(Entries are percentages.)

	Total		Men		Women	
	Full-Time College	Non-College	Full-Time College	Non-College	Full-Time College	Non-College
Marijuana	40.3	44.3	41.1	42.9	39.7	45.6
Vaping Marijuana	19.5	21.3	20.2	20.5	19.4	21.3
Alcohol	76.4	68.6	73.4	65.3	77.5	71.9
Cigarettes	16.6	17.6	22.0	23.1	14.2	14.1
Vaping Nicotine	28.0	31.7	27.1	32.3	28.3	31.6
Any Drug other than Marijuana	14.6	16.6	18.1	20.4	12.9	14.1
Hallucinogens	6.8	9.1	10.5	10.9	5.1	7.4
LSD	4.3	5.7	7.4	6.9	2.9	4.5
Hallucinogens other than LSD	4.6	6.4	6.6	7.1	3.8	5.6
Ketamine	1.4	0.6	1.4	0.7	1.4	0.6
MDMA (ecstasy, molly)	1.6	2.4	1.7	1.8	1.5	2.8
Heroin	0.1	0.5	0.3	0.5	*	0.3
Narcotics other than Heroin	0.9	1.7	1.2	2.4	0.8	1.1
OxyContin	0.3	3.3	1.1	3.2	*	3.5
Vicodin	0.8	0.4	1.1	*	0.7	0.7
Sedatives (Barbiturates)	0.9	2.0	0.5	1.7	1.1	2.4
Tranquilizers	1.7	3.6	1.4	3.7	1.9	3.6
Amphetamines, Adjusted	5.2	5.0	6.7	4.9	4.6	5.3
Adderall	4.3	2.2	5.7	1.7	3.8	2.6
Ritalin	1.7	0.9	2.2	0.6	1.6	1.0
Cocaine	3.9	3.3	5.2	3.5	3.3	2.6
Methamphetamine	0.3	0.3	0.9	*	*	0.6
Small Cigars	8.8	8.8	20.1	16.7	3.8	3.9
Tobacco using a Hookah	4.5	6.7	6.0	7.8	3.8	6.2
Dissolvable Tobacco	1.2	*	3.9	*	*	*
Snus	3.5	3.1	9.6	7.4	1.0	*
Approximate Weighted N =	*1,060*	*770*	*360*	*330*	*700*	*440*

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

Notes. ' * ' indicates a prevalence rate of less than 0.05%.

TABLE 28
Thirty-Day Prevalence of Use for Various Types of Drugs, 2021: Full-Time College Students vs. Noncollege Youth among Respondents 1 to 4 Years beyond High School by Gender

(Entries are percentages.)

	Total		Men		Women	
	Full-Time College	Non-College	Full-Time College	Non-College	Full-Time College	Non-College
Marijuana	24.2	32.4	23.9	32.6	24.2	32.1
Vaping Marijuana	11.8	15.3	13.1	16.0	11.3	14.2
Alcohol	59.6	48.4	59.3	46.1	59.4	50.0
Cigarettes	5.9	7.4	7.0	11.1	5.5	5.2
Vaping Nicotine	20.4	25.4	19.9	24.5	20.5	26.3
Any Drug other than Marijuana	5.8	7.1	7.4	7.2	5.0	7.0
Hallucinogens	0.9	1.8	1.9	2.0	0.5	1.4
LSD	0.4	1.0	1.2	1.0	*	0.9
Hallucinogens other than LSD	0.5	1.6	0.7	1.6	0.5	1.4
MDMA (ecstasy, molly)	0.1	0.3	*	*	0.2	0.5
Heroin	0.1	0.3	0.3	*	*	0.3
Narcotics other than Heroin	0.3	0.4	0.9	0.6	*	0.1
Sedatives (Barbiturates)	0.3	1.5	0.3	0.8	0.2	2.1
Tranquilizers	0.6	1.3	0.3	0.5	0.8	1.8
Amphetamines, Adjusted	2.2	2.5	2.6	2.1	2.1	2.8
Cocaine	1.7	0.7	2.5	0.2	1.3	0.7
Large Cigars	4.1	3.4	10.2	6.2	1.2	2.0
Flavored Little Cigars	3.1	4.7	7.0	8.8	1.2	2.5
Regular Little Cigars	2.1	2.2	6.3	6.2	*	*
Approximate Weighted N =	*1,060*	*770*	*360*	*330*	*700*	*440*

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

Notes. ' * ' indicates a prevalence rate of less than 0.05%.

TABLE 29
Thirty-Day Prevalence of Daily Use for Various Types of Drugs, 2021: Full-Time College Students vs. Noncollege Youth among Respondents 1 to 4 Years beyond High School by Gender

(Entries are percentages.)

	Total		Men		Women	
	Full-Time College	Non-College	Full-Time College	Non-College	Full-Time College	Non-College
Marijuana	5.6	14.3	7.4	15.8	4.5	13.2
Alcohol						
Daily	2.1	3.5	3.3	4.4	1.6	2.7
5+ Drinks in a Row in Last 2 Weeks	30.4	24.5	33.9	23.3	28.8	24.7
10+ Drinks in a Row in Last 2 Weeks	10.5	15.1	18.0	20.9	6.1	10.6
Cigarettes						
Daily	0.9	3.6	2.2	5.5	0.3	2.6
1/2 Pack+/Day	0.6	1.8	1.3	3.6	0.3	0.6
Approximate Weighted N =	*1,060*	*770*	*360*	*330*	*700*	*440*

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

Notes. ' * ' indicates a prevalence rate of less than 0.05%.

FIGURE 48

MARIJUANA

Trends in 30-Day Prevalence among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

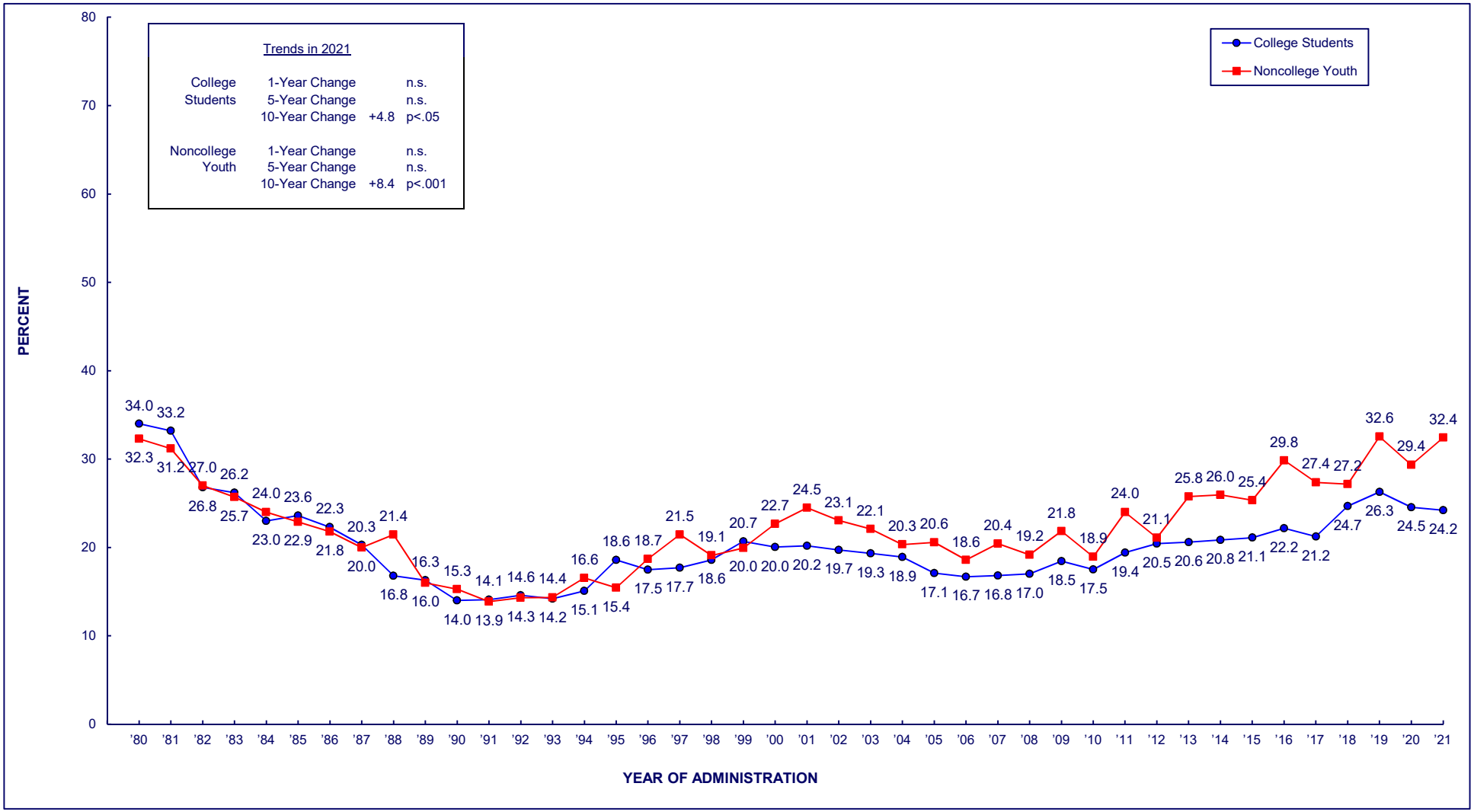


FIGURE 49

MARIJUANA

Trends in 30-Day Prevalence

among College Students 1 to 4 Years beyond High School, by Sex

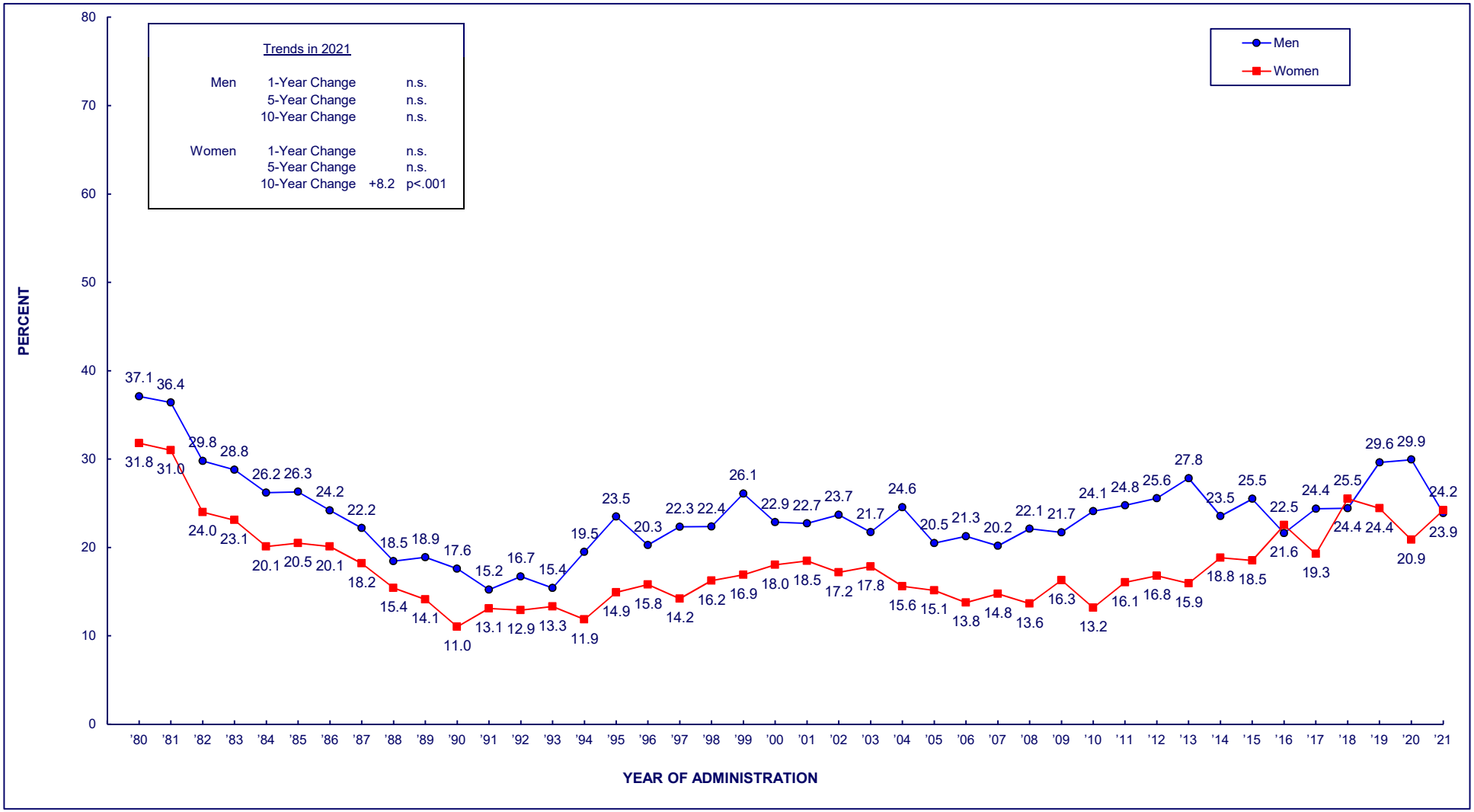


FIGURE 50

VAPING MARIJUANA

Trends in 30-Day Prevalence among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

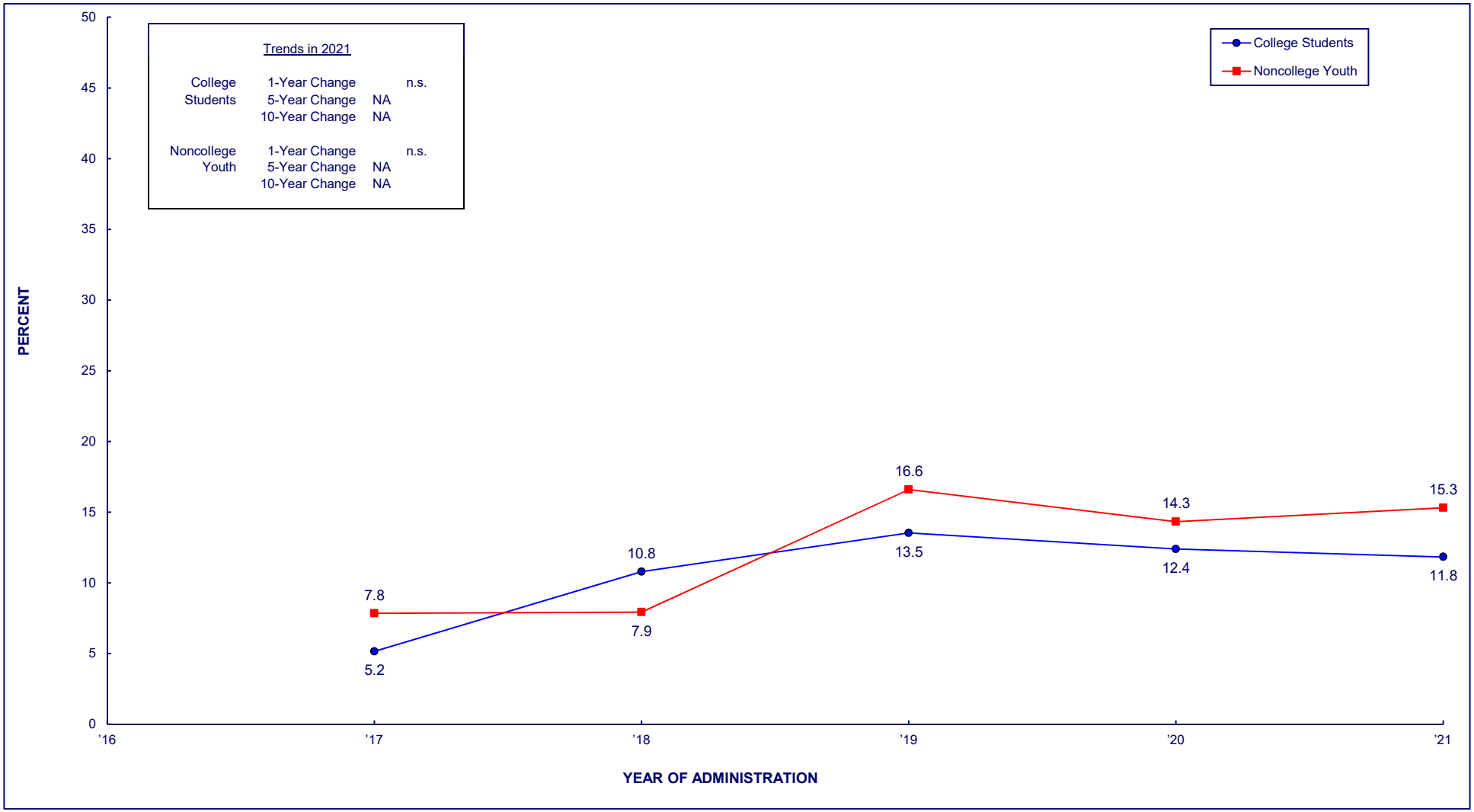


FIGURE 51

VAPING MARIJUANA

Trends in 30-Day Prevalence

among College Students 1 to 4 Years beyond High School, by Sex

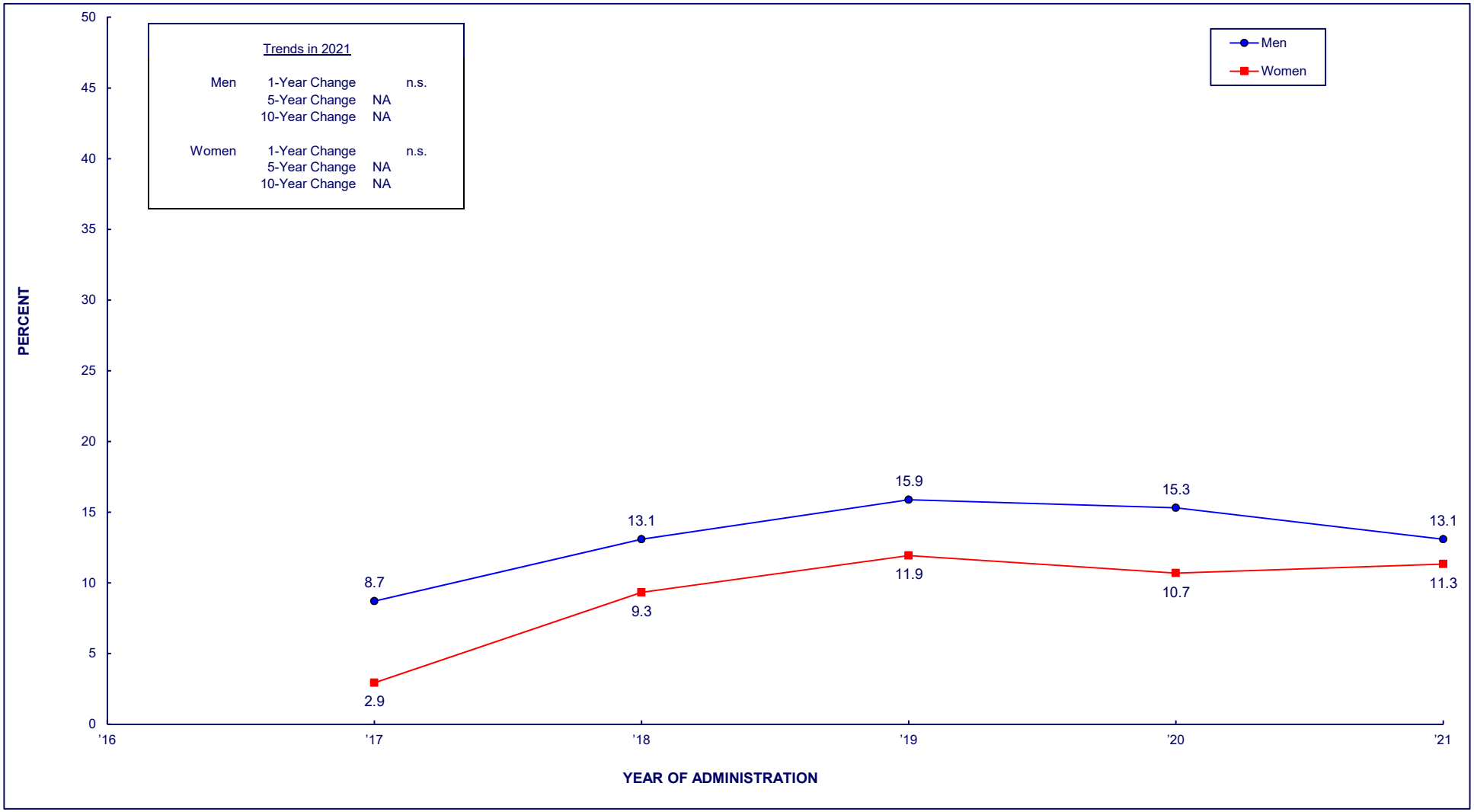


FIGURE 52

ALCOHOL

Trends in 30-Day Prevalence among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

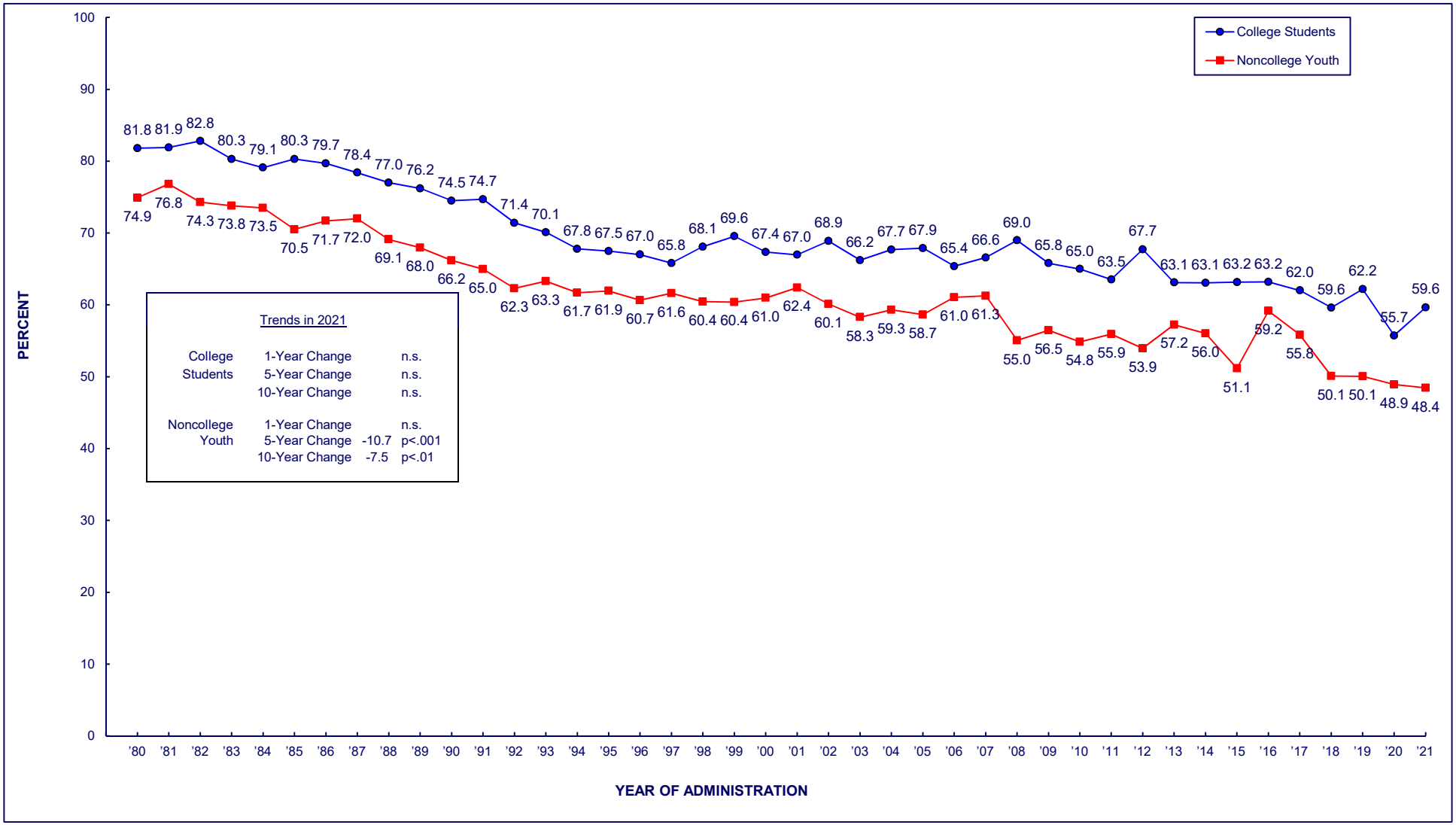


FIGURE 53

ALCOHOL

Trends in 30-Day Prevalence

among College Students 1 to 4 Years beyond High School, by Sex

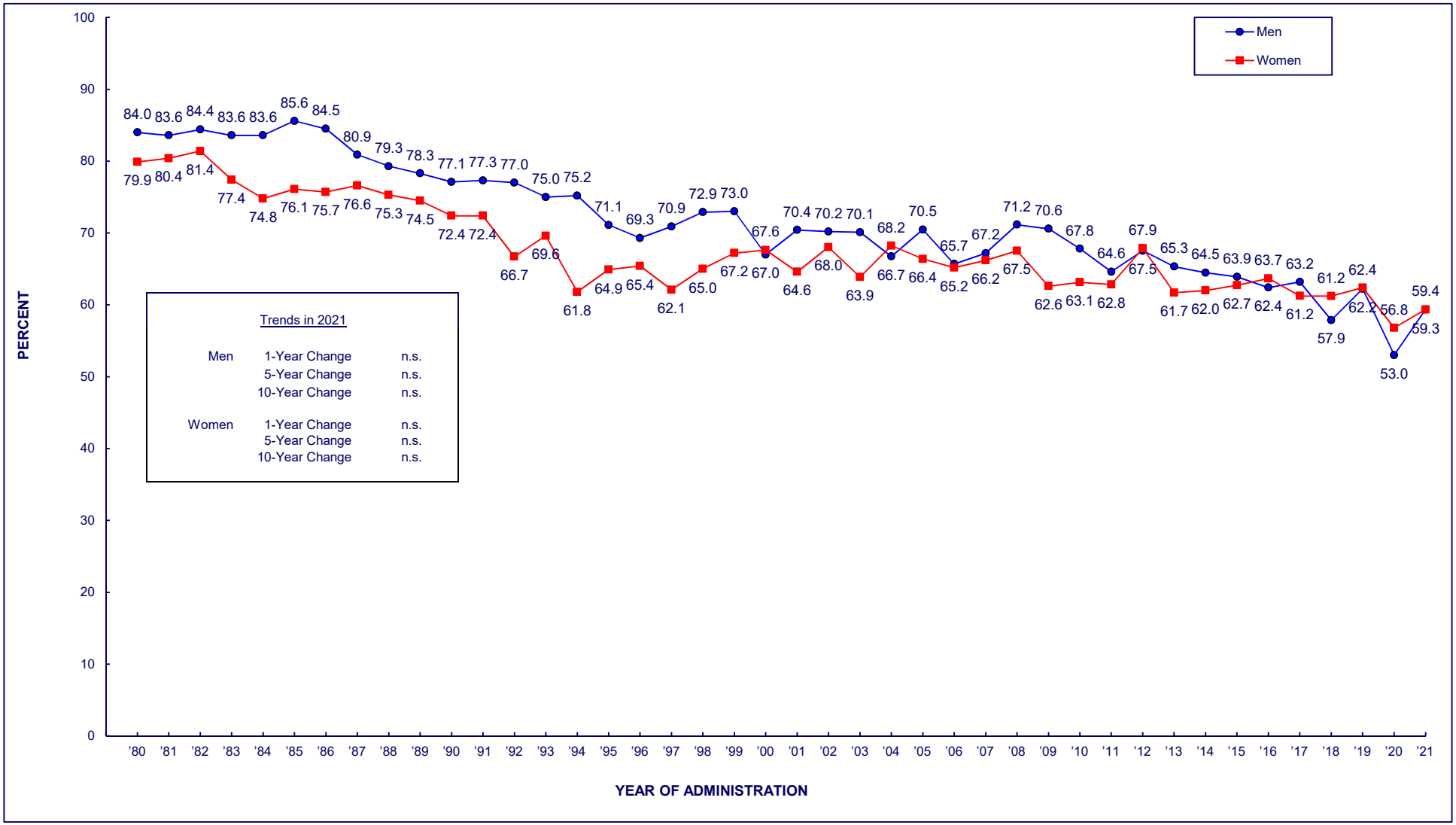


FIGURE 54

ALCOHOL

Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

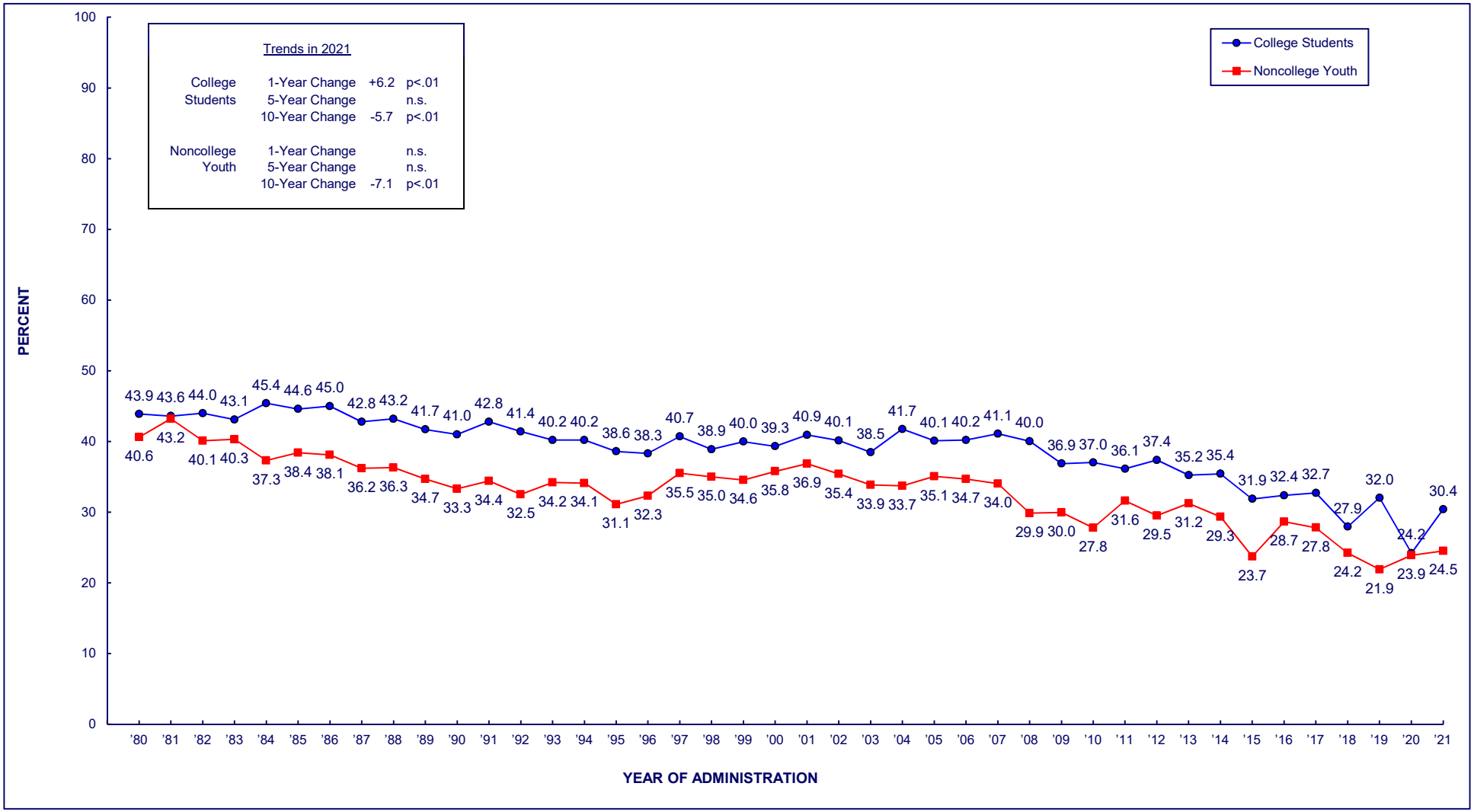


FIGURE 55

ALCOHOL

Trends in 2-Week Prevalence of Having 5 or More Drinks in a Row among College Students 1 to 4 Years beyond High School, by Sex

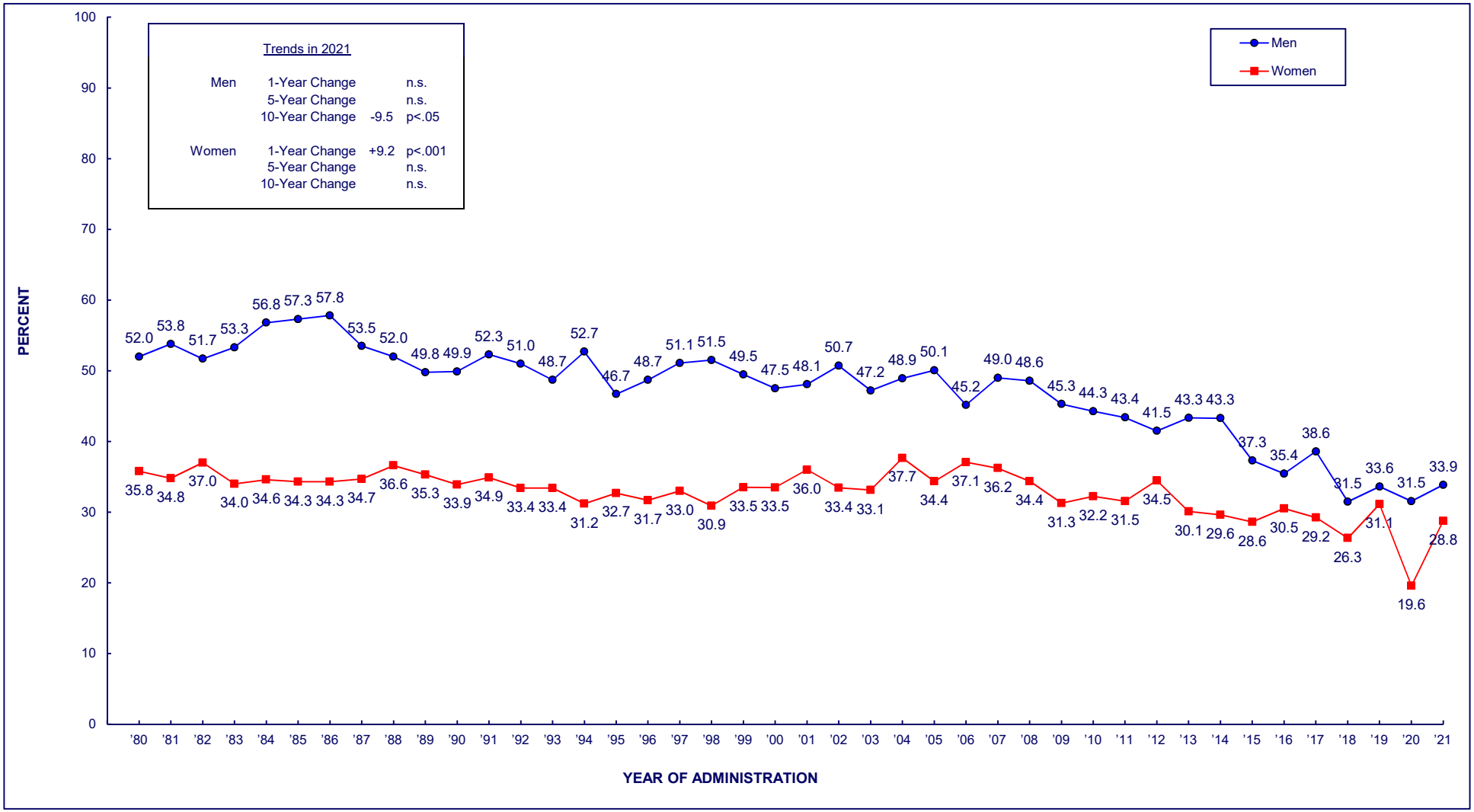


FIGURE 56

CIGARETTES

Trends in 30-Day Prevalence among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

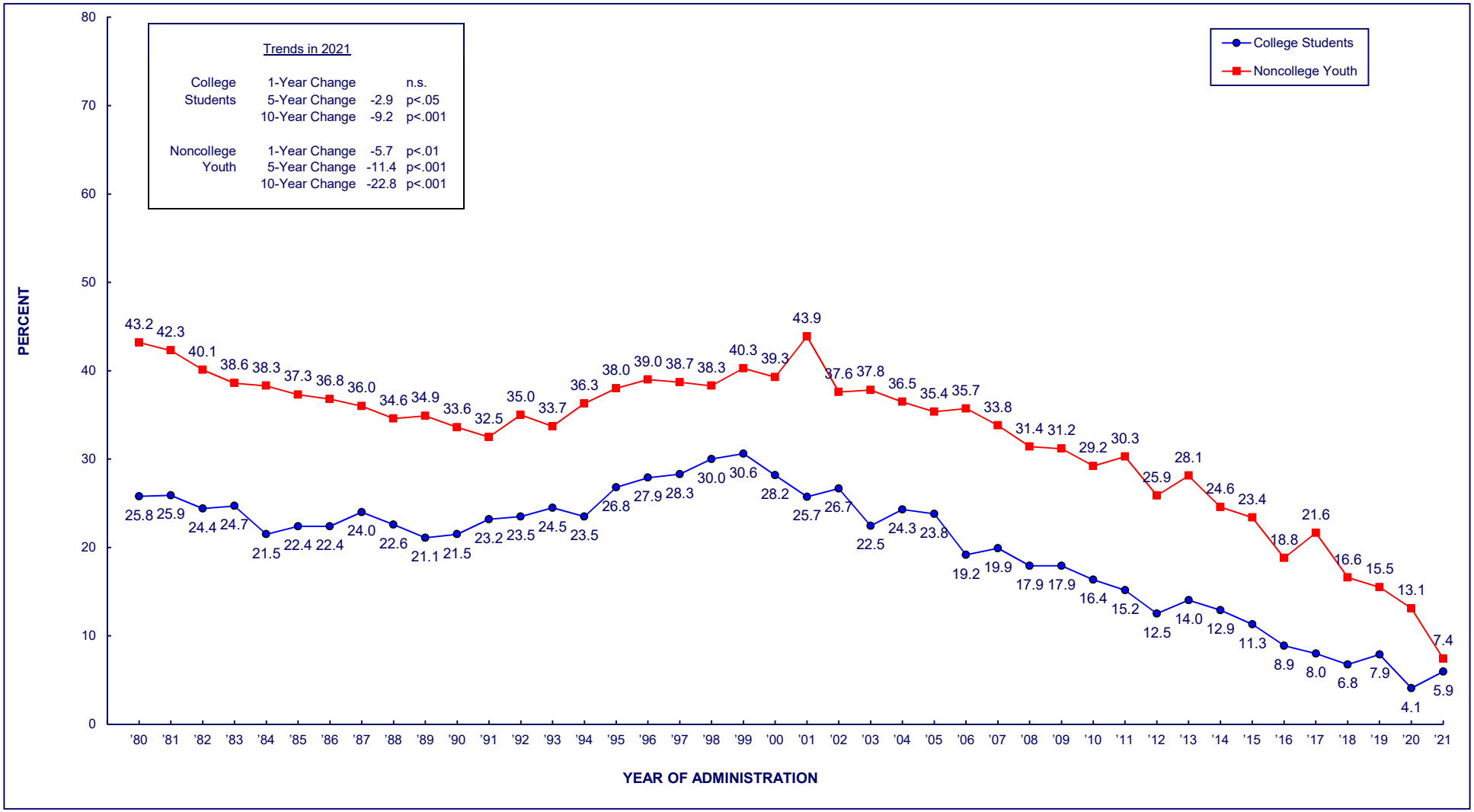


FIGURE 57

CIGARETTES

Trends in 30-Day Prevalence

among College Students 1 to 4 Years beyond High School, by Sex

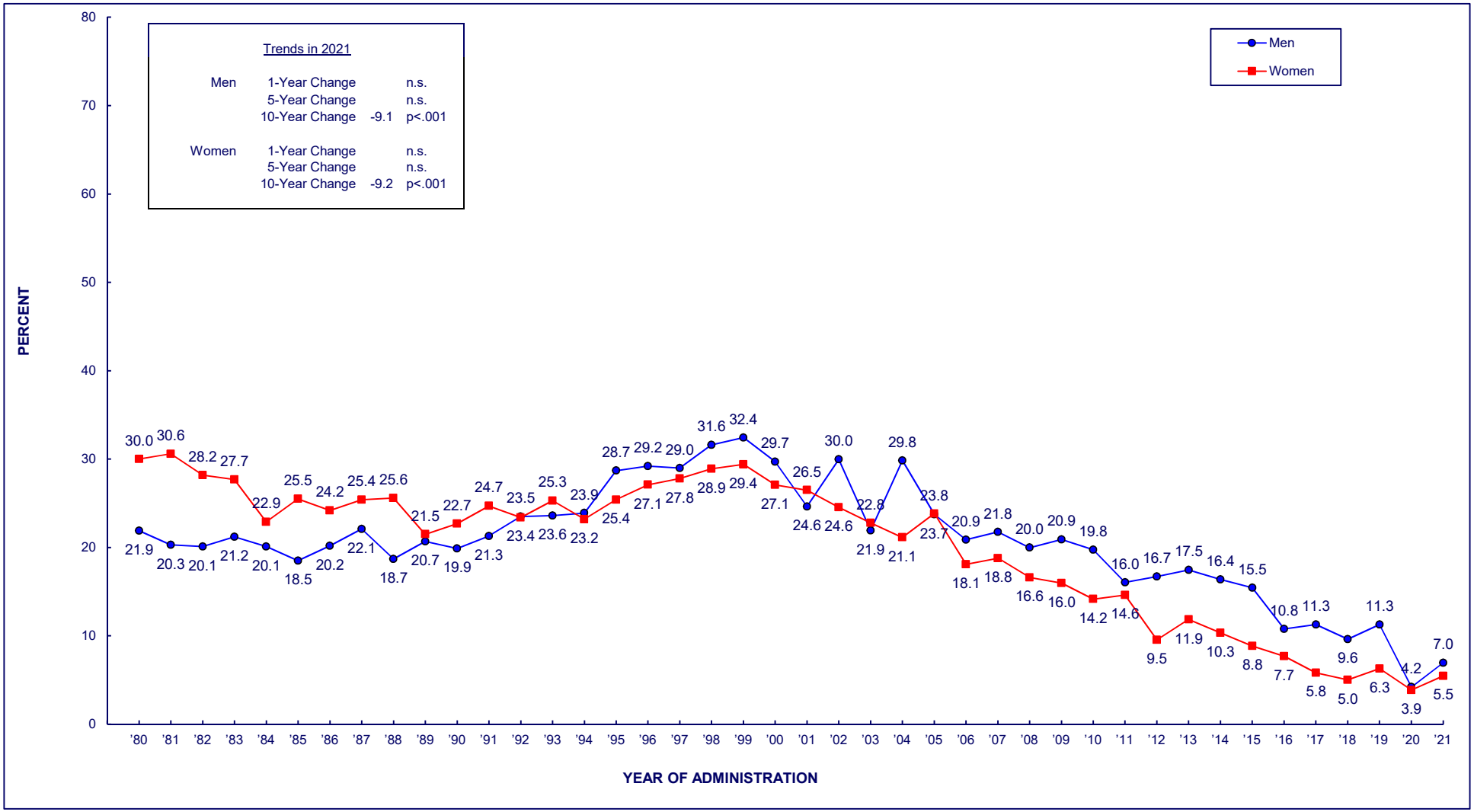


FIGURE 58

VAPING NICOTINE

Trends in 30-Day Prevalence among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

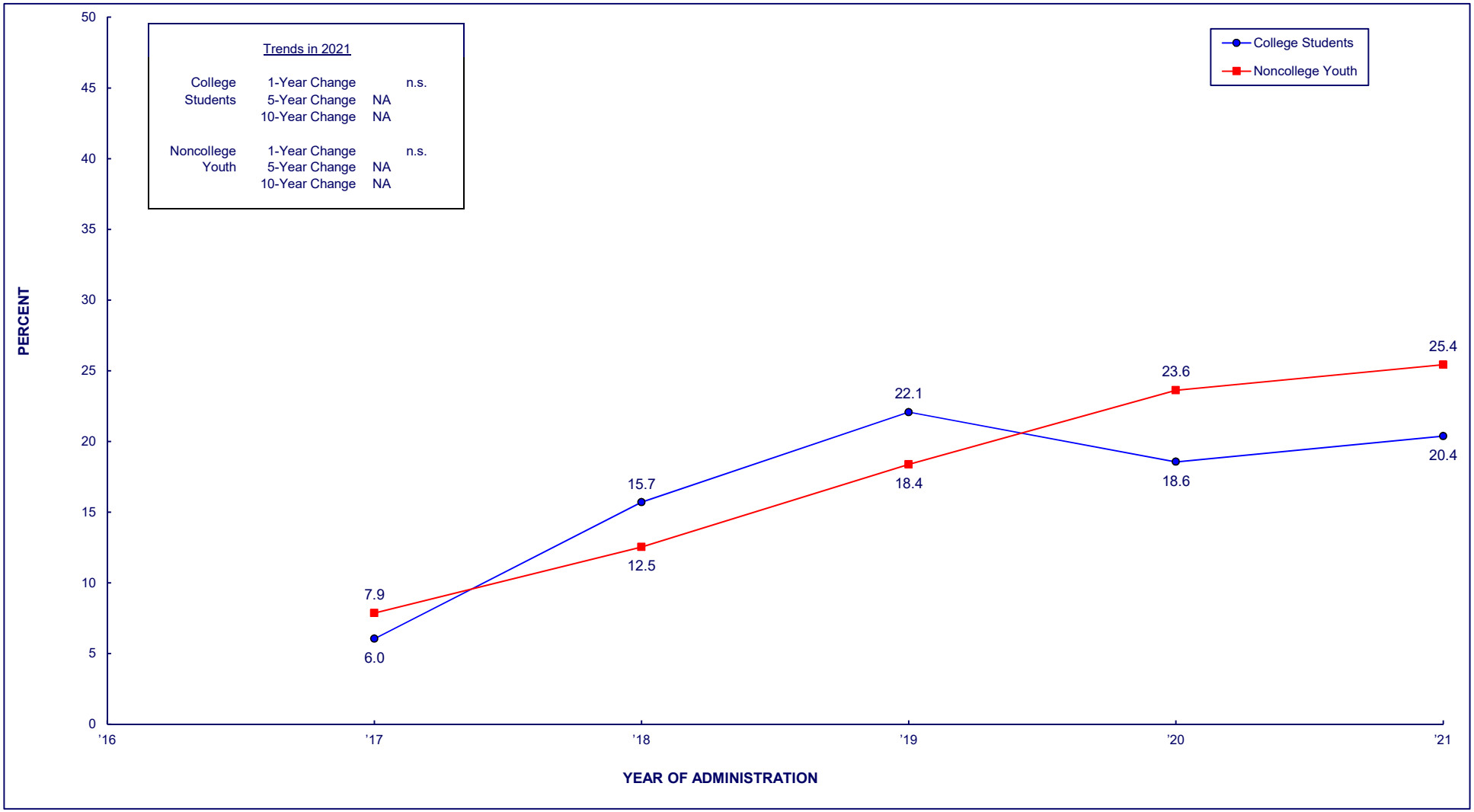


FIGURE 59

VAPING NICOTINE

Trends in 30-Day Prevalence

among College Students 1 to 4 Years beyond High School, by Sex

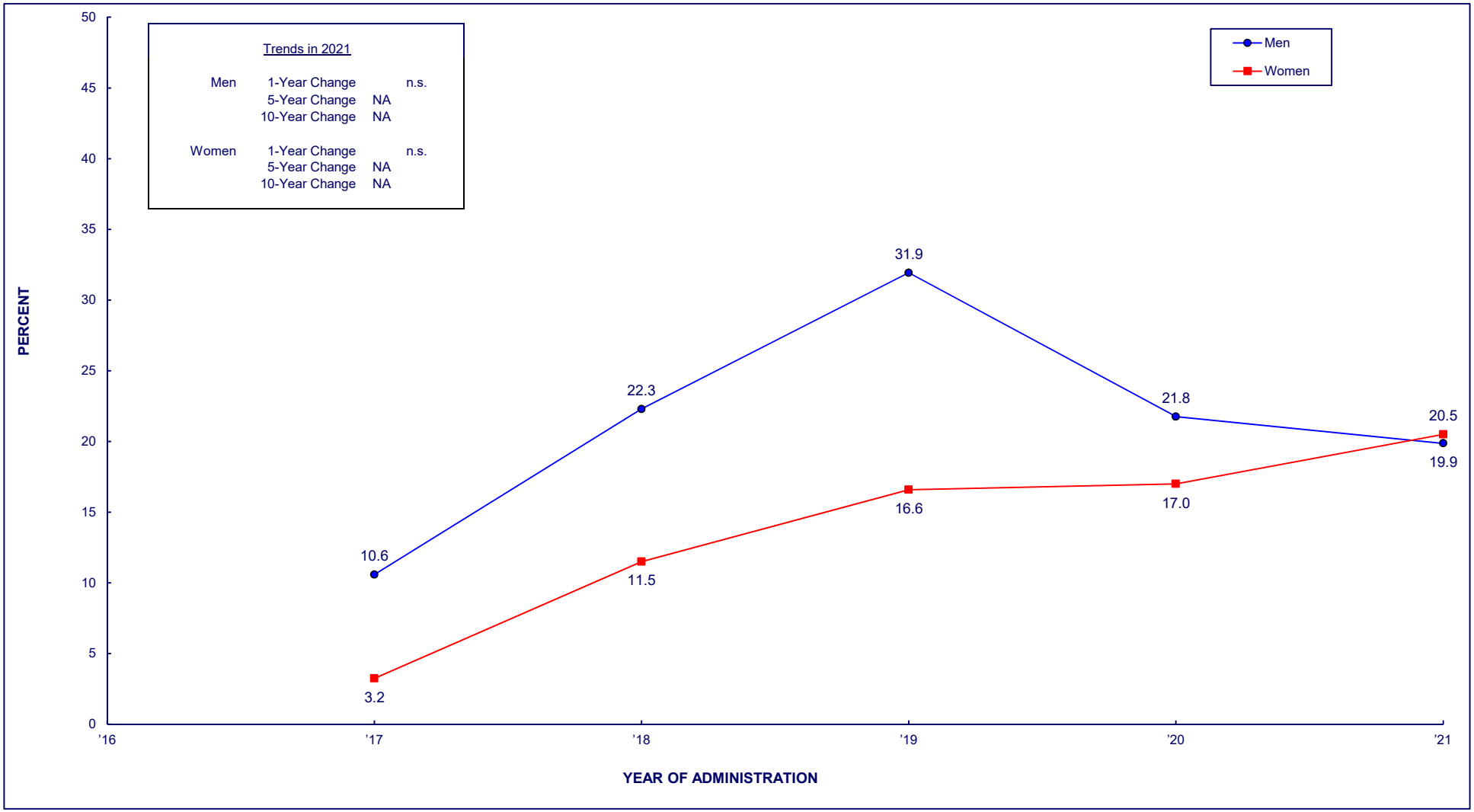


FIGURE 60

ANY DRUG OTHER THAN MARIJUANA

Trends in 30-Day Prevalence among College Students vs. Noncollege Youth 1 to 4 Years beyond High School

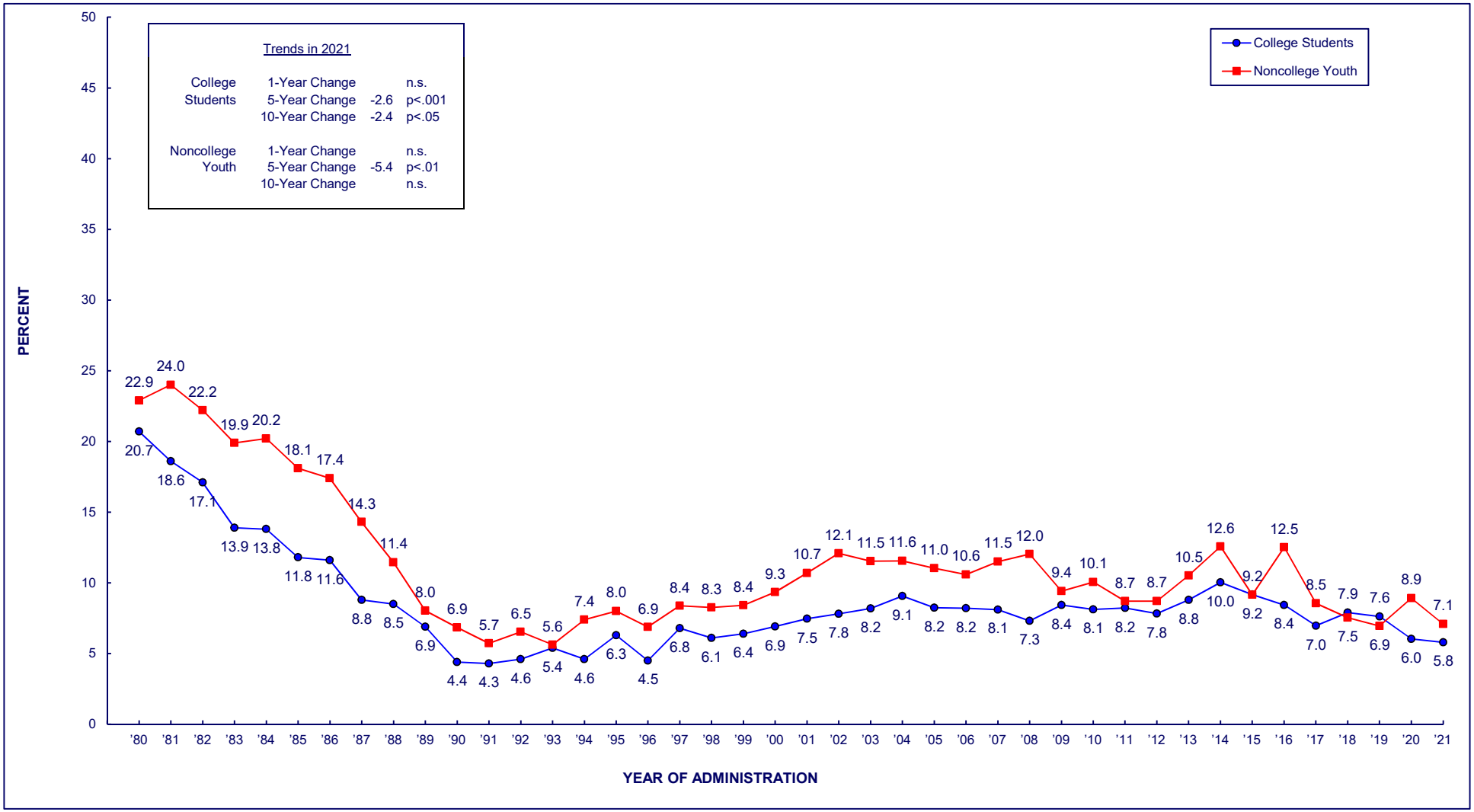


FIGURE 61

ANY DRUG OTHER THAN MARIJUANA

Trends in 30-Day Prevalence

among College Students 1 to 4 Years beyond High School, by Sex

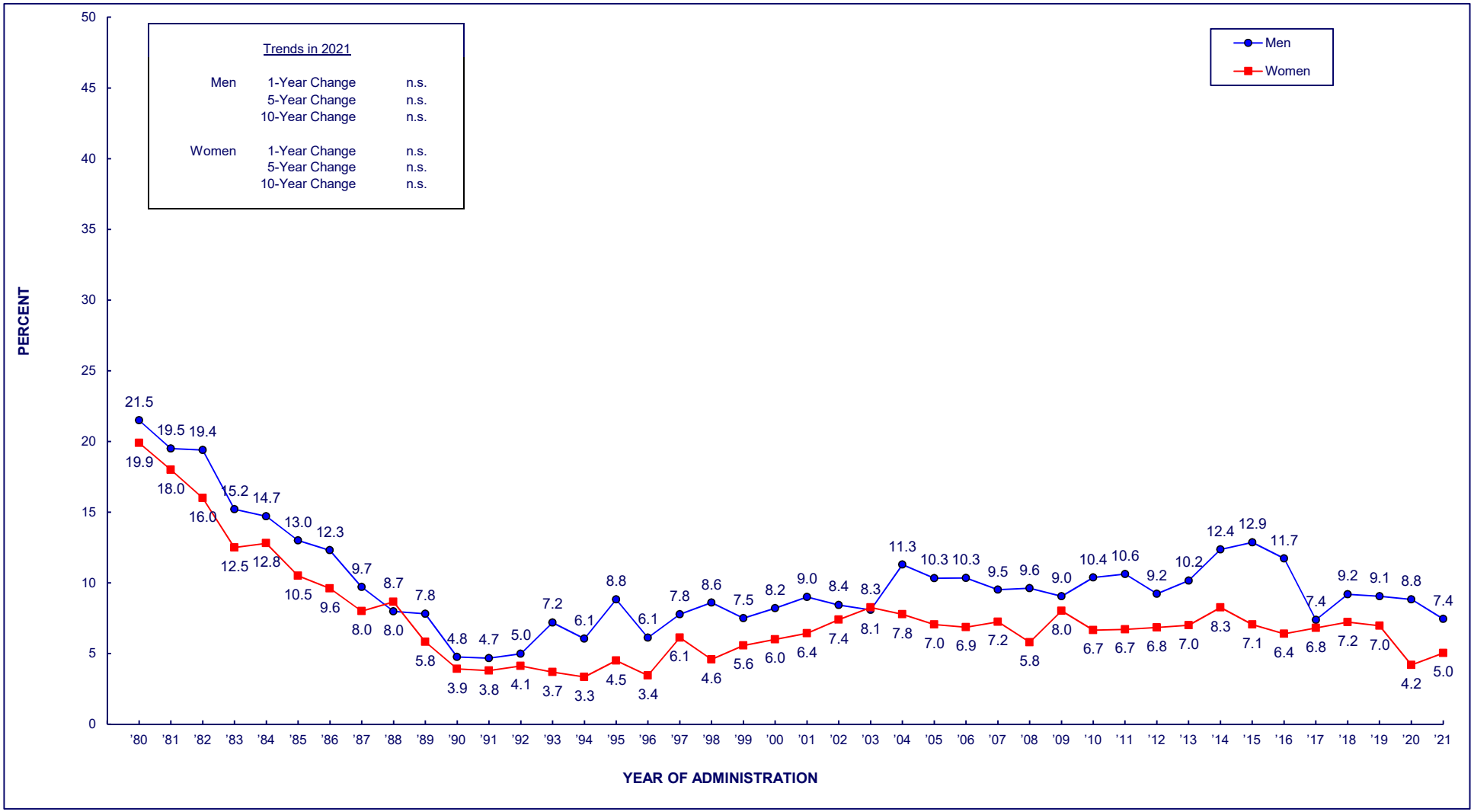
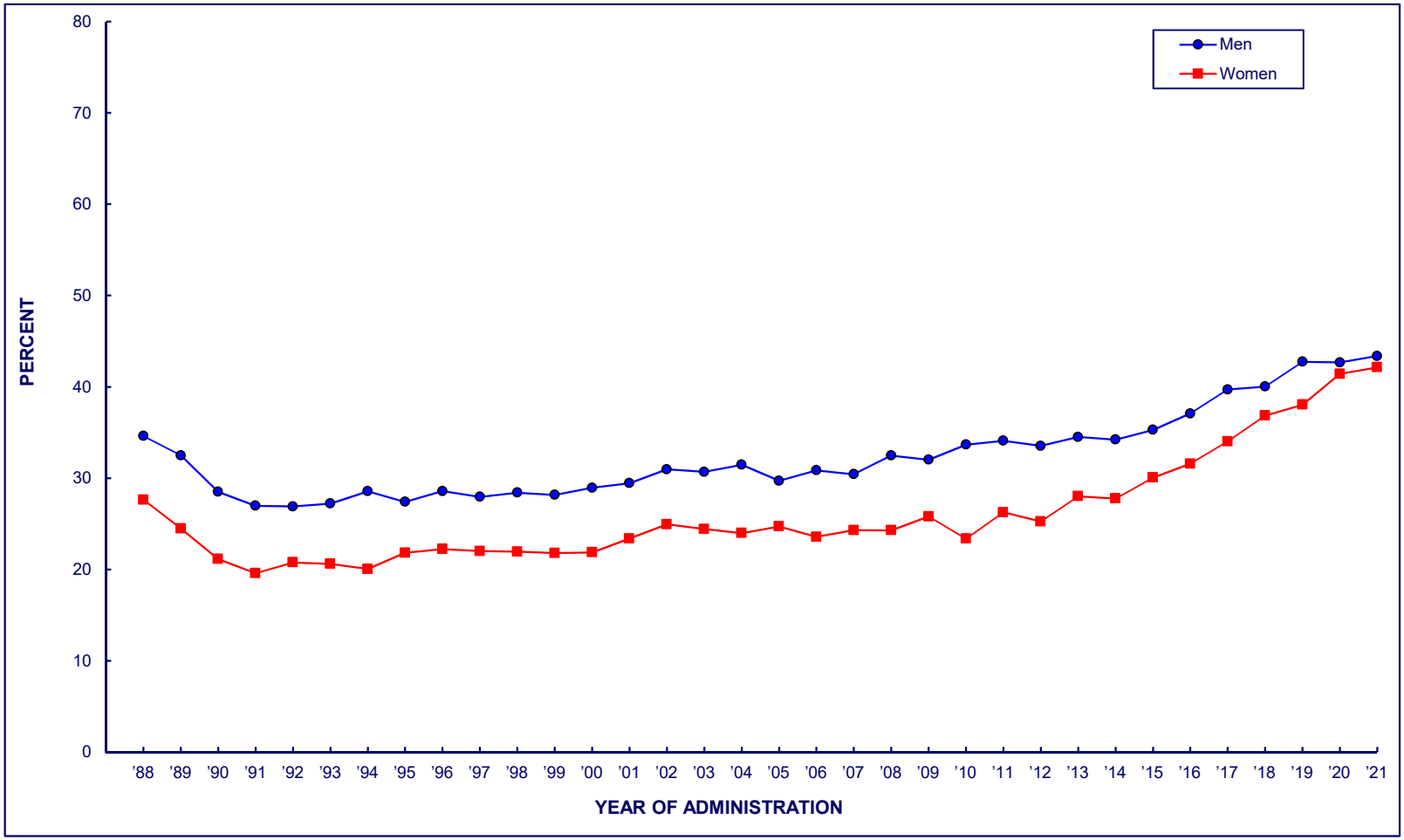
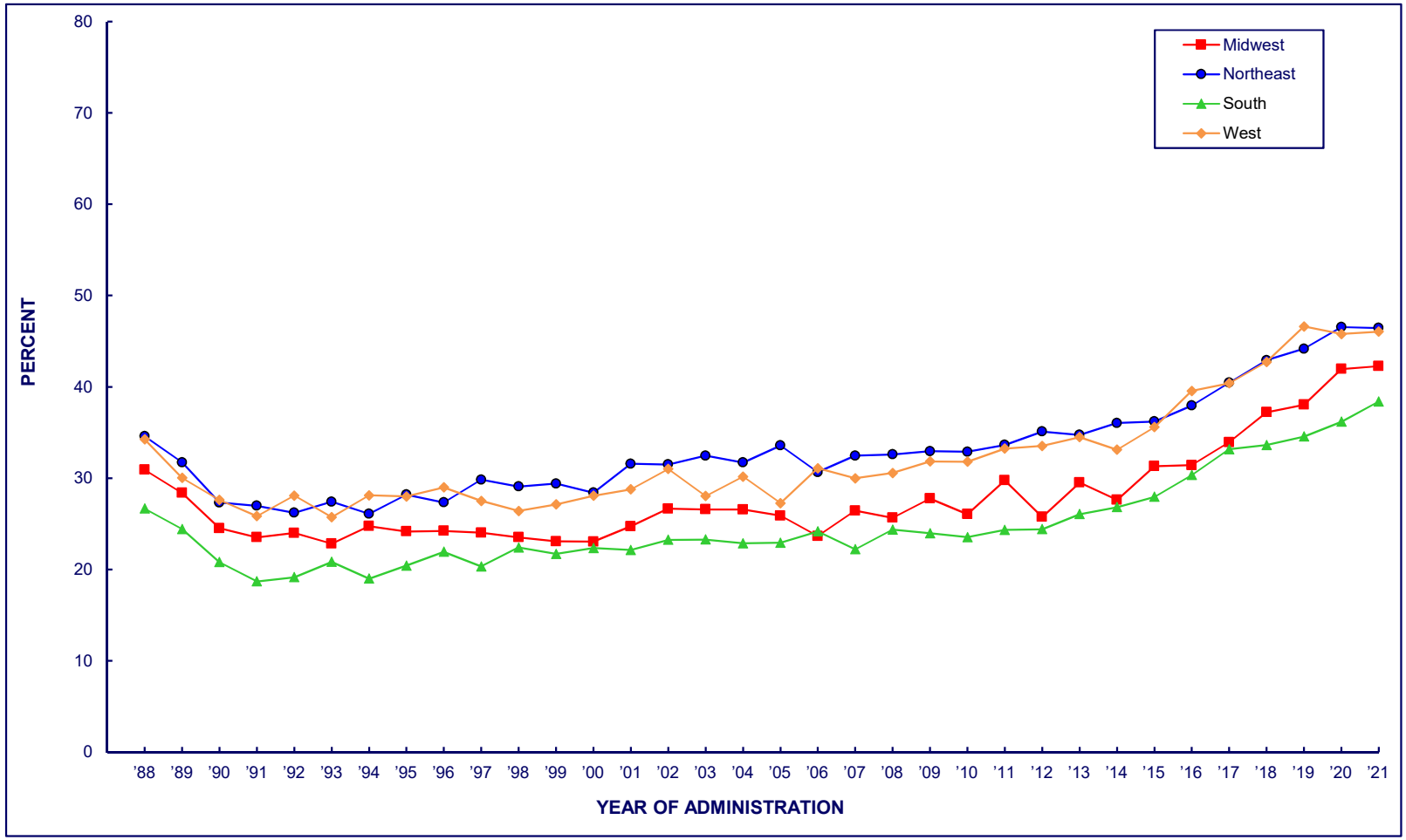


FIGURE 62
MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30, by Sex



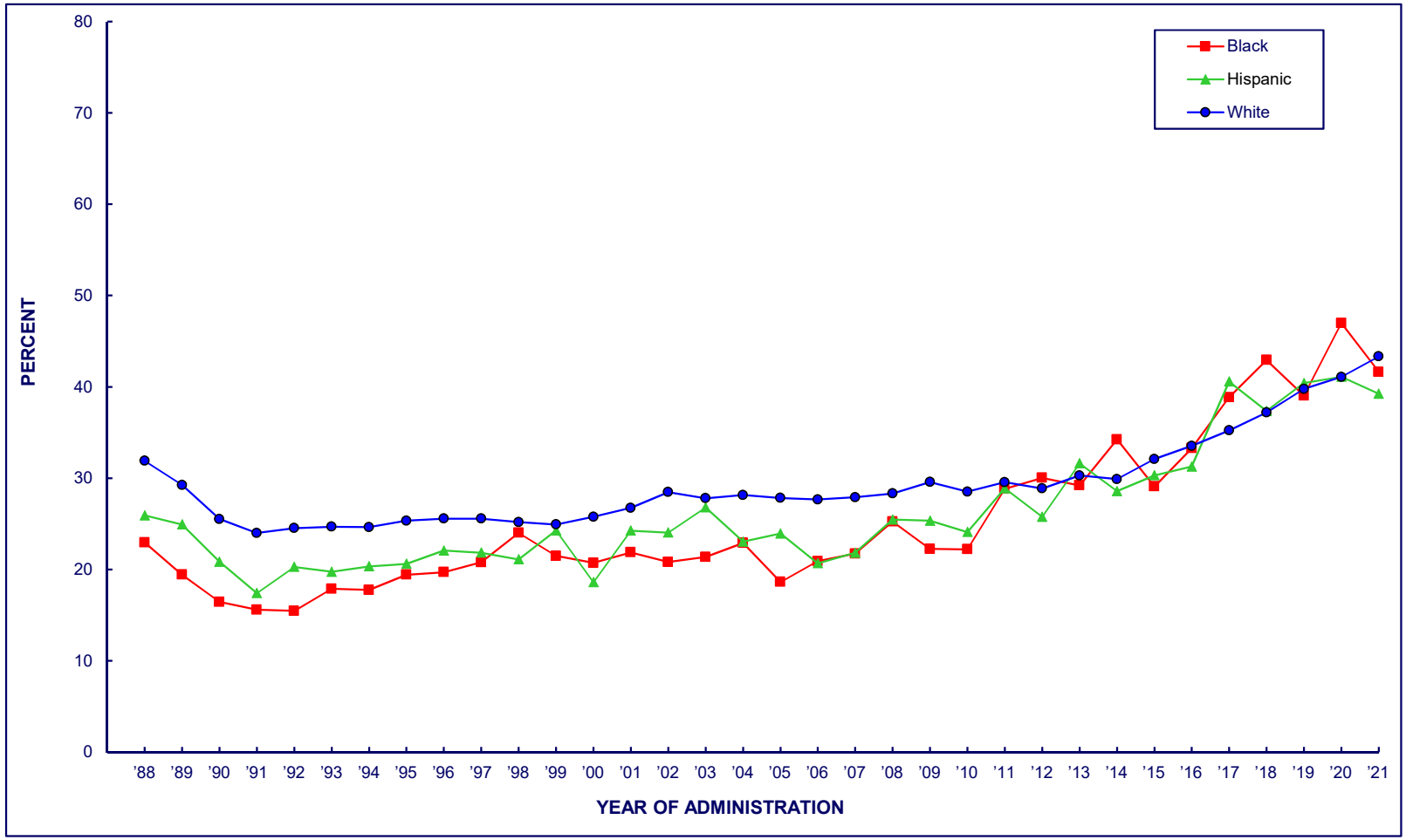
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	34.6	32.5	28.5	27.0	26.9	27.2	28.6	27.4	28.6	27.9	28.4	28.2	28.9	29.5	31.0	30.7	31.5	29.7	30.9	30.4	32.5	32.0	33.7	34.1	33.5	34.5	34.2	35.3	37.1	39.7	40.0	42.7	42.7	43.4	n.s.
Women	27.6	24.5	21.1	19.6	20.8	20.6	20.0	21.8	22.2	22.0	21.9	21.8	21.9	23.4	24.9	24.4	24.0	24.7	23.6	24.3	24.3	25.8	23.4	26.3	25.2	28.0	27.8	30.1	31.6	34.0	36.8	38.0	41.4	42.1	n.s.

FIGURE 63
MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region



	1988	1989	1990	1991	1992	1993	1994	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	2020	2021	1-Year Change
Northeast	34.6	31.7	27.3	27.0	26.2	27.4	26.1	28.2	27.3	29.8	29.1	29.4	28.4	31.6	31.5	32.5	31.7	33.6	30.7	32.5	32.6	32.9	32.9	33.6	35.1	34.7	36.0	36.2	37.9	40.4	42.9	44.2	46.5	46.4	n.s.
Midwest	30.9	28.4	24.5	23.5	24.0	22.8	24.7	24.2	24.2	24.0	23.5	23.1	23.0	24.7	26.6	26.6	26.6	25.9	23.7	26.4	25.7	27.8	26.1	29.8	25.7	29.5	27.6	31.3	31.4	33.9	37.2	38.0	41.9	42.3	n.s.
South	26.7	24.4	20.8	18.7	19.1	20.8	19.0	20.4	21.9	20.3	22.4	21.7	22.3	22.1	23.2	23.3	22.9	22.9	24.2	22.2	24.4	24.0	23.5	24.3	24.4	26.1	26.8	28.0	30.3	33.2	33.6	34.6	36.2	38.4	n.s.
West	34.2	30.0	27.6	25.8	28.1	25.7	28.1	28.0	29.0	27.5	26.4	27.1	28.1	28.8	31.0	28.0	30.2	27.3	31.1	30.0	30.6	31.8	31.8	33.2	33.5	34.5	33.1	35.6	39.5	40.4	42.7	46.6	45.8	46.1	n.s.

FIGURE 64
MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



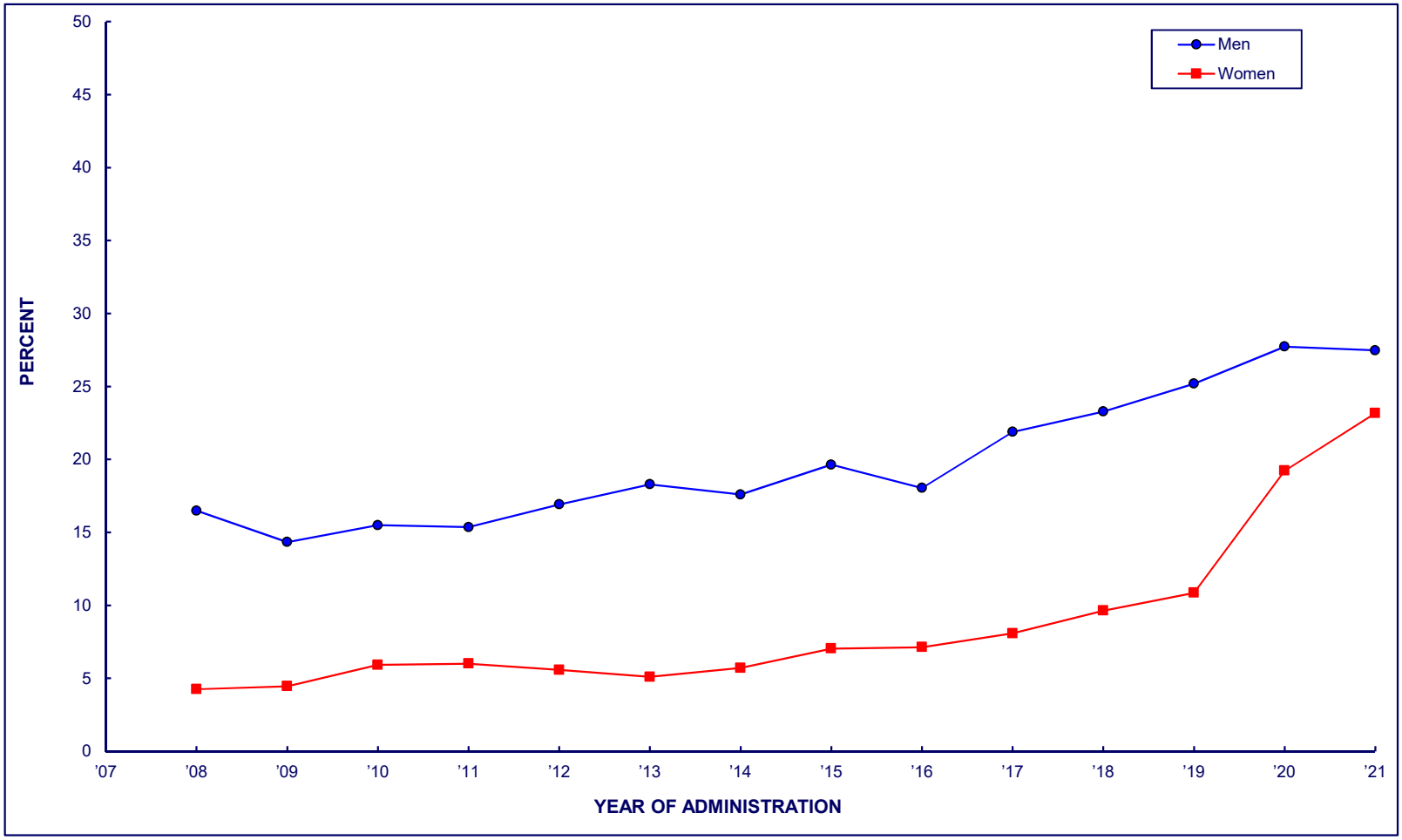
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	31.9	29.2	25.5	24.0	24.5	24.7	24.6	25.3	25.6	25.6	25.2	24.9	25.8	26.7	28.5	27.8	28.1	27.8	27.7	27.9	28.3	29.6	28.5	29.6	28.9	30.3	29.9	32.1	33.5	35.2	37.2	39.8	41.1	43.3	n.s.
Black	22.9	19.4	16.4	15.6	15.5	17.9	17.8	19.4	19.7	20.8	24.0	21.5	20.7	21.9	20.8	21.4	22.9	18.6	20.9	21.7	25.2	22.3	22.2	28.8	30.0	29.2	34.2	29.1	33.3	38.8	42.9	39.0	47.0	41.6	n.s.
Hispanic	25.9	24.9	20.8	17.4	20.3	19.7	20.3	20.6	22.1	21.8	21.1	24.3	18.6	24.2	24.0	26.8	23.0	23.9	20.7	21.8	25.5	25.3	24.1	28.9	25.8	31.6	28.6	30.3	31.3	40.6	37.4	40.4	41.1	39.2	n.s.

FIGURE 65

MARIJUANA

Trends in 12-Month Prevalence

among Respondents of Modal Ages 35 through 50, by Sex



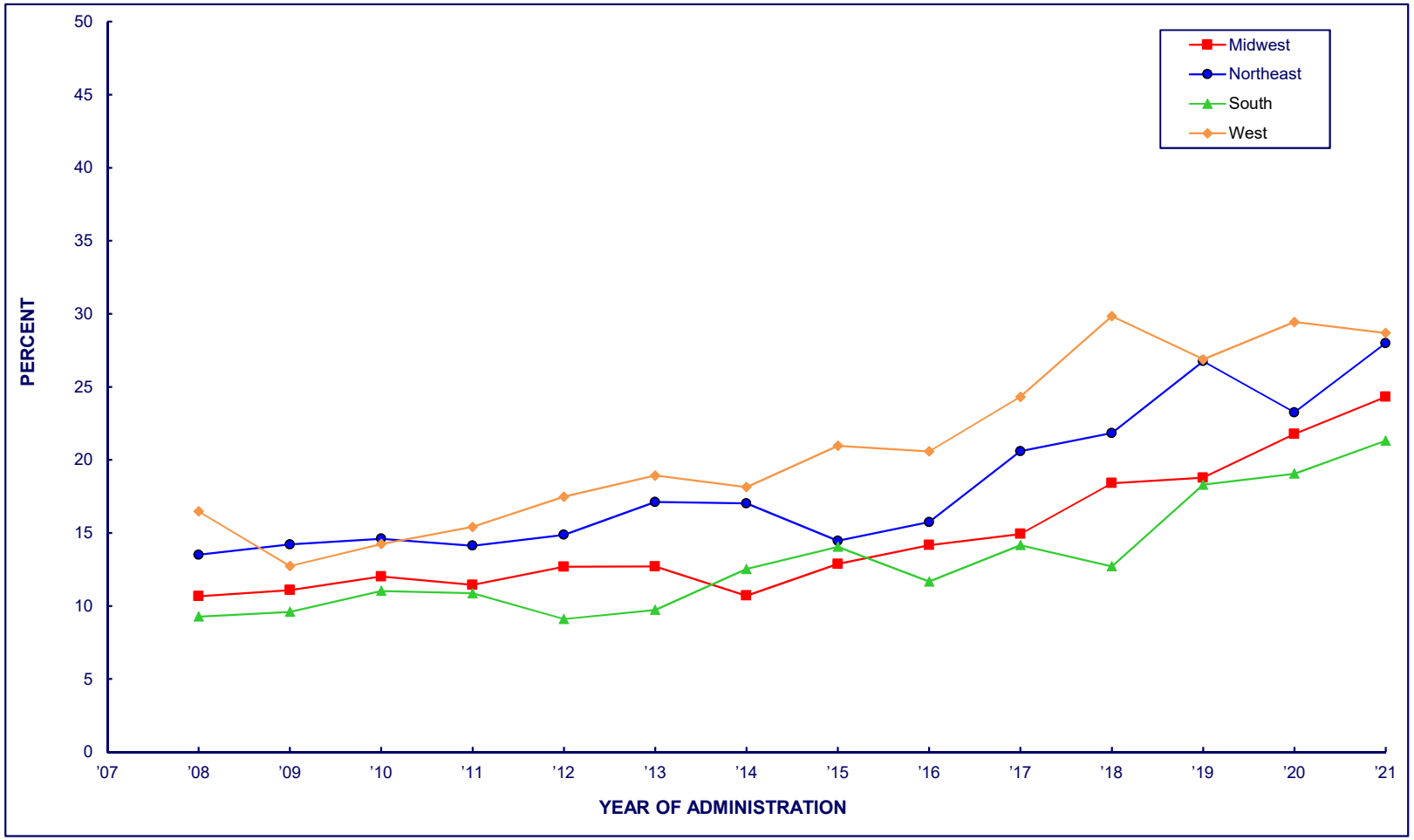
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	16.5	14.3	15.5	15.4	16.9	18.3	17.6	19.6	18.0	21.9	23.3	25.2	27.7	27.5	n.s.
Women	4.3	4.5	5.9	6.0	5.6	5.1	5.7	7.0	7.1	8.1	9.6	10.9	19.2	23.2	+4.0 p<.01

FIGURE 66

MARIJUANA

Trends in 12-Month Prevalence

among Respondents of Modal Ages 35 through 50, by Geographic Region



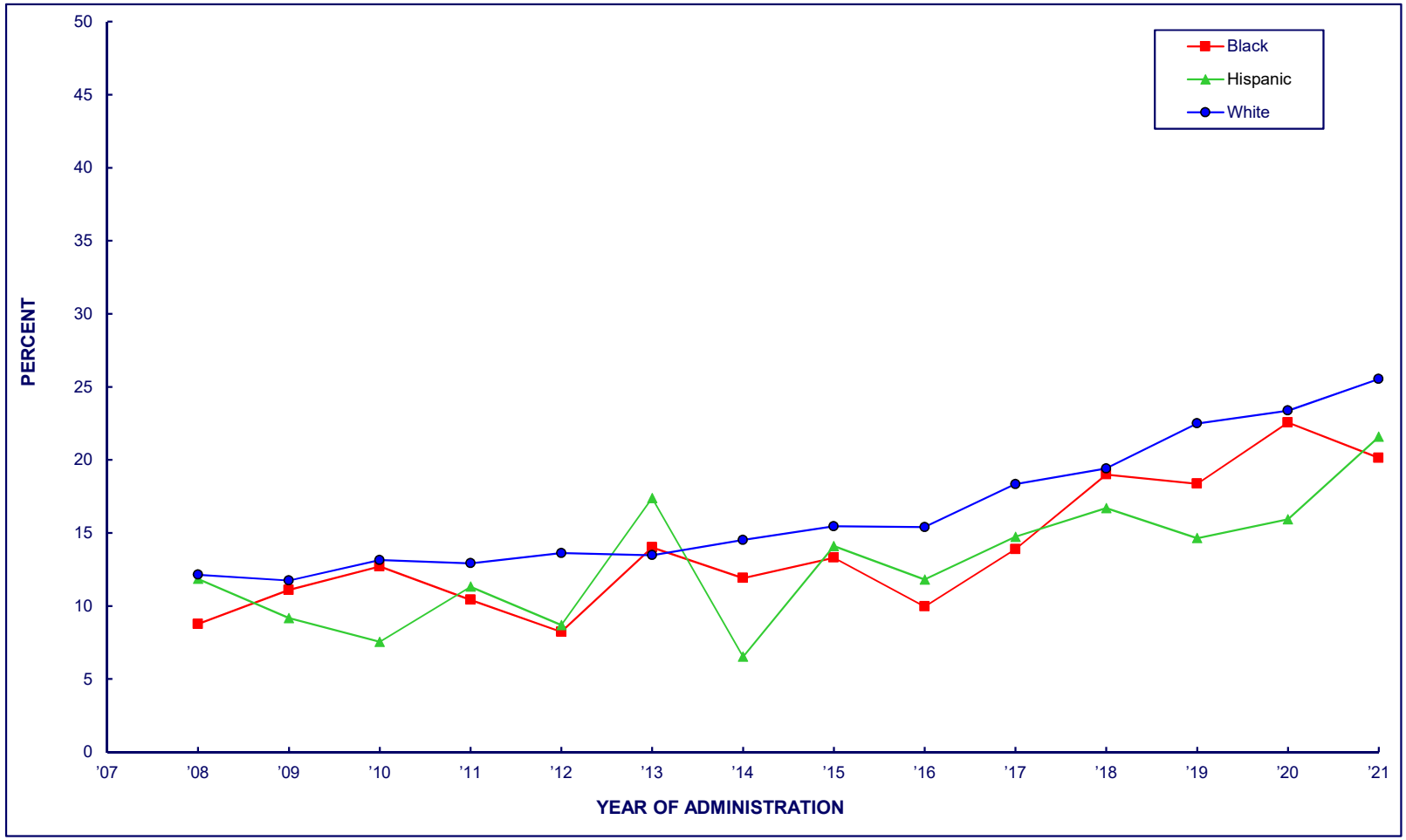
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	13.5	14.2	14.6	14.1	14.9	17.1	17.0	14.5	15.7	20.6	21.8	26.8	23.2	28.0	n.s.
Midwest	10.7	11.1	12.0	11.4	12.7	12.7	10.7	12.9	14.2	14.9	18.4	18.8	21.8	24.3	n.s.
South	9.3	9.6	11.0	10.9	9.1	9.7	12.5	14.1	11.7	14.2	12.7	18.3	19.1	21.3	n.s.
West	16.5	12.7	14.2	15.4	17.5	18.9	18.1	21.0	20.6	24.3	29.8	26.9	29.4	28.7	n.s.

FIGURE 67

MARIJUANA

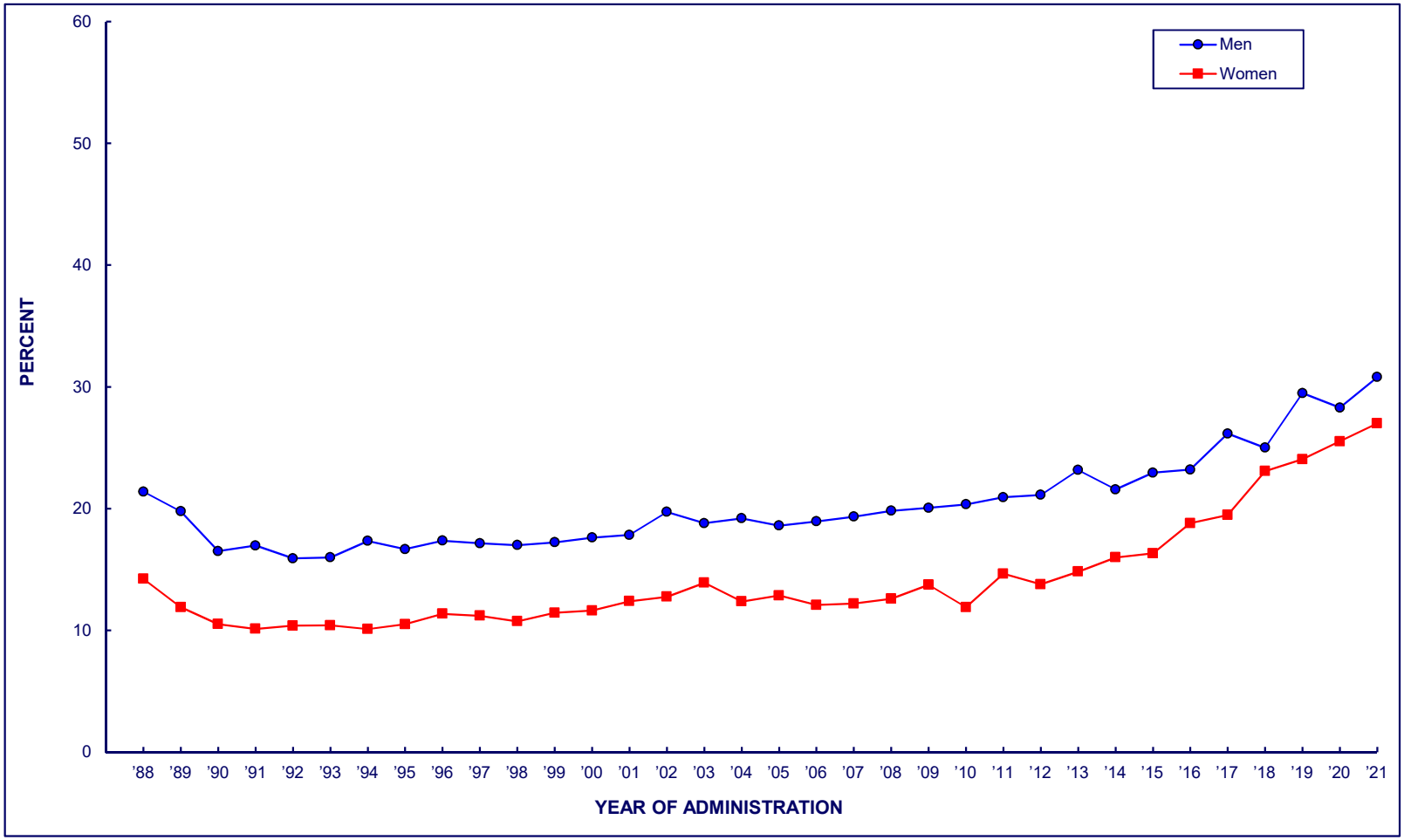
Trends in 12-Month Prevalence

among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



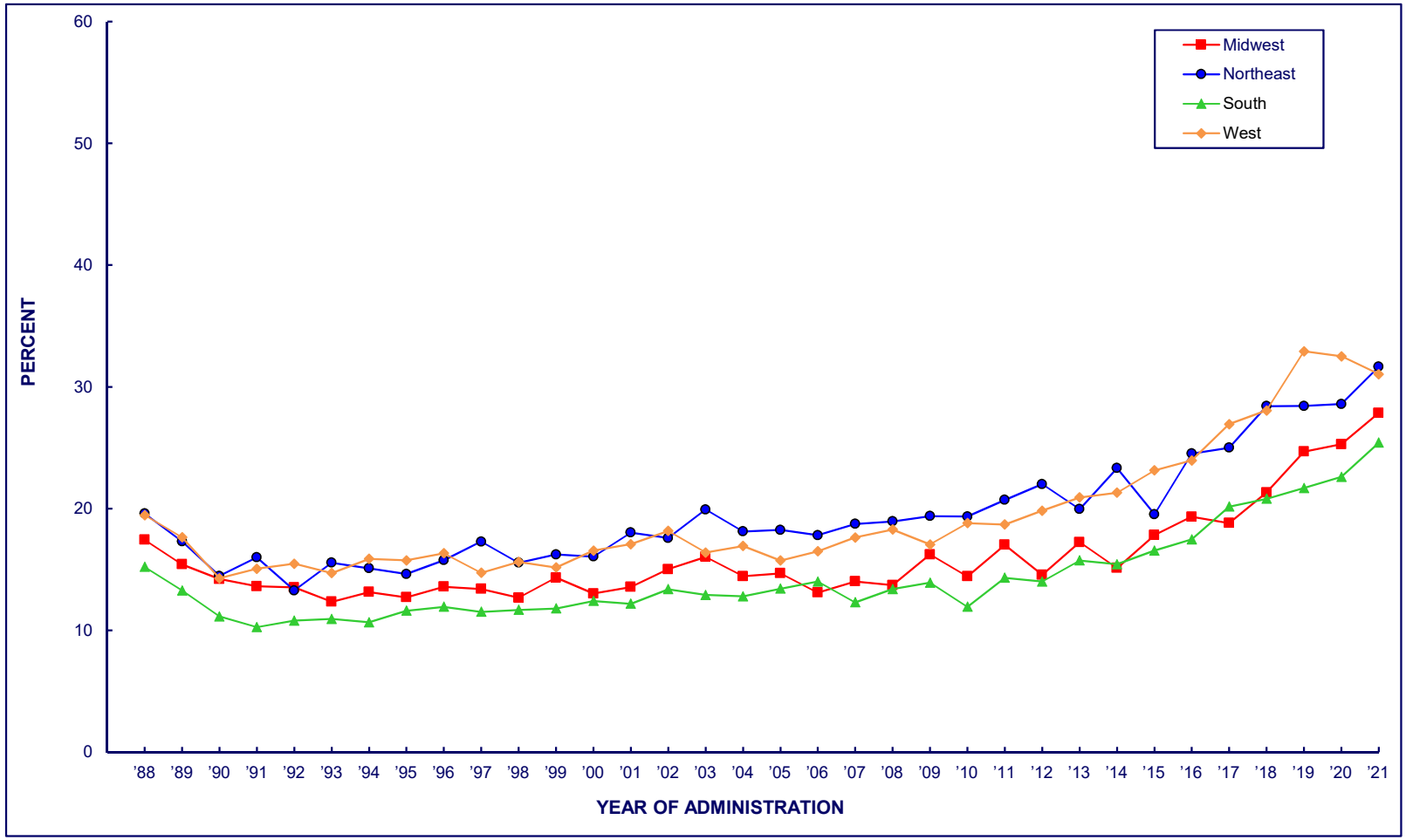
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	12.1	11.7	13.1	12.9	13.6	13.5	14.5	15.5	15.4	18.3	19.4	22.5	23.4	25.5	n.s.
Black	8.8	11.1	12.7	10.4	8.2	14.0	11.9	13.3	10.0	13.9	19.0	18.4	22.6	20.1	n.s.
Hispanic	11.8	9.2	7.5	11.3	8.7	17.4	6.5	14.1	11.8	14.7	16.7	14.6	15.9	21.6	n.s.

FIGURE 68
MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Sex



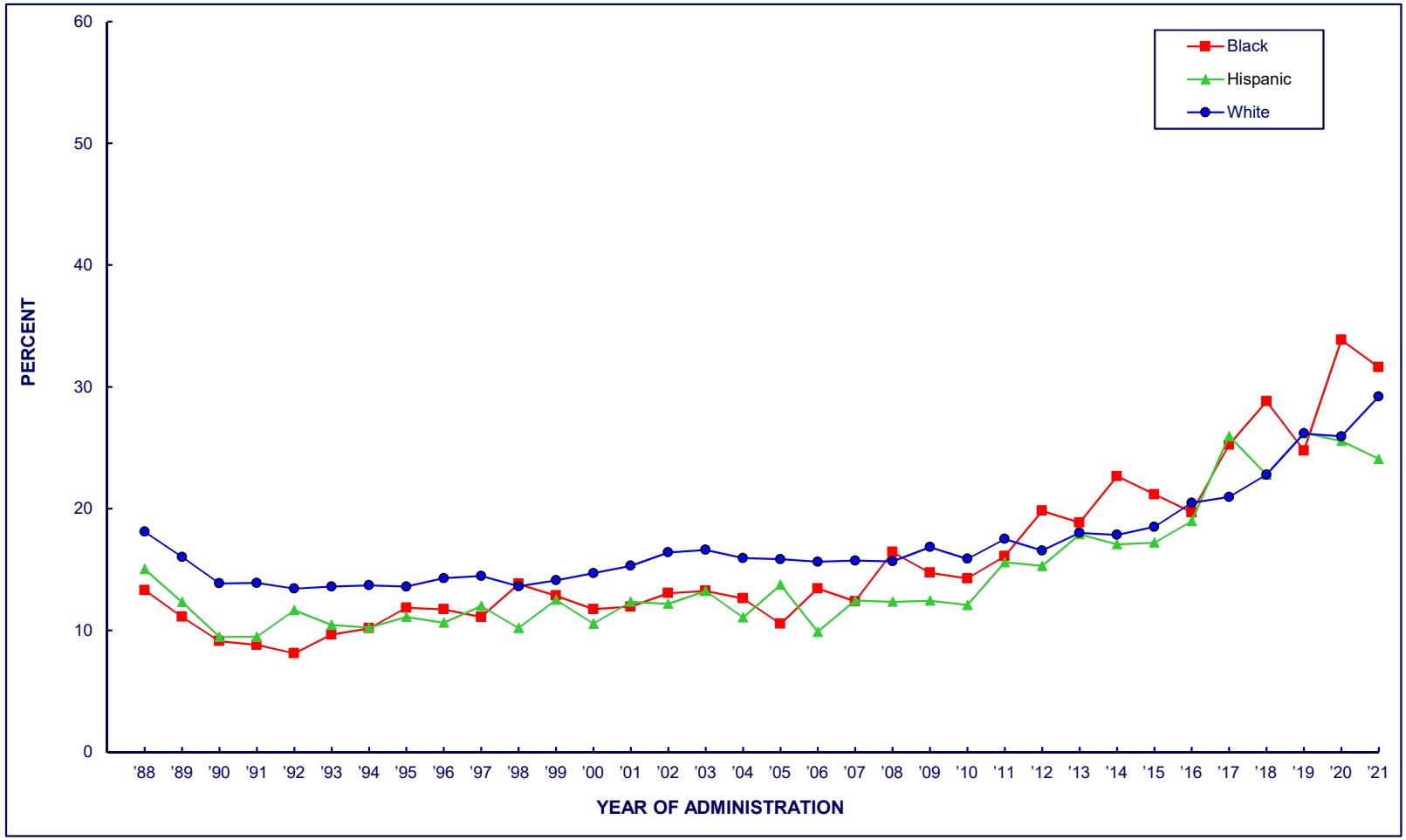
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	21.4	19.8	16.5	17.0	15.9	16.0	17.3	16.7	17.4	17.1	17.0	17.2	17.6	17.8	19.7	18.8	19.2	18.6	18.9	19.3	19.8	20.1	20.3	20.9	21.1	23.2	21.6	23.0	23.2	26.2	25.0	29.5	28.3	30.8	n.s.
Women	14.2	11.9	10.5	10.1	10.4	10.4	10.1	10.5	11.4	11.2	10.7	11.4	11.6	12.4	12.7	13.9	12.4	12.9	12.1	12.2	12.6	13.7	11.9	14.7	13.8	14.8	16.0	16.3	18.8	19.5	23.1	24.1	25.5	27.0	n.s.

FIGURE 69
MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region



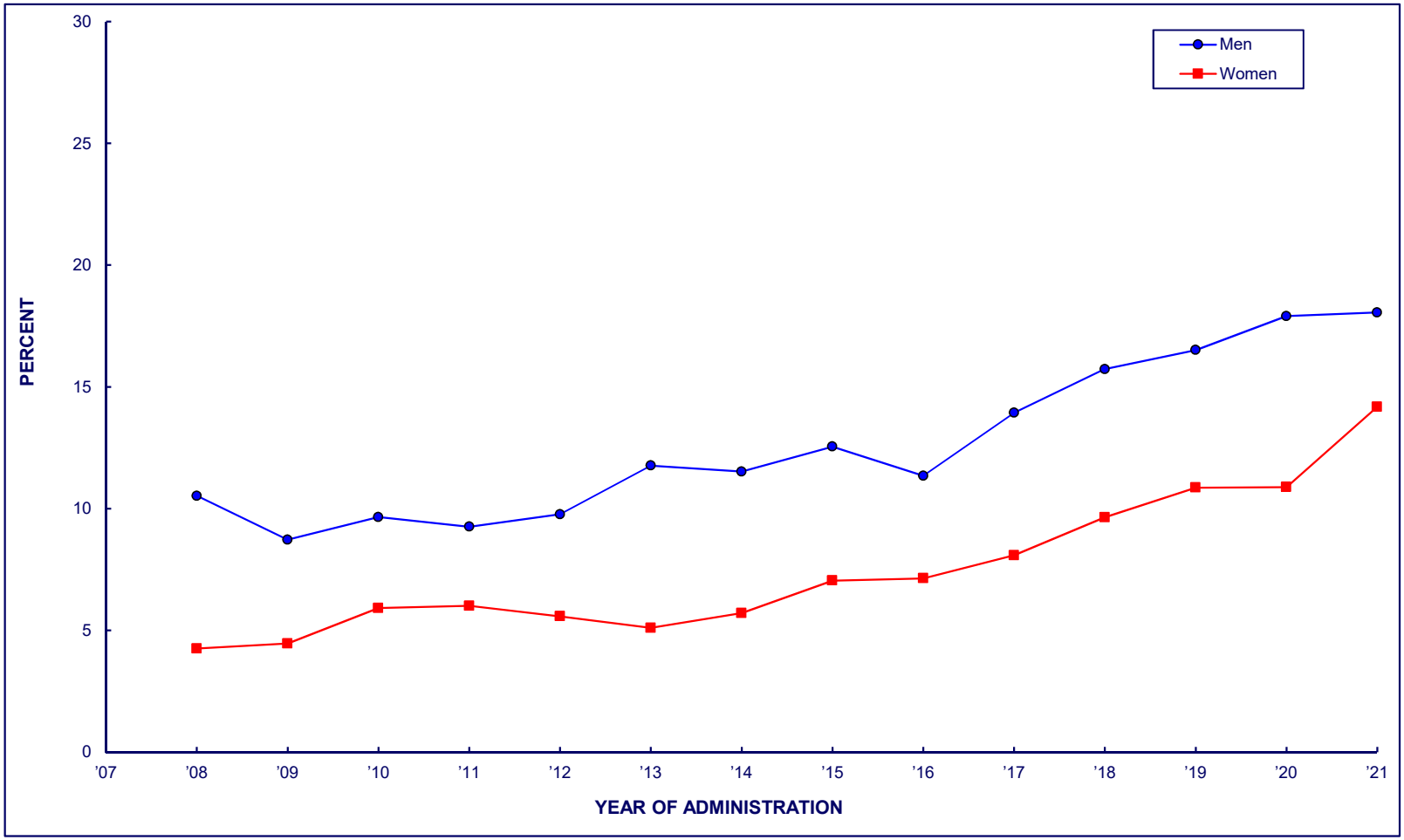
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	19.6	17.3	14.5	16.0	13.3	15.6	15.1	14.6	15.8	17.3	15.6	16.2	16.1	18.0	17.6	19.9	18.1	18.2	17.8	18.7	18.9	19.4	19.3	20.7	22.0	20.0	23.3	19.5	24.5	25.0	28.4	28.4	28.6	31.7	n.s.
Midwest	17.4	15.4	14.2	13.6	13.5	12.3	13.2	12.7	13.6	13.4	12.7	14.3	13.0	13.6	15.0	16.0	14.4	14.7	13.1	14.0	13.7	16.2	14.4	17.0	14.6	17.2	15.1	17.8	19.3	18.8	21.3	24.7	25.3	27.8	n.s.
South	15.2	13.3	11.1	10.3	10.8	10.9	10.7	11.6	11.9	11.5	11.7	11.8	12.4	12.2	13.4	12.9	12.8	13.4	14.0	12.3	13.4	13.9	11.9	14.3	14.0	15.7	15.4	16.5	17.5	20.2	20.8	21.7	22.6	25.4	n.s.
West	19.5	17.6	14.3	15.1	15.5	14.7	15.9	15.7	16.3	14.7	15.6	15.2	16.5	17.1	18.2	16.4	16.9	15.7	16.5	17.6	18.3	17.1	18.8	18.7	19.8	20.9	21.3	23.1	24.0	26.9	28.1	32.9	32.5	31.0	n.s.

FIGURE 70
MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



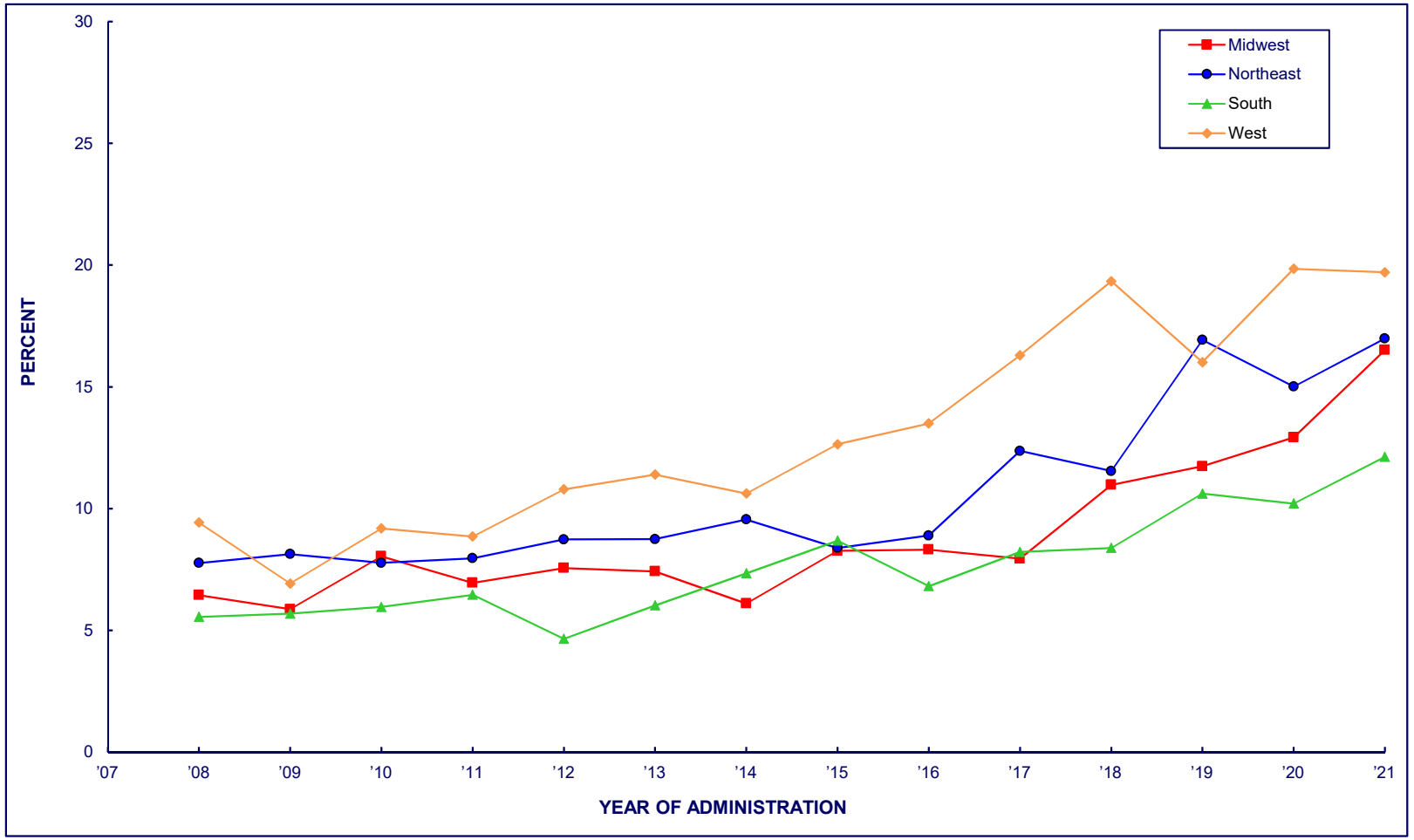
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change	
White	18.1	16.0	13.9	13.9	13.4	13.6	13.7	13.6	14.3	14.5	13.6	14.1	14.7	15.3	16.4	16.6	15.9	15.8	15.6	15.7	15.7	16.8	15.9	17.5	16.5	18.0	17.9	18.5	20.5	20.9	22.8	26.2	25.9	29.2	+2.3	p<.05
Black	13.3	11.1	9.1	8.8	8.1	9.6	10.2	11.9	11.7	11.1	13.8	12.8	11.7	11.9	13.0	13.2	12.6	10.5	13.4	12.4	16.4	14.7	14.3	16.1	19.8	18.8	22.7	21.2	19.7	25.2	28.8	24.8	33.9	31.6		n.s.
Hispanic	15.0	12.3	9.5	9.5	11.7	10.4	10.2	11.1	10.6	12.0	10.2	12.5	10.5	12.3	12.2	13.2	11.1	13.7	9.9	12.4	12.3	12.4	12.1	15.6	15.3	17.9	17.1	17.2	19.0	25.9	22.8	26.2	25.6	24.1		n.s.

FIGURE 71
MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Sex



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	10.5	8.7	9.7	9.3	9.8	11.8	11.5	12.5	11.3	13.9	15.7	16.5	17.9	18.1	n.s.
Women	4.3	4.5	5.9	6.0	5.6	5.1	5.7	7.0	7.1	8.1	9.6	10.9	10.9	14.2	+3.3 p<.01

FIGURE 72
MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Geographic Region



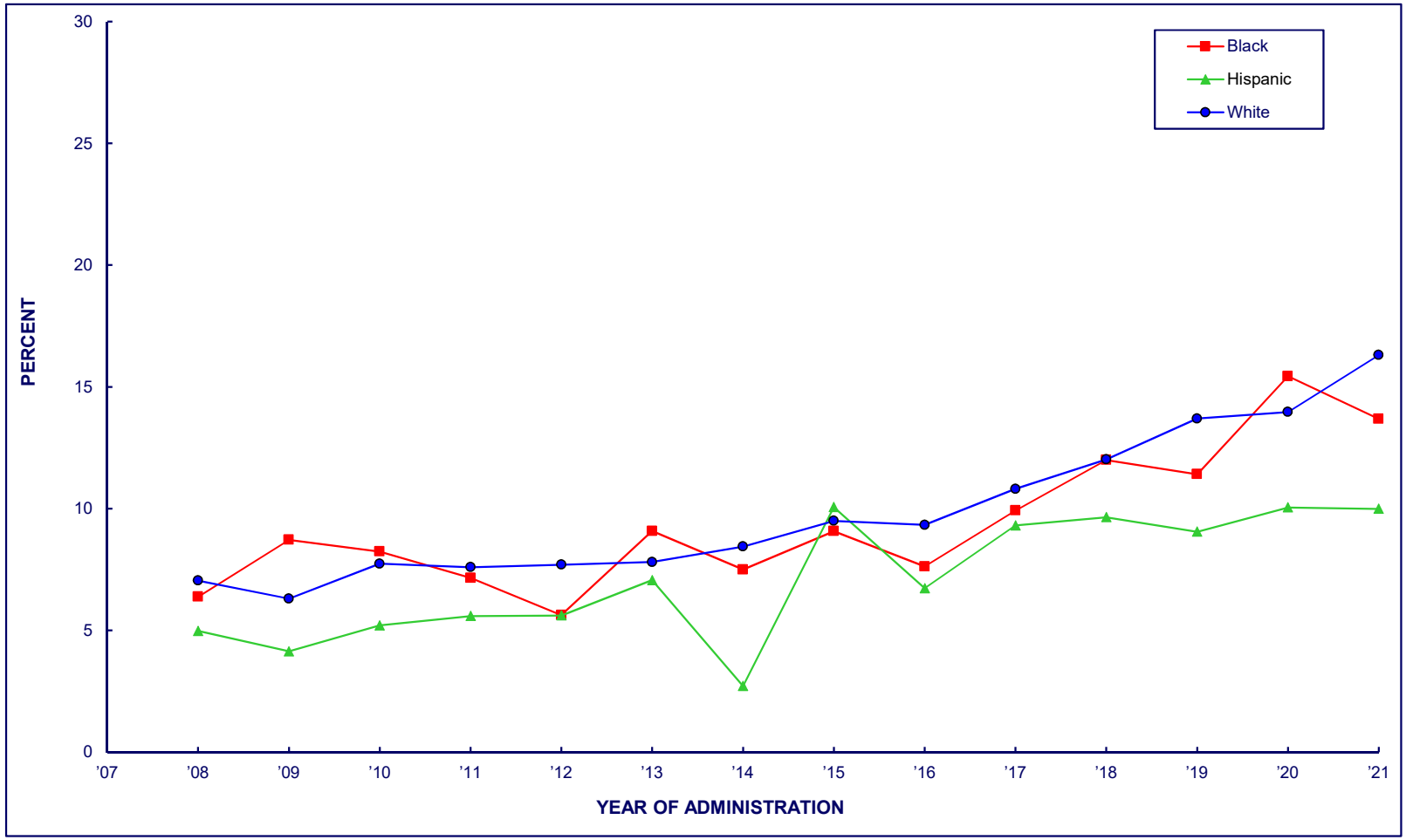
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	7.8	8.1	7.8	8.0	8.7	8.7	9.6	8.4	8.9	12.4	11.5	16.9	15.0	17.0	n.s.
Midwest	6.4	5.9	8.0	7.0	7.6	7.4	6.1	8.3	8.3	7.9	11.0	11.7	12.9	16.5	+3.6 p<.05
South	5.6	5.7	6.0	6.5	4.7	6.0	7.3	8.7	6.8	8.2	8.4	10.6	10.2	12.1	n.s.
West	9.4	6.9	9.2	8.9	10.8	11.4	10.6	12.6	13.5	16.3	19.3	16.0	19.8	19.7	n.s.

FIGURE 73

MARIJUANA

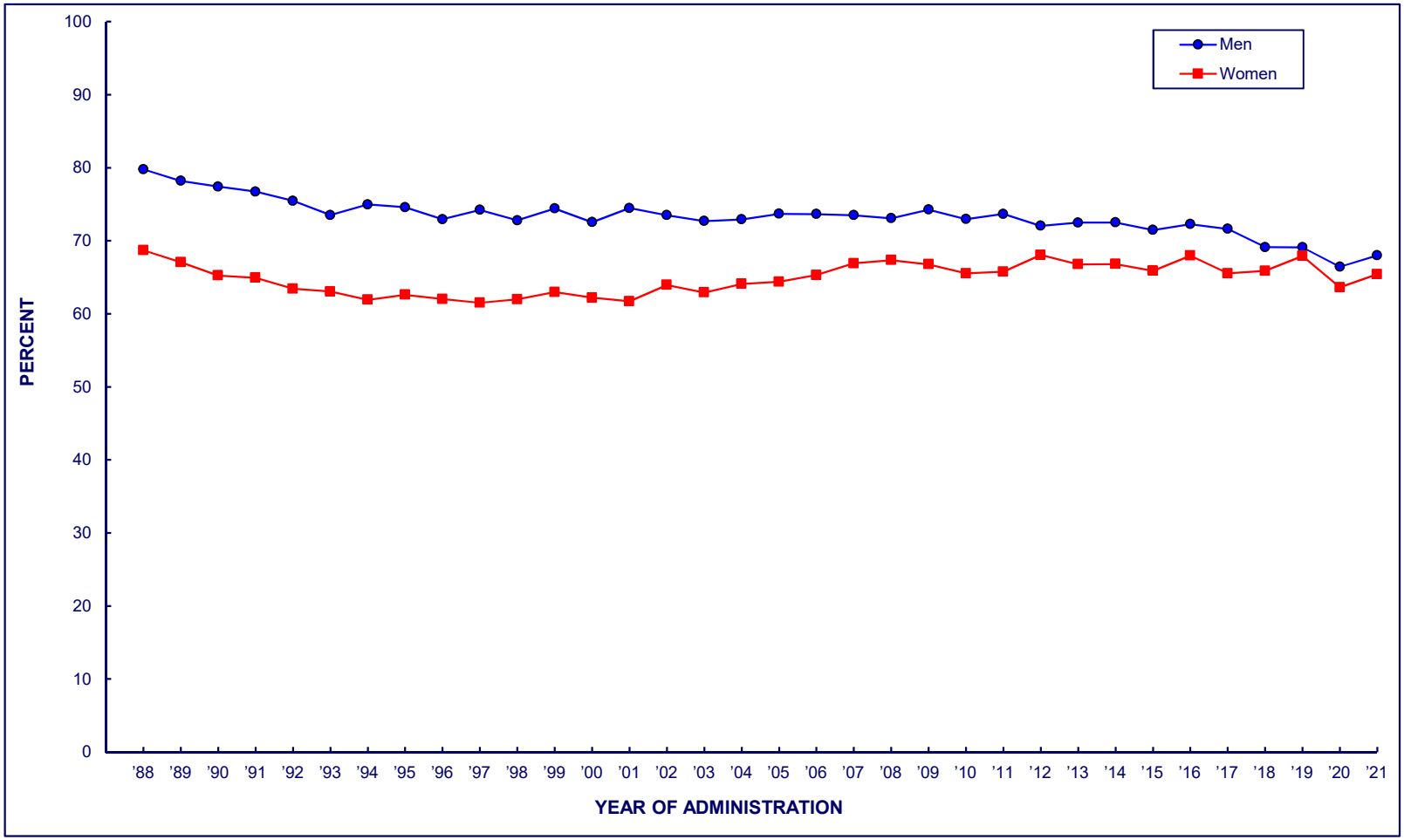
Trends in 30-Day Prevalence

among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



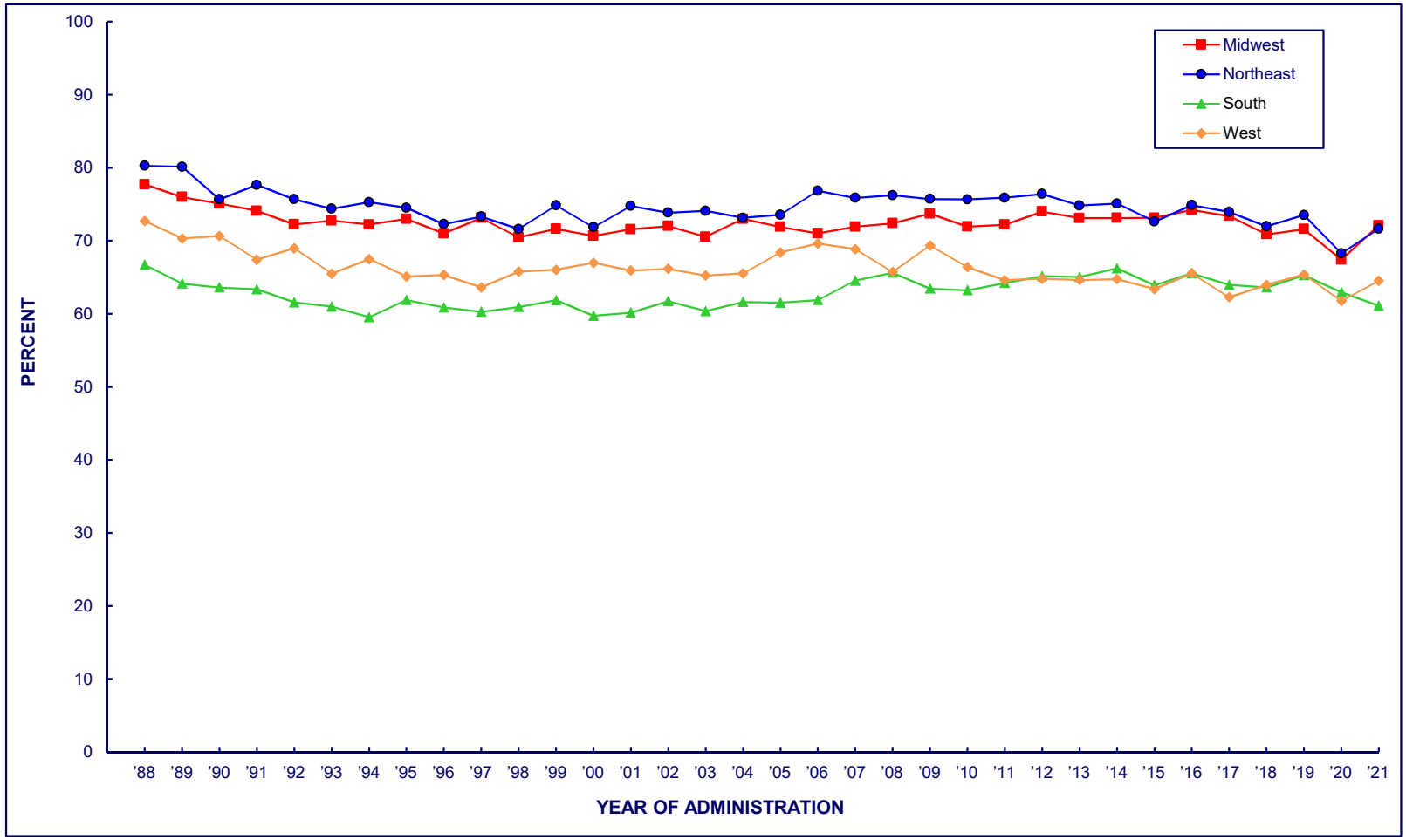
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	7.0	6.3	7.7	7.6	7.7	7.8	8.4	9.5	9.3	10.8	12.0	13.7	14.0	16.3	+2.3 p<.05
Black	6.4	8.7	8.2	7.2	5.6	9.1	7.5	9.1	7.6	9.9	12.0	11.4	15.4	13.7	n.s.
Hispanic	5.0	4.1	5.2	5.6	5.6	7.1	2.7	10.1	6.7	9.3	9.6	9.0	10.0	10.0	n.s.

FIGURE 74
ALCOHOL
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Sex



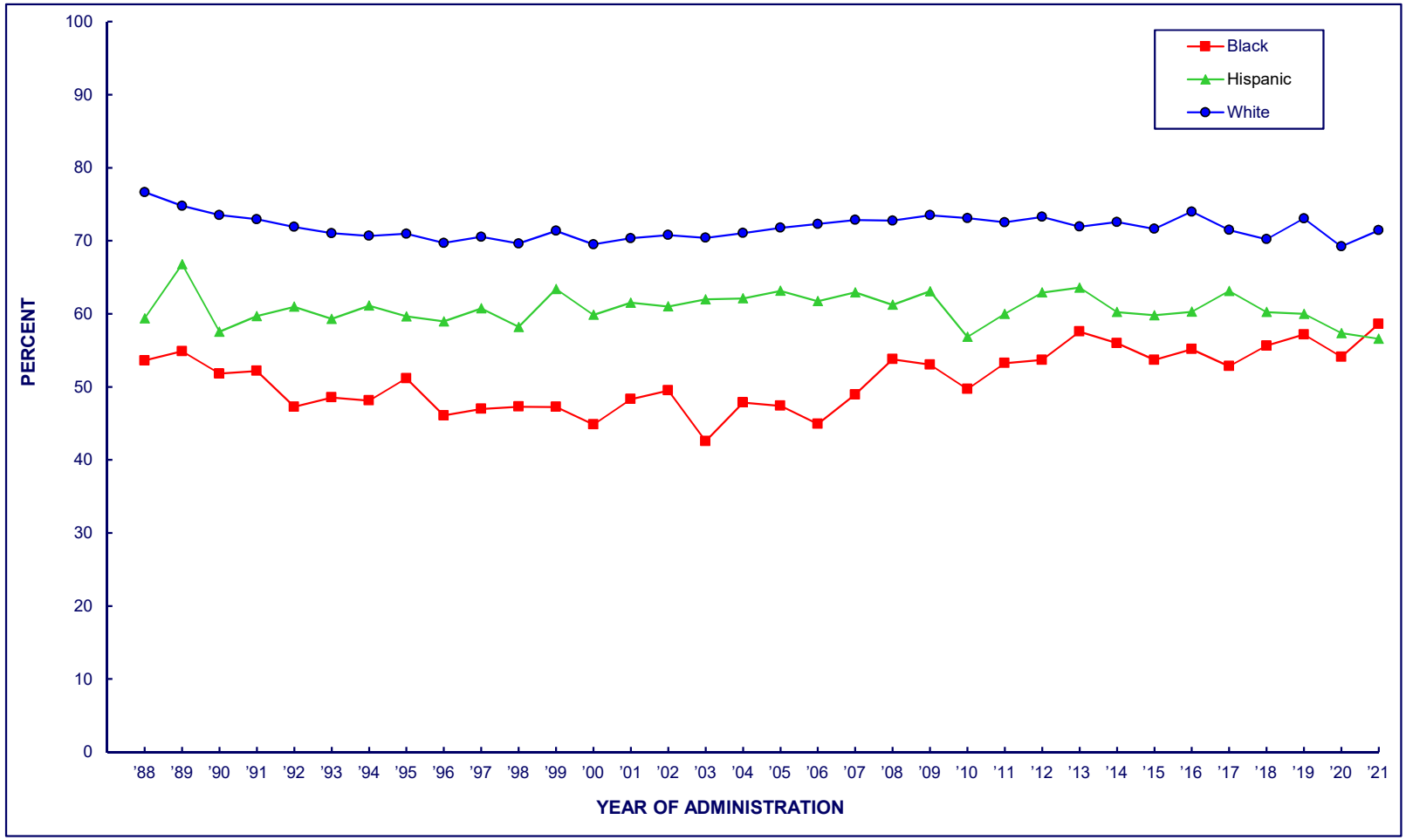
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	79.8	78.2	77.4	76.7	75.5	73.5	75.0	74.6	72.9	74.2	72.8	74.4	72.5	74.5	73.5	72.7	72.9	73.7	73.7	73.5	73.1	74.3	73.0	73.7	72.0	72.5	72.5	71.5	72.3	71.6	69.1	69.1	66.4	68.0	n.s.
Women	68.7	67.1	65.2	64.9	63.4	63.0	61.9	62.6	62.0	61.5	62.0	63.0	62.2	61.7	63.9	62.9	64.1	64.4	65.3	66.9	67.3	66.8	65.5	65.8	68.1	66.8	66.8	65.9	68.0	65.5	65.9	67.9	63.6	65.4	n.s.

FIGURE 75
ALCOHOL
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region



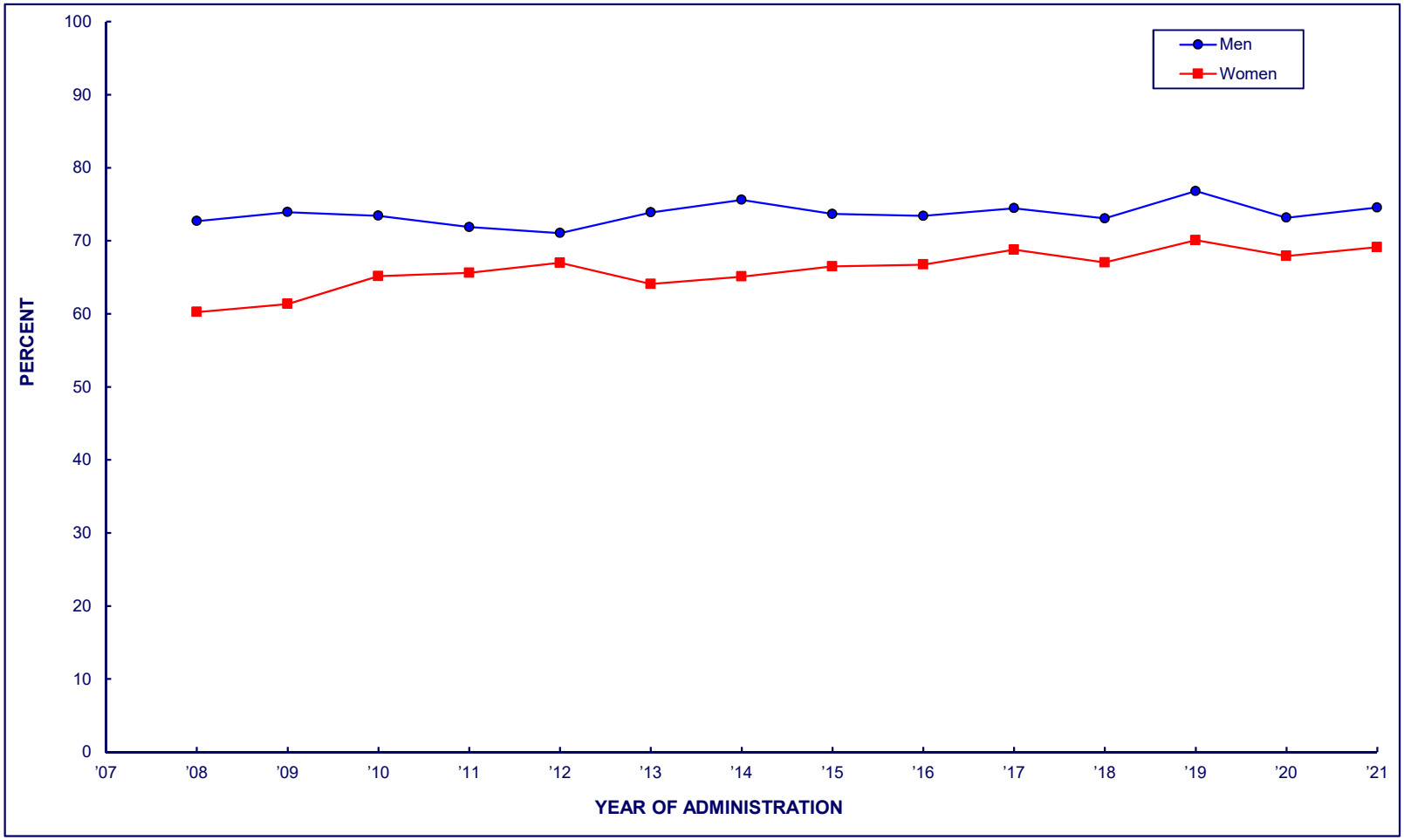
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change	
Northeast	80.3	80.1	75.7	77.6	75.7	74.4	75.3	74.5	72.3	73.3	71.6	74.8	71.9	74.8	73.8	74.1	73.1	73.6	76.8	75.9	76.2	75.7	75.7	75.9	76.4	74.8	75.1	72.6	74.9	73.9	72.0	73.5	68.3	71.6		n.s.
Midwest	77.7	76.0	75.1	74.1	72.2	72.7	72.2	73.0	71.0	73.1	70.5	71.6	70.7	71.6	72.0	70.5	73.0	71.9	71.0	71.9	72.4	73.7	71.9	72.2	74.0	73.1	73.1	73.1	74.2	73.4	70.9	71.6	67.4	72.1	+4.7	p<.05
South	66.7	64.1	63.6	63.3	61.6	61.0	59.5	61.9	60.9	60.3	60.9	61.9	59.7	60.2	61.7	60.4	61.6	61.5	61.9	64.5	65.6	63.4	63.2	64.2	65.1	65.0	66.2	63.9	65.6	64.0	63.6	65.3	62.9	61.1		n.s.
West	72.7	70.3	70.6	67.4	69.0	65.5	67.5	65.1	65.3	63.6	65.8	66.0	67.0	65.9	66.1	65.2	65.5	68.4	69.6	68.9	65.7	69.4	66.4	64.6	64.8	64.6	64.7	63.4	65.5	62.3	64.0	65.4	61.8	64.5		n.s.

FIGURE 76
ALCOHOL
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



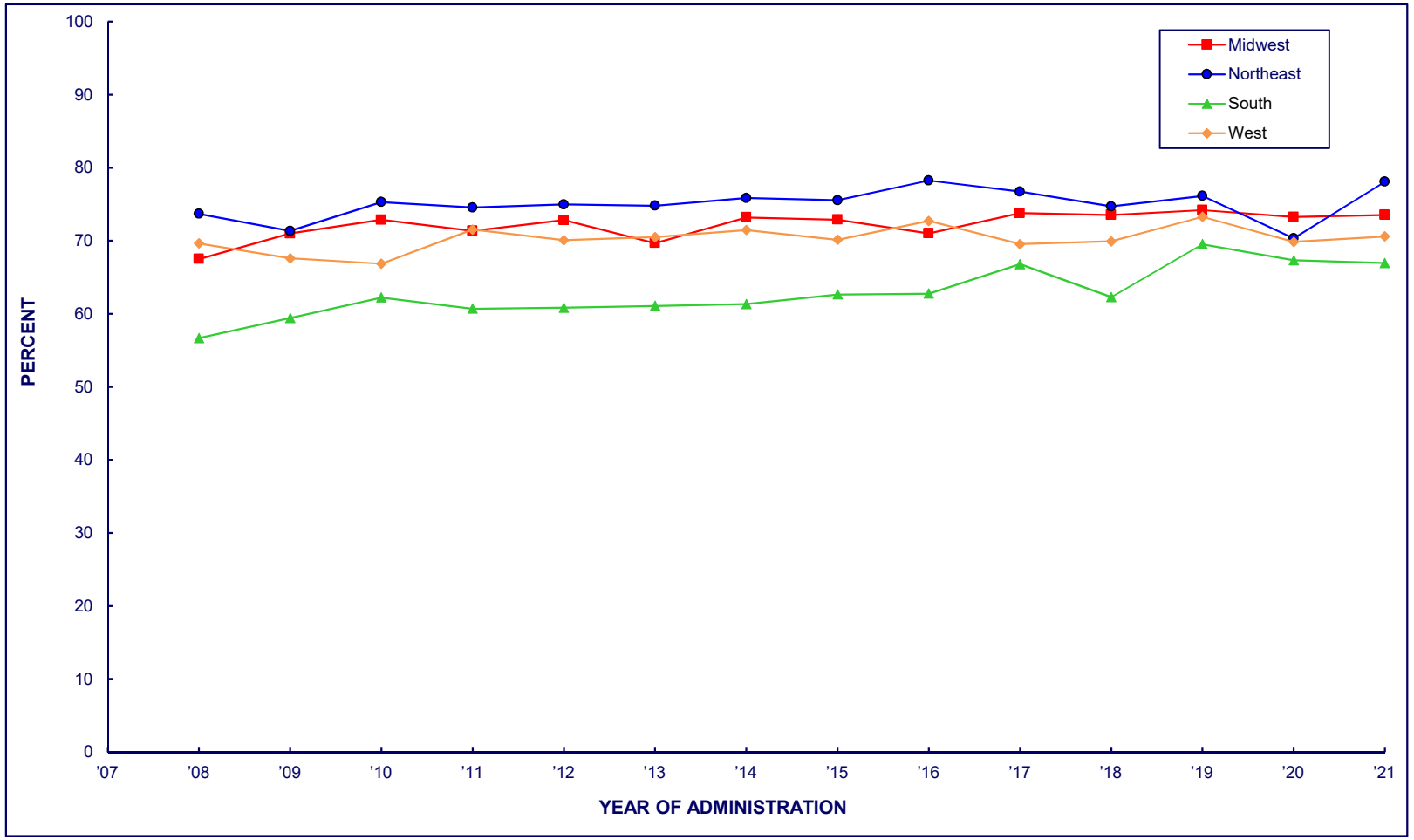
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	76.7	74.8	73.5	72.9	71.9	71.0	70.7	71.0	69.7	70.5	69.6	71.3	69.5	70.3	70.8	70.4	71.1	71.8	72.3	72.8	72.7	73.5	73.1	72.5	73.3	71.9	72.6	71.6	74.0	71.5	70.2	73.1	69.2	71.4	n.s.
Black	53.6	54.9	51.8	52.2	47.3	48.5	48.1	51.2	46.1	47.0	47.3	47.2	44.8	48.3	49.5	42.6	47.9	47.4	44.9	48.9	53.8	53.0	49.7	53.2	53.7	57.6	56.0	53.7	55.2	52.8	55.6	57.2	54.1	58.6	n.s.
Hispanic	59.4	66.8	57.5	59.7	61.0	59.3	61.1	59.6	59.0	60.7	58.2	63.4	59.8	61.5	61.0	62.0	62.1	63.1	61.7	62.9	61.2	63.1	56.8	60.0	62.9	63.6	60.2	59.8	60.3	63.1	60.2	60.0	57.3	56.6	n.s.

FIGURE 77
ALCOHOL
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Sex



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	72.7	73.9	73.4	71.9	71.0	73.9	75.6	73.7	73.4	74.5	73.1	76.8	73.1	74.5	n.s.
Women	60.2	61.4	65.1	65.6	67.0	64.1	65.1	66.5	66.7	68.8	67.0	70.1	67.9	69.1	n.s.

FIGURE 78
ALCOHOL
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Geographic Region



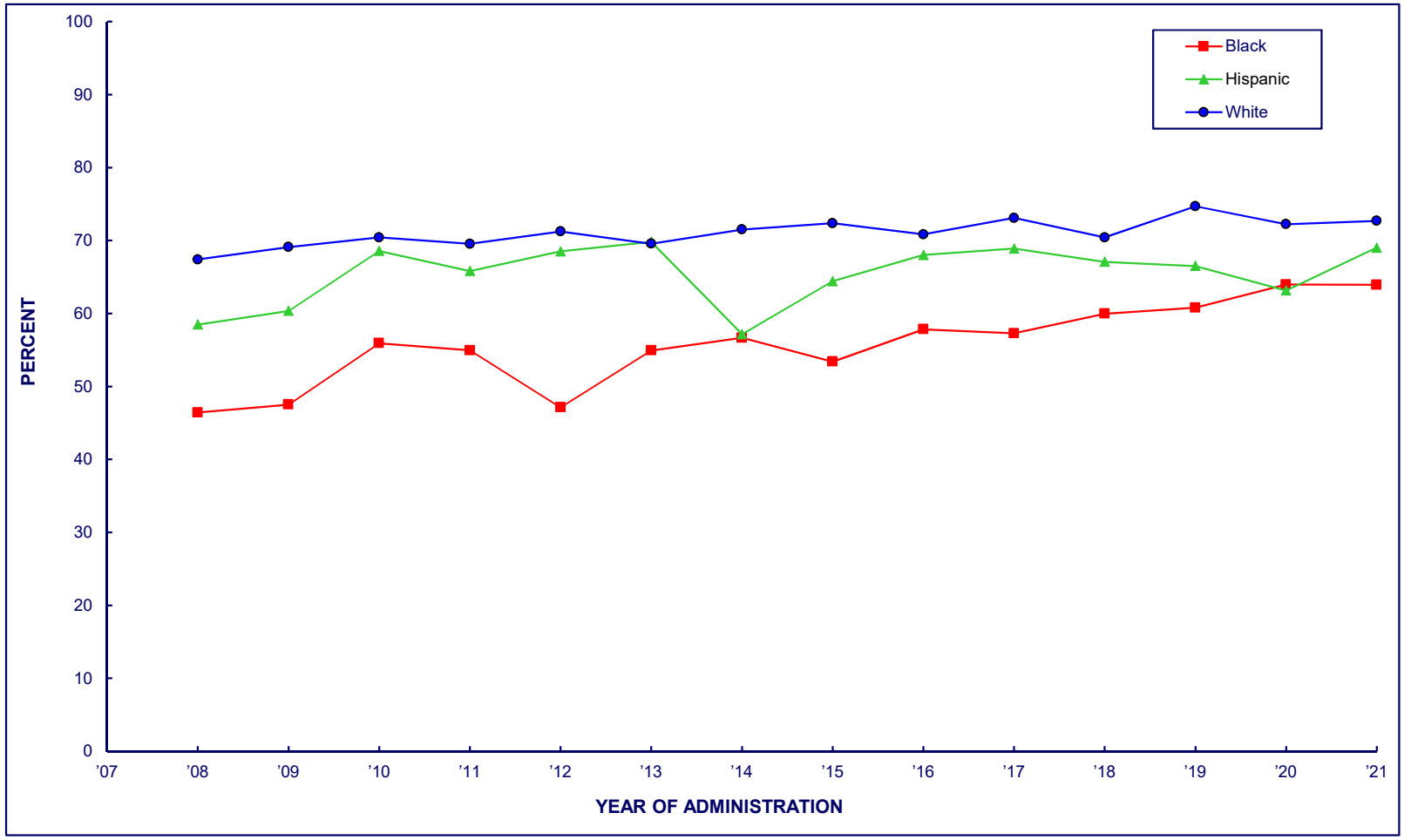
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	73.7	71.3	75.3	74.5	75.0	74.8	75.9	75.5	78.2	76.7	74.7	76.1	70.3	78.1	+7.8 p<.01
Midwest	67.5	71.0	72.9	71.3	72.8	69.7	73.2	72.9	71.0	73.8	73.5	74.2	73.2	73.5	n.s.
South	56.7	59.4	62.2	60.7	60.8	61.1	61.3	62.6	62.8	66.8	62.3	69.5	67.3	66.9	n.s.
West	69.6	67.6	66.9	71.5	70.1	70.5	71.5	70.1	72.7	69.5	69.9	73.3	69.8	70.6	n.s.

FIGURE 79

ALCOHOL

Trends in 30-Day Prevalence

among Respondents of Modal Ages 35 through 50, by Race/Ethnicity

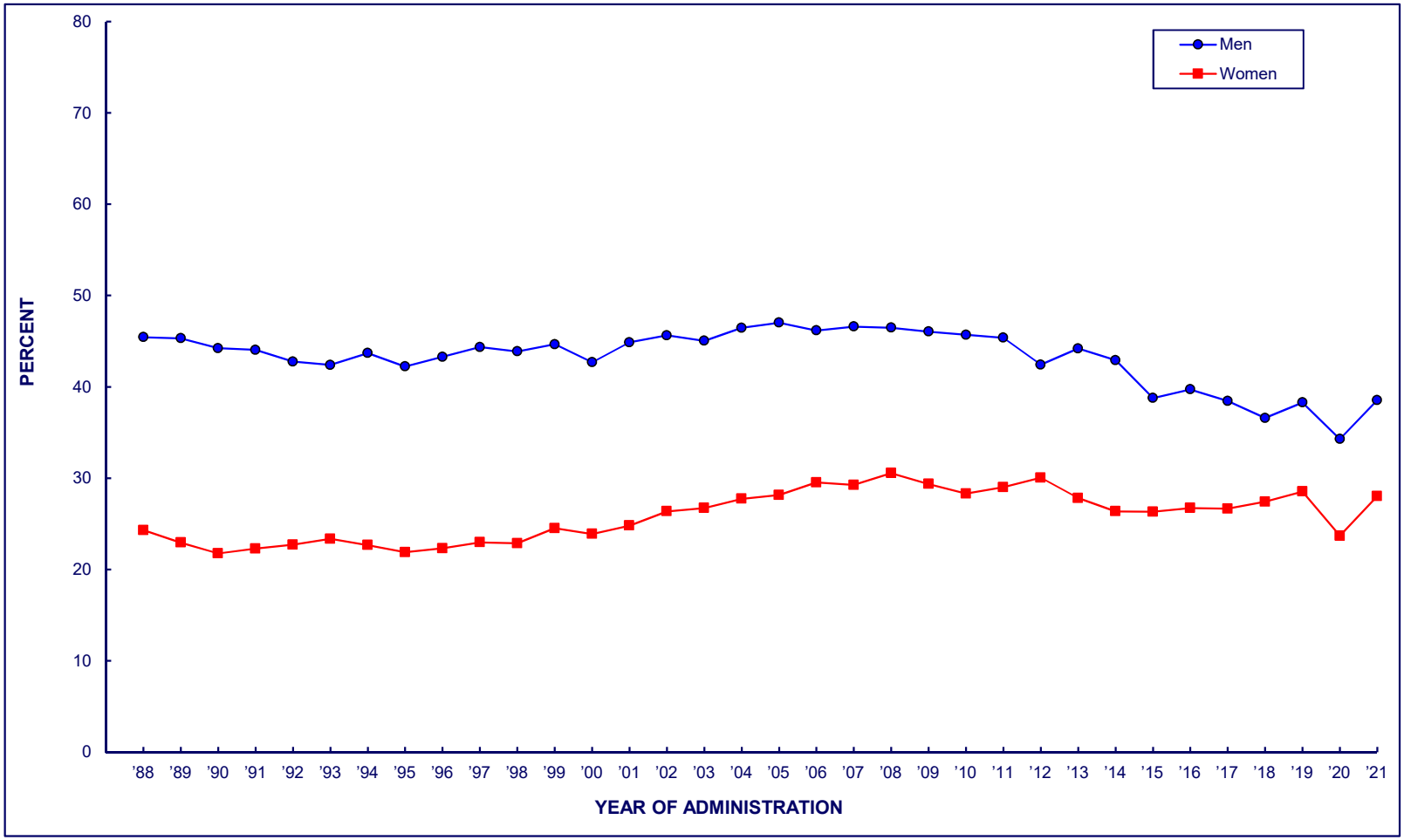


	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	67.4	69.1	70.4	69.5	71.2	69.6	71.5	72.4	70.8	73.1	70.4	74.7	72.2	72.7	n.s.
Black	46.4	47.5	55.9	54.9	47.1	54.9	56.7	53.4	57.8	57.3	60.0	60.8	64.0	63.9	n.s.
Hispanic	58.5	60.3	68.6	65.8	68.5	69.8	57.2	64.4	68.0	68.9	67.1	66.5	63.1	69.0	n.s.

FIGURE 80

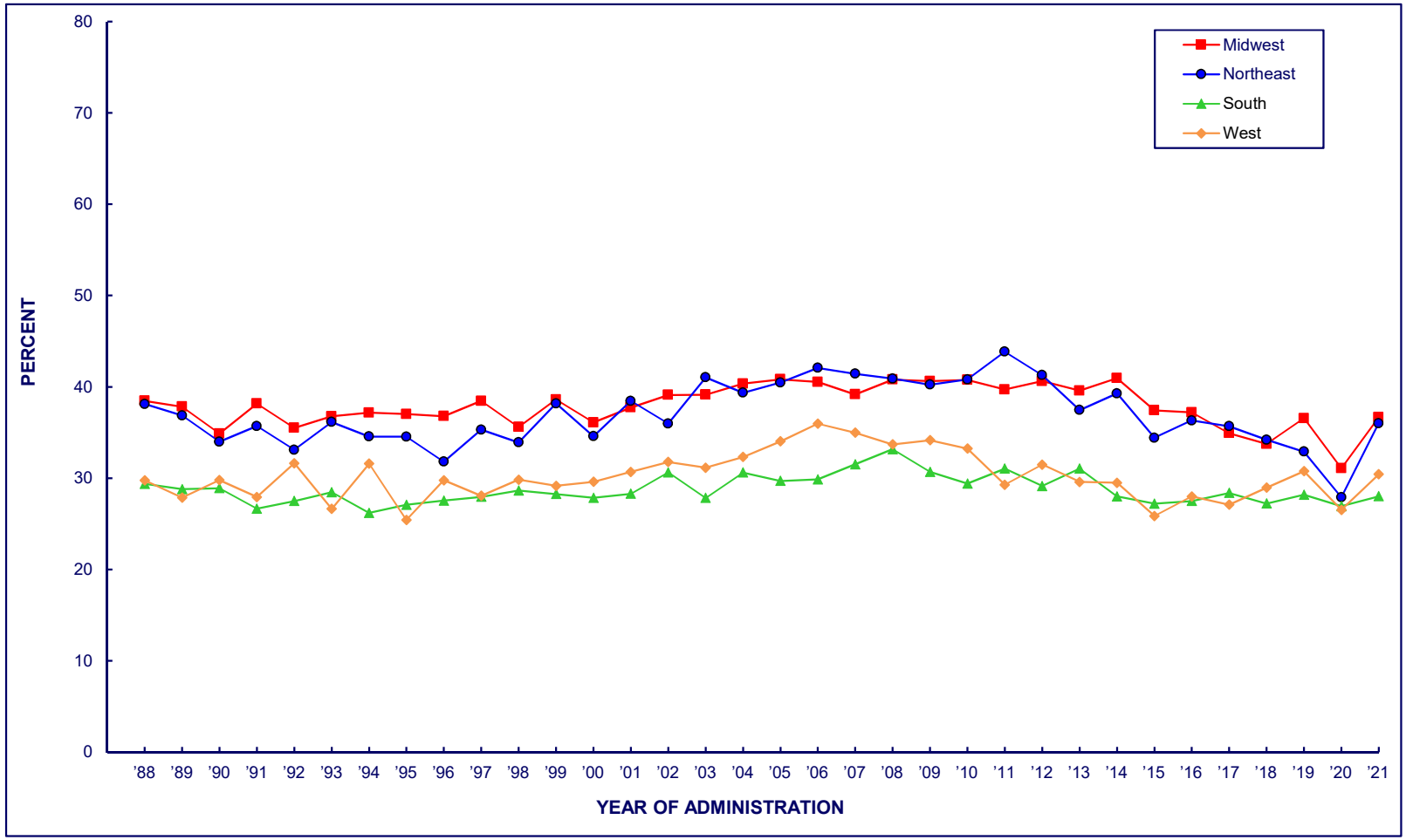
ALCOHOL

Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 19 through 30, by Sex



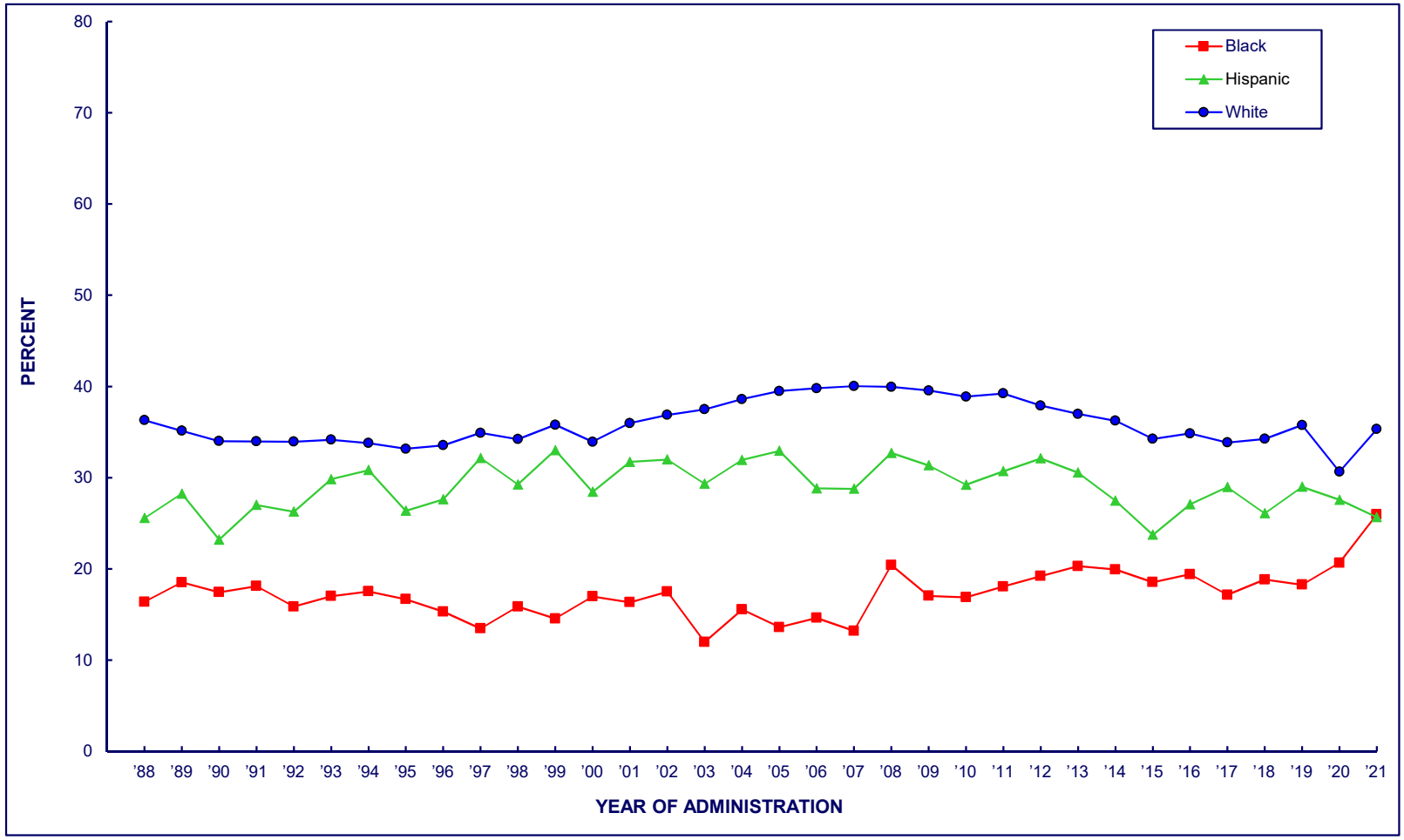
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change	
Men	45.4	45.3	44.2	44.0	42.8	42.4	43.7	42.2	43.3	44.4	43.9	44.7	42.7	44.9	45.6	45.0	46.5	47.0	46.2	46.6	46.5	46.1	45.7	45.4	42.4	44.2	42.9	38.8	39.7	38.5	36.6	38.3	34.3	38.5	+4.3	p<.05
Women	24.3	22.9	21.8	22.3	22.7	23.3	22.7	21.9	22.3	23.0	22.9	24.5	23.9	24.8	26.4	26.7	27.7	28.1	29.5	29.3	30.5	29.4	28.3	29.0	30.0	27.8	26.4	26.3	26.7	26.6	27.4	28.5	23.7	28.0	+4.3	p<.001

FIGURE 81
ALCOHOL
Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 19 through 30, by Geographic Region



	1988	1989	1990	1991	1992	1993	1994	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	2020	2021	1-Year Change	
Northeast	38.1	36.9	34.0	35.7	33.1	36.2	34.6	34.5	31.8	35.3	33.9	38.2	34.6	38.5	36.0	41.0	39.4	40.5	42.1	41.4	40.9	40.2	40.8	43.8	41.3	37.5	39.3	34.4	36.3	35.7	34.2	32.9	27.9	36.0	+8.0	p<.01
Midwest	38.5	37.8	34.9	38.2	35.5	36.8	37.2	37.0	36.8	38.4	35.6	38.6	36.1	37.7	39.1	39.1	40.3	40.8	40.5	39.2	40.8	40.6	40.8	39.7	40.6	39.6	40.9	37.4	37.2	34.9	33.8	36.6	31.1	36.7		n.s.
South	29.4	28.8	28.9	26.7	27.5	28.5	26.2	27.1	27.5	27.9	28.6	28.3	27.8	28.3	30.6	27.8	30.6	29.7	29.9	31.5	33.2	30.7	29.4	31.0	29.1	31.0	28.0	27.2	27.5	28.4	27.2	28.2	26.9	28.0		n.s.
West	29.7	27.9	29.8	27.9	31.6	26.6	31.6	25.4	29.8	28.1	29.8	29.2	29.6	30.7	31.8	31.1	32.3	34.0	36.0	35.0	33.7	34.1	33.2	29.3	31.5	29.6	29.5	25.9	28.0	27.1	29.0	30.8	26.5	30.4		n.s.

FIGURE 82
ALCOHOL
Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 19 through 30, by Race/Ethnicity

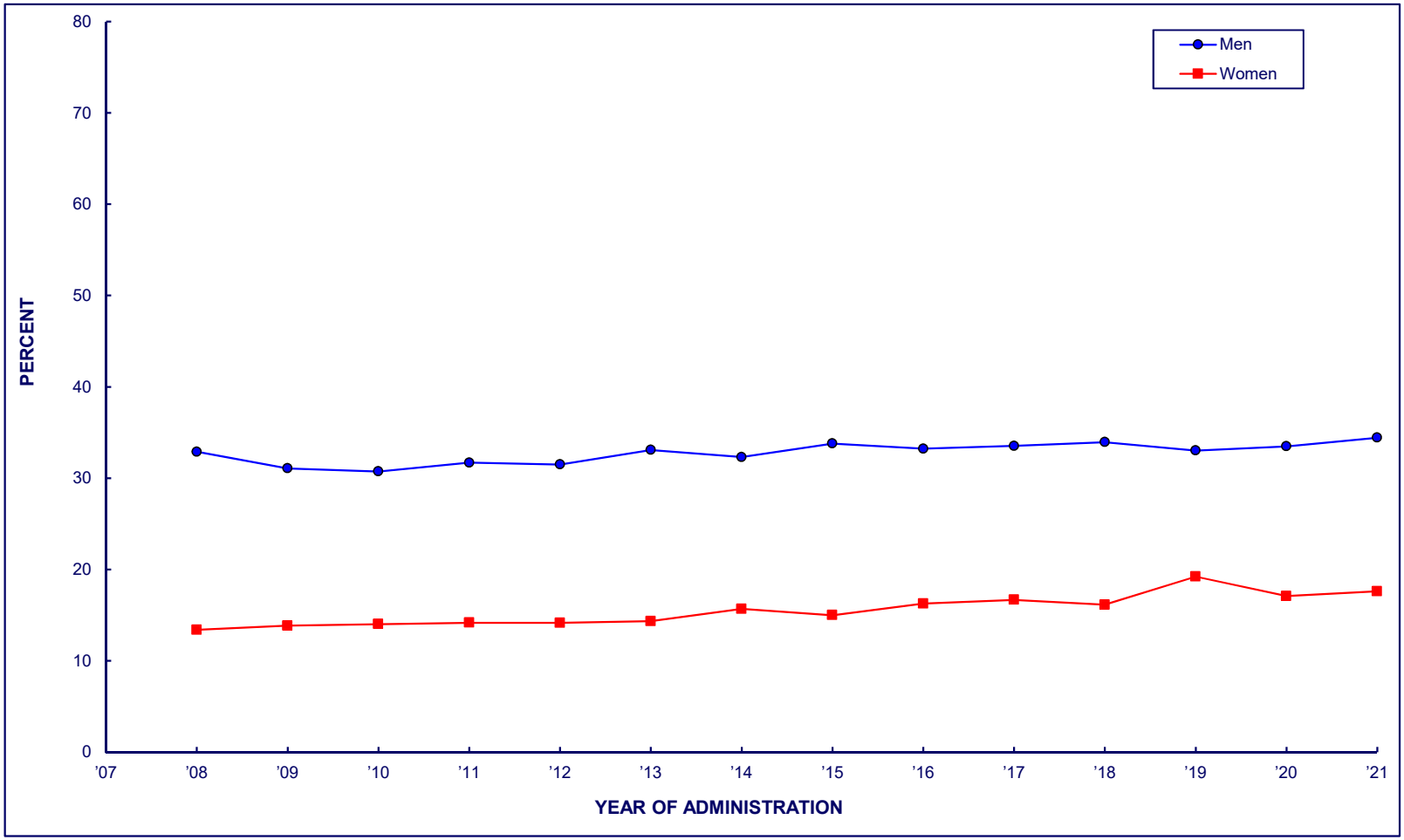


	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change	
White	36.3	35.1	34.0	34.0	33.9	34.2	33.8	33.2	33.5	34.9	34.2	35.8	33.9	36.0	36.9	37.5	38.6	39.5	39.8	40.0	39.9	39.6	38.9	39.2	37.9	37.0	36.2	34.3	34.8	33.9	34.3	35.8	30.6	35.3	+4.7	p<.001
Black	16.4	18.5	17.4	18.1	15.9	17.0	17.5	16.7	15.3	13.5	15.9	14.5	17.0	16.3	17.5	12.0	15.5	13.6	14.6	13.2	20.4	17.0	16.9	18.1	19.2	20.3	19.9	18.5	19.4	17.1	18.8	18.3	20.7	26.0		n.s.
Hispanic	25.6	28.2	23.2	27.0	26.3	29.8	30.8	26.4	27.6	32.2	29.3	33.0	28.4	31.7	32.0	29.3	31.9	32.9	28.8	28.8	32.7	31.3	29.2	30.7	32.1	30.6	27.5	23.7	27.1	29.0	26.1	29.0	27.6	25.7		n.s.

FIGURE 83

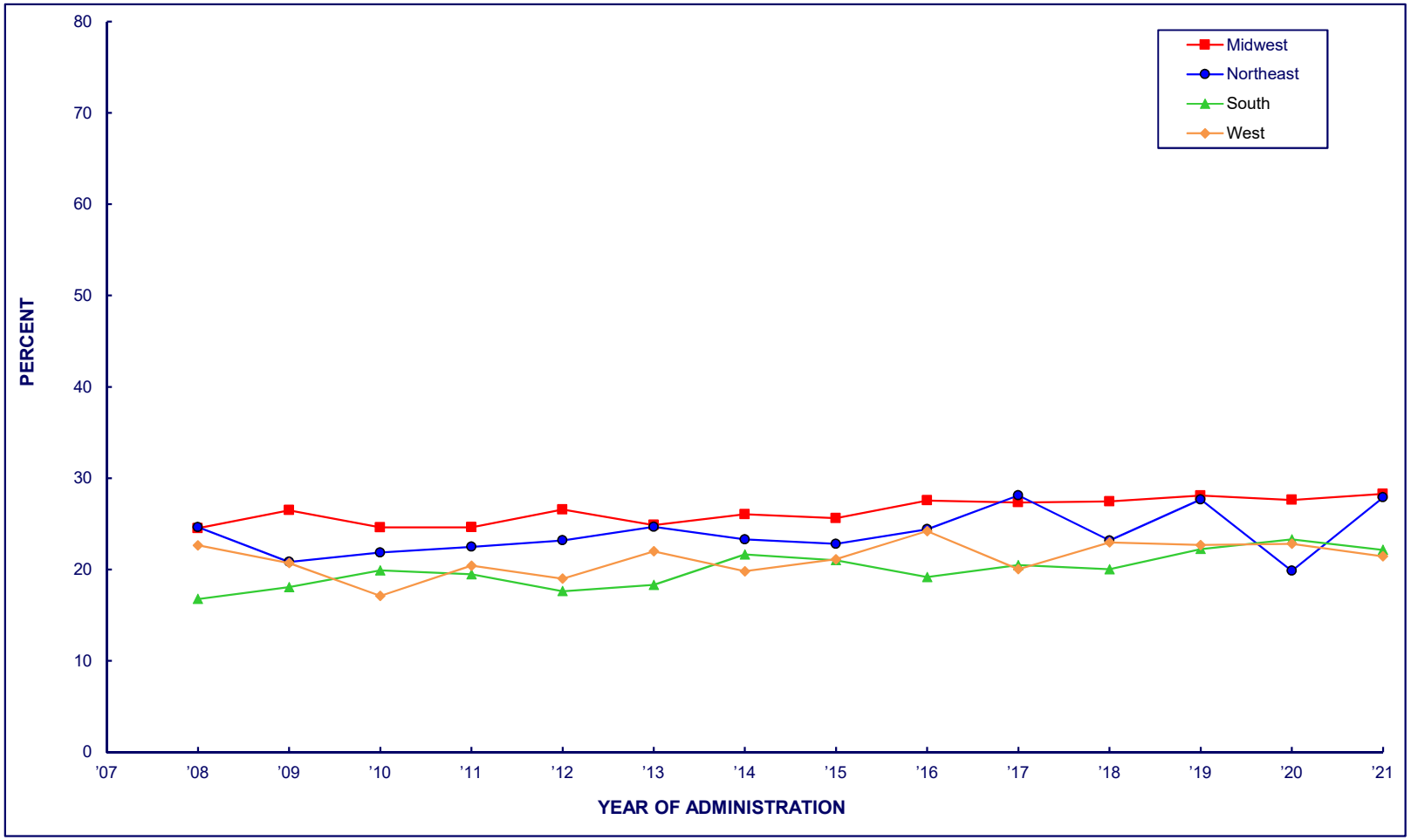
ALCOHOL

Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 35 through 50, by Sex



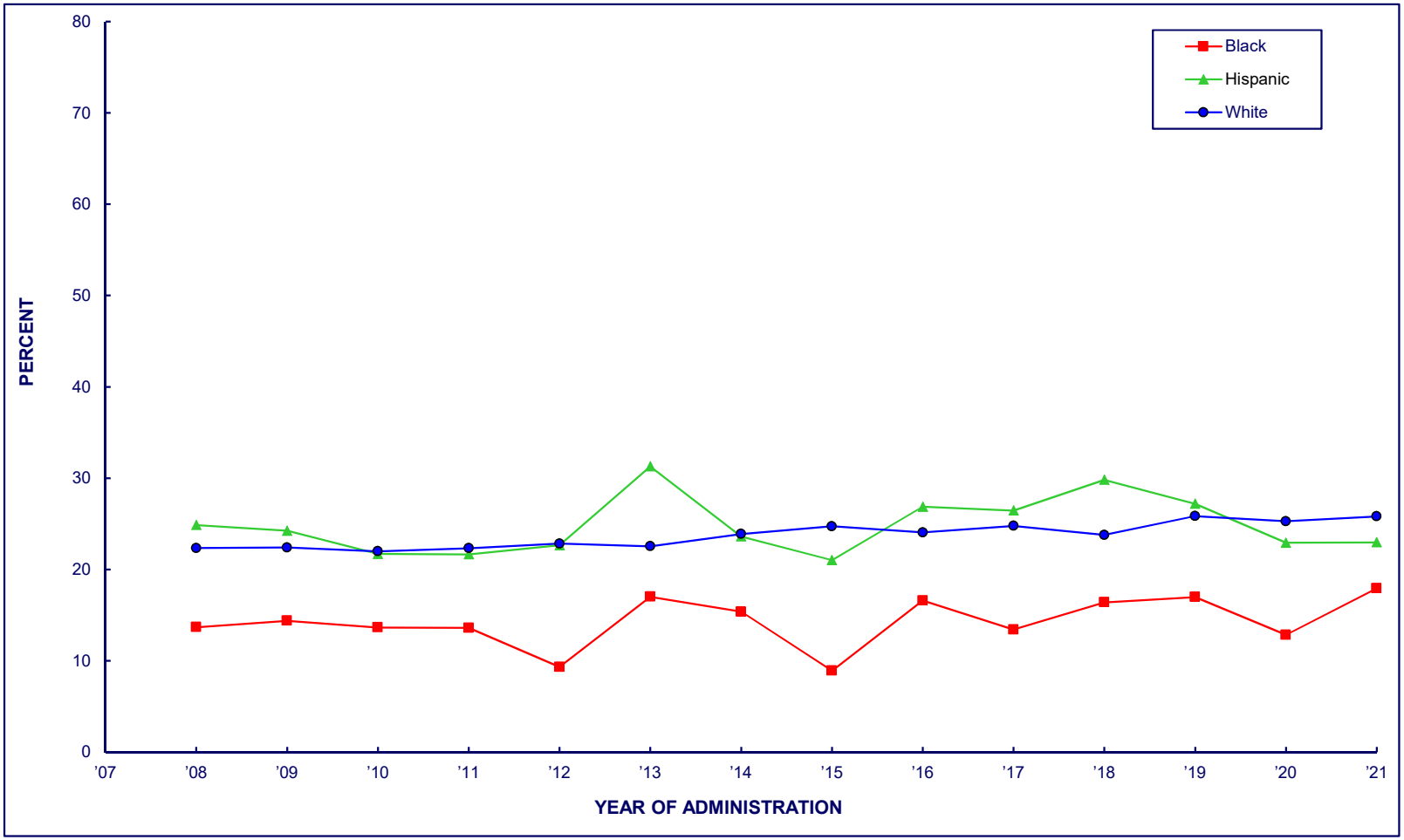
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	32.9	31.1	30.7	31.7	31.5	33.1	32.3	33.8	33.2	33.5	33.9	33.0	33.5	34.4	n.s.
Women	13.4	13.8	14.0	14.2	14.1	14.3	15.7	15.0	16.3	16.7	16.1	19.2	17.1	17.6	n.s.

FIGURE 84
ALCOHOL
Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 35 through 50, by Geographic Region



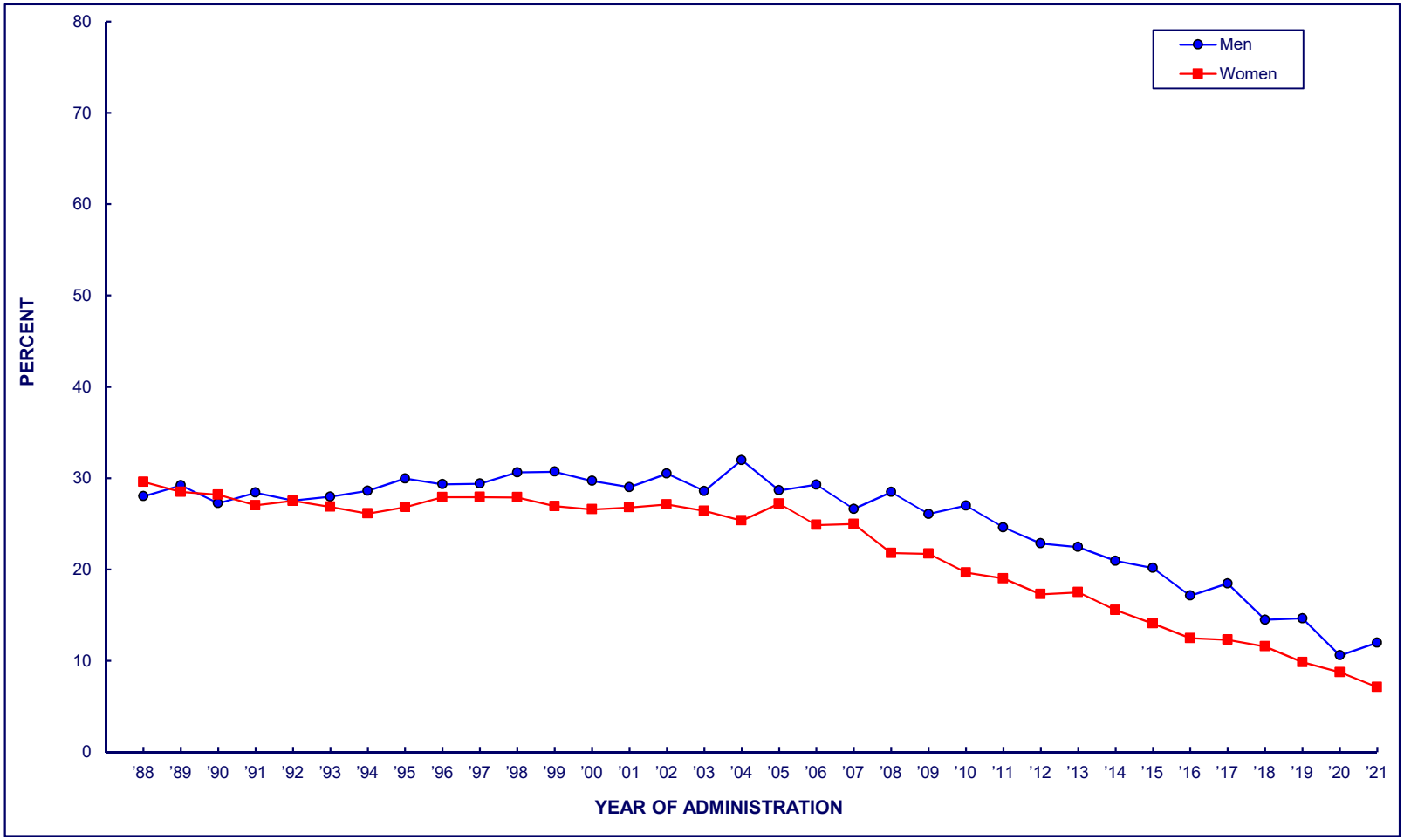
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	24.6	20.8	21.8	22.5	23.2	24.7	23.3	22.8	24.4	28.1	23.2	27.7	19.9	27.9	+8.0 p<.01
Midwest	24.5	26.5	24.6	24.6	26.6	24.9	26.0	25.6	27.6	27.3	27.4	28.1	27.6	28.3	n.s.
South	16.8	18.1	19.9	19.5	17.6	18.3	21.6	21.0	19.2	20.5	20.0	22.2	23.3	22.1	n.s.
West	22.6	20.7	17.1	20.4	19.0	22.0	19.8	21.1	24.2	20.0	23.0	22.7	22.8	21.4	n.s.

FIGURE 85
ALCOHOL
Trends in 2-Week Prevalence of Binge Drinking (5+ Drinks in a Row) among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



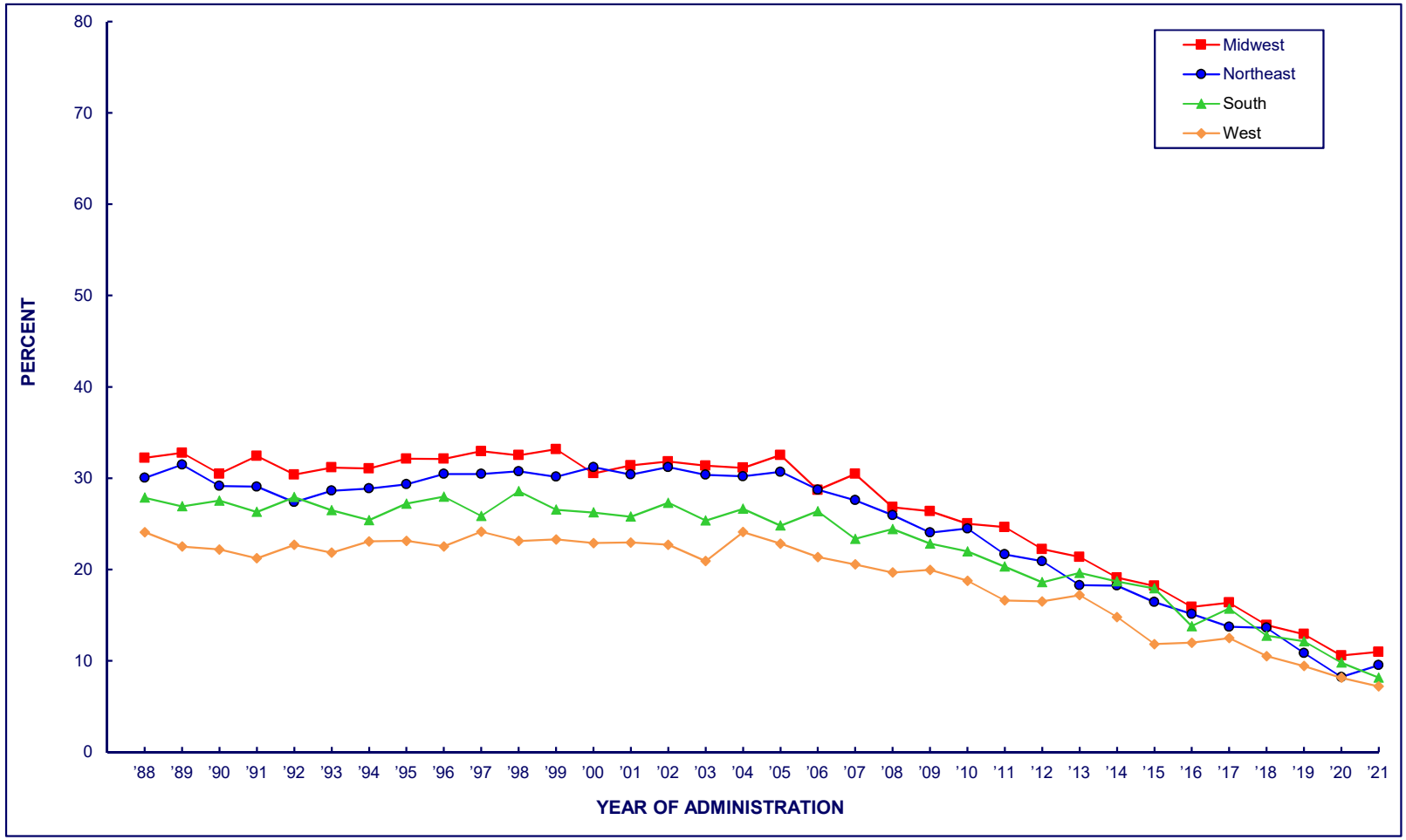
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	22.3	22.4	22.0	22.3	22.8	22.5	23.9	24.7	24.1	24.8	23.8	25.8	25.3	25.8	n.s.
Black	13.7	14.4	13.6	13.6	9.3	17.0	15.4	8.9	16.6	13.4	16.4	17.0	12.8	17.9	n.s.
Hispanic	24.9	24.2	21.7	21.7	22.6	31.3	23.6	21.0	26.9	26.4	29.8	27.2	22.9	23.0	n.s.

FIGURE 86
CIGARETTES
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Sex



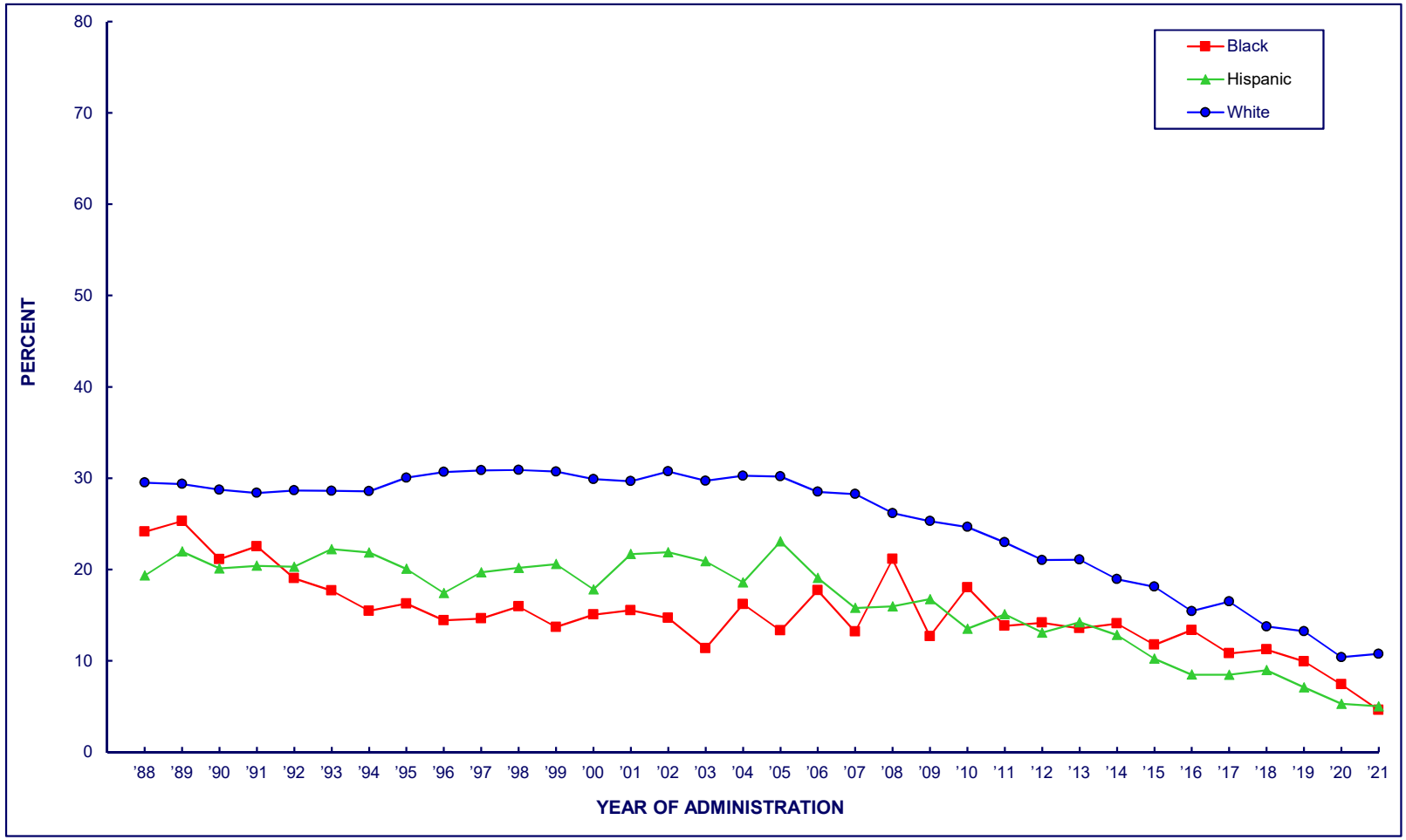
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change	
Men	28.0	29.2	27.2	28.4	27.5	28.0	28.6	29.9	29.3	29.4	30.6	30.7	29.7	29.0	30.5	28.6	32.0	28.7	29.3	26.6	28.5	26.1	27.0	24.6	22.9	22.5	20.9	20.1	17.1	18.5	14.5	14.6	10.6	12.0	n.s.	
Women	29.6	28.5	28.2	27.0	27.5	26.9	26.1	26.8	27.9	27.9	27.9	26.9	26.6	26.8	27.1	26.4	25.3	27.2	24.9	25.0	21.8	21.7	19.7	19.0	17.3	17.5	15.5	14.1	12.5	12.3	11.6	9.8	8.7	7.1	-1.6	p<.05

FIGURE 87
CIGARETTES
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region



	1988	1989	1990	1991	1992	1993	1994	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	2020	2021	1-Year Change
Northeast	30.0	31.5	29.1	29.1	27.4	28.6	28.9	29.3	30.5	30.5	30.7	30.1	31.2	30.4	31.2	30.4	30.2	30.7	28.7	27.6	26.0	24.0	24.5	21.6	20.9	18.3	18.2	16.4	15.1	13.7	13.6	10.9	8.2	9.5	n.s.
Midwest	32.2	32.8	30.5	32.4	30.4	31.2	31.0	32.1	32.1	33.0	32.5	33.2	30.5	31.4	31.8	31.4	31.1	32.5	28.7	30.5	26.8	26.4	25.0	24.6	22.2	21.4	19.1	18.2	15.9	16.4	13.9	12.9	10.6	11.0	n.s.
South	27.9	26.9	27.5	26.3	27.9	26.5	25.4	27.2	28.0	25.9	28.6	26.6	26.2	25.8	27.3	25.4	26.6	24.8	26.4	23.4	24.4	22.8	22.0	20.3	18.6	19.6	18.7	17.9	13.8	15.7	12.7	12.1	9.8	8.2	n.s.
West	24.1	22.5	22.2	21.2	22.7	21.8	23.1	23.1	22.5	24.1	23.1	23.3	22.9	23.0	22.7	20.9	24.1	22.8	21.4	20.6	19.7	19.9	18.8	16.6	16.5	17.2	14.8	11.8	12.0	12.5	10.5	9.4	8.1	7.2	n.s.

FIGURE 88
CIGARETTES
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



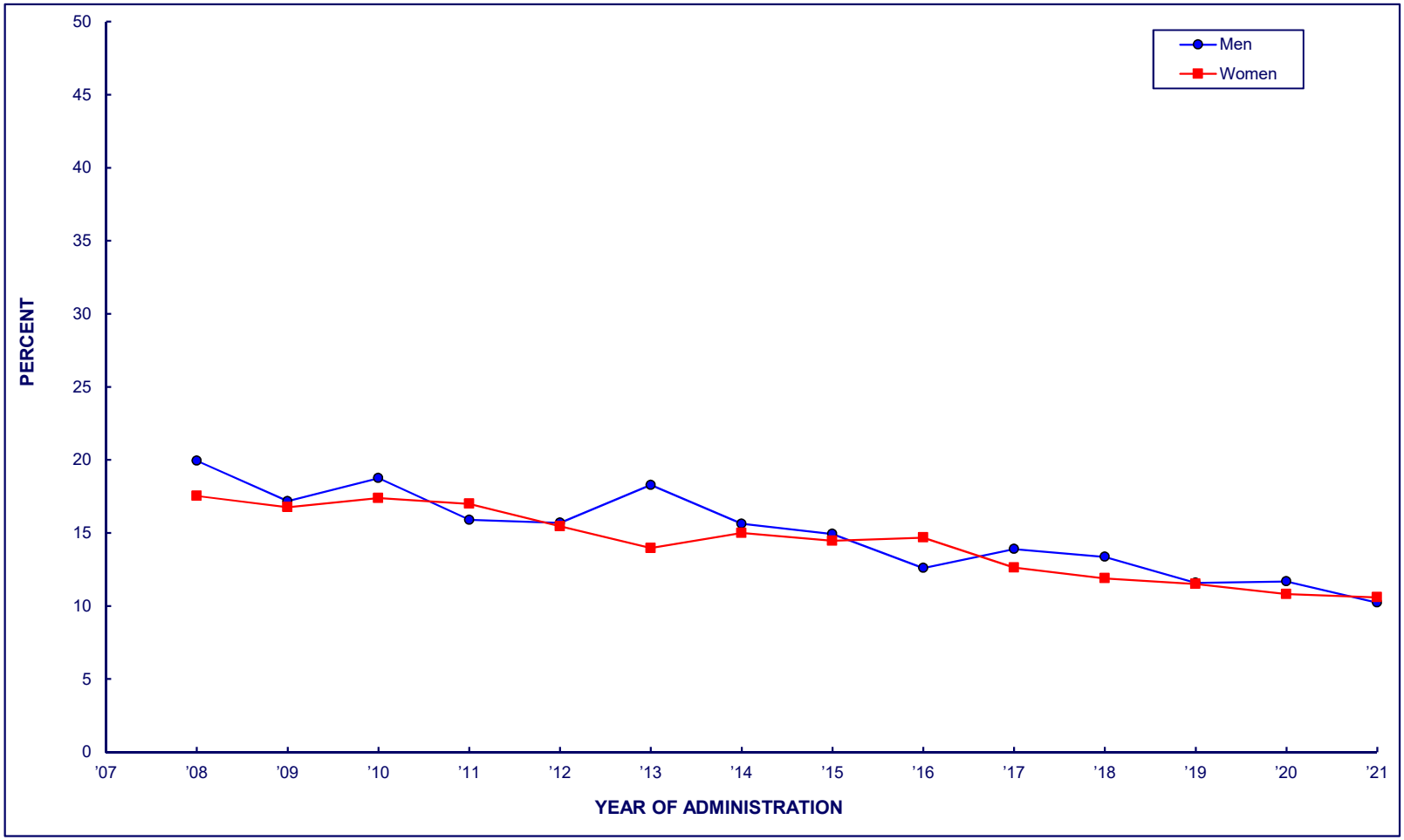
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	29.5	29.4	28.7	28.4	28.7	28.6	28.6	30.0	30.7	30.9	30.9	30.7	29.9	29.7	30.7	29.7	30.3	30.2	28.5	28.3	26.2	25.3	24.6	23.0	21.0	21.1	18.9	18.1	15.4	16.5	13.8	13.2	10.4	10.8	n.s.
Black	24.1	25.3	21.1	22.5	19.0	17.7	15.5	16.3	14.4	14.6	15.9	13.7	15.0	15.5	14.7	11.4	16.2	13.3	17.7	13.2	21.1	12.7	18.0	13.8	14.2	13.6	14.1	11.7	13.4	10.8	11.2	9.9	7.4	4.6	n.s.
Hispanic	19.3	22.0	20.1	20.4	20.3	22.2	21.9	20.1	17.4	19.7	20.2	20.6	17.8	21.7	21.9	20.9	18.6	23.1	19.1	15.8	16.0	16.7	13.5	15.1	13.1	14.2	12.8	10.2	8.5	8.5	9.0	7.1	5.3	5.0	n.s.

FIGURE 89

CIGARETTES

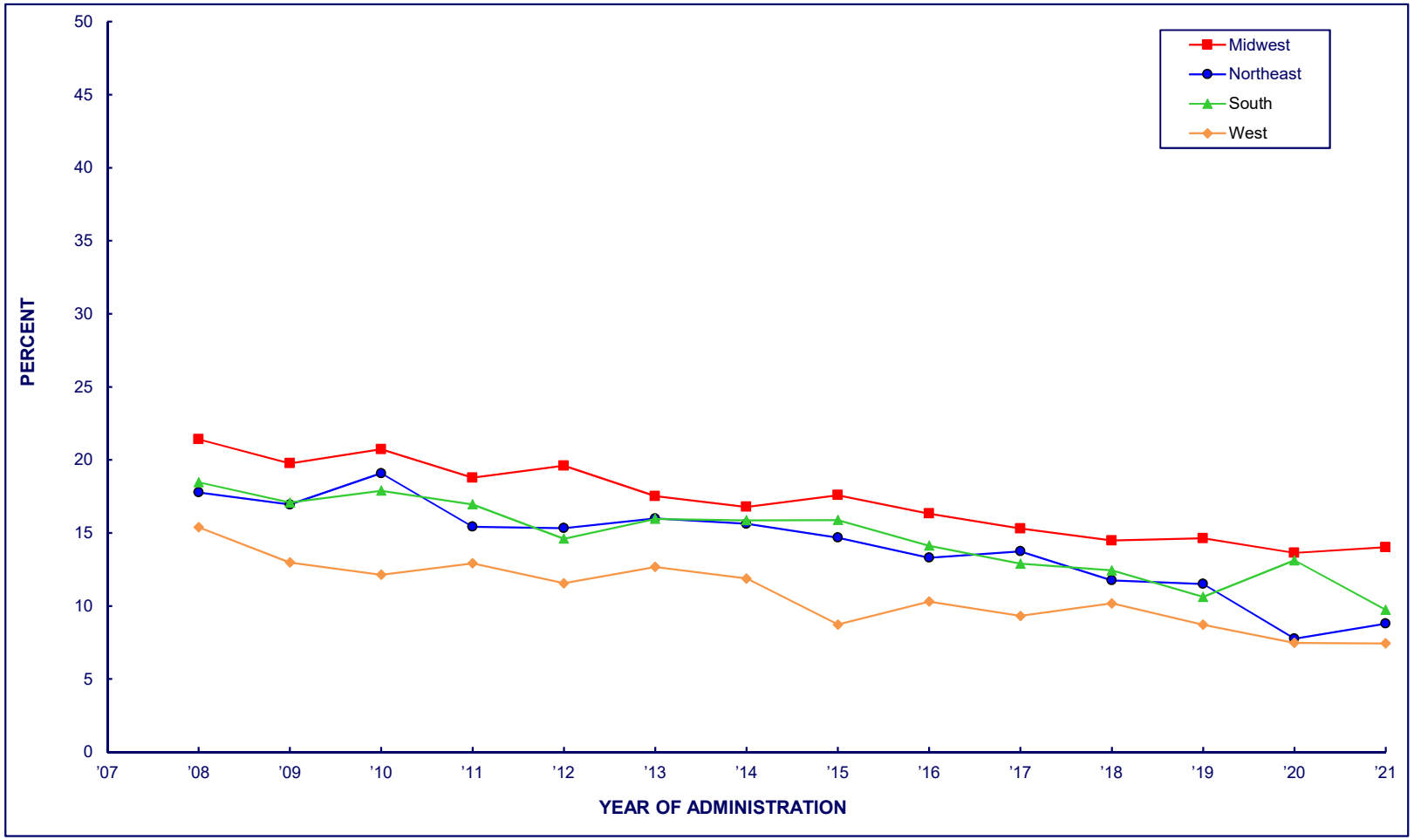
Trends in 30-Day Prevalence

among Respondents of Modal Ages 35 through 50, by Sex



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	19.9	17.2	18.8	15.9	15.7	18.3	15.6	14.9	12.6	13.9	13.4	11.6	11.7	10.2	n.s.
Women	17.5	16.8	17.4	17.0	15.5	14.0	15.0	14.5	14.7	12.6	11.9	11.5	10.8	10.6	n.s.

FIGURE 90
CIGARETTES
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Geographic Region



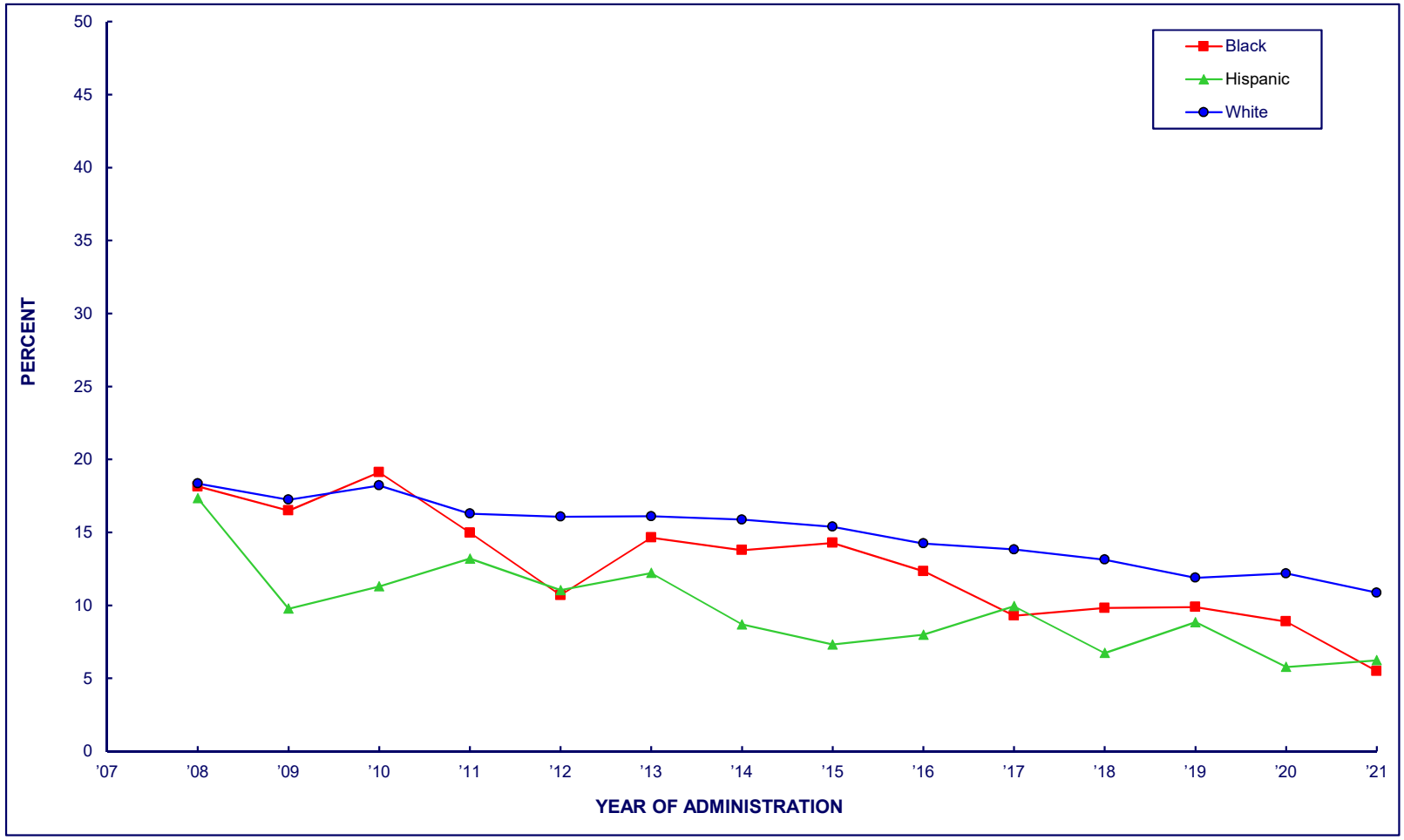
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change	
Northeast	17.8	16.9	19.1	15.4	15.3	16.0	15.6	14.7	13.3	13.7	11.8	11.5	7.8	8.8		n.s.
Midwest	21.4	19.8	20.7	18.8	19.6	17.5	16.8	17.6	16.3	15.3	14.5	14.6	13.6	14.0		n.s.
South	18.5	17.1	17.9	17.0	14.6	16.0	15.9	15.9	14.1	12.9	12.4	10.6	13.1	9.7	-3.4	p<.05
West	15.4	13.0	12.1	12.9	11.6	12.7	11.9	8.7	10.3	9.3	10.2	8.7	7.5	7.4		n.s.

FIGURE 91

CIGARETTES

Trends in 30-Day Prevalence

among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



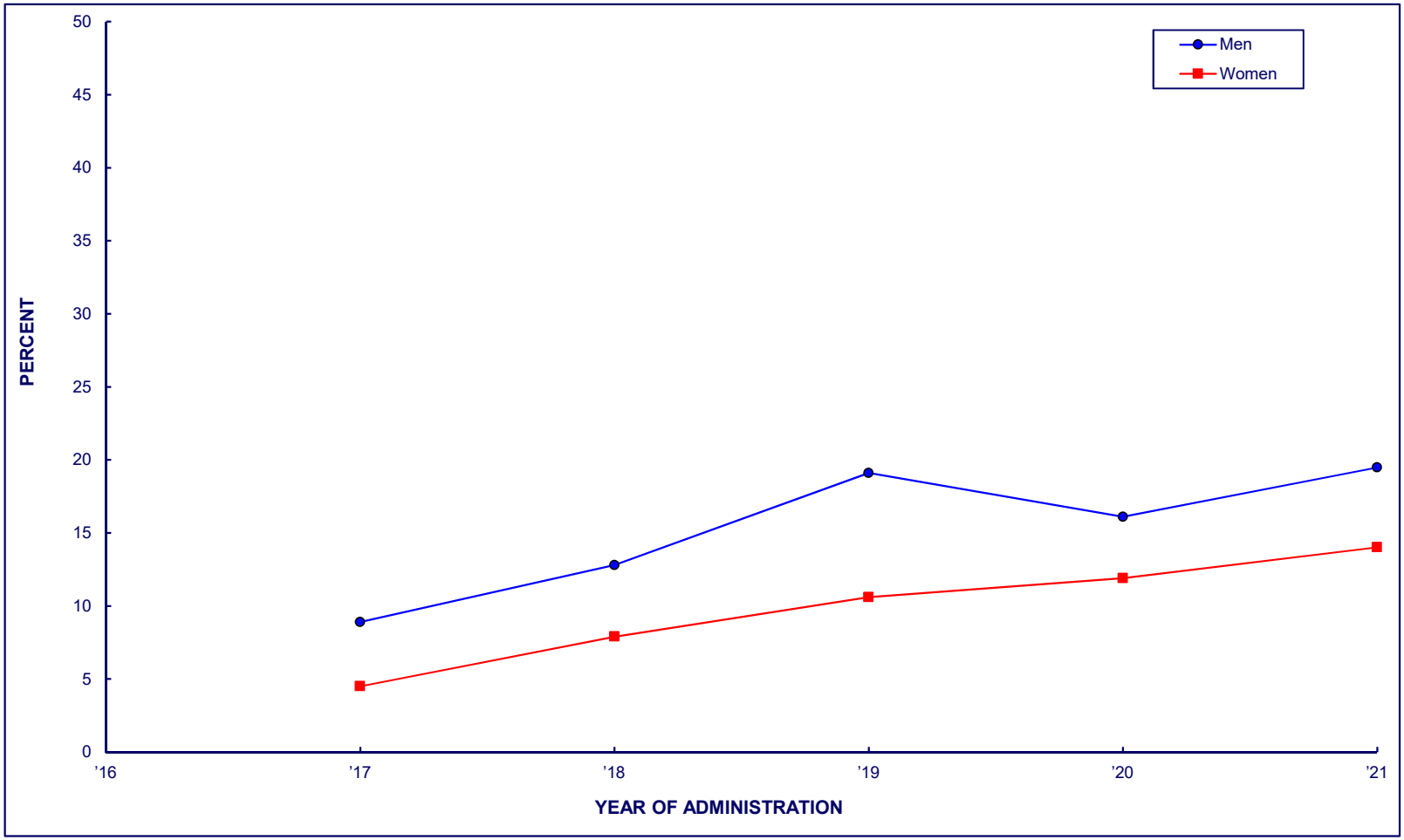
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	18.3	17.2	18.2	16.3	16.1	16.1	15.9	15.4	14.2	13.8	13.1	11.9	12.2	10.9	n.s.
Black	18.2	16.5	19.1	15.0	10.7	14.6	13.8	14.3	12.3	9.3	9.8	9.9	8.9	5.5	n.s.
Hispanic	17.3	9.8	11.3	13.2	11.0	12.2	8.7	7.3	8.0	9.9	6.7	8.8	5.8	6.2	n.s.

FIGURE 92

VAPING NICOTINE

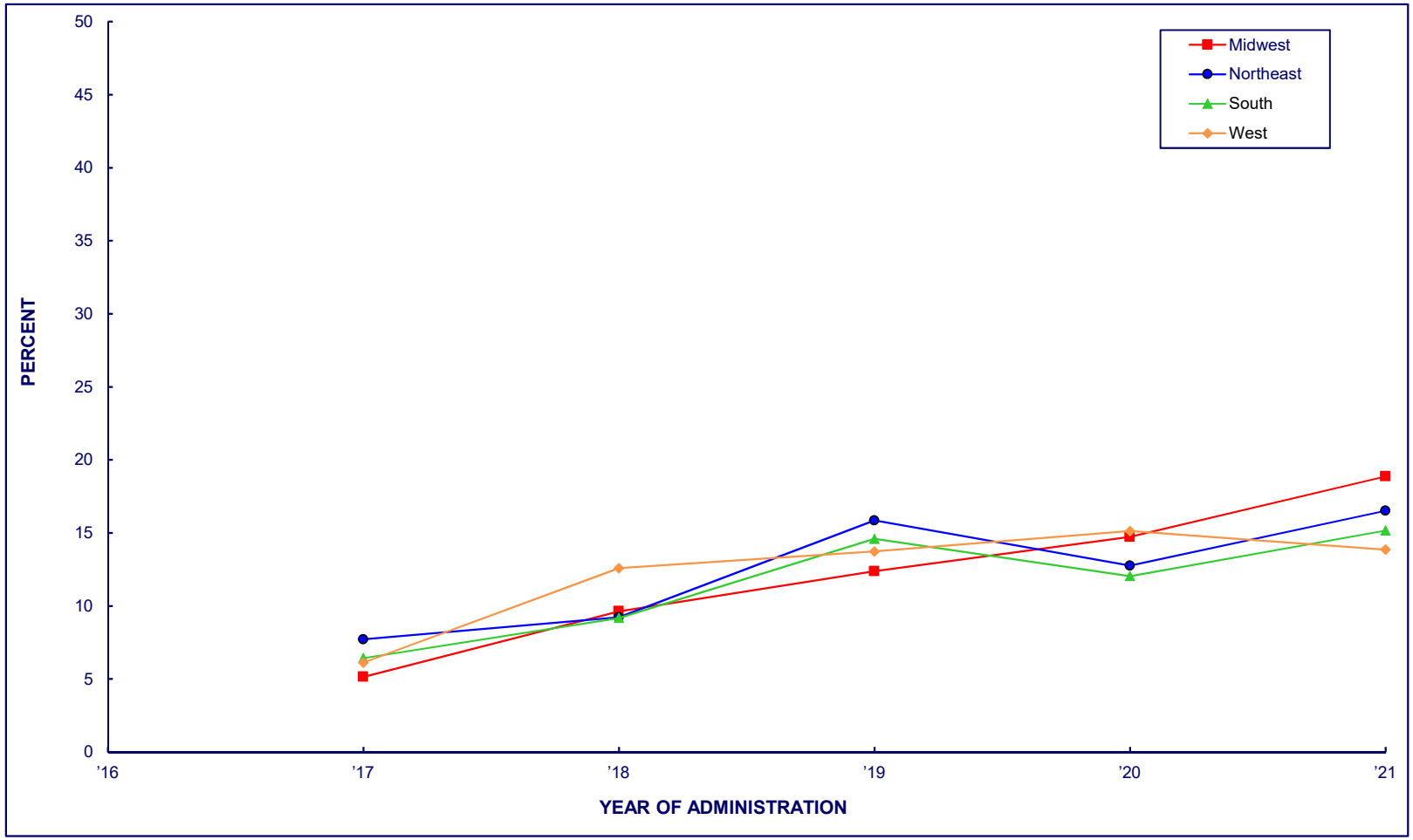
Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 30, by Sex



	2017	2018	2019	2020	2021	1-Year Change
Men	8.9	12.8	19.1	16.1	19.5	+3.4 p<.01
Women	4.5	7.9	10.6	11.9	14.0	+2.2 p<.05

FIGURE 93
VAPING NICOTINE
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region



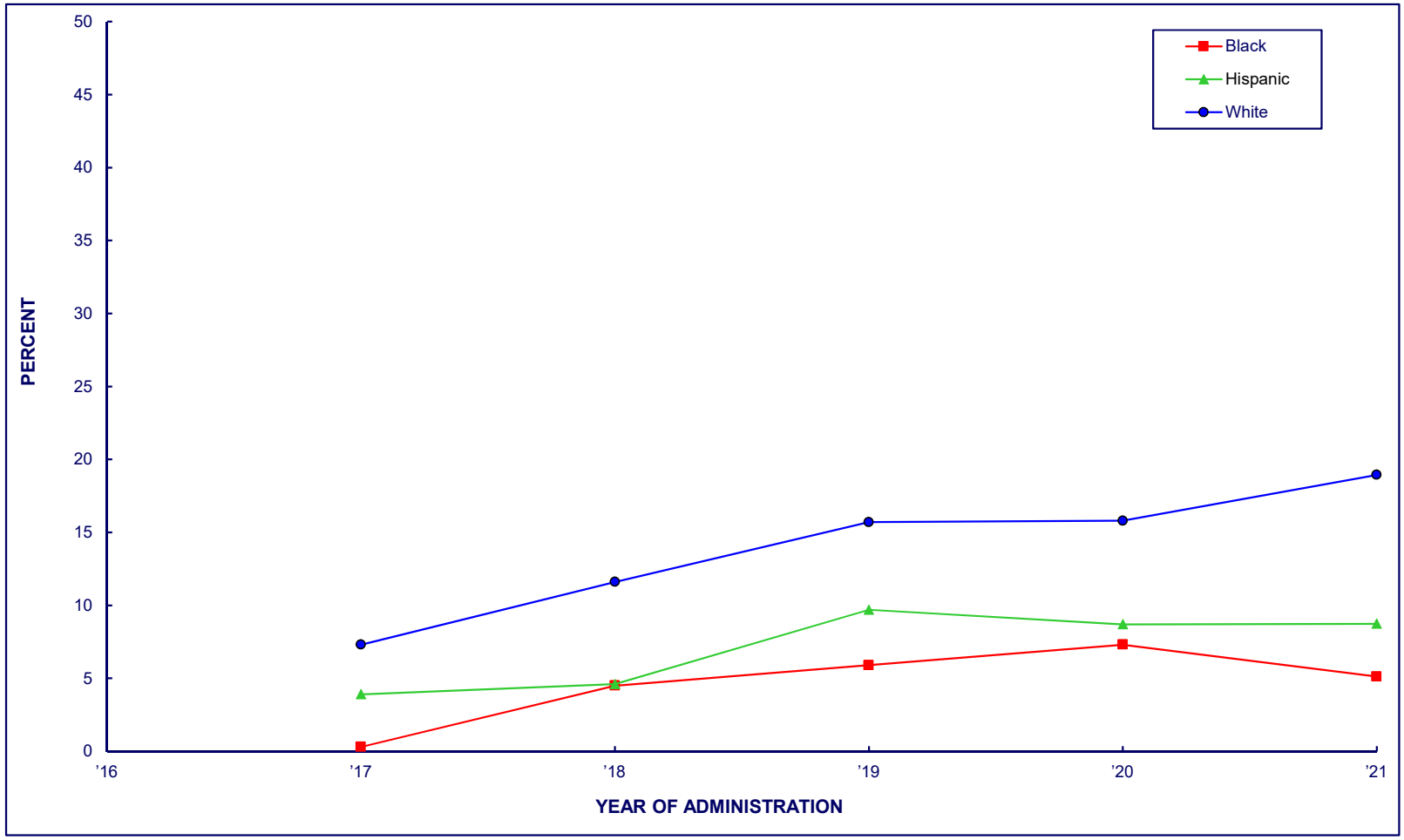
	2017	2018	2019	2020	2021	1-Year Change
Northeast	7.7	9.2	15.9	12.8	16.5	+3.8 p<.05
Midwest	5.1	9.6	12.4	14.7	18.9	+4.1 p<.01
South	6.4	9.2	14.6	12.0	15.2	+3.1 p<.05
West	6.1	12.6	13.7	15.1	13.9	n.s.

FIGURE 94

VAPING NICOTINE

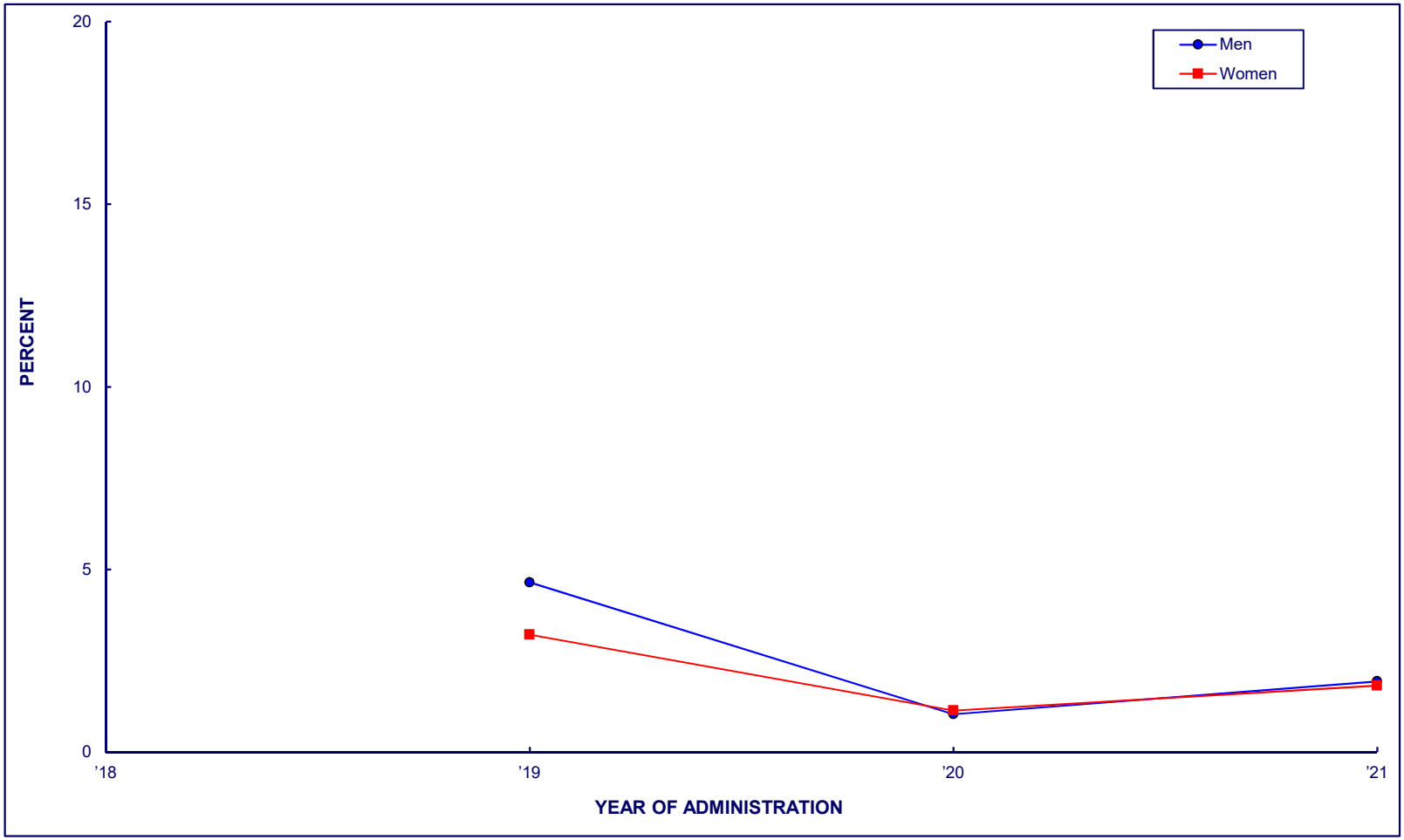
Trends in 30-Day Prevalence

among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



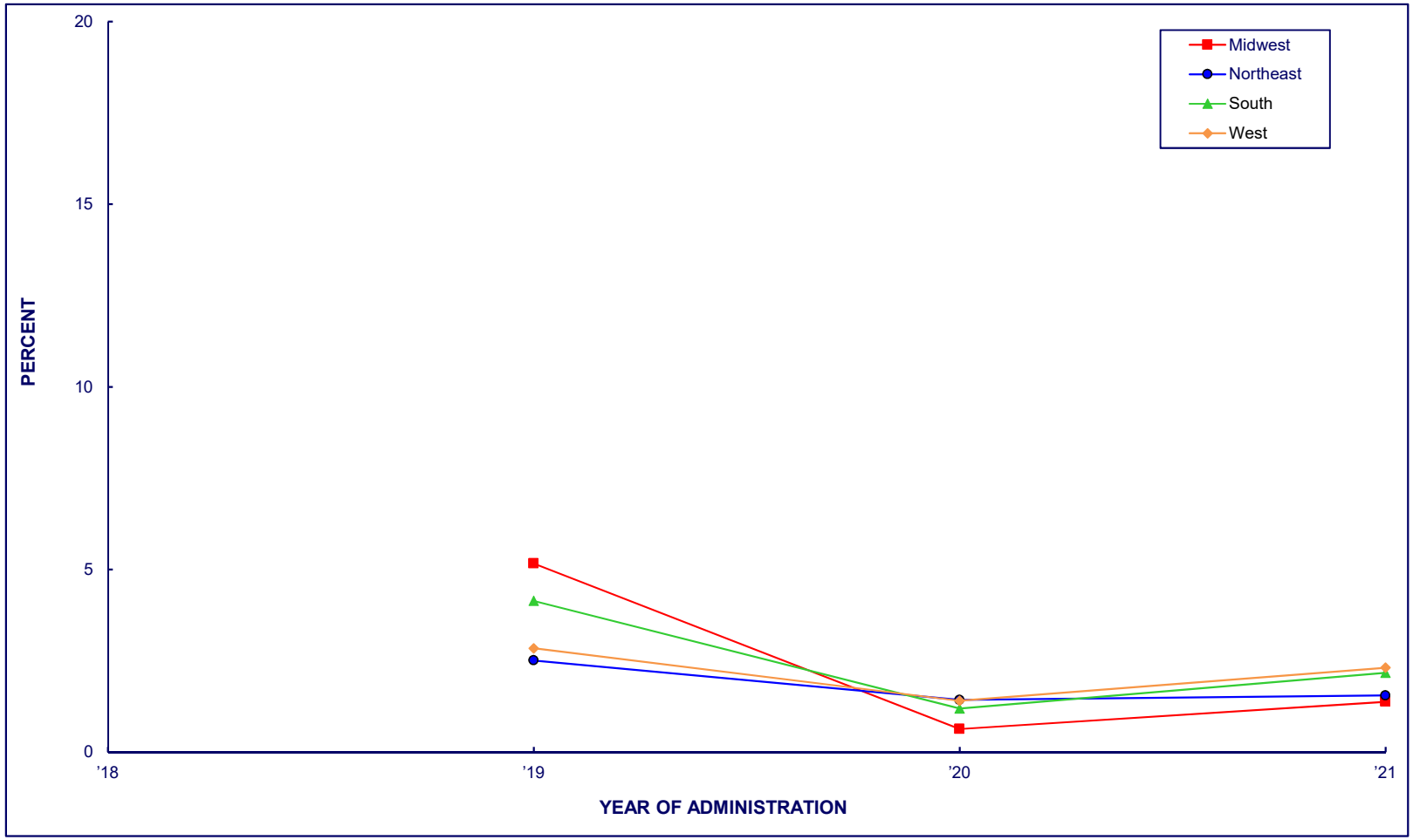
	2017	2018	2019	2020	2021	1-Year Change	
White	7.3	11.6	15.7	15.8	18.9	+0.9	p<.05
Black	0.3	4.5	5.9	7.3	5.1		n.s.
Hispanic	3.9	4.6	9.7	8.7	8.7		n.s.

FIGURE 95
VAPING NICOTINE
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Sex



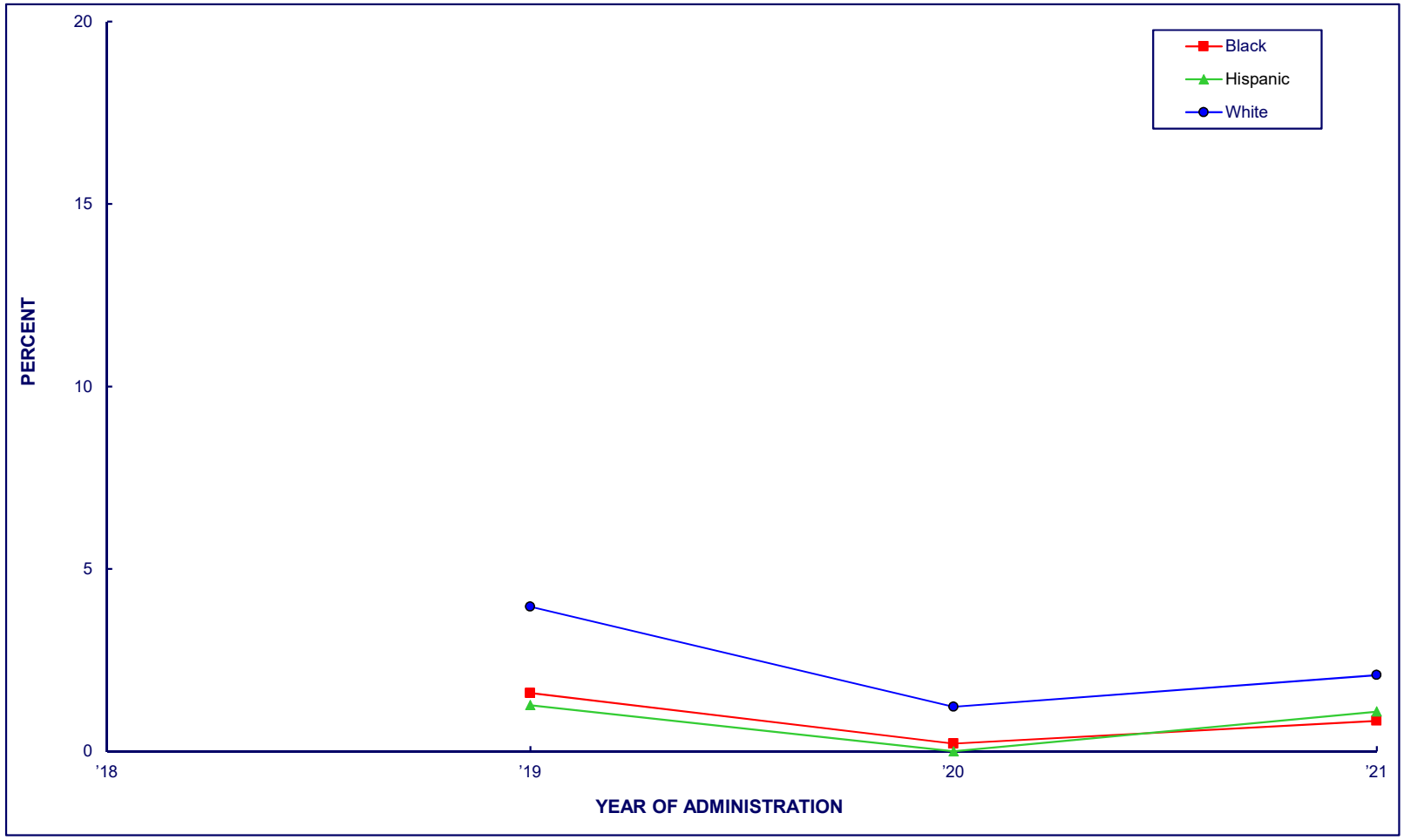
	2019	2020	2021	1-Year Change
Men	4.6	1.0	1.9	n.s.
Women	3.2	1.1	1.8	n.s.

FIGURE 96
VAPING NICOTINE
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Geographic Region



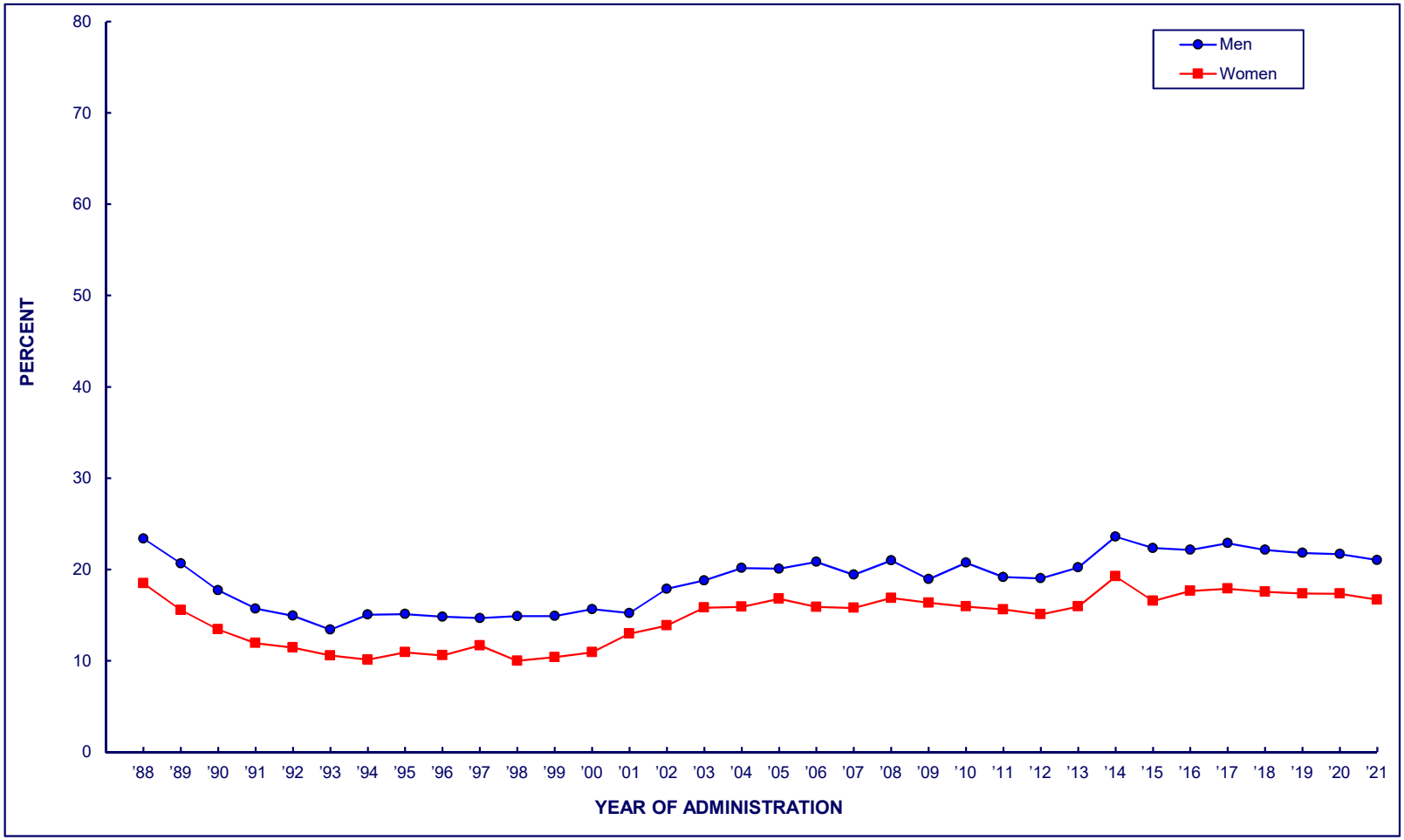
	2019	2020	2021	1-Year Change
Northeast	2.5	1.4	1.6	n.s.
Midwest	5.2	0.6	1.4	n.s.
South	4.1	1.2	2.2	n.s.
West	2.8	1.4	2.3	n.s.

FIGURE 97
VAPING NICOTINE
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



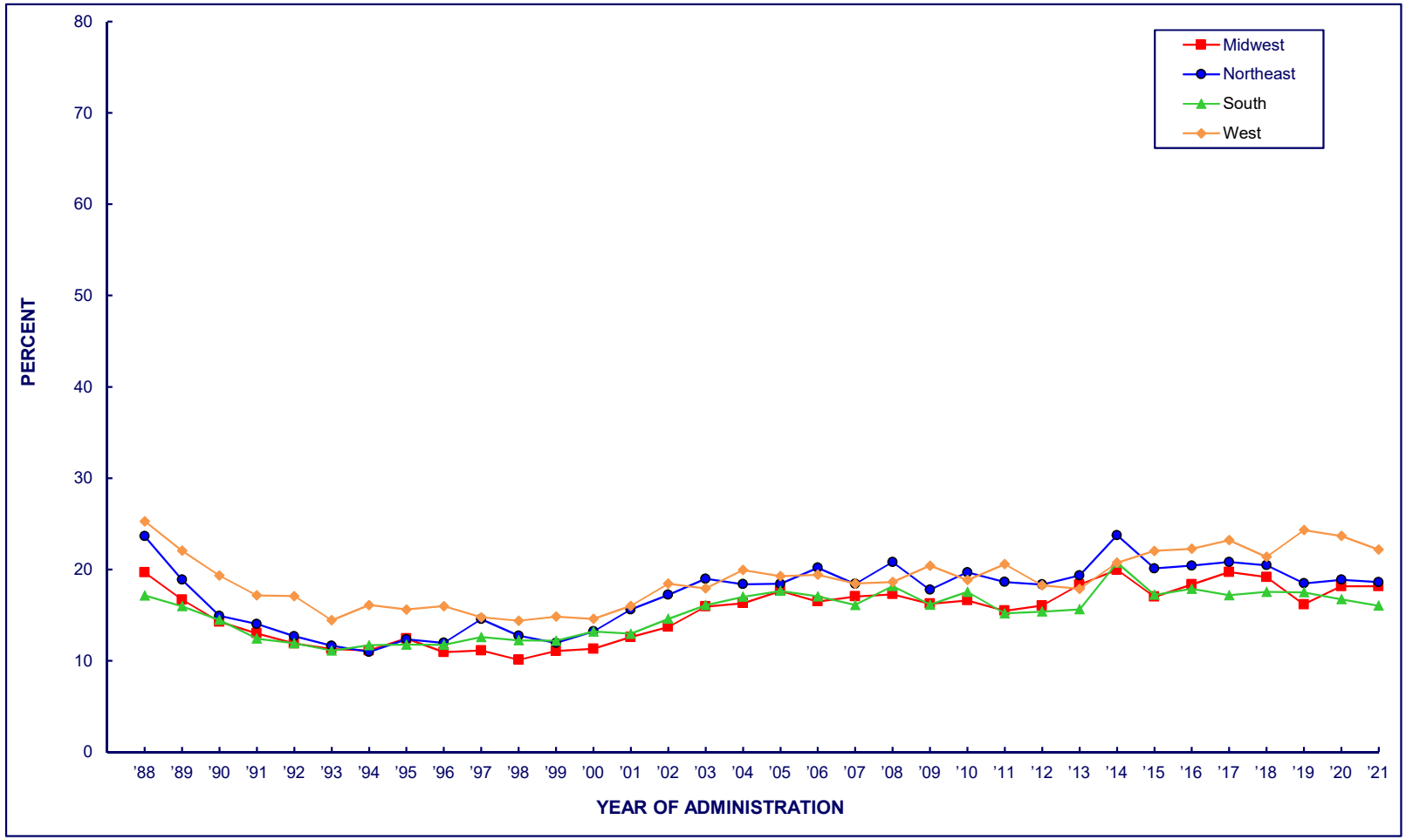
	2019	2020	2021	1-Year Change
White	4.0	1.2	2.1	+0.9 p<.05
Black	1.6	0.2	0.8	n.s.
Hispanic	1.3	0.0	1.1	n.s.

FIGURE 98
ANY DRUG OTHER THAN MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30, by Sex



	1988	1989	1990	1991	1992	1993	1994	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	2020	2021	1-Year Change
Men	23.4	20.7	17.7	15.7	14.9	13.4	15.0	15.1	14.8	14.7	14.9	14.9	15.6	15.2	17.9	18.8	20.1	20.1	20.8	19.4	21.0	18.9	20.7	19.2	19.0	20.2	23.6	22.3	22.1	22.9	22.1	21.8	21.7	21.0	n.s.
Women	18.5	15.5	13.4	11.9	11.4	10.6	10.1	10.9	10.6	11.7	10.0	10.4	10.9	13.0	13.9	15.8	15.9	16.8	15.9	15.8	16.9	16.3	15.9	15.6	15.1	15.9	19.2	16.6	17.6	17.9	17.6	17.4	17.3	16.7	n.s.

FIGURE 99
ANY DRUG OTHER THAN MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region

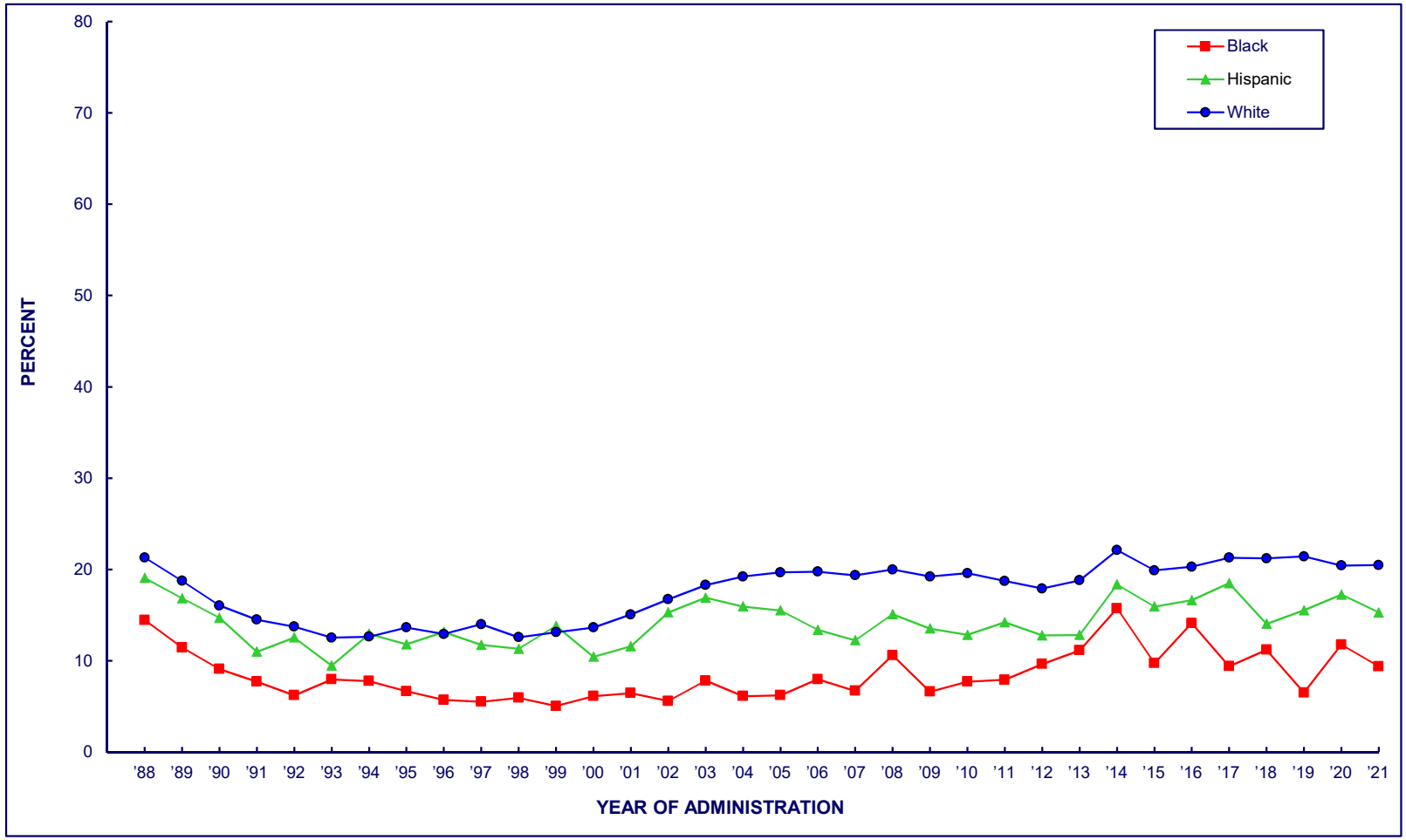


	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	23.6	18.9	14.9	14.0	12.7	11.6	11.0	12.3	12.0	14.6	12.7	11.9	13.2	15.6	17.2	19.0	18.4	18.4	20.2	18.4	20.8	17.8	19.7	18.6	18.4	19.3	23.7	20.1	20.4	20.8	20.5	18.5	18.9	18.6	n.s.
Midwest	19.7	16.7	14.3	13.0	11.9	11.3	11.1	12.4	10.9	11.1	10.1	11.1	11.3	12.6	13.7	15.9	16.3	17.6	16.5	17.0	17.3	16.2	16.6	15.5	16.0	18.3	20.0	17.0	18.3	19.7	19.2	16.2	18.2	18.1	n.s.
South	17.1	16.0	14.5	12.4	11.9	11.1	11.7	11.8	11.7	12.6	12.2	12.2	13.2	12.9	14.6	16.1	17.0	17.6	17.0	16.1	18.2	16.1	17.5	15.2	15.4	15.6	20.7	17.2	17.9	17.2	17.5	17.5	16.7	16.0	n.s.
West	25.3	22.0	19.3	17.2	17.1	14.4	16.1	15.6	16.0	14.8	14.4	14.8	14.6	16.0	18.4	17.9	19.9	19.3	19.4	18.5	18.6	20.4	18.8	20.6	18.3	17.9	20.7	22.0	22.3	23.2	21.4	24.3	23.7	22.2	n.s.

FIGURE 100

ANY DRUG OTHER THAN MARIJUANA

Trends in 12-Month Prevalence among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



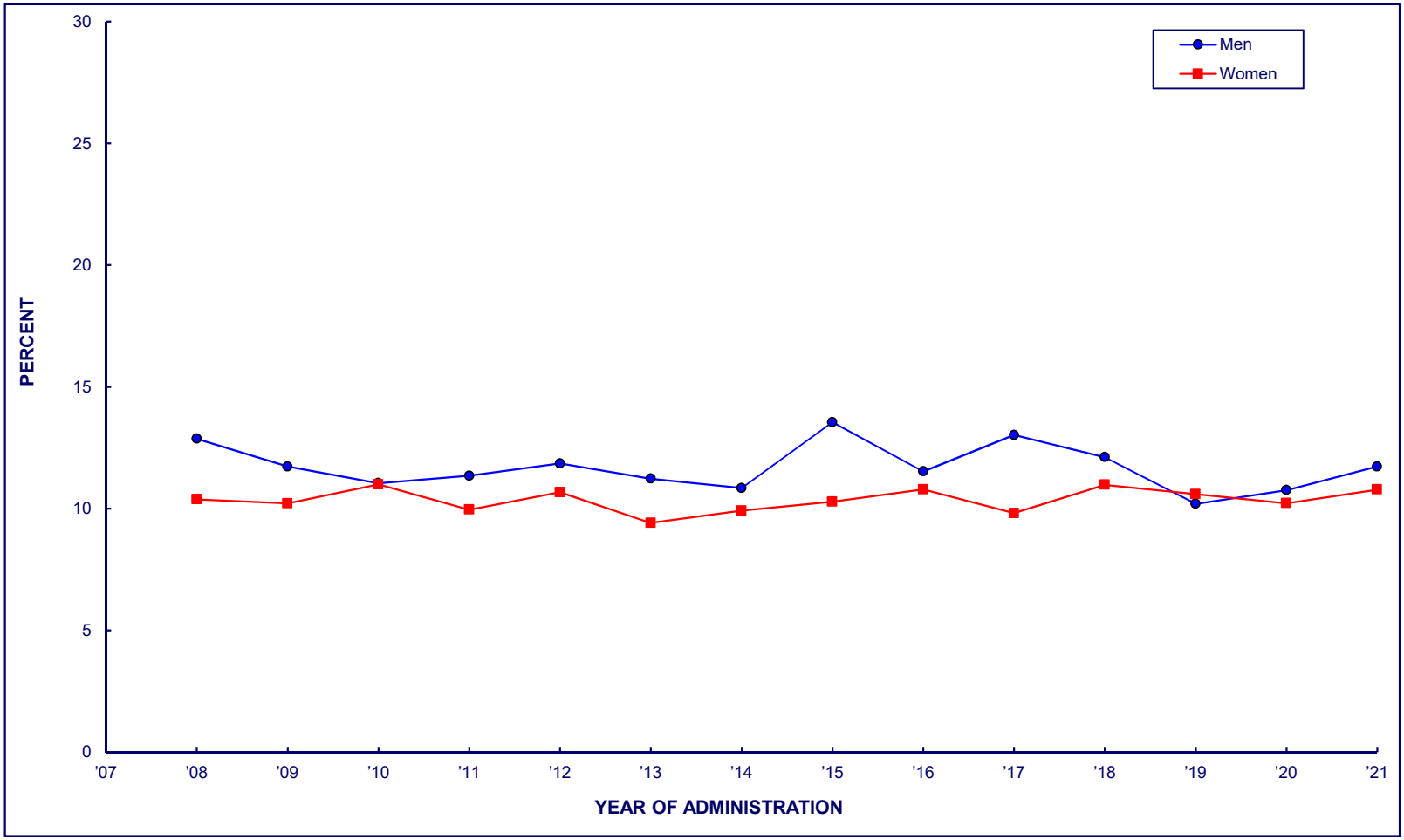
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	21.3	18.8	16.0	14.5	13.7	12.5	12.6	13.6	12.9	14.0	12.6	13.1	13.6	15.1	16.7	18.3	19.2	19.7	19.8	19.4	20.0	19.2	19.6	18.7	17.9	18.8	22.1	19.9	20.3	21.3	21.2	21.4	20.4	20.5	n.s.
Black	14.5	11.5	9.1	7.7	6.2	8.0	7.8	6.7	5.7	5.5	5.9	5.0	6.1	6.5	5.6	7.8	6.1	6.2	8.0	6.7	10.6	6.6	7.7	7.9	9.6	11.1	15.7	9.7	14.1	9.4	11.2	6.5	11.8	9.4	n.s.
Hispanic	19.1	16.8	14.7	11.0	12.5	9.5	12.9	11.8	13.2	11.7	11.3	13.8	10.4	11.6	15.3	16.9	15.9	15.5	13.4	12.2	15.1	13.5	12.8	14.2	12.8	12.8	18.4	15.9	16.6	18.5	14.0	15.5	17.2	15.3	n.s.

FIGURE 101

ANY DRUG OTHER THAN MARIJUANA

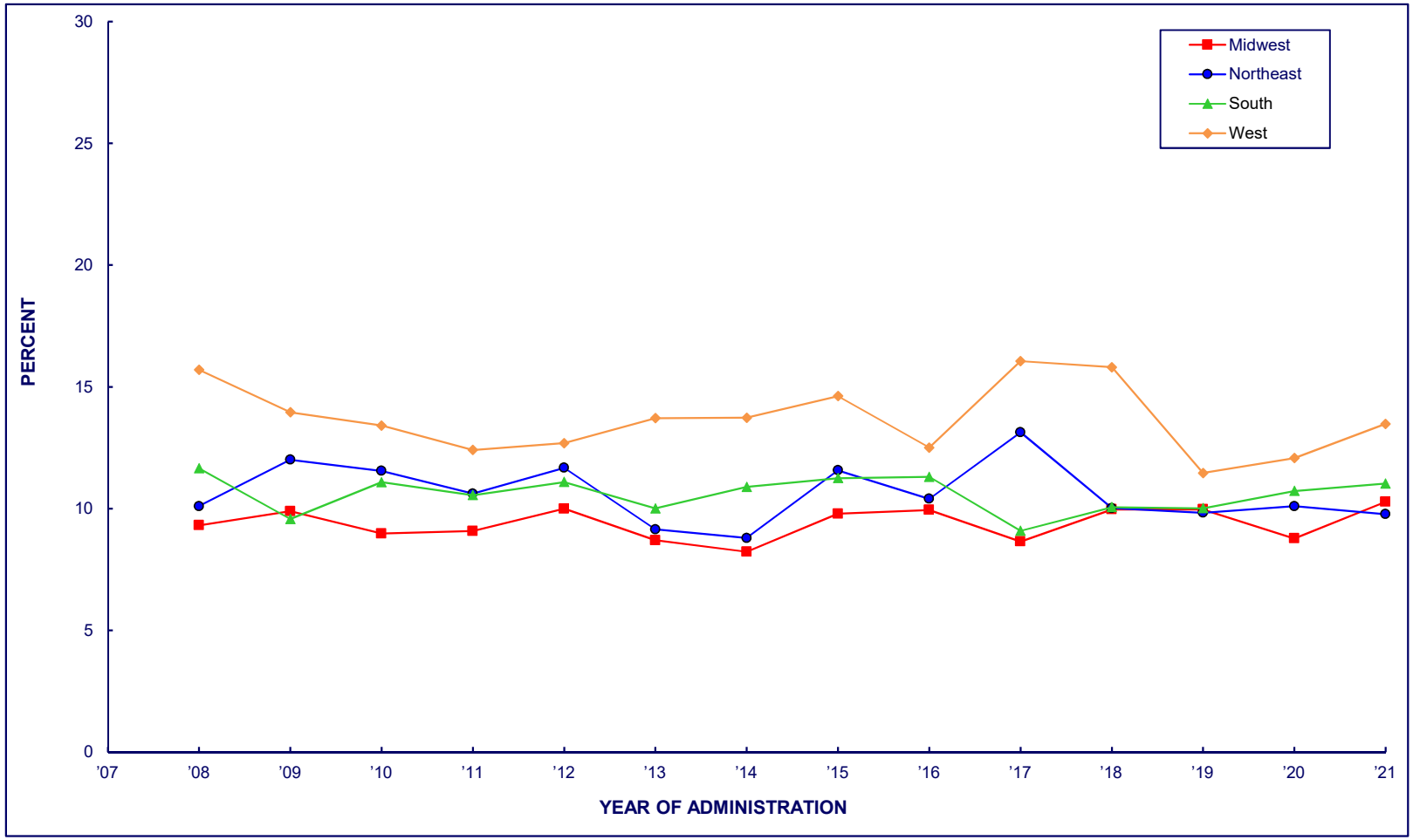
Trends in 12-Month Prevalence

among Respondents of Modal Ages 35 through 50, by Sex



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	12.9	11.7	11.0	11.3	11.9	11.2	10.8	13.5	11.5	13.0	12.1	10.2	10.8	11.7	n.s.
Women	10.4	10.2	11.0	10.0	10.7	9.4	9.9	10.3	10.8	9.8	11.0	10.6	10.2	10.8	n.s.

FIGURE 102
ANY DRUG OTHER THAN MARIJUANA
Trends in 12-Month Prevalence
among Respondents of Modal Ages 35 through 50, by Geographic Region



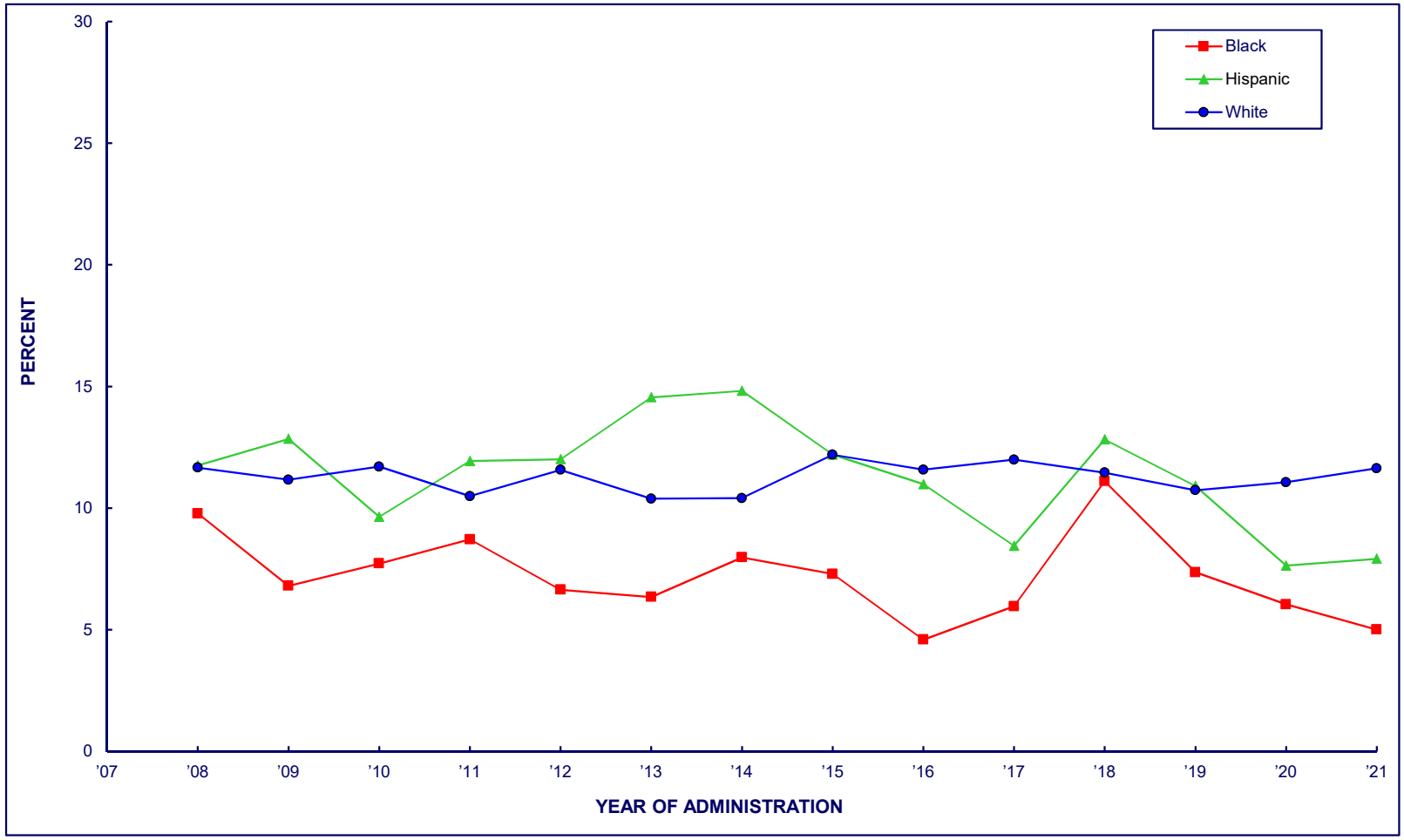
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	10.1	12.0	11.5	10.6	11.7	9.1	8.8	11.6	10.4	13.1	10.0	9.8	10.1	9.8	n.s.
Midwest	9.3	9.9	9.0	9.1	10.0	8.7	8.2	9.8	9.9	8.6	10.0	10.0	8.8	10.3	n.s.
South	11.7	9.6	11.1	10.6	11.1	10.0	10.9	11.3	11.3	9.1	10.1	10.0	10.7	11.0	n.s.
West	15.7	14.0	13.4	12.4	12.7	13.7	13.7	14.6	12.5	16.1	15.8	11.5	12.1	13.5	n.s.

FIGURE 103

ANY DRUG OTHER THAN MARIJUANA

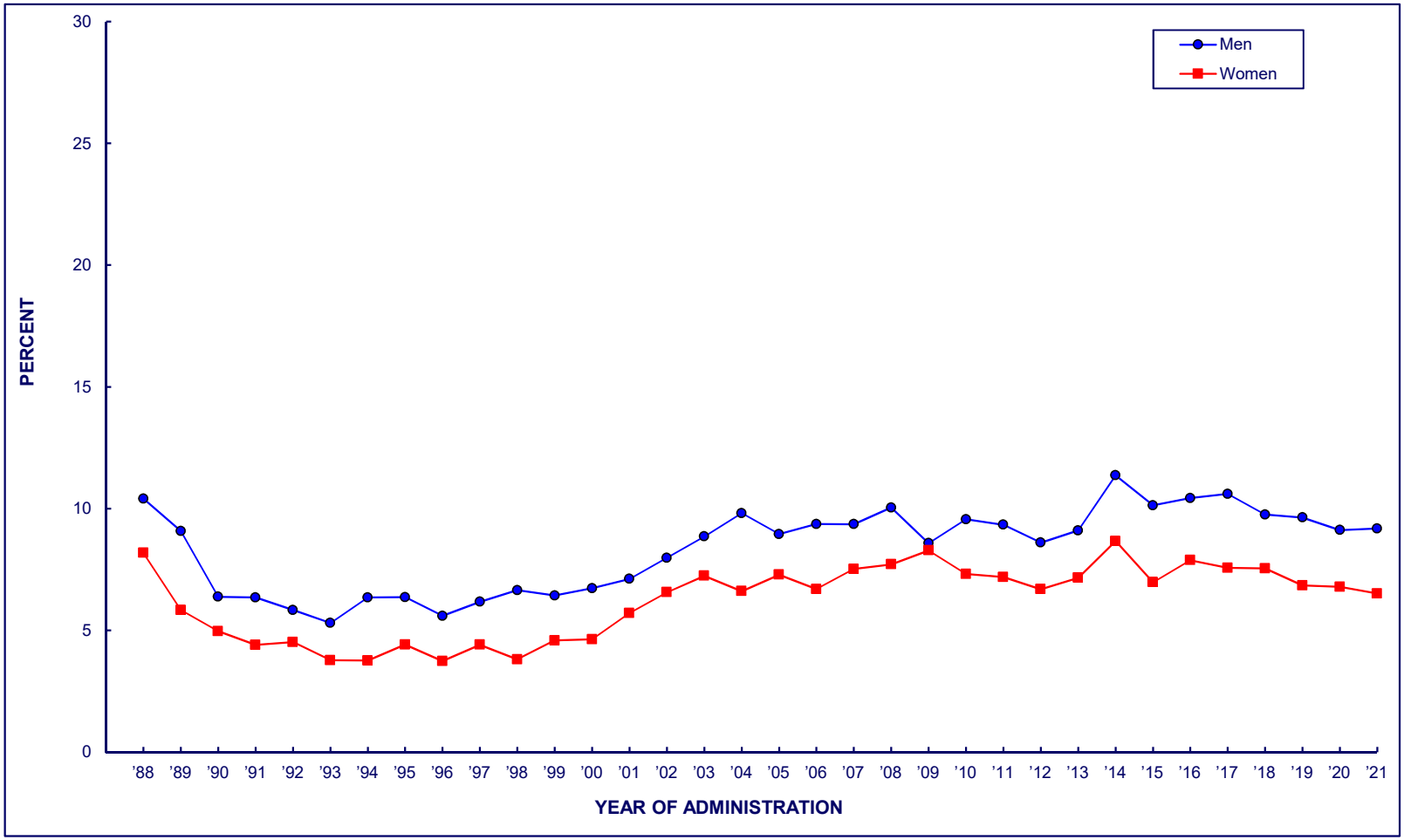
Trends in 12-Month Prevalence

among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



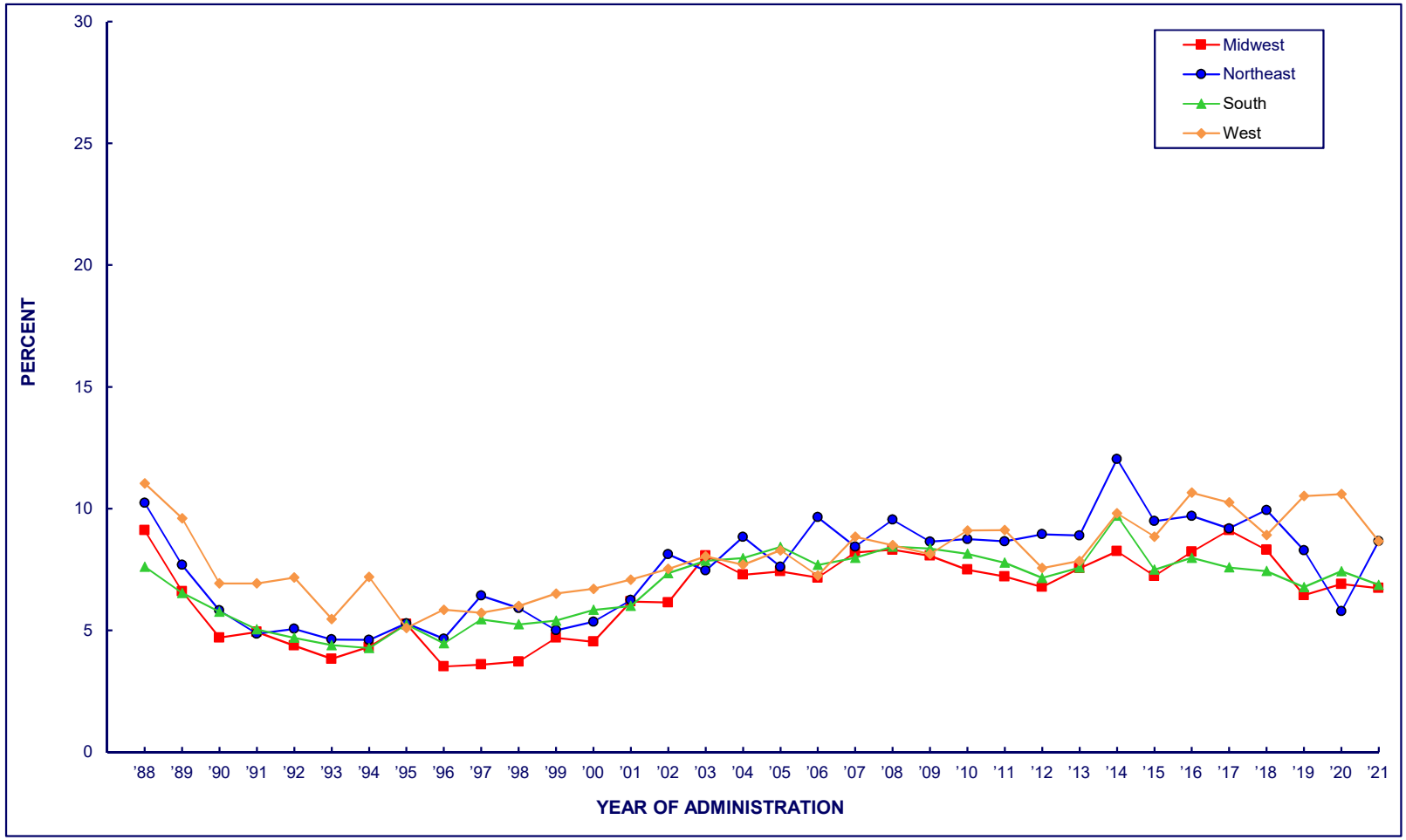
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	11.7	11.2	11.7	10.5	11.6	10.4	10.4	12.2	11.6	12.0	11.5	10.7	11.1	11.6	n.s.
Black	9.8	6.8	7.7	8.7	6.6	6.3	8.0	7.3	4.6	6.0	11.1	7.4	6.0	5.0	n.s.
Hispanic	11.8	12.8	9.6	11.9	12.0	14.6	14.8	12.2	11.0	8.4	12.8	10.9	7.6	7.9	n.s.

FIGURE 104
ANY DRUG OTHER THAN MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Sex



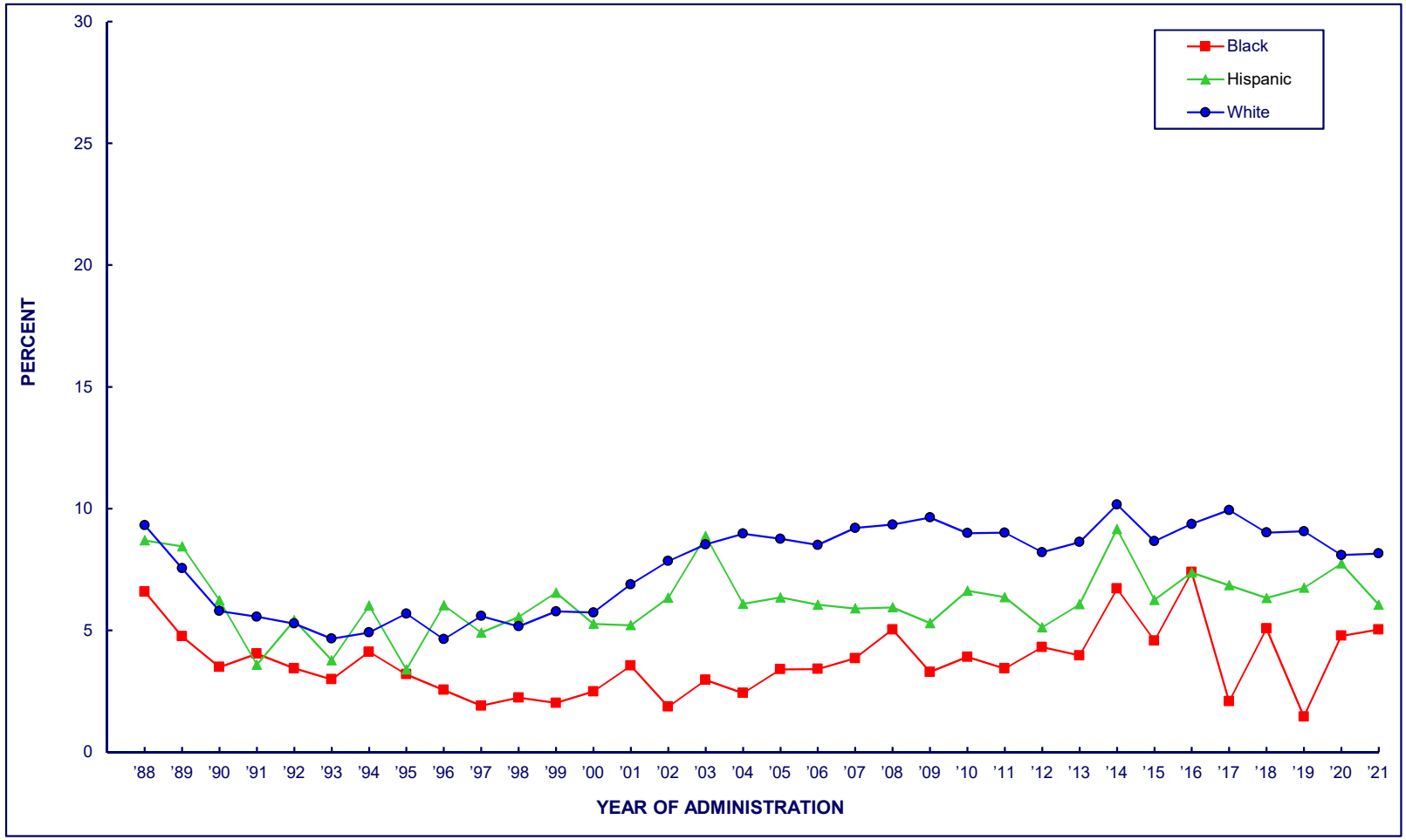
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	10.4	9.1	6.4	6.3	5.8	5.3	6.3	6.4	5.6	6.2	6.6	6.4	6.7	7.1	8.0	8.9	9.8	8.9	9.4	9.4	10.0	8.6	9.6	9.3	8.6	9.1	11.4	10.1	10.4	10.6	9.8	9.6	9.1	9.2	n.s.
Women	8.2	5.8	5.0	4.4	4.5	3.8	3.8	4.4	3.7	4.4	3.8	4.6	4.6	5.7	6.6	7.2	6.6	7.3	6.7	7.5	7.7	8.3	7.3	7.2	6.7	7.2	8.7	7.0	7.9	7.6	7.5	6.8	6.8	6.5	n.s.

FIGURE 105
ANY DRUG OTHER THAN MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Geographic Region



	1988	1989	1990	1991	1992	1993	1994	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	2020	2021	1-Year Change	
Northeast	10.2	7.7	5.8	4.9	5.1	4.6	4.6	5.3	4.6	6.4	5.9	5.0	5.4	6.2	8.1	7.5	8.8	7.6	9.6	8.4	9.5	8.6	8.7	8.7	8.9	8.9	12.0	9.5	9.7	9.2	9.9	8.3	5.8	8.7	+2.9	p<.05
Midwest	9.1	6.6	4.7	4.9	4.4	3.8	4.3	5.3	3.5	3.6	3.7	4.7	4.5	6.2	6.1	8.1	7.3	7.4	7.2	8.2	8.3	8.1	7.5	7.2	6.8	7.5	8.2	7.2	8.2	9.1	8.3	6.4	6.9	6.7		n.s.
South	7.6	6.5	5.8	5.0	4.7	4.4	4.3	5.2	4.5	5.4	5.2	5.4	5.8	6.0	7.3	7.9	8.0	8.4	7.7	8.0	8.4	8.4	8.1	7.8	7.2	7.6	9.7	7.5	8.0	7.6	7.4	6.8	7.4	6.9		n.s.
West	11.0	9.6	6.9	6.9	7.2	5.5	7.2	5.1	5.8	5.7	6.0	6.5	6.7	7.1	7.5	8.0	7.7	8.3	7.2	8.8	8.5	8.1	9.1	9.1	7.6	7.8	9.8	8.8	10.7	10.3	8.9	10.5	10.6	8.7		n.s.

FIGURE 106
ANY DRUG OTHER THAN MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 19 through 30, by Race/Ethnicity



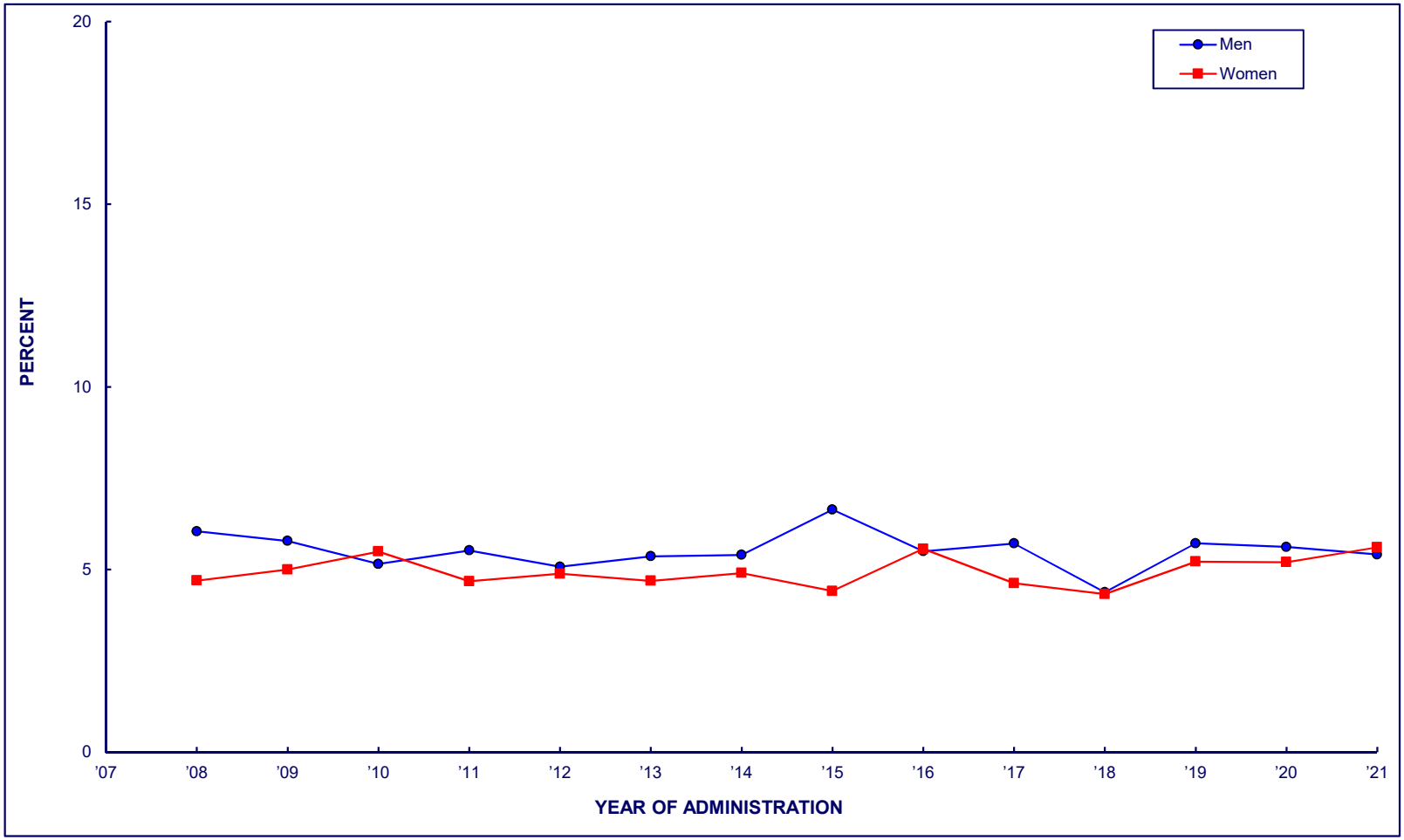
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	9.3	7.5	5.8	5.6	5.3	4.7	4.9	5.7	4.6	5.6	5.2	5.8	5.7	6.9	7.8	8.5	9.0	8.8	8.5	9.2	9.3	9.6	9.0	9.0	8.2	8.6	10.2	8.7	9.4	9.9	9.0	9.1	8.1	8.2	n.s.
Black	6.6	4.8	3.5	4.0	3.4	3.0	4.1	3.2	2.6	1.9	2.2	2.0	2.5	3.5	1.9	3.0	2.4	3.4	3.4	3.8	5.0	3.3	3.9	3.4	4.3	4.0	6.7	4.6	7.4	2.1	5.1	1.5	4.8	5.0	n.s.
Hispanic	8.7	8.4	6.2	3.6	5.4	3.8	6.0	3.4	6.0	4.9	5.5	6.5	5.3	5.2	6.3	8.9	6.1	6.3	6.1	5.9	5.9	5.3	6.6	6.4	5.1	6.1	9.2	6.2	7.4	6.8	6.3	6.7	7.7	6.0	n.s.

FIGURE 107

ANY DRUG OTHER THAN MARIJUANA

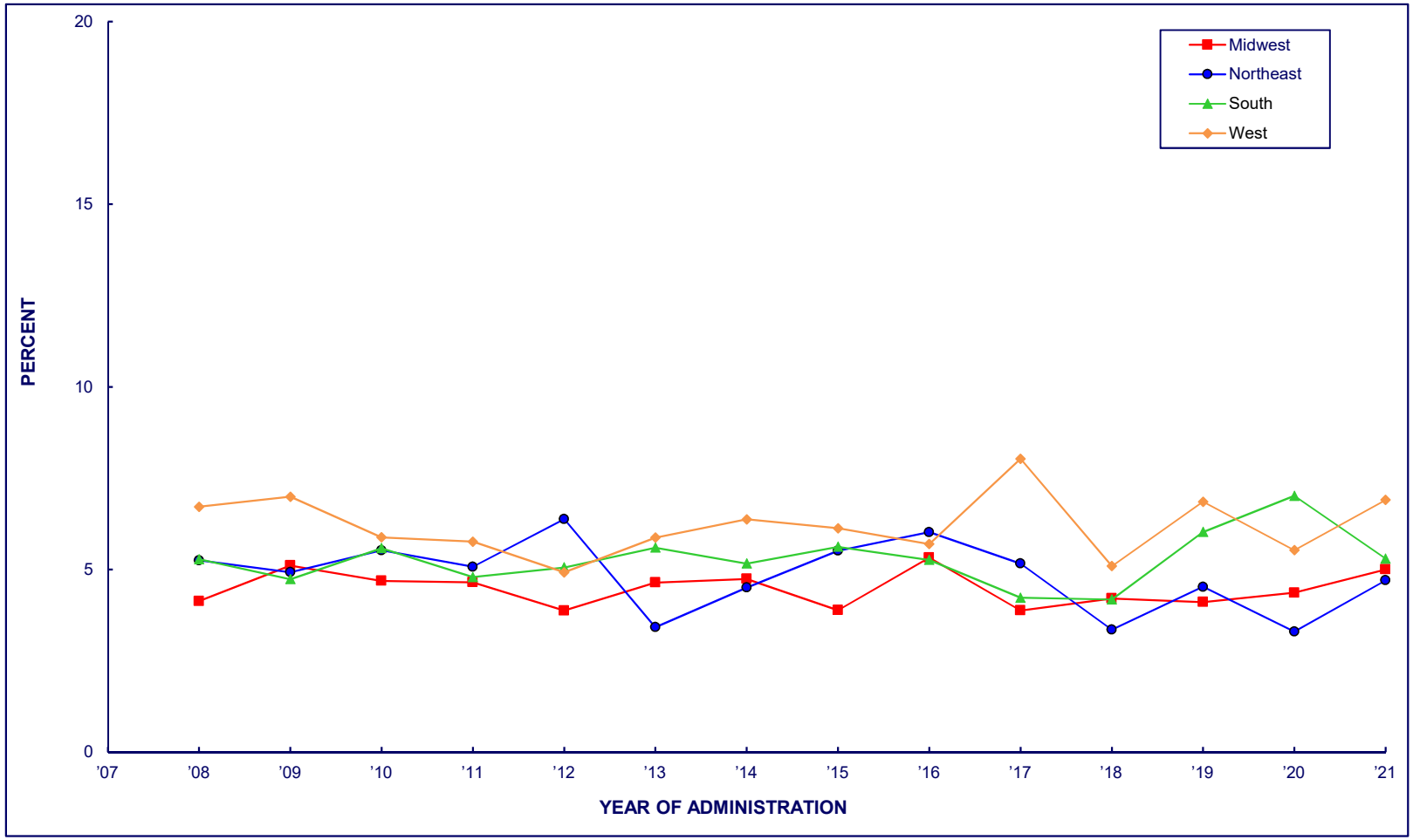
Trends in 30-Day Prevalence

among Respondents of Modal Ages 35 through 50, by Sex



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Men	6.0	5.8	5.1	5.5	5.1	5.4	5.4	6.6	5.5	5.7	4.4	5.7	5.6	5.4	n.s.
Women	4.7	5.0	5.5	4.7	4.9	4.7	4.9	4.4	5.6	4.6	4.3	5.2	5.2	5.6	n.s.

FIGURE 108
ANY DRUG OTHER THAN MARIJUANA
Trends in 30-Day Prevalence
among Respondents of Modal Ages 35 through 50, by Geographic Region



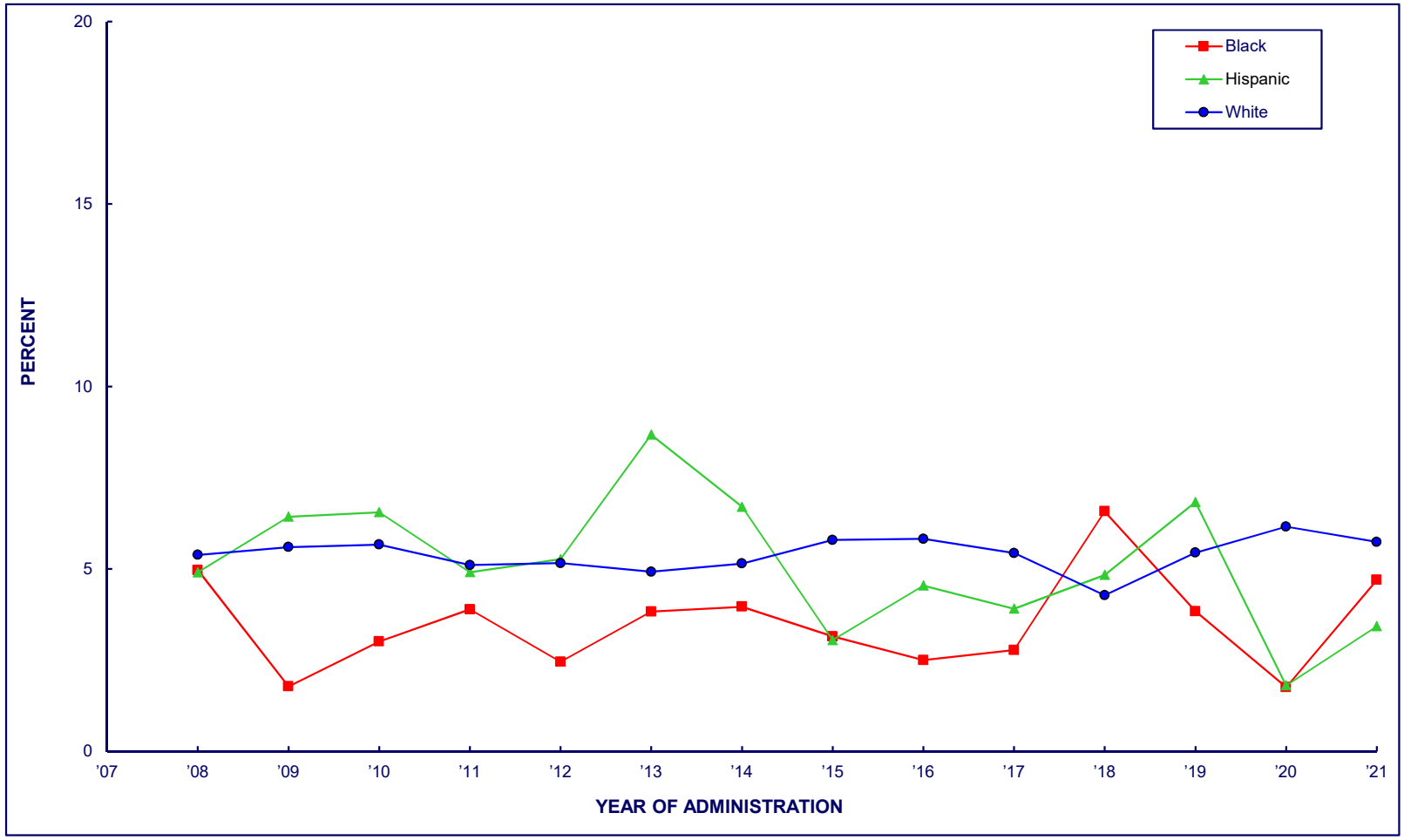
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
Northeast	5.2	4.9	5.5	5.1	6.4	3.4	4.5	5.5	6.0	5.2	3.4	4.5	3.3	4.7	n.s.
Midwest	4.1	5.1	4.7	4.6	3.9	4.6	4.7	3.9	5.3	3.9	4.2	4.1	4.4	5.0	n.s.
South	5.3	4.7	5.6	4.8	5.1	5.6	5.2	5.6	5.3	4.2	4.2	6.0	7.0	5.3	n.s.
West	6.7	7.0	5.9	5.8	4.9	5.9	6.4	6.1	5.7	8.0	5.1	6.9	5.5	6.9	n.s.

FIGURE 109

ANY DRUG OTHER THAN MARIJUANA

Trends in 30-Day Prevalence

among Respondents of Modal Ages 35 through 50, by Race/Ethnicity



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	1-Year Change
White	5.4	5.6	5.7	5.1	5.2	4.9	5.1	5.8	5.8	5.4	4.3	5.4	6.2	5.7	n.s.
Black	5.0	1.8	3.0	3.9	2.5	3.8	4.0	3.1	2.5	2.8	6.6	3.8	1.8	4.7	n.s.
Hispanic	4.9	6.4	6.6	4.9	5.3	8.7	6.7	3.0	4.5	3.9	4.8	6.8	1.8	3.4	n.s.