

Marijuana has been the most widely used illicit drug throughout MTF's 44-years. It can be taken orally, mixed with food or drink, vaped, and smoked, including in a concentrated forms such as hashish or honey oil. The great majority of recreational use in the U.S. involves smoking it in rolled cigarettes ("joints"), in pipes or water pipes ("bongs"), or in hollowed-out cigars ("blunts"). More recently, methods include smoking, vaping, or eating different forms of resin extracts like hash oil, honey oil, or shatter—a solid form.

### Trends in Use

Annual marijuana prevalence peaked among 12<sup>th</sup> graders in 1979 at 51%, following a rise that began during the 1960s. Then use declined fairly steadily to 22% by 1992—a decline of more than half. Use resurged in the 1990s, peaking in 1996 at 8<sup>th</sup> grade and in 1997 at 10<sup>th</sup> and 12<sup>th</sup> grades. Use then declined among all three grades through 2007 or 2008, followed again by an upturn in use in all three grades. Annual marijuana prevalence among 8<sup>th</sup> graders increased in use from 2007 to 2010, decreased slightly from 2010 to 2012, declined significantly in 2016, and leveled in 2017 and 2018. Among 10<sup>th</sup> graders, use increased somewhat from 2008 to 2013 and then declined, before rising in 2017 and 2018. Among 12<sup>th</sup> graders, use increased from 2006 to 2011, fell some through 2015, and then increased through 2017 before falling back in 2018. As shown in Table 8, *daily* marijuana use increased in all three grades after about 2007, reaching peaks in 2011 (at 1.3% in 8<sup>th</sup>), 2013 (at 4.0% in 10<sup>th</sup>), and 2011 (at 6.6% in 12<sup>th</sup>), before declining slightly since. Daily prevalence rates in 2018 were 0.7%, 3.4%, and 5.8%, respectively, with one in seventeen 12<sup>th</sup> graders currently smoking daily.

For the first time in 2017 we included questions about vaping marijuana in the past 30 days, in the past 12 months, and in the student's lifetime. These were the first ever national estimates of marijuana vaping of this kind. One in ten 12<sup>th</sup> grade students reported vaping in the past 12 months, and the prevalence was 3%, 8%, and 10% for 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade students, respectively. In each grade, more than one quarter of students who had used marijuana had experience vaping it. These levels were quite high, considering that vaping was virtually unknown among adolescents just five years earlier. In 2018 annual prevalence rose substantially and significantly to 4%, 12%, and 13% in the three grades.

### Perceived Risk

The proportion of students seeing great risk from regular marijuana smoking fell during the rise in use in the late

1970s and again during the subsequent rise in use in the 1990s. Indeed, for 10<sup>th</sup> and 12<sup>th</sup> grades, perceived risk declined a year before use rose in the upturn of the 1990s, making perceived risk a leading indicator of change in use. (The same may have happened for 8<sup>th</sup> grade but our data do not start early enough to show it.) The decline in perceived risk halted in 1996 in 8<sup>th</sup> and 10<sup>th</sup> grades; the increases in use in 10<sup>th</sup> and 12<sup>th</sup> grades ended a year or two later, again making perceived risk a leading indicator of trends in use. From 1996 to 2000, perceived risk held fairly steady, and the decline in use in the upper grades stalled. After some decline prior to 2002, perceived risk increased a bit in all grades through 2004 accompanied by decreases in use. Since 2004 in 8<sup>th</sup> grade, 2005 in 12<sup>th</sup> grade, and 2008 in 10<sup>th</sup> grade, perceived risk has fallen substantially, presaging some resurgence in marijuana use lasting three to five years; however, no increase in perceived risk preceded the recent leveling of use. Rather, perceived risk has continued a steep decline since the mid-2000s without a concomitant further rise in overall use. We have shown that in recent years a sharp decline in the use of "gateway drugs"—in particular cigarette smoking, with which marijuana use has been highly correlated—has offset expected increases in marijuana use.<sup>11</sup>

### Disapproval

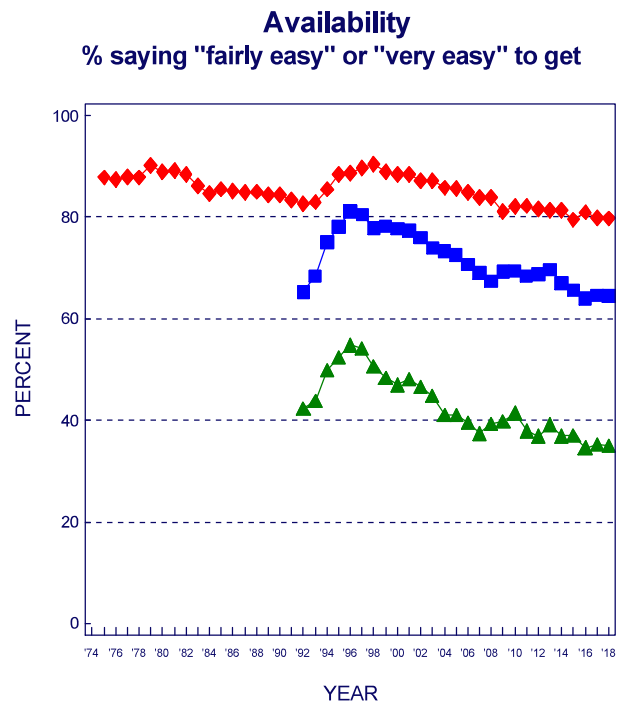
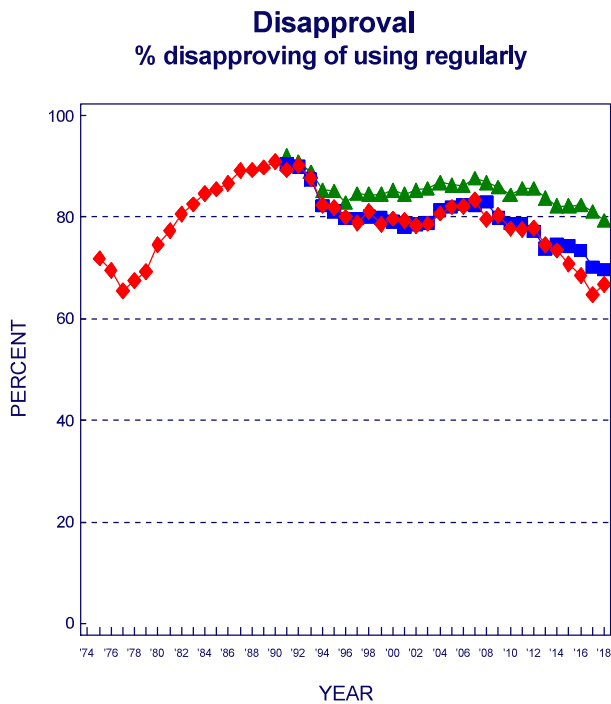
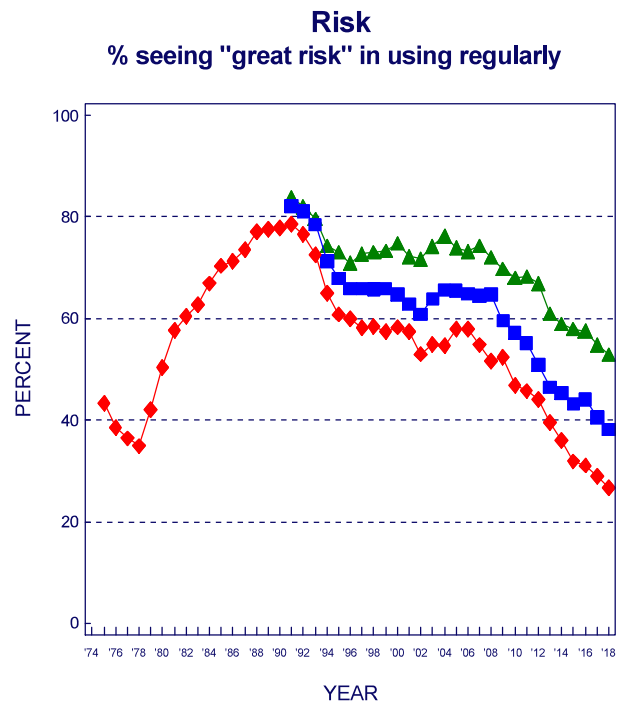
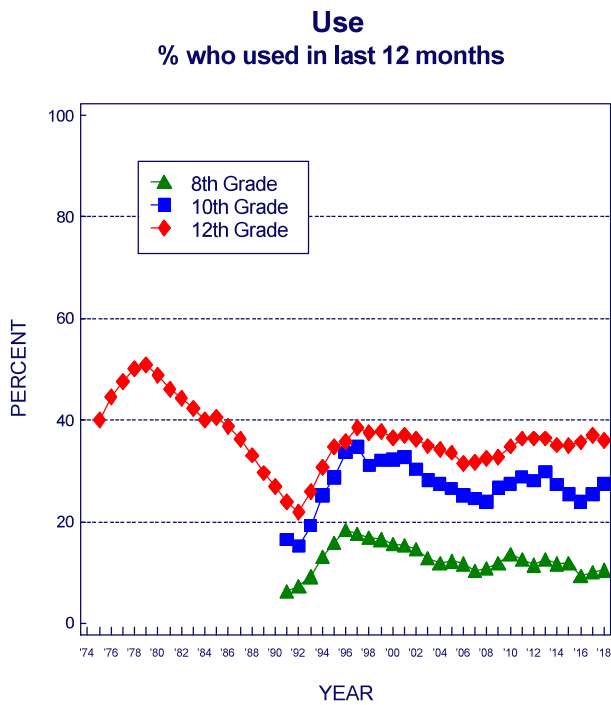
Personal disapproval of trying marijuana has declined some since 2007 or 2008 in all three grades, but disapproval of regular use still remains quite high at 79%, 70%, and 67% in 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades, respectively. During the early and mid 1990s, as use increased and perceived risk decreased, disapproval fell considerably—by 17, 21, and 19 percentage points for the three grades. As is often the case, perceived risk fell before disapproval. Since 2007 there has been some decline in disapproval, with declines for experimental use in 2017 being significant for all three grades. In 2018 there was a significant decline in 8<sup>th</sup> grade, some decline in 10<sup>th</sup>, but a non-significant increase in 12<sup>th</sup> grade.

### Availability

Since 1975, between 80% and 90% of 12<sup>th</sup> graders each year have said that marijuana would be fairly or very easy to get if they wanted some, with that figure standing at 80% in 2018. Marijuana has been somewhat less readily available to 10<sup>th</sup> graders and considerably less available to 8<sup>th</sup> graders, with 65% and 35%, respectively, reporting it to be fairly or very easy to get in 2018. Availability has declined appreciably among younger adolescents, but remains readily available to most 12<sup>th</sup> graders.

<sup>11</sup> Miech, R. A., Johnston, L. D., & O'Malley, P. M. (2017). Prevalence and attitudes regarding marijuana use among adolescents over the past decade. *Pediatrics*, 140(6).

# **Marijuana : Trends in Annual Use, Risk, Disapproval, and Availability** Grades 8, 10, 12



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