

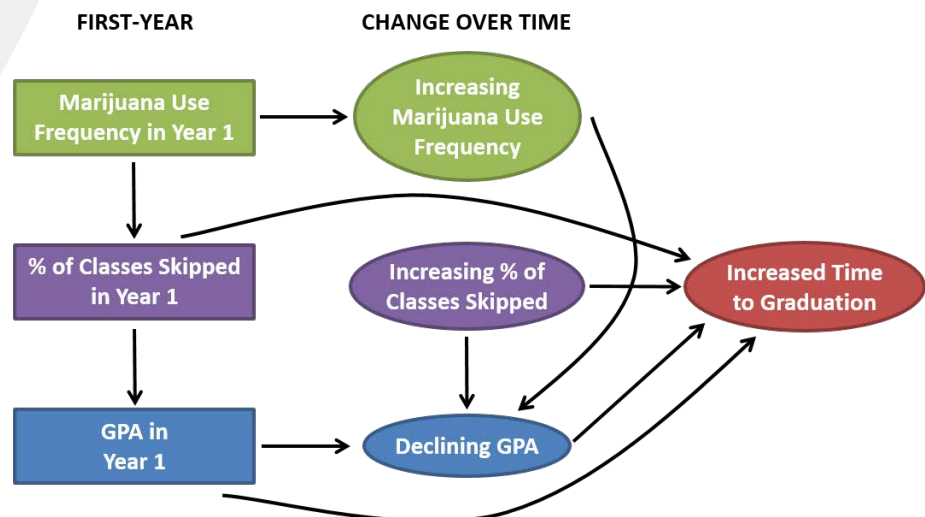
# The academic consequences of marijuana use during college

## MAJOR FINDINGS:

This study advances research on the adverse effects of marijuana use on academic achievement by focusing on its impact on postsecondary educational outcomes. Researchers followed 1,117 college students for eight years to test the direct and indirect effects of marijuana use on college grade point average (GPA) and time to graduation, with skipping class as a mediator of these outcomes. A structural equation model was evaluated taking into account a variety of baseline risk and protective factors (i.e., demographics, college engagement, psychological functioning, alcohol and other drug use) thought to contribute to college academic outcomes.

Results showed that marijuana use contributes indirectly to academic outcomes. For example, during their first year of college, students who used marijuana more frequently tended to skip more of their classes, which in turn contributed to a lower GPA and ultimately delaying their graduation. Over time, changes in marijuana use frequency were directly related to changes in GPA, such that grades tended to drop as marijuana use became more frequent, and conversely, grades tended to rebound as marijuana use declined. Thus, students with lower first-year GPAs tended to graduate later, and the more their GPA dropped over time, the later their graduation tended to be.

Overall, this pattern of findings highlights the importance of the first year of college as a critical period in which students' long-term academic trajectories begin to take shape, based in part on how they balance engagement in academic life—especially class attendance—with marijuana use.



*Note.* Baseline risk and protective factors do not appear in the above path diagram, though they were included in the analysis.

### Of major interest to:

- College Administrators
- Parents
- Educators
- Health Professionals
- Students
- Law and Policy Makers



**Practice and Policy Suggestions:** The researchers found that heavier patterns of marijuana use were incompatible with regular class attendance, which had clear consequences for students' grades, and that heavier marijuana use contributed indirectly to delayed graduation through its influence on poorer class attendance and lower grades. The implications of such consequences take on greater urgency in light of recent changes in state policies and public perceptions regarding marijuana, both of which trend toward increasing the availability and acceptability of marijuana. Thus, prevention and early intervention are important components of a comprehensive strategy for promoting postsecondary academic achievement.

*College administrators* must acknowledge the possible role of marijuana use in undermining students' ability to succeed and decide how to address marijuana use on campus in a way that promotes student success. Administrators can start by enforcing their schools' antidrug policies using the growing body of research evidence on marijuana use and related risks, rather than acceding to trends in public opinion about marijuana use. They can also screen incoming and current students for marijuana use and apply appropriate interventions to reduce use in order to help students succeed academically.

*Parents* of college and college-bound students can also help students succeed by actively stressing the value of long-term rewards associated with academic engagement and regular class attendance over substance use during college. Parents can also question the popular notion that marijuana use is a normal "rite of passage" during college and articulate their expectation that their child refrain from such use.

The complete publication referenced in this research brief can be found here: Arria, A.M., Caldeira, K.M., Bugbee, B.A., Vincent, K.B., O'Grady, K.E. (2015). The academic consequences of marijuana use during college. *Psychology of Addictive Behaviors*. 29(3), 564-575. doi: 10.1037/adb0000108



## About the College Life Study (CLS)

The CLS is a longitudinal study of 1,253 college students at a large, public, mid-Atlantic university. This study is one of the first large-scale scientific investigations that aims to discover the impact of health-related behaviors during the college experience. Any first-time, first-year student between 17 and 19 years old at the university in the fall of 2004 was eligible to participate in a screening survey. The researchers then selected students to participate in the longitudinal study, which consisted of two-hour personal interviews administered annually, beginning with their first year of college. A full description of the methods used is available.<sup>1,2</sup> Inherent to all self-reporting research methods is the possibility for response bias. Because the sample is from one large university, the ability to generalize the findings elsewhere is uncertain. However, response rates have been excellent and attrition bias has been minimal.

For more information about the study, please visit [www.cls.umd.edu](http://www.cls.umd.edu) or contact Amelia M. Arria at the University of Maryland School of Public Health at [aarria@umd.edu](mailto:aarria@umd.edu).

<sup>1</sup> Arria, A.M., Caldeira, K.M., O'Grady, K.E., Vincent, K.B., Fitzelle, D.B., Johnson, E.P., Wish, E.D. (2008). Drug exposure opportunities and use patterns among college students: Results of a longitudinal prospective cohort study. *Substance Abuse*. 29(4), 19-38.

<sup>2</sup> Vincent, K.B., Kasperski, S.J., Caldeira, K.M., Garnier-Dykstra, L.M., Pinchevsky, G.M., O'Grady, K.E., Arria, A.M. (2012). Maintaining superior follow-up rates in a longitudinal study: Experiences from the College Life Study. *International Journal of Multiple Research Approaches*. 6(1), 56-72.

*This research brief was prepared by Kaitlin A. Hippen.*

