

# Drinking like an adult? Trajectories of alcohol use patterns before and after college graduation

## MAJOR FINDINGS:

Prior research has concluded that students tend to “mature out” of high-risk drinking patterns as they transition to adult roles. This study examines college graduation as a possible turning point in students’ drinking patterns. Alcohol drinking patterns were measured among 1,128 young adults, spanning several years before and after their college graduation. This study utilizes a “knot” or “piecewise” model in which college graduation was treated as a hypothesized turning point, so that the trajectories of alcohol use frequency (i.e., number of drinking days) and quantity (i.e., number of drinks consumed) could be examined, first, prior to graduation and, separately, after graduation, rather than as one overall trajectory. Researchers hypothesized that pre-graduation rates of change would differ from post-graduation rates of change. Consistent with the notion of maturing out of heavy drinking patterns, researchers also hypothesized that drinking would increase faster pre-graduation than post-graduation, for both quantity and frequency of alcohol use.

Results supported the hypothesis that graduation is a critical event, in that the pre- and post-graduation rates of change in alcohol use frequency and quantity were significantly different. Among this sample of young adults who graduated from college, alcohol use became increasingly frequent throughout college. After graduation, frequency decreased slightly and then rebounded to pregraduation levels. By contrast, alcohol use quantity decreased steadily both during and after college. Together, results support the notion that, on average, the high-quantity, low-frequency drinking patterns that characterize the early college years are gradually replaced by higher frequency, lower quantity patterns. Still, average alcohol use among the sample continued to exceed current standards for moderate use four years after college graduation. Interestingly, the researchers also found that binge drinking during the first year of college (defined as consuming four or more drinks per occasion for women, and five or more for men) was associated with both higher-frequency drinking at college entry and a faster rate of increase in alcohol use frequency throughout college. In fact, students who were binge drinkers at the beginning of college continued drinking more often than their peers both during and after college.

This study demonstrates the utility of “knot models”, a relatively novel approach for evaluating a critical event in relation to drinking patterns and other health-related behaviors.

### *Of major interest to:*

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



## Practice and Policy Suggestions:

Results suggest that the post-college “maturing out” phenomenon might be attributable to decreases in alcohol use quantity but not frequency. High-frequency drinking patterns that develop during college appear to persist several years beyond graduation. Thus, providing early screening and intervention services that focus on both alcohol use quantity and frequency should be a priority for prevention specialists on college campuses. Findings from the current study also highlight the importance of identifying and intervening with students who already have established high-risk drinking patterns (i.e., binge drinking) by college entry.

Given that prior studies have relied primarily on measures of alcohol use quantity and given the present finding that quantity and frequency change differentially over time, the possibility that drinking frequency might exert a distinct influence on health outcomes is an open question. This should be a focus of future research to inform guidelines about limits on the frequency of drinking.

The complete publication referenced in this research brief can be found here: Arria, A.M., Caldeira, K.M., Allen, H.K., Vincent, K.B., Bugbee, B.A., O’Grady, K.E. (2016). Drinking like an adult? Trajectories of alcohol use patterns before and after college graduation. *Alcoholism: Clinical and Experimental Research*. 40(3), 583-590. doi: 10.1111/acer.12973; PMC4775364



## 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. doi:10.1080/08897070802418451; PMC2614283

<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. doi:10.5172/mra.2012.6.1.56; PMC3255097

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