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Fake ID Ownership and Heavy Drinking in Underage College Students: Prospective Findings

Julia A. Martinez, Patricia C. Rutledge, and Kenneth J. Sher

Department of Psychological Services, University of Missouri—Columbia, and the Midwest Alcoholism Research Center, St. Louis, Missouri.

Abstract

The authors examined the ownership of false identification (fake ID) for the purpose of obtaining alcohol and the relation of fake ID ownership to heavy drinking in a longitudinal sample of college students under 21 years of age. A sample of 3,720 undergraduates was assessed the summer prior to college entrance and during the 4 semesters comprising freshman and sophomore years. Regression analyses were used to estimate bidirectional relations between consumption and fake ID ownership. Sex, Greek membership, and prior drinking were controlled. Results showed that fake ID ownership increased over time (12.5% precollege to 32.2% fourth semester) and that Greek members were more likely than others to own fake IDs. Fake ID ownership predicted concurrent and next-semester heavy drinking with increasing strength over time. Also, the acquisition (onset) of fake ID ownership at each time point was predicted by previous-semester consumption. When traditional, robust risk factors of consumption are controlled, fake ID ownership meaningfully relates to heavy drinking in college. It thus presents a significant public health problem, addressable through training for alcohol servers and retailers, punitive measures toward fake ID owners, and other possible interventions.

Keywords

false identification; heavy drinking; alcohol access; longitudinal

Heavy drinking is pervasive in college, with 42% of students in a nationally representative sample reporting having had five or more drinks in a sitting within 2 weeks in 2004 (Johnston, O'Malley, Bachman & Schulenberg, 2005), a prevalence rate that has not much changed over the last 25 years. Students experience a wide range of negative short- and long-term personal consequences from heavy drinking (Jackson, Sher & Park, 2005; Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002), and heavy drinking also presents significant second-hand effects on other individuals and the larger community (Wechsler, Moeykens, Davenport, Castillo, & Hansen, 1995). Compounding the problem of heavy drinking in college is the fact that many heavy drinking college students are below the age of 21 years, the current legal drinking age in the United States, presenting significant enforcement challenges for college campuses and the communities in which they are situated. Indeed, illegal purchase and possession of alcohol is a problem in its own right, as violations of liquor laws accounted for 15% of all arrests among youth aged 18 to 20 years in 2003 and 2004 (Federal Bureau of Investigation, 2003; Federal Bureau of Investigation, 2004) in comparison to accounting for 3% of all arrests for those aged 21 years.

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Correspondence concerning this article should be addressed to Julia A. Martinez, Department of Psychological Sciences, University of Missouri—Columbia, 200 South 7th Street, Columbia, MO 65211. E-mail: E-mail: jamf22@mizzou.edu.
Patricia C. Rutledge is now at the Department of Psychology, Allegheny College.

Although underage college students are less likely to be drinkers than their college peers aged over 21 years of age (77% vs. 86% past-year consumption of any alcohol, odds ratio [OR] = .56), they were more likely to report that they typically engaged in binge drinking on occasions when they did consume alcohol (58% men and 32% women vs. 42% men and 21% women; men OR = 1.93, women OR = 1.85), where binge drinking was defined as five or more drinks in a sitting for men and four or more drinks in a sitting for women (Wechsler, Lee, Nelson, & Kuo, 2002a, 2002b). Underage college drinkers have also been found to be 1.2 times more likely than their of-age student peers to report having five or more alcohol-related problems (Wechsler, Kuo, Lee, & Dowdall, 2000). Thus, the underage college student drinker appears to be at exceptionally high risk for hazardous drinking and consequences as well as syndromal alcohol use disorders (Dawson, Grant, & Li, 2005).

Despite legal restrictions of on-premise and off-premise alcohol sales to minors, 51% of underage college students reported that they thought alcohol was “very easy” to obtain and 18% reported that they used false identification (fake ID) for the purpose of obtaining alcohol (Wechsler et al., 2002a, 2002b). Although it is not always necessary for a minor to use or own a fake ID to purchase alcohol, it seems reasonable that fake ID ownership may increase the accessibility of alcohol by working as a local or individual reaction to age restrictions (Gruenewald & Treno, 2000), which, in turn, may increase perceived availability (Abbey, Scott, & Smith, 1993) and therefore perhaps embolden some minors to enter establishments and attempt to purchase alcohol.

In a cross-sectional study of fake ID use and alcohol obtainment in a sample of 911 youths between the ages of 16 and 19 years, 7% of high school students reported having used a fake ID to purchase alcohol, whereas 14% of college freshman reported having used a fake ID, indicating that the ownership and use of fake IDs might become more common in college students (Schwartz, Farrow, Banks, & Giesel, 1998). In a larger cross-sectional study of reported sources of alcohol in a sample of 1,738 participants, 7.5% of youths aged 18 to 20 years reported having used a fake ID in the past month, although the study did not examine differences between college students and youths who were not students (Wagenaar et al., 1996). A cross-sectional examination of fake ID use in 272 college students found that 46% of participants reported having ever used a fake ID for the purpose of obtaining alcohol (Durkin, Wolfe, & Phillips, 1996), suggesting that fake ID use and ownership appears to be noteworthy in college students.

The relevance of fake ID ownership to problematic drinking patterns is highlighted by findings showing that 56% of youths who reported borrowing or using a fake ID also reported weekly use of alcohol, in comparison to 14% of those who reported not owning identification in an underage Canadian sample (Smart & Adlaf, 1987). Similarly, a strong ($r = .51$) association between drinking frequency and fake ID use has been found in college students (Durkin et al., 1996). Moreover, fake ID use was associated with unique variance in the frequency of drinking even after controlling for well-established risk factors for alcohol use, such as sex and Greek affiliation. However, longitudinal examination of drinking and fake ID ownership is needed to help establish its etiological relevance and resolve whether having a fake ID is associated with subsequent heavy drinking and/or whether heavy drinkers obtain fake IDs as an (ostensible) additional method of access to alcohol in college.

Using a large prospective cohort of first-time freshmen at a large, Midwestern state university, the present study estimates prevalence rates of fake ID ownership from prior to college entry through the sophomore year at college, the period during which the overwhelming majority of students remains under 21 years of age. Furthermore, the present study estimates the relation between fake ID ownership and sex and Greek membership, two robust risk-factors for heavy drinking (Wechsler, Dowdall, Davenport, & Castillo, 1995). Most critically, the present study

estimates the relation between fake ID ownership and concurrent and subsequent heavy drinking, as well as the relation between acquisition, or onset, of fake ID ownership and previous-semester heavy drinking. Based upon existing cross-sectional research, we hypothesized that fake ID ownership and heavy drinking reciprocally influence each other: heavier drinkers are more likely to obtain fake IDs, and fake IDs increase the likelihood of drinking.

Method

Participants and Procedure

A sample of 3,720 first-time college students (88% of the 2002 entering class) from a large Midwestern university was assessed the summer prior to college entrance and during the four semesters comprising freshman and sophomore years, following approval from the university Institutional Review Board. Participants completed a paper-and-pencil survey the summer prior to college entrance and completed an online survey at each subsequent time point. Participants were 53.58% female, 90.27% Caucasian, and 17.96 ($SD = 0.37$) years of age on average at entrance to the study and 19.75 ($SD = 0.47$) years of age at the spring semester of their sophomore year. At the first assessment (freshman fall), 70.30% of the original sample participated, 68.20% at the second assessment (freshman spring), 60.62% at the third assessment (sophomore fall) and 66.72% at the fourth assessment (sophomore spring). Thus, an average of 66.46% of the baseline sample participated in at least one follow-up assessment during the freshman and sophomore years. Previous work with this sample demonstrated minimal retention biases (Sher & Rutledge, in press), although those more likely to remain in the sample were females ($OR = 2.33$) and less heavy drinkers ($OR = 0.88$). Participants were excluded if they were 21 years of age at any time point.

Measures

Fake ID ownership was assessed at each time point. Participants were asked: "Do you currently have a 'fake ID' or someone else's ID for the purpose of purchasing alcohol or entering a bar or club?" The variable included four response options as follows: "Yes, and I have used it," "Yes, but I have not used it," "No, but I plan to get one," and "No, and I have no intention of getting one." To assess ownership only, the variable was dichotomized, such that the affirmative responses were grouped together and the negative responses were grouped together. Onset of fake ID ownership was defined as self-reported fake ID ownership, together with no report of previous ownership during previous waves of data collection.

Greek membership was assessed at each time point in college with a question asking students: "Are you a member of a fraternity or sorority?" Response options included an affirmative response, in addition to several negative responses that included frequency of attendance at Greek events. To assess Greek membership only, the variable was dichotomized by affirmative indication of Greek membership versus all other negative responses. Additionally, for the purpose of these analyses, if a student endorsed being a Greek member at any time point, then he or she was considered a Greek member (42.69% of sample). If a student never endorsed being a Greek member, he or she was not considered a member.

Heavy drinking was assessed at each time point, on the basis of a composite of three 9-point ordinal scales asking the number of occasions that students drank five or more drinks in a sitting, felt high on alcohol, and got drunk on alcohol. The scale for each of the variables was as follows: 0 = *did not in the past 30 days*, 1 = *once in the past 30 days*, 2 = *2–3 times in the past 30 days*, 3 = *once or twice a week*, 4 = *3–4 times a week*, 5 = *5–6 times a week*, 6 = *nearly every day*, 7 = *every day*, and 8 = *twice a day or more*. Means for all drinking variables at all time points, prior to becoming composite variables, ranged from 1.11 to 1.54 ($SD = 1.32$ to

1.57). Coefficient alpha values for this composite variable ranged between .92 and .93 at all time points.

In order to assess the relation between fake ID ownership and very heavy drinking, an additional 9-point variable assessing the frequency of drinking 12 or more drinks in a sitting during the past month was used. This measure employed the same response options described previously, and the mean ranged from 0.35 to 0.46 ($SD = 0.85$ to 1.00) at each time point. Alcohol dependence was measured dimensionally as a count of the number of dependence criteria of the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* (American Psychiatric Association, 1994) met during the past 3 months, based on a self-report questionnaire of alcohol consequences and dependence symptoms (Grekin & Sher, 2006). From a total of seven possible symptoms, the mean number of dependence symptoms in students ranged from 0.80 to 0.98 ($SD = 1.31$ – 1.42) at each time point.

Data Analysis

Rates of fake ID ownership were calculated in the total sample and according to sex and Greek membership status. Repeated-measures analysis of categorical data using weighted least-squares (PROC CATMOD, SAS 9.1; SAS Institute, Cary, NC) was used to determine the change over time in fake ID ownership during college. Regression analyses were used to predict heavy drinking from fake ID ownership. The association between concurrent fake ID ownership on heavy drinking was estimated, as well as the effect of previous-semester fake ID ownership on heavy drinking. All analyses simultaneously modeled the effects for sex and membership in Greek societies. Precollege heavy drinking was controlled in a first set of analyses and previous-semester heavy drinking was controlled in an alternate, second set of analyses. At each semester, logistic regression analyses were used to predict the onset of fake ID ownership in college from heavy drinking in the previous semester, controlling for sex and Greek membership status.

Results

Rates of fake ID ownership showed a dramatic increase over the first 2 years of college, $\chi^2(4, N = 1,547) = 268.72, p < .01$: precollege = 12.5%, freshman fall = 17.1%, freshman spring = 21.3%, sophomore fall = 27.9%, sophomore spring = 32.2%. At every measurement occasion, possession of a fake ID was associated with the self-reported perception of alcohol being easy to obtain (OR = 11.95, confidence interval [CI] = 5.90–24.18 at precollege and ORs during freshman and sophomore years ranging from 6.83 to 12.66), where 83.43% to 89.13% of participants at each time point reported that alcohol was easy to obtain.

As shown in Table 1, Greek membership was strongly related to fake ID ownership overall and at each semester, and the strength of this association increased over time, as indicated by a significant main effect for Greek membership, $\chi^2(1, N = 1,547) = 192.03, p < .01$, and a Greek Membership \times Time interaction, $\chi^2(4, N = 1,547) = 104.73, p < .01$. Neither the main effect for sex nor the Sex \times Time interaction was associated with fake ID ownership, $\chi^2(1, N = 1,547) = .00, p = .95$; $\chi^2(4, N = 1,547) = 9.16, p = .06$.

As shown in Table 2 and Table 3, fake ID ownership predicted concurrent and next-semester heavy drinking with increasing strength over time, even after controlling for sex, Greek membership, and prior heavy drinking (operationalized as either precollege heavy drinking or previous-semester heavy drinking). It is noteworthy that simple (not controlling for autoregressivity) lagged effects were similar to cross-sectional effects; and, when autoregressivity (defined as either precollege or previous-semester heavy drinking in separate analyses) was controlled, statistically significant unique prospective effects were demonstrated. It is also noteworthy that strength of effects and prospective predictive patterns

held for measures of alcohol dependence symptomatology and for drinking 12 or more drinks in a sitting, indicating the clinical and public health relevance of this effect.

Not only does fake ID ownership predict heavy drinking, heavy drinking is also associated with the acquisition (onset) of new fake IDs, as Table 4 demonstrates. Fake ID onset ranged between 10.36% and 12.79% at each semester in college. Heavy drinking in the previous semester predicted the onset of fake ID ownership, controlling for sex and Greek membership.

Discussion

Fake ID ownership, an often successful mechanism for alcohol obtainment in underage populations, is of particular concern in college students. Methods for increased access to alcohol may pose considerable risks for alcohol-related legal and health problems in a population for which heavy drinking and associated negative consequences have already been established (Jackson et al., 2005; Johnston et al., 2005; Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002). Our findings indicate that ownership of fake IDs by underage college students is a significant public health problem in that fake ID ownership is highly prevalent in college and meaningfully predicts heavy drinking, both concurrently and prospectively, even after controlling for other potent risk factors, such as sex, Greek membership, and prior heavy drinking.

The prediction of heavy drinking from fake ID ownership, while controlling for these known risk factors for heavy drinking, suggests that college students, particularly Greek members, who own a fake ID are at considerably high risk for heavy drinking. Furthermore, the rates of those at risk steadily increase with time in college. Before college entrance, future Greek members are more likely to own a fake ID for the purpose of obtaining alcohol than future nonmembers. In college, although both groups steadily continue obtaining fake IDs, Greek members continue to show much greater rates of ownership than nonmembers, such that their elevated odds of fake ID ownership prior to college double in value by the end of the 2nd year of college. Thus, Greek membership, which is specific to college, deserves consideration as a risk factor in the relation between fake ID ownership and heavy drinking.

Not only does fake ID ownership predict heavy drinking, heavy drinking predicts the onset of new fake ID ownership. Thus, students who obtain a fake ID are apt to drink heavily in the future, and those who drink heavily and do not yet possess a fake ID are apt to obtain one at a later point in time. This means that fake ID ownership may be a novel opportunity for some, contributing to heavy drinking, or may be a conscious choice by heavy drinkers to access even more alcohol, or at least to obtain it more easily.

Given that such a large percentage of this underage sample reported at each time point that alcohol was easy to obtain, it is not clear why students obtain fake IDs, although students who had a fake ID were more likely to report that alcohol was easy to obtain. It is known that use of commercial outlets as sources of alcohol for underage drinkers (as opposed to such sources as persons under or over 21 years of age or one's home) increases with age (Wagenaar et al., 1996). This may relate both to the perceived need for fake IDs and the increase of fake ID ownership over time in college.

Part of the rise in fake ID ownership over time in college is likely the result of environmental factors and is likely related to the accessibility of fake IDs themselves. For example, it is known that college residence and alcohol disorders and consumption are related (Dawson, Grant, Stinson, & Chou, 2004; Wechsler, Dowdall, et al., 1995). Considering the relationship the present study found between Greek membership and fake ID ownership, perhaps fake IDs are more accessible in Greek residences. It is possible that incoming occupants of Greek residences

find a network of others interested in methods of obtaining alcohol and therefore become more likely to obtain fake IDs.

Our results strongly suggest that fake ID ownership in college is consequential. Our prospective findings regarding fake ID ownership and heavy drinking are novel and suggest that access to alcohol via fake IDs in college may be a potential risk factor during the period of life associated with the heaviest drinking. Thus, these findings suggest that policies should limit access to alcohol and should incorporate ways to decrease the success of fake IDs as a method for alcohol obtainment in underage students. Server training, involving confiscation of fake IDs and refusal to serve, enforcement checks, and increased alcohol taxes have been moderately successful in reducing access to alcohol (Dent, Grube, & Biglan, 2005; Wagenaar, Lenk, & Toomey, 2005; Wagenaar, Toomey, & Erickson, 2005). The use of holographs and colors to make the manufacture of false identification difficult may show promise, although it is in need of much more research (Wagenaar, Lenk, & Toomey, 2005). Furthermore, binge drinking in college students is lower in geographical areas for which there are four or more underage laws (38.7% vs. 47.8%), including laws such as minimum ages of servers, sellers, and clerks; fake ID restrictions; laws on attempts to purchase or consume; or the posting of warning signs (Wechsler et al., 2002a, 2002b). Because Greek members and college students in general demonstrate a high prevalence of fake ID ownership, administrators may wish to address alcohol access and consumption at the college level, which may be accomplished through educational programs involving both students and faculty (Vicary & Karshin, 2002) and punitive measures toward underage students possessing alcohol and those attempting to enter on-campus parties with fake IDs. Longitudinal documentation of results of such policies and programs, prior to and following their implementation, is currently quite understudied and therefore is indicated.

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References

- Abbey A, Scott RO, Smith MJ. Physical, subjective, and social availability: Their relationship to alcohol consumption in rural and urban areas. *Addiction* 1993;88:489–499. [PubMed: 8485426]
- American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. Vol. 4th ed.. Washington, DC: Author; 1994.
- Dawson DA, Grant BF, Li TK. Quantifying the risks associated with exceeding recommended drinking limits. *Alcoholism: Clinical and Experimental Research* 2005;29:902–908.
- Dawson DA, Grant BF, Stinson FS, Chou PS. Another look at heavy episodic drinking and alcohol use disorders among college and noncollege youth. *Journal of Studies on Alcohol* 2004;65:477–488. [PubMed: 15378804]
- Dent CW, Grube JW, Biglan A. Community level alcohol availability and enforcement of possession laws as predictors of youth drinking. *Preventative Medicine* 2005;40:355–362.
- Durkin KF, Wolfe TW, Phillips DW. College students' use of fraudulent identification to obtain alcohol: An exploratory analysis. *Journal of Alcohol and Drug Education* 1996;41(2):92–104.
- Federal Bureau of Investigation. *Uniform crime reports: Crime in the United States, 2003*. Washington, DC: U.S. Government Printing Office; 2003.
- Federal Bureau of Investigation. *Uniform crime reports: Crime in the United States, 2004*. Washington, DC: U.S. Government Printing Office; 2004.
- Grekin ER, Sher KJ. Alcohol dependence symptoms among college freshman: Prevalence, stability and person/environment interactions. *Experimental and Clinical Psychopharmacology* 2006;14:329–338. [PubMed: 16893276]

- Gruenewald PJ, Treno AJ. Local and global alcohol supply: Economic and geographic models of community systems. *Addiction* 2000;95:S537–S549. [PubMed: 11218350]
- Jackson KM, Sher KJ, Park AP. Drinking among college students: Consumption and consequences. *Recent Developments in Alcoholism* 2005;17:85–117. [PubMed: 15789861]
- Johnston, LD.; O'Malley, PM.; Bachman, JG.; Schulenberg, JE. Monitoring the Future national survey results on drug use, 1975–2004: Volume 2. College students and adults ages 19–45 (NIH Publication No. 05-5728). Bethesda, MD: National Institute on Drug Abuse; 2005.
- Schwartz RH, Farrow JA, Banks B, Giesel AE. Use of false ID cards and other deceptive methods to purchase alcoholic beverages during high school. *Journal of Addictive Diseases* 1998;17(3):25–33. [PubMed: 9789157]
- Sher KJ, Rutledge PC. Heavy drinking across the transition to college: Predicting first-semester heavy drinking from precollege variables. *Addictive Behaviors*. in press
- Smart RG, Adlaf EM. Age of majority cards and drinking among young people. *Journal of Alcohol and Drug Education* 1987;32(3):60–64.
- Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, National Institutes of Health, U.S. Department of Health and Human Services. High risk drinking in college: What we know and what we need to learn. 2002. Retrieved March 18, 2006 from <http://media.shs.net/collegedrinking/FINALPanel1.pdf>
- Vicary JR, Karshin CM. College alcohol abuse: A review of the problems, issues, and prevention approaches. *Journal of Primary Prevention* 2002;22:299–331.
- Wagenaar AC, Lenk KM, Toomey TL. Policies to reduce underage drinking: A review of the recent literature. *Recent Developments in Alcoholism* 2005;17:275–297. [PubMed: 15789871]
- Wagenaar AC, Toomey TL, Erickson DJ. Complying with the minimum drinking age: Effects of enforcement and training interventions. *Alcoholism: Clinical and Experimental Research* 2005;29(2):255–262.
- Wagenaar AC, Toomey TL, Murray DM, Short BJ, Wolfson M, Jones-Webb R. Sources of alcohol for underage drinkers. *Journal of Studies on Alcohol* 1996;57:325–333. [PubMed: 8709591]
- Wechsler H, Dowdall GW, Davenport A, Castillo S. Correlates of college student binge drinking. *American Journal of Public Health* 1995;85:921–926. [PubMed: 7604914]
- Wechsler H, Kuo M, Lee H, Dowdall GW. Environmental correlates of underage alcohol use and related problems of college students. *American Journal of Preventative Medicine* 2000;19(1):24–29.
- Wechsler H, Lee JE, Nelson TF, Kuo M. Underage college students' drinking behavior, access to alcohol, and the influence of deterrence policies: Findings for the Harvard School of Public Health College Alcohol Study. *Journal of American College Health* 2002a;50(5):223–236. [PubMed: 11990980]
- Wechsler H, Lee JE, Nelson TF, Kuo M. Underage college students' drinking behavior, access to alcohol, and the influence of deterrence policies: Findings for the Harvard School of Public Health College Alcohol Study: Erratum. *Journal of American College Health* 2002b;51(1):37.
- Wechsler H, Moeykens B, Davenport A, Castillo S, Hansen J. The adverse impact of heavy episodic drinkers on other college students. *Journal of Studies on Alcohol* 1995;56:628–634. [PubMed: 8558894]

Table 1
Fake ID Ownership for Greek Members and Nonmembers

Sex and Greek status	Freshman year			Sophomore year		
	Precollege (<i>n</i> = 3,717)	Fall semester (<i>n</i> = 2,514)	Spring semester (<i>n</i> = 2,419)	Fall semester (<i>n</i> = 2,202)	Spring semester (<i>n</i> = 2,351)	
Men						
Greek ^a %	23.98	34.33	43.48	55.23	56.66	
Non-Greek %	9.67	10.46	11.04	13.94	15.59	
Odds ratio	2.95	4.47	6.20	7.62	7.07	
95% confidence interval	2.21, 3.92	3.17, 6.31	4.40, 8.73	5.38, 10.78	5.15, 9.71	
Women						
Greek %	17.14	29.71	38.15	50.39	59.02	
Non-Greek %	9.08	9.26	12.29	16.61	19.80	
Odds ratio	2.07	4.14	4.40	5.10	5.83	
95% confidence interval	1.57, 2.73	3.12, 5.49	3.40, 5.70	3.98, 6.54	4.60, 7.40	

^a Greek status is measured across all semesters; thus, Greek status at precollege denotes future Greek status. All values are $p < .01$.

Table 2
 Fake ID Ownership Predicting Concurrent Heavy Drinking (Standardized Regression Coefficients)

Model and variable	Precollege (n = 3,714)	Freshman year		Sophomore year	
		Fall semester (n = 2,507)	Spring semester (n = 2,409)	Fall semester (n = 2,185)	Spring semester (n = 2,328)
Heavy drinking model					
Bivariate	.35	.35	.41	.46	.48
Sex controlled	.34	.35	.41	.47	.49
Sex and Greek status controlled ^a	.32	.30	.35	.40	.42
Twelve drinks model					
Bivariate	.26	.22	.27	.26	.27
Sex controlled	.25	.21	.28	.26	.29
Sex and Greek status controlled	.24	.19	.24	.22	.23
Alcohol dependence symptom count model					
Bivariate	.33	.25	.30	.38	.35
Sex controlled	.33	.25	.30	.38	.36
Sex and Greek status controlled	.31	.22	.26	.33	.31

^a Greek status is measured across all semesters; thus, Greek status at precollege denotes future Greek status. All values are $p < .01$.

Table 3
 Fake ID Ownership Predicting Lagged (Next-Semester) Heavy Drinking (Standardized Regression Coefficients)

Model and variable	Freshman year		Sophomore year	
	Fall semester	Spring semester	Fall semester	Spring semester
Heavy drinking model	(<i>n</i> = 2,569–2,571)	(<i>n</i> = 2,050–2,054)	(<i>n</i> = 1,901–1,903)	(<i>n</i> = 1,965–1,972)
Lagged	.26**	.35**	.37**	.46**
Lagged (precollege HD controlled)	.04**	.14**	.15**	.24**
Lagged (previous-semester HD controlled)	.04**	.09**	.06**	.11**
Sex controlled				
Lagged	.25**	.35**	.38**	.46**
Lagged (precollege HD controlled)	.04**	.14**	.15**	.25**
Lagged (previous-semester HD controlled)	.04**	.09**	.06**	.12**
Sex and Greek status controlled ^d				
Lagged	.21**	.29**	.31**	.38**
Lagged (precollege HD controlled)	.03	.11**	.12**	.20**
Lagged (previous-semester HD controlled)	.03	.07**	.05**	.10**
Twelve drinks model	(<i>n</i> = 2,565–2,567)	(<i>n</i> = 2,049–2,055)	(<i>n</i> = 1,897–1,899)	(<i>n</i> = 1,959–1,971)
Lagged	.20**	.25**	.24**	.27**
Lagged (precollege HD controlled)	.06**	.16**	.16**	.19**
Lagged (previous-semester HD controlled)	.06**	.12**	.08**	.10**
Sex controlled				
Lagged	.19**	.25**	.25**	.28**
Lagged (precollege HD controlled)	.07**	.17**	.17**	.20**
Lagged (previous-semester HD controlled)	.07**	.13**	.09**	.12**
Sex and Greek status controlled				
Lagged	.17**	.22**	.22**	.23**
Lagged (precollege HD controlled)	.06**	.14**	.15**	.16**
Lagged (previous-semester HD controlled)	.06**	.12**	.08**	.10**
Alcohol dependence symptom count model	(<i>n</i> = 2,560–2,563)	(<i>n</i> = 2,043–2,050)	(<i>n</i> = 1,887–1,892)	(<i>n</i> = 1,961–1,973)
Lagged	.21**	.26**	.31**	.34**
Lagged (precollege HD controlled)	.05**	.13**	.16**	.20**

Model and variable	Freshman year		Sophomore year	
	Fall semester	Spring semester	Fall semester	Spring semester
Lagged (previous-semester HD controlled)	.05 **	.13 **	.13 **	.12 **
Sex controlled				
Lagged	.21 **	.26 **	.31 **	.34 **
Lagged (precollege HD controlled)	.05 **	.13 **	.16 **	.20 **
Lagged (previous-semester HD controlled)	.05 **	.13 **	.13 **	.12 **
Sex and Greek status controlled				
Lagged	.19 **	.22 **	.25 **	.28 **
Lagged (precollege HD controlled)	.04 *	.10 **	.12 **	.16 **
Lagged (previous-semester HD controlled)	.04 *	.10 **	.11 **	.10 **

Note. HD = heavy drinking.

^a Greek status is measured across all semesters; thus, Greek status at precollege denotes future Greek status.

* $p < .05$.

** $p < .01$.

Table 4
Onset of Fake ID Ownership Predicted From Previous-Semester Heavy Drinking

Variable	Freshman year		Sophomore year	
	Fall semester (<i>n</i> = 2,242)	Spring semester (<i>n</i> = 1,978)	Fall semester (<i>n</i> = 1,657)	Spring semester (<i>n</i> = 1,603)
Onset rate (%)	11.7	10.4	12.8	11.9
Onset models	(<i>n</i> = 2,239)	(<i>n</i> = 1,671)	(<i>n</i> = 1,459)	(<i>n</i> = 1,298)
Odds ratio (95% CI)				
Heavy drinking	1.79 ^{**} (1.63, 1.96)	1.93 ^{**} (1.69, 2.20)	2.02 ^{**} (1.77, 2.31)	2.02 ^{**} (1.71, 2.37)
Odds ratio (95% CI)				
Sex	0.96 (0.73, 1.27)	0.75 (0.52, 1.09)	0.54 ^{**} (0.37, 0.79)	0.28 ^{**} (0.17, 0.46)
Heavy drinking	1.79 ^{**} (1.63, 1.96)	1.96 ^{**} (1.71, 2.24)	2.10 ^{**} (1.83, 2.41)	2.35 ^{**} (1.96, 2.82)
Odds ratio (95% CI)				
Sex	1.12 (0.84, 1.49)	0.83 (0.57, 1.22)	0.63 [*] (0.43, 0.94)	0.35 ^{**} (0.21, 0.59)
Greek status	4.26 ^{**} (3.20, 5.68)	3.65 ^{**} (2.55, 5.21)	3.63 ^{**} (2.55, 5.16)	5.10 ^{**} (3.34, 7.79)
Heavy drinking	1.66 ^{**} (1.51, 1.82)	1.82 ^{**} (1.59, 2.09)	1.94 ^{**} (1.68, 2.24)	2.15 ^{**} (1.78, 2.61)

Note. Sex (0 = female, 1 = male); Greek (0 = non-Greek, 1 = Greek); heavy drinking (0 = *did not in the past 30 days*, 1 = *once in the past 30 days*, 2 = *2–3 times in the past 30 days*, 3 = *once or twice a week*, 4 = *3–4 times a week*, 5 = *5–6 times a week*, 6 = *nearly every day*, 7 = *every day*, 8 = *twice a day or more*). CI = confidence interval.

* $p < .05$.

** $p < .01$.