

alcohol consumption on grades, separate regressions were performed for each class. When the variables in Model 2, excluding academic class, were regressed on cumulative GPA, the regression estimates for amount consumed were statistically significant in all 4 years. The beta coefficient for first-year students only ($\beta = -.21$) was slightly lower than for second- through fourth-year students ($\beta = -.25$). Finally, two additional regressions were run for respondents younger than age 21 and those 21 and older. Once again, the beta coefficients were nearly identical for these age groups ($\beta = -.24$ and $-.25$, respectively).

Finally, given the popularity of the CAS operational definition of heavy alcohol use (five or more drinks for men; four or more drinks for women), the principal analyses were repeated with frequency of heavy alcohol use as the predictor instead of amount consumed. In general, the results provide further evidence of the utility of "amount consumed." For the fall 2003 survey in which frequency of heavy alcohol use was measured, the bivariate correlation with cumulative GPA was $-.18$, compared with $-.27$ between amount consumed and GPA. Model 4 estimates were similar for the two measures, except the beta coefficient for heavy alcohol use was $-.15$, compared with $-.24$ for amount consumed. Thus, at this college, the number of drinks students consumed on a typical weekend night was a stronger predictor of their academic performance than how frequently they engaged in "heavy" alcohol use.

Discussion

Two studies identified in the introduction concluded that problematic alcohol use has either no effect or a markedly attenuated effect on academic performance among college students when other predictors of academic failure, most notably prior academic achievement and academic aptitude, are controlled. Indeed, Wood et al. (1997) called this finding "highly generalizable" (p. 208). Results from the present study challenge this conclusion but also beg the question of why, in contrast to these two prior studies, the effect of alcohol consumption on grades remained significant when key variables were included in regression models.

One possible answer is that prior studies examined alcohol use in the first year only, whereas the present study included all 4 years. However, the effects of alcohol consumption examined here were similar for every class, from first through fourth year; therefore, class difference does not seem to be the answer. Each of the prior studies also measured more distal effects of alcohol misuse; Wood et al. (1997) tracked the academic problems of students for 6 years after matriculation, at the end of which only 41% of the research participants had graduated. By contrast, the present study examined grade records at the end of the semester in which alcohol consumption was measured, and grades obtained in the semester of the survey produced the

same results as a student's cumulative GPA. Thus, these data suggest that alcohol consumption may have both short- and long-term effects on academic performance; moreover, the relationship appears to be relatively stable.

Another important difference between the present and past research mentioned in the introduction is the representativeness of the samples: only the present study employed a random sample with a high response rate. But the crucial difference may be the type of institution. Wood et al.'s (1997) research participants attended a large, midwestern university; Pascall and Freisthler's (2003) participants attended the University of California, Berkeley. These institutions have more diverse student bodies, more diverse student lifestyles, and more varied campus subcultures than the small, liberal arts college studied here. At small colleges, student bodies are more homogeneous, the student culture tends to be monolithic, and students may experience greater pressures to drink. At the present institution, where almost 90% of the students live on campus, the social lives of students outside the classroom, at least on the weekends, revolve around partying and alcohol consumption. More than 80% of the respondents reported that they drank alcoholic beverages at least two to three times a month; 75% reported that they attend off-campus parties this often.

Associations between "background" variables and alcohol consumption in the present study support this conclusion. Men and white students drank more than their counterparts; further, academic class and parent's income were positively associated with how much students consumed. That the effects of race, class, and income were attenuated when frequency of partying was added to the regression model shows that these variables affected how often students partied or, in other words, participated in the dominant subculture of partying/drinking. In addition, the greater their involvement, at least in terms of how much students drank, the lower their academic performance.

Surprisingly, studies of college drinking seldom have examined the influence of the college environment (Dowdall and Wechsler, 2002; Presley et al., 2002). Much of the research focuses on clinical, developmental, and psychological variables. When social influences are analyzed, these tend to be sociodemographic factors such as race and gender or affiliations such as athletic status and fraternity/sorority membership. What is needed is research that considers the larger college context as a moderating influence on both the causes and consequences of drinking behavior. Based on their study of resistance to pressure to drink and the desire to refrain from drinking, Shore et al. (1983) concluded that factors in the college environment might be more strongly related to drinking habits than past experiences or background variables. Similarly, the campus culture may interact with personal characteristics and past experiences to influence the effect of drinking on academic