

## **Estimated Cost of Alcohol-Related Negative Consequences for College Students Attending Public, Mid-sized University**

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### **Abstract**

Heavy alcohol consumption has many deleterious effects among college students. This pattern of risky drinking often leads to alcohol-related negative consequences which result in repercussions for both the individual and the university. The U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention estimates the cost associated with underage drinking as over \$58 billion dollars a year; we aim to explore how this cost applies at an individual level. Thus, the purpose of this study is to evaluate the estimated costs associated with alcohol-related negative consequences. Specifically, this project explores both the possible financial and academic costs (i.e., decreased academic achievement and/or involvement, hospitalization, criminal citations) incurred by the individual due to alcohol use. We will use the literature and public university financial records to estimate the financial and academic costs resulting from various categories of consequences. The results of this study will be presented to quantitatively demonstrate the consequences of college student alcohol consumption, using data from a mid-sized, public university. While the estimations presented are specific to one university, the model used is comparable to existing templates at many public institutions.

**Keywords:** alcohol, consequences, cost

### **1. Introduction**

Excessive alcohol consumption in the United States is an increasing concern with widespread implications ranging from national cost to personal acute and chronic health consequences. Almost 600,000 alcohol-related injuries, 700,000 assaults, 100,000 sexual assaults, and 1,700 deaths occur annually in the college population as a result of alcohol-related behavior<sup>3</sup>. In addition to immediate consequences such as injury, suicide, and death, alcohol has short-term effects such as loss of sleep, poor concentration, hangover, and illness. Moreover, it can increase the risk for negative sexual consequences and risk-taking. Research shows that 20% of frequent binge drinkers do not use protected sex, and 42% participate in unplanned sex<sup>5</sup>. In addition, alcohol plays a part in the majority of sexual assault cases and increases the vulnerability of the drinker while decreasing his or her judgment, resulting in an increased risk of sexual assault. Despite the plethora of negative consequences, students still continue to drink--and in high quantities. In 2005, 44.7% of college students surveyed reported having 5 or more drinks on one occasion in the past month—a 3% increase from 1998. Hospitalizations for alcohol overdose increased by 25% from 1998 to 2008, and in 2008 the annual total reached 58,615 cases<sup>6</sup>.

In addition to negative health consequences and increased risks, alcohol also has the potential to exact a heavy financial burden. This consequence extends beyond the individual and impacts the drinker and his or her community, as well as the government. In the case of students, universities are also significantly impacted. The economic burden of drinking lies in lost productivity, healthcare, criminal justice, discipline, and vandalism, among other areas. The estimated cost of excessive alcohol consumption in the United States in 2006 was \$223.5 billion dollars, an increase from the \$184.6 billion dollar tab paid in 1998. While the greatest portion of this cost was borne

by the government (42.1%), the individuals responsible for drinking were also held accountable for a large portion of the cost (41.5% of the national cost)--equal to 92.9 billion dollars<sup>7</sup>.

While this research addresses costs experienced by the nation as a whole, few studies have attempted to estimate the costs of drinking at the level of the individual. There is an inherent challenge in estimating costs at such a specific level due to the inconsistent and varied consequences that are experienced during and after drinking. The general demographics of the person drinking will impact the types of costs incurred-- for example, students may experience disciplinary costs through their university in addition to legal consequences, while adults in the workforce may experience a heavier cost burden associated with loss of productivity. It is therefore helpful to look at populations separately in order to obtain a more accurate estimate of costs typically experienced by that group. The purpose of this study is to analyze and estimate the costs of specific consequences commonly experienced by students, in both time and money, due to alcohol consumption. The hope is that this data can be used to educate students about the potential financial and temporal consequences of excessive drinking.

## **2. Methodology**

### **2.1 Participants**

The costs of alcohol-related consequences to college students were estimated using data from a midsized, midwestern university. The university sampled is a public university positioned in a small college town with a high alcohol outlet density. The majority of students sampled from this university tend to be white and from middle-upper class backgrounds. The university employs student disciplinary procedures typical of many public universities; however, disciplinary actions vary by institution. Estimations obtained from this model are to be used only as generalizations.

### **2.2 Procedures**

Data for this study was gathered through email, telephone, and in-person interviews with professionals from the Ethics and Student Conflict Resolution Office of the university as well as the local police department. Costs and consequences of code violations and fake ID's were merged from both university and law enforcement policies to create a best estimate taking into account both entities. National hospitalization samples were used to estimate costs due to alcohol poisoning and physical injury in which alcohol was the primary cause.

To estimate the financial cost of missing class, the value of in-state and out-of-state tuition per credit hour was retrieved from university public financial records. Then, to obtain the cost per class for an in-state student the following equation was used:  $(\$476.79 \times \text{total credit hour value of class}) / \text{number of classes in a 14 week semester} = \text{total cost for single class}$ . The cost per class for an out-of-state student was calculated using  $(\$1134.70 \times \text{total credit hour value of class}) / \text{number of classes in a 14 week semester} = \text{total cost for single class}$ .

## **3. Data**

Costs presented in the table below were categorized according to individual consequences; students may experience none, some, or all of the costs as a result of each drinking occasion. The typical cost incurred by a student due to a code violation ranges from \$925 to \$1550 and 11 to 30 hours; consequences increase if disciplinary actions also address the presence of a fake ID. Hospitalizations incur the largest cost and vary depending on the nature of the condition, averaging around \$4,000. Missed classes result in financial cost per class skipped, in addition to losses in productivity.

Table 1. Costs presented in the table below were categorized according to individual consequences

Category	Consequence	Financial Cost (dollars)	Time Cost (hours)
Code Violation-Intoxication/ Prohibited Use of Alcohol; University and City Consequences	Alcohol Education Class	200	4
	Alcohol Assessment	250	3
	Counselor Appointment	0	1
	Reflection Paper	0	2
	Court/Legal Process Fees	100	1
	AND: Hired Attorney; optional in some cases (estimated cost)	1000	0
	OR: Court-ordered Diversion program (only available with city police department)	475	20
Total Cost Code Violation	W/Court Ordered Diversion Program	925	30
	W/O Court Diversion	1,550	11
Fake ID	Same as above, no court-ordered diversion program option	1,550	11
	Integrity Seminar	0	7
Total Cost Fake ID		1,550	18
Hospitalizations	Any alcohol-related injury <sup>8</sup>	4,231.5 (varies based on insurance)	varies
	Alcohol Poisoning <sup>8</sup>	3,841 (varies based on insurance)	8+
Missed Class	In State-cost/class	34.06	Lost productivity and ability to focus; time cost varies
	Out of State-cost/class	81.05	

#### 4. Conclusion

The results suggest that there are significant financial costs of college student alcohol consumption, falling primarily into four categories: code violations, fake ID, hospitalizations and academics. The results indicate that consequences associated with code violations are assigned almost entirely to the individual, rather than to the

university or to the general student population through tuition funds. Consequences extend beyond simple fee payment; these violations also have the greatest cost to the individual in time. The individuals have to spend time taking an alcohol education class and assessment, with the potential for either a court ordered diversion program (primary cost is time) or legal charge (primary cost is financial and occupational).

The academic costs of alcohol-related consequences are ones that many college students are not aware of, especially of the magnitude of money wasted by skipping class. College students may skip class due to secondary effects of alcohol such as hangovers and lost sleep. It is likely that students who are skipping class due to alcohol consumption or alcohol-related negative consequences are not just skipping one class, but multiple. The cost for each class session is \$34.06 for in-state students and \$81.05 for out-of-state students. If students are skipping class multiple times throughout the semester, this cost accumulates quickly. It also accumulates if students skip multiple classes in the same day due to a single drinking episode. Additional costs in time are also experienced due to lack of productivity and focus following a period of heavy drinking. In addition to financial cost associated with alcohol and academics, research also shows a negative correlation between alcohol consumption and GPA<sup>9,10</sup>. While GPA may not factor into direct cost at the time of consumption, long-term effects have the potential to exact heavy financial consequences down the road if a lowered GPA limits future occupational opportunities. Alcohol also exacts long-term financial consequences in the occupational realm if students incur legal charges due to fake ID's, public intoxication, violence charges, etc that are viewable to future employers. Fake ID charges negate the opportunity for a court-ordered diversion program, and students must go through the court system and pay for the services of a lawyer. The consequences associated with having a fake ID significantly increase the cost of consequences in both time and money compared to an of-age drinker.

Results show that injuries are also a rather expensive consequence of drinking, and can account for the highest immediate financial cost. The costs vary according to the nature and severity of the injury, but promise to be expensive if a trip to the hospital is required. The data used in this study reflects national cost averages for hospitalizations in which alcohol was the primary cause, and includes sample from persons over the age of 12. The numbers presented in the study do not show long-term cost effects for serious injuries; if injuries result in long-term health effects, the cost would increase exponentially and could be debilitating to the person for many years to come. While not found to be a common consequence, this kind of cost represents extremely severe consequences to the drinker in time, money, and health.

This study is not without limitations. First, the costs of alcohol-related consequences were collected from one mid-sized midwestern university. Universities vary in policies addressing alcohol use based on the nature of the college and policies set forth by the Student code of Conduct or Student Handbook. The financial costs and time costs presented in this study are not representative of all alcohol-related consequence costs for all universities. While the data gathered in this study may not be accurate in other cases, it does provide a general estimate for typical policies employed by other institutions. Alcohol education classes, fines, assessments, and reflective papers—with additional and more severe penalties for further violations—are commonly employed policies among universities across the country. This study serves only as a template for such elements and their estimated costs. Research could also be extended to sample policies from a variety of institutions and cities to obtain a general estimate that would better reflect national averages. Consequences of drinking experienced by college students incur heavy financial and time burdens that are often overlooked or unrealized when students decide to drink. This study, along with future research, will aid in quantifying the financial impact of college student drinking.

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