Ultius, Inc.

Writing Samples

19 May, 2011

<div align="center">Legal Drinking Age: Unintended Consequences</div>

<div align="center">And Feasible Solutions</div>

Over the past few decades, there has been much discourse regarding the drinking habits and behavior of college students. Since the passage of the Uniform Drinking Age Act of 1984, federal regulators have determined that the minimum legal drinking age (MLDA) should be 21 years old instead of 18. Since then, there have been a plethora of scientific studies to determine whether this was an effective means of combating irresponsible drinking habits. The aim of these studies was to determine the overall impact of the reduced drinking age in a 'cause and effect' way. However, the primary means of support for the MLDA being 21 was that drinking and driving as well as overall consumption among minors was reduced. These studies, however, neglect other unintended consequences that have developed as a result. While some statistical evidence regarding the effectiveness of raising the drinking is mixed and volatile, negative externalities like increased violent behavior and unsafe drinking habits should prompt legislators to not only lower the drinking age to 18, but seek alternative solutions that are effective. Although raising the MLDA has been effective in lowering alcohol consumption, neglecting other consequences can cause more harm in the long term. In passing legislation, lawmakers should not only rely on specific aspects or intended results such as less consumption of alcohol. Instead, comprehensive reviews and investigations into other effects should be weighted equally, such as violence and other problematic drinking related behavior. Without such due diligence, more problems may develop in society as a result of trying to fix one specific one. By raising the

MLDA to 21 in order to alleviate traffic-related accidents and reduce consumption, the federal government is neglecting critical aspects of the situation at hand; consequently, such neglect suggests that the federal government is compromising the safety of underage citizens.

It is my intention to show that statistical evidence regarding the effectiveness in lowering the drinking age has misled the public from other important aspects of this decision. First, I will show that while there is evidence that raising the MLDA has been effective in lowering alcohol consumption and reducing traffic related fatalities, some of this evidence is misleading, volatile and does not apply as a general rule for all states. Moreover, I will contend that raising the MLDA has produced unintended consequences. For instance, there is plentiful research that suggests that college students' drinking behavior has not changed dramatically and that there is support for more alcohol and violence related incidents. Moreover, reactance theory suggests that as students are denied drinking rights, they will do so in rebellion. Finally, while the intended traffic fatalities problem has seen improvement, other problems emerged simultaneously. From here, I will isolate the true problem and offer feasible solutions that will result in both a reduced drinking age without the negative externalities.

**Inconclusive and Mixed Statistical Data**

While general trends shows that raising the MLDA has resulted in less fatalities for underage individuals, some of the evidence is either mixed, inconclusive or volatile with respect to other states. For example, Peter Asch's article, "Does the Minimum Drinking Age Affect Traffic Fatalities," suggests that age related studies do not support the effectiveness of raising the MLDA. While "increased drinking ages have been justified largely as a traffic safety tool…there is some indication that, within the age range examined [18-21], drinking inexperience creates a traffic

fatality hazard that is independent of age" (Asch, 182+186). According to *figure 1,* states with

different drinking ages still have consistent mean fatality rates.

*Figure 1.* **Mean Fatality Rates my MLDA**

a) All ages

| MLDA | Number of states | All fatalities | Single-vehicle fatalities | Single-vehicle nighttime fatal. |
|---|---|---|---|---|
| 18 | 28 | 0.000299 | 0.0000984 | 0.0000664 |
| 19 | 8 | 0.000431 | 0.000144 | 0.0000901 |
| 20 | 2 | 0.000273 | 0.000100 | 0.0000758 |
| 21 | 12 | 0.000379 | 0.000125 | 0.0000783 |

b) Age group 18–20

| MLDA | Number of states | All fatalities | Single-vehicle fatalities | Single-vehicle nighttime fatal. |
|---|---|---|---|---|
| 18 | 28 | 0.0536 | 0.0289 | 0.0223 |
| 19 | 8 | 0.0723 | 0.0379 | 0.0277 |
| 20 | 2 | 0.0636 | 0.0410 | 0.0364 |
| 21 | 12 | 0.0650 | 0.0353 | 0.0257 |

\* Fatality rates are means of state traffic fatalities as a proportion of relevant population, unweighted.

Source: Table 5 in (Asch, 1987).

This suggests that there is no direct causal evidence that age related factors influence fatalities

for minors.

In another article titled "The Effect of Minimum Drinking Age Legislation on Youthful

Auto Fatalities, 1970-1977) by Philip Cook, the author cautioned against the use of such

empirical data in determining the MLDA. While the studies he reviewed did show statistical

significance in the effectiveness of the drinking age of 21, "these differences [in some studies]

were not large, and it is not clear in any event that the observed differences should be attributed

to the influence of the drinking age laws" (Cook, 173). Along with remarking that state data was

mixed, volatile and inconsistent, he also warned that "a state legislator that was considering a

change in its minimum drinking age law would receive little guidance from these studies in

generating a prediction of how many lives would be saved or lost as a result of the proposed change" (Cook, 170). Moreover, Alexander Wagenaar drew a similar conclusion in a 2001 study: "results are not as consistent as they are for traffic crash outcome indicators" (Wagenaar, 2001). In essence, since empirical studies find different levels of support with varying variables, they should not be the sole determinant in drinking age legislation. It is thus important to recognize and take into account the limitations of applying such studies directly into the lawmaking process.

**Lowering the MLDA has Resulted in Unintended Consequences**

Increased violent tendencies and little change in college students' drinking behaviors prompt us to investigate other negative externalities of the current MLDA. For example, Christopher Connell's article, "the 21 Year-Old Drinking Age: Education or Enforcement?," draws on evidence from school administrators that the new drinking age is not as effective as studies show. For instance, "Bill Eck, a recently retired Pennsylvania State University professor of health education, contends there is little difference in students' drinking behavior between states such as Pennsylvania that have long had age-21 minimums and in states where the minimum age is 18 or 19" (Connell, 46).Moreover, universities are partly to blame because "alcohol is not only accepted on many campuses, but sometimes promoted at events with a very legitimate and high-minded purpose [such as student-faculty mixers]" (Connell, 48). This suggests that while federal legislation has been passed to prohibit alcohol consumption for minors, there are anecdotal references from college officials that it is both ineffective and somewhat promoted on campuses. This certainly was not an intended consequence of the drinking age requirement. Having college officials cite how the law is not being supported or

working does not offer a positive interpretation of the laws' effectiveness in the most important minor environment, college campuses.

Furthermore, Dr. Ruth Engs, Professor of Applied Health Sciences at Indiana University, offers several pieces of evidence that reflect unwanted consequences of the MLDA. In her article titled "Reactance Theory: A Test With Collegiate Drinking," Engs argued that "more reactance is aroused when people expect to enjoy a freedom with is subsequently eliminated" (Engs, 1989, 1085). As reactance theory suggests, "Whenever people believe their freedom either has or will be unjustly threatened, they enter into a reactance motivational state and act to regain control by not complying" (Engs, 1989, 1083). As a negative consequence of a higher drinking age, college students are more prone to drinking simply because of the fact they know that they can't. In a college campus where roughly half of the students are of age and half are not, this poses a serious problem. If students are denied enjoying going out and drinking with their friends, they are internally motivated to engage in that behavior. Finally, Engs concluded that "legislation may have actually contributed to increased drinking among underage students through the arousal of reactance motivation" (Engs, 1085). This unfortunate observation undermines the whole purpose behind raising the drinking age: stopping college kids from alcohol use. Instead, as this theory suggests, an unintended consequence of this is that college students simply won't comply.

In another article by Engs, "Boozing and Brawling on Campus: A National Study of Violent Problems Associated With Drinking Over the Past Decade," the author takes ten year historical data to find a relationship between alcohol use and violent behavior. Indeed, her results do support the federal government's aim to reduce underage alcohol consumption on the whole; however, her results also indicate that there was a significant increase in violent behavior related to alcohol use. For instance, in surveying over 4,000 students from 1982 to 1991: "81% of

violent acts against persons or property were alcohol related," "heavy drinkers were almost twice as likely to get into legal trouble in 1991 compared to 1982," and all drinkers had a mean of 37% increase in problems related to drinking (see *figure 2*).

*figure 2:***One Way ANOVA Results of the Mean Number of Drinks per Week and the Mean Number of Violent/Legal Problems Among Heavy, Moderate, Light and All drinkers Over The Past Decade**

| (See note $ for ANOVA statistical information for these items) | | | | |
|---|---|---|---|---|
| | 1982 | 1985 | 1988 | 1991 |
| Mean drinks per week | (N = 4,324) | (N = 3,377) | (N = 4,232) | (N = 3,820) |
| Heavy | 32.0 | 31.4 | 31.2 | 29.9+ |
| Moderate | 11.8 | 12.0 | 10.2 | 9.7* |
| Light | 1.1 | 1.2. | 1.0. | .9+ |
| All drinkers | 14.3 | 14.3 | 13.4 | 12.8+ |
| Mean problems related to drinking | . | . | . | . |
| Heavy | 0.63 | 0.64 | 0.81 | 0.84* |
| Moderate | 0.19 | 0.21 | 0.25 | 0.27* |
| Light | 0.04 | 0.05 | 0.06 | 0.07 |
| All drinkers | 0.26 | 0.27 | 0.34 | 0.37* |

Source: Table 2 in (Engs, 1994).

These findings offer strong support that raising the drinking age has achieved both intended and unintended consequences. While overall consumption among college students decreased, violent behaviors and problems did increase substantially. Surely, federal lawmakers did not intend on promoting more legal troubles and outright violence among minors. However, as the ten year results clearly indicate, that was the case. Therefore, Engs' research supports the notion that in raising the MLDA to 21, all relevant consequences were not thoroughly considered.

Similarly, Henry Wechsler's 2010 article titled "Will Increasing Alcohol Availability By Lowering the Minimum Legal Drinking Age Decrease Drinking and Related Consequences Among Youths" yielded similar results. Firstly, Wechsler contended that while overall reductions in drinking did occur for adults, this was not significant for college students (Wechsler, 987). According to the author's research, the intended goal of reducing underage drinking was not fully met to begin with. Moreover, while non-highway vehicle related deaths decreased from 2001-2006, other problems such as poisoning (both alcohol and non-alcohol), homicide and suicide increased (see *figure 3*). In fact, alcohol poisoning increased by 17.5%, non-alcohol poisoning by 81.3% and homicide by 6.7% (Wechsler, 987).

*figure 3:* **Trends in Alcohol-Attributable Mortality Among Young Adults Aged 18-24 Years: United States, 2001-2006.**

| Alcohol-Attributable Deaths | No. of Alcohol-Attributable Deaths Among Young Adults Aged 18-20 Years | | | | | | | No. of Alcohol-Attributable Deaths Among Young Adults Aged 21-24 Years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | % Change 2001 to 2006 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | % Change 2001 to 2006 |
| Chronic conditions[a] | 56 | 53 | 54 | 55 | 51 | 51 | -9.3 | 281 | 264 | 271 | 274 | 253 | 254 | -9.8 |
| Acute conditions | | | | | | | | | | | | | | |
| Motor-vehicle traffic deaths | 971 | 1042 | 987 | 988 | 980 | 980 | 0.9 | 1890 | 2004 | 1939 | 1966 | 2042 | 2058 | 8.9 |
| Homicide | 597 | 604 | 613 | 603 | 646 | 648 | 8.5 | 1201 | 1230 | 1245 | 1198 | 1276 | 1282 | 6.7 |
| Suicide | 262 | 256 | 253 | 274 | 265 | 265 | 1.3 | 569 | 580 | 580 | 589 | 582 | 584 | 2.6 |
| Poisoning (alcohol) | 9 | 10 | 12 | 11 | 10 | 10 | 13.2 | 21 | 28 | 19 | 24 | 24 | 25 | 17.5 |
| Poisoning (not primarily alcohol) | 112 | 137 | 152 | 173 | 192 | 192 | 71.8 | 330 | 410 | 471 | 503 | 596 | 598 | 81.3 |
| Nonhighway deaths | 150 | 151 | 142 | 143 | 141 | 143 | |-4.5 | 267 | 269 | 255 | 258 | 255 | 260 | -2.5 |
| Total | 2157 | 2251 | 2214 | 2247 | 2284 | 2289 | 6.1 | 4559 | 4784 | 4779 | 4812 | 5028 | 5060 | 11.0 |

Source. Centers for Disease Control and Prevention Alcohol-Related Disease Impact software (http://www.cdc.gov/Alcohol/ardi.htm).
[a]Chronic conditions refer to persistent long-term medical conditions or diseases such as alcoholic myopathy, alcoholic liver disease, or fetal alcohol syndrome. The specific conditions considered are available at: https://apps.nccd.cdc.gov/ardi.

Source: Table 1 in (Wechsler, 2010).

Again, these findings suggest that while some vehicle related mortality rates dropped, there are other serious consequences as well. Most notable is the 81.3% increase in non-alcohol related poisoning. This may be from college students taking drugs and other harmful substances in place of alcohol. Nonetheless, these externalities were not intended and accounted for when the

MLDA was passed.

**Isolating The Problem and Offering Solutions**

The real issue regarding underage drinking related problems may not be age alone, but increased enforcement and university involvement. As a school official remarked, "you have to start to educate people earlier. You can't expect to hold the tide to some magical age such as 21…it will be rather farcical to try and take a 21 year-old and say, 'Let's start the ABC's of the use of alcohol'" (Connell, 46). This suggests that involvement by both law enforcement and universities should come into play. Wagenaar's 2001 article also noted that "studies of the effects of increased enforcement show it to be a highly effective means to reduce alcohol sales to minors [by half]" (218). As teens surveyed within his study reported that alcohol is easy to obtain, more strict enforcement would most likely be more effective than simply raising the MLDA. Despite the effectiveness of enforcement, schools are not practicing enough. For instance, a "survey of college administrators [indicated] that enforcement of alcohol policies at most colleges is limited" (Wechsler, 987). This suggests that the problem may not be age; instead, it may be the overall learning experience and enforcement that are influential factors in alcohol related safety. More importantly, however, such enforcement should take place on college campuses.

According to Connell, underage undergraduates learn their drinking behaviors from upperclassman (Connell, 47). This means that as students develop drinking habits throughout their lives, colleges are one of the most influential environments. Indeed, a court case of appeals held that "colleges have a duty to care…not a duty to control their students…and make sure the institution's activities, offerings and programs meet minimum standards of care" (Connell, 49).

As colleges are breeding grounds for underage drinking and learning new habits, this environment is critical to teach safety and responsibility. As Wechsler's article emphasized, "the

current minimum legal drinking age of 21 years is not working to prevent youths from using

alcohol and experiencing the negative consequences of drinking" (Wechsler, 987). However, at

schools where enforcement and educational policies are stronger, students tend to binge drink

less. This evidence places importance on schools in teaching students how to drink responsibly.

Therefore, lowering the drinking age to 18 would not be detrimental to the current situation at

hand if all relevant concerns are taken into context. By applying proper enforcement and

teaching methods, students could avoid drinking as much and vehicle related accidents. As

students develop proper habits, long term trends would reflect that the age is not as important as

other factors. That being said, active roles have to be taken by colleges and enforcement entities

alike. If the situation is recognized as a national problem from the start, a national effort would

be effective in helping alleviate it. By mobilizing law enforcement officers and encouraging

schools to actively enforce and teach proper drinking behaviors, the drinking age would become

less important. It is unreasonable to assume that simply raising the age would tackle such a

complex problem like underage drinking. As we have seen, it still does take place and

consequently, needs to be dealt with by more than just passing a law about who can purchase or

consume alcohol.

   As we have seen, despite evidence that the drinking age has helped alleviate concerns of

drunken driving cases, there have been other negative externalities. In fact, some of the evidence

regarding the effectiveness of the current age does not offer direct conclusions if it is effective or

not. While some of it is mixed, inconsistent and volatile, some trends found that age was not a

relevant factor when compared to all age groups. Despite some improvements in lowering

consumption, negative externalities like increased violence and legal troubles did develop over the course of ten years from 1982-1991. Moreover, other alcohol related incidents like poisoning and homicide increased as well. This suggests that there are unintended consequences of raising the drinking age that were not considered when it was passed. Finally, strong enforcement and support from university officials and salespeople would be more effective in both lowering consumption and teaching proper drinking habits to minors. Thus, lowering the drinking age to 18 and taking active steps in coaching minors would be more beneficial than simply passing a law that restricts purchase and consumption.

Works Cited

Asch, Peter, and David Levy. "Does the Minimum Drinking Age Affect Traffic Fatalities?."

    *Journal of Policy Analysis and Management* 6.2 (1987): 180-192. *JSTOR*. Web. 23 Apr.

    2011.  <http://www.jstor.org/stable/3324514>

Connell, Chris. "The 21 Year-Old Drinking Age: Education or Enforcement?." *Change* 17.1

    (1985): 44-51. *JSTOR*. Web. 24 Apr. 2011.  <http://www.jstor.org/stable/40164272>

Cook, Philip , and George Tauchen. "The Effect of Minimum Drinking Age Legislation on

    Youthful Auto Fatalities, 1970-1977." *The Journal of Legal Studies* 13.1 (1984): 169-

    190. *JSTOR*. Web. 23 Apr. 2011.  <http://www.jstor.org/stable/724347>

Engs, Ruth , and David Hanson. "Boozing and Brawling on campus: a national study of violent

    problems associated with drinking over the past decade." *Journal of Criminal Justice*

    22.2 (1994): 171-180. *Indiana University*. Web. 23 Apr. 2011.

    <http://www.indiana.edu/~engs/articles/boozing.htm>

Engs, Ruth, and David Hanson. "Reactance Theory: A test with collegiate drinking."

    *Psychological Reports* 64 (1989): 1083-1086. *Indiana University*. Web. 24 Apr. 2011.

    <http://www.indiana.edu/~engs/articles/react.html>

Wagenaar, Alexander. "Effects of an Increase in the Legal Minimum Drinking Age." *Journal of*

    *Public Health Policy* 2.3 (1981): 206-225. *JSTOR*. Web. 24 Apr. 2011.

    <http://www.jstor.org/stable/3342367>

Wagenaar, Alexander, and Traci Toomey. "Effects of Minimum Drinking Age Laws: Review

    and Analyses of the Literature from 1960 to 2000." *Journal of Studies on Alcohol* 14

    (2001): 206-225. Print.  <http://www.jstor.org/stable/3342367>

Wechsler, Henry , and Toben Nelson. "Will Increasing Alcohol Availability By Lowering the
Minimum Legal Drinking Age Decrease Drinking and Related Consequences Among

Youths?." *American Journal of Public Health* 100.6 (2010): 986-992. Print.

<http://www.jstor.org/stable/3342367>

# Citation information

You are free to use this sample work for reference and research purposes. However, you **must cite it** and provide attribution to the author. The citation is provided below in MLA format.

Ultius, Inc. "Legal Drinking Age: Unintended Consequences
And Feasible Solutions." *Free Writing Samples | Ultius*. 19 May 2011. Web.

If you need help with MLA style, please visit the Ultius citation style help section. Thanks for playing fairly.