AFTER SIX YEARS…: AN EXAMINATION OF THE EFFECTIVENESS OF THE *ABOVETHEINFLUENCE* CAMPAIGN ON ITS INITIAL TARGET AUDIENCE

by

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In November 2005, the Office of National Drug Control Policy (ONDCP) implemented a new form of the National Youth Anti-Drug Media Campaign (NYAMC). The *AboveTheInfluence* campaign targets 12-17 year olds, with a specific focus on ages 14-16, with messages of living above the influence of drugs and alcohol. In this study, college students (aged between 18 to 23 years) were surveyed to examine their attitudes and use of drugs and alcohol after their exposure to the *AboveTheInfluence* campaign. This specific age range was chosen because the subjects were part of the campaign's original target audience during its introduction in 2005. Existing literature on campaign effectiveness, drug and alcohol use, and youth attitudes was reviewed. Theoretical frameworks of reactance theory, wearout effects, and the role peer perceptions have on substance use were applied and examined with a survey questionnaire. The current study found that exposure to and recall of the *AboveTheInfluence* campaign had no significant association with participants' drug and alcohol use behaviors, and attitudes towards alcohol. Furthermore, participants were found to have a drastically overinflated perception of peer drug and alcohol use. Based

on the applied theories of reactance and wearout, participants' reactions were found to show no major signs of either. However, initial signs of both reactance and wearout were apparent in participants' general lack of interest in the *AboveTheInfluence* campaign and its messages. Limitations and implications were discussed.

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“You can never be overdressed
or overeducated.”

-Oscar Wilde

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

After Six Years…: An Examination of the Effectiveness of the *AboveTheInfluence* Campaign on Its Initial Target Audience

CHAPTER 1: INTRODUCTION

In 1997, the Drug Free Community Act became an established law of the United States in a direct effort to eliminate drug accessibility and reduce teen drug use. The following year, Congress deployed the National Youth Anti-Drug Media Campaign, targeting adolescents through a series of print and television anti-drug advertisements. The campaign's advertisements have been altered over time, with messages that have been framed to instill fear, divide users from non-users, and call for individuals to rise above drug usage and possible peer-pressures. Nevertheless, despite numerous attempts to frame the message in a way that the target audience might better comprehend and apply to their personal interactions, the anti-drug campaign has continued to prove ineffective (e.g., Hornik, Jacobsohn, Orwin, Piesse, and Kalton, 2008; Knopf, 2011; Harrington, Lane, Donohew, Zimmerman, Norling, Jeong-Hyun, Cheah, McClure, Buckingham, Garofalo, & Bevins, 2003).

As is made clear by the very name of the campaign, the advertisements are solely targeted to youth. Implemented in November 2005, the Office of National Drug Control Policy (ONDCP) aimed to reach a target audience of 12-17 year olds, with a specific focus on ages 14-16, in its *AboveTheInfluence* media and print campaign (Office of National Drug Control Policy [ONDCP], 2009). The focus of the campaign is to encourage youth "to think critically about the adverse effects of drug use and the potential negative influences surrounding them in their social and media environment

(Office of National Drug Control Policy, 2010). Using a combination of theory-based structuring and brand marketing, the *AboveTheInfluence* campaign set the following for its goals: (1) provide teens with more "accurate perceptions about the prevalence and acceptability of drug use", (2) change the expected outcomes of drug use, such that negative consequences are correlated more commonly with drug use, while avoiding use will have positive outcomes, and (3) teaching teens how to resist and avoid drugs (ONDCP, 2009).

Through the use of television, the Internet, print advertisements, and partnerships with websites such as YouTube and Facebook, *AboveTheInfluence* has expanded its reach, recently reporting that 80 percent of teens are aware of the campaign (ONDCP, 2010). Using an assortment of media outlets, the *AboveTheInfluence* campaign has also sought to vary the messages used. These messages include a television commercial where the main character states that "getting messed up is just another way of leaving yourself behind", another TV commercial in which a young girl (after a series of statements about how she goes against the norm) asks viewers "Now, do I seem like I'm gonna let anything influence me?", and print advertisements that range from a hand-drawn version of the brand symbol, reading "But getting high is not my thing," to one that simply states "smoking weed hurts more than just you" (National Youth Anti-Drug Media Campaign [NYAMC], n.d.). These messages are designed to promote a peer-to-peer based dialogue about drugs, while adopting a non-judgmental approach (ONDCP, 2010). In order to gain a better understanding of the campaign's long-term impact, it is vital to examine the population that, in 2005,

would have been part of the *AboveTheInfluence* general target audience of 12-17 year olds.

Given that research has been conducted on the effectiveness of various elements (e.g., style, intended messages, and location of delivery) of previous campaigns at the campaign's conclusion, the current ONDCP anti-drug campaign (*AboveTheInfluence*) is in the preliminary stages of examination. In turn, this means that there have been only a limited number of studies providing research on how effective the *AboveTheInfluence* campaign has been to date. By combining these examinations of the failed previous campaigns with an existing statistical data on the youth drug use trends, it is possible to produce an effective prediction of local and national anti-drug campaign success results. After examining existing literature on drug and alcohol use, campaign effectiveness, and youth attitudes, this study attempts to find the associations between drug and alcohol use behaviors and the *AboveTheInfluence* campaign in order to assess its effectiveness after the target audience has been exposed to its messages for the last six-years

CHAPTER 2: A REVIEW OF ANTI-DRUG AND ALCOHOL CAMPAIGN LITERATURE

In a study examining the effectiveness of the *AboveTheInfluence* campaign, Hornik et al. (2008) reported that there was no correlation between the anti-marijuana use messages viewed by youths 12-18 years of age and their later uses of the drug (Hornik et al., 2008). They concluded that the National Youth Anti-Drug Media Campaign was unlikely to be effective in promoting its intended message, subsequently leading to further investigations tests of campaign effectiveness on both the national and local level.

Nationally-Based Campaign Effectiveness

The most recently published study on the effectiveness of the *AboveTheInfluence* campaign was conducted by the ONDCP. This study of 3,236 8th grade students (approximately 12 years old) found that those students who were familiar with the *AboveTheInfluence* commercials were less likely to initiate the use of marijuana as compared to those students who had not seen the campaign (Knopf, 2011). However, the findings that the *AboveTheInfluence* campaign is effective are rare findings. Additionally, it is vital to note that students participating in the study were approximately 12 years old when the campaign was deployed. Based on the fact that the NYMAC's target audience begins at the age of 12, the students surveyed would have only been members of the target audience for a year at most at the time of analysis. From this, it can be proposed that the *AboveTheInfluence* campaign was likely to not have been a significant factor in the students' choices to not initiate marijuana use.

Additional research conducted on the message strategies used in anti-drug messages proved similar results as the Hornik et al. (2008) study. After questioning 338, 18-20 year old college students about their individual responses to anti-marijuana messages, it was found that the targeted anti-drug message approach of showing negative consequences of marijuana use was ineffective in deterring use (Harrington et al., 2003). The authors found that messages about the consequences elicited negative attitudes, as opposed to messages that tended to result in positive attitudes by simply promoting the notion that positive consequences from marijuana use are highly unlikely (Harrington et al., 2003). Overall, this study suggested that the persuasive message tactics of the anti-drug PSAs viewed had no significant impact between the control group and the group of participants who viewed the PSA (Harrington et al., 2003).

Further study of public service announcement effectiveness used adolescent audiences to measure youth (age 12-18 years) perceptions of PSAs that incorporated marijuana scenes into anti-marijuana use messages (Kang, Cappella, & Fishbein, 2009). While some anti-marijuana use advertisements have aimed to show teenagers as misusing drugs or having “unattractive” qualities while using, the advertisements still portrayed the drug use as a widespread, common habit amongst teens. Further, Kang et al. (2009) found that showing a youth audience scenes of marijuana usage in the PSA resulted in participants negatively “liking” the ad, and thus causing a negative discernment with the overall message that was to be processed, suggesting that there is a potential correlation between the ad’s ineffectiveness and the viewer’s negative view of the content.

In a similar study on the probable setbacks of the *AboveTheInfluence* campaign, DeJong and Wallack (2000) reviewed several key reasons why previous advertisements failed to work properly. Despite prior warning by a review committee member, ONDCP forged through with a marijuana ad that featured "young, attractive youth" that had used the drug (DeJong & Wallack, 2000). In addition, another series of advertisements ran showing members of popular rock bands such as Kiss regretting prior drug use (DeJong & Wallack, 2000). These images became problematic because they used celebrities. Viewers often believed that these famous musicians were either paid to deliver the message or were still, in fact, involved with the substances that they were speaking about. Thus, the youth-based audience that the campaign targeted did not find the anti-drug messages appealing or worthy of following. Along with the portrayals of previous drug-users, tactics such as instilling extreme fear were tried, and proved to be a failure (DeJong & Wallack, 2000).

Acknowledging the findings of the potential ineffectiveness of the *AboveTheInfluence* campaign, current research suggests that certain message strategies have a greater likelihood of effecting youth's perception of drug use than other message strategies. One of the most effective strategies for anti-drug messages is to provide information that "instruct[s] on the immediate negative effects of drug use such as impaired athletic and scholastic abilities or reduced social status . . . providing incentives such as gifts, scholarships and time for recreational activities have the potential to enhance the positive values placed on preventing drug use" (Werch & DiClemente, 1994, p. 44). Although the current *AboveTheInfluence* campaign uses several of these strategies, a complete understanding of its messages and how the

messages are interpreted by children and teens is vital. Werch and DiClemente (1994) state that drug education and prevention programs are not successful because of a lack of understanding on how to frame and design the messages (and campaigns), as well as which health campaign models and components are most effective in drug use prevention. They suggest that campaigns need to have multiple components and assimilate new theoretical frameworks, rather than creating a one-size-fits-all style message. Instead, Werch and DiClemente (1994) suggest using what they term the McMOS model—"multi-component motivational stages model"—to assess the levels of risk of drug use based on five levels: 1) Precontemplation; 2) Contemplation; 3) Preparation; 4) Action; and 5) Maintenance (p. 38). It is their recommendation that, through the use of the McMOS model, advertising strategies for anti-drug messages will be better equipped to be successful.

Drawing on the framework of a successful anti-tobacco campaign can provide a better understanding of the current anti-drug campaigns likelihood of success. Based on a Massachusetts study of television anti-tobacco advertisements measuring adults' responses to messages, it was found that the categories of smokers planning to quit, non-smokers, and those who have quit smoking all deemed the advertisements eliciting strong negative emotions to be the most effective method of delivering anti-tobacco messages (Biener, McCallum-Keeler, & Nyman, 2000). Furthermore, the advertisements showing suffering as a result of tobacco use had a greater potential to be instrumental in getting individuals to endorse non-smoking or reaffirming their decisions to quit (Biener et al., 2000). While tobacco use is different from drug use, it is important to examine how anti-tobacco campaign messages have been able to compel

teens to be more accepting of their messages. Since tobacco use prior to age 18 is illegal, it can provide a plausible framework for understanding how to direct messages that promote abstaining from an illegal activity to the youth audience.

The interconnectedness of these insights and the ineffectiveness of on-going anti-drug campaigns suggest that further analysis of the current media campaigns needs to be performed. Unfortunately, due to the *AboveTheInfluence* advertisements being so current, there has been little, if any, research on its longitudinal effectiveness on the target age group. Additionally, there is currently no existing research to see if the intended messages of the *AboveTheInfluence* commercials had a lasting impression with teens as they enter the collegiate atmosphere.

Locally-Based Campaign Effectiveness

Narrowing the study field to locally-based campaigns, Kelly, Swaim, and Wayman (1996) identified that advertisements the delivered messages recommending an open dialogue about drug use between child and parent were more commonly recalled. Furthermore, the study found that "the media campaign appears to have had a priming effect that led to parent-child communication about drugs" (Kelly et al., 1996, p. 247). Thus, the campaign provided the necessary link to expose children to anti-drug messages and facilitate discussions between parent and child. The results of this study found that, on a localized level, anti-drug media campaigns that promoted peer-to-peer dialogue were less effective in deterring teen drug use than those that advocated parents as "interpersonal 'influencers'" (Kelly et al., 1996, p. 247). Kelly et al. (1996) found that using mediated messages where parents served as influencers had the most positive effect on deterring teen drug use. Despite some discouraging results, similar to

those of the national campaign study, this study suggested that localized campaigns have potential to be more influential because of their more direct knowledge of the audience and the ability to tailor the characters and message delivered to better match those in the targeted community (Kelly et al., 1996).

It is apparent that this locally-based campaign, where there was a more direct knowledge about the target audience, yielded more positive results than those structured to span the national level. From this, it seems that the overarching goal to create a campaign message that promotes drug-free communities is likely to have a more successful outcome when there is a more comprehensive understanding of the audiences' beliefs and needs. Through the separation of national and local communities, it was found that having more sufficient knowledge of the needs and characteristics of the audience allows for a tailoring of an anti-drug message that is more successful. This discovery provides the initial support for the assumption that a successful anti-drug campaign can be created only by fully understanding the needs, values, and beliefs of the target audience.

Substance Use Trends in the U.S.

Illicit drug usage. For the past decade, drug use levels amongst America's youth have been declining steadily (National Institute on Drug Abuse [NIDA], 2010). Since 2002, the National Survey on Drug Use and Health (NSDUH) partnered with Monitoring the Future (MTF) to research drug usage, surveying children ages 12-20. They discovered that alcohol, tobacco, and illicit drug (marijuana, methamphetamines, cocaine, crack cocaine, hallucinogens, heroin, and inhalants) use has continued to follow a long-term, gradual decrease (NIDA, 2010).

While it appears that the use of illicit drugs (such as marijuana) has been steadily decreasing, the National Youth Anti-Drug Media Campaign (NYAMC) fails to address the rising trend in prescription drug abuse among America's youth. Recent studies have found that, by 2004, the 12-17 year old age range made up the second highest group of prescription drug users (after ages 18-25) in the US, accounting for approximately 15.4% of all users (Apa-Hall, Schwartz-Bloom, & McConnell, 2008). By 2004, adolescents within the 12-17 year old range had surpassed the leading age range (18-25 years of age) as the highest prescription drug users (Apa-Hall et al., 2008) Additionally, of the prescription drug users in this age group, it was also found that 79.8% regularly combine these drugs with other substances (Apa-Hall et al., 2008). The ONDCP pointed out that prescription drugs are now more commonly used than any other type of illicit drugs, with the exception of marijuana, amongst 12-17 year old adolescents (Office of National Drug Control Policy [ONDCP], 2008).

However, this trend in illicit drug use is not a reflection of the ongoing anti-drug campaigns by the NYAMC. After the publication of a study of the effectiveness of the *AboveTheInfluence* campaign (conducted by Westat, Inc. and the Annenberg School of Communication at the University of Pennsylvania through 2005) contracted by the United States Government Accountability Office, the ONDCP's director, John P. Walters, issued a formal letter attempting to claim the declining percentage of drug use amongst youths was a result of their campaign, despite the findings of the GAO's study that the NYAMC had no role in the declining use percentages. In response to the claims made by Walters, an additional review of the study was conducted and acknowledged that "the United States Government Accountability Office concurred" with

Westat analysis stating that “the declines in drug use could not be attributed to the NYAMC” (Hencken, 2007, p. 25). In 2010, MTF surveyed 45,000 students in 8th, 10th, and 12th grades (Kuehn, 2011). This updated study found that marijuana use was on the upswing in all three grades (Kuehn, 2011). Additionally, reports concluded that “1 in 16 high school seniors reported daily or near-daily use of marijuana in 2010” (Kuehn, 2011, p. 242). The results of this study indicate that the *AboveTheInfluence* campaign is not having the long-term positive anti-drug effects claimed by its supporters.

The most recent examination of the *AboveTheInfluence* campaign came as an indirect result of an evaluation of a similar, locally-based campaign known as “Be Under Your Own Influence” (Slater, Kelly, Lawrence, Stanley, & Comello, 2011). Slater et al. (2011) initially began studying the effects of the anti-drug campaign “Be Under Your Own Influence” that was developed and implemented prior to the release of the *AboveTheInfluence* campaign in eight randomized community settings. However, it was discovered during the first phase of testing that participants were also being indirectly influenced by the *AboveTheInfluence* campaign’s similar messages of autonomy and youth aspirations (Slater et al., 2011). This study examined students (average age of 12.4 years) and revealed that those individuals who were exposed to the *AboveTheInfluence* campaign had lower levels of marijuana uptake than those individuals who reported no exposure (Slater et al., 2011). As previously noted, the participant pool for the Slater et al. (2011) study was, on average, 12.4 years of age, thus placing the participants just within the *AboveTheInfluence* campaign’s targeted age range. However, while this is a critical insight into the overall effectiveness, it is also

vital to examine what long-term impacts the *AboveTheInfluence* campaign has on its initial audience as they progress in life after years of targeted exposure.

Furthermore, these findings make it imperative to examine illicit drug use trends for the collegiate age range (18-24 years old). In a comparison of the five most prominent drug and alcohol use surveys—College Alcohol Study (CAS), Harvard School of Public Health; The Core Institute (CORE), Southern Illinois University; Monitoring the Future (MTF), University of Michigan; National College Risk Health Behavior Survey (NCHRBS), Centers for Disease Control and Prevention; National Household Survey on Drug Use (NHSDA), Substance Abuse and Mental Health Services Administration), O'Malley and Johnston (2002) compared the use of marijuana, cocaine, and cigarettes amongst college students with those of the non-college age-mates. This study unveiled that, while trends were similar in that cigarettes, marijuana, and cocaine were the most commonly used drugs, participants of the same age range (but not enrolled in college) had a higher prevalence of use than those in college (O'Malley & Johnston, 2002). The research collected in this study suggests that the 18-24 year age range has similar drug use trends and patterns, only that the levels of use tend to be slightly lower for those enrolled in college.

To specifically examine college illicit drug use, the CORE Alcohol and Drug Survey Long Form released its 2008 findings based on students at two and four-year institutions (Southern Illinois University Carbondale [SIUC], 2010). The key findings from this survey on college student drug use reported that, when asked about their use in the past 30 days, marijuana, amphetamines, and cocaine were the most frequently reported illicit drugs used (17.3%, 2.4%, and 1.8%, respectively) by the participant

population (SIUC, 2010). Additionally, almost one third of the students (31.1%) reported having used marijuana in the past year and 11.9% reported that they had used other illicit drugs besides marijuana in the past year (SIUC, 2010). This data supplies key evidence of the high drug use level that currently exist on college campuses across the United States.

Alcohol usage. In addition to illicit drug use, the other key portion of the *AboveTheInfluence* campaign focuses on alcohol consumption. According to a 2009 study by the US Department of Health and Human Services, approximately 51.9% of underage persons (12-20 years old) were current drinkers (at least one drink in that past 30 days) and 23.7% of underage persons had participated in binge drinking in the past 30 days (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010, p. 3). Binge drinking, defined as "having five or more drinks on the same occasion," increased to 41.7% when the focus shifted to the 18-25 year old population (SAMHSA, 2010, p. 3). Acknowledging that there is a dramatic increase in binge drinking when the population reaches the approximate collegiate age range, it is vital to examine the alcohol use of college students and their non-college counterparts to gather a better understanding of this population's drinking trends.

The O'Malley and Johnston (2002) study comparing data on the drug use trends of college students with their non-college age-mates, also examined the similarities in alcohol use trends between these two groups. This comparison revealed that over that past 20 years, "college students generally have higher prevalence rates of alcohol use than their age-mates who do not attend college," with the exception of daily alcohol use (O'Malley & Johnston, 2002, p. 28). Furthermore, despite a slight decrease in alcohol

use in college students over the 20 years examined, heavy alcohol use is still a key issue, with a 43% prevalence of heavy drinking in 1997 (O'Malley & Johnston, 2002).

A similar study of the alcohol use trends of college students and their noncollege age-mates was conducted from 1999 to 2002 and 2002 to 2005 using the NHSDA survey by the Substance Abuse and Mental Health Services Administration (Hingson, Zha, & Weitzman, 2009). Again, it showed college students were slightly more likely (4.8%) to have five or more drinks on one occasion than 18-24 year olds not in college, but both groups had proportional increases in use since 1999 and "those increases did not significantly vary between groups" (Hingson et al., 2009). A comparison of these two studies supplies evidence that, while college students are more likely to use alcohol than their non-college age-mates, there is a significant similarity in the alcohol use trends over the past few decades. The most current alcohol use data for college students comes from the CORE Alcohol and Drug Use Survey Long Form and found that 71.7% of students had consumed alcohol in the past 30 days, 65.4% of underage students had consumed alcohol in the past 30 days, and 46.1 % of students reported having five or more drinks in one sitting ("binge drinking") in the last two weeks (SIUC, 2010). These findings reveal the magnitude of the alcohol use, and specifically underage and binge drinking, at the collegiate level.

Similar to the statistics on marijuana use in youth, it is important to note that, while alcohol use and binge drinking rates in the 18-24 year age range steadily declined between 2002 and 2008, trends remained relatively unchanged from 2008 to 2009 (SAMHSA, 2010). This downward trend, followed by a leveling off, can potentially be attributed to the desensitization of young people when it comes to being exposed to

repeated anti-drug media messages, amongst many other influencers. Overall, there have not been significant and consistent decreases in drug and alcohol use trends amongst young people to validate the effectiveness of the *AboveTheInfluence* campaign. With that, it is vital to continue to examine the role the campaign plays on its audience's decisions to use drugs and alcohol.

Theoretical Framework

Situated in the tradition of communication, persuasion, and media studies research, this study employs a variety of perspectives—the theory of campaign "wearin" and "wearout", psychological reactance theory, social psychological variable of peer norms, and social comparison theory—as theoretical frameworks. Based on the nature of the *AboveTheInfluence* campaign, it is likely that audience members will either react in a positive or negative manner to the message being advocated. Although there is the potential for *AboveTheInfluence* audience members to either remain neutral or uncaring in reaction to the campaign's messages, this ambivalence can potentially be considered inherently negative because of the campaign's aim to get viewers' attention and to persuade its audience to oppose drug use. Given this assumption, and for purposes of this study, those responses falling within the neutral or indifferent categories will be considered as more negative than positive. Furthermore, negative responses to the *AboveTheInfluence* campaign received in this study will be defined as individuals who dismiss the intended anti-drug message and either (a) initiate drug and/or alcohol use, or (b) continue current use. A positive response is defined as the target audience agreeing with the message to not participate in drug and alcohol use and either (a) refrain from initiating use, or (b) cease current use and refrain from partaking in future

use. Given the lengthy six-year runtime of the *AboveTheInfluence* campaign, it is likely that individuals will begin to fall into one of these two categories that provide rationale for their drug and alcohol use at the time of this study.

Resistance to persuasion. Originally developed by Brehm (1966), reactance theory addresses a person's need for freedom and explains how, when that individual feels a restriction put on their action or opinion that threatens their freedom, that person is subsequently going to feel the need to resist any attempt at persuasion or influence. However, reactance theory has grown "to suggest that *any message* aimed at changing one's current attitudes and behaviors might, in fact, be perceived as a threat to freedom, whether in the best interest of the intended persuadee or not" (Burgoon, Alvaro, Grandpre, Voulodakis, 2002, p. 215). Furthermore, reactance theory asserts that when an individual feels like their freedom is being threatened, they are prone to try to restore their power by partaking in the undesired activity. For those individuals who had a negative response to the campaign messages, the psychological reactance theory could be applied as a potential explanation for those responses.

This effect is even more evident in adolescents as they are beginning to first experience having the freedom to make their own decisions (Burgoon et al., 2002). Significant research has been conducted on adolescent decisions to smoke tobacco in relation to reactance. This research has led to the understanding that, like smoking, other risky behaviors are subject to substantial reactance from adolescents based on the knowledge that these behaviors require "a number of cognitive and psychological risk factors associated with reactance" (Miller, Burgoon, Grandpre, & Alvaro, 2006, p. 242). Prior to adolescence, most decisions are influenced by or made by adults.

However, once a child has reached adolescence, they begin looking to peers for knowledge and "tend to question everything their parents or other authorities say, and their receptivity to messages from adults decreases drastically" (Burgoon et al., 2002, p. 224). At age 12, adolescents are just beginning to experience this freedom to make their own decisions and, at the same time, becoming part of the *AboveTheInfluence* campaign's target audience. Based on reactance theory, the feelings that the *AboveTheInfluence* campaign is challenging personal choices and impinging on their freedoms is likely to result in responses that are not in favor of the behavioral changes that the *AboveTheInfluence* campaign is advocating for.

This theoretical connection between adolescence and reactance was tested in a study examining anti-smoking campaigns. After presenting anti-smoking messages to 4th, 7th, and 10th graders, it was found that, while 7th graders were expected to have the highest level of reactance, peak reactance did not occur until 10th grade (Grandpre, Alvaro, Burgoon, Miller, & Hall, 2003). While the 12 to 13 year old age range was initially considered to be the peak age of reactance, it was determined that the level of reactance to the persuasive anti-smoking messages was not reached until approximately three years later (ages 15-18). Additionally, the 4th graders included in the study were aware of the negative effects of tobacco, "yet, by adolescence, the same messages that appear to be accepted in 4th grade are derogated and rejected" (Grandpre et al., 2003, p. 363). When the findings of this study are applied to the *AboveTheInfluence* campaign, it suggests that the youngest age of the target audience (12 years old) will experience some levels of reactance towards the campaign's highly persuasive anti-drug message; however, the audience is likely to reach their peak level

of reactance while part of the specifically targeted age range of the campaign (14-16 years old) and remain at the heightened reactance level until they are no longer part of the campaign's reach.

The first purpose of this study is to examine the effectiveness of the *AboveTheInfluence* campaign after six years of exposure to assess the national success of the campaign and potential associations with drug and alcohol use trends. In an effort to determine whether the audience's views of the *AboveTheInfluence* campaign can be explained by the theoretical frameworks used, it is important to uncover the amount of exposure and recall the participants have experienced over the past six years. Additionally, it is important to look at drug and alcohol use trends of this audience to see if there are any patterns. In order to assess exposure and recall and, in turn, uncover information about reaction trends, the following research question was developed:

RQ1: For those participants within the campaign's initial target audience group (currently 18-23 years old), what are their drug and alcohol use habits and levels of exposure to, and recall of the *AboveTheInfluence* campaign?

RQ2: Among participants within the campaign's initial target audience group (currently ages 18-23 years old), does *AboveTheInfluence* campaign exposure and recall have association with their reported drug and alcohol usage?

RQ3: Among participants within the campaign's initial target audience group (currently ages 18-23 years old), does *AboveTheInfluence* campaign exposure and recall have association with their attitudes toward alcohol use?

Wearout due to overexposure. For those individuals who view the *AboveTheInfluence* campaign and have a positive response, it can be predicted that by the time these individuals reach the college age, they will likely be subjected to an advertising effect known as "wearout". As defined by G. David Hughes (1992), wearout "occurs during subsequent exposures when the ad creates a negative shift in the affect or the cognitive response curve or when the ad does not trigger the recall of a positive attitude from long-term memory" (p. 74). The theoretical structuring of campaign wearout can be used to theoretically explain the downward trend in drug use amongst youth, followed by a leveling-off (or slight increase) in relation to the *AboveTheInfluence* media campaign. Ranging from recall of the message to attitudes towards the brand, and to agreement with the intended message, wearout explains that a negative shift in audience perception of an ad is not caused by the lack of attention after repeated exposure, but rather from less processing of the message when new entertainment or information is not presented (Hughes, 1992).

Drawing on the recent pattern of drug use in adolescents, it can be seen that the drug use trends mimic the wearin and wearout effects of repeated exposure to advertising described by Pechmann and Stewart (1988). Pechmann and Stewart (1988) explain that the wearin/wearout pattern of audience's responses to an advertisement is initially positive, and then takes a sudden and drastic negative turn when overexposure of reoccurring advertisement transpires. This is the same trend that has occurred in adolescent drug use—a gradual, but steady decline, followed by an upward pattern of reported use between 2008 and 2009. Siddarth and Chattopadhyay (1998) summarize these advertising phenomena and explain that, "during wearin,

additional exposures to an ad have a positive effect, while wearout is the point at which these exposures cease to have a positive effect—or may even have a negative effect" (p. 126). The initial two stages of the advertising viewing process, including initial and unfamiliar viewing then followed up by awareness and positive attitude towards the advertisement, is known as the wearin phase (Siddarth & Chattopadhyay, 1998). The effect is based on the belief that when consumers first view an advertisement they are unfamiliar with the ad and this unfamiliarity tends to elicit some sort of negative reaction. However, through increased exposure and awareness viewers begin comprehending the advertising messages and gain an appreciation for the ad, which results in a more favorable attitude.

Once favorable attitudes and message appreciation are achieved a fine line delineates familiarity and favorability from repetition and exasperation. At the point when audiences become accustomed to the campaign's message, any additional repeated exposure will cause the viewer to no longer "derive value from the ad, become bored and irritated with it, and is no longer motivated to process it" (Siddarth & Chattopadhyay, 1998, p. 127). Although not the only contributing factor, the downward trends in drug and alcohol use that have leveled off in recent years parallel the wearin and wearout effects of repeated advertising exposure. Therefore, it is plausible that the trends in drug and alcohol use have some association with viewers initially appreciating, and thus following, the *AboveTheInfluence* messages; then, through six years of overexposure, becoming desensitized to the anti-drug messages; and, finally, harboring negative or indifferent feelings towards it, causing them to no longer pay attention to the campaign. Ultimately, based on the effects of advertising wearout, it could be posited

that those individuals who were initially receptive to the message and did not begin trying drugs and/or alcohol, or those who terminated future use, have now reached a point of saturation. At this point of saturation, those individuals would likely begin experimenting with drugs, thus causing the campaign to be ineffective. Alternatively, the effects of advertising wearout could also be contributing to the target audience possibly now feeling neutral or indifferent towards to campaign because they are generally unconcerned or not receptive towards the anti-drug message that is being advocated by the *AboveTheInfluence* advertisements.

It is critical to examine what reactions and feelings the *AboveTheInfluence* campaign's general viewership has towards the campaign and its messages in order to assess what possible roles reactance and wearout have on the campaign. However, it is assumed that after six years of exposure to the campaign, participants will show that they are no longer in favor of the *AboveTheInfluence* campaign, reflected in their feelings and reactions to the campaign currently. Based on the reviewed literature and patterns of wearout, the following research question emerged.

> RQ4: After being exposed to the *AboveTheInfluence* campaign advertisements, do participants' perceptions of the campaign have reactions that express signs of reactance or wearout patterns?

While the preceding research questions attempt to evaluate the drug and alcohol use patterns based on exposure to the *AboveTheInfluence* campaign, the second portion of this study looks to examine peer perception. It has been noted that "the prevalence of alcohol-based social opportunities on campus contributes to the potency of peer influence on individual attitudes and behaviors" (Borsari & Carey, 2001, p. 392). Based

on this understanding of how influential peers can be on behavioral choices, it is also necessary to examine the peer perception of drug and alcohol use within this study's participant population in addition to their actual drug and alcohol use.

Social psychological variable of peer norms. In order to measure the effectiveness of the campaign, it is also vital that this study evaluate how college-age participants feel about alcohol and drug use and perceived feelings of peer pressure. Reoccurring misperceptions of peer drug and alcohol use can be examined by taking a social psychological theoretical approach.

One of the key variables when taking a social psychological approach is the perceived amount of use individuals believe their peers are engaging in. Given the social nature of drug and alcohol use, it is vital to focus on this variable. In accordance with the peer perceptions previously noted, social comparison theory becomes a critical part of this analysis. Developed by Festinger, social comparison theory explains how "a person's cognition (his opinions and beliefs) about the situation in which he exists and his appraisals of what he is capable of doing (his evaluation of his abilities) will together have bearing on his behavior" (1954, p. 117). Furthermore, social comparison theory is derived from the understanding that people will generally compare, and adopt, behaviors and attitudes of the groups surrounding them (Kobus, 2003; Festinger, 1954; Perkins, 2002). The adoption of a behavior and/or attitude based on an individual's perception of their peer group's behavior and/or attitude highlights the significant impact peer perceptions have on drug and alcohol use.

Moreover, as a social psychological predictor of substance use, perceived peer norms have the ability to influence behaviors and can play a major role in predicting

drug and alcohol use. Furthermore, it is important to note that while there is a distinguishable conceptual difference "between perceived norms of social collectives and those of smaller and more proximal peer groups," youth tend to use the behaviors of their closer peer group as a reflection of the larger social group; thus, "the effects of different levels or types of peer group norms on individuals' behavior are likely to be overlapping, and possibly even redundant" (Juvonen, Martino, Ellickson, & Longshore, 2007, p. 741). By examining the social influences on the psychological decision to or not to enact behavior in accordance with the desired outcome, a strong correlation was obtained between the perceived social norm of drug and alcohol use and the attitude and likeliness to participate in the act (Pomazal & Brown, 1977, p. 212). With perceived use of peers playing a major role in a young person's decisions about the use of drugs and alcohol, it is also crucial to get a better understanding of how much peers influence college students' choices.

In a study of 100 college campuses, it was found that students held "grossly exaggerated misperceptions regarding alcohol use across campuses with very different drinking norms, from schools where actual drinking is relatively infrequent to campuses where drinking is relatively frequent," and in reference to perceived use, "overestimations of use, whatever the drug, were common and underestimations were very rare on every campus surveyed" (Perkins, Meilman, Leichliter, Cashin, & Presley, 1999, p. 257). The perception of peer drug and alcohol use was analyzed at a local university and similar results were discovered.

On the national level, the CORE Institute recently released its findings on peer perception of drug and alcohol use amongst college students from its 2008 Drug and

Alcohol Long Form survey. Some of the key findings from this survey note that "91.2% of students believe the average student on campus uses alcohol once a week or more" and "52.3% of students believe the average student on this campus uses some form of illegal drug at least once a week" (SIUC, 2010, p. 2). These perceptions are significantly higher than the actual reported use of drugs and alcohol by students.

Using the same CORE Drug and Alcohol survey, the University of North Carolina at Chapel Hill examined students' perceptions of peers' drug and alcohol use during the 1995-1996 academic year (The University of North Carolina at Chapel Hill [UNC-CH], 1997). This study revealed that while only 17% of students used marijuana in the past thirty days and 5.4% used other illegal drugs, approximately 45% of students were under the assumption that the average student uses some sort of illegal drug at least once a week (UNC-CH, 1997). With regard to alcohol, 41.9% of students reported their average weekly consumption to be zero drinks, while the perception of 94% of students was that the average student drank alcohol at least once a week, if not more frequently (UNC-CH, 1997). These levels of use and perceived peer use are strikingly similar to those results reported in the 2008 national CORE survey. Ironically, the frequency of anti-drug messages shown in the *AboveTheInfluence* campaign may not deter drug and alcohol use, but rather give young people the impression that drug and alcohol use is a more common practice among youth than is actually the case.

Given that youth tend to believe that their peers are using drugs and alcohol more than they do, it is likely that the overestimations of peer use will have some impact on an individual's own drug and alcohol use. From that, the following hypothesis and research question are derived:

H1: Participants tend to overestimate the frequencies of reported drug and alcohol use by their peers.

RQ5: Is the perceived use of drugs and alcohol by peers associated with the likelihood to engage in drinking or drug use?

Based on the application of the social psychological theory's use of the social norm variable, H1 and RQ5 aim to uncover possible correlations between the effectiveness of the *AboveTheInfluence* campaign and peer perceptions. Additionally, these research questions posit an association between the amount of perceived peer use and the impact that has on an individual's own drug and alcohol use behaviors.

CHAPTER 3: METHODS

In order to provide answers for the research question and hypotheses that have emerged from this research, a survey designed to evaluate participants' drug and alcohol use (and history of use), peer perceptions of use, and recall and attitudes towards the *AboveTheInfluence* campaign was administered.

Participants

The sample consisted of 330 undergraduate students (male = 190, 57.6%; female = 136, 41.2%; unreported = 4, 1.2%) at East Carolina University voluntarily participating in the research, who were recruited in basic undergraduate level communication classes. Of the students surveyed, the age ranged from 17 years to 55 years old, with a mean age of 20.43 (SD = 3.01). Participants were both traditional and non-traditional students, with all year classifications represented (freshman = 46, 13.9%; sophomore = 90, 27.3%; junior = 116, 35.2%; senior = 66, 20.0%; fifth year = 11, 3.3%; other = 1, 0.3%). The majority of the participant population (*n* = 236, 71.5%) was White (non-Hispanic), 12.4% (*n* = 41) were Black (non-Hispanic), 3.9% (13) were Hispanic, 3% (*n* = 10) were Asian, 2.1% (*n* = 7) were American Indian/Alaskan Natives, 1.8% (*n* = 6) were reported as other, and 5.2% (*n* = 17) participants did not report their ethnicity.

Participants were asked to report their participation in and/or attendance at extra-curricular activities (i.e. intercollegiate athletics, social fraternities/sororities, political and social action groups) and 55 (28.4%) reported no participation in extra-curriculars. Of the activities included, 139 (30.4%) participants reported that they had some participation (ranging from attending an event to holding a leadership position), and 136 (41.2%) participants did not report their involvement in extracurricular activities. Use of

financial aid or scholarships amongst study participants includes: none (*n* = 153, 46.4%), athletic scholarship (*n* = 3, 0.9%) partial financial aid (*n* = 82, 24.8%), full financial aid (*n* = 62, 18.8%), partial academic scholarship (*n* = 21, 6.4%), full academic scholarship (*n* = 4, 1.2%), and unreported (*n* = 5, 1.5%). The average GPA of participants was 3.2 (SD = 1.85).

The participants in this study were determined by age applicable to the media campaign (for RQ1-RQ3) and were in a location relative to the researcher. As previously mentioned, the National Youth Anti-Drug Media Campaign has directed its *AboveTheInfluence* campaign to "youth"; therefore, this study focused on the perceptions of the campaign's initial target audience. The *AboveTheInfluence* campaign was implemented in 2005, with the general target audience ranging from 12-17 years old and the specific target audience being ages 14-16. Thus, the initial target audience of the campaign would be ages 18-23 in 2011 (20-22 years old for the specific audience).

Based on these ages, only data collected from students in the age range of 18-23 years old were used in conjunction with the first three research questions. This was done to ensure participants were part of the target audience when the campaign was in its beginning stages of implementation. Additionally, because these students were the first target audience of the campaign, they were asked to recall and report their exposure to the campaign messages and any experiences with drugs as college students and prior to entering college. The exclusion of those participants younger than 18 years of age and older than 23 years old reduced the participant population from 330 participants to 315 for RQ1-3. However, all participants, regardless of age, were used

in the statistical analyses for RQ4, RQ5, and H1. For all questions, the participant population experienced some fluctuation in size due to participants not fully answering all questions in the survey. With the exception of eliminating those outside of the 18-23 year old age range for questions RQ1-3, no other participants were excluded from calculations.

Design

Given that the *AboveTheInfluence* media campaigns are heavily circulated nation-wide, it is impossible to ensure that no participants have previously viewed the commercials, making any pre-testing inapplicable. This study employed a post-test only design where all the participants were asked to complete a survey regarding their exposure to the *AboveTheInfluence* campaign.

Survey Instrumentation

The participants were asked to answer a series of questions, divided into four categories: (1) exposure, (2) drug and alcohol usage and attitudes, (3) perceived peer norms, and (4) demographics questions. The purposes of the questions in the survey were to gauge participants' perceptions of drug and alcohol use and to assess whether their frequency of viewing the *AboveTheInfluence* campaigns impacted their behaviors in situations where alcohol and drug use was present. Some questions used in this survey were either directly from, or an adaption of, the CORE Institute's Drug and Alcohol Survey Long Form in effort to strengthen validity and employ tested, unbiased questions (Southern Illinois University Carbondale [SIUC], n.d.). CORE surveys are implemented nation-wide and "assess the nature, scope, and consequences of alcohol

and other drug use on college campuses", as well as examining "the student's attitudes, perceptions, and opinions about alcohol and drugs" (SIUC, n.d.).

Exposure and recall of AboveTheInfluence. Questions that are designed to measure the frequency of viewing and the recall of *AboveTheInfluence* advertisements were included in the survey. Participants were asked to answer the question, "On average, how many times in the past month have you seen an *AboveTheInfluence* advertisement?", by providing a number of the amount of times they had seen an *AboveTheInfluence* advertisement in that past month to determine their exposure.

In order to determine the level of recall, participants were asked to response yes or no to what levels (i.e. elementary school, middle school, high school, and college) they remembered seeing an *AboveTheInfluence* advertisement. The participants' recall of seeing the *AboveTheInfluence* campaign at various levels (i.e., elementary school, middle school, high school, and college) was combined to make a total "*AboveTheInfluence* Campaign Recall" score. This total campaign recall score was then correlated with participants' past 30 day drug and alcohol use, as well as their use over the past year.

Current and previous drug and alcohol usage. In effort to determine questions of drug and alcohol use, participants were asked to estimate their drug and alcohol use history and current use. The survey included questions regarding tobacco, alcohol (e.g., beer, wine, liquor), marijuana (e.g., pot, hash), cocaine (e.g., crack, freebase), amphetamines (e.g., speed), sedatives (e.g., downers, ludes), hallucinogens (e.g., LSD, PCP), opiates (e.g., heroin, smack), inhalants (e.g., glue, solvents), designer drugs (e.g., ecstasy), prescription drugs, and other illegal drugs. Use history included

questions about when participants were first exposed (defined as “in the presence of, but not tried”) to (i.e., “At what age were you first exposed to…”), tried (i.e., “At what age did you first try…”), age of regular use (i.e., “At what age did you begin to use regularly…”), frequency of use in the past year (i.e., “Within the last year, about how often have you used…”), and in the last 30 days (i.e., “During the past 30 days, on how many days did you have…”). Additionally, participants were asked similar questions relating to their usage from time of first introduction to the included drugs and alcohol. Survey questions 12-16 (see Appendix C) were adapted from the CORE Institute’s Drug and Alcohol Use Long Form. However, for purposes of the current study, the inclusion of “Steroids” was deleted and, based on recent research on the increasing prevalence of prescription drugs (Apa-Hall et al., 2008; ONDCP, 2008), a category was created to examine use history of this item.

Perceived appeals of alcohol. Questions regarding attitudes towards alcohol asked participants to respond to what they believe are the appeals of using alcohol (i.e., “Do you believe that alcohol has the following effects…”), as well as how they would respond to being offered drugs and/or alcohol by their best friend at a party where drugs and alcohol were present. A summation of the results from these questions was then performed to combine the perceived appeal into like categories. This resulted in the emergence of four categories of perceived appeals of alcohol: 1) Sex Appeal; 2) Peer Bonding; 3) Social Activity; and 4) Stress Reliever.

In order to answer this question, participants were asked to report whether or not they perceive alcohol to have certain appeals. Participants were asked to answer Yes or No to each statement regarding appeals of alcohol. Their answers were combined

to create four broader attitudinal categories: 1) Sex Appeal (e.g., alcohol makes women/men/me sexier, and facilitates sexual opportunities); 2) Peer Bonding (e.g., alcohol facilitates connections with peers and male/female bonding); 3) Social Activity (e.g., alcohol breaks the ice, gives people something to talk about and do, enhances social activity, and allows people to have more fun); and 4) Stress Reliever (e.g., alcohol makes it easier to deal with stress).

Wearout and reactance trends. To determine if wearout exists, participants were asked to rate their feelings towards the *AboveTheInfluence* campaign. Participants were given a 7-point Likert scale to assess their feelings about the campaign, ranging for "not at all" to "very much". Based on wearout theory, participants' ratings of certain feelings (i.e., angry, motivated, irritated, annoyed, encouraged, happy, aggravated, and indifferent) were used to determine if any additional signs of wearout to the *AboveTheInfluence* campaign's message existed.

In order to find signs of reactance, participants were asked to respond to a series of questions about their cognitive reactions to the *AboveTheInfluence* campaign and answered based on a 5-point Likert scale (ranging from 1 = "strongly disagree" to 5 = "strongly agree"). The questions regarding their cognitive reactions to the campaign asked if participants felt the campaign tried to make them think or act in a certain way, forced its opinions on them, if they looked for flaws in the campaign's advertisements, and if they felt the campaign's characters were relatable.

Perceived peer norms. Given that perceived peer norms play a significant role in influencing youth drug and alcohol use, it is important to understand what participants in this study perceive their peers' drug and alcohol use levels to be. In order to discover

this, questions were borrowed from the CORE Long Form to ask participants to approximate the amount of drugs and alcohol used by their peers (i.e., “How often do you think the average college student on your campuses uses…”) and which peer groups are most likely to use drugs or alcohol (i.e., “On this campus, drinking is a central part in the social life of the following groups…”) (SIUC, n.d.).

Likelihood to engage in drug and alcohol use. In order to examine the likelihood that participants would engage in drug and/or alcohol use, the survey included a scenario in which participants were asked to indicate their likely response to being offered drugs and alcohol. The scenario told participants that they were invited to a party and, upon arrival, found that their friends were drinking alcohol and using drugs (some casually, others partaking in heavy use). In the scenario, participants were then approached by their best friend and offered drugs and alcohol. At that point, participants were asked to provide their likely response to the offer of alcohol (i.e., “I accept, and drink alcohol casually”, “I accept, and drink alcohol to get drunk”, and “I do not accept, and do not drink alcohol”), and the offer of drugs (i.e., “I accept, and use drugs casually”, “I accept, and use drugs to get high”, and “I do not accept, and do not use drugs”). Participants were also given the response option to leave the party immediately.

Procedure.

After receiving IRB approval, the current survey was administered to three sections of a large lecture course titled “Fundamentals of Public Speaking” (COMM 2020). This is a foundation curriculum course option for undergraduates at East Carolina University. Students in this class vary in age (combining traditional and non-

traditional students), socioeconomic status, race, and region (both in-state and out-of-state).

Prior to presenting the survey questionnaire, the issues of informed consent and participant anonymity were addressed. Specifically, the participants were informed of the goals of the study, the length of the survey, voluntary nature of their participation, confidentiality and anonymous nature of the survey. In effort to maximize anonymity, participants were not required to sign an informed consent form, but rather assumed consent by completing the survey. Participants were given survey instructions prior to receiving surveys. Surveys were handed in by participants when they were finished. Participants were not permitted to remove the survey from the controlled environment and hand it in at a later time in order to prevent any additional viewing of *AboveTheInfluence* commercials. Participants were debriefed after all surveys were collected. Participants were provided with contact information to receive additional information about the purposes of the study and initial findings. From the classes that participated in the survey, an average of 30 minutes of in-class time was used to deliver information and instructions, and to complete the survey and provide additional pertinent information.

Once a section of surveys had been completed, all data entry was completed by the researcher using SPSS statistical analysis software. Descriptive statistics were calculated and reported for all the variables included in each research question and hypothesis. Pearson bivariate correlation was performed for RQ1, 2, 3 and 5 to examine variables in question, and a crosstabulation was completed to examine RQ4.

CHAPTER 4: RESULTS

In order to answer the research questions and hypothesis presented, participants were asked to report their current drug and alcohol use, use prior to entering college, current attitudes, age of exposure to and initiation of drug and alcohol use, and asked various questions about their current and previous exposure to the *AboveTheInfluence* campaign and attitudes towards it.

Reported AboveTheInfluence *Exposure and Recall and Drug and Alcohol Use*

The first research question asked about the drug and alcohol use habits and levels of exposure to and recall of the *AboveTheInfluence* campaign amongst the initial target audience (currently ages 18-23 years). This question sought to establish baseline levels of participants' exposure to and recall of the *AboveTheInfluence* campaign. The participants were first asked to report their television viewing habits, average hours and frequency of viewing over the past week, and on a typical week. Based on the responses collected during the survey, participants watched television an average of 6.83 (*SD* = 4.60) times per week and typically for 10.37 (*SD* = 9.32) hours during the week.

Participants were then asked about their exposure to the *AboveTheInfluence* campaign over the past month. A calculation of all participants' responses yielded results that showed participants had seen an *AboveTheInfluence* advertisement an average of 4.72 times over the past month (*SD* = 7.695). Notably, 95 (28.8%) of those reporting exposure amounts responded that they had not seen an *AboveTheInfluence* advertisement over the past month. Those participants with no reported exposure to the campaign in the past 30 days were excluded from the analysis of this research

question. Respondents who reported being exposed to the campaign advertisements one or more times (n=214, 64.8%) had an average exposure amount of 6.82 (*SD* = 8.440) per month.

For purposes of the first three research questions, participants included in analyses needed to be between 18 and 23 years of age to fit within the initial target audience (12-17 years old in 2005) of the campaign. Fifteen participants were excluded from the current analyses because they were younger than 18 years old or older than 23 years (*n* = 315). Specifically focusing on this age range to address RQ1, participants responded to a similar amount of exposure to the *AboveTheInfluence* campaign over the past month (M = 6.89, *SD* = 8.554) as the entire participant population.

In order to assess the full extent of exposure to the *AboveTheInfluence* campaign, participants were also asked to recall when they remember seeing an *AboveTheInfluence* advertisement (i.e. elementary school, middle school, high school, and college). There was a gradual increase in recall as participants moved from elementary school (23.7% recall) to middle school (43.7% recall) to high school (58.3% recall). Recall rates dropped, however, as participants were asked about their exposure during college, with only 36.3% recalling an *AboveTheInfluence* advertisement. Nonetheless, 92.9% (*n* = 283) of those participants 18-23 years old reported having been exposed to the campaign and had some level of recall from elementary school to college.

Establishing drug and alcohol use behaviors was also necessary to answer RQ1. Table 1 shows the age at which participants within the initial target audience of the *AboveTheInfluence* campaign first used alcohol and drugs. As previously stated, the

Table 1

Age When Participants (ages 18-23 years) First Tried Alcohol and Drugs

	Did not use	Under 10 years	10-11 years	12-13 years	14-15 years	16-17 years	18-20 years	21+ years	*n*
Tobacco	102 (34.6%)	6 (2.0%)	5 (1.7%)	23 (7.8%)	49 (16.6%)	72 (24.4%)	36 (12.2%)	1 (0.3%)	294
Alcohol	28 (9.5%)	9 (3.1%)	9 (3.1%)	38 (12.9%)	96 (32.5%)	80 (27.1%)	35 (11.9%)	0 (0.0%)	295
Marijuana	93 (31.5%)	0 (0.0%)	4 (1.4%)	20 (6.8%)	56 (19.0%)	74 (25.1%)	46 (15.6%)	2 (0.7%)	295
Cocaine	245 (83.1%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	6 (2.0%)	9 (3.1%)	30 (10.2%)	1 (0.3%)	291
Amphetamines	273 (92.5%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	4 (1.4%)	6 (2.0%)	7 (2.4%)	0 (0.0%)	291
Sedatives	266 (90.2%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	7 (2.4%)	6 (2.0%)	8 (2.7%)	2 (0.7%)	290
Hallucinogens	258 (87.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (1.0%)	11 (3.7%)	16 (5.4%)	3 (1.0%)	291
Opiates	277 (93.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (1.0%)	2 (0.7%)	8 (2.7%)	0 (0.0%)	290
Inhalants	279 (94.6%)	2 (0.7%)	0 (0.0%)	3 (1.0%)	2 (0.7%)	1 (0.3%)	2 (0.7%)	1 (0.3%)	290
Designer drugs	247 (83.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (2.0%)	8 (2.7%)	25 (8.5%)	4 (1.4%)	290
Prescription drugs	182 (61.7%)	22 (7.5%)	4 (1.4%)	5 (1.7%)	15 (5.1%)	21 (7.1%)	37 (12.5%)	0 (0.0%)	291
Other illegal drugs	260 (88.1%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	2 (0.7%)	2 (0.7%)	15 (5.1%)	1 (0.3%)	281

sample size fluctuates to some degree because of participants choosing not to answer some portions of the survey. A key finding from this analysis spotlights the early age at which America's youth are initially trying alcohol—0.0% of the participant population (ages 18-23) tried alcohol after age 21. This means that, if the participant has tried alcohol previously, it occurred before they were legally able to consume alcohol. The same is true for amphetamines, opiates, and prescription drugs—all respondents had tried these drugs before 21 years of age. Furthermore, the highest rate of initial use of drugs and alcohol occurred in the "14-15 years", "16-17 years", and "18-20 years" brackets—meaning that the majority of participants began trying drugs during their high school years.

Narrowing the use levels to more recent behavior, Table 2 (see next page) reflects the drug and alcohol use of those participants (ages 18-23 years) over the past year. Based on these use levels, it is important to acknowledge that the daily use (over the past year) of marijuana is the highest amount for all drugs (10.8%). While rare to occasional use and daily use of marijuana and tobacco are highest, alcohol use seems to follow a more regular pattern where the majority (35.6%) of participants who drink alcohol do so three times per week. Of the remaining drugs reported, prescription drugs were the next commonly used drug over the past year with the key range of use occurring between once and six times per year (4.4% and 6.1%, respectively) and a minor elevation at twice a month (4.1%). One encouraging finding was that more than half (52.5%) of participants ages 18-23 years old do not use tobacco.

To examine the more recent use habits, participants were asked to report their drug and alcohol use over the past 30 days. Notable findings from the reported amount

Table 2

Participants' (ages 18-23 years) Reported Drug and Alcohol Use Over Past Year

	No use	Once/ year	6 times/ year	1 time/ month	2 times/ month	1 time /week	3 times /week	5 times /week	Every day	*n*
Tobacco	155 (52.5%)	14 (4.7%)	22 (7.5%)	10 (3.4%)	19 (6.4%)	19 (6.4%)	12 (4.1%)	13 (4.4%)	26 (8.8%)	290
Alcohol	36 (12.2%)	6 (2.0%)	11 (3.7%)	11 (3.7%)	27 (9.2%)	71 (24.1%)	105 (35.6%)	24 (8.1%)	2 (0.7%)	293
Marijuana	136 (46.1%)	30 (10.2%)	25 (8.5%)	7 (2.4%)	18 (6.1%)	14 (4.4%)	18 (6.1%)	13 (4.4%)	32 (10.8%)	288
Cocaine	253 (85.8%)	14 (4.7%)	13 (4.4%)	1 (0.3%)	4 (1.4%)	2 (0.7%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	289
Amphetamines	278 (94.2%)	3 (1.0%)	1 (0.3%)	1 (0.3%)	2 (0.7%)	1 (0.3%)	2 (0.7%)	1 (0.3%)	0 (0.0%)	288
Sedatives	271 (91.9%)	7 (2.4%)	4 (1.4%)	1 (0.3%)	4 (1.4%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	288
Hallucinogens	265 (89.8%)	13 (4.4%)	8 (2.7%)	1 (0.3%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	288
Opiates	277 (93.9%)	7 (2.4%)	4 (1.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	288
Inhalants	283 (95.9%)	2 (0.7%)	2 (0.79%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	287
Designer drugs	261 (88.5%)	14 (4.7%)	7 (2.4%)	3 (1.0%)	3 (1.0%)	0 (0.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	289
Prescription drugs	221 (74.9%)	13 (4.4%)	18 (6.1%)	11 (3.7%)	12 (4.1%)	5 (1.7%)	3 (1.0%)	2 (0.7%)	5 (1.7%)	290
Other illegal drugs	271 (91.9%)	5 (1.7%)	2 (0.7%)	1 (0.3%)	2 (0.7%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	1 (0.3%)	283

of drug and alcohol use over the past 30 days include: 1) the percentage (36.0%) of participants who reported any tobacco (*n* = 106) and marijuana *(n* = 108, 36.6%) use over the past 30 days were most similar amounts of use; 2) 80.6% of participants reported having some amount of alcohol use in the past 30 days, with the highest frequencies of reported alcohol use occurring at 6-9 days of use (*n* = 70, 23.7%) and 10-19 days of use (*n* = 70, 23.7%) within the past month; and 3) prescription drugs (*n* = 3, 11.9%) had the next highest level of use in the past 30 days.

Associations of Exposure and Recall with Reported Drug and Alcohol Use and Attitudes

The second research question asked if participants' (within the campaign's initial target audience) exposure to the *AboveTheInfluence* campaign had an association with their reported drug and alcohol use. In order to assess this association, it is important to look at the specific drug and alcohol use over the past 30 days for participants between the ages of 18 and 23 years (see Table 3 on next page) to make comparisons with their reported exposure to the *AboveTheInfluence* campaign over the past month and their overall recall of the campaign. Additionally, use over the past year was also assessed to examine associations over a longer period of time.

Association of exposure and recall with use. The results from the reported drug and alcohol use over the past 30 days was then correlated with the exposure to and recall of the *AboveTheInfluence* campaign to determine any possible associations. The reported exposure (over the past 30 days) to the *AboveTheInfluence* campaign had no correlation with tobacco, $r(190) = 0.071$, $p = 0.433$, and alcohol, $r(193) = -0.034$, $p =$

Table 3

Participants' (ages 18-23 years) Reported Drug and Alcohol Use Over the Past 30 Days

	0 days	1-2 days	3-5 days	6-9 days	10-19 days	20-29 days	All 30 days	Any Use	*n*
Tobacco	183 (62.0%)	27 (9.2%)	17 (5.8%)	8 (2.7%)	18 (6.1%)	19 (6.4%)	17 (6.1%)	106 (36.0%)	289
Alcohol	53 (18.0%)	40 (13.6%)	40 (13.6%)	70 (23.7%)	70 (23.7%)	17 (5.8%)	1 (0.3%)	238 (80.6%)	291
Marijuana	184 (62.4%)	27 (9.2%)	15 (5.1%)	7 (2.4%)	24 (8.1%)	18 (6.1%)	17 (5.8%)	108 (36.6%)	292
Cocaine	269 (91.2%)	10 (3.4%)	5 (1.7%)	0 (0.0%)	2 (0.7%)	0 (0.0%)	0 (0.0%)	17 (5.7%)	286
Amphetamines	277 (93.9%)	3 (1.0%)	2 (0.7%)	0 (0.0%)	3 (1.0%)	0 (0.0%)	0 (0.0%)	8 (2.7%)	285
Sedatives	278 (94.2%)	2 (0.7%)	2 (0.7%)	1 (0.3%)	2 (0.7%)	0 (0.0%)	0 (0.0%)	7 (2.4%)	285
Hallucinogens	277 (93.9%)	3 (1.0%)	3 (1.0%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	7 (2.4%)	284
Opiates	279 (94.6%)	2 (0.7%)	1 (0.3%)	1 (0.3%)	1 (0. 3%)	0 (0.0%)	0 (0.0%)	5 (1.7%)	284
Inhalants	280 (94.9%)	1 (0.3%)	2 (0.7%)	0 (0.0%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	4 (1.4%)	284
Designer drugs	272 (92.2%)	6 (2.0%)	2 (0.7%)	2 (0.7%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	11 (3.7%)	283
Prescription drugs	249 (84.4%)	13 (4.4%)	9 (3.1%)	4 (1.4%)	3 (1.0%)	2 (0.7%)	4 (1.4%)	35 (11.9%)	284
Other illegal drugs	271 (91.9%)	1 (0.3%)	2 (0.7%)	0 (0.0%)	2 (0.7%)	0 (0.0%)	2 (0.7%)	7 (2.3%)	278

0.638 use. However, reported exposure (over the past 30 days) to the *AboveTheInfluence* campaign was significantly positively correlated with past 30 day use of marijuana, $r(193) = 0.136$, $p<0.05$, cocaine, $r(189) = 0.281$, $p<0.01$, amphetamines, $r(188) = 0.210$, $p<0.01$, sedatives, $r(188) = 0.326$, $p<0.01$, hallucinogens, $r(188) = 0.382$, $p<0.01$, opiates, $r(188) = 0.388$, $p<0.01$, inhalants, $r(188) = 0.313$, $p<0.01$, designer drugs, $r(188) = 0.390$, $p<0.01$, prescription drugs, $r(188) = 0.274$, $p<0.01$, and other illegal drugs, $r(185) = 0.166$, $p<0.05$. Results suggest there is a positive association between exposure to the *AboveTheInfluence* campaign and use of certain drugs (except for tobacco and alcohol)—the higher the exposure amounts to an *AboveTheInfluence* advertisement, the higher the level of reported drug use (with exception to tobacco and alcohol).

In this current data on participants' total "*AboveTheInfluence* Campaign Recall Score" and their reported drug and alcohol use over the past 30 days, no correlations were found for tobacco, $r(278) = -0.055$, $p = 0.361$, alcohol, $r(280)$, $p = 0.979$, or any other reported drug (significance values ranging from amphetamines, $p = 0.376$, to inhalants, $p = 0.894$). Furthermore, when the time frame of reported drug and alcohol use was extended to use over the past year, there was still no significant correlation found between participants' campaign recall and their drug and alcohol use (significance values ranging from amphetamines, $p = 0.065$, to hallucinogens, $p = 0.888$).

Associations of exposure and recall with attitudes towards alcohol. The third research question also sought to find if participants' attitudes towards alcohol had any possible associations with *AboveTheInfluence* campaign exposure and recall. In the

category of Sex Appeal, the majority of participants did not perceive alcohol use to have the appeal of making men sexier (58.5%), women sexier (79.1%), or themselves sexier (70.9%). However, they did see alcohol use as a way to facilitate sexual opportunities (73.3%). Participants did see the appeals of alcohol in the Peer Bonding category, seeing it as a way to facilitate a connection with peers (70.3%), facilitate male bonding (71.2%), and facilitate female bonding (65.2%). The highest appeal levels came in the Social Activity category—80.9% saw alcohol use as a way to break the ice, 84.8% viewed alcohol use as a social activity, 74.5% said alcohol use gives them something to talk about, 84.2% said alcohol use gives them something to do, and 73.6% perceive alcohol use to have the appeal of allowing them to have more fun. The final category of the perceived appeal of alcohol was its appeal as a stress reliever. When asked if participants thought alcohol use could make it easier to deal with stress, the slight majority (54.5%) did not consider an appeal of alcohol to be stress relief.

These four attitudes towards alcohol were correlated with the frequency of viewing (exposure to) an *AboveTheInfluence* advertisement, as well as total recall of the campaign, to assess any possible associations. Only those participants ages 18-23 years reporting one or more times of exposure to the campaign or some level of recall were included in the calculations for this assessment. There was no association found between attitudes towards the perceived appeals of alcohol and the frequency of viewing the *AboveTheInfluence* campaign for any of the four categories (see Table 4). With regard to the total recall of the campaign, there was also no significant association found between recall and participants' attitudes toward the four categories of perceived appeals of alcohol (see Table 4 on following page).

Table 4

Correlation of Participants' Attitudes Towards Alcohol's Perceived Appeals and Exposure and Recall of the AboveTheInfluence *Campaign*

		Exposure	Recall
Stress Reliever	*r*	0.097	-0.068
	Sig.	0.176	0.254
	n	195	283
Sex Appeal	*r*	0.116	-0.013
	Sig.	0.111	0.830
	n	189	276
Peer Bonding	*r*	-0.022	0.100
	Sig.	0.760	0.095
	n	193	281
Social Activity	*r*	0.110	0.022
	Sig.	0.112	0.710
	n	211	280

AboveTheInfluence *Audience Wearout and Reactance*

The fourth research question asked: After being exposed to the AboveTheInfluence campaign advertisements, do participants' perceptions of the campaign have reactions that express signs of reactance or wearout patterns? To analyze potential wearout effects, participants were asked to report their reaction to the *AboveTheInfluence* campaign in two stages: 1) initial reaction; and 2) current reaction. Initial reactions reflect participants' feelings towards the campaign when they were first exposed, whereas the current reaction measurement sought to assess participants' reactions to the *AboveTheInfluence* campaign at the time of the survey.

To compare the changes in reactions to the *AboveTheInfluence* campaign, a crosstabulation of the initial and current reactions was conducted. As seen in Table 5, the largest portions of participant reactions from initial to current remained unchanged. However, there were significant levels of change seen in participants' initial to current

reactions shifting from positive to neutral (*n* = 19, 6.3%) and the shift from neutral to positive (*n* = 31, 10.2%). From this it can be gathered that there was little change in participants' reaction to the *AboveTheInfluence* campaign at first exposure to their current reactions to the campaign.

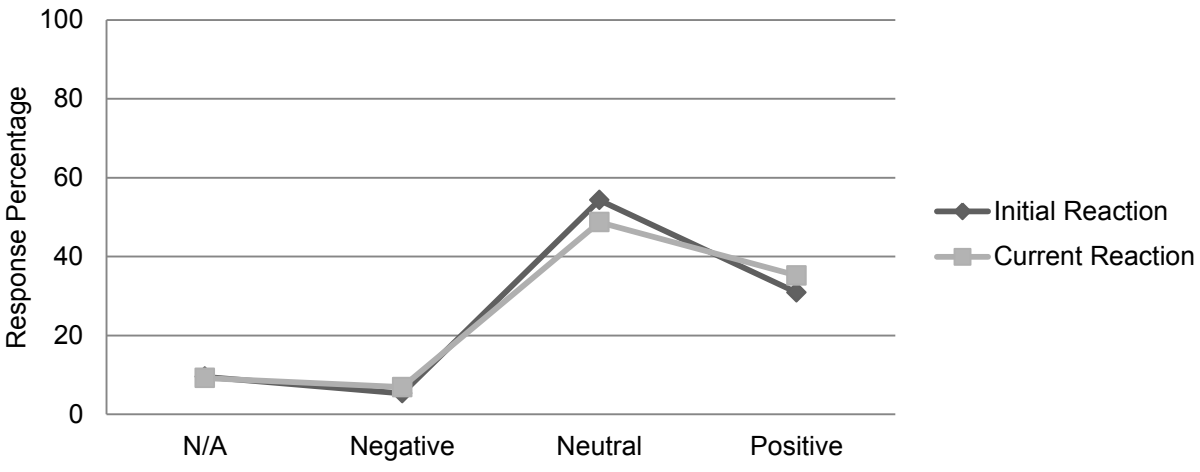
Table 5

Crosstabulation of Initial and Current Reactions to the AboveTheInfluence *Campaign*

			Current Reaction				
			N/A	Negative	Neutral	Positive	Total
Initial Reaction	N/A	Count	22	1	4	2	29
		% of Total	7.2%	.3%	1.3%	.7%	9.5%
	Negative	Count	0	12	3	1	16
		% of Total	.0%	3.9%	1.0%	.3%	5.3%
	Neutral	Count	5	7	122	31	165
		% of Total	1.6%	2.3%	40.1%	10.2%	54.3%
	Positive	Count	1	1	19	73	94
		% of Total	.3%	.3%	6.3%	24.0%	30.9%
	Total	Count	28	21	148	107	304
		% of Total	9.2%	6.9%	48.7%	35.2%	100.0%

As seen in Figure 1, changes in participants' reactions towards the *AboveTheInfluence* campaign from initial viewing to current feelings are minimal. Participants' current reactions to the *AboveTheInfluence* campaign exhibited almost identical amounts as their initial reactions to the campaign. Although not statistically significant results, a comparison of initial reactions to current reactions shows a slight increase in negative reactions to the campaign from initial exposure to present (increase of 1.4) and positive reactions (increase of 4.3). The largest change in reaction from initial to current feelings was seen in the neutral category (decrease of 5.6).

Figure 1. Participants' Initial and Current Reaction to the AboveTheInfluence Campaign



As previously explained, wearout suggests that the target audience should initially be accepting of an advertisement and its messages and then, after being overexposed, start to harbor negative feelings towards the advertisements (Pechmann & Stewart, 1988). Based on the findings of the collected data, it can be suggested that participants still have the same general feelings towards the campaign as they did when they were initially exposed. Since current reactions generally mirror the initial reactions participants had towards the *AboveTheInfluence* campaign, it can also be suggested that there are no significant signs of wearout occurring thus far.

In another effort to determine if wearout exists, participants were asked to rate their feelings towards the *AboveTheInfluence* campaign. From the reported feelings towards the *AboveTheInfluence* campaign, it is apparent that the campaign does not elicit strong feelings for most participants (see Table 6 on following page). Rather, the majority of responses were found at the "not at all" level, meaning that the participants did not feel strong emotional reactions to the campaign. The only other significant

Table 6

Participants' Responses to Feelings about the AboveTheInfluence Campaign

	Not at all	A little	Somewhat	A lot	Very Much	N/A	*n*
Angry	57.9%	5.6%	4.2%	1.1%	2.5%	28.8%	285
Motivated	31.3%	12.7%	15.1%	7.7%	6.7%	26.4%	284
Irritated	50.9%	8.5%	10.2%	2.5%	2.5%	25.4%	283
Annoyed	47.3%	7.8%	12.0%	3.2%	4.9%	24.7%	283
Encouraged	32.4%	10.6%	13.7%	10.9%	8.5%	23.9%	284
Happy	37.1%	12.0%	12.7%	6.7%	6.0%	25.4%	283
Aggravated	55.1%	4.9%	7.1%	1.4%	3.2%	28.3%	283
Indifferent	28.6%	8.4%	11.5%	8.7%	20.6%	22.3%	287

finding appeared in feelings of “Indifferent” towards the campaign, where 20.6% of participants reported their “Indifferent” feelings to be “very much”. Following along with the finding that most participants did not have significantly notable feelings towards the campaign, it is also important to highlight the large percentage of participants who responded with “N/A” to most emotions questioned.

From this it can be gathered that participants are having little, if any, significant emotional reactions to the *AboveTheInfluence* campaign. This suggests that wearout is not yet occurring because participants are not having strong negative emotional reactions to the campaign. If participants’ positive feelings strongly outweighed the negative feelings, this would show signs that the audience was still agreeing with the message, thus remaining in the wearin phase. However, it can be suggested that participants’ reactions are not still in the wearin phase either, due to the similarity in levels of positive and negative feelings towards the campaign. Table 4 summarizes the results found in regard to participants’ ranked feelings using valid percentages due to the large number of participants not responding to the question.

An additional analysis was conducted to see if any signs of reactance existed in the participant population. When asked if participants felt like they looked for flaws within *AboveTheInfluence* advertisements (M = 2.52, *SD* = 1.44), felt as if the campaign pressured them to think in a certain way (M = 2.81, *SD* = 1.44), felt the campaign forces its opinions on them (M = 2.85, *SD* = 1.44), felt the campaign pressured them to act in a certain way (M = 2.91, *SD* = 1.44), and found the characters in the *AboveTheInfluence* advertisements to be relatable (M = 2.64, *SD* = 1.21), all responses ranged between 2 = “disagree” to 3 = “neutral”. From this it can be concluded that participants do not have

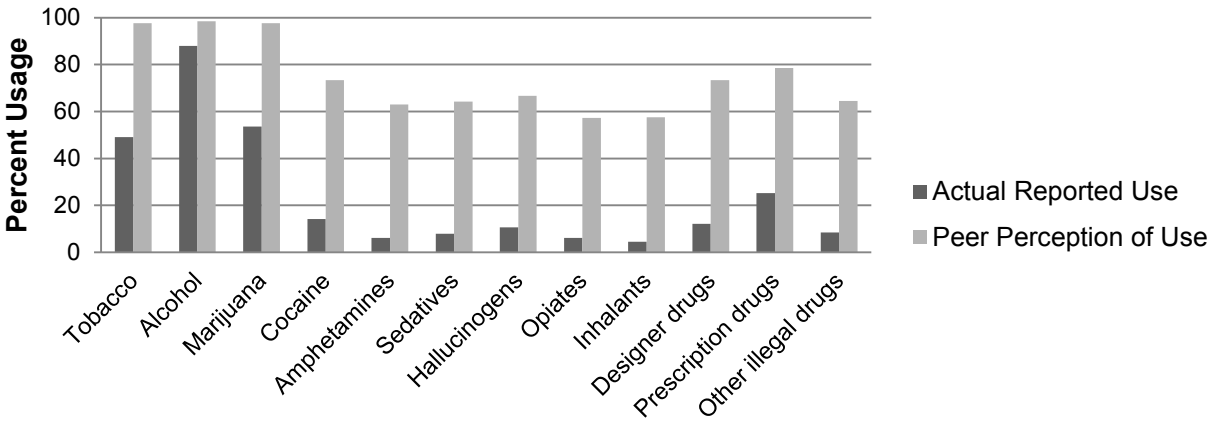
strong cognitive reactions to the *AboveTheInfluence* campaign.

Overestimation of Peer Drug and Alcohol Use

Drawing on the assessed relevant research, it was predicted that participants tend to overestimate the drug and alcohol use reported by their peers. By comparing participants' actual reported use over the past year with the perception of peers' use over the past year, the hypothesis was supported. For tobacco, the peer perception of use was reported at 97.6%, while only 49.1% actually reported any use over the past year. With regard to alcohol, actual use was 87.9%, despite the perceived peer use of 98.5%. Perceived peer use of marijuana (97.6%) was also significantly higher than the actual reported use (53.6%) by participants. For the remaining reported drugs, peer perception of use (*pp*) was significantly higher than the actual reported use (*ar*) (Cocaine: perceived peer use [*pp*] = 73.3%, actual reported use [*ar*] = 14.2%; Amphetamines: *pp* = 63.0%, *ar* = 6.1%; Sedatives: *pp* = 64.2%, *ar* = 7.9%; Hallucinogens: *pp* = 66.7%, *ar* = 10.6%; Opiates: *pp* = 57.3%, *ar* = 6.1%; Inhalants: *pp* = 57.6%, *ar* = 4.5%; Designer drugs: *pp* = 73.3%, *ar* = 12.1%; Prescription drugs: *pp* = 78.5%, *ar* = 25.2%; and Other Illegal drugs: *pp* = 64.5%, *ar* = 8.5%). Results are summarized in Figure 2 (see next page).

Based on a comparison of the reported actual use of drugs and alcohol with peer perception of use, it can be determined that participants drastically overestimated all drug use. Peer perceptions of alcohol most closely reflected actual use (difference of 10.6%); however, all other drugs surveyed showed a drastic difference in actual and perceived use (differences in use of 48.5%—Tobacco; 44.0%—Marijuana; 59.1%—Cocaine; 56.9%—Amphetamines; 56.3%—Sedatives; 56.1%—Hallucinogens; 51.2%—

Figure 2. Comparison of Peer Perception of Use with Actual Use of Drugs and Alcohol



Opiates; 53.1%—Inhalants; 61.2%—Designer drugs; 53.3%—Prescription drugs; 56.0%—Other illegal drugs). These findings support Hypothesis 1—participants tend to overestimate the reported drug and alcohol use of their peers. Furthermore, it is notable that the perceived peer use levels follow the same general trends of actual drug and alcohol use. This shows that while participants significantly overestimate the amount of drugs and alcohol used by their peers, they are still highly aware of which substances are the most common/popular and which are the least used amongst their peers.

Impact of Peer Perception on the Participant's Likelihood to Use

Participants were asked to provide their perceived peer use of drugs and alcohol (see H1 for results) to answer RQ5. These results were combined with participants' responses to a potential real-life scenario in which they would be asked by a peer to use drugs or drink alcohol. Participants were asked to respond as to whether or not they would accept, how significantly they would participate in the activity (e.g., casually drink alcohol vs. drinking to get drunk; or casually use drugs vs. use drugs to get high), as

well as answering if they would remain at a party where drug and alcohol use was present. For purposes of analysis, participants responding that they would drink alcohol casually were grouped with those responding that they would drink to get drunk (1. “Accept and drink alcohol”); those responding that they would casually use drugs were paired together with those who would use drugs to get high (2. “Accept and use drugs”); lastly, those who would not accept drugs or alcohol, or would leave the party, were grouped together (3. “Do NOT accept drugs or alcohol, and/or leave the party immediately”).

The results of this analysis are shown in Table 7 (see next page). Based on these results, it can be suggested that there is generally no association between the perceived drug use of peers and the likelihood of engaging in drug use. The only exception to this occurs in those who have a higher perceived peer use of marijuana. These participants were more likely to remain at a party where alcohol was present and participate in drinking, $r(282) = 0.166$, $p<0.01$. Additionally, the findings suggest that there are associations with the higher perceived peer use of amphetamines, $r(270) = 0.119$, $p<0.05$, sedatives, $r(278) = 0.129$, $p<0.05$, inhalants $r(269) = 0.177$, $p<0.01$, and opiates, $r(269) = 0.152$, $p<0.05$, and those participants’ likelihood to not partake in drug or alcohol use and/or leave the party immediately.

From these findings, it can be concluded that participants with a higher perception of peer drug use (specifically amphetamines, sedatives, opiates, and inhalants) are more likely to not use drugs or alcohol at a party, as well as possibly leave the environment where drugs and alcohol are present. It was also found that the

higher perception of peer use of marijuana, the more likely the participant is to remain in a situation where alcohol is present and partake in drinking.

Table 7.
Correlation of Perceived Peer Use of Drugs and Alcohol with Responses to a Proposed Party Scenario with Drugs and Alcohol Present

		1. Use Alcohol	2. Use Drugs	3. Do Not Use
Tobacco	*r*	.042	.065	-.039
	Sig.	.476	.277	.518
	n	284	284	284
Alcohol	*r*	.098	-.012	-.022
	Sig.	.100	.845	.717
	n	284	284	274
Marijuana	*r*	**.166	.067	-.115
	Sig.	.005	.263	.058
	n	282	282	272
Cocaine	*r*	.044	-.009	.038
	Sig.	.461	.875	.538
	n	279	281	270
Amphetamines	*r*	.034	-.002	*.119
	Sig.	.569	.973	.050
	n	279	281	270
Sedatives	*r*	.036	.053	*.129
	Sig.	.553	.377	.046
	n	278	280	278
Hallucinogens	*r*	.044	.041	.106
	Sig.	.471	.498	.082
	n	276	278	267
Opiates	*r*	.056	-.004	*.152
	Sig.	.351	.953	.012
	n	278	280	269
Inhalants	*r*	.010	.002	**.177
	Sig.	.874	.977	.004
	n	278	280	269
Designer drugs	*r*	.019	.033	.086
	Sig.	.757	.586	.158
	n	277	279	268
Prescription drugs	*r*	.037	.044	.032
	Sig.	.535	.465	.599
	n	280	281	270
Other illegal drugs	*r*	.028	-.042	.105
	Sig.	.652	.488	.089
	n	270	272	272

{1. Accept and drink alcohol; 2. Accept and use drugs; 3. Do NOT accept drugs or alcohol and/or leave the party immediately.}

**. Correlation is significant at the p = 0.05 level.
*. Correlation is significant at the p = 0.01 level.

CHAPTER 5: DISCUSSION

The current study examined the effectiveness of the *AboveTheInfluence* campaign on its initial target audience and its association with attitudes towards alcohol. Additionally, the research studied the association between actual drug and alcohol use of college students and perceived peer use of drugs and alcohol.

Implications

Based on the findings of this participant population, it was determined that the more the *AboveTheInfluence* campaign is viewed by a college student, the higher his or her drug and alcohol use were. However, these findings could be accounted for by suggesting that higher drug and alcohol users are potentially more aware of anti-drug messages, spend more time watching television, and/or are generally higher reporting participants. While these findings are interesting, more support was needed to determine if the *AboveTheInfluence* campaign has an association with drug and alcohol use. The reported drug and alcohol use of participants over the past year, when correlated with the ages of recall (i.e. elementary school, middle school, high school, and college), provides some of that needed support by uncovering that the level of recall a participant had of the *AboveTheInfluence* campaign had no impact on their drug and alcohol use over the past 30 days or year.

Additionally, the participants attitudes towards alcohol, when correlated with their attitudes towards the campaign, suggests that there is no significant association between the perceived appeals of alcohol and the exposure and recall a participant has of the *AboveTheInfluence* campaign. In this sample, it can be concluded that participants' exposure to and their recall of the *AboveTheInfluence* campaign has no

impact on their attitudes towards the perceived appeals of alcohol with regard to sex appeal, peer bonding, social activities, or stress relief.

It was also found that participants' reactions to the *AboveTheInfluence* campaign are not currently showing significant signs of overexposure (due to wearout) or that the messages conveyed are not causing significant viewer reactance. However, the subtle increases in positive and negative reactions, coupled with the decreasing neutral feelings could potentially suggest that there has been a slight shift to a more polarized opinion of the *AboveTheInfluence* campaign. It can also be argued that there are some initial signs of wearout in that, after six years of exposure to the *AboveTheInfluence* campaign, approximately 50% replied with "neutral" or "N/A" reactions to the campaign. This general indifference or neutral reaction towards the campaign could be reflective of a lack of concern or a disinterest, possibly due to overexposure, and thus wearout.

However, a large percentage of participants responding to these questions gave the answer "N/A" and were not included in the average responses calculated. This high number of "N/A" responses, coupled with the how closely each question's average fell near the "neutral" feeling towards the campaign could potentially suggest that participants are, again, not having any strong reactions towards the *AboveTheInfluence* campaign. Furthermore, given the nature of the *AboveTheInfluence* campaign, it is important that its audience has positive feelings towards the intended message in order to ensure they are supportive of the "anti-drug" message and lifestyle the campaign advocates. Yet, with such a noteworthy portion of participants not having any strong emotional or cognitive reactions to the campaign, and generally remaining neutral towards the campaign, it could be suggested that the *AboveTheInfluence* campaign is in

the initial stages of showing signs of reactance and/or wearout. These neutral or indifferent feelings towards the campaign provide evidence to propose that the campaign's audience is not having positive reactions to the messages, and thus not supporting the behaviors it promotes.

Nonetheless, this is slightly encouraging in that the campaign's target audience is not feeling like their behavioral freedoms are being considerably challenged by the anti-drug messages of the *AboveTheInfluence* campaign. Furthermore, the campaign's ability to constantly issue new forms or versions of the advertisements could account for viewers not becoming overexposed to the campaign. The perpetual use of updated *AboveTheInfluence* campaign advertisements could be causing the campaign's target audience to feel as if the message being delivered is also constantly changing, preventing them from possible wearout.

However, the lack of strongly negative reactions by viewers might also be due to a general lack of concern or indifference towards the *AboveTheInfluence* campaign and its messages. If this lack of concern or indifference in response is occurring, it is likely that the campaign will not be able to reach full potential or significantly prevent its target audience from embracing the anti-drug message promoted in the advertisements.

The major finding of the study, with regard to the effectiveness of the *AboveTheInfluence* anti-drug media campaign on its target audience after six years of exposure, is that the campaign is showing no significant signs of having a positive effect on lowering its audience's drug and alcohol use, supporting the findings of several reviewed studies (e.g., Hornik et al., 2008; Hencken, 2007; Slater et al., 2011). The current study also revealed that *AboveTheInfluence* campaign exposure amongst the

campaign's initial target audience had no significant signs of decreasing their perception of the appeals of alcohol. Drawing on these results, it can be concluded that the *AboveTheInfluence* campaign has been generally ineffective at promoting a drug-free lifestyle amongst the participant population in the current study.

Another key finding was the support of the hypothesis—participants tend to overestimate the drug and alcohol use of their peers. The support of the hypothesis further compliments research regarding overestimated peer perception of drug and alcohol use (e.g., Perkins et al., 1999; UNC-CH, 1997). It is possible that youth and young adults are beginning to have an overinflated perception of their peers' drug and alcohol use because of campaigns like *AboveTheInfluence*. The very existence of an anti-drug campaign signifies that drug and alcohol use is a problem that is common enough to warrant a response at the national level which may contribute to overestimations of actual use.

Limitations

Study design. The current survey was conducted as a self-report cross-sectional study where the participants were asked about their attitudes, exposure, and recall of the *AboveTheInfluence* campaign and their previous and current drug and alcohol use. In assessing initial and current reaction to *AboveTheInfluence*, the measure used in this study was not the optimal design. The participants were asked both their initial and current reactions to the *AboveTheInfluence* campaign during the same survey, making it plausible they might not have been provided with a lengthy enough amount of time between questions to reflect on their reactions to the advertisements, thus potentially preventing any significant change in reactions. Furthermore, it would be difficult to

compare the level of reactions the campaign's target audience experienced at first exposure and at the current stage with a control group. Since the *AboveTheInfluence* campaign has been running for six years, the likelihood of finding a large enough participant population to create a control group is virtually impossible. Additionally, preventing any participants from viewing this nationwide campaign over the duration of its runtime would be increasingly difficult. As with any self-report study, it is difficult to get completely accurate responses.

In this study, participants were asked about their recall of the campaign in elementary school. However, the vast majority of participants were in middle school when the campaign began running, making it impossible for most participants to have seen it during their elementary school years. It is likely that, for these participants, they recall seeing it around 12 years old and just assume that is the age of final years of elementary school. Nonetheless, it still reflects that participants were able to recall the campaign for numerous years.

College television exposure. As previously noted, recall of the *AboveTheInfluence* campaign dropped amongst the participant population when they entered college. This decrease in recall and exposure at the college level could signal a possible limitation in that when young adults enter the collegiate setting they are less likely to have leisure time to watch television. The potential for decreased television viewing would then impact the amount they are exposed to the *AboveTheInfluence* campaign, thus causing the campaign to have even less chance to influence their decisions to be drug-free. As previously reported, participants in the current study were found to watch approximately 10.37 hours of television per week. A study of 2009

television viewing trends showed that, on average, 8 to 18 year olds watched approximately 2 hours and 39 minutes of live television per day, equaling 18.55 hours per week (Jolin & Weller, 2011). Live television did not include watching recorded television shows, episodes featured online, television programming watched via cellphones, or DVDs of television shows. When these elements are factored in to the reported television viewing levels, the amount increases to approximately 4 ½ hours per day (or 31.38 hours/week) for 8-18 year olds (Jolin & Weller, 2011).

In comparison to the television viewing levels of 2009, it is clear that the participants in this study watch significantly less television than those aged 8-18 years of age. Again, this suggests that it is possible to the lower amount of television exposure amongst college students is causing a decrease in current exposure to the *AboveTheInfluence* campaign. However, it is important to note that the vast majority of participants (92.9%) had some level of recall of the *AboveTheInfluence* campaign, which would mean that, if the campaign was successfully delivering their message, its audience would at least be able to carry the message with them into the collegiate setting without needing further exposure.

Self-report survey. As with any self-report survey, it is difficult to know whether participants' responses are accurately reflective of their actual behaviors. As with any research tool, there are flaws and limitations regarding accuracy and reliability. It is plausible that participants answering a self-report survey on the effects the media has on them would not be able to self-reflect and accurately see the amount of influence it plays in their life. While participants are likely to be able to gauge the effects of the media on their peers, it is possible that participants are unable to assess how much it

impacts them. However, significant research has been conducted on the validity of self-report measures which has shown it to be a reliable measure of a wide range of behaviors.

This study used self-report measures congruent with those employed in similar previous studies. While understanding the limitations of this style of measurement, it is also important to highlight the validity of self-report drug use research. In an analysis of self-report validity, 137 students between 14 and 17 years old were asked to report their tobacco use, then (without prior knowledge) asked to submit a blood sample (Williams, Eng, Botvin, Hill, & Wynder, 1979). Cotinine, "a major metabolite of nicotine…usually found in the blood at levels greater than that of nicotine", was selected because of its ability to remain in the blood stream for a significantly longer period of time and reflect a more accurate and consistent pattern among regular smokers (Williams et al., 1979, p. 1272). By comparing self-reported tobacco use with cotinine levels in the participants' blood, it was found that, of the population that used tobacco, 95% accurately reported their use (Williams et al., 1979). Moreover, it was found that self-reporting was significantly more accurate when participants were given the assurance of full confidentiality (Williams et al., 1979). This finding points out the necessity for confidentiality to assure the more accurate self-reported usage, especially when it comes to sensitive topics such as drug use.

In a similar study of adolescents entering a substance abuse treatment program, 26% reported no substance use, but tested positive in the urinalysis (Williams & Nowatzki, 2005). It is likely that this number is higher because participants were entering a substance abuse treatment program and thus more likely to deny current

use. Williams and Nowatzki (2005) also determined in their study that, consistent with previous research of self-reported drug use, underreporting for cannabis use was more common than underreporting for "less socially acceptable drugs (e.g., cocaine, opiates)" (p. 304). Ultimately, it can be concluded from these results that when it comes to marijuana, a visible drug of focus for the *AboveTheInfluence* campaign, self-reporting is likely to be a fair depiction of actual use.

The attempts of these two studies to further validate self-report is corroborated by a more recent study conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA). In a comparison of drug tests and self-reporting, it was revealed that there was an 89.8% agreement between self-report of marijuana use in the past thirty days and findings from drug testing (Comparing Drug Testing and Self Report of Drug Use Among Youths and Young Adults in the General Population, 2007). Additionally, analysis for this study showed a 84.6% agreement for tobacco usage and 98.5% agreement for cocaine usage (Comparing Drug Testing and Self Report of Drug Use Among Youths and Young Adults in the General Population, 2007). Based upon the collective results of these studies, it can be assumed that the self-reported data collected in this study is a valid representation of actual drug and alcohol use.

Directions for Future Research

Given the results of the current study confirming the reports of previous research on the commonality of young adults overestimating the reported drug and alcohol use of their peers, it is vital that further research be conducted on what types of groups are significantly overestimating peer use. Moreover, it would be helpful to understand the underlying factors that contribute to the overestimation of peer drug and alcohol use to

be able to address those factors. It is with this additional research that, hopefully, peer perceptions of drug and alcohol use could be lowered to a level that more accurately reflects actual use. This could potentially have some effect on lowing actual drug and alcohol use because of the chance that some young adults may be using more drugs or alcohol (or "justifying" their current use) due to their overinflated perception of peer usage.

For college students, there is typically a significantly increased drug and alcohol-rich environment with more opportunities and pressures to participate in drug and alcohol use. However, from the reported levels of drug and alcohol use occurring amongst college students in the current study, there is not a significant level of drug use (with the exception of marijuana and prescription drugs) taking place. From this, it can be suggested that current anti-drug messages need not put substantial focus on less common drugs (i.e., cocaine, amphetamines, sedatives, hallucinogens, opiates, inhalants, and designer drugs). This recent increase in prescription drug use needs to be taken into serious consideration when constructing future anti-drug media campaign messages, as prescription drugs are increasingly becoming easier to access and more popular amongst America's youth (Apa-Hall et al., 2008; ONDCP, 2008). Subsequent studies should examine potential messages that would be effective in deterring prescription drug use in an effort to halt the problem before it reaches the level of alcohol, tobacco, and marijuana.

Using the existing research on anti-tobacco campaign efforts and the changes in tobacco use of the years, it would be helpful to examine the role the campaign plays in deterring tobacco use as well as looking at other contributing factors. In particular, it

would be informative to examine the impact policy changes had on the frequency of tobacco use. By acknowledging the role policy changes had on tobacco use trends, it is possible that this information could then be applied to other anti-drug movements.

A meta-analysis of the current literature of the effectiveness of anti-drug and anti-tobacco campaigns on youth and young adults would potentially provide some necessary insight for the developers of anti-drug media campaigns. It is hopeful that with each campaign implemented by the NYMAC, the successes and failures are being taken into consideration for future strategies in an attempt to get a better grasp on developing campaigns that impact youth and young adults' decision to use drugs and alcohol.

The participants in the current study are a unique set of *AboveTheInfluence* viewers. These participants are part of the first generation of the *AboveTheInfluence*'s target audience and deserve special attention when examining the effectiveness of the *AboveTheInfluence* campaign. Although the current study only included results from a small percentage of this population, it is vital to look to the campaign's initial target audience to get a unique perspective on the campaign's effectiveness. By studying their actual drug and alcohol use, attitudes towards drugs and alcohol use and appeals, as well as their reactions to the *AboveTheInfluence* campaign, it is possible to see how the population that has grown up viewing the campaign views its messages on drug and alcohol use. This initial target audience can serve as a predictive population for later generations who experience the *AboveTheInfluence* campaign. Furthermore, with this information, it could be possible to learn what has been successful and what messages and strategies have not impacted the initial target audience.

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APPENDIX A: IRB APPROVAL

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
1L-09 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/irb**

Notification of Exempt Certification

From: Social/Behavioral IRB
To: Leslie Moore
CC: Sachiyo Shearman
Date: 10/7/2011
Re: UMCIRB 11-001017
AboveTheInfluence Effectiveness

I am pleased to inform you that your research submission has been certified as exempt on 10/7/2011. This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418
IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418 IRB00004973
East Carolina U IRB #4 (Behavioral/SS Summer) IORG0000418

APPENDIX B: INFORMED CONSENT FORM

Informed Consent Form

You are being invited to participate in a **research** study titled "After Six Years…: An Examination of the Effectiveness of the *AboveTheInfluence* Campaign on Its Initial Target Audience" being conducted by Leslie Moore, a graduate student at East Carolina University in the Communications department. The goal is to survey 800 individuals at East Carolina University. The survey will take approximately 30-35 minutes to complete. It is hoped that this information will assist us to better understand how effective the *AboveTheInfluence* campaign is after you have been exposed to it for six years. The survey is anonymous, so please do not write your name. Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study. Please call Leslie Moore at 252-328-5304 for any research related questions or the Office for Human Research Integrity (OHRI) at 252-744-2914 for questions about your rights as a research participant.

APPENDIX C: DRUG & ALCOHOL USE SURVEY

Drug & Alcohol Use Survey

East Carolina University
Greenville, NC 27834

1. Classification:
- Freshman
- Sophomore
- Junior
- Senior
- 5th Year
- Non-traditional
- Other _____

2. Age: ____

3. Gender:
- Male
- Female

4. Ethnic Origin:
- American Indian/ Alaskan Native
- Hispanic
- Asian/Pacific Islander
- White (non-Hispanic)
- Black (non-Hispanic)
- Other

5. How often do you watch television per week:

_____ *times* per week

6. How much television do you watch during a typical week:

_____ *hours* per week

7. Financial Aid/Scholarship:
- None
- Athletic Scholarship (Full or Partial)
- Partial Financial Aid
- Full Financial Aid
- Partial Academic Scholarship
- Full Academic Scholarship

8. Approximate cumulative grade point average: *(choose one)*

A+ A A- B+ B B- C+ C C- D+ D D- F

9. Within the last year to what extent have you participated in any of the following activities?
(mark one for each line)

	Not involved	Attended	Active involvement, non-leader	Leadership position
a. Intercollegiate athletics				
b. Intramural or club sports				
c. Social fraternities or sororities				
d. Religious and interfaith groups				
e. International and language groups				
f. Minority and ethnic groups				
g. Political and social action groups				
h. Other _____				

10. Think back over the last two weeks. How many times have you had five or more drinks* in one sitting?
- None
- Once
- Twice
- 3 to 5 times
- 6 to 9 times
- 10 or more times

*A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.

11. Average # of drinks* you consume per week:
(If less than 10, code answers as 00, 01, 02, etc.)

0	0	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	
8	8	
9	9	

12. At what age were you first exposed to†...
(mark one for each line)

	Did not use	Under 10	10–11	12–13	14–15	16–17	18–20	21+
a. Tobacco								
b. Alcohol (beer, wine, liquor)*								
c. Marijuana (pot, hash)								
d. Cocaine (crack, freebase)								
e. Amphetamines (speed)								
f. Sedatives (downers, ludes)								
g. Hallucinogens (LSD, PCP)								
h. Opiates (heroin, smack)								
i. Inhalants (glue, solvents)								
j. Designer drugs (ecstasy)								
k. Prescription drugs								
l. Other illegal drugs								

*Other than a few sips

† In the presence of, but not tried

13. At what age did you first try...
(mark one for each line)

	Did not use	Under 10	10–11	12–13	14–15	16–17	18–20	21+
a. Tobacco	○	○	○	○	○	○	○	○
b. Alcohol (beer, wine, liquor)*	○	○	○	○	○	○	○	○
c. Marijuana (pot, hash)	○	○	○	○	○	○	○	○
d. Cocaine (crack, freebase)	○	○	○	○	○	○	○	○
e. Amphetamines (speed)	○	○	○	○	○	○	○	○
f. Sedatives (downers, ludes)	○	○	○	○	○	○	○	○
g. Hallucinogens (LSD, PCP)	○	○	○	○	○	○	○	○
h. Opiates (heroin, smack)	○	○	○	○	○	○	○	○
i. Inhalants (glue, solvents)	○	○	○	○	○	○	○	○
j. Designer drugs (ecstasy)	○	○	○	○	○	○	○	○
k. Prescription drugs	○	○	○	○	○	○	○	○
l. Other illegal drugs	○	○	○	○	○	○	○	○

*Other than a few sips

14. At what age did you begin to use regularly...
(mark one for each line)

	Did not use	Under 10	10–11	12–13	14–15	16–17	18–20	21+
a. Tobacco	○	○	○	○	○	○	○	○
b. Alcohol (beer, wine, liquor)*	○	○	○	○	○	○	○	○
c. Marijuana (pot, hash)	○	○	○	○	○	○	○	○
d. Cocaine (crack, freebase)	○	○	○	○	○	○	○	○
e. Amphetamines (speed)	○	○	○	○	○	○	○	○
f. Sedatives (downers, ludes)	○	○	○	○	○	○	○	○
g. Hallucinogens (LSD, PCP)	○	○	○	○	○	○	○	○
h. Opiates (heroin, smack)	○	○	○	○	○	○	○	○
i. Inhalants (glue, solvents)	○	○	○	○	○	○	○	○
j. Designer drugs (ecstasy)	○	○	○	○	○	○	○	○
k. Prescription drugs	○	○	○	○	○	○	○	○
l. Other illegal drugs	○	○	○	○	○	○	○	○

15. Within the last year, about how often have you used...
(mark one for each line)

	Did not use	Once/year	6 times/year	Once/month	Twice/month	Once/week	3 times/week	5 times/week	Every day
a. Tobacco	○	○	○	○	○	○	○	○	○
b. Alcohol (beer, wine, liquor)*	○	○	○	○	○	○	○	○	○
c. Marijuana (pot, hash)	○	○	○	○	○	○	○	○	○
d. Cocaine (crack, freebase)	○	○	○	○	○	○	○	○	○
e. Amphetamines (speed)	○	○	○	○	○	○	○	○	○
f. Sedatives (downers, ludes)	○	○	○	○	○	○	○	○	○
g. Hallucinogens (LSD, PCP)	○	○	○	○	○	○	○	○	○
h. Opiates (heroin, smack)	○	○	○	○	○	○	○	○	○
i. Inhalants (glue, solvents)	○	○	○	○	○	○	○	○	○
j. Designer drugs (ecstasy)	○	○	○	○	○	○	○	○	○
k. Prescription drugs	○	○	○	○	○	○	○	○	○
l. Other illegal drugs	○	○	○	○	○	○	○	○	○

16. During the past 30 days, on how many days did you have...
(mark one for each line)

	0 days	1–2 days	3–5 days	6–9 days	10–19 days	20–29 days	All 30 days
a. Tobacco	○	○	○	○	○	○	○
b. Alcohol (beer, wine, liquor)*	○	○	○	○	○	○	○
c. Marijuana (pot, hash)	○	○	○	○	○	○	○
d. Cocaine (crack, freebase)	○	○	○	○	○	○	○
e. Amphetamines (speed)	○	○	○	○	○	○	○
f. Sedatives (downers, ludes)	○	○	○	○	○	○	○
g. Hallucinogens (LSD, PCP)	○	○	○	○	○	○	○
h. Opiates (heroin, smack)	○	○	○	○	○	○	○
i. Inhalants (glue, solvents)	○	○	○	○	○	○	○
j. Designer drugs (ecstasy)	○	○	○	○	○	○	○
k. Prescription drugs	○	○	○	○	○	○	○
l. Other illegal drugs	○	○	○	○	○	○	○

17. How often do you think the average student on your campus uses...
(mark one for each line)

	Never	Once/year	6 times/year	Once/month	Twice/month	Once/week	3 times/week	5 times/week	Every day
a. Tobacco	○	○	○	○	○	○	○	○	○
b. Alcohol (beer, wine, liquor)*	○	○	○	○	○	○	○	○	○
c. Marijuana (pot, hash)	○	○	○	○	○	○	○	○	○
d. Cocaine (crack, freebase)	○	○	○	○	○	○	○	○	○
e. Amphetamines (speed)	○	○	○	○	○	○	○	○	○
f. Sedatives (downers, ludes)	○	○	○	○	○	○	○	○	○
g. Hallucinogens (LSD, PCP)	○	○	○	○	○	○	○	○	○
h. Opiates (heroin, smack)	○	○	○	○	○	○	○	○	○
i. Inhalants (glue, solvents)	○	○	○	○	○	○	○	○	○
j. Designer drugs (ecstasy)	○	○	○	○	○	○	○	○	○
k. Prescription drugs	○	○	○	○	○	○	○	○	○
l. Other illegal drugs	○	○	○	○	○	○	○	○	○

18. Do you believe that alcohol has the following effects?
(mark one for each line)

	Yes	No
a. Breaks the ice	○	○
b. Enhances social activity	○	○
c. Makes it easier to deal with stress	○	○
d. Facilitates a connection with peers	○	○
e. Gives people something to talk about	○	○
f. Facilitates male bonding	○	○
g. Facilitates female bonding	○	○
h. Allows people to have more fun	○	○
i. Gives people something to do	○	○
j. Makes women sexier	○	○
k. Makes men sexier	○	○
l. Makes me sexier	○	○
m. Facilitates sexual opportunities	○	○

19. How do you think your close friends feel (or would feel) about you... *(mark one for each line)*

	Don't disapprove	Disapprove	Strongly disapprove
a. Trying marijuana once or twice	○	○	○
b. Smoking marijuana occasionally	○	○	○
c. Smoking marijuana regularly	○	○	○
d. Trying cocaine once or twice	○	○	○
e. Taking cocaine regularly	○	○	○
f. Trying LSD once or twice	○	○	○
g. Taking LSD regularly	○	○	○
h. Trying amphetamines once or twice	○	○	○
i. Taking amphetamines regularly	○	○	○
j. Having one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day	○	○	○
k. Having four or five drinks nearly every day	○	○	○
l. Having five or more drinks in one sitting	○	○	○

20. How much do you think people risk harming themselves (physically or in other ways) if they... *(mark one for each line)*

	No risk	Slight risk	Moderate risk	Great risk	Can't say
a. Try marijuana once or twice	○	○	○	○	○
b. Smoke marijuana occasionally	○	○	○	○	○
c. Smoke marijuana regularly	○	○	○	○	○
d. Try cocaine once or twice	○	○	○	○	○
e. Take cocaine regularly	○	○	○	○	○
f. Try LSD once or twice	○	○	○	○	○
g. Take LSD regularly	○	○	○	○	○
h. Try amphetamines once or twice	○	○	○	○	○
i. Take amphetamines regularly	○	○	○	○	○
j. Have one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day	○	○	○	○	○
k. Have four or five drinks nearly every day	○	○	○	○	○
l. Have five or more drinks in one sitting	○	○	○	○	○
m. Consume alcohol prior to sexual activity	○	○	○	○	○
n. Regularly engage in unprotected sexual activity	○	○	○	○	○

21. To what extent has your alcohol use changed since entering college? *(select one answer)*

a. Increased ○
b. About the same ○
c. Decreased ○
d. I have not used alcohol ○

22. To what extent has your drug use changed since entering college? *(select one answer)*

a. Increased ○
b. About the same ○
c. Decreased ○
d. I have not used drugs ○

23. On this campus, drinking is a central part in the social life of the following groups: *(mark one for each line)*

	Yes	No
a. Male students	○	○
b. Female students	○	○
c. Faculty/staff	○	○
d. Alumni	○	○
e. Athletes	○	○
f. Fraternities	○	○
g. Sororities	○	○

24. On this campus, drugs are a central part in the social life of the following groups: *(mark one for each line)*

	Yes	No
a. Male students	○	○
b. Female students	○	○
c. Faculty/staff	○	○
d. Alumni	○	○
e. Athletes	○	○
f. Fraternities	○	○
g. Sororities	○	○

In 2005, the National Youth Anti-Drug Media Campaign introduced the *AboveTheInfluence* advertising campaign.

Please answer the following questions based on your exposure to the *AboveTheInfluence* campaign.

25. On average, how many times in the past month have you seen an *AboveTheInfluence* advertisement:

_____ times

26. If you have seen the *AboveTheInfluence* commercials or print advertisements, which message(s) do you recall: *(select all that apply)*

a. Don't do drugs/drink alcohol
b. Be an individual and make your own choices
c. Using drugs/drinking alcohol is another way of leaving yourself behind
d. There are more important things besides using drugs/drinking alcohol
e. Adults will reward you for not using drugs/ drinking alcohol
f. You can have an enjoyable day without using drugs/drinking alcohol
g. I do NOT remember any of the messages

27. When an *AboveTheInfluence* commercial comes on television, which of the following do you typically do? *(mark one for each line)*

	Yes	No	N/A
a. Watch the commercial			
b. Ignore the commercial			
c. Change the channel			
d. Leave the room			
e. Talk over the commercial			

28. At what level do you recall seeing an *AboveTheInfluence* advertisement? *(select all that apply)*

a. Elementary School
b. Middle (Jr. High) School
c. High School
d. College
e. Have not seen it

29. Please rate your reaction while viewing an *AboveTheInfluence* commercial: *(mark one for each line, ranging from 1=Not at all, to 7= Very much)*

	1	2	3	4	5	N/A
a. Angry						
b. Motivated						
c. Irritated						
d. Annoyed						
e. Encouraged						
f. Happy						
g. Aggravated						
h. Indifferent						

30. At first viewing, what were your *initial* feelings towards the *AboveTheInfluence* campaign? *(select one answer)*

Negative | Neutral | Positive | N/A

31. While viewing an *AboveTheInfluence* commercial, I typically find myself looking for flaws in the way the information is presented? *(select one answer)*

Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N/A

32. While viewing an *AboveTheInfluence* commercial, I typically feel the commercial is trying to pressure me to *think* in a certain way? *(select one answer)*

Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N/A

33. While watching an *AboveTheInfluence* commercial, I typically feel the commercial is trying to pressure me to *act* in a certain way? *(select one answer)*

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
○	○	○	○	○	○

34. While watching an *AboveTheInfluence* commercial, I typically feel the commercial is trying to force its opinions on me? *(select one answer)*

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
○	○	○	○	○	○

35. While watching an *AboveTheInfluence* commercial, I typically feel the characters in the commercial are easy to relate to? *(select one answer)*

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
○	○	○	○	○	○

36. What are your current feelings towards the *AboveTheInfluence* campaign? *(select one answer)*

Negative	Neutral	Positive	N/A
○	○	○	○

37. If you found yourself in a situation where drugs and alcohol were present, which of the following would likely describe your recall of the *AboveTheInfluence* campaign in that moment? *(mark one for each line)*

	Yes	No
a. I would recall the *AboveTheInfluence* messages, and it would cause me to not drink alcohol	○	○
b. I would recall the *AboveTheInfluence* messages, and it would cause me to not use drugs	○	○
c. I would recall the *AboveTheInfluence* messages, and I would still drink alcohol	○	○
d. I would recall the *AboveTheInfluence* messages, and I would still use drugs	○	○
e. I would not recall the *AboveTheInfluence* messages, but would not drink alcohol	○	○
f. I would not recall the *AboveTheInfluence* messages, but would not use drugs	○	○
g. I have never seen the *AboveTheInfluence* campaign	○	○

38. You are asked to attend a party. When you arrive, your friends are drinking alcohol and using drugs. Several are casually drinking and using, while others are getting extremely impaired from alcohol and drug use. Your best friend comes up and asks you if you would like to join in. How do you respond: *(mark one for each line)*

	Yes	No
a. I accept, and drink alcohol casually	○	○
b. I accept, and drink alcohol to get drunk	○	○
c. I do not accept, and do not drink alcohol	○	○
d. I accept, and use drugs casually	○	○
e. I accept, and use drugs to get high	○	○
f. I do not accept, and do not use drugs	○	○
g. I leave the party immediately	○	○

Thank you for your participation!