

SOCIAL LEARNING THEORY:
UNDERAGE DRINKING, BLACK MARKET ASSOCIATIONS,
SUBSTANCE USE AND DEVIANCE

By

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To my mother and all those who nurtured my intellectual curiosity, academic interests,
and sense of scholarship throughout my lifetime,
making this milestone possible

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Abstract of Thesis Presented to the Graduate School
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This research is the first part of a multiphase study which focuses on underage drinking, methods of obtaining alcohol while underage, and related deviance. Specifically this study examines the applicability of Akers' social learning theory in this context. Youth under the legal drinking age are illegally obtaining alcohol. Previous research has revealed that underage drinkers sometimes utilize persons they are not closely associated with, or strangers of legal drinking age, to procure alcoholic beverages (Lanza-Kaduce and Richards, 1989). In the literature this method of procuring alcohol has been labeled "black market." In this research, I examine black market associations made while obtaining alcohol illegally in relation to other black market associations, other black market deviance, and deviance in general. This research utilizes social learning theory as a framework within which these black market peer associations are examined, specifically whether or not they facilitate further deviance, and more explicitly the extent to which they increase the likelihood of other black market deviance. The study sample was 408 undergraduates drawn from the departmental participant pool at a major southeastern university. Data were collected through an online survey instrument and analyzed with multivariate statistical techniques. Results indicated that having black market peer associations

for alcohol was predictive of further black market associations, substance use in general, and general deviance. As hypothesized, these relationships were diminished when entered into the equation with the social learning variables. Black market peer associations are viewed as a specific type of differential peer association, so the variance is explained by the model including the social learning variables.

CHAPTER 1

PURPOSE OF THE STUDY

Research Questions

Research questions were as follows: Can Alcohol Black Market Sources be predicted using social learning variables?; Does the use of Alcohol Black Market Sources have a significant effect on the use of Marijuana Black Market Sources, and is that relationship diminished when social learning variables are present?; Does the use of Alcohol Black Market Sources have a significant effect on the use of marijuana, and is that relationship diminished when social learning variables are utilized?; Does the use of Alcohol Black Market Sources have a significant effect on General Deviance, and is that relationship diminished when social learning variables are present? For the purposes of this study, using black market sources was defined as the utilization of any person personally unknown to the participant trying to obtain the illegal substance (be it alcohol, drugs or otherwise). Sources were only labeled black market if the participant indicated that the source was a stranger or another student that they did not really know. The illegal substances in this study included alcohol for underage drinkers and marijuana.

Purpose

This research attempted to examine the behavior of underage drinkers, specifically the manner in which they procured alcohol, and if that included black market associations, whether those participants were more likely to be involved in deviant behavior, including other black market deviance. Researchers intended to examine the black market relationships developed by underage drinkers in the context of Akers' social learning theory in an attempt to indicate whether or not those relationships were simply a specific type of differential association, or if it was something entirely different. To date, there has been no research examining black market sources utilized by underage drinkers and the possible link to further deviance and the

development of other black market sources. There was one published study that looked at the methods underage drinkers use to obtain alcohol (Lanza-Kaduce and Richards, 1989), but aside from determining those methods, the literature is lacking. Thus the current study is unique. Black market sources developed to obtain alcohol by underage drinkers has not yet been looked at. Furthermore, social learning theory has never been applied in this specific manner. The internet survey was designed specifically to measure both black market sources and all four social learning variables, utilizing completely different survey items for black market sources and differential association. These two measures are never used tautologically.

It is important to understand the link between underage drinking, substance use and deviance. If there is a link between Alcohol Black Market Sources, Other Black Market Sources and General Deviance, it could provide some insight for future intervention actions and policy changes. Further, conducting a study that can potentially expand the empirical support for social learning theory, and provide a unique understanding of black market associations, may allow for a full test of the social structure social learning (SSSL) model in the future. This second study would test these same variables on both a national level and an international level, with a survey specifically designed to measure all eight variables in the SSSL model, possibly for the first time.

Hypotheses

Based on the findings from extant research and the theoretical framework of social learning theory, our study addressed four hypotheses: 1) The use of Alcohol Black Market Sources is predicted by social learning variables; 2) The use of Alcohol Black Market Sources has a significant effect on use of Marijuana Black Market Sources, but that effect will be reduced and become non-significant when measures of social learning variables are entered in a multiple regression model; 3) The use of Alcohol Black Market Sources has a significant relationship

with use of marijuana (Marijuana Use), but that relationship will become non-significant when measures of social learning variables are entered in a multiple regression model; 4) The use of Alcohol Black Market Sources has a significant relationship with other measures of deviant behavior (General Deviance), but that relationship will become non-significant when measures of the social learning variables are entered in a multiple regression model.

CHAPTER 2

INTRODUCTION

Much research has been conducted in the area of youth alcohol use. This research covers everything from deviance associated with early onset drinking to the negative results it can have on health. College students comprise a large portion of the sample populations from which this area of research draws (Wechsler, Davenport, Dowdall, Moeykens & Castillo, 1994, Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998; Wechsler, Nelson & Kuo, 2002). Underage drinking, binge drinking, and drinking in general, are thought by mainstream America to run rampant on college campuses, and to some degree they are correct. Drinking is, in fact, a problem faced by many college campuses (Akers & Jenson, 2003; Boeringer, Shehan, & Akers, 1991; Durkin, Wolfe & Clark, 2005; Durkin et al., 1996; Hood, 1996; Lanza-Kaduce, Capece & Alden, 2006; Lanza-Kaduce & Capece, 2003; Mayer, Foster, Murray & Wagenaar, 1996; Sun & Longazel, 2008; Wechsler et al., 2002). Research indicates that college students are significantly more likely to partake in heavy drinking than their peers not enrolled in college, who are the same age (Bachman, O'Malley & Johnson, 1984; O'Malley & Johnson, 2002; Sun & Longazel, 2008). More importantly, both on and off college campuses, drinking has been linked to a plethora of other problems. Rape is one of the most serious issues related to drinking on college campuses, especially acquaintance rape (Durkin et al., 2001; Boeringer, Shehan, Akers, 1991; Abbey, 1991; Koss & Dinero, 1989; Muehlenhard & Linton, 1987). Drunk driving, the very catalyst for raising the LDA (legal drinking age), is also observed as a result of drinking on college campuses (Durkin et al., 2001; Robinson, Roth, Gloria, Keim & Sattler, 1993; Werch, Gorman, & Marty, 1987; Engs & Hanson, 1988; Saltz & Elandt, 1986). Students with drinking

problems have a propensity towards low self control and indicate increased deviant behavior (Gibson, Schreck & Miller, 2004; Haberman, 2001; Piquero, Gibson, & Tibbetts, 2002). Overall aggression, including fighting, bullying, violence and property damage, is another concern that is positively correlated with drinking on college campuses (Durkin et al., 2001; O'Hare, 1990; Engs & Hanson, 1988; Werch, Gorman & Marty, 1987; Wechsler & Rohman, 1981). Poor academic performance is noted as a result of drinking by college students (Lanza-Kaduce, Capece, & Alden, 2006; Durkin et al., 2001; Rapaport, 1993; Haberman, 2001; Johnston, Bachman, & O'Malley, 1992; Saltz & Eldant, 1986; Wechsler & Nelson, 2008). And finally, researchers combining statistics from three national surveys, and a myriad of other data sources, estimated that approximately 1,700 college students die every year from alcohol related accidents/injuries (Higson, Heeren, Zakocs, Kopstein, & Wechsler, 2001). Thus, drawing samples from college campuses makes sense, as drinking is a problem, and there are both underage and legal age students who drink in these populations.

Substance use other than alcohol is also a prevalent problem on college campuses across the United States (Gledhill-Hoyt, Lee, Strote & Wechsler, 2000; Johnston, O'Malley, Bachman & Schulenberg, 2004; McCabe, Schulenberg, Johnston, O'Malley, Bachman & Kloska, 2005; Haberman, 2001; Strote, Lee & Wechsler, 2001). Marijuana is the most prevalent illicit substance utilized by college students (Johnson et al., 2004). It is followed by hallucinogens, amphetamines, cocaine and ecstasy or MDMA, though the use of MDMA has been increasing while other illicit drug use has remained fairly stable (Johnson et al., 2004; Larimer, Kilmer & Lee, 2005; Strote, Lee & Wechsler, 2002). While some studies cite health reasons, increased risk taking behavior, and poor

academic performance as reasons for studying illicit substance use (Larimer et al., 2005; Strote et al., 2002), others allude to the fact that college students are at an age where they are without parental control, usually for the first time, able to afford illicit drugs, and have a “tendency... to try new, previously prohibited behaviors” (Gledhill-Hoyt et al., 2000: 1656).

CHAPTER 3

LITERATURE REVIEW

Theoretical Rationale and Literature Review: A Social Learning Perspective on “Black Market Associations”

While this literature has highlighted the links between underage drinking and other problems, little of it has focused on the unintended problematic consequences of underage drinkers procuring alcohol through illicit means, especially that which involves contact with strangers and others, which Lanza-Kaduce and Richards(1989) refer to as “black market associations.” The present research investigated the possible deviance-enhancing effects of engaging in such “black market” behavior such as using the same techniques to procure other substances that are illegal for all ages such as marijuana, as well as other forms of deviant and illegal behavior. The argument here is that using such black market sources for underage acquisition of alcohol and its links to black market sources for other substances and other deviant behavior can be understood by referencing social learning theory concepts and variables -- differential association, differential reinforcement, imitation, and definitions social learning theory (Akers, 1998). Although there is research on the connections between illicit procurement of drugs and violent and other criminal behavior, to date there is no research on the connections between the black market procurement of alcohol by minors and these other forms of crime and deviance.

Social learning theory has been developed by Akers and some of his colleagues. It has been well supported in studies dealing with substance use/ abuse, crime, and deviance. Indeed, social learning theory is one of the most empirically supported theories in criminology (Akers, 1973, 1977, 1985, 1994, 1998; Akers, Krohn, Lanza-Kaduce, and Radosevich, 1979; Burgess and Akers, 1966; Akers et al., 1989; Akers and Sellers 2008;

Akers and Jensen, 2003; 2006). However, the present research is the first to apply social learning theory to use of “black market” sources by minors procuring alcohol.

In social learning theory, behavior is viewed as elicited by the physical and social environments in which the person is located at any given time and through time (Akers, 1998; Akers & Sellers, 2008; Bandura, 1973, 1977; Braukmann, Fixen, Phillips & Wolf, 1975). Social learning theory, as defined by Akers, encompasses four main variables that explain how behavior, conforming or deviant, is learned and maintained: differential associations, definitions, differential reinforcement and imitation. Differential association refers to the direct and indirect association with others who engage in and support different types of behavior. These associations “provide the major social contexts in which all the mechanisms of social learning operate” (Akers and Sellers, 2008). Differential peer associations are one of the strongest predictors of delinquency in youth (Agnew, 1991; Akers, 1998; Brank, Lane, Turner, Fain & Sehgal, 2008; Dishion, McCord & Poulin, 1999; Longshore, Chang & Messina, 2005). Definitions, Akers contends, are the meanings, beliefs, and attitudes one has toward a particular behavior. The more positive the definition of the behavior, the more likely the behavior is to occur – be it conforming or deviant. Differential reinforcement is the balance of perceived rewards and punishments consequential to a behavior. The more rewarding one *views* the behavior the more likely that person is to partake in it and repeat it in the future, thus it works both to create or dissuade, and maintain or desist behavior. There are two types of reinforcement, negative and positive. Negative reinforcement strengthens a behavior by rewarding a behavior that removes something negative, such as putting on sun glasses to alleviate the glare of the sun, or using a drug to alleviate a withdrawal symptom. Positive

reinforcement strengthens a behavior by presenting something positive, much like a pat on the back after hitting a home run, or verbal approval by a friend after certain a behavior has occurred. Punishment works in a similar fashion. Negative punishment is the removal of something pleasant after a behavior occurs that weakens that behavior (being grounded for a poor report card), while positive punishment is the presentation of an adverse stimulus subsequent to a behavior, also weakening the target behavior (a hangover after an evening of drinking). Finally, imitation is the fourth learning variable. It is more likely to affect the acquisition of novel behavior, but continues to have some effect in the maintenance of behavior. It is exactly how it sounds; one imitates or models the behavior after observing another act out. These four variables are micro level variables, meaning they apply specifically to the individual or a small group of individuals (Akers, 1973, 1977, 1985, 1994, 1998; Akers, Krohn, Lanza-Kaduce, and Radosevich, 1979; Burgess and Akers, 1966; Akers et al., 1989; Akers and Sellers 2008).

Prior Research: The Legal Drinking Age

Many studies have looked at the LDA and its implications. Wagenaar et al. completed a meta-analysis of all the literature that focused on the LDA from 1960 to 2000 (2002). The overall tone of this analysis confirms what both Lanza-Kaduce and Richards found in 1989 from U.S. statistics, and what Nickerson found from Canadian data in 2001. Both lowering and raising the legal drinking age have had unintended consequences. In fact, the goal of raising the legal drinking age was to ameliorate problems associated with emerging adult/ adolescent alcohol consumption. Lowering the age is associated with increased consumption among younger people and raising the age has unintentionally played a role in other problems (Wagenaar et al., 2002; Lanza-Kaduce and Richards, 1989; Nickerson, 2001).

Lanza-Kaduce and Richards experienced a unique opportunity for research when the legal drinking age was changed from 19 to 21 in Florida. All of the 19 year olds born after July 1, 1966 would have to wait until their 21st birthday to drink, while anyone born before that date was grandfathered in. Thus, researchers had access to 19 year olds that the new law affected, and 19 year olds that it did not affect (1989). Lanza-Kaduce and Richards had several research questions in mind, and among them was: whether or not raising the LDA led to derivative law breaking, and what impact it had on the social context of drinking. They had some interesting findings. Underage drinkers were much more likely to utilize persons they are not closely associated with, or strangers (black market associations), to obtain alcohol, and to do so “they must associate with others who are willing to break the law” (1989). Underage drinkers were also shown to have used false ID’s to obtain alcohol. Both of these methods of procuring alcohol are considered derivative law breaking. Researchers also found that the social context of drinking changes. Drinkers of legal age are more likely to drink in public venues, while underage drinkers preferred their dwellings. And finally, the underage drinkers were more likely to drink with unfamiliar persons (Lanza-Kaduce & Richards, 1989). This line of research is expanded upon in the present study. Other research has found that when the drinking age was lowered from 21 to 18 the levels of drinking and problems associated with drinking increased among those just below that age (16-17); when the age was increased to 21 “the age at which problems were most visible rose again to 19-20, just below the drinking age” (Akers, 1992:220).

Prior Research: Underage Drinking

There is a plethora of research concerning adolescent and young adult substance use and alcohol consumption. Some of the ideas for underage drinking research are drawn from studies completed on adult drinking patterns. Situational factors have been the focus of several studies, and have been shown to be related to alcohol use. (Miller et al, 2005; Mayer et al., 1996; Casswell, Zhang & Wyllie, 1993; Connolly & Silva, 1992, Donnermeyer and Park, 1995; Gibbons et al, 1986) For both adults and underage drinkers, the setting played an important role in amount of alcohol consumed. Adults tended to drink heavier in public settings such as clubs or bars (Mayer et al. 1996; Harford, 1975; Caetano and Herd, 1988; Harford 1983), while underage drinkers were more prone to heavy drinking in a private setting, such as a residential party or friend's house (Lanza-Kaduce and Richards, 1989). Also, adolescents who participated in binge drinking were more likely to drink with peers and strangers, while those who did not binge drink reported drinking with their parents or siblings. This finding was most prevalent amongst the females (Mayer et al., 1996).

Another study found that club settings, especially those hosting electronic music dance events, were prime public targets for facilitation of youth drug and alcohol use (Miller et al., 2005). Using anonymous surveys, breath tests, and saliva samples, Miller et al. were able to determine that while most underage drinkers showed up with alcohol in their system; some were also able to obtain it from within the club setting (2005). The most prevalent substance used at the electronic music dance events was alcohol, followed closely by marijuana. Stimulants (i.e. ecstasy and cocaine) were third on the list upon entering the club, but moved up to second upon exit (this may be partially due to the method of testing, marijuana only stays in the saliva for fifteen minutes, thus is harder to

accurately measure after time has elapsed) (Miller et al., 2005). According to Miller et al., risky behavior is associated with alcohol and drug use in clubs, including overdose, illegal possession of drugs, increases in aggressive behavior, increased risk for victimization, and driving under the influence (2005; Collins, 2004).

Access to alcohol by minors has also been the focus of several studies. Alcohol is viewed by a substantial number of minors as easy to access. (McFadden and Wechsler, 1979; Goldsmith, 1988; Klepp, Schmid & Murray, 1996; Smart, Adlaf & Walsh, 1996; Wagenaar et al., 1996; Jones-Webb, Toomey, Wagenaar, Wolfson & Poon, 1997; Mayer et al., 1998; Wagenaar & Toomey, 2002; and Wechsler et al., 2002). Wagenaar and Toomey reported that over 75% of teens that were surveyed reported that alcohol was easy to obtain (2002). Some common methods of acquiring alcohol included: False identification (either forged or an ID belonging to someone of age), attempts to purchase alcohol without an ID, having peers or family members provide it, and having an adult of legal drinking age purchase alcohol on their behalf (see appendix A) (Lanza-Kaduce and Richards, 1989; Wagenaar et al., 1996; Wagenaar and Toomey, 2002; Wechsler et al., 2002).

Using false identification to procure alcohol is one of the methods mentioned above. There have been numerous studies that have examined this avenue. Goldsmith explained the methods in which youth can obtain a false ID, which included: falsifying one's own ID, borrowing or stealing an ID from someone of age, using false documents to obtain an ID, or forging a fake ID (1988). In a study completed by Schwartz, Farrow, Banks & Giesel, 14% of the youth they sampled reported using false identification (1998). This finding confirmed prior research that false identification is in fact a

common method employed by youth to purchase alcohol (Goldsmith, 1988; Durkin et al., 1996; Klepp et al., 1996) Schwartz et al.'s study led nicely into a study by Durkin et al. which specifically examined the use of false identification in procurement of alcohol by underage college students (2001). Of the college students they sampled, almost half reported using a fake ID to gain access to alcohol. Greek membership was strongly related to the use of fake ID's, however, other students used them as well (Durkin et al., 2001). This finding suggests that use of a false ID may be more prevalent among college students, than youth not enrolled in college. Durkin also tested some of the social learning variables (differential associations and definitions), and found that they explained a significant amount of variance, 30% (2001).

Though using false identification to obtain alcohol is prevalent in underage youth, the most popular method employed was identified as obtaining alcohol from a person over the legal drinking age, which includes strangers. (Wagenaar & Toomey, 2002; Durkin et al., 2001; Wagenaar et al., 1996; Smart et al., 1996; Klepp et al., 1996; Lanza-Kaduce and Richards, 1989; Goldsmith 1988; McFadden & Wechsler, 1979). There are several interactions noted in the research in this area. Some underage drinkers use family or friends to obtain alcohol (McFadden & Wechsler, 1979; Lanza-Kaduce & Richards, 1989; Wagenaar et al., 1993; Wagenaar et al., 1996; Klepp et. al., 1996; Smart et al., 1996; Jones-Webb et al., 1997). Many studies have failed to categorize the adults that underage drinkers utilized to procure their alcohol. Lanza-Kaduce and Richards however, found that underage drinkers do utilize strangers, family members and friends over the age of 21 to obtain alcoholic beverages, but the degree to which each category is used is undetermined by research (1989). There is currently no research that thoroughly

differentiates the different methods of obtaining alcohol while underage, and more specifically differentiates what relation the sources have, if any, to the underage drinker, when they are utilizing persons over the age of 21 to procure their alcohol.

Prior Research: Social Learning Theory and Underage Drinking

In addition to Durkin et al.’s study in 1996 mentioned above, there are a number of studies that include measures of social learning in underage drinking and substance use. Durkin et al. completed another study in 2005 evaluating social learning theory in application with binge drinking in college students. They found that, “differential peer associations are by far the best predictor of this behavior [binge drinking].” (2005). Durkin et al. (2005) also found significant effects of definitions, as well as perceived reinforcements on drinking behavior. Hood found that the most influential factor in underage drinking is peer influence, and the “best predictors of experiencing trouble with the police are having a friend who has been arrested...” (1996). Akers, Krohn, Lanza-Kaduce and Radosevich were able to explain 55% of the variance in the use of alcohol by adolescents, using the social learning variables (1979). Lanza-Kaduce and Capece also completed a study on binge drinking that employed components of social learning theory. Overall, they were testing the social structure social learning model (SSSL), but it encompasses the four learning variables (2003). Akers’ used social learning theory as the foundation for the SSSL model. In addition to the four micro level variables tested by learning theory, he added four structural variables, and hypothesized that the structural variables would be mediated by the learning variables (Akers, 1994; 1997; 1998; 2000; 2008). In Lanza-Kaduce and Capece’s article, researchers found support for Akers’ model, though they did not test it in full. The effects of the structural variables were reduced when the learning variables were controlled for. The social learning variables

tested included definitions and perceived reinforcement. Even though only half of the theory was tested, it was still able to explain 16 to 34% of the variance in binge drinking (2003). The SSSL model is tested in part again in 2006, in its applicability to gender, alcohol use and sex (Lanza-Kaduce, Capece & Alden, 2006). In a response to criticism of the SSSL model, researchers compared feminist theory with SSSL in drinking behavior and sex. It was found that the masculinist pattern in drinking before sex was partially mediated by social learning variables (Lanza-Kaduce, Capece & Alden, 2006).

CHAPTER 4

STUDY PROCEDURES

The Present Study

The term “black market associations” as used by Lanza-Kaduce and Richards (1989) may itself be viewed as a specific type of deviant association. Alcohol black market associations are expected to lead to further deviance, both in general and in the form of substance use. Thus, according to the implications of social learning theory, these deviant associations should increase the risk of engaging in further deviance.

Social learning theory would view underage drinking, using various legal and illegal substances, obtaining supplies through illicit or black market means, and engaging in other forms of deviance as inter-related and all explicable in terms of the variables implicated in the social learning process. “Black market associations” (Lanza-Kaduce & Richards, 1989) because they involve association with non-conforming others may be correctly viewed as a specific type of deviant association. As such, they may be seen as indirect indicators of the process of differential association in social learning theory. But the meaning and measure of black market associations are simply reports of contact or interaction by the person with others for the specific purpose of using them to help obtain, or as a source for, the substance. They are not the common measure of differential association which is the proportion of deviant and conforming others with whom one is in association. Therefore, they will not be used as measures of differential association in this study. To emphasize that, and to avoid possible confusion with the measures of differential association that are used in this study, “black market sources” may be a better term, and will be the term regularly used here to refer to interaction with others for procurement of alcohol and marijuana. Both are behavior assumed to result

from social learning processes of differential association, differential reinforcement, imitation, and definitions. Therefore, social learning variables should be able to account for use of black market sources for both alcohol and marijuana and for the relationship between them. Since those who use marijuana and other drugs are very likely to have previously used alcohol, the expectation is that use of black market sources for alcohol precedes and provides a social context which facilitates, or leads to, a higher probability of using black market sources to obtain marijuana, and should also be related to involvement in other forms of substance use and deviance. Therefore, use of black market sources for alcohol is hypothesized to be predictive of Marijuana Black Market Sources, use of marijuana, and deviance. However, since all of these are hypothesized to result from the same underlying social learning process, it is expected that when measures of the social learning variables of differential association, imitation, differential reinforcement, and definitions are entered into the model, the net effects of the use of black market sources for alcohol on these other forms of deviance will be lower than their main effects and be statistically non-significant. It may be said that this renders the relationships between the Alcohol Black Market Sources and the other forms of deviance spurious, or simply that they are all indicators of the social learning process in substance use, obtaining substances for that use, and therefore correlated with other forms of deviant behavior. As mentioned on pages 11-12, based on this social learning perspective and prior research this study addresses the following hypotheses (they are mentioned here again with reference to the models and tables presented later, relevant to each hypothesis):

Hypothesis 1: Use of Alcohol Black Market Sources is predicted by social learning variables (for the findings on this hypothesis see Model 1, Table 5-1, page 54).

Hereafter, this variable (Alcohol Black Market Sources) is hypothesized as an independent variable, along with the social learning variables which remain as independent variables in all of the analyses.

Hypothesis 2: Use of Alcohol Black Market Sources has a significant effect on use of Marijuana Black Market Sources, but that effect will be reduced and become non-significant when measures of social learning variables are entered in a multiple regression model (see Models 2 & 3, Table 5-2, page 56).

Hypothesis 3: Use of Alcohol Black Market Sources has a significant relationship with use of marijuana (Marijuana Use), but that relationship will become non-significant when measures of social learning variables are entered in a multiple regression model (see Models 4 & 5, Table 5-3, page 58).

Hypothesis 4: Use of Alcohol Black Market Sources has a significant relationship with other measures of deviant behavior (General Deviance), but that relationship will become non-significant when measures of the social learning variables are entered in a multiple regression model (see Models 6 & 7, Table 5-4, page 60).

Methodology

Thesis Research Protocol Approved by the University of Florida Internal Review Board. The protocol for this research was submitted the UFIRB 02 on September 25th, 2008. The proposal was passed by UFIRB 02 on October 3, 2008 and was issued a protocol number, #2008-U-886. The letter of approval was typed and sent out October 6, 2008. The UFIRB 02 protocol form can be found in Appendix D,

followed by the Informed Consent form, and the Debriefing forms in Appendixes E and F.

Participants

The outcome analysis reported here is based on a cross-sectional survey completed by students in attendance of classes offered through the University of Florida's Department of Criminology, Law and Society during the fall 2008 and spring 2009 semesters. Students enrolled in criminology classes are given the option to participate in research for a certain number of points in their classes. Participation in research is completely voluntary, and alternative assignments of an equal time investment are offered in all classes requiring participation points. Participants signed up through the Participant Pool, which is an online listing of current research within the department. Students could choose which studies to participate in, as several studies were posted at any one time. An alternative assignment was available for those students who did not wish to participate in research.

The survey was posted on a survey website, www.surveymonkey.com which students could get to by signing up for this study through the Participant Pool. SurveyMonkey has two types of subscriptions, free and paid. I chose to use the paid service due to the length of the survey, the number of participants anticipated, and for data encryption to protect the privacy of the participants and their responses. At the very beginning of the survey, the students were provided with an informed consent form to read over, they were required to click "next" to indicate their agreement to participate in the study (see Appendix D). Participants were able to print or save a copy of the informed consent. The Informed consent form listed contact information for researchers, in case respondents had any questions in the future. Upon giving their informed consent

by clicking “next,” the participants were directed to the online survey (see Appendix G) and requested to fill it out to the best of their ability. Students were reminded in the informed consent that they are not to put their name on the survey, and there is no blank field for them to do so. The survey was completely anonymous. Upon completing the survey, students were debriefed as to the purpose of the study and provided a description of what the researchers are looking for (see Appendix F), again the participants could print or save a copy of the debriefing form. The Participant Pool is used not only to collect data, but also to introduce the students to research in academia.

This questionnaire was designed to ask questions about general demographics, campus environment, underage drinking, methods of obtaining alcohol, substance use, methods of obtaining substances, deviance of friends, friends’ substance use, substance use of other students and other forms of deviance. Several questions from the survey will be used as measures of the social learning variables, while others will be used to measure the outcome variables of interest (substance use, deviance, other black market associations). This survey was developed under the supervision of Ronald Akers, Ph.D. and Lonn Lanza-Kaduce, Ph.D., to ensure proper measurement of the social learning variables and deviance. Most of the attitudinal questions, activity questions, demographic questions, and substance use questions were derived from the questions asked in the CORE survey. This survey was chosen because it has been used to examine substance use in college-aged persons over a period of 30 years. It was also recommended by one of the authors of, “Raising the minimum drinking age: Some unintended consequences of good intentions,” that lead to the development of the current research (Lanza-Kaduce and Richards, 1989). The CORE survey on drug and alcohol

use has been utilized since the 1980s, and was developed by the US Department of Education, in affiliation with several universities. Originally, the CORE survey asked double barreled questions in reference to drug and alcohol use, combining them in each measure, such as “Does your campus have alcohol or drug policies?”. These questions were further developed by separating measures of alcohol, marijuana and other drug use into three separate categories. Questions measuring black market deviance, and black market peer associations were included to further the prior line of research, and there were also questions added to correctly capture the other social learning variables.

Skip logic was included in the online survey, to ensure that the students did not spend any unneeded time filling out the survey. If the students chose an answer that made later questions irrelevant, those questions were automatically skipped for them. Thus far, 408 students have responded and are included in this analysis. Data collection is still ongoing, and a maximum of 600 students will be sampled for this phase, however only 408 were included in this analysis. For this thesis, all participants were eighteen and older, and were currently enrolled in classes at the University of Florida. Both male and female students were sampled, and all races were included. Two groups of students were identified through survey questions: students of legal drinking age and students under the legal drinking age. Within these two groups, sub-groups were identified: those who have used persons they are not closely associated with, or strangers, of legal drinking age to procure alcoholic beverages (Alcohol Black Market Sources), and those who have not. The students of legal drinking age were asked to recall the time when they were underage, and were asked if they had ever used alcohol during that time, and if so they were questioned in the same manner as the underage group.

Materials and Procedures

A survey was administered to measure the variables of interest (see Appendix D). No identifying information was requested from respondents, and it was noted on the survey that all information provided was completely anonymous. Each question required an answer so that students could not skip around in the survey, so every question also had an option listed as “I do not wish to answer.” Responses to survey questions were utilized to determine if there was any relationship between using black market associations to obtain alcohol and using other black market associations. Survey data were also utilized to determine if there was a relationship between black market associations in general and deviance, substance use (not alcohol or marijuana) and specifically black market deviance. The survey data was used to specify measures of the social learning variables, and the outcome behaviors of interest (incidents of underage drinking, incidents of using alcohol black market ties, incidents of using other black market means to commit deviance, etc.).

The broader variables were operationally specified as including the various socio-demographic measures of race (white, black, Asian, American Indian, Hispanic, other); education (freshman, sophomore, junior, senior); student status (part time, half time, full time); living status (on campus, off campus); living arrangements (house/ apartment, residence hall, campus housing, fraternity or sorority, other); living situation (live with parents, other students, friends, spouse, children, alone, other); religious affiliation (no religion, cult religion, Jewish, Catholic, Mainline Protestant, Evangelical Protestant); school performance (approximate gpa) and age. These variables were used as control variables.

For the current study, 61% of the sample was under 21, 32% were 21-22, and the remaining 7% were 23 years of age or older. Males represented 34.8% of the sample, while females covered 65.2% of the sample. The racial composition of participants was as follows: 64.7% were Caucasian, 14.8% were African American, 14.8% were Hispanic, 3% were Asian/ Pacific Islander and the remaining 2.7% chose other; 97.2% of the sample was single, 97% was also considered full time status as a student, and 25.5% lived on campus, while 74.1% lived off campus.

Table 4-1. Participant Characteristics

	Characteristics	Frequency
Gender	Male	34.8%
	Female	
Age	Under 21	61%
	21-22	32%
	23+	7%
Race	African American	14.8%
	Asian/Pacific Islander	3%
	Caucasian	64.7%
	Hispanic/Latino	14.8%
	Other	2.7%
Student Status	Full time	97%
	Part time	3%
Living Arrangement	On Campus	25.5%
	Off Campus	74.1%

In comparison to the demographic makeup of the student body at the University of Florida, females and minorities may have been over represented in this sample. The University of Florida had a student population of 50,912 in the fall of 2006. Females compromised 53% and males 47% of the student body. The minorities are as follows:

7.9% are African American, around 11.2% are Hispanic, and about 7% are Asian

American or Pacific Islanders (*University of Florida-Demographics*, nd.).

There were two types of substance use questions in this survey, specific and general. For the specific substance use questions the survey clearly indicated one of the following: Alcohol, Marijuana, or Other Drugs and usually asked the same question separately for all three substances. In the past, CORE combined alcohol and drugs into the same question, and did not break out marijuana at all, thus it could not be determined which, if any, of the substances had different usage rates. For the general substance use questions, the survey indicated a list of substances: Tobacco, alcohol, marijuana, cocaine, amphetamines, sedatives, hallucinogens, opiates, inhalants, designer drugs, steroids, or other illegal drugs, this list will be hence forth referred to as the general substance use list. General deviance was also used throughout the survey. It included 14 measures on behavior violating laws/ social norms: damaged property, getting into a physical altercation, driving under the influence, missing class, stealing things worth less than \$50.00, stealing things worth more than \$50.00, buying stolen goods worth less than \$50.00, buying stolen goods worth more than \$50.00, pawning or selling stolen goods worth less than \$50.00, pawning or selling goods worth more than \$50.00, getting into a fight serious enough to cause injury, cheating on an exam or assignment, selling illegal drugs, making unwelcomed sexual advances toward someone, and using a substance to obtain sex. Responses were set up differently depending on the question. This list will hence forth be termed the general deviance list.

Measures of Control Variables

All included variables are summarized in Table 4-2. Control variables included in all analyses consisted of Gender and Race. Gender was coded as female (0), and male

(1). Race included five classifications: African American (1), Asian/ Pacific Islander (2), Caucasian (3), Hispanic (4), and other (5). For ease of analysis, and due to non-significance, Race was set up under a dummy variable, and coded as either Caucasian (1) or non-Caucasian (0) (see Table 1. Descriptive Statistics in Table 4-2, page 46). Other control variables were available, but were not significant in any model, so were not utilized for model assessment.

Measure of Alcohol Black Market Sources

The Alcohol Black Market Sources measure was created by scaling questions designed to determine how the participant was obtaining the alcohol. Four questions were included in the scale: “I have asked someone I don’t know to buy it [alcohol] for me, I have paid someone I don’t know to buy it for me, I asked a student I am not really associated with to buy it for me, and I have paid a student I am not really associated with to buy it for me.” Answer choices included: no (0), yes (1) and I do not wish to answer. Those who chose I do not wish to answer were coded as missing. Because this was a scale created from dichotomized items, the Kuder-Richardson Formula 20 (KR-20) test of internal consistency reliability was utilized rather than a Chronbach’s alpha. The KR-20 is designed for dichotomous item scales and it is interpreted the same as a Chronbach’s alpha. The Alcohol Black Market Sources scale was assessed and was found reliable (KR-20= 0.762).

Measures of Dependent Variables

The measure of Alcohol Black Market Sources given above was utilized as a dependent variable in only one model, a model that used social learning variables specific to drinking and underage drinking behavior (see Table 2, Model 1). As stated above, the measure of black market sources or associations are simply reports of contact or

interaction by the person with others for the specific purpose of using them to help obtain, or as a source for, the substance desired. Also, all of the black market measures were different from the differential association measures. Black Market Sources were measured only using strangers, person's not known to the participant and students not known to the participant. Alcohol Black Market Sources were not used as measures of differential association in this study.

Marijuana Use

To measure Underage Drinking and Marijuana Use, four questions were asked: “In the following series of questions you will be asked in what ways you obtained alcohol while underage. If you have never obtained alcohol while underage (if you are underage now, or drank back when you were underage), please indicate so below.” Answer options included: I never drank while underage (0); At some point in time, I drank while under the legal drinking age (1); and I do not wish to answer (missing). Similar questions were asked for marijuana: “In the following series of questions you will be asked in what ways you have obtained [marijuana, other drugs]. If you have never used [marijuana, other drugs], please indicate so below.” Answers were dichotomized as: I have never used [marijuana, other drugs] (0), At some point in time, I have used [marijuana, other drugs] (1), and I do not wish to answer (missing). Since these were single item measures, no scale was created.

Marijuana Black Market Sources

For the question, do Alcohol Black Market Sources lead to involvement with other black market sources, a scale for Marijuana Black Market Sources. If the participant answered that they had, at some point in time used marijuana, skip logic automatically progressed them to this question: “...have you used the following ways to obtain

[marijuana/other drugs]?””. There were four items measuring black market sources for both marijuana and other drugs: I buy it from someone a friend introduced me to, I buy it from someone I don’t know, I buy it from a student I am not really associated with, and I have attempted to buy it without a contact. The answer choices were dichotomized for these scales with options including no (0), yes (1) and I do not wish to answer was treated again as missing. To create the scale, items were summed and then coded into a dummy variable including no (0 remained 0) and yes (all other values were recoded to 1, indicating that they have utilized that method of obtaining the substance). This scale was assessed with the KR-20 (Marijuana Black Market Sources yielded a KR-20 of 0.818).

General Deviance

The scale for General Deviance was constructed using the general deviance list (noted above). Answer items were set up on a six item ordinal scale, ranging from never (0) to ten or more times (5), and I do not wish to answer (missing). Scale reliability was assessed and yielded a Cronbach’s alpha of 0.729. There are some limitations of this study in using General Deviance as an outcome variable. Specifically, the concepts of differential reinforcement and imitation were not measured for General Deviance, but only for use of alcohol, marijuana. There was one set of deviance specific questions that measured attitude and that was Risk Deviant Behavior (see below, social learning measures, Definitions/ Attitudes). To be more accurate measures of social learning variables as independent variables in General Deviance, it would be better to have these explanatory variables measured specifically with regard to general deviant behavior.

Specific Black Market Deviance

If a participant answered that they had, at some point in their lives, used [alcohol/marijuana] they were asked in what ways they obtained it. To measure the relationship

between the method of obtaining a substance and deviance associated with it, a series of questions was asked. Of interest is the black market deviance (Specific Black Market Deviance) that is associated directly with Black Market Sources, measured in the following: “Did any of the following occur when you had a stranger get you [alcohol/marijuana]?” and the 14 general deviance measures were listed. Next, “Did any of the following occur when you had a student you don’t really know get you [alcohol/marijuana]?” and the 14 general deviance measures were listed. In addition, for marijuana and other drugs, it was also asked “Did any of the following occur when you tried to get [marijuana] without a contact?” and again the 14 general deviance measures were listed. Answers for each of these questions were set up on a binary yes/no (1/0). Within the general deviance measures, there are 5 questions that indicate black market deviance. They are: “you bought stolen goods worth less than \$50.00, you bought stolen goods worth more than \$50.00, you pawned or sold stolen goods worth less than \$50.00, you pawned or sold stolen goods worth more than \$50.00, and you sold illegal drugs.” The responses for the questions (yes/no) were scaled to indicate black market deviance specifically associated with utilizing black market sources (Specific Black Market Deviance). The reliability of Specific Black Market Deviance was tested, and yielded a KR-20 of 0.988. There was also a measure of deviance in general (General Black Market Deviance), that included deviant behavior that was specific to the times the participants used black market sources to obtain alcohol, but was not considered black market deviance (such as dealing in stolen goods). For this scale, the deviance questions (listed above) specific to Black Market Sources were summed and recoded into a dummy variable including no (0 remained 0) and yes (all other values were recoded to 1,

indicating that they have committed deviance while obtaining alcohol via black market sources). Deviance specific to Alcohol Black Market Sources yielded a KR-20 of 0.980 (Specific Black Market Deviance). Due to the low response rate, validity of the models analyzing Specific Black Market Deviance was questioned, and thus these models were dropped from the analysis. It will be interesting to see if the response rate for these questions increases with larger and broader sample sizes in the next study.

The models with these dependent variables were analyzed with Alcohol Black Market Sources as the only independent variable, and then the next model shown in the tables added the measures of the social learning variables (see below). Recall, that it was hypothesized that when entered into the equation, the social learning variables would explain most of the variance in Marijuana use, Marijuana Black Market Sources and General Deviance. Again, since the use of marijuana most likely occurred after the initial use of alcohol, the expectation was that use of Alcohol Black Market Sources preceded and created a social context which led to a higher probability of using Marijuana Black Market Sources, Marijuana Use and Deviance. However, since all of these were hypothesized to result from the same underlying social learning process it was expected that when measures of the social learning variables of differential reinforcement, definitions, differential association and imitation were entered into the model, the net effects of the use of black market sources for alcohol (Alcohol Black Market Sources) on these other forms of deviance would be lower than their main effects and be statistically non-significant.

Measures of Social Learning Variables

Differential Reinforcement

Differential reinforcement was measured in several different ways. As previously stated, the balance of reinforcement and punishment, both fall under the category of differential reinforcement. So, differential reinforcement by definition includes measures of both reinforcing and punishing stimuli, as it is the balance of reinforcement and punishment that yields the maintenance or desistance of a particular behavior.

Consequences were measured for alcohol use and marijuana use by asking, “From what you have experienced, have the consequences of your substance use been overall:”. Answers were as follows: I don’t use this substance (0), more bad than good (1), about the same for good/bad (2), more good than bad (3), and I do not wish to answer (missing). Because these were single item measures, no scale was created (Alcohol Consequence, Marijuana Consequence). After thesis defense, the Consequence items were dropped from all models, and are not reported in any of the findings, per committee members’ request.

Potential punishment (Alcohol Punish and Marijuana Punish) was measured in a question on experiences with alcohol and marijuana (reported separately) using a seven item inquiry, “Please indicate how often, if ever, the use of [alcohol/ marijuana] has lead to each of the following experiences:” The items included: been criticized by someone I know, been hurt or injured, been the victim of unwanted sexual intercourse, done something I later regretted, endured threats of physical violence or actual physical violence, missed a class, performed poorly on a test or important project. Answers were offered on a six item ordinal scale ranging from never (0) to 10 or more times (6). “I do not wish to answer” was coded as missing. These questions were asked both of students

who had used each substance, and students who had not used them. Participants indicating that they had not used [alcohol/ marijuana] were asked, “You indicated you have never used [alcohol/ marijuana]. In this question, please imagine how often, if ever, you think the use of [alcohol/ marijuana] would lead to the following experiences.” The experiences and answers were the same. To scale these items, first the questions for the users and non-users were combined, to yield one measure for punishment for each substance. Then all seven items were summed and divided by seven to create the punishment scales for each substance (Alcohol Punish yielded a Cronbach’s alpha of 0.880, Marijuana Punish yielded a Cronbach’s alpha of 0.923, and Other Drug Punish yielded a Cronbach’s alpha of 0.972).

Differential reinforcement was also measured by items requesting information on positively viewed effects of alcohol, marijuana and other drugs, individually (Alcohol Reward, Marijuana Reward). This question also included seven items, but for possible positive outcomes, and was listed as: “Do you think [alcohol/ marijuana] have any of the following effects?” The items included were: It is an ice breaker, It enhances social activity, It makes it easier to deal with stress, It facilitates a connection with peers, It allows people to have more fun, It makes me sexier, It facilitates sexual opportunities” with answers set up on a binary response (yes/no), and I do not wish to answers were coded as missing. A scale was then created for Alcohol Reward ($KR-20=0.733$) and Marijuana Reward ($KR-20 = 0.787$) by summing the responses and dividing by seven.

Definitions/ Attitudes

The social learning concept of definitions favorable and unfavorable to substance use was measured with several types of questions throughout the survey. The first inquires about attitudes on using alcohol (Attitude Alcohol) and marijuana (Attitude

Marijuana)(each asked separately): “Which statement best represents your own attitude about the following substance use: [Alcohol/ Marijuana]?” Answers were listed on a 5 item Likert scale ranging from strongly disapprove (1) to strongly approve (5). These items were not scaled and used respectively as measures of the variables shown in the tables as Attitude Alcohol and Attitude Marijuana. Participants were also asked about their preferences of availability of alcohol, marijuana and other drugs on campus: “There are differing views with regards to the availability of alcohol and drugs at parties on or around campus. Some students believe that the availability of drugs and alcohol is a bad thing, decreasing their enjoyment and leading to negative situations. Other students think that having drugs and alcohol at these parties increases enjoyment and is a positive thing. Which view would you say you are most like to side with? I would rather have [alcohol, marijuana, other illicit drugs]:” Answer options included not available (0), Available (1), and I do not wish to answer (treated as missing). This question was asked individually for Available Alcohol and Available Marijuana. Because availability of alcohol, marijuana and other drugs were single item measures, no scales were needed. This variable [Available Alcohol/ Available Marijuana] was subsequently dropped from the models, as it only reached statistical significance in a few of the models and was deemed as unnecessary for overall explanatory power.

The last Definitions/Attitudes measure included in the analyses was perceived risk (Risk Heavy Drinking, Risk Marijuana, Risk Deviant Behavior). The questions asked, “By partaking in the following activities, how much do you think people risk harming themselves? (physically, mentally, spiritually, emotionally)”. The question was asked for each item on the general substance use list (see above for an explanation of the general

substance use list), and answers were set up on a Likert scale, ranging from no risk (0) to great risk (4). Scales were created for Risk Heavy Drinking (Cronbach's alpha = 0.770) by summing the three alcohol items and dividing by three, and Risk Marijuana (Cronbach's alpha = .892) by summing the three marijuana items and dividing by three. Questions were also asked about risky/ deviant behaviors (Risk Deviant Behavior) such as: "How much do you think people harm themselves by: consuming alcohol prior to being sexually active, using marijuana prior to being sexually active, using other drugs prior to being sexually active, regularly engaging in unprotected sexual activity with multiple partners". Answers were set up on the same ordinal scale as the other risk questions. The four items were summed and divided by four to create the Risk Deviant Behavior variable (Cronbach's alpha = 0.828).

Differential Association

The concept of differential association was captured via several different questions in the survey instrument. Family substance use was measured for both alcohol and marijuana separately. The same question was asked for alcohol (Family Alcohol) and marijuana (Family Marijuana): "Which members of your family, if any, have ever had problems with [alcohol/ marijuana]?" Answers included: none, mother, father, stepmother, stepfather and sibling, and were originally coded from 0-5. Dummy variables were created for each relative so that a 0 indicated no problem and a 1 indicated that the relative had a problem with the substance. Items were then summed on a five item scale, and again dichotomized to indicate that either no family members has had an issue with the substance (0), or that at least one of their family members had experienced a problem with the substance (1). The reliability of these two scales was assessed and

Family Alcohol yielded a KR-20 of 0.46, Family Marijuana yielded a KR-20 of 0.50.

These were the least reliable scales constructed.

Deviance of peers was measured in several ways:, friend general deviance (Deviant Peers), Friend Substance Use, Friend Alcohol Consequence, Friend Marijuana Consequence, and Friend Buy Alcohol Under the LDA. Friends' general deviance (Deviant Peers) was measured using the general deviance list (see above for question details in general deviance list), and the question was posed, "Please indicate how many of your friends have ever experienced the following:". Answers included: none of my friends (0), a couple of my friends (1), a few of my friends (2) half of my friends (3), a majority of my friends (4), all of my friends (5) and I do not wish to answer (treated as missing). Items were scaled to create the deviant peers measure (Chronbach's alpha = 0.912). These were the only three differential association measures utilized in this study.

For Friend Substance Use the question read: "Have your friends ever told you they have: smoked marijuana once or twice, smoked marijuana occasionally, smoked marijuana regularly, tried cocaine once or twice, done cocaine regularly, tried LSD once or twice, done LSD regularly, tried amphetamines once or twice, done amphetamines regularly, tried club drugs once or twice done club drugs regularly, tried antidepressants once or twice, done antidepressants regularly, tried prescription drugs once or twice, done prescription drugs regularly, Had one or two alcoholic drinks nearly every day, had four or five alcoholic drinks nearly every day, had five more drinks in one setting, purchased alcohol while underage, taken steroids for body building or improved athletic performance. The answers were coded on a binary response (yes/no) and "I do not wish to answer" was treated as a missing variable. For this scale, "purchased alcohol while

underage” was removed and treated as a separate item indicating friend deviance (See Table 4-2 variable “Friend Bought Alcohol Under LDA”). The response was dichotomous.

Also, all questions for each substance were first summed, and then recoded into a dummy variable, before scaling. So there are three friend substance use variables, Friend Problem Drinking, Friend Marijuana Use, and Friend Substance Use. For example, there are three questions on Marijuana (“Have your friends ever told you they have: smoked marijuana once or twice, smoked marijuana occasionally, smoked marijuana regularly?”). All three marijuana questions were summed, and then recoded into no (0 remained 0) and yes (all other values were recoded to 1, indicating that their friends have told them they have used marijuana, but not indicating to what degree). This was done so that duplicate measures of each substance were not included in the scale, but yet each item was still accounted for. Once all substance questions were collapsed in this manner, a scale was created for friends’ substance use ($KR-20 = 0.825$).

Friend consequences were measured for alcohol use and marijuana use (Friend Alcohol Consequence, Friend Marijuana Consequence) by asking, “From what you have observed, or know about from your friend’s, have the consequences of their [alcohol/marijuana] use been overall:”. Answers were as follows: My friends don’t use this substance (0), more bad than good (1), about the same for good/bad (2), more good than bad (3), and I do not wish to answer (missing). Because these were single item measures, no scale was created (Friend Alcohol Consequence, Friend Marijuana Consequence). These consequence measures were also dropped from each model at the behest of committee members, post thesis defense.

Imitation/ Modeling

The final social learning concept, Imitation, is measured with one series of questions, and a single item question. “Have you ever directly observed your friends: smoking marijuana once or twice, smoking marijuana occasionally, smoking marijuana regularly, trying cocaine once or twice, doing cocaine regularly, trying LSD once or twice, doing LSD regularly, trying amphetamines once or twice, doing amphetamines regularly, trying club drugs once or twice doing club drugs regularly, trying antidepressants once or twice, doing antidepressants regularly, trying prescription drugs once or twice, doing prescription drugs regularly Having one or two alcoholic drinks nearly every day, having four or five alcoholic drinks nearly every day, having five more drinks in one setting, purchasing alcohol while underage, taking steroids for body building or improved athletic performance.” The answers are coded on a binary yes/no scale with the option “I do not wish to answer” coded as missing. “Purchasing alcohol while underage” was not included in the scaled items, and was treated as a separate measure of imitation, as a single item question. The three alcohol questions was also not included in this scale, but in a separate scale. To capture imitation of substance use, measures for each substance were first summed, and then coded into a dummy variable. For example, there are three questions on marijuana (“Have you ever observed your friends: smoking marijuana once or twice, smoking marijuana occasionally, and smoking marijuana regularly?”). All three marijuana questions were summed, and then recoded into no (0 remained 0) and yes (all other values were recoded to 1, indicating that they have observed their friends using marijuana, but not indicating to what degree). This was done so that duplicate measures of each substance were not included in the scale, but yet

each item was still accounted for. Once all substance questions were collapsed in this manner, a scale was created for Observed Friend Substance Use ($KR-20 = 0.691$).

For Model 1 only (see Table 5-1, p. 54) a measure on observation of friend problem drinking (Observed Friend Problem Drinking) was also included. This measure was a three item scale created from questions that asked specifically about observation of friend problem drinking. These questions asked if the person had observed their friends: “Having one or two alcoholic drinks nearly every day, having four or five alcoholic drinks nearly every day, having five more drinks in one setting, purchasing alcohol while underage,” Answers were dichotomized on a yes/no response. ($KR-20 = 0.672$). This variable was not used in later models to eliminate tautology issues with the Alcohol Black Market Sources variable, as it was subsequently used in the remaining models as an independent variable.

It is recognized that the empirical measure of imitation of peers has presented some problems in that its measures and effects are difficult to separate from those of differential peer association and that may be implicated in the relative strong effects of imitation in these findings compared to the effects of imitation in some previous research (Akers, 1998). Asking about directly observing peers engaged in various acts is, of course, a clear indicator and reflection of the concept of imitation as observational learning. But since one may not directly observe the behavior of someone with whom one is in face-to- face contact without in effect associating with that person, it also may be seen as partly a reflection of the concept of differential peer association.

Table 4-2. Descriptive Statistics

Variables	Observations	Mean	Standard Deviation	Minimum	Maximum
Dependent variables					
*Alcohol Black Market Sources	335	0.50	0.99	0	1
Marijuana Black Market Sources	154	0.25	0.43	0	1
General Deviance	387	0.32	0.34	0	7
Marijuana Use	373	0.42	0.49	0	1
Control Variables					
Gender	408	0.35	0.47	0	1
Race	405	3.73	0.44	0	1
Differential Reinforcement					
Alcohol Reward	386	4.58	1.78	0	7
Marijuana Reward	382	2.55	2.10	0	7
Alcohol Punish	405	0.87	0.93	0	5
Marijuana Punish	399	0.89	1.11	0	5
Friend React Heavy Drinking	404	2.15	0.90	1	5
Friend React Marijuana	403	2.34	0.93	1	5
Friend React Substance Use	402	1.48	0.72	1	5
Definitions/ Attitudes					
Risk Heavy Drinking	406	2.15	0.71	0	3
Risk Marijuana	406	1.41	0.88	0	3
Risk Deviance	406	2.18	0.73	0	3
Attitude Alcohol	407	3.51	0.91	1	5
Attitude Marijuana	407	2.43	1.10	1	5
Differential Association					
Family Alcohol	408	0.34	0.67	0	1
Family Marijuana	408	0.21	0.56	0	1
Deviant Peers	377	0.38	0.28	0	7
Friend Substance Use	393	3.52	2.31	0	8
Friend Buy Alcohol Under LDA	398	0.78	0.47	0	1
Imitation/ Modeling					
Imitation	396	2.19	1.78	0	9
Imitation Friend Buy Alcohol Under LDA	397	0.55	0.50	0	1
Observed Friend Problem Drinking	396	0.71	0.46	0	1

* Alcohol Black Market Sources is used as a dependent variable in Model 1, Table 5-1 only, in all subsequent models it is an independent variable.

Data Analysis

The analyses were completed using SPSS version 17 for graduate students and Stata version 10 for graduate students. Descriptive statistics for all the variables that were used, as well as frequencies, were run to determine case counts and variance (See

Table 4-2). The analysis and reporting of the data was quantitative by design. The scales and measures explained above were utilized in a series of either logistic regression or ordinary least squares regression depending on whether or not the dependent variable was dichotomous. Models that included dichotomized outcome variables were assessed via logistic regression as not to violate any of the assumptions for linear regression. The logit model is a method of estimation for equations with dummy variables, or binary response variables. Utilizing the logit model, “avoids the unboundedness problem of the liner probability model...the dependent variable... can be thought of as the log of the odds that the choice in question will be made” (Studenmund, 2001: 442). Because logit models report natural log odds as the coefficient, the percent change was calculated so that the coefficients were easily interpreted. The odds is the ratio of the probability that something is true divided by the probability that it is not true. Before any models were conducted, data were checked for outliers. There were no cases that appeared to be problematic. Listwise deletion was used for missing data.

Of the 408 participants, only 335 had (at some point in their lives) drunk while under-age. Of those 335, 302 participants answered all of the questions that were included in Model 1 (Page 54). Ordinary least squares regression was completed for the first model (Model 1, see Table 5-1 page 54). In this model being involved with Alcohol Black Market Sources was predicted with a set of social learning variables that were specific to drinking and underage drinking behavior. The social learning variables assessed in this model included: attitudes favorable or unfavorable towards alcohol (Attitude Alcohol), whether or not their friends told them they had purchased alcohol while under the LDA (Friend Bought Alcohol Under LDA), whether they had seen their

friends purchase alcohol under the LDA (Imitation Friend Buy Alcohol Under LDA), whether their friends told them they had problem drinking behaviors (Friend Problem Drinking - i.e. binge drinking), whether they had seen their friends partake in problem drinking behaviors (Imitation Friend Problem Drinking), whether they had seen their friends drink (Imitation), how they thought their friends would react to their own problem drinking behaviors (Friend React Heavy Drinking), whether or not their drinking behavior had been rewarded (Alcohol Reward), whether or not their drinking behavior had been punished (Alcohol Punish, in the behavioral sense of punishment), whether they felt the consequences of alcohol were good or bad (Alcohol Consequence), family alcohol use (Family Alcohol), consequences of friend alcohol use (Friend Alcohol Consequence) and finally a measure of Deviant Peers was included. The model was tested for heteroskedasticity using the Shapiro-Wilk test for normal data, it was determined that the residuals were normally distributed, so there were no issues with heteroskedasticity. Collinearity diagnostics were run on all the variables included in this model, and there were no issues with collinearity or tolerance. Leverage was tested for by calculating the leverage cut off value ($2 \times 13 / 302 = .086$). There were few cases observed over the leverage cut off, and so these cases were not removed. The DFbeta was created by dividing 2 by the square root of 302, yielding a cut off value of .115. There were several cases noted in each variable that were over the cut off, however the number of cases was low and this author did not think the outcome would be substantially affected by the removal of so few cases. After thesis defense, committee members felt it wise to delete the variables Alcohol Consequence and Friend Alcohol Consequence, and so these variables do not appear in the new analyses.

For the next two models, a series of logistic regression was conducted (see Table 5-2 on page 56). Of the 335 participants who had, at some point in their lives, used alcohol while under the legal drinking age, 151 had used Marijuana Black Market Sources. In Model 2 there are 151 observations reported. In Model 3, 135 of those 151 participants answered all the questions and were included in that analysis. Both of these models were also run using only the 135 participants included in Model 3 of the original analysis; however; results did not differ, so the original analysis is reported here. The first model in this series (Model 2) utilized Alcohol Black Market Sources, along with control variables, to predict contact with Marijuana Black Market Sources. The second model in this series (Model 3) included the same outcome variable (Marijuana Black Market Sources), but contained measures of the social learning variables (different from those used in model 1), along with the control variables and Alcohol Black Market Sources as independent variables. The social learning variables assessed in this model included: Family Marijuana, Risk Marijuana, Imitation, Attitude Marijuana, and Friend Marijuana Consequence. Collinearity diagnostics indicated no issues of tolerance or collinearity. Percent change in odds was also calculated for each variable in both models. The same series of models was attempted for the dependent variable Other Drug Black Market Sources, however the response rate was not high enough to calculate the models. Under the Definition/Attitude portion of the model, there is not a measure of the perceived risk of alcohol use, thus Risk Alcohol was not included in this model. Note, in these models Friend Buy Alcohol Under LDA and Imitation Buy Alcohol Under the LDA were dropped as they were not relevant to these analyses. (Also, Marijuana Consequence, and

Friend Marijuana Consequence were removed as suggested by committee members, and are not reported in these analyses.

The next series of models (see Table 5-3, page 58) focused on the use of marijuana (Marijuana Use) as the outcome variable of interest (Models 4-5). Model 4 utilized Alcohol Black Market Sources, controlling for Race and Gender, to predict Marijuana Use (see Table 5-3, page 59). Of the 335 participants who had drank while underage, 316 had used marijuana (Model 4). Of those 316 people, 281 participants answered all the questions required for Model 5. (These two models were run again, using only the 281 participants from Model 5. There were no differences in the results in significance, and thus original analyses are reported here).

Model 5 included the same variables, but also had the social learning variables specific to Marijuana Use. Collinearity diagnostics indicated no issues of tolerance or collinearity. Percent change in odds was also calculated for each of the models. This author originally ran two models predicting Other Drug Use utilizing the same variables listed above, but due to a low response rate, the validity of the significance was questionable, and thus those two models were dropped. Note, in these models Friend Buy Alcohol Under LDA and Imitation Buy Alcohol Under the LDA were dropped as they were not relevant to these analyses.

Next, two linear regression models were conducted (see Table 5-4, page 60). The first, Model 6, was to assess the relationship between Alcohol Black Market Sources, control variables, and General Deviance. The second, Model 7, included the same variables, but also included social learning measures. Of the 335 participants who had used alcohol while underage, 322 had participated in some sort of general deviance

(Model 6), and of those 322 participants, 295 participants answered all the questions to be included in Model 7. (Post thesis defense, again based on suggestions of committee members, these two models were run a second time, utilizing only the 295 participants that answered all the questions. There was virtually no difference in the results, and no difference in the statistical significance, so the original models were reported here.) The variable, Imitation Friend Buy Alcohol Under the LDA, was included in this model because it was observed deviance, and thus relevant to the analysis. The learning variables utilized in these models were somewhat weaker in that only two series of questions specifically targeted deviance (Deviant Peers and Risk Deviant Behavior) throughout the survey. There were no other questions that assessed attitudes/definitions towards deviance, and there were no direct measures of imitation of deviance. Substance use measures were utilized however, and were still valid predictors. The model was tested for heteroskedasticity using the Shapiro-Wilk test for normal data, it was determined that the residuals were not normally distributed. To account for this lack of normal distribution, robust standard errors were calculated. In comparing the p-values between the two, it was determined that there was a difference in the standard errors, and thus the robust standard errors are reported. Collinearity diagnostics were run on all the variables included in this model, and there were no issues with collinearity, there were also no issues with tolerance. Leverage was tested for by calculating the leverage cut off value ($2 \times 9 / 299 = .06$). There were only 14 cases observed over the leverage cut off, and so these cases were not removed. The DFbeta was created by dividing 2 by the square root of 299, yielding a cut off value of .116. There were several cases noted in each

variable that were over the cut off, however the number of cases was low and this author did not think the outcome would be substantially affected by the removal of so few cases.

This researcher had planned to conduct analyses testing the relationship between Alcohol Black Market Sources and both General Black Market Deviance, and black market deviance specific to utilizing black market sources to obtain illicit substances (Specific Black Market Deviance). The response rate for these items, however, was too low to accurately predict any type of relationship, and thus these analyses were dropped.

CHAPTER 5 RESULTS

Alcohol Black Market Sources

Table 5-1. Model 1

Variables	Model 1		
	b	SE	t
Control Variables			
Gender	0.02	0.12	0.14
Race	-0.07	0.04	-1.58
Differential Reinforcement			
Alcohol Reward	0.07	0.04	1.86*
Alcohol Punish	0.18	0.08	2.29**
Friend React Heavy Drinking	0.11	0.07	1.56*
Definitions/ Attitudes			
Attitude Alcohol	0.13	0.07	1.75*
Risk Heavy Drinking	0.05	0.09	0.55
Differential Association			
Family Alcohol	-0.09	0.07	-1.17
Deviant Peers	-0.12	0.21	-0.57
Friend Buy Alcohol Under LDA	-0.15	0.17	-0.86
Imitation/ Modeling			
Observed Friend Problem Drinking	-0.28	0.16	-1.78*
Imitation Buy Alcohol Under LDA	0.05	0.14	0.40
Imitation	0.18	0.04	4.51***

F = 6.49 n=302 R² = .23

*P ≤ .10, ** P ≤ .05, *** P ≤ .01

Model 1: Ordinary Least Squares Regression Predicting involvement with Alcohol Black Market Sources with Social Learning Variables

The first model was assessed via ordinary least squares regression. The act of obtaining alcohol through the black market (Alcohol Black Market Sources) is considered deviant and generally perceived to precede procurement and use of other illicit substances. Alcohol Black Market involvement (Sources) was first predicted with social learning variables, as measured with regard to specific drinking behaviors. Model 1 achieved statistical significance (p-value<.01) and successfully explained 23% of the variance in Alcohol Black Market Sources. The results summarized in Table 5-1 indicate that several of the variables were statistically significant, including: Alcohol Reward (p-

value <.10); Alcohol Punishment (p-value <.05); Friend React Heavy Drinking (p-value <.10); Attitude Alcohol (p-value <.10); observing your friend during problem drinking behavior (Observed Friend Problem Drinking, p-value < .10); and Imitation (p-value < .01). None of the control variables reached statistical significance. Imitation had the largest effect on Alcohol Black Market Sources (beta= .32), followed by Alcohol Punishment (beta = .15), observing friend problem drinking behavior (Observed Friend Problem Drinking, beta = -.12, meaning the more problem drinking behavior observed, the less likely the participant was to have Alcohol Black Market Sources), Alcohol Reward (beta= .11), and Attitude Alcohol (beta =.10). For a one unit increase in Imitation there was a 0.17 unit increase in Alcohol Black Market Sources. The more positively one viewed alcohol (Attitude Alcohol) the more likely they were to have Alcohol Black Market Sources (a one unit increase in attitude yielded a 0.13 increase in Alcohol Black Market Sources), the more rewarding one viewed alcohol (Alcohol Reward) the more likely they were to have Alcohol Black Market Sources (1:0.07), and the more negatively punishing (Alcohol Punish) the participant viewed alcohol, the less likely they were to have Alcohol Black Market Sources (1:0.17).

Marijuana Black Market Sources

Findings on use of Marijuana Black Market Sources are presented in Table 5-2 (page 57). When analyzed separately from the social learning variables, Alcohol Black Market sources were statistically significant in predicting further black market sources (Model 2, p-value < .01). Because this was tested with logistic regression, the R^2 was not included. This author does not know how to calculate the Roncek Pseudo R^2 , which would be an accurate representation of explained variance. This first model of this series included control variables race and gender, and overall was statistically significant (p-

value < .01). Only the Alcohol Black Market Source measure reached statistical significance. For a one unit increase in Alcohol Black Market Sources, an 80.2% unit increase is noted in Marijuana Black Market Sources. In other words, participants who responded that they had used Alcohol Black Market Sources were 80.2% more likely to have used Marijuana Black Market Sources.

Table 5-2. Model 2 and Model 3

Variables	Model 2				Model 3			
	b	SE	z	Percent Change	b	SE	z	Percent Change
Control Variables								
Gender	0.28	0.42	0.66	32.4	0.52	0.65	0.79	67.4
Race	0.03	0.23	0.12	2.8	-0.08	0.30	-0.27	-7.8
Independent variables								
Alcohol Black Market Sources	0.59	0.18	3.32***	80.2	0.33	0.25	1.29	39.1
Differential Reinforcement								
Marijuana Reward	--	--	--	--	-0.08	0.17	-0.48	-7.8
Marijuana Punish	--	--	--	--	0.18	0.65	0.28	19.9
Friend React	--	--	--	--	0.20	0.45	0.44	22.2
Marijuana Use Definitions/Attitudes								
Risk Marijuana Attitude	--	--	--	--	-0.82	0.52	-1.56*	-55.8
Marijuana Differential Association	--	--	--	--	-0.88	0.37	2.36***	141.6
Family	--	--	--	--	-0.58	0.44	-1.32*	-44.1
Marijuana Deviant Peers Imitation/Modeling	--	--	--	--	0.23	1.01	0.22	25.4
Imitation	--	--	--	--	0.45	0.16	2.76***	57.0

*P ≤ .10, ** P ≤ .05, *** P ≤ .01

X²=12.44

n=151

X²=54.99

n= 135

Model 2: Logistic regression predicting Marijuana Black Market Sources using Alcohol Black Market Sources. Model 3: Logistic regression predicting Marijuana Black Market Sources with both Alcohol Black Market Sources and Social Learning variables.

The overall pattern of the findings in Table 5-2 indicates that the effects of Alcohol Black Market Sources are diminished when entered into a logistic regression equation

with social learning variables. Model 3 was statistically significant in predicting Marijuana Black Market Sources (p-value < .01). Several of the learning variables entered into the equation were statistically significant; these included: perceived risk of marijuana use (Risk Marijuana, p-value < .05); attitudes specific to marijuana use (Attitude Marijuana, p-value < .01); the effects of family problems with marijuana use (Family Marijuana, p-value < .05); and Imitation (p-value < .01). The less risky the participant felt about marijuana use (Risk Marijuana), the more likely they were to have Marijuana Black Market Sources, and thus for a one unit increase in risk there is a 55.8% decrease in the likelihood of having Marijuana Black Market Sources. If students were less disapproving of using marijuana (Attitude Marijuana), they were more likely to have utilized Marijuana Black Market Sources (a one unit decrease in disapproval led to a 133.7% increase in the odds of having used Marijuana Black Market Sources). Also, for a one unit increase in family problems with marijuana (Family Marijuana) there was a decrease of 44.1% in the odds of having black market associations for marijuana (Marijuana Black Market Sources). Friend Marijuana Consequence was removed from the model, because of issues raised in the thesis defense, it is worthy to note that when it is included a one unit increase in perceived negative Friend Marijuana Consequence yielded a 70.1% decrease in the odds of having black market involvement for marijuana). Finally, each unit increase in Imitation yielded a 57% increase in the odds of utilizing Marijuana Black Market Sources. As hypothesized, when the effects of social learning variables are taken into account, having Alcohol Black Market Sources was no longer predictive of having other black market sources.

Marijuana Use

Table 5-3. Model 4 and Model 5

Variables	Model 4				Model 5			
	b	SE	z	Percent Change	b	SE	z	Percent Change
Control Variables								
Gender	-0.10	0.25	-0.38	-9.1	0.08	0.40	0.20	8.7
Race	0.19	0.10	1.94**	21.3	0.08	0.16	0.50	8.4
Independent variables								
Alcohol Black Market Sources	0.32	0.12	2.61***	38.2	-0.14	0.19	-0.75	-12.9
Differential Reinforcement								
Marijuana Reward	--	--	--	--	0.02	0.10	0.15	1.5
Marijuana Punish	--	--	--	--	-1.87	0.34	-5.55***	-84.6
Friend React	--	--	--	--	0.47	0.28	1.72*	60.7
Marijuana Use Definitions/ Attitudes								
Risk Marijuana Attitude	--	--	--	--	0.35	0.30	1.18	42.1
Marijuana Differential Association	--	--	--	--	1.04	0.27	3.84***	181.7
Family Marijuana Deviant Peers	--	--	--	--	0.81	0.36	2.26**	125.9
Imitation/ Modeling	--	--	--	--	1.04	0.81	1.29*	183.8
Imitation	--	--	--	--	0.74	0.17	4.34***	109.8

Model 4: Logistic regression predicting Marijuana Use with Alcohol Black Market Sources. Model 5: Logistic regression predicting Marijuana Use with Alcohol Black Market Sources and Social Learning variables.

Table 5-3 presents two models (Models 4- 5), Model 4 captures the relationship between Alcohol Black Market Sources and Marijuana Use (Model 4), while Model 5 includes social learning variables in addition to measures of Alcohol Black Market Sources. Logistic regression indicates that overall, Model 4 is statistically significant in predicting Marijuana Use (p -value<.05). Both Alcohol Black Market Sources and Race

are statistically significant (p-value<.01 and p-value <.05 respectively). A one unit increase in Alcohol Black Market Sources increases the odds of using marijuana by 38.2%. When the model (Model 5) includes the learning variables however, the effects of Alcohol Black Market Sources diminish. Model 5, including both social learning variables and Alcohol Black Market Sources, was statistically significant (p-value<.01). Out of the variables measured however, only six had effects that were statistically significant: Marijuana Punishment (p-value<.01); the perceived reaction of friends for personal marijuana use (Friend React Marijuana Use, p-value<.10); Attitude Marijuana (p-value<.01) family marijuana use (Family Marijuana, p-value<.10); Deviant Peers (p-value<.05); and Imitation (p-value<.01). The more one viewed punishment for marijuana use (Marijuana Punish), the less likely they were to have used marijuana (Marijuana Use) – a one unit increase in negative expectations lead to an 84.6% decrease in using marijuana. The more positively one perceived their friends would react to their marijuana use, the more likely they were to have used marijuana (a one unit increase in Friend React Marijuana Use yielded a 60.7% increase in marijuana use). A one unit increase in Family Marijuana use lead to a 125.9% increase in having used marijuana (Marijuana Use). A one unit increase in Deviant Peers increases the odds of having used marijuana (Marijuana Use) by 183.3%, while a one unit increase in Imitation increases the odds of using marijuana (Marijuana Use) by 109.8%. The odds of this event is simply the chance that it is true divided by the chance that it is not, therefore the chance that someone uses marijuana (Marijuana Use) increases by 109.8% when Imitation is increased by one. When social learning variables were included in the logit model, there was no longer a significant effect for Alcohol Black Market Sources in predicting Marijuana Use.

General Deviance

Table 5-4. Model 6 and Model 7

Variables	Model 6			Model 7		
	b	SE	t	b	SE	t
Control Variables						
Gender	.11	.04	2.64***	0.08	0.04	2.23**
Race	.01	.02	0.91	-0.03	0.01	-2.41**
Independent Variables						
Alcohol Black Market Sources	.05	.02	2.63***	-0.01	0.02	-0.51
Differential Reinforcement						
Alcohol Reward	--	--	--	-0.00	0.01	-0.04
Alcohol Punish	--	--	--	0.15	0.03	6.08***
Friend React Substance Use	--	--	--	0.02	0.02	0.65
Definitions/ Attitudes						
Risk Deviant Behavior	--	--	--	-0.07	0.03	-2.67***
Attitude Alcohol	--	--	--	-0.01	0.03	-0.17
Differential Association						
Family Alcohol	--	--	--	-0.01	0.02	-0.24
Deviant Peers	--	--	--	0.51	0.07	7.23***
Imitation/ Modeling						
Imitation	--	--	--	0.02	0.01	1.43*
Imitation Friend Buy Alcohol Under LDA	--	--	--	-0.07	0.04	-1.97**

*P ≤ .10, ** P ≤ .05, *** P ≤ .01

F=5.21

R²=.05

n=322

F=19.20

R²=.45

n= 295

Model 6: Ordinary Least Squares Regression Predicting General Deviance with Alcohol Black Market Sources. Model 7: Ordinary Least Squares Regression Predicting General Deviance with Alcohol Black Market Sources and Social Learning Variables. These models were calculated using robust standard errors due to the fact that the residuals were non-normal, and robust standard errors are reported here.

The final two models were assessed with ordinary least squares regression and are summarized in Table 5-4. The first model of this series (Model 6, p-value<.01) successfully predicted 5% of the variance in General Deviance utilizing Alcohol Black Market Sources (p-value <.01), and the control variables. For each unit increase noted in Alcohol Black Market Sources, there was a .05 unit increase in General Deviance. The second model in this series included the variables from Model 6, and added in social learning variables. Model 7 (p-value<.01) successfully explained 45% of the variance in

General Deviance. Several variables achieved statistical significance in this model, including: Alcohol Punish (p-value<.001); perceived risk in deviant behavior (Risk Deviant Behavior, p-value <.05); Deviant Peers (p-value <.01); having witnessed friends utilize substances (Imitation p-value<.10); having witnessed friends purchase alcohol under the LDA (Imitation Buy Alcohol Under LDA, p-value <.05); and both the control variables: Gender and Race (p-values<.05). Deviant Peers had the largest effect on General Deviance (beta = .37). For a one unit increase in Deviant Peers, a .5 unit increase was noted in General Deviance. Alcohol Punishment was the second strongest predictor of General Deviance (beta=.35), followed by perceived risk (Risk Deviant Behavior, beta= -.13) and having friends purchase alcohol while underage (Imitation Buy Alcohol Under LDA, beta= -.09), and imitation (beta=-.08).

Support for the Hypotheses

The first hypothesis stated that the use of Alcohol Black Market Sources is predicted by social learning variables, and was well supported with the Ordinary Least Squares Regression. Specifically, Differential Reinforcement, Definitions and Imitation variables were statistically significant. Again, researchers believe that Black Market Associations involve association with non-conforming others, may be correctly viewed as a specific type of deviant association. These Black Market Sources may be seen as indirect indicators of the process of differential association in social learning theory. Some may say that this renders the relationships between the Alcohol Black Market Sources and other forms of deviance spurious; however, I contend that they are all indicators of the social learning process in substance use, obtaining substances for that use, and therefore correlated with other forms of deviant behavior.

Hypothesis 2 stated that the use of Alcohol Black Market Sources has a significant effect on the use of Marijuana Black Market Sources, and was statistically significant ($p < .001$), however; it also stated that the effect would be reduced and become non-significant when measures of social learning variables were entered into the model. This was supported by the Model 3 Logistic Regression, revealing that once social learning variables were entered into the equation, the effects of Alcohol Black Market Sources were no longer significant. Definitions/Attitudes, Differential Association, and Imitation/Modeling variables were significant.

Hypothesis 3 stated that the use of Alcohol Black Market Sources has a significant relationship with Marijuana Use, which it did; however, the relationship will become non-significant when measures of social learning variables were entered into the model. This was supported by the Model 5 Logistic Regression, as Alcohol Black Market Sources were no longer significant, but Differential Reinforcement, Differential Association, and Imitation variables were.

Hypothesis 4 stated that Alcohol Black Market Sources would have a significant relationship with measures of general deviance, which it did, but that the relationship would be rendered insignificant when the social learning variables were accounted for. Ordinary Least Squares Regression, reflected in Model 7, supported this hypothesis. Both gender and race were significant (as supported by the literature), as were all four social learning variables.

CHAPTER 6

CONCLUSION

Discussion

This research examined the social learning variables predictive of having Alcohol Black Market Sources, and the effect of having Alcohol Black Market Sources (along with other social learning variables) Marijuana Black Market Sources, Marijuana Use, and General Deviance. As hypothesized, it was found that Alcohol Black Market Sources had significant effects on each of these deviant behaviors. These significant main effects diminished when included in the models with measures of social learning variables. This is important because it demonstrates that differential peer associations account for specific types of associations, such as black market ties. Results also indicated that a separate set of social learning variables, specifically aimed at drinking behavior, were effective in predicting Alcohol Black Market Sources. Findings have demonstrated that these black market sources are associated with deviant behaviors (using other black market sources, partaking in deviance, using illicit substances), and the involvement in Alcohol Black Market Sources itself is indicative of deviant behavior (illegally purchasing alcohol). Based on the current literature linking social learning variables to many forms of deviance, the finding that social learning variables were significant in predicting these associations was as expected. Also, given the assumption that all of these were implicated in and outcomes of the same underlying social learning process the findings that the effects of Alcohol Black Market Sources were reduced to statistical non-significance when entered in the same models as the social learning variables were also as expected and supportive of the hypotheses.

Limitations and Implications

There are several limitations in this study, the first of which involve the sample. First off, the sample size was small ($N=408$), yielding a low response rate for particular outcome variables of interest (black market deviance for instance). This prohibited analysis of important relationships with regard to black market deviance, which was of central importance to the goals of this research. Second, the sample was not randomly drawn; it was a convenience sample, recruited through the participant pool. Students who never fulfilled their research requirements were not captured in this study, and may have been fundamentally different from those students completing their research requirements. Also, this sample was comprised of students in criminology classes, most of whom are criminology majors. Considering the focus of criminology, it is doubtful that criminology majors accurately represent all college students, and may be involved in less deviance than other majors.

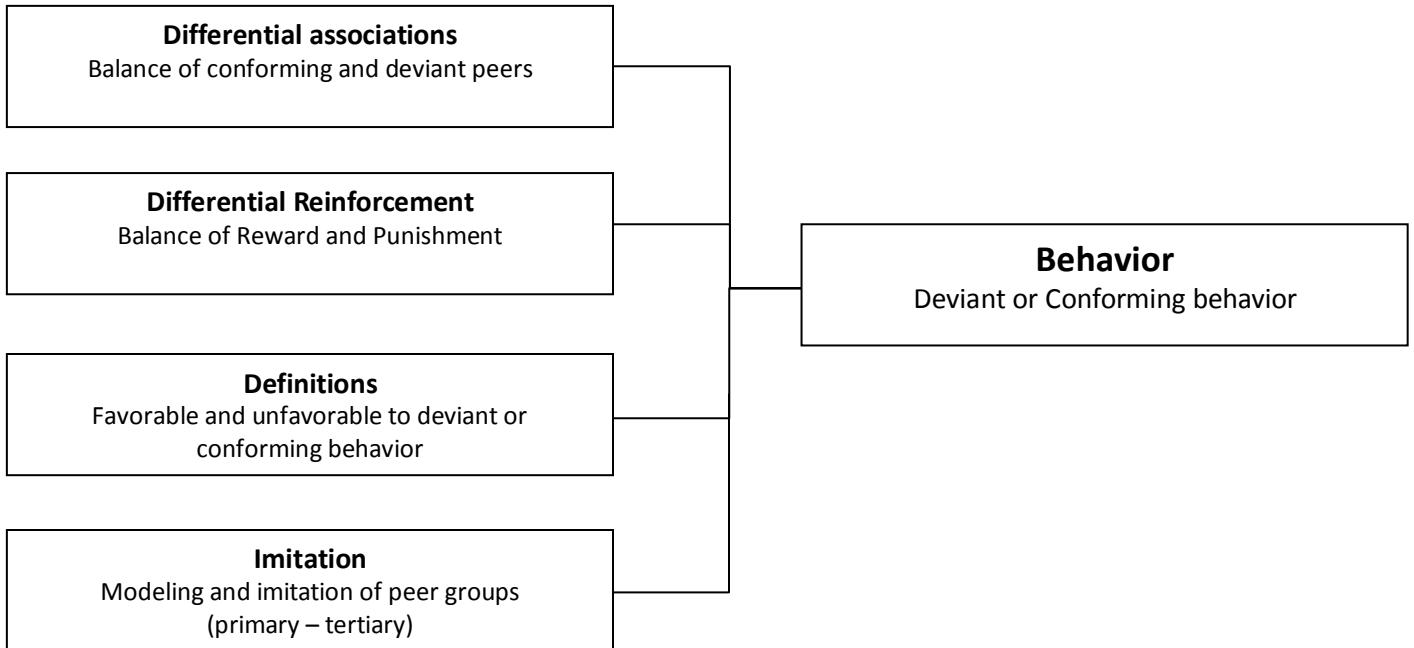
In addition, the survey instrument lacked appropriate measures on the social learning variables relevant to general deviance. When constructed, the main focus was substance use and abuse, though there were some deviance measures included. This inhibited more sophisticated analyses in predicting deviance in general. The results from the models predicting general deviance were also dampened by this limitation. Many of the models were assessed with logistic regression, which is not as straight forward and easily interpreted as linear regression. The dichotomous outcome variables were the cause for this method of assessment. While there is little reason to believe that the effects of the social learning and other variables in the sample in this study would be opposite of, or very different from effects found elsewhere, there is always the question

of how much findings from a sample of college students on only one campus, in one part of the country, may be generalizable to other populations.

This thesis is the first phase of a planned two-phased research project. It utilizes data drawn from the participant pool that is set up through the Department of Sociology and Criminology & Law at the University of Florida. Some of the limitations of the present research will be addressed in the second phase. The plans for the second phase includes expanding to encompass a larger sample drawn from multiple universities South Eastern region of the United States and also international data collected from South Korea. This will provide more generalizable findings. With the expansion to different locations in the country and the world, and different university atmospheres, the theory being utilized may also be expanded to include structural variables. Social structure social learning models (Akers, 1998) will be useful to build on the results of this study, and to compare the effects of the social structural components among the different populations. Along with the inclusion of structural variables to measure macro-level differences, items more appropriate for deviance measures, especially social learning measures, will be included in the revised instrument. Larger samples will be utilized in an effort to capture a higher frequency of involvement for the black market deviance and use of other drug black market sources.

APPENDIX A
SOCIAL LEARNING MODEL

SOCIAL LEARNING THEORY



APPENDIX B
IRB PROTOCOL FORM

UFIRB 02 – Social & Behavioral Research

Protocol Submission

Title of Protocol: Social Learning Theory: Underage Drinking and Black Market Deviance

Principal Investigator: Heather Stewart	UFID #: 6393-8765
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Date of Proposed Research: July 2008 – December 2008	
Source of Funding (<i>A copy of the grant proposal must be submitted with this protocol if funding is involved:</i>) No external source of funding.	
Scientific Purpose of the Study: The scientific purpose of this study lies in examining the social learning variables in the context of underage drinking, substance use, and various forms of deviance. From a previous study, “Raising the Minimum Drinking Age: Some Unintended Consequences of Good Intentions” (Lanza-Kaduce, 1989), it was determined that underage drinkers obtain their alcohol from different sources than legal age drinkers. Some of those sources are unknown persons, and in the literature have been titled “black market” associations. These sources of alcohol are considered black market ties to illegal alcohol consumption. The goal of this research is to determine if using black market sources to obtain alcohol, leads to further black market ties or differential peer associations (i.e. black market drug associations, stolen goods dealers). In addition, we want to know if these differential peer associations lead to other deviance, including other black market deviance (dealing in stolen goods, pawning stolen goods).	

Describe the Research Methodology in Non-Technical Language: (*Explain what will be done with or to the research participant.*)

Participants of the study will be college students recruited either through the Participant Pool, run through the Department of Criminology, Law and Society, and through in class recruitment. A research assistant will always be utilized for the in class recruitment, and the instructor for the course will be asked to leave, so the students do not feel pressure to participate, and know that the participation is purely voluntary. If students are recruited through the Participant Pool, students will sign up for the experiment online, and will be awarded class credit. Generally there are several studies posted in the Participant Pool during the semester, and students pick the ones they want to participate in. An **alternative assignment will be available** for students that do not want to participate in research.

The survey is posted on a survey website, www.surveymonkey.com. Researchers paid for data encryption to protect the privacy of the participants and their responses. At the very beginning of the survey, the students are provided with an informed consent form to read over, they must click “next” to indicate their agreement to participate in this study (see Appendix A). Upon giving their informed consent by clicking “next,” the participants will be directed to the online survey (see Appendix C) and requested to fill it out to the best of their ability. Students are reminded in the informed consent that they are not to put their name on the survey, and there is no blank field for them to do so. The survey will be completely anonymous. This questionnaire is designed to ask questions about underage drinking, methods of obtaining alcohol, substance use, methods of obtaining substances, and other forms of deviance. Several questions from the survey will be used as measures of the social learning variables, while others will be used to measure the outcome variables of interest (substance use, deviance, black market deviance, etc.) This survey was developed in corroboration with Ronald Akers, Ph.D. and Lonn Lanza-Kaduce, Ph.D., to ensure proper measurement of the social learning variables and deviance. Most of the attitudinal questions, activity questions, demographic questions, and substance use questions were derived from the questions asked in the CORE survey. The CORE survey on drug and alcohol use has been in utilized since the 1980s, and was developed by the US Department of Education, in affiliation with several universities. These questions were further developed by separating measures of alcohol, marijuana and other drug use.

Skip logic is included in the online survey, to ensure that the students do not spend any unneeded time filling out the survey. If the students choose an answer that makes later questions irrelevant, those questions will be skipped for them. After filling out the questionnaire, students will be debriefed in detail as to the purpose of our study, provided a copy of the debriefing form (see Appendix B), and thanked for their participation.

Describe Potential Benefits and Anticipated Risks: (*If risk of physical, psychological or economic harm may be involved, describe the steps taken to protect participant.*)

There are minimal anticipated risks associated with this survey, no more so than what the participant is exposed to in daily conversation, daily television, or other daily media. The survey being administered will contain no personal identifiers, their responses are encrypted, and the participants will be briefed after taking the survey as to what the survey was trying to measure. They will be given a debriefing synopsis (see Appendix B), that explains the purpose of the study, and they will also be provided with telephone numbers for the primary investigator and supervisor, should they have further questions.

Potential Benefits:

Each student who participates in either the study or the alternative assignment will learn about academic research as a benefit of participating. Participants who sign up through the participant pool will receive course credit for either participating in the study or completing an alternative assignment. Participants that are recruited through in class solicitation also may be offered course credit or extra credit at the discretion of their instructor. Either way, the student learns about academic research.

Other Potential Benefits:

This research has the potential to contribute greatly to the field. To date, no survey measures all four social learning variables while also measuring alcohol use, marijuana use, and other drug use separately, as well as several different forms of criminal deviance. Also, no current research focuses on the “black market ties” developed by underage drinkers in obtaining alcohol illegally.

Describe How Participant(s) Will Be Recruited, the Number and AGE of the Participants, and Proposed Compensation:

Participants will be recruited through either the online Participant Pool set up through the Department of Criminology, Law and Society, though in class recruitment. All participants will be eighteen and older, and students taking classes at the University of Florida. Both male and female students will be sampled, and all races are included.

If the participants are recruited through the participant pool, they are offered two avenues to obtain points for certain classes. Research is posted online in a program designed for the participant pool, and participants are allowed to choose which research they wish to participate in. If the students do not wish to participate in research, they may choose to do an alternative assignment. Both are supposed to be about equal in time and effort, and both are geared to educate the student about academic research. Credit for the research is awarded through the website, so the instructor will have no idea who participated in research and who completed the alternative assignment.

Participants who are recruited in the classroom, will be of eighteen years of age and older, both male and female, and all races are included. They will participate in the research on a voluntary basis, and may receive course credit or extra credit at the discretion of their instructor.) The survey is posted on www.surveymonkey.com. An alternative assignment will be available for those students who do not wish to participate in research if the instructor chooses to offer course credit in exchange for participation. The professor will be asked to leave the room during recruitment, so that they will have no idea who participated in research, and who completed the alternative assignment for credit (if it is offered). This precaution is taken to minimize pressure on the students to participate in research.

A maximum number of 600 students will be sampled.

Describe the Informed Consent Process. Include a Copy of the Informed Consent Document:

Before completing the survey, when students select this survey to participate in, the students will be required to read over the informed consent form (see Appendix A) before they are redirected to the

survey. If they agree to participate in the study they requested to click “next,” and have the option to print a copy to keep. After completing the survey (see Appendix C), the students will be debriefed as to the purpose of the study, and have the option to print the debriefing form that explains the study (see Appendix B), and will be advised of their right to ask questions.

Principal Investigator(s) Signature:	Supervisor Signature:
Department Chair/Center Director Signature:	Date:

APPENDIX C
INFORMED CONSENT FORM

Protocol Title: Social Learning Theory: Underage Drinking and Black Market Deviance

Please read this consent document carefully before you decide to continue your participation in this study.

Purpose of the research study:

The scientific purpose of this study lies in examining the social learning variables in the context of underage drinking, substance use, and different forms of deviance. A description of social learning theory and a full explanation of the variables of interest will be provided in a debriefing form upon completion of the survey, as not to bias any of your answers.

What you will be asked to do in the study:

You will be asked to complete an anonymous survey on some varying topics: Demographics, basic information, activities, campus life, association with peers, substance use, methods of obtaining substances, experiences you have had, and any type of deviance that you may have been involved in. Responses to the survey are completely anonymous, and are encrypted through survey monkey. No personal identifying information is requested in this survey. If at anytime you feel uncomfortable, and wish to withdraw from the study, you may exit the survey, and your responses will be deleted. Upon completion of the survey, you will receive a confirmation of completion and a debriefing form.

Time required:

90 minutes or less

Risks and Benefits:

There are minimal risks associated with this research, no more than what you would be exposed to by watching television. The benefits include getting a closer look at academic research through being provided a description of this project. If you signed up for this project through the Participant Pool, you will receive credit for research. If you were solicited from a class, your professor may decide to give you credit, or extra credit. Either way, should you choose not to participate in research, there are alternative assignments available, that are of equal time and effort.

Compensation:

If you signed up through the participant pool, you will earn the amount of credit determined by the participant pool coordinators for participating in the study. If you are solicited from a class room, credit for your participation is left to your instructor's discretion.

Confidentiality:

We are not asking for your personal information. There is no place in the survey to put your name. All responses are anonymous, and all data provided in this survey is encrypted by survey monkey. Researchers paid to have this service provided to ensure

your privacy. Your identity will be kept completely anonymous as nothing to identify you is being asked in this survey. If you are participating for class credit, your instructor will not know whether you completed research, or an alternative assignment.

Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Heather Stewart, Graduate Student
Department of Criminology Law and Society
University of Florida
PO Box 115950
Gainesville, Florida 32611-5950
Phone: 352.392.1025 ext. 777

Ronald L. Akers, Ph.D.
Department of Criminology Law and Society
Phone: 352.392.1025 ext. 204

Whom to contact about your rights as a research participant in the study:
IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure. By clicking "next" you acknowledge that you have read this informed consent, and agree to participate in this research. You may print this page if you wish to have a copy of the informed consent.

APPENDIX D
DEBRIEFING FORM

Appendix F: Debriefing form

Survey Complete! Thank you for your participation!

The purpose of this research is to build on prior research completed in the area of underage drinking. In previous research it was found that underage drinkers often times use strangers and/or students they do not really know, who are of the legal drinking age to get alcohol for them. This method of obtaining alcohol is termed “black market” in the literature.

To expand on this research, we predicted that underage drinkers who utilize these black market ties will be score higher on other types of deviance, including other black market deviance, drug use, poor academic performance, criminal behaviors, and so on.

We are specifically investigating these black market ties, and the relationships they have with deviance using the variables from Ronald Akers’, Ph.D., social learning theory. Social learning theory encompasses four variables that explain how behavior, conforming or deviant, is learned and maintained: differential associations, definitions, differential reinforcement and imitation. Differential associations have to do with the direct and indirect association with others who model different types of behavior. These associations “provide the major social contexts in which all the mechanisms of social learning operate” (Akers and Sellers, 2004). Definitions, Akers contends, are the meanings, beliefs, and attitudes one has toward a particular behavior. The more positive the definition of the behavior, the more likely the behavior is to occur – be it conforming or deviant. Differential reinforcement is the balance of perceived rewards and punishments consequential to a behavior. The more rewarding one views the behavior the more likely they are to partake in it and repeat it in the future, thus it works both to create or dissuade, and maintain or desist behavior. Imitation is most important in the acquisition of novel behavior, but continues to have a minute effect once a behavior is learned. It is exactly how it sounds; one imitates or models the behavior they observe another act out. These four variables are micro level variables, meaning they apply specifically to the individual or a small group of individuals.

Measures of all four social learning variables were included in the survey that you completed. Researchers will code your answers into numerical values, and use statistical analysis to determine if the relationship predicted, drinkers who use black market ties to obtain in alcohol will be higher in other forms of deviance, is significant.

If you wish to have your data not included in the study, you are free to withdraw your data from the sample, and it will be destroyed immediately. So you know your data is completely confidential no identifying information was asked in the survey. Your results are confidential to the researchers, and all results are published anonymously.

APPENDIX E
INSTRUMENT

Social Learning and Substance Use

1. Informed consent

Informed Consent

Protocol Title: Social Learning Theory: Underage Drinking and Black Market Deviance

Please read this consent document carefully before you decide to continue your participation in this study.

Purpose of the research study:

The scientific purpose of this study lies in examining the social learning variables in the context of underage drinking, substance use, and different forms of deviance. A description of social learning theory and a full explanation of the variables of interest will be provided in a debriefing form upon completion of the survey, as not to bias any of your answers.

What you will be asked to do in the study:

You will be asked to complete an anonymous survey on some varying topics: Demographics, basic information, activities, campus life, association with peers, substance use, experiences you have had, and any type of deviance that you may have been involved in. No personal identifying information is requested in this survey. If at anytime you feel uncomfortable, and wish to withdraw from the study, you may exit the survey, and your responses will be deleted.

Time required:

90 minutes or less

Risks and Benefits:

There are minimal risks associated with this research, no more than what you would be exposed to by watching television. The benefits include getting a closer look at academic research through being provided a description of this project. If you signed up for this project through the Participant Pool, you will receive credit for research. If you were solicited from a class, your professor may decide to give you credit, or extra credit. Either way, should you choose not to participate in research, there are alternative assignments available, that are of equal time and effort.

Compensation:

If you signed up through the Participant Pool, in opting to participate in research your participation will allow you to obtain 2 points for the class you are enrolled in. If you are solicited from a class room, credit for your participation is left to your instructor's discretion.

Confidentiality:

We are not asking for your personal information. You should not put your name anywhere on the survey. All data provided in this survey is encrypted by surveymonkey. Researchers paid to have this service provided to ensure your privacy. Your identity will be kept completely confidential as nothing to identify you is being asked in this survey. If you are participating for class credit, your instructor will not know whether you completed research, or an alternative assignment.

Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study:

You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study:

Heather Stewart, Graduate Student
Department of Criminology Law and Society
University of Florida
PO Box 115950
Gainesville, Florida 32611-5950
Phone: 352.392.1025 ext. 777

Ronald L. Akers, Ph.D.
Department of Criminology Law and Society
Phone: 352.392.1025 ext. 204

Whom to contact about your rights as a research participant in the study:
IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.

Social Learning and Substance Use

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure. By clicking "next" you acknowledge that you have read this informed consent, and agree to participate in this research. You may print this page if you wish to have a copy of the informed consent.

2. Demographics

1. How old are you?

2. Gender

 Male Female

3. Race

 African American Caucasian American Indian/ Alaskan Native Hispanic Asian/ Pacific Islander Other (please specify)

4. Marital Status

 Single Divorced Married Widowed Separated

5. What is your current student status?

 Part time (1-5 hours) Half time (6-11 hours) Full Time (12+ hours)

6. What is your student classification?

 Freshman Junior Sophomore Senior Other (please specify)

7. What is your approximate cumulative grade point average?

Social Learning and Substance Use

3. Living Arrangements

8. I currently live

On campus

Off campus

9. If you live on campus, is the UF housing designated alcohol free?

Yes

No

10. If your campus housing is not alcohol free, would you like to live in a designated alcohol free housing unit if one were available?

Yes

No

11. What are your living arrangements?

House/ Apartment

Campus housing

Residence hall

Fraternity or Sorority

Other (please specify)

12. I currently live with:

Other students

Friends

Children

My parents

Alone

Spouse

Other (please specify)

13. Place of Permanent Residence:

In-State

Out of state (USA)

Not in the USA

4.

Social Learning and Substance Use

14. There are differing views with regards to the availability of alcohol and drugs at parties on or around campus. Some students believe that the availability of drugs and alcohol is a bad thing, decreasing their enjoyment and leading to negative situations. Other students think that having drugs and alcohol at these parties increases enjoyment and is a positive thing. Which view would you say you are most likely to side with?

	Available	Not Available
I would rather have alcohol:	<input type="checkbox"/>	<input type="checkbox"/>
I would rather have Marijuana:	<input type="checkbox"/>	<input type="checkbox"/>
I would rather have other illegal drugs:	<input type="checkbox"/>	<input type="checkbox"/>

5.

15. At what age did you first use: (you may indicate never, the descriptions of each substance below will remain the same throughout the survey)

Tobacco (smoke or dip)	<input type="text"/>
Alcohol (beer, wine, or liquor)	<input type="text"/>
Marijuana (pot, hash, hash oil)	<input type="text"/>
Cocaine (crack, rock, freebase)	<input type="text"/>
Amphetamines (meth, crystal meth, speed)	<input type="text"/>
Sedatives (downers)	<input type="text"/>
Antidepressants (without a valid prescription Zoloft, percocet)	<input type="text"/>
Hallucinogens (LSD, PCP)	<input type="text"/>
Opiates (heroin, smack, horse)	<input type="text"/>
Inhalants (glue, solvents, gas)	<input type="text"/>
Club drugs (ecstasy/MDMA, GHB, Ketamine)	<input type="text"/>
Antidepressants (without a valid prescription, ritalin, adderall)	<input type="text"/>
Steroids	<input type="text"/>
Other illegal drugs	<input type="text"/>

6.

Social Learning and Substance Use

16. Over the last two weeks, how many times have you had five or more drinks in a setting? (a drink would be a beer, a glass of wine, a shot, a mixed drink, a wine cooler, or malt liquor.)

- | | |
|---|---|
| <input type="checkbox"/> I have not drank in the last two weeks | <input type="checkbox"/> 3-5 times |
| <input type="checkbox"/> Once | <input type="checkbox"/> 6-9 times |
| <input type="checkbox"/> Twice | <input type="checkbox"/> 10 or more times |

17. What is the average number of drinks you have in:

A week: _____

A month: _____

18. What is the average number of times you use marijuana in:

A week: _____

A month: _____

19. What is the average number of times you use other drugs in:

A week: _____

A month: _____

7.

20. Within the last year, about how often, if at all, have you used: (please mark the appropriate box for each substance)

	Never	Once a year	Six times a year	Once a month	Twice a month	Once a week	Three times a week	Five times a week	Daily
Tobacco	<input type="checkbox"/>								
Alcohol	<input type="checkbox"/>								
Marijuana	<input type="checkbox"/>								
Cocaine	<input type="checkbox"/>								
Amphetamines	<input type="checkbox"/>								
Sedatives	<input type="checkbox"/>								
Antidepressants (without a valid prescription)	<input type="checkbox"/>								
Hallucinogens	<input type="checkbox"/>								
Opiates	<input type="checkbox"/>								
Inhalants	<input type="checkbox"/>								
Club drugs	<input type="checkbox"/>								
Steroids	<input type="checkbox"/>								
Prescription drugs (without a valid prescription)	<input type="checkbox"/>								
Other Illegal Drugs	<input type="checkbox"/>								

8.

Social Learning and Substance Use

21. During the last 30 days, about how often, if at all, have you used: (please mark the appropriate answer for each substance)

	Never	Once or twice	3-5 days	6-9 days	10-19 days	20-29 days	Daily
Tobacco	<input type="checkbox"/>						
Alcohol	<input type="checkbox"/>						
Marijuana	<input type="checkbox"/>						
Cocaine	<input type="checkbox"/>						
Amphetamines	<input type="checkbox"/>						
Sedatives	<input type="checkbox"/>						
Antidepressants (without a valid prescription)	<input type="checkbox"/>						
Hallucinogens	<input type="checkbox"/>						
Opiates	<input type="checkbox"/>						
Inhalants	<input type="checkbox"/>						
Club drugs	<input type="checkbox"/>						
Steroids	<input type="checkbox"/>						
Prescription drugs (without a valid prescription)	<input type="checkbox"/>						
Other Illegal Drugs	<input type="checkbox"/>						

9.

22. Over the last year, how often, if at all, do you think your friends have used: (please mark the appropriate box for each substance)

	Never	Once a year	Six times a year	Once a month	Twice a month	Once a week	Three times a week	Five times a week	Every day
Tobacco	<input type="checkbox"/>								
Alcohol	<input type="checkbox"/>								
Marijuana	<input type="checkbox"/>								
Cocaine	<input type="checkbox"/>								
Amphetamines	<input type="checkbox"/>								
Sedatives	<input type="checkbox"/>								
Antidepressants (without a valid prescription)	<input type="checkbox"/>								
Hallucinogens	<input type="checkbox"/>								
Opiates	<input type="checkbox"/>								
Inhalants	<input type="checkbox"/>								
Club drugs	<input type="checkbox"/>								
Steroids	<input type="checkbox"/>								
Prescription drugs (without a valid prescription)	<input type="checkbox"/>								
Other Illegal Drugs	<input type="checkbox"/>								

10.

Social Learning and Substance Use

23. Over the last year, how often do you think, if at all, the average student has used: (please mark the appropriate box for each substance)

	Never	Once a year	Six times a year	Once a month	Twice a month	Once a week	Three times a week	Five times a week	Daily
Tobacco	<input type="checkbox"/>								
Alcohol	<input type="checkbox"/>								
Marijuana	<input type="checkbox"/>								
Cocaine	<input type="checkbox"/>								
Amphetamines	<input type="checkbox"/>								
Sedatives	<input type="checkbox"/>								
Antidepressants (without a valid prescription)	<input type="checkbox"/>								
Hallucinogens	<input type="checkbox"/>								
Opiates	<input type="checkbox"/>								
Inhalants	<input type="checkbox"/>								
Club drugs	<input type="checkbox"/>								
Steroids	<input type="checkbox"/>								
Prescription drugs (without a valid prescription)	<input type="checkbox"/>								
Other Illegal Drugs	<input type="checkbox"/>								

11.

24. Please indicate the locations in which you have used the following: (mark all that apply)

	Never used	On campus	Residence hall	Fraternity or Sorority house	Bar or restaurant	Your house	In a car	Friend's house	Other (specify below)
Tobacco	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cocaine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amphetamines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sedatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antidepressants (without a valid prescription)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hallucinogens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Opiates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inhalants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Club drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steroids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prescription drugs (without a valid prescription)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Illegal Drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 7

Social Learning and Substance Use

12.

25. The following series of questions asks about experiences you have had while drinking. Please indicate below whether or not you have ever had an alcoholic beverage so that you will be directed to the appropriate question.

- At some point in time, I have drank an alcoholic beverage.
- I have never drank an alcoholic beverage.

13.

26. Please indicate how often, if ever, the use of alcohol has lead to each of the following experiences:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Been criticized by someone I know	<input type="checkbox"/>					
Endured threats of physical violence, or actual physical violence	<input type="checkbox"/>					
Missed a class	<input type="checkbox"/>					
Been the victim of unwanted sexual intercourse	<input type="checkbox"/>					
Been hurt or injured	<input type="checkbox"/>					
Performed poorly on a test or important project	<input type="checkbox"/>					
Done something I later regretted	<input type="checkbox"/>					

14.

27. If you do not use alcohol, how often, if ever, you think the use of alcohol would lead to the following experiences:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Done something I later regretted	<input type="checkbox"/>					
Missed a class	<input type="checkbox"/>					
Performed poorly on a test or important project	<input type="checkbox"/>					
Been criticized by someone I know	<input type="checkbox"/>					
Endured threats of physical violence, or actual physical violence	<input type="checkbox"/>					
Been the victim of unwanted sexual intercourse	<input type="checkbox"/>					
Been hurt or injured	<input type="checkbox"/>					

15.

Social Learning and Substance Use

28. The following series of questions asks about experiences you have had while or after using marijuana. Please indicate below whether or not you have ever used marijuana so that you will be directed to the appropriate question.

- At some point in my life, I have used marijuana.
- I have never used marijuana.

16.

29. Please indicate how often, if ever, the use of marijuana has lead to each of the following experiences:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Been hurt or injured	<input type="checkbox"/>					
Performed poorly on a test or important project	<input type="checkbox"/>					
Endured threats of physical violence, or actual physical violence	<input type="checkbox"/>					
Missed a class	<input type="checkbox"/>					
Been criticized by someone I know	<input type="checkbox"/>					
Been the victim of unwanted sexual intercourse	<input type="checkbox"/>					
Done something I later regretted	<input type="checkbox"/>					

17.

30. If you do not use marijuana, please indicate how often, if ever, you think the use of marijuana would lead to the following experiences:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Endured threats of physical violence, or actual physical violence	<input type="checkbox"/>					
Performed poorly on a test or important project	<input type="checkbox"/>					
Been the victim of unwanted sexual intercourse	<input type="checkbox"/>					
Been hurt or injured	<input type="checkbox"/>					
Been criticized by someone I know	<input type="checkbox"/>					
Missed a class	<input type="checkbox"/>					
Done something I later regretted	<input type="checkbox"/>					

18.

31. The following series of questions asks about experiences you have had while or after using other drugs. Please indicate below whether or not you have ever used any other drugs so that you will be directed to the appropriate question.

- At some point in my life, I have used other drugs (including prescription drugs with no valid prescription)
- I have never used any other drugs.

Social Learning and Substance Use

19.

32. Please indicate how often, if ever, the use of other drugs has led to each of the following experiences:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Been criticized by someone I know	<input type="checkbox"/>					
Done something I later regretted	<input type="checkbox"/>					
Endured threats of physical violence, or actual physical violence	<input type="checkbox"/>					
Performed poorly on a test or important project	<input type="checkbox"/>					
Missed a class	<input type="checkbox"/>					
Been hurt or injured	<input type="checkbox"/>					
Been the victim of unwanted sexual intercourse	<input type="checkbox"/>					

20.

33. If you do not use other drugs, please indicate how often, if ever, you think the use of other drugs would lead to the following experiences:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Become the victim of unwanted sexual intercourse	<input type="checkbox"/>					
Miss a class	<input type="checkbox"/>					
Get hurt or injured	<input type="checkbox"/>					
Do something that I will later regret	<input type="checkbox"/>					
Be criticized by someone I know	<input type="checkbox"/>					
Perform poorly on a test or important project	<input type="checkbox"/>					
Endure threats of physical violence, or actual physical violence	<input type="checkbox"/>					

21.

34. Which statement best represents your own attitude about the following substance use:

	Strongly Disapprove	Disapprove	Neutral	Approve	Strongly Approve
Drinking alcohol	<input type="radio"/>				
Using marijuana	<input type="radio"/>				
Using other drugs	<input type="radio"/>				

22.

Social Learning and Substance Use

35. Which statement below do you feel best represents your friends' attitudes on substance use:

	Strongly Disapprove	Disapprove	Neutral	Approve	Strongly Approve
Drinking Alcohol	<input type="radio"/>				
Using Marijuana	<input type="radio"/>				
Using Other Drugs	<input type="radio"/>				

23.

36. Which statement below do you feel best represents the most common attitudes on substance use among students in general at UF?

	Strongly Disapprove	Disapprove	Neutral	Approve	Strongly Approve
Drinking Alcohol	<input type="radio"/>				
Using Marijuana	<input type="radio"/>				
Using Other Drugs	<input type="radio"/>				

24.

37. Have your friends ever told you they have:

	Yes	No
Smoked marijuana once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Smoked marijuana occasionally?	<input type="checkbox"/>	<input type="checkbox"/>
Smoked marijuana regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Tried Cocaine once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Done cocaine regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Tried LSD once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Done LSD regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Tried amphetamines once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Done amphetamines regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Tried club drugs once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Done club drugs regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Tried antidepressants once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Done antidepressants regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Tried prescription drugs once or twice (with no prescription)?	<input type="checkbox"/>	<input type="checkbox"/>
Done Prescription drugs regularly (with no prescription)?	<input type="checkbox"/>	<input type="checkbox"/>
Had one or two alcoholic drinks nearly every day?	<input type="checkbox"/>	<input type="checkbox"/>
Had four or five alcoholic drinks nearly every day?	<input type="checkbox"/>	<input type="checkbox"/>
Had five or more drinks in one setting?	<input type="checkbox"/>	<input type="checkbox"/>
Purchased alcohol while underage?	<input type="checkbox"/>	<input type="checkbox"/>
Taken steroids for body building or improved athletic performance?	<input type="checkbox"/>	<input type="checkbox"/>

25.

Social Learning and Substance Use

38. Have you ever directly observed your friends:

	Yes	No
Smoking marijuana once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Smoking marijuana occasionally?	<input type="checkbox"/>	<input type="checkbox"/>
Smoking marijuana regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Trying Cocaine once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Doing cocaine regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Trying LSD once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Doing LSD regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Trying amphetamines once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Doing amphetamines regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Trying club drugs once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Doing club drugs regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Trying antidepressants once or twice?	<input type="checkbox"/>	<input type="checkbox"/>
Doing antidepressants regularly?	<input type="checkbox"/>	<input type="checkbox"/>
Trying prescription drugs once or twice (with no prescription)?	<input type="checkbox"/>	<input type="checkbox"/>
Doing Prescription drugs regularly (with no prescription)?	<input type="checkbox"/>	<input type="checkbox"/>
Having one or two alcoholic drinks nearly every day?	<input type="checkbox"/>	<input type="checkbox"/>
Having four or five alcoholic drinks nearly every day?	<input type="checkbox"/>	<input type="checkbox"/>
Having five or more drinks in one setting?	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing alcohol while underage?	<input type="checkbox"/>	<input type="checkbox"/>
Taking steroids for body building or improved athletic performance?	<input type="checkbox"/>	<input type="checkbox"/>

26.

39. From what you have observed, or know about from your friend's, have the consequences of their substance use been overall:

	My friends don't use this substance	More bad than good	About the same for good/bad	More good than bad
Use of alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of other drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27.

40. From what you have experienced, have the consequences of your substance use been overall:

	I don't use this substance	More bad than good	About the same for good/bad	More good than bad
Use of alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of other drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Social Learning and Substance Use

28.

41. How do you think your good friends would react to your: (if you do not use the following substances, how do you anticipate your good friends would react)

	Strongly Negative	Negative	More or less neutral	Positive	Strongly Positive
Smoking marijuana once or twice	<input type="radio"/>				
Smoking marijuana occasionally	<input type="radio"/>				
Smoking marijuana regularly	<input type="radio"/>				
Trying cocaine once or twice	<input type="radio"/>				
Doing cocaine regularly	<input type="radio"/>				
Trying club drugs once or twice	<input type="radio"/>				
Doing club drugs regularly	<input type="radio"/>				
Trying LSD once or twice	<input type="radio"/>				
Doing LSD regularly	<input type="radio"/>				
Trying amphetamines once or twice	<input type="radio"/>				
Doing amphetamines regularly	<input type="radio"/>				
Trying antidepressants once or twice	<input type="radio"/>				
Doing antidepressants regularly	<input type="radio"/>				
Trying prescription drugs once or twice (without a prescription)	<input type="radio"/>				
Doing prescription drugs regularly (without a prescription)	<input type="radio"/>				
Having one or two alcoholic drinks nearly every day	<input type="radio"/>				
Having four or five alcoholic drinks nearly every day	<input type="radio"/>				
Having five or more drinks in one setting	<input type="radio"/>				
Taking steroids for body building or improved athletic performance	<input type="radio"/>				

29.

42. Do you think alcohol, marijuana, or other drugs have any of the following effects?

	Alcohol	Marijuana	Other Drugs
It is an ice breaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It enhances social activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes it easier to deal with stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It facilitates a connection with peers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It allows people to have more fun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It makes me sexier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It facilitates sexual opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Social Learning and Substance Use

30.

43. Over the last 12 months, how much, if at all, has your use of each substance changed?

	I have not used the substance	It has decreased	It has not changed	It has increased
Alcohol use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marijuana use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other drug use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

31.

44. Have you had sexual intercourse within the last year?

Yes No

32.

45. The last time you had sexual intercourse did you:

	Yes	No
Drink Alcohol	<input type="checkbox"/>	<input type="checkbox"/>
Use Marijuana	<input type="checkbox"/>	<input type="checkbox"/>
Use Other Drugs	<input type="checkbox"/>	<input type="checkbox"/>

33.

Social Learning and Substance Use

46. By partaking in the following activities, how much do you think people risk harming themselves? (physically, mentally, spiritually, emotionally)

	No risk	Slight risk	Moderate risk	Great risk
Smoking marijuana once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smoking marijuana occasionally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smoking marijuana regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trying cocaine once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing cocaine regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trying club drugs once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing club drugs regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trying LSD once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing LSD regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trying amphetamines once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing amphetamines regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trying antidepressants once or twice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing antidepressants regularly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trying prescription drugs once or twice (without a prescription)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing prescription drugs regularly (without a prescription)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having one or two alcoholic drinks nearly every day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having four or five alcoholic drinks nearly every day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having five or more drinks in one setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking steroids for body building or improved athletic performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consuming alcohol prior to being sexually active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using marijuana prior to being sexually active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using other drugs prior to being sexually active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regularly engaging in unprotected sexual activity with a single partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regularly engaging in unprotected sexual activity with multiple partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34.

Social Learning and Substance Use

47. Over the last 30 days, how often have you engaged in any of the following behaviors?

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Bragged about your alcohol use	<input type="checkbox"/>					
Bragged about your marijuana use	<input type="checkbox"/>					
Bragged about your other drug use	<input type="checkbox"/>					
Heard someone else brag about their alcohol use	<input type="checkbox"/>					
Heard someone else brag about their marijuana use	<input type="checkbox"/>					
Heard someone else brag about their other drug use	<input type="checkbox"/>					
Refused an offer of alcohol	<input type="checkbox"/>					
Refused an offer of marijuana	<input type="checkbox"/>					
Refused an offer of other drugs	<input type="checkbox"/>					
Carried a weapon (not including hunting or for your profession)	<input type="checkbox"/>					
Experienced peer pressure to drink	<input type="checkbox"/>					
Experienced peer pressure to use marijuana	<input type="checkbox"/>					
Experienced peer pressure to use other drugs	<input type="checkbox"/>					
held a drink to have people stop bothering you about why you were not drinking	<input type="checkbox"/>					
Thought a sexual partner was unattractive because he/she was drunk	<input type="checkbox"/>					
Told a sexual partner that he/she was unattractive because they were drunk	<input type="checkbox"/>					

35.

48. For the following situations, please answer yes or no if other students' substance use has interfered with your life on or around campus.

	Alcohol	Marijuana	Other Drugs
Interrupts your studying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Makes you feel unsafe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Messes up your physical living space (cleanliness, neatness, organization)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adversely affects your involvement on an athletic team or in other organized groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prevents you from enjoying events (concerts, sports, social activities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interferes in a way not listed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It does not interfere with my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36.

Social Learning and Substance Use

49. Please indicate how often you have ever experienced the following:

	Never	Once	Twice	3-5 times	6-9 times	10 or more times
Been in trouble with the police, campus authorities, or residence hall authorities?	<input type="checkbox"/>					
Damaged property?	<input type="checkbox"/>					
Got in a physical altercation?	<input type="checkbox"/>					
Driven a car while under the influence?	<input type="checkbox"/>					
Missed a class?	<input type="checkbox"/>					
Stolen things of small value, less than \$50.00?	<input type="checkbox"/>					
Stolen things worth more than \$50.00?	<input type="checkbox"/>					
Bought stolen goods worth less than \$50.00?	<input type="checkbox"/>					
Bought stolen goods worth more than \$50.00?	<input type="checkbox"/>					
Pawned or sold stolen goods worth less than \$50.00?	<input type="checkbox"/>					
Pawned or sold stolen goods worth more than \$50.00?	<input type="checkbox"/>					
Got into a fight serious enough to injure someone?	<input type="checkbox"/>					
Cheated on an exam or assignment?	<input type="checkbox"/>					
Sold illegal drugs?	<input type="checkbox"/>					
Made unwelcome sexual advances toward someone?	<input type="checkbox"/>					
Used a substance to obtain sex?	<input type="checkbox"/>					

37.

Social Learning and Substance Use

50. Please indicate how many of your friends have ever experienced the following:

	None of my friends	A couple of my friends (1-2)	A few of my friends (3-4)	Half of my friends	A majority of my friends	All of my friends
Been in trouble with the police, campus authorities, or residence hall authorities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Damaged property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Got in a physical altercation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driven a car while under the influence?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missed a class?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stolen things of small value, less than \$50.00?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stolen things worth more than \$50.00?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bought stolen goods worth less than \$50.00?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bought stolen goods worth more than \$50.00?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pawned or sold stolen goods worth less than \$50.00?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pawned or sold stolen goods worth more than \$50.00?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Got into a fight serious enough to injure someone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cheated on an exam or assignment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sold illegal drugs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Made unwelcome sexual advances toward someone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used a substance to obtain sex?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

38.

51. In the following series of questions, you will be asked in what ways you have obtained alcohol while underage. If you have never obtained alcohol while underage (if you are underage now, or drank back when you were underage), please indicate so below. If you answer no, you will be automatically redirected to the next series of questions

- At some point in time, I drank while under the legal drinking age
- I never drank while under the legal drinking age

39.

Social Learning and Substance Use

52. How often, if ever, have you used the following ways to obtain alcohol while under the legal drinking age. If you are 21 now, think back to when you were underage.

	Never	Once or Twice	Sometimes	Often	All the time
I have used a fake ID to obtain alcohol	<input type="checkbox"/>				
I have borrowed an ID that belongs to someone of age, and used it to obtain alcohol	<input type="checkbox"/>				
I have a friend that is 21 or older buy it for me	<input type="checkbox"/>				
I have a relative that is 21 or older buy it for me	<input type="checkbox"/>				
I have asked someone I don't know to buy it for me	<input type="checkbox"/>				
I have paid someone I don't know to buy it for me	<input type="checkbox"/>				
I asked a student I am not really associated with to buy it for me	<input type="checkbox"/>				
I have paid a student I am not really associated with to buy it for me	<input type="checkbox"/>				
I have attempted to get it without an ID	<input type="checkbox"/>				
I have gone to parties where I know alcohol will be present	<input type="checkbox"/>				
Someone I don't know has bought me a drink at a bar	<input type="checkbox"/>				

40.

53. Did any of the following occur when you used a fake ID or someone else's ID to obtain alcohol?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

41.

Social Learning and Substance Use

54. Did any of the following occur when you had a friend get you alcohol?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

42.

55. Did any of the following occur when you had a relative get you alcohol?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

43.

Social Learning and Substance Use

56. Did any of the following occur when you had a stranger get you alcohol?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

44.

57. Did any of the following occur when you had a student you don't really know get you alcohol?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

45.

Social Learning and Substance Use

58. Did any of the following occur when got alcohol at a party?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

46.

59. Did any of the following occur you tried to obtain alcohol without an ID?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

47.

Social Learning and Substance Use

60. Did any of the following occur you got alcohol from someone at a bar?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

48.

61. In the following series of questions, you will be asked in what ways you have obtained marijuana. If you have never used marijuana, please indicate so below. If you answer no, you will be automatically redirected to the next series of questions.

- At some point in time, I have used marijuana
 I have never used marijuana

49.

62. How often, if ever, have you used the following ways to obtain marijuana?

	Never	Once or Twice	Sometimes	Often	All the time
I know a dealer, and buy from them	<input type="checkbox"/>				
My friend gives them to me	<input type="checkbox"/>				
I buy them from a friend	<input type="checkbox"/>				
I buy them from someone a friend introduced me to	<input type="checkbox"/>				
I buy them from someone I don't know	<input type="checkbox"/>				
I buy them from a student I am not really associated with	<input type="checkbox"/>				
A relative gives them to me	<input type="checkbox"/>				
I buy them from a relative	<input type="checkbox"/>				
I have attempted to get other drugs without a contact	<input type="checkbox"/>				
I have gone to parties where I know other drugs will be present	<input type="checkbox"/>				

50.

Social Learning and Substance Use

63. Did any of the following occur when you got marijuana from a dealer?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

51.

64. Did any of the following occur when you got marijuana from a friend?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

52.

Social Learning and Substance Use

65. Did any of the following occur when you got marijuana from a relative?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

53.

66. Did any of the following occur when you got marijuana from a stranger?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

54.

Social Learning and Substance Use

67. Did any of the following occur when you got marijuana from a student you didn't really know?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

55.

68. Did any of the following occur when you got marijuana at a party?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

56.

Social Learning and Substance Use

69. Did any of the following occur when you tried to get marijuana without a contact?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

57.

70. In the following series of questions, you will be asked in what ways you have other drugs. If you have never used any other drugs, please indicate so below. If you answer no, you will be automatically redirected to the next series of questions.

- At some point in time, I have used any type of other drugs
 I have never used any type of other drugs

58.

71. How often, if ever, have you used the following ways to obtain other drugs?

	Never	Once or Twice	Sometimes	Often	All the time
I know a dealer, and buy from them	<input type="checkbox"/>				
My friend gives them to me	<input type="checkbox"/>				
I buy them from a friend	<input type="checkbox"/>				
I buy them from someone a friend introduced me to	<input type="checkbox"/>				
I buy them from someone I don't know	<input type="checkbox"/>				
I buy them from a student I am not really associated with	<input type="checkbox"/>				
A relative gives them to me	<input type="checkbox"/>				
I buy them from a relative	<input type="checkbox"/>				
I have attempted to get other drugs without a contact	<input type="checkbox"/>				
I have gone to parties where I know other drugs will be present	<input type="checkbox"/>				

Social Learning and Substance Use

59.

72. Did any of the following occur when you got other drugs from a dealer?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

60.

73. Did any of the following occur when you got other drugs from a friend?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

61.

Social Learning and Substance Use

74. Did any of the following occur when you got other drugs from a relative?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

62.

75. Did any of the following occur when you got other drugs from a stranger?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

63.

Social Learning and Substance Use

76. Did any of the following occur when you got other drugs from a student you didn't really know?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

64.

77. Did any of the following occur when you got other drugs from a party?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

65.

Social Learning and Substance Use

78. Did any of the following occur when you tried to get other drugs without a contact?

	Yes	No	N/A
You got in trouble with the police or campus authorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You damaged property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a physical altercation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You stole things worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You drove a car under the influence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You bought stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth less than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You pawned or sold stolen goods worth more than \$50.00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You got into a fight serious enough to injure someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You sold illegal drugs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You made unwelcome sexual advances toward someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
You used a substance to obtain sex from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

66.

79. Which of the following do you think is a central part of social life on UF campus with the following groups?

	Alcohol	Marijuana	Other Drugs
Male students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Female students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alumni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Athletes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fraternities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sororities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

80. Campus environment

	Yes	No
Does the social atmosphere on this campus promote alcohol use?	<input type="checkbox"/>	<input type="checkbox"/>
Does the social atmosphere on this campus promote marijuana use?	<input type="checkbox"/>	<input type="checkbox"/>
Does the social atmosphere on this campus promote other drug use?	<input type="checkbox"/>	<input type="checkbox"/>

81. In comparison to other school campuses, the use of substance on this campus is:

	Higher than other campuses	About the same	Lower than other campuses
Alcohol use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marijuana use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other drug use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

67.

Social Learning and Substance Use

82. Considering the last year, what extent have you been involved with any of the following activities?

	Never	Attended meetings/events	Active involvement	Leadership position
Intercollegiate Athletics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intramural or club sports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social fraternities or sororities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Religious and interfaith groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minority and ethnic organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Political and social action groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Music and other performing arts groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student newspaper, radio, tv, magazine, media	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
International and language groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

68.

83. In your opinion, to what extent are students on this campus concerned about problems associated with:

	Not at all	Slightly	Neutral	Somewhat	Very Much
Alcohol use	<input type="radio"/>				
Marijuana use	<input type="radio"/>				
Drug use	<input type="radio"/>				
Campus vandalism	<input type="radio"/>				
Sexual assault	<input type="radio"/>				
Assaults (non-sexual)	<input type="radio"/>				
Harassment because of gender	<input type="radio"/>				
Harassment because of sexual orientation	<input type="radio"/>				
Harassment because of race or ethnicity	<input type="radio"/>				
Harassment because of religion	<input type="radio"/>				
Harassment because of politics	<input type="radio"/>				

69.

84. Which members of your family, if any, have ever had problems with alcohol? (mark all that apply)

- | | | |
|-------------------------------------|--|-----------------------------------|
| <input type="checkbox"/> Mother | <input type="checkbox"/> sibling | <input type="checkbox"/> Spouse |
| <input type="checkbox"/> Father | <input type="checkbox"/> Maternal grandparents | <input type="checkbox"/> Children |
| <input type="checkbox"/> Stepmother | <input type="checkbox"/> Paternal grandparents | <input type="checkbox"/> Other |
| <input type="checkbox"/> Stepfather | <input type="checkbox"/> Aunts/Uncles | <input type="checkbox"/> None |

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85. Which members of your family, if any, have ever had problems with marijuana? (mark all that apply)

- | | | |
|-------------------------------------|--|-----------------------------------|
| <input type="checkbox"/> Mother | <input type="checkbox"/> sibling | <input type="checkbox"/> Spouse |
| <input type="checkbox"/> Father | <input type="checkbox"/> Maternal grandparents | <input type="checkbox"/> Children |
| <input type="checkbox"/> Stepmother | <input type="checkbox"/> Paternal grandparents | <input type="checkbox"/> Other |
| <input type="checkbox"/> Stepfather | <input type="checkbox"/> Aunts/Uncles | <input type="checkbox"/> None |

86. Which members of your family, if any, have ever had problems with other drugs? (mark all that apply)

- | | | |
|-------------------------------------|--|-----------------------------------|
| <input type="checkbox"/> Mother | <input type="checkbox"/> sibling | <input type="checkbox"/> Spouse |
| <input type="checkbox"/> Father | <input type="checkbox"/> Maternal grandparents | <input type="checkbox"/> Children |
| <input type="checkbox"/> Stepmother | <input type="checkbox"/> Paternal grandparents | <input type="checkbox"/> Other |
| <input type="checkbox"/> Stepfather | <input type="checkbox"/> Aunts/Uncles | <input type="checkbox"/> None |

70.

87. UF's stance on drugs and alcohol:

	Yes	No	Unsure
Does UF have alcohol policies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does UF have drug policies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does UF have an alcohol prevention program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does UF have a drug prevention program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is UF concerned about alcohol use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is UF concerned about drug use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

88. Are you actively involved in efforts to prevent:

	Yes	No
Alcohol problems on campus?	<input type="checkbox"/>	<input type="checkbox"/>
Drug problems on campus?	<input type="checkbox"/>	<input type="checkbox"/>

71.

89. Do you typically volunteer time to help others on campus?

- Yes No

72.

90. Approximately how many hours a month do you volunteer?

Social Learning and Substance Use

91. What is your principal job as a volunteer?

73.

Survey Complete! Thank you for your participation!

Debriefing form

The purpose of this research is to build on prior research completed in the area of underage drinking. In previous research it was found that underage drinkers often times use strangers and/or students they do not really know, who are of the legal drinking age to get alcohol for them. This method of obtaining alcohol is termed "black market" in the literature.

To expand on this research, we predicted that underage drinkers who utilize these black market ties will be score higher on other types of deviance, including other black market deviance, drug use, poor academic performance, criminal behaviors, and so on.

We are specifically investigating these black market ties, and the relationships they have with deviance using the variables from Ronald Akers', Ph.D., social learning theory. Social learning theory encompasses four variables that explain how behavior, conforming or deviant, is learned and maintained: differential associations, definitions, differential reinforcement and imitation. Differential associations have to do with the direct and indirect association with others who model different types of behavior. These associations "provide the major social contexts in which all the mechanisms of social learning operate." (Akers and Sellers, 2004). Definitions, Akers contends, are the meanings, beliefs, and attitudes one has toward a particular behavior. The more positive the definition of the behavior, the more likely the behavior is to occur – be it conforming or deviant. Differential reinforcement is the balance of perceived rewards and punishments consequential to a behavior. The more rewarding one views the behavior the more likely they are to partake in it and repeat it in the future, thus it works both to create or dissuade, and maintain or desist behavior. Imitation is most important in the acquisition of novel behavior, but continues to have a minute effect once a behavior is learned. It is exactly how it sounds; one imitates or models the behavior they observe another act out. These four variables are micro level variables, meaning they apply specifically to the individual or a small group of individuals.

Measures of all four social learning variables were included in the survey that you completed. Researchers will code your answers into numerical values, and use statistical analysis to determine if the relationship predicted, drinkers who use black market ties to obtain in alcohol will be higher in other forms of deviance, is significant.

If you wish to have your data not included in the study, you are free to withdraw your data from the sample, and it will be destroyed immediately. So you know your data is completely confidential no identifying information was asked in the survey. Your results are confidential to the researchers, and all results are published anonymously.

APPENDIX F
CORRELATION MATRICES

Correlation Matrix: Model 1
(obs=302)

	alchblkrt	gender	race	alcreward	alcpunish	freactr	attitdem	riskbehav	familyrc	deviance	fbayunive
alchblkrt	1.0000										
gender	0.0558	1.0000									
race	0.0046	0.0511	1.0000								
alcreward	0.2548	0.1043	0.2108	1.0000							
alcpunish	0.3425	0.0659	0.1828	0.2909	1.0000						
freactr	0.2077	0.1308	0.1606	0.2329	0.2568	1.0000					
attitdem	0.2460	0.1238	0.1751	0.3033	0.3426	0.2732	1.0000				
riskbehav	-0.1024	-0.2485	-0.1605	-0.2305	-0.2677	-0.3963	-0.2506	1.0000			
familyrc	-0.0056	-0.0349	0.0175	0.0458	0.1275	-0.0209	-0.0413	0.0308	1.0000		
deviance	0.1713	-0.0234	0.1818	0.3027	0.3699	0.2617	0.1986	-0.2353	0.0556	1.0000	
fbayunive	0.0876	-0.1268	0.2141	0.2978	0.2678	0.2314	0.1872	-0.1492	0.0008	0.2654	1.0000
fbaysalc	0.0864	-0.0463	0.2247	0.2603	0.2323	0.2253	0.1514	-0.2201	-0.0562	0.2070	0.2610
imitation	0.1570	0.0418	0.1850	0.2658	0.3067	0.2441	0.1901	-0.1947	0.0176	0.2428	0.4824
imitation	0.3556	-0.0172	0.1673	0.3283	0.5287	0.2802	0.2559	-0.1791	0.1092	0.4160	0.3220
fobalsc imitation imitation											
fobalsc	1.0000										
imitation	0.5245	1.0000									
imitation	0.4418	0.4153	1.0000								

Correlation Matrix: Models 2-3

(obs=135)

	marijblkrt	gender	race	alchblkrt	marijund	marijunc	freactru	riskmacy	attitdem	familyrc	deviance
marijblkrt	1.0000										
gender	0.1142	1.0000									
race	-0.0103	0.0120	1.0000								
alchblkrt	0.2981	0.0983	-0.0761	1.0000							
marijunc	0.1959	0.2113	-0.0009	0.1287	1.0000						
marijunc	0.2059	0.1202	0.0431	0.3410	0.1178	1.0000					
freactr	0.2930	0.0284	0.1513	0.1015	0.2384	0.0295	1.0000				
attitdem	-0.3548	-0.0602	-0.0282	-0.1504	-0.4020	-0.0406	-0.4278	1.0000			
attitdem	0.4513	0.0714	0.0918	0.2000	0.4559	0.0977	0.5291	-0.5426	1.0000		
familyrc	-0.0744	-0.1901	0.0336	0.0232	-0.0496	-0.0468	0.0667	0.1108	-0.0115	1.0000	
deviance	0.1507	-0.1104	0.1216	0.0875	0.0029	0.2198	0.0561	-0.1515	0.0750	0.0199	1.0000
imitation	0.4534	-0.0901	-0.0121	0.3146	0.1864	0.3256	0.2336	-0.2297	0.3162	0.0967	0.3551
imitation											
imitation	1.0000										

Correlation Matrix: Models 4-5

(obs=281)

	usedmariju	gender	race	alcoholint	alcoholmed	alcoholph	freetract	riskdev	attitutdev	familyrc	deviancex
usedmariju	1.0000										
gender	-0.0189	1.0000									
race	0.1093	0.0557	1.0000								
alcoholint	0.1290	0.0363	0.0196	1.0000							
alcoholmed	0.2574	0.1072	0.0915	0.1685	1.0000						
alcoholph	-0.4880	0.0286	-0.0086	0.0212	-0.0869	1.0000					
freetract	0.4516	0.0132	0.1491	0.1277	0.3219	-0.2578	1.0000				
riskdev	-0.3891	-0.0833	-0.0991	-0.1081	-0.4013	0.3180	-0.5003	1.0000			
attitutdev	0.5526	0.0810	0.0391	0.1816	0.4807	-0.3251	0.5808	-0.5906	1.0000		
familyrc	0.1581	-0.0940	0.0094	0.0139	0.0449	-0.0594	0.1218	-0.0387	0.1096	1.0000	
deviancex	0.2130	-0.0498	0.1728	0.1509	0.2346	0.0593	0.2334	-0.2161	0.2227	0.0478	1.0000
imitation	0.0388	0.0100	0.0162	0.0551	-0.0118	-0.0813	-0.0088	-0.0390	0.0139	0.0729	-0.0138
imitationrc	0.4430	-0.0361	0.1548	0.3744	0.2846	-0.0799	0.3811	-0.3182	0.4192	0.0954	0.4024
imitation imitationrc											
imitation	1.0000										
imitationrc	0.1172	1.0000									

Correlation Matrix: Models 6-7

(obs=295)

	gender	gender	race	alcoholint	alcoholmed	alcoholph	freetract	riskdev	attitutdev	familyrc	deviancex
gender	1.0000										
gender	0.1450	1.0000									
race	0.0413	0.0596	1.0000								
alcoholint	0.1973	0.0500	0.0107	1.0000							
alcoholmed	0.2781	0.1061	0.2135	0.2412	1.0000						
alcoholph	0.5258	0.0812	0.1823	0.3412	0.3876	1.0000					
freetract	0.1590	-0.0061	0.0573	0.1777	0.0922	0.1172	1.0000				
riskdev	-0.3155	-0.2181	-0.1237	-0.0926	-0.2778	-0.2783	-0.1552	1.0000			
attitutdev	0.2203	0.1253	0.1765	0.2554	0.3008	0.3435	0.0407	-0.2745	1.0000		
familyrc	0.0667	-0.0324	0.0265	-0.0141	0.0447	0.1348	-0.0008	-0.0264	-0.0389	1.0000	
deviancex	0.5307	-0.0086	0.1889	0.1845	0.3224	0.3945	0.1855	-0.2272	0.2101	0.0658	1.0000
imitation	0.3958	-0.0450	0.1606	0.3665	0.3413	0.5179	0.2621	-0.2516	0.2645	0.1161	0.4480
imitationrc	0.1613	0.0185	0.1720	0.1636	0.2616	0.3037	0.1294	-0.3033	0.1741	0.0190	0.2592
imitation imitationrc											
imitation	1.0000										
imitationrc	0.4409	1.0000									

LIST OF REFERENCES

- Abbey, A. (1991). Acquaintance rape and alcohol consumption on college campuses: are they linked? *Journal of American College Health*, 39(Jan), 165-169.
- Agnew, R. (1991). The interactive effects of peer variables on delinquency. *Criminology*, 29(1), 47-72.
- Akers, R. L. (1973). *Deviant behavior; A social learning approach* (1st ed.). Belmont, CA: Wadsworth.
- Akers, R. L. (1985). *Deviant behavior: A social learning approach* (3rd ed.). Belmont, CA: Wadsworth.
- Akers, R. L. (1994). *Criminological theories: Introduction and evaluation* (1st ed.). Los Angeles, CA: Roxbury.
- Akers, R. L. (1997). *Criminological theories: Introduction and evaluation* (2nd ed.). Los Angeles, CA: Roxbury.
- Akers, R. L. (1998). *Social learning and social structure: A general theory of crime and deviance*. Boston: Northeastern University Press.
- Akers, R. L. (2000). *Criminological theories: Introduction, evaluation, and application* (3rd ed.). Los Angeles, CA: Roxbury.
- Akers, R. L., & Sellers, C. S. (2004). *Criminological theories: Introduction, evaluation, and application* (4th ed.). Los Angeles, CA: Roxbury.
- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L., & Radosevich, M. (1996). *Social learning and deviant behavior: A specific test of a general theory (from exploring delinquency: Causes and control, p. 120-127, 1996, Dean G. Rojek and Gary F. Jensen, eds. -- see NCJ- 165981)*. United States:
- Akers, R. L. (1977). *Deviant behaviors: A social learning approach* (2nd ed.). Belmont, CA: Wadsworth Press.
- Akers, R. L., & Jensen, G. F. [. (2003). Social learning theory and the explanation of crime: A guide for the new century.
- Akers, R. L., Krohn, M. D., Lanza-Kaduce, L., & Radosevich, M. (1979). Social learning and deviant behavior: A specific test of a general theory. *American Sociological Review*, 44(4), 636-655.

- Bachman, J.G., Johnston, L.D. & O'Malley, P.M. (1984). Drug use among young adults: The impacts of Role status and social environments. *Journal of Personality and Social Psychology*: 47, 629-645.
- Bandura, A. (1969). *Principles of behavior modification*. New York: Holt, Rinehart and Winston.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, N.J.: Prentice-Hall.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, N.J.: Prentice-Hall.
- Beerman, K. A., Smith, M. M., & Hall, R. L. (1988). Predictors of recidivism in DUIIs. *Journal of Studies on Alcohol*, 49(Sep), 443-449.
- Boeringer, S. B., Shehan, C. L., & Akers, R. L. (1991). Social contexts and social learning in sexual coercion and aggression: Assessing the contribution of fraternity membership. *Family Relations*, 40(1), 58-64.
- Brank, E., Lane, J., Turner, S., Fain, T., & Sehgal, A. (2008). An experimental juvenile probation program: Effects on parent and peer relationships. *Crime & Delinquency*, 54(2), 193-224.
- Braukmann, C. J., Fixsen, D. L., Phillips, E. L., & Wolf, M. M. (1975). Behavioral approaches to treatment in the crime and delinquency field. *Criminology*, 13(3), 299-331.
- Brezina, T., & Piquero, A. R. (2003). Exploring the relationship between social and non-social reinforcement in the context of social learning theory. *Social learning theory and the explanation of crime* (pp. 265-288). New Brunswick, NJ: Transaction.
- Burgess, R. L., & Akers, R. L. (1966). A differential association-reinforcement theory of criminal behavior. *Social Problems*, 14, 128-147.
- Caetano, R., & Herd, D. (1988). Drinking in different social contexts among white, black and hispanic men. *Yale J. Biol. Med.*, 61, 243-258.
- Casswell, S., Zhang, J. F., & Wyllie, A. (1993). The importance of amount and location of drinking for the experience of alcohol-related problems. *Addiction*, 88(11), 1527-1534.
- Cohen Albert K. (1999). Delinquent boys. In Francis T. Cullen and Robert Agnew (Ed.), ()
- Collins, S. (2004). Young people, alcohol and supervision orders. *Youth Justice*, 3(3), 169-182.

- Connolly, G. M., & Silva, P. A. (1992). Drinking context and other influences on the drinking of 15-year-old new zealanders. *British Journal of Addiction*, 87(Jul), 1029-1036.
- Cuellar, J., & Curry, T. R. (2007). The prevalence and comorbidity between delinquency, drug abuse, suicide attempts, physical and sexual abuse, and self-mutilation among delinquent hispanic females. *Hispanic Journal of Behavioral Sciences*, 29(1), 68-82.
- Dishion, T. J., McCord, J., & Poulin, F. (1999). When interventions harm: Peer groups and problem behavior. *American Psychologist*, 54(9), 755-764.
- Donnermeyer, J. F., & Park, D. S. (1995). Alcohol use among rural adolescents: Predictive and situational factors. *International Journal of the Addictions*, 30(4), 459-479.
- Durkin, K. F., et al. (1996). College students' use of fraudulent identification to obtain alcohol: An exploratory analysis. *Journal of Alcohol and Drug Education*, 41(2), 92-104.
- Durkin, K. F., Wolfe, T. W., & Clark, G. A. (2005). College students and binge drinking: An evaluation of social learning theory. *Sociological Spectrum*, 25(3), 255-272.
- Elliot, D. S., Ageton, S. S., & Canter, R. J. (1979). An integrated theoretical perspective on delinquent behavior. *Journal of Research in Crime and Delinquency*, 16(1), 3-27.
- Engs, R. C., & Hanson, D. J. (1985). The drinking patterns and problems of college students. *Journal of Alcohol and Drug Education*, 31(3), 65-83.
- Gibson, C. Schreck, C. & Miller, M. (2004) Binge drinking and negative alcohol related behaviors: A test of self-control theory. *Journal of Criminal Justice*: 32, 411-420.
- Gledhill-Hoyt, J., Lee, H., Strote, J., & Wechsler, H. (2000). Increased use of marijuana and other illicit drugs at US colleges in the 1990s: Results of three national surveys. *Addiction*, 95(11), 1655-1667.
- Goldsmith, H. (1988). Illicit alcohol procurement by underage persons: Prevention implication and strategies for melioration. *Journal of Offender Counseling, Services and Rehabilitation*: 13, 133-162.
- Haberman, S. E. (1994). A survey of alcohol and other drug use practices among college students. *Journal of Alcohol & Drug Education*, 39(2), 85
- Harford, T. C. (1983). A contextual analysis of drinking events. *International Journal of Addiction*, (18), 825-834.

- Harford, T. C., & In Mayer et al. 1996. (1975). Policy implications of a contextual analysis of drinking. *21 International Instituted on the Prevention and Treatment of Alcoholism*, Helsinki, Finland.
- Hingson, R. W., Heeren, T., Zakocs, R. C., Kopstein, A., & Wechsler, H. (2002). Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18-24. *Journal of Studies on Alcohol*, 63(2), 136-144.
- Hood, M. M. (1996). Underage drinking, peer influence, and escalation. *The International Journal of Sociology and Social Policy*, 16(5-6), 73-87.
- Jenson, R. (1982). Severity of delinquent offense and alcohol involvement among residents from a rural midwestern juvenile correctional facility. *Juvenile and Family Court Journal*, 33(4), 63-66.
- Johnston, L. D., Bachman, J. G., & O'Malley, P. M. (1992). Drug use, drinking, and smoking: National survey results from high school, college, and young adult populations.
- Johnston, L. D., Bachman, J. G., & O'Malley, P. M. (1992). Drug use, drinking, and smoking: National survey results from high school, college, and young adult populations.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2002). *Monitoring the future national survey results on drug use, 1975-2001. volume 1: Secondary school students, 2001* No. NIH-02-5106) Monitoring the Future, Institute for Social Research, University of Michigan; Web site: <http://monitoringthefuture.org/>.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2008). *Monitoring the future: National results on adolescent drug use. overview of key findings, 2007* National Institute on Drug Abuse. Web site: <http://ncadistore.samhsa.gov/catalogNIDA/>.
- Jones-Webb, R., Toomey, T., Miner, K., Wagenaar, A.C., Wolfson, M. & Poon, R. (1997). Why and in what context adolescents obtain alcohol from adults: A pilot study. *Substance Use and Misuse*: 32, 219-228
- Klepp, K.I., Schmid, L.A. & Murray, D.M. (1996). Effects of the increased minimum drinking age law on drinking and driving behavior among adolescents. *Addiction*: 4, 237-244
- Koss, M. P., & Dinero, T. E. (1989). Discriminant analysis of risk factors for sexual victimization among a national sample of college women. *Journal of Consulting and Clinical Psychology*, 57(2), 242-250.

- Lanza Kaduce,L., & Richards, P. (1989). Raising the minimum drinking age: Some unintended consequences of good intentions. *Justice Quarterly*, 6(2), 247-262.
- Lanza-Kaduce, L., & Capece, M. (2003). Social structure-social learning (SSSL) and binge drinking: A specific test of an integrated general theory. *Social learning theory and the explanation of crime* (pp. 179-196). New Brunswick, NJ: Transaction.
- Lanza-Kaduce, L., Capece, M. & Alden, H. (2006). Liquor is Quicker: Gender and social learning among college students. *Criminal Justice Policy Review*: 17, 127-143.
- Lastovicka, J. L., Murry, J. P., Jr., Joachimsthaler, E. A., Bhalla, G., & Scheurich, J. (1987). A lifestyle typology to model young male drinking and driving. *The Journal of Consumer Research*, 14(2), 257-263.
- Longshore, D., Chang, E., & Messina, N. (2005). Self-control and social bonds: A combined control perspective on juvenile offending. *Journal of Quantitative Criminology*, 21(4), 419.
- Mayer, R. R., Forster, J. L., Murray, D. M., & Wagenaar, A. C. (1998). Social settings and situations of underage drinking. *Journal of Studies on Alcohol*, 59(2), 207-215.
- Mayhew, D. R., Beirness, D. J., & Simpson, H. M. (2000). *Trends in drinking-driving fatalities in canada - progress continues*. Stockholm, Sweden: Retrieved from Alcohol, Drugs and Traffic Safety database.
- McCabe, S. E., Schulenberg, J. E., Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Kloska, D. D. (2005). Selection and socialization effects of fraternities and sororities on US college student substance use: A multi-cohort national longitudinal study. *Addiction*, 100(4), 512-524.
- McFadden, M. & Wechsler, H. (1979). Minimum drinking age laws and teenage drinking. *Psychiatric Opinion*: 16, 26-28.
- Miller, B. A., Furr-Holden, D., Voas, R. B., & Bright, K. (2005). Emerging adults' substance use and risky behaviors in club settings. *Journal of Drug Issues*, 35(2), 357-378.
- Muehlenhard, C. L., & Linton, M. A. (1987). Date rape and sexual aggression in dating situations. *Journal of Counseling Psychology*, 34(2), 186-197.
- Newcomb, M. D., & McGee, L. (1989). Adolescent alcohol use and other delinquent behaviors: A one-year longitudinal analysis controlling for sensation seeking. *Criminal Justice and Behavior*, 16(Sep), 345-369.

- Nickerson, C., & Strategic Planning & Program Research. (2001). In Prepared for the AADAC Commission Board (Ed.), *The legal drinking age A review of the research literature* (http://www.aadac.com/documents/position_legal_drinking_age_review.pdf ed.)
- O'Hare, T. M. (1990). Drinking in college: Consumption patterns, problems, sex differences, and legal drinking age. *Journal of Studies on Alcohol*, 51(6), 536-541.
- O'Malley, P. M., & Johnston, L. D. (1999). Drinking and driving among US high school seniors, 1984-1997. *American Journal of Public Health*, 89(5), 678-684.
- O'Malley, P.M. & Johnston, L.D. (2002). Epidemiology of alcohol and other drug use among American college students. *Journal of Studies on Alcohol and Drugs*: 14, 23-29.
- O'Malley, P. M., Johnston, L. D., Bachman, J. G., Schulenberg, J. E., & Kumar, R. (2006). How substance use differs among American secondary schools. *Prevention Science*, 7(4), 409-420.
- Petraitis, J., Flay, B. R., & Miller, T. Q. (1995). Reviewing theories of adolescent substance use: Organizing pieces in the puzzle. *Psychological Bulletin*, 117(1), 67-86.
- Piquero, A., Gibson, C. & Tibbetts, S. (2002). Does self-control account for the relationship between binge drinking and alcohol related behaviors? *Criminal Behavior and Mental Health*: 12, 135-154.
- Rapaport, R. J. (1992). The recovering person's prevention project (R3P): Involving recovering students and community members in alcohol and other drug abuse prevention on the college campus. Report: ED348607. 13pp.
- Robinson, S.E., Roth, S.L., Gloria, A.M., Keim, J. & Sattler, J. (1993). Influence of substance abuse education on undergraduates' knowledge, attitudes and behaviors. *Journal of Alcohol and Drug Education*: 39, 123-131.
- Ruhm, C. J., & Nat. Bur. of Econ. Research. (1995). *Alcohol policies and highway vehicle fatalities*. Inc.: National Bureau of Economic Research.
- Saltz, R., & Elandt, D. (1986). College student drinking studies 1976-1985. *Contemporary Drug Problems*, 13(1), 117-159.
- Schwartz, R.H., Farrow, J.A., Banks, B. & Giesel, A.E. (1998). Use of false ID cards and other deceptive methods to purchase alcoholic beverages during high school. *Journal of Addictive Diseases*: 17, 25-33.

- Simons, R. L., Whitbeck, L. B., Conger, R. D., & Conger, K. J. (1991). Parenting factors, social skills, and value commitments as precursors to school failure, involvement with deviant peers, and delinquent behavior. *Journal of Youth and Adolescence*, 20(6), 645-664.
- Smart, R.G., Adlaf, E.M. & Walsh, G.W. (1996). Procurement of alcohol and underage drinking among adolescents in Ontario. *Journal of Studies on Alcohol and Drugs*: 57: 419-424.
- Strote, J., Lee, J.E. & Wechsler, H. (2002). Increasing MDMA use among college students: Results of a national survey. *Journal of Adolescent Health*: 30, 64-72.
- Studenmund, A.H. (2001). *Using Econometrics a Practical Guide* (4th ed.) Boston: Addison Wesley Longman, Inc.
- Sun, I. Y., & Longazel, J. G. (2008). College students' alcohol-related problems: A test of competing theories. *Journal of Criminal Justice*, 36(6), 554-562.
- Temple, M., & Ladouceur, P. (1986). The alcohol-crime relationship as an age-specific phenomenon: A longitudinal study. *Contemporary Drug Problems*, 13(1), 89-115.
- Tittle, C. R. (2004). *Contemporary Sociology*, 33(6), 716-717.
- Traub Stuart H, & Little Craig B. (1980). *Theories of deviance*. 2nd ed Itasca, IL: F.E. Peacock Publishers, Inc.
- University of Florida-Demographics*. (nd.). Retrieved December1, 2008, from http://en.wikipedia.org/wiki/University_of_Florida.
- Wagenaar, A. C., & Toomey, T. L. (2002). Effects of minimum drinking age laws: Review and analyses of the literature from 1960 to 2000. *Journal of Studies on Alcohol, Supplement*(14), 206-225.
- Wagenaar, A. C., & and others. (1996). Sources of alcohol for underage drinkers. *Journal of Studies on Alcohol*, 57, 325-333.
- Warr, M., & Stafford, M. (1991). The influence of delinquent peers: What they think or what they do? *Criminology*, 29(4), 851-866.
- Wechsler, H., Davenport, A., Dowdall, G., Moeykens, B. & Castillo, S. (1994). Health and behavioral consequences of binge drinking in college: a national survey of students at 140 campuses. *Journal of the American Medical Association*: 272, 1672-1677.

- Wechsler, H., Dowdall, G., Maenner, Gledhill-Hoyt, J. & Lee, J. (1998). Changes in binge drinking and related problems among American college students between 1993 and 1997. *Journal of American College Health*: 47: 57-68.
- Wechsler, H., Lee, J. E., Nelson, T. F., & Kuo, M. (2002). Underage college students' drinking behavior, access to alcohol, and the influence of deterrence policies. *Journal of American College Health*, 50(5), 223-236.
- Werch,C.E., Gorman, D.R., & Marty, P.J. (1987). Relationship between alcohol consumption and alcohol consumption and alcohol problems in young adult. *Journal of Drug Education*: 17, 261-276.
- Zwerling, C., & Jones, M. P. (1999). Evaluation of the effectiveness of low blood alcohol concentration laws for younger drivers. *American Journal of Preventive Medicine*, 16(1), 76-80.

BIOGRAPHICAL SKETCH

Heather Brianna Stewart was born in San Diego, California. Heather moved all over the country until finally settling in Florida in 1999. Heather has always had an affinity for both sports and intellectual pursuits. Her love of athletics was exhibited in her participation in volleyball, swimming and riding horses, and later her coaching of swimming.

Heather's academic career has been diverse. The first year of her undergraduate career was spent at University of Alabama in Huntsville, and after a span of inactivity, she returned to obtain her Associate of Arts at Santa Fe College graduating Phi Theta Kappa with honors. She continued her education at the University of Florida, earning a Bachelor of Arts in criminology, Summa Cumme Laude and a Bachelor of Science in psychology, Cumme Laude, all while working full time in law enforcement. Heather was accepted as a graduate student in the Department of Sociology and Criminology & Law at the University of Florida in Gainesville, Florida. She received her Master of Arts in the summer of 2010. She received her Ph.D. from the University of Florida in the spring of 2012.