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A STUDY TESTING THE CONTROL THEORY: TEENAGE DRINKING IN FOUR NEBRASKA HIGH SCHOOLS

A Thesis

Presented to the

Department of Criminal Justice

and the

Faculty of the Graduate College University of Nebraska at Omaha

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by

Michael T. Eskey

March, 1977

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ACKNOWLEDGEMENTS

All that I am or ever hope to be, I owe to my mother.

Abraham Lincoln

I feel that at this point in my academic career, it is most fitting to thank and acknowledge my mother, Hanora, for the support and guidance she has provided me. I only hope that she is as proud of me as I am of her. Also, I would like to give recognition to my brother, Leo, who has always served as a model and goal for my academic endeavors.

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Chapter I

INTRODUCTION

The U.S. Congress, through the findings of the National Institute on Alcohol and Alcoholism, holds that alcohol abuse is the nation's greatest drug problem, asserting that it warps nine million lives and costs approximately \$28 billion per year. There are 95 million drinkers in the U.S., most of whom drink alcohol without harm, but approximately five percent of adult Americans have serious drinking problems and are the source of much personal grief and huge cost to the nation (New York Times Review, 1973: 71).

The drinking problem is rapidly expanding to include the nation's teenage population. Although there is a variation by time and place, all studies of teenage populations find at least a sizeable minority (one in four at a minimum) and often a substantial majority (eight or nine out of ten in some surveys) have drunk some kind of alcoholic beverage. The National Institute on Alcohol Abuse and Alcoholism (NIAA) reports that fifty-seven percent of boys and forty-three percent of girls aged 15 through 20 are drinkers (Chavetz, 1973: 19). However, the kind of exposure to alcohol experienced most often

involves isolated (sometimes one time only) or infrequent use of low content beverages, mostly beer. Little of the drinking that teenagers do is high-frequency or high quantity, and an average of only about three percent can be characterized as "problem drinkers." However, this three percent represents a substantial number of America's youth.

According to the NIAA, 1.3 million Americans between 12 and 17 have serious drinking problems. About one—third of high school students have drunk at least once a month. Arrests of teenagers for drunken driving have tripled since 1960. Sixty percent of the people killed in drunken driving accidents are in their teens (Chavetz, 1973: 21). In the same study it was also found that five percent of all teenagers get drunk at least once a week. By the time they are in the tenth grade, half of our young—sters are drinking in cars at night (Chavetz, 1973: 21).

A survey conducted in Lincoln, Nebraska, found that thirty-eight percent of those teenagers responding, drink once a week or more and only thirteen percent said they never drink alcoholic beverages. While more than eighty-seven percent of the students indicated that they have had some experience with alcohol, according to the survey, sixty-five percent of the parents surveyed, denied that their children drank. The students indicated that they started drinking at an early age. Nearly sixty percent

stated that they began consuming alcohol in junior high or before (Olig, 1976: 2).

In the same study, parents cited social status and peer pressure as the leading causes of high school student consumption of alcohol. Most students, however, stated that they drank for the enjoyment, while peer pressure was listed by only nine percent of those students surveyed. The majority of students stated that they drank at parties, but drinking also occurs in cars, at friends' homes, night clubs, bars, "anywhere" safe, and at work. Ironically, nearly fifty percent of the students stated that they drank in their home, while sixty-one percent of the parents stated that they did not allow their children to drink alcoholic beverages in the home (Olig, 1976: 2).

A review of parents' drinking practices, particularly as they are related to students' own drinking behavior, has revealed several significant facts. The example of parents in drinking or abstaining is seen to be closely correlated with the decision of students to drink or abstain. Parental sanctions are much more effective than formal sanctions stemming from church or school, and parents' attitudes toward drinking by a son or daughter are usually in line with their own practices. The incidence of problem drinking among parents of students appear consistent with generally accepted estimates on rates of alcoholism in the entire adult population. Finally, the

example of a problem drinking parent has not acted as a deterrent to drinking by students (Strauss and Bacon, 1966: 85).

A recent study by the National Highway Safety Administration reveals that one fourth of those high school students who drink say that they have driven three or more times when drunk (Collier, 1975: 109). In the last ten years, arrests of girls 18 or younger intoxicated by liquor have more than tripled. During the same period, arrests of boys in the same age group have more than doubled.

Adolescents typically imitate adults. The teenager is a living commentary of the generation that rears him and a prophecy about the generation that will inherit the future. Doctor Morris Chavetz, director of the NIAA, notes that children often follow the drinking habits of their parents. He also points out that parents sometimes approve of their teenager's drinking because the children who drink won't take other drugs - a false assumption (Akers, 1967: 27). Every society stakes its life on the assumption that its adolescents will be trained so as to become competent and responsible members of the community. It should not be so surprising that adults in our society periodically appraise the adolescent's health, education, or any other real or imagined indication of his competence or responsibility.

Teenagers likely are playing, or expect soon to play

adult roles as opposed to teenage activities. Those teenagers who most fervently hold adult roles as opposed to teenage activities are most likely to be users and to designate themselves as "drinkers." The drinker seems to be best described as a person whose preferred groups are primarily adult-oriented; but, groups within which he interacts most frequently are largely composed of adolescents.

The most alarming aspect of the drinking revival, authorities believe, is that the use of alcohol is now spreading down to school children in the lower grades. One recent study in the Boston suburb of Brookline found that thirty-six percent of the eighth-grade pupils reported having been drunk on beer or wine, as did fourteen percent of the sixth-grade class (Collier, 1975: 111). According to one study by the National Commission on Alcohol and Drug Abuse, forty percent of today's young people take a drink before age eleven, in contrast to twenty percent in previous generations. Although many of these drinks are only experimental, some do start a habit that is producing more and more alcoholics in their teens and early twenties (Chavetz, 1973: 118).

Teachers state that older students are literally pushing booze on younger kids, and the latter are drinking it, in many cases to appear grown up (Chavetz, 1973: 119). But another reason for the increase in

young drinkers is tolerant parents, most of whom drink themselves. Many parents who are worried about "other" drugs are willing to look the other way on alcohol. Alcohol is a drug with a high potential for addiction. The National Council on Alcoholism reports that in 1972, the age of the youngest alcoholics dropped from 14 to 12. For those who add alcohol to an existing drug habit, the results can be tragic. Even so, despite the risks, teenagers are taking to the bottle in growing numbers (Chavetz, 1973: 120).

More specific than this is the possible relationship of the first drinking experience to the process of alcohol addiction. To understand the addiction, one must start with the beginning of the drinking of an individual. A decision about what constitutes the beginning is necessary since some facets associated with this cultural element are internalized before the first drink is taken. Group members, particularly those in which the use of alcohol by young children is unusual, tend to be familiar with alcoholic beverages and with the fact of intoxication even before taking the first drink. With these attitudes toward alcohol and drinking already formed, one feels that drunkeness is good or bad and that alcohol has positive or negative effects before tasting it or experiencing its effects (Ullman, 1962: 259).

Most high school surveys taken have found that the

proportion of drinkers increase from the early years (seventh and eighth grade) to later adolescence (eleventh and twelfth grades). By the time of high school graduation, the percentage of adolescents who drink comes close to, and by college years, equals or exceeds the percentage of adults who drink (Strauss and Bacon, 1966).

As with adult populations, the probability of drinking and heavy drinking among teenagers is positively associated with the degree of urbanization and city sizes. The highest percentage of drinkers are found in the North and East and the lowest percentages are in the South.

Unlike adult populations, however, no consistent relationship of teenage drinking according to social class and race has been found. Sometimes more adolescent drinkers are found in the higher social strata (Calahan, et. al., 1967: 90). In some places, both high class and low class youth are more likely to drink than the middle class youth (Baur and McClauggage, 1958), and in other places variations in drinking by teenagers bears no relationship to their parents' occupation or education. (Maddox and McCall, 1964).

Research on drinking behavior shows that it is a social phenomenon in two related ways: (1) what one does with and thinks about alcohol is a function of his social group membership and identification; and (2) almost all drinking takes place in social group settings

which the drinker believes make his drinking socially approved by the people who matter to him (Windham and McCall, 1964).

Although underage drinking is illegal, the preponderance of evidence from teenage drinking studies show that, for the most part, it is a behavior learned from conventional settings. Initial drinking behavior is conditioned most strongly by parental influence. Peer group influence is also important for adolescent drinking practices, and the impact of the other socializing agents seems to be less than that of family or peers (Maddox and McCall, 1964: 230-34).

To some extent, drinking by persons under a certain age is considered deviant. However, there is considerably less consensus on the deviance of underage drinking than there is on abusive drinking as deviant. There is disagreement about what age is considered old enough to drink. Public opinion does not consistently view underage drinking with abhorrence, and the sanctions applied to it are much milder than those applied to other drug use.

In some groups, children are routinely allowed wine and other beverages with meals, in religious ceremonies, and other times in the home. Even in groups where this is not a common practice, many adults do not strongly object to occasional underage drinking, although they may consider it premature. Nonetheless, the law does

uniformly deny minors legitimate access to alcoholic beverages. Most adults define unsupervised drinking by teenagers as undesirable and most teenagers agree with them (Windham, Preston, and Armstrong, 1967: 9). Moreover, teenage drinking remains a perennial concern of adults, authorities, public/semi-public programs of law enforcement, and education to "do something" about the problem (Maddox and McCall, 1964: 74-75).

The social correlates of teenage drinking also parallel those of adult drinking. In every case, boys are more likely to drink and to drink more frequently than girls. Unlike adult populations, however, no consistent relationship of teenage drinking to social class and race has been found. There is some indication that Negro high school students are more apt to drink than white students; but, as with social class, evidence on the relationship between drinking and race is mixed (Akers and King, 1967). Depending on the location, from three to five out of ten teenagers have established a pattern of drinking that would be described as at least moderate drinking. The variations among teenagers in drinking resemble those among adults.

Within American society, persons are subject to different group and cultural influences, depending on their location, sex, age, stratification, religion, ethnicity, and other systems. Both conforming and deviant

use of alcohol are products of the general culture and the more immediate groups and social situations with which individuals are confronted. The cross-cultural and within-cultural differences in the rates of drinking and alcoholism reflect the varied traditions regarding the functions alcohol serves and the extent to which it is integrated into eating, ceremonial, and other social contexts. (Strauss and Bacon, 1966: 266). The more immediate groups within each of these cultural contexts provide learning environments in which the positive and negative social sanctions applied to behavior sustain or discourage drinking according to group norms.

Why an individual drinks or abstains from drinking is not always apparent to himself, muchless to anyone else. Most individuals do learn, however, to anticipate in given situations the question, "Why did you do that?" Through interaction with others, individual responses to such questions tend to become standardized and to be shared with others. Social interactions through time produce traditional, shared, "vocabularies of motive," which are ready answers to questions about motivation (Mills, 1940: 904). Shared verbalizations about motivation for drinking or abstinence are not in themselves always to be taken at face value as explanations of such behavior. These shared vocabularies do, however, provide insight into currently acceptable responses to the question, "Why do you drink?"

or, "Why did you drink the first time?" (Maddox and McCall, 1964: 240).

DEFINITION OF TERMS

In order to insure clarity in subsequent conceptualizations - elaboration, interpretation, and/or definition of the societal/criminological question and the forthcoming statement of the problem will be presented in this section.

The first of these elements to be elaborated upon is "society." It is intended in this study to observe that society consists of people in interaction and further assess these interactions through the view of the interactions of the drinking and non-drinking teenage members of society. Based primarily on this view of teenagers in interaction, this study draws from teenagers from homes of various occupational groups, a representative element of society.

The next element, presented in the sociological/
criminological question, to be discussed is "high school
student." In the present study the label of "high school
student" will embrace male and female adolescents presently
attending a high school in grades nine, ten, eleven, or
twelve. Throughout the study this term will be used

See Chapter 1 of Timasheff, N.S. <u>Sociological</u>
Theory. 3rd Edition, New York: Random House, 1967.

Occupational groups are defined in this study as representative groups based upon recognized similarity of work that serves as a regular source of livelihood, i.e. professionals, managers, or craftsmen each represent occupational groups.

interchangeably with terms of simply "teenager" or "students;" however, there is no distinction to be drawn from these differences in semantic terms. The distinction is blurred when the substantive area of teenage drinking/non-drinking of alcohol is examined.

The final element of the question to be defined pertains to the "drinking" portion of teenage drinking. "Drinking" in this study will pertain to the regular consumption of any of the entire spectrum of alcoholic beverages, i.e. beer, whiskey, wine, etc. This usage is based upon self-report by the respondents in the study. Conversely, "non-drinking" is based upon the non-consumption of alcoholic beverages as self-reported by the respondents in the study. This "usuage" of drinker/non-drinker is based upon the observation that there is a distinction between the two groupings. "Regular" drinking will refer to the consumption of alcohol from one to seven times per week as self-reported by the respondents.

STATEMENT OF THE PROBLEM

The purpose of this study is to determine if there is a relationship between the amount and frequency of alcohol consumption by high school students and the attachments, commitments, beliefs, and involvements that they have with their parents, peers, or school, i.e.,

³ Elaboration is required for the concepts presented

teachers, officials, activities, etc. Difference in the intensity of these variables will be studied to determine if there is a significant difference in relation to the amount and frequency that teenagers drink.

The difference in the degree and intensity of these variables will be researched in an attempt to pinpoint what major factor(s) motivate(s) an individual teenager to drink alcohol. The problem of teenage drinking is today, more than ever before, growing rapidly and has

3(continued)

in the statement of the problem - "attachments, committments, beliefs, and involvements."

Attachments - internalization of norms, conscience, or superego toward a certain segment of the society (peers, parent, school). These norms are shared by the members of that society which the individual considers himself to be a member.

Commitment - counterpart to the superego or "common sense." The concept of commitment assumes that the organization is such that the interests of most persons would be endangered if they were to engage in deviant acts. Ambitions and/or aspirations play an important role in an individual/s commitment to conventional lines of activity.

Involvement - the extent to which an individual engrosses him/herself in activities. Control theory assumes that a person may be too busy doing conventional things to find time to engage in deviant behavior. The involvement in these conventional activities prevent the opportunity to commit deviant acts.

Beliefs - assumption that the beliefs that free a man to commit deviant acts are unmotivated in that he does not construct or adopt them in order to facilitate the attainment of illicit ends. For the commitment of deviant acts: (1) the persons beliefs in moral validity of norms are weakened, (2) the probability of committing deviant acts is increased, (3) weakness of belief in conventional society is viewed as the justification for the act (Hirschi, 1971: 25).

become our nation's number one social problem. Although a number of studies have approached the problem of teenage drinking, little attention has been given to the specific causes based on specific attachments which teenagers have. Basically, researchers have tended to focus upon race and social class as the leading causes of alcohol problem areas.

In this study the perspective is taken that the objective factors are not as important as the individual's beliefs about these factors based upon his/her drinking designation. In this regard, a situation defined as real will be real in its consequences; that is, results will be based on true perceptions as self-reported by the respondents. Thus, consistent with the problem presented, this study will focus on the high school student to see how he/she perceives his/her relationships with parents, peers, or school and the subsequent designation as a drinker or non-drinker.

The results and conclusions of this research may open the doors of secondary schools to more programs of social education, particularly those pertaining to drug abuse. This research will attempt to determine what particular factors are leading teenagers to drink. Also, this study will hopefully contribute to and expand the present body of knowledge that criminological researchers have developed. It is important that such research in

this area maintain momentum and, at the very least be disseminated to, if not acted upon, by the public. The practical value of this study stems from the added information about the definitions in use by both drinker and non-drinker, which <u>can</u> be reconciled to produce a more effective method of dealing with alcohol problems at all levels - personal, professional, and municipal.

Another implication involves the fact that teenage drinkers are people from two select societies (high school population; adolescents), and the overall society, who have elected to participate in a behavior which portions of the select societies and the majority of the overall society have defined as deviant. Therefore, it is worthy of the effort to determine what differences in the form of attachments, commitments, beliefs, and involvements might be present between high school student drinkers and non-drinkers.

Since the purpose of this research is focused on determining the factors of teenage drinking based on the effects of attachments on such behavior, it would be appropriate to first examine the positions and findings of scholars and researchers in order to ascertain what have been the prevailing theories for predicting juvenile behavior regarding their attachments and resulting deviant acts (particularly those of underage drinking) and the effects and conclusions these past studies have had.

Chapter II

THEORETICAL PERSPECTIVES

The aim of this chapter is to present information on alcohol, youth, and society and the potential for interelationship. Therefore, the emphasis will be upon developing a theoretical base from which to draw subsequent hypotheses for empirical testing. In the final section of this chapter a summarization will be presented of the separate elements to be linked in this study.

Consistent with previous research and as predicted on the basis of differential association theory, the number of delinquent friends, the perception of "trouble" in the neighborhood, and the variable acceptance of attitudes and beliefs favorable to the violation of legal codes (underage drinking) are significantly related to involvement in delinquent action. Moreover, those associating with delinquents are more likely to be delinquent, regardless of the effect of these associations on their attitudes and beliefs (Jensen, 1972: 568-9).

Jensen found such factors as drinking, delinquent peers, parental supervision, and support to influence delinquency involvement regardless of any definitions favorable or unfavorable to the violation of the law

(Jensen, 1972: 562). The lack of control by parents is argued to be associated with delinquent behavior only in situations where there are delinquent patterns around to copy. In short, the known relationships between qualities of family life and delinquency are thought to hold up only within certain contexts (Jensen, 1972: 563).

The Jensen study also found that the nature of a child's home life can affect the probability that he/she will come into intimate contact with delinquent peers, in that parental supervision and support are negatively related to intimate associations with others who have been picked up by the police. However, it must be kept in mind that many well-supervised and emotionally supported adolescents have delinquent friends, engage in delinquent activities, and exhibit tenuous commitments to conventional moral standards (Jensen, 1972: 568).

Smart and Fejer in considering the reasons for the use of drugs indicate that ". . . the reasons are unclear, but factors of availability, affluence, and intellectual curiosity are suggestive but not compelling explanations" (1969: 306). A very general treatment is provided by Nowlis, who regards the nature of society as a "reason" when she indicates that " . . . society fosters the use of drugs . . . from birth to death as a kind of 'magic protector' in which man depends on drugs rather than on people to handle certain emotional drives and needs

(Nowlis, 1968: 1684). Providing support for hypocrisy, and thus nonbelief in conventional society, as a "reason," is the observation by McGlothlin and West that: "The extreme legal penalities and gross exaggerations of the consequences of marihuana use as fostered by the Federal Bureau of Narcotics make it an ideal target for rebellious youth to point at as an example of adult hypocrisy (McGlothlin and West, 1968: 370).

Curiosity and peer pressure also share as reasons for the use of drugs. The general reasons given for initially taking drugs were that they either observed the use of drugs and became curious, wanted to act more like adults, or were persuaded to take drugs by a friend or group of friends (Griffith, 1966: 563). In addition to these, the desire to "go along" or "need to belong," as well as emotional disturbances are reasons cited by numerous other authors.

In a Newsweek article it was reported that: "Marihuana . . . is becoming a widespread weed of dissent, a symbol of revolt, a turn on (cop out) for young people who want to enlarge their experience or escape it" (Newsweek, July 24, 1967: 46). Allen and West also comment on rebellion

⁴

Note: Alcohol is to be considered a dangerous, addictive, unlawful drug for high school students in this study. Several past studies have indicated that students involved with marihuana or other drugs are also involved with alcohol.

as a <u>reason</u> when they state that: "To some . . . drug taking may be a chosen pattern of expressing their rejection of and deviance from the present social system. If this is the case, the type of drug would be unimportant, as long as it is unacceptable to the larger society" (Allen, J. and L. West, 1968: 307).

Rosenfeld reports that " . . . the very illegality of marihuana is part of its appeal for many young people.

Seeing themselves in rebellion against the empty, materialistic striving of their parents, they turn the whole pot scene into a protest tool which they use to mock middle-class (conventional) culture they distain" (Rosenfeld, 1967: 17). These elements given as "reasons" for drug use (including alcohol) are best characterized as rebellion against the hypocrisy of the adult world, a healthy curiosity coupled with peer pressure and adult pressure, a need to belong, and for some, the struggle out of adolescence.

There have been many studies which have indicated a movement of teenagers away from their parents; thus, the weakening of attachments to one's parents seemingly leads to a strengthening of attachments to one's peers.

One such study found that the stronger parental pressures are, the less the satisfaction with parents and school (Tec: 1973: 301). Accordingly, the stronger the parental pressures are, the less likelihood to: (1) define school

as condusive to advancement, (2) believe in fulfillment of personal and social aspirations, (3) have any clear and high occupational and educational aims, and (4) work hard in school and perform well. An overall finding of the study found that regardless of the indicator, strong parental pressure forced on the juvenile fails to elicit the desired effect (Tec, 1973: 303). Consciously experienced parental educational pressures are related positively to parental and school dissatisfaction as well as to a generally pessimistic outlook on life (Tec, 1973: 303).

Findings in the Tec study lead to the implication that involvement with drugs might be a part of an overall pattern of noncompliant behavior rather than a response to a particular strain. The findings touch upon the problem of carryover from one form of deviant behavior to another. That is, it was shown that opposition to parental authority in one sphere facilitates opposition in another sphere. This was brought out by the instrument administered to the teenagers which pointed to the finding: the stronger the parental pressure, the less likelihood of educational conformity.

One of the most obvious conclusions which can be drawn from the Tec study touches upon a number of complex sociological issues. Some of those conclusions concerning strong parental control stated that such controls appear not only futile, but tend to promote contrary or deviant

behavior. Further, Tec concluded that a given special type of control has definite limitations on its effectiveness. Beyond these limitations it may have just the opposite effect from what has been expected. The overall conclusion of the study suggests the effect that too much parental control can have on a teenager's attachment to his/her parents and his/her commitment to conventional activities (school, educational aspirations, etc.) (Tec, 1973: 309).

Travis Hirschi based his research on "Social" Control (Bond) Theory. Control theory assumes that delinquent acts result when an individual's bond to a society is weak or broken. Since this theory embraces two highly complex concepts: the bond of the individual to society, it is not surprising that control theories have described the elements of the bond to society in many ways and that they have focused on a variety of units as the point of control (Hirschi, 1971: 16). Hirschi investigated differential patterns of delinquency as they related to differences in attachments, commitments, involvements, and beliefs regarding parents, peers, and school (acitivities and officials).

In general, the more closely a person is tied to conventional society in any of these ways (attachments, commitments, involvements, beliefs), the more closely he/she is likely to be tied in all of these ways. The person who is attached to conventional activities is, for

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example, more likely to be involved in conventional activities and to accept conventional notions of desirable conduct (Hirschi, 1971: 27).

In Control Theory there is little interest in what motivates the individual to deviate. Rather, the basic assumption of the theory is that most individuals would deviate if their bonds to conformity were loosened. The bulk of support for Control Theory comes from Hirschi's own analysis. He concludes from his work that control theory is supported with two exceptions. First, involvement in conventional activities was not as important as the theory predicts in delinquency prevention. Second, the influence of delinquent peers has an importance in the commission of delinquent acts not predictable from the current formulation of Control Theory (Hirschi, 1971: 230-1).

Hirschi found a positive association between delinquency and belief favorable to law violation. He concluded that acceptability of law violation appears to have an influence on delinquent behavior; however, it appears to be secondary to delinquent associations. He also concluded that effects of peer influence must be added to a Control Theory of delinquent behavior (Hirschi, 1971: 229).

Here it must be kept in mind that the objective of the present study is not the prediction of delinquency perse; instead, the objective is to assess if there is, in fact, a relationship between the attachments of teenagers and the amount of alcoholic beverages which they drink. From this information further data may attribute to the type and amount of delinquency or non-delinquency which the individual may or may not be involved in.

Agreement with the work of Hirschi is found in a review study by Briar and Pilavian in a control model referred to as "stakes in conformity" (Briar and Pilavian, 1965: 35). Their work concluded that commitment to scholarly pursuits as measured by academic achievement is negatively related to delinquent behavior. Recent applied research has also shown that increasing academic commitment decreases the likelihood of future delinquent activities (Hirschi, 1971: 171).

Social Control Theory postulates that attachment to "conventional" others reduces the likelihood of delinquent behavior, while lack of such attachment increases the probability of juvenile deviance (Hirschi, 1971: 140-1). Attraction or attachment to deviant others made valued rewards contingent on such activities. Thus, if parents and/or peers tend to be sources of reinforcement for the juvenile and if the behavior displayed by these persons tends to conform to general social norms (as perceived by the individual juvenile), the likelihood of similar behavior by the juvenile should increase.

Hirschi found that attachments to peers has a small negative association with delinquency. He used what is known as "stakes in conformity" as a basis of his measure of the reinforcing value of conventional activities and environments. These include a liking for school, achievement orientation, and communication with parents.

These items also correlate such factors as school achievement. Control Theory predicts only that lack of such "stakes in conformity" will increase the likelihood of delinquency. It is assumed that delinquent friends serve as a reinforcing factor for the increase of delinquency.

Hirschi cites five elements of the bond between parents and the child: (1) time spent with parents, (2) supervision by parents, (3) identification by the juvenile with his/her parents, (4) affectional identification by the juvenile with his/her parents, and (5) emotional support by the parents (Hirschi, 1971: 88-93). He discounts time as relatively unimportant and is slightly displeased that the emotional support items in his study were too vague. Further, supervision is equally important from either a control or social learning perspective. Thus, the social control perspective predicts the communication between parent and child will decrease the likelihood of delinquent behavior.

The bond to parents was researched by Hirschi and will be further researched in the present study. It was predicted that actual parental behavior which raises or lowers the reinforcing nature of the home determines the home environment's influence on delinquent behavior.

It is contended that a certain amount of conflict between parent and child is normal and healthy. However, when the only relationship between them is one of

conflict, consequences (deviant behavior, underage drinking in the present study) are more likely than others. A brief examination of parent-youth conflict may be drawn first from Ruth Benedict's theory of continuities and discontinuities in cultural conditioning. The implication states that: "The child should be taught nothing that he/she will have to unlearn in order to become a mature adult (Muss, 1962: 72).

In our culture, where most occupational positions are theoretically based on accomplishment rather than age, interage competition arises. Superior organic propensities lead to a high evaluation of youth (the so-called "accent on youth"), a disproportionate lack of opportunity for youth manifests itself, and conequently arrogance and frustration appear in the young, fear and envy in the old (Davis, 1958: 37).

Davis also points out that adolescents possess unchecked idealism and keen reasoning ability. He observes that: "Such logical capacity, combined with high ideals and a lack of experience, means that youth soon discovers with increasing age that the ideals it has been taught as true and consistent are not so in fact (Davis, 1958: 38)." The causal significance of the adolescent's failure to reconcile realism and idealism, takes several forms from religious withdrawls to the militant support of some Utopian scheme"....but in any case consisting

essentially in serious allegiance to one or more of the ideal systems present to the culture (Davis, 1958: 38)." These "allegiances" take on and lead to the individual's attachments, commitments, beliefs, and commitments to or against the "conventional" society which he/she is a member.

Peer associations draw their strength from ties broken with other segments of society. An essential element necessary to understand the influence that peer association has upon the adolescent is that a major part of the adolescent task is to establish independence from parental, school, and other conventional societal authority. This independence from authority is supported by a tight network of peers.

Erikson (1970) attempts to capture the spirit of peer association in his description of the results that arise from the various discontinuities that adolescents face. He indicates that a sense of individuality and community arises which is:

Expressed vividly and often devastatingly in songs of shouted loneliness and underscored by a pounding rhythm-to-end-all-rhythms in a sea of circling lights. Such active and joint mastery of a cacophonous world can be experienced with an emotional and physical abandon, unlike anything the older generation ever dreamed of; and yet - especially where compounded by drugs - it can camoflauge a reciprocal isolation of desperate depth (Erikson, 1970: 157).

It is important to note through this vivid description the vital relationships that peer group establishes with the adolescent in his quest for identity.

Hirschi concluded that peer influence must be adapted to the control model of delinquency causation. Social control theory is more incomplete than incorrect (Conger, 1976: 18). Attachments to peers are important in determining the behavior of individuals; however, without knowing what sort of peer one is "attached" to, a prediction of delinquent behavior is hard to make. For this reason, the present study utilizes several other studies to elaborate the work of Hirschi and aid in evaluating the reasons underlying the teenage drinking The studies used include not only alcohol studies, problem. but also studies involving juveniles and the effects of attachments, parental and peer pressure, and studies involving group conforming behavior (its causes and effects).

This study attempts to solidify the findings of Hirschi and to establish the significance, if any, of the bond of teenagers to either parents, peers, or school and the subsequent relationship to the drinking behavior of the respondents. The research in the present study will attempt to pinpoint the effects of attachments, not on the entire domain of delinquency as researched by Hirschi, but on the single act of teenage drinking.

Control theories assume that delinquent acts result

when an individual's bond to a society is weak or broken. In addition, these theories have at one time or another formed the basis of explanations for most forms of abhorrent or unusual behavior (Hirschi, 1971: 16). Control theories have described the elements of the bond to society in many ways, and have focused on a variety of units as a point of control. The present study will use this particular theory to specify the unit to which the individual students are more or less tied and show the adequacy of the motivational force built into the explanation of drinking among teenagers.

PRESENTATION OF THEORY

It is the aim of this section to present a theory which will unify the separate elements reported to this point into an intelligible whole. Certain steps are proposed which are considered essential to the development of a control theory of delinquency and, which define and discuss each of the concepts. Also, an attempt will be made to demonstrate how this theory is related to the elements previously developed.

Control Theory suggests that the bond of affection for conventional persons (i.e., parents, non-delinquent friends, school officials, etc.) is a major deterrent of delinquency. In the present study concern will not be focused on the wide, overall concept of crime and

delinquency; instead, it will focus only on one form of delinquency: teenage drinking. The stronger this bond (attachment, commitment, belief, and involvement), the more likely the person is to take conventional persons into account when and if he/she contemplates a deviant act. The ability to take conventional persons into account, however, suggests the corollary ability to do something about it, and deviant acts are of course committed in the face of strong attachments to conventional others (Hirschi, 1971: 83).

The four concepts stated above will be used in this study to determine how they affect the relationships of teenagers and the ensuing deviant behavior (drinking) or non-deviant behavior (non-drinking) of teenagers.

Unless deviant behavior is valued among teenagers, there is no reason to believe that relations with other teenagers should produce results different from those obtained from relations to conventional adults. Predictions about the effects of peer relations thus hinge on the assumed conventionality of peers.

Presumably, no such ambiguity adheres in predictions about the effect of attachments to teachers and the school. Teachers, by inclination and law, espouse conventional standards. Here again, the question of the extent of carryover from attitudes toward parents to attitudes toward teachers is of some concern, as is the

question of the relative importance of attachments to persons variously located in conventional society.

Attachments

In Control Theory, attachment to parents becomes a control variable, and many of the variations in explanations of this relation may be found within the control theory tradition. The major focus of attention has been on the link between attachment, the adequacy of socialization, and the internalization of norms (Hirschi, 1971: 84). The emotional bond between the parent and child presumably provides the bridge across which pass parental ideas and expectations (McKinley, 1964: 57). If the child is alienated from the parents, he/she will not learn or will not have feeling for moral values, he/she will not develop adequate conscience or superego (McCord and McCord, 1959).

It is important to ignore the internalization of the parental relations and assume that the "moral" element in the attachment to parents resides directly in the attachment itself. If the bond to the parents is weakened, the probability of delinquent behavior declines. Attachment may easily be seen as "variable" over persons and over time for the same person (Hirschi, 1971: 88).

Since the school is manifestly a middle-class institution and delinquency has long been viewed as predominantly a lower-class phenomenon, the school is an eminently conventional institution. Insofar as this institution is able to command his/her attachment, commitment, belief and involvement, the adolescent, by following the conventional behavior of the institution, is presumably able to move from childhood to adulthood with a minimum of delinquent acts (Hirschi, 1971: 110).

Some control theorists have suggested that lack of respect for and attachment to parents tends to spread to adult authorities and conventional institutions in general. The view that lack of attachment in one setting is not compensated for by stronger attachments in another setting, but tends to spread from one setting to another is supported by the present data. Students with weak affectional ties to parents also tend to have little concern for the opinion of teachers and tend not to like school (Hirschi, 1971: 131).

Commitment (Stakes in Conformity)

Evidence has supported the view that the adolescent's stake in conformity affects his/her choice of friends rather than the other way around. That is, a boy/girl with low stakes in conformity is more susceptible to delinquent influence in his/her environment; the child with a large stake in conformity is relatively immune to these influences. Those attached to their peers are less likely to have the attitudes and values traditionally used to account for the presumed relation between attachments

to peers and delinquency. Also, this concept fosters the idea that delinquents are unusually dependent upon their peers, that loyalty and solidarity are characteristics of delinquent groups, and that attachment to adolescent peers fosters unconventional behavior (Hirschi, 1971: 145).

Commitment to conventional lines of action involves stakes in conformity that are built up by the pursuit of, and by the desire to achieve conventional goals. Whatever the conventional aspirations and whatever the object of blame for failure, the picture of a deviant as a striver, either in word or in deed, simply does not fit Hirschi's data. There is little doubt that the educational and occupational expectations of delinquents tend to be low (Elliot, 1962). Measures of general achievement orientation, that is, of the student's desire to do well in current activities, are more strongly related to delinquency than his hopes, plans, and prospects for the future (Hirschi, 1971: 185-6).

Involvement

Of the elements of the bond to conventional society, involvement in conventional activities is especially relevant to delinquent behavior. The school does more than prepare students for the future. It acts also as a holding operation in that it attempts to engross and involve students in activities that are or may be essentially irrelevant to their occupational futures (Hirschi,

1971: 191). If adolescents cannot occupy their time in meaningful ways, they are likely to engage in delinquent activities, if only because such activities offer a measure of excitment.

Previous research suggests that lack of involvement in the school and lack of commitment to education release the adolescent from a primary source of time-structuring. He has nothing to do but wait for the attainment of adult-hood. As would be expected, then, involvement in school work is negatively related to a sense of boredom. Involvement in conventional activities parallels the analysis of commitment to conventional success goals. Such activities are presumably in large part consequences of such commitments (Hirschi, 1971: 191).

Belief

Beliefs are based on the relations between acceptance of what are called middle-class values and delinquency (or non-delinquency). High educational aspirations, high achievement orientation, and so on, are all predictive of non-delinquency (Hirschi, 1971: 223). On the whole, with respect to the elements of lower-class culture, it has been found that there are no differences between lower-class and middle-class children. With respect to others, lower-class children are only slightly more likely than middle-class children to accept the attitudes and values of their own culture. Even when this is true,

the academically incompetent middle-class child is much more likely than the academically competent lower-class child to accept the norms, beliefs, and practices of the lower class (Hirschi, 1971: 223).

The beliefs most obviously relevant to delinquency are those bearing on the goodness or badness of delinquent behavior as such. Tests of current delinquent theory often simply compare the friendship patterns of delinquents and non-delinquents (in the present study drinkers and non-drinkers). When the delinquents are shown to have associated more frequently with delinquents, it is assumed that they have somehow acquired attitudes and values favorable to the violation of law (e.g., underage drinking).

Belief in the moral validity of the law is consistently related to the measures of attachment and commitment discussed earlier. The child with little intimate communication with his/her parents, the child who does not like school, the child who is unconcerned about the opinion of teachers, the child who has little respect for the police, and the child who feels little desire for success in conventional terms is unlikely to feel that the demands of law are binding on his conduct (Hirschi, 1971: 202-3).

It follows that definitions explicitly favorable to the violation of law spring from lack of attachment and commitment to conventional institutions. Thus, it

may be that these attachments and commitments account for the relationships between beliefs and delinquency. It may be that beliefs are "only" rationalizations of one's position vis-a-vis conventional society. These beliefs should have an independent effect on delinquency (underage drinking) (Hirschi, 1971: 203).

Chapter III

METHOD AND PROCEDURES

The aim of this chapter is to describe the methodology used in this research. Included are descriptions of the respondents, procedures, and instrumentation. Also, definitions of the concepts will be reemphasized to insure consistency of their meanings throughout the remainder of the study.

DEFINITION OF CONCEPTS

Attachments

For this study the definition used consisted of the internalization of norms, conscience, or superego toward a certain segment of the society (parents, peers, or school). These norms are shared by the members of that society which the individual considers him/herself to be a member. It was through defining this concept that the respondents need for significant others was first measured and subsequently tested against his/her drinking habits.

Commitment

The definition referred to a commitment as being

the counterpart to the superego (attachments) or "common sense." The concept of commitment assumes that the organization of conventional society is such that the interests of most persons would be endangered if they were to engage in deviant acts (e.g., teenage drinking). Ambitions and/or aspirations play an important role in an individual's commitment to conventional activity. Most lines of action in a society are of course conventional. The clearest examples are educational and occupational careers. Actions thought to jeopardize one's chances are thus avoided. It was through testing this concept that the respondent's commitment to conformity to conventional lines of action was measured and then tested against his/her self-reported drinking habits.

Involvement

This concept is defined as the extent to which an individual engrosses him/herself in activities (conventional or otherwise). Control theory assumes that a person doing conventional things does not find time to engage in deviant behavior. That is, to the extent that he/she is engrossed in conventional activities, he/she cannot even think about deviant acts, let alone act out his/her inclinations. The individual respondents self-reported involvements were measured and subsequently tested against his/her self-reported drinking habits.

<u>Beliefs</u>

The definition is based on the assumption that these beliefs free an individual to commit deviant acts and further, that these beliefs are unmotivated in that he/she does not construct or adopt them in order to facilitate the attainment of illicit ends. This assumption carries with it a further assumption that the deviant (teenage drinker) rationalizes his/her behavior so that he/she can violate the rule (underage drinking) and maintain his/her beliefs in it. Certain beliefs regarding conventional society were self-reported by the respondents and subsequently tested against his/her self-reported drinking habits.

RESPONDENTS FOR THE STUDY

The respondents for this study consisted of 559
male and female high school students from four separate
Nebraska high schools. Each of the schools was a fouryear high school (freshman, sophomore, junior, senior).
The high schools in this study included Creighton Prepatory High School (urban, all male), Marion High School
(urban, all female), Brownell Talbot (private, coeducational),
and Wahoo Senior High School (rural, public, coeducational).
An effort was made to survey a representative sample of
the schools as closely and proportionately as possible.
Three of the schools are located in metropolitan Omaha
and Wahoo Senior is located approximately 35 miles west

of Omaha.

Creighton Prepatory High School is located in west-central Omaha. The school presently has 896 boys in attendance. Creighton Prep is a Catholic high school taught by the Jesuit order. The school is composed of students from middle and upper class families. Students are admitted on a competitive basis from 60 schools in the Omaha area.

Marion High School is located in northwestern Omaha. The school is an all female, four-year, Catholic high school with approximately 750 students. The faculty consists of 40% nunsand 60% lay teachers. Students are mainly from middle to upper-middle class families.

Brownell-Talbot is located in central Omaha. The school consists of grades one through twelve. Talbot is a relatively small, private, coeducational school with about 65 students in grades nine through twelve. The faculty is made up completely of lay teachers. The school is composed mainly of students from middle-upper to upper class families.

Wahoo Senior is located in Wahoo, Nebraska, the county seat of Sanders County, a rural community located approximately 35 miles west of metropolitan Omaha. The school is a four-year, class C, coeducational public high school with approximately 325 students. The faculty is made up completely of lay persons. The community is primarily

farm and small industry oriented. The students attending come from families ranging from lower to upper class.

Table I provides a comparison of the four schools on the basis of grades and sex of respondents.

Table I
Respondents by School, Grade, Sex

			SCHOOL					
GRADE	SEX	Creigton Prep	Marion	Brownell Talbot	Wahoo Senior	TOTAL		
9	M(%) F(%)	42(29.6) 0	0 16(18.8)	8(17.0) 9(19.0)	38 (13.5) 34 (12.1)	88 (15.7) 59 (10.6)		
10	M(%) F(%)	40 (28.1)	0 25 (28.0)	6(12.8) 5(5.6)	34(12.1) 41(14.6)	80 (14.3) 71 (12.7)		
11	M(%) F(%)	24(16.9) 0	0 33(37.0)	7(7.9) 3(3.4)	47(16.7) 37(13.2)	78 (14.0) 73 (13.1)		
12	M(%) F(%)	36 (25.4) 0	0 15(16.9)	4(8.5) 5(10.6)	30(10.7) 20(7.1)	70 (12.5) 40 (7.2)		
TOT	ľAL	142(25.4)	85(15.9)	47(8.4)	281 (50.3)	559(100.)		

Total Males - 316(56.5) Total Females - 243(43.5) Total Number - 559(100.0)

PROCEDURE AND INSTRUMENTATION

Data was collected through the use of a self-report questionnaire (Appendix B) administered to a sampling of the students from each of the respective high schools. The questionnaire was administered at only one time to the respective high schools and all questionnaires were administered and supervised by the researcher or a high school official.

The questionnaire was divided into two sections. The first section includes general student attitudes regarding family, school, friends, and their subsequent attachments, commitments, beliefs, and involvements to, in, or with these groups. The second section includes direct student attitudes and views concerning drinking behavior and the drinking behavior of others. The questionnaire consists of 67 total questions, (Section I - 46 questions; Section II - 21 questions). Inasmuch as the Omaha high schools assumed responsibility of the administration of their respective questionnaires, these were simply delivered to the high schools. A set of instructions was provided for each school. The researcher individually administered the questionnaires to the students at Wahoo Senior High School and subsequent instructions were given verbally to each individual class (Appendix A).

The instrument was administered to those classes that were mandatory for the respective grades and schools (i.e., at all of the Omaha schools English was a required course - thus, the instrument was administered exclusively to English classes at each grade level; at Wahoo Senior, English was a required course for 9th, 10th, and 11th grades and American Government was required for 12th graders; thus, the instrument was administered to these respective classes). Of the total of 579 questionnaires distributed, 20 were unusable and eliminated from the

final computations of the questionnaires. The reasons for elimination of such data included either almost total nonresponse on the instrument or responses which were viewed as unacceptable by the researcher due to detection of obvious mistakes or misuse of the instrument (i.e., obsecene language, gross misrepresentation on both family and drinking information, etc.).

The instrument was first administered to BrownellTalbot students which served as a pretest. The completed
questionnaires were reviewed by the researcher for apparent
completeness and validity. The pretest also established
the approximate time period which would be needed by the
other high school respondents in completing the questionnaire.
After reviewing the questionnaires it was surmised that the
respondents were generally willing to answer all of the
questions and were able to do so within a single class period.

The instrument was a combination of open-ended and multiple choice questions. Several of the multiple choice questions pertaining to drinking perceptions and direct involvements were based on those used by Maddox and McCall (1964) and various other questions were based on those used by Hirschi (1971) previously reviewed. The instrument was identical for all students at the respective high schools. All items directly related to the hypotheses were included in the questionnaire. The questions were generally short in structure and no set pattern of order

was established. This prevented the individual respondent from becoming bored with a seeming redundancy of any one particular aspect of the questionnaire.

MEASUREMENT AND DATA ANALYSIS

Since the levels of measurement are nominal and ordinal, both nominal and ordinal statistics were selected.

The chi square (X²) statistic will be used for assessing the significance of relationships with the dependent variable when it is treated as being nominal. The gamma (G) statistic will be used for assessing the relationships when the dependent variable is ordinal. Gamma is a frequently used symmetrical measure for association of two or more ordinal variables. It is used since its interpretation has the intuitive appeal of a proportional reduction in error statistic. Chi-square is most frequently used for tests of significance between expected and obtained frequencies; that is, the question answered is whether the frequencies observed in a sample deviate from some theoretical or expected population frequencies.

A further description of the direct uses of the gamma (G) and chi-square (X^2) statistic as used in this study will be covered in the Research Findings chapter to follow.

Chapter IV

RESEARCH FINDINGS

In this chapter research findings will be presented. Specifically, thirteen hypotheses will be tested. In order to test these hypotheses, two dependent variables will be compared with the separate independent variables in each of the thirteen hypotheses. The dependent variables are:

- Designation of the respondent as a person who drinks or does not drink alcohol: (Drinking Designation).
- The amount of times per week that the respondent self-reported that he/she drinks alcohol: (AMNT).

In all of the hypotheses tested the number of cases will not remain the same. Due to nonresponse on certain questions of the intrument the N total will range from 512 (91.6%) to 546 (97.7%) in the following tables which test each of the hypotheses. Because the percentage of drinkers vs. non-drinkers (50.3% drinkers; 48.1% non-drinkers; and 1.6% nonresponse) is only slightly different, it is not felt by the researcher that missing data on

any of the tests of the hypotheses will have any significant effects on the true results of the findings.

Two different procedures will be used for assessing the extent of association and significance of the relationships between the variables in this study: Chi-square (X^2) and Gamma (G). The chi-square test of significance is essentially concerned with the distinction between expected frequencies and obtained frequencies. It is the best known non-parametric test of significance in social The chi-square statistic will (Levin, 1973). be used for testing the hypotheses when the dependent variable, drinking designation, which is treated as nominal variable is used. The tables used will range from 2 x 2 to 2 x 8 and a .05 level of significance will be used for hypotheses testing.

The gamma (G) statistic will be used in determining the significance of relationships with the dependent variable, AMNT. Again a .05 level of significance will be used in determining whether to reject or not reject the null hypothesis. The significant absolute value of gamma for testing the null hypothesis at the .05 level is .185 for any population with an N greater than 40 (Freeman, 1968). This is the level which will be used in determining to reject or not reject the null hypothesis in all of the hypotheses testing the AMNT variable.

Gamma is a symmetrical measure which can always

achieve the limiting values of -1.0 to +1.0 regardless of the number of ties. This statistic can be interpreted as the proportionate reduction in errors in predicting ranking that would be made in using the "same" (or "opposite") ranking rule rather than randomly predicting rankings among pairs which are ranked differently (Loetherand, McTavish, 1974).

Gamma will also be used in this study for describing the strength of relationships in the following manner:

- 1. A gamma (G) with an absolute value over .70 indicates a very strong association.
- A gamma (G) with an absolute value from .50 to
 .69 indicates a substantial association.
- A gamma (G) with an absolute value from .30 to
 .49 indicates a moderate association.
- 4. A gamma (G) with an absolute value from .10 to .29 indicates a low association.
- 5. A gamma (G) with an absolute value from .01 to .09 indicates a <u>negligible association</u> (Davis, 1972).

The hypotheses will be presented in numerical order (1-13). Those variables being tested by chi-square (X²) will be presented first. The variable, drinking designation, will be tested against specific variables related to the respective hypotheses. Some of the hypotheses will include two or more variables which will be tested against the

dependent variable. In the instance that the results of the tables do not agree completely on the determined level of significance (.05), the decision to reject or not reject the null hypothesis is made by the researcher.

Gamma (G) is used in comparing those independent variables testing hypotheses compared with the dependent variable of AMNT (amount of times drinking per week). The findings of this analysis will follow the findings on the tests of significance of the dependent variable drinking designation with each of the independent variables. Again, some of the hypotheses will be tested against two or more independent variables. A final determination will be made by the researcher of whether to reject or not reject the null hypothesis based on the combined findings of these comparisons.

ANALYSIS

The thirteen testable hypotheses will now be stated in the null form and tested.

The first hypothesis (H1) is: The more favorable attachment shown by high school students to their friends, the more likely they are to drink alcohol. Stated as a null hypothesis:

There is no difference in favorable attachments shown by high school students to their friends between those students that drink or do not drink alcohol.

In this hypothesis the response to drinking designation

is compared with responses to four questions specifically testing the respondents attachments to their friends:

- Would you like to be the kind of person your best friends are? (Question 30 - Section I)
- 2. Do you respect your best friends' opinion about the important things in life? (Question 31 - Section I)
- 3. Would your best friends stick by you if you got into really bad trouble? (Question 32 Section I)
- 4. Do the people you think of as your best friends also think of you as their best friend? (Question 34 - Section I)

Table II provides a comparison of the respondents' designation as a drinker/non-drinker compared with the independent variable indicating the respondent's desire to be the kind of person his/her best friends are. Of the 544 responding, 18.8 percent of the designated drinkers compared to 16.8 percent of the designated non-drinkers indicated that they would like to be "in most ways" like their best friends. Drinkers responded 65.2 percent of the time compared to 70.5 percent of the non-drinkers that they would like to be like their best friends "in most ways." Similarly, 12.3 percent of the designated drinkers compared with 8.6 percent of the non-drinkers responded that they would not like to be the kind of person

their best friends are at all.

Table II

Comparison of Drinking Designation by
Desire to be the Kind of Person Best Friends Are

Would you li	ke to be t	he kind of	person you	r best fr	iends are?
	In Most	In a	Not at	Have No	Best
Drinking	Ways	Few Ways	All	Friends	
Designation	N(%)	N(%)	N(%)	N(%)	Totals
Person Who Drinks	52 (18.8)	180(65.2)	34(12.3)	10(3.6)	276(50.7)
Person Who Does Not					
Drink	45(16.8)	189(70.5)	23(8.6)	11(4.1)	268(49.3)
Totals	97(16.8)	369 (67.8)	57(10.5)	21(3.9)	544(100.0)
2					
X =	2.78	d.f. =	: 3 p	.05	

The dependent variable, drinking designation, was dichotimized in that either a respondent designated him/ herself as a person who drinks or as a person who does not drink. A chi-square value of 2.78 was obtained and in entering the chi square table with three degrees of freedom is not significant at the .05 level. Therefore, the null hypothesis is not rejected.

Table III compares the dependent variable, drinking designation, with the respondents perceived respect for their friends opinion about the important things in life. Again, little difference can be found between the drinkers vs. the non-drinkers. Those respondents stating that they would respect their best friends' opinion about the important things in life "in most ways" remained very close

in drinkers, 15.5 percent, and non-drinkers, 17.2 percent. Other responses of "pretty much" and "a little" showed similarly close results with 59.4 percent of drinkers compared to 59.7 percent of non-drinkers and 19.9 percent of the drinkers compared to 18.3 percent of the non-drinkers responding to these categories, respectively.

Table III

Comparison of Drinking Designation by Respect for the Opinion of Best Friends About the Important Things in Life

Do you responsion life?	ect your be	est friends	' opinion	about th	ne importa	ant things
	Completel	y Pretty	A	Not At	Have No	Best
Drinking		Much	Little	A11	Friends	
Designati o n	N(%)	N (%)	N(%)	N(%)	N(%)	Totals
Person Who Drinks	43(15.5)	165 (59.4)	55(19.8)	8(2.9)	7(2.5)	278 (50.9)
Person Who Does Not Drink	46(17.2)	160 (59.7)	49(18.3)	12(2.2)	9(2.2)	268(49.1)
Totals	89 (16.3)	325 (59.5)	104(19.0)	20 (2.2)	16(2.9)	546 (100.0)
х	² = 1.93	d.f. =	4 p) .05		

The dependent variable, drinking designation, compared with the respondents' respect for the opinion of their best friends about the important things in life resulted in an obtained chi square value of 1.93 with four degrees of freedom. This result is not significant at the .05 level; thus, the null hypothesis is not rejected.

Table IV compares the self-reported attachments of respondents to their friends by their perception of their

best friends loyalty to them. Respondents answered the question: Would your best friends stick by you if you were to get into really bad trouble? Significant differences were found between the drinkers and non-drinkers in this comparison with 36.2 percent of those respondents designating themselves as drinkers indicating full confidence in their friends' loyalty compared to 27.2 percent of the non-drinkers giving a similar response. Similarly, 43.4 percent of drinkers compared to 39.2 percent of non-drinkers felt that their best friends would "probably" Approximately 20.5 percent of the nonstick by them. drinkers stated that they "didn't know" if their best friends would stick by them if they got into trouble compared to 8.2 percent of the drinkers responding to this category.

Table IV

Comparison of Drinking Designation by
Loyalty of Best Friends In Time of Trouble

Would your	best friend	ds stick by	you if yo	ou got inte	really	bad trouble?
	Certainly I	Probably Do	oubt It	Don't Know	Have No	Best
Drinking					Friends	
Designation	n N(%)	N (%)	N (%)	N (%)	N(%)	Totals
Person Who Drinks	101 (36.2)	121(43.4)	24(8.6)	23(8.2)	10(3.6)	279(51.0)
Person Who Does Not Drink	73(27.7)	105(39.2)	26 (9.7)	55 (20.5)	9(3.4)	268(49.0)
Totals	174(31.8)	226 (41.3)	50 (9.1)	78(14.3)	19(3.5)	547 (100.0)
x ²	2 = 18.69	d.f. = 4	g l	(.05		

With four degrees of freedom, a chi square value of 18.69 is obtained. This value is significant at the .05 level; therefore, the null hypothesis is rejected.

Table V compares the attachment of the respondents to their best friends by a comparison of their perception of whether or not they feel their best friends also think of them as best friends. The responses revealed similar perceptions of friendships by both drinkers and nondrinkers. Full confidence in friendship was revealed by 27.7 percent of drinkers compared to 23.6 percent of nondrinkers. Similarly, 42.8 percent of drinkers compared to 43.8 percent of nondrinkers responded that "most" of those they thought of as best friends also felt the same way, and 14.4 percent of drinkers compared to 15.4 percent of non-drinkers felt that "some do."

Table V

Comparison of Drinking Designation by Perception of Best Friends Also Thinking of Respondent as Best Friend

	Do the people you think of as your best friends also think of you as their best friend?						
	All of	Most of	Some	None	Don't		
Drinking	Them Do	Them Do	Do	Do	Know		
Designation	N(%)	N (%)	N(%)	N (%)	N (%)	Totals	
Person Who Drinks	77 (27.7)	119(42.8)	40 (14.4)	5(1.8)	37(13.3)	278(51.0)	
Person Who							
Does Not Drink	63 (23.6)	117 (43.8)	41(15.4)	5(1.9)	41(15.4)	267(49.0)	
Totals	140 (25.7)	236 (43.3)	81 (14.9)	10(1.8)	78(14.3)	545 (100.0)	
	2		_				

 $x^2 = 1.41$ d.f. = 4 p λ .05

A chi square value of 1.41 with four degrees of freedom reveals a value that is not significant at the .05 level. The results, thus, do not support rejecting the null hypothesis.

Hypothesis two (H2) states that: The more influence and understanding that a student has with his/her family, the less likely that he/she is to drink alcohol. In the null form:

There is no difference between the likelihood of students to drink alcohol and the influence and understanding that a student has with his/her family.

The data compares the respondents' designation as a drinker/non-drinker and their responses to the following questions:

- 1. How much influence do you have in making family decisions? (Question 20 - Section I)
- 2. Do your parents seem to understand you? (Question 22 - Section II)
- 3. Place in rank order those persons who you would be most apt to talk over your future plans with: a) <u>parents</u>, b) <u>peers</u>, c) <u>others</u>.
 (Question 3 Section II)

Data in Table VI reveals almost total similarity in the responses given by drinkers/non-drinkers regarding their perceptions of family influence. Of the drinker respondents, 12.5 percent compared to 13.4 percent of the non-drinkers felt that they had "a lot" of influence in

family decisions. Similarly, responses by designated drinkers having "some" and "very little" influence was 65.6 percent and 18.3 percent, respectively, compared to 65.8 percent and 17.5 percent, respectively, of the designated non-drinkers' responses to these categories.

Table VI

Comparison of Drinking Designation by Self-Perceived
Family Decision Making Influence

How much	influence do	you have i	n making	family deci	sions?
	A	Some	Very	None	
Drinking	Lot		Little		
Designation	n N(%)	N (%)	N(%)	N(%)	Totals
Person Who Drinks	35(12.5)	183 (65.6)	51 (18.3)	10(3.6)	279(50.9)
Person Who Does Not Drink	36/13 4)	177(65.8)	47(17.5)	9(3.3)	269(49.1)
Totals	71 (13.0)	360 (65.7)	98 (17.9)		548 (100.0)
X	² = 0.15	d.f. = 3	p > .	05	

A chi square value of 0.15 was obtained and with three degrees of freedom it is not significant at the .05 level; thus, the null hypothesis is not rejected.

Table VII reveals the data of responses on perceptions of parental understanding. Each respondent was given a choice of three degrees of understanding which he/she perceived he/she had with his/her parents. The frequencies of which the respondents perceived this understanding show slight differences at the differents levels of intensity. Those respondents who feel that they "usually"

have parental understanding included 43.2 percent of those designating themselves as drinkers compared to 53 percent of those designated as non-drinkers. The response "sometimes" was indicated by 46.1 percent of respondent drinkers and 39.6 percent of respondent non-drinkers. A similarly close comparison exists between those respondents who perceive "never" receiving parental understanding.

About 7.5 percent of the drinkers compared to 4.9 percent of the non-drinkers are in this category.

Table VII

Comparison of Drinking Designation
by Perceived Parental Understanding

Do your pa	rents seem	to understa	nd you?		
	Usually	Sometimes	Never	Don't Know	
Drinking					
Designation	N (%)	N(%)	N (%)	N (%)	Totals
Person Who Drinks	121 (43.2)	129(46.1)	21(7.5)	9(3.2)	280 (51.1)
Person Who Does Not Drink	142 (53.0)	106 (39.6)	13(4.9)	7(2.6)	268(48.9)
Totals	263(48.0)	235 (42.9)	34(4.9)	16(2.9)	548 (100.0)
$x^2 =$	5.80	d.f. = 3	p 为 .	05	

A chi square value of 5.80 is obtained and with three three degrees of freedom the value is not significant at the .05 level; thus, the null hypothesis is not rejected.

Table VIII reveals the responses to a rank-ordering of those individuals which the respondents would be most apt to talk over their future plans with. The respondents

were given a choice of: a) parents, b) peers, and c) other adults. The data is analyzed by using the students' first choice in determining who the respondent would "most" likely talk over his/her future plans with.

The data shows slight differences in the responses by drinking designation. Of those respondents most apt to talk over their future plans with their "parents," 57.7 percent are in the designated drinkers category while 72.7 percent are designated as non-drinkers.

Drinker respondents chose "peers" 7.3 percent of the time and "other adults" 35 percent of the time as their first choice compared to 8.6 and 23.7 percent, respectively, of responses to these categories by non-drinker respondents.

Table VIII

Comparison of Drinking Designation by Person
Chosen to Talk Over Future Plans With

Place in ratto talk ove		_		would be most apt		
	Parents	Peers		ts (relative,		
Drinking minister, etc.)						
Designation	N(%)	N(%)	N(%)	Totals		
Person Who Drinks	158 (57.7)	20(7.3)	96(35.0)	274(52.0)		
Person Who Does Not Drink	184 (72.7)	9(3.6)	60 (23.7)	253(48.0)		
Totals	342 (64.9)	29(5.5)	156 (29.6)	527(100.0)		
$x^2 =$	2.77	d.f. = 2	2 p >	. 05		

A chi square value of 2.77 is obtained and with two degrees of freedom the value is not significant at the .05

level; thus, failing to reject the null hypothesis.

Hypothesis three (H3) states: The greater the degree of parental control, the less likely high school students are to drink. Stated as a null hypothesis:

There is no difference between the likelihood that high school students are to drink and the degree of parental control.

This hypothesis compares the dependent variable, drinking designation, to data obtained from responses to the following questions concerning parental control:

- Do your parents make rules that seem unfair to you? (Question 23 - Section I)
- Would your parents stick by you if you got into really bad trouble? (Question 33 Section I)
- 3. Have your parents met your friends? (Question 35 Section I)

Table IX presents the data comparing the differences in respondent drinker/non-drinker perceptions of fairness of parental rules. Of the respondents designating themselves as drinkers, 13.6 percent felt that parents "usually" make unfair rules compared to only 8.2 percent of the non-drinker respondents. Responses in the category of "sometimes" perceiving unfair parental rules reveals that designated drinkers feel this way about 70.4 percent of the time compared to 68.3 percent of the designated non-drinkers on the same response. Of those respondents who

feel that their parents "never" make rules that seem unfair; 15 percent are the drinkers and 20.1 percent are non-drinkers.

Table IX

Comparions of Drinking Designation
by Perceived Fairness of Parental Rules

Do you pare	nts make r	ules that s	eem unfair	to you?	
	Usually	Sometimes	Never	Don't Kno	DW DW
Drinking					
Designation	N(%)	N(%)	N(%)	N(%)	Totals
Person Who Drinks	38(13.6)	197(70.4)	42 (15.0)	3(1.1)	280(51.1)
Person Who Does Not Drink	22 (8.2)	183 (68.3)	54(20.1)	9(3.4)	268(48.9)
Totals	60 (10.9)	380 (69.3)	96(17.5)	12(2.2)	548 (100.0)
$x^2 =$	9.02	d.f. = 3	p 〈	.05	

The comparison of the dependent variable, drinking designation, and the independent variable, perceived fairness of parental rules, reveals a significant difference in those respondents designating themselves as drinkers or non-drinkers. A chi square value of 9.02 is obtained and with three degrees of freedom the value is significant at the .05 level; thus, the null hypothesis is rejected.

Perceived parental loyalty is compared with the drinking designation of the respondents in Table X. The data is broken down into three variations of parental designations. These responses are added and reveal that 72.7 percent of the designated drinkers compared to 68.9

percent of the designated non-drinkers are quite confident of parental loyalty if they were to get into really bad trouble. Of the non-drinkers, 21 percent felt that their parents would "probably" stick by them compared to 12.6 percent of the non-drinkers. Conversly, 7.2 percent of the drinkers "doubted" whether their parents would stick by them as compared to 2.6 percent of the non-drinkers.

Table X

Comparison of Drinking Designation by
Perception of Whether Parents Would Stick by Them if They Were to
Get into Really Bad Trouble

	Certainly	Yes, Mother	Yes, Father	Probably	Doubt It	Don't Know	Not In Contact	
Drinking	N (9)	Only	Only	N (0.)	N (a)	N (a)	N1 (9.)	Motol o
Designation	N(%)	И(%)	N (%)	N (%)	N (%)	N (%)	N (%)	Totals
Person Who								
Drinks	175 (62.9)	19 (6.8)	7 (2.5)	35(12.6)	20(7.2)	20 (7.2)	2(0.7)	278 (51.0
Person Who								
Does N ot								
Drink	172 (64.4)	8(3.0)	4(1.5)	56 (21.0)	7(2.6)	20 (7.5)	0(0.0)	267 (49.0)
Totals	347 (63.7)	27(5.0)	11(2.0)	91 (15.7)	27 (5.0)	40 (7.3)	2 (0.4)	545 (100.0)

A chi square of 18.22 was obtained and in entering the chi square table with six degrees of freedom the value is significant at the .05 level. Therefore, the null hypothesis is rejected.

Table XI reveals the findings of comparing the dependent variable, drinking designation, and the number of respondent's friends met by his/her parents. Significant

differences are found between the two groups. Designated drinkers indicated that their parents had met "most" of their friends about 67.8 percent of the time compared to 58.6 percent of non-drinkers responding to this category. Conversly, 35.5 percent of non-drinkers compared to 29.3 percent of drinkers indicated that their parents had met "some" of their friends. About 5.5 percent of the non-drinkers compared to only 1.4 percent of the drinkers indicated that their parents had met "none" of their friends. Similar findings of 0.4 percent and 1.4 percent by non drinkers and drinkers, respectively, were found when comparing the response to having "no friends."

Table XI

Comparison of Drinking Designation by
Number of Respondents' Friends Met by Parents

Have your p	arents met	your frien	de ?		
nave your p	Most of	Some of		Have No	
Drinking	Them	Them	Them	Friends	
Designation	N(%)	N(%)	N(%)	N(%)	Totals
Person Who					
Drinks	187 (67.8)	81(29.3)	4(1.4)	4(1.4)	276 (50.4)
Person Who					
Does Not Drink	150/50 6)	97 (35.5)	15 (5 E)	1 (0 4)	271 (49.5)
DITUK	139 (38.6)	97(33.3)	15(3.3)	1(0.4)	2/1(49.3)
Totals	346 (63.1)	178 (32.5)	19(3.5)	5(0.9)	548 (100.0)
10.01.12	3 10 (000 27				010 (20010)
$x^2 =$	13.76	d.f. = 6	р Հ	.05	

A chi square of 13.76 is obtained and with six degrees of freedom this value is significant at the .05 level. Thus, the null hypothesis stating that no difference

exists between those students that drink or do not drink and the number of their friends whom their parents have met is rejected.

The fourth hypothesis (H4) is: The more time a student willfully stays away from school, the more likely he/she is to drink alcohol. Stated as a null hypothesis:

There is no difference between the likelihood that a student will drink and the amount of times that he/she willfully stays away from school.

In this hypothesis the number of times stayed away from school is treated as the independent variable and drinking designation as the dependent variable. Analysis of the data is based on the responses to the following question:

During the last year, did you ever stay away from school just because you had other things you wanted to do? (Question 33 - Section I)

Table XII reveals large differences in the amount of times stayed away from school between those respondents designated as drinkers and those designated as non-drinkers. Drinkers reported staying away "often" 11.9 percent of the time, "a few times" 32 percent of the time, and "once or twice" 27.3 percent of the time compared to 2.3 percent, 10.5 percent, and 23.7 percent, respectively, of the designated non-drinkers. Conversly, 63.5 percent of the non-drinkers responded to "never" staying away from school while only 28.8 percent of drinkers responded "never."

Table XII

Comparison of Drinking Designation by
Times Stayed Away From School

During the	last year,	did you e	ver stay	away from sch	ool just
because you	had other	things yo	u wanted	to do?	
	Often	A Few	Once Or	Never	
Drinking		Times	Twice		
Designation	N(%)	N(%)	N (%)	N(%)	Totals
Person Who					
Drinks	33(11.9)	89(32.0)	76 (27.3)	80 (28.8)	278 (51.10)
Person Who					
Does Not					
Drink	6(2.3)	28(10.5)	63(23.7)	169(63.6)	266(48.9)
Totals	39(7.2) 1	17(21.5) 1	39 (25.6)	249 (45.8)	544 (100.0)
2			,		
x^2	= 83.30	d.f. = 3	P (.05	

A chi square of 83.30 is obtained and with three degrees of freedom the value is significant at the .05 level. The data obtained results in a rejection of the null hypothesis.

Hypothesis five (H5) states: Those boys/girls whose aspirations exceed their expectations are more likely to drink than those boys/girls whose aspirations and expectations are identical. Stated as a null hypothesis:

Those boys/girls whose aspirations exceed their expectations are no more likely to drink than those boys/girls whose aspirations and expectations are identical.

In this hypothesis the comparisons of aspirations and expectations are treated as the independent variables and drinking designation as the dependent variable.

Determination of the expectations and aspirations of the respondents is based on Occupational Categories and

Occupational Prestige Scales found in the National Data Program for the Social Sciences. Several respondents indicated that they were "undecided" of both future aspirations and expectations. Only those responses of "undecided" indicated concerning expectations when the respondent indicated a choice of aspirational goals are calculated in the comparison with the dependent variable. That is, those respondents indicating that they were "undecided" about both what they "hoped" and "expected" to do were not used in assessing the significance of the data. The analysis of the data was based on comparisons of the responses to the following questions:

- 1. If you had your choice, what kind of life work would you most like to do? (Question 16 - Section I)
- 2. What kind of work do you actually expect, not hope to do? (Question 17 - Section I)

Source: Occupational titles, prestige classifications are from National Data Program for the Social Sciences, Codebook for the Spring, 1972, General Social Survey, National Opinion Research Center, University of Chicago, Appendix F, pp. 88-102. The occupational aspirations and expectations are ranked and determination made concerning the individual rankings of the respondents as

Professional and Technical Workers 1)

Managers and Administrators 2)

³⁾ Clerical and Kindred Workers

Craftsmen and Kindred Workers 4)

Operatives except Transport 5)

Transport Equipment Operatives 6)

⁷⁾ Farmers and Farm Managers

⁸⁾ Service Workers

⁹⁾ Private Household Workers

Table XIII presents little difference in those respondents designating themselves as drinkers and non-drinkers and their future occupational aspirations and expectations. Designated drinkers indicated aspirations exceeding expectations 23.6 percent of the time compared to 18 percent of the non-drinkers responding in this Aspirations equalling expectations are found manner. in the responses of 58.5 percent of the drinkers as compared to 60.7 percent of the non-drinkers responding to this category. A similarly close comparison is found when comparing drinkers and non-drinkers who report aspirations lower than their expectations: 8.5 percent and 9.5 percent, respectively. Of those respondents indicating their occupational "aspirations," but undecided about their occupational "expectations," 9.9 are designated drinkers compared to 10.9 percent of the designated non-drinkers. A total of 9 percent of the respondents indicating an occupational aspiration responded to being undecided about their occupational expectation.

Table XIII

Comparison of Drinking Designation by
Aspirations and Expectations of Respondents

Drinking Designation	Aspirations Exceed Expectations N(%)	Aspirations Equal Expectations N(%)	Aspirations Lower Than Expectations N(%)	Undecided N(%)	Totals
			2.(0)		
Person Who Drinks	50(23.6)	124(58.5)	18(8.5)	20(9.9)	212 (50.1)
Person Who					
Does Not					
Drink	38(18.)	128(60.7)	22(9.5)	23(10.9)	211(49.9)
Totals	88(20.8)	252(59.6)	40(9.5)	43(10.2)	423(100.0)
2)		_		
X	= 2.32	d.f. = 3	p > .05		

A chi square value of 2.32 is obtained and in entering the chi square table with three degrees of freedom is not significant at the .05 level. Therefore, the null hypothesis is not rejected.

Hypothesis six (H6) states: The more times a student spends studying outside of school, the less likely he/she is to drink alcohol. State in the null form:

There is no difference in the likelihood that a student will drink alcohol and the amount of time that he/she spends studying outside of school.

Analysis of the data is based on comparisons of responses to the following question:

 Approximately how many hours outside of school do you spend studying per week? (Question 21 -Section II) Table XIV compares the dependent variable, drinking designation, with the independent variable, number of hours outside of school spent studying per week. Significant differences are not found when comparing these variables. Of those respondents designating themselves as drinkers, 18.6 percent compared to 14 percent of those designated non-drinkers indicated that they spend no hours outside of school studying per week. Similarly, small differences are found in the other categories.

Table XIV

Comparison of Drinking Designation by Number of Hours Outside of School Spent Studying Per Week

1-5 N(%)	6-10	11-15	16-20	21-25	
N(%)					
N(%)					
	N (f)	N (%)	N(%)	N(%)	Totals
8.6) 120(43.9	9) 65(23.8)	23(8.5)	14(4.1)	1(0.4)	274(50.9)
4.0) 123(46.6	6) 75 (28.4)	22 (8.4)	7(2.7)	0(0.0)	264(49.1)
6.4) 243(44.	2) 140(26.0)	45 (8.4)	21(3.9)	1(0.2)	538(100.0)
	4.0) 123(46.6	4.0) 123(46.6) 75(28.4)	4.0) 123(46.6) 75(28.4) 22(8.4)	4.0) 123(46.6) 75(28.4) 22(8.4) 7(2.7)	4.0) 123(46.6) 75(28.4) 22(8.4) 7(2.7) 0(0.0)

A chi square of 5.69 is obtained and with five degrees of freedom is not significant at the .05 level. Therefore, the null hypothesis is not rejected.

Hypothesis seven (H7) states: The more high school students save money for future aspirational goals, the

less likely they are to drink alcohol. Stated as a null hypothesis:

There is no difference between the likelihood that high school students will drink alcohol and the amount of money that they save for future occupational goals.

Analysis of the data is based on responses to the following questions:

- 2. For what purpose or objective are you saving money? (Question 14 Section I)

In Table XV, percent saved is treated as the independent variable and drinking designation as the dependent variable. Significant differences are found in the amounts saved between the respondents designated as drinkers and non-drinkers. Of the designated drinkers. 30.4 percent responded to saving "none" of their weekly earnings compared to 23.9 percent of the designated non-drinkers responding to this category. Conversly, 28.2 percent of the non-drinkers responded to saving 26-50% of their weekly earnings compared to 22.3 percent of drinkers responding to this category. A large difference is found when comparing those respondents saving 51-75% of their weekly earnings with 13.6 percent of drinkers compared to 28.2 percent of non-drinkers, respectively, responding

to this category. About 9.9 percent of the non-drinkers responded to saving 76-99% of their weekly earnings, while only 3.7 percent of the designated drinkers are in this category.

Table XV

Comparison of Drinking Designation by
Percent Saved for Future Goals

Approximate	Approximately what percent (%) of your weekly earnings do you save							
for future u	ıse?							
	None	1-25%	26-50%	51-75%	76-99%			
Drinking								
Designation	N(%)	N (%)	N (%)	N (%)	N (%)	Totals		
Person Who Drinks	83 (30.4)	68(24.9)	61(22.3)	37 (13.6)	24(3.7)	273(51.0)		
Person Who Does Not Drink	62(23.7)	60 (22.9)	74(28.8)	74 (28.2)	26 (9.9)	262(49.0)		
Totals	145 (26.9)	128(23.9)	135 (25.2)	111 (20.7)	50 (9.3)	535(.00.0)		
x ²	= 10.19	d.f. =	4 p <	.05				

A chi square of 10.19 is obtained and in entering the chi square table with four degrees of freedom the value is significant at the .05 level. The obtained results allow the null hypothesis to be rejected.

Table XVI presents the data comparing the purpose for which the respondents indicated they are saving money to the drinking designation of the respondents. The responses reveal very slight differences in the amount saved by drinkers and non-drinkers. The largest difference appears in comparing the responses of those saving for an automobile

with 25 percent of the designated drinkers responding to this category compared to 20.2 percent of the designated non-drinkers.

Table XVI

Comparison of Drinking Designation by

Purpose for Saving Money

For what pu	rpose or o	bjective are	e you saving	money?		
	Clothes	Education	Automobile	Vacation	Other	<u>.</u>
Drinking						
Designation	N(%)	N (%)	N (%)	N (%)	N(%)	Totals
Person Who						
Drinks	60(23.1)	72 (27.7)	65 (25.0)	7(2.7)	56(21.5)	260 (50.8)
Person Who						
Does Not						
Drink	59 (23.4)	77 (30.6)	51 (20.2)	5(2.0)	60 (23.8)	252(49.2)
	330/00 4	3.40.400.73	116 (00 7)	10/0 0	116 (00 7)	510 (100 O)
Totals	119(23.4)	149 (29.1)	116 (22.7)	12(2.3)	116 (22.7)	512(100.0)
2	0.00	7.6.4		0.5		
X ⁻	= 8.99	d.f. = 4	р > .	05		

The comparison of the respondents' indicated purpose or objective for saving money, and their self-reported drinking designation reveals no significant difference between those respondents designating themselves as drinkers or non-drinkers. A chi square of 8.99 is obtained and with three degrees of freedom this value is not significant at the .05 level. The obtained results do not support rejection of the null hypothesis.

Hypothesis eight (H8) states that: The more school clubs or organizations an individual participates in, the less likely he/she is to drink alcohol. Stated as a null hypothesis:

There is no difference between the likelihood of an individual to drink alcohol and the amount of school clubs or organizations which he/she participates in.

Analysis of the data is based on responses to the following questions:

- Would you please specify any high school organizations or clubs to which you belong?
 (Question 25a Section I)
- Would you please specify any high school activities (excluding sports) in which you participate? (Question 25b - Section I)
- 3. Would you please specify the types of nonschool activities or groups in which you participate? (Question 26 - Section I)

The data in Table XVII compares the number of clubs and organizations which the respondents indicated participation in to the respondents' drinking designation.

Substantial support for the hypothesis exists especially in the differences found in the first three response categories. Of those respondents designating themselves as drinkers, 60.9 percent indicated that they do not belong to any clubs or organizations compared to 43 percent of non-drinkers responding to this amount. Conversly, differences are found in actual memberships in such organizations with 32.6 percent of non-drinking respondents indicating participation in "one" club/organization

compared to only 23.6 percent of the drinker respondents. Similarly, 19 percent of the non-drinking respondents indicated participation in "two" clubs/organizations compared to only 12.3 percent of drinker respondents in this category. Of the non-drinking respondents, 3.9 percent compared to 1.8 percent of the drinker respondents were found to participate in "three" clubs/organizations and similar amounts of 1.4 and 1.6 respectively, are found to participate in "four" clubs or organizations.

Table XVII

Comparison of Drinking Designation by
Membership in School Clubs or Organizations

Would you p	lease speci	fy any high	school or	ganizatio	ns or club	s to which
You peroud:	None	One	Two	Three	Four	
Drinking	none	0110	1,10	1111100	rour	
Designation	N (%)	N(%)	N(%)	N (%)	N (%)	Totals
Person Who						
Drinkgs	168(60.9)	65 (23.6)	34 (12.3)	5(1.8)	4(1.4)	276 (51.7)
Person Who						
Does Not						
Drink	111 (43.0)	84 (32.6)	49(19.0)	10(3.9)	4(1.6)	258 (48.3)
	,	(,		,		,
Totals	279 (52.2)	149 (27.9)	83 (15.5)	15(2.8)	8(1.5)	534 (100.0)
$x^2 =$	17.86	d.f. =	4 p	.05		

The comparison of the independent variable, membership in school clubs/organizations, and the dependent variable, drinking designation, reveals a significant difference in those respondents designating themselves as drinkers/non-drinkers. A chi square value of 17.86 is obtained and with four degrees of freedom the value is significant at

the .05 level; thus, the null hypothesis is rejected.

The data in Table XVIII does not provide as substantial support for hypothesis eight. About 69.9 percent of the drinker respondents compared to 60.9 percent of the non-drinker respondents reported that they participate in no school activities. These percentage amounts reverse, however, in comparing participation in one to four school activities. Non-drinkers respondents in the percentages 24, 12, and 2.3, respectively, are found to participate in one, two, and three school activities compared to 21.4 6.5, and 1.8 percent, respectively, of drinkers responding to these categories.

Table XVIII

Comparison of Drinking Designation by
Membership in School Activities

	Would you please specify any high school activities (excluding sports) in which you participate in?						
THE WILLOW Y	None	One	Two	Three	Four		
Drinking							
Designation	N(%)	N(%)	N (%)	N(%)	N(%)	Totals	
Person Who Drinks	193(69.9)	59(21.4)	18(6.5)	5(1.8)	1(0.4)	276(51.7)	
Person Who Does Not Drink	157(60.9)	62 (24.0)	31 (12.0)	6 (2.3)	2(0.8)	258(48.3)	
Totals	350 (65.5)	121 (22.7)	49 (9.2)	11(2.1)	3(0.6)	534(100.0)	
x ² =	= 7.05	d.f. = 4	p >	.05			

A chi square of 7.05 was obtained and in entering the chi square table with four degrees of freedom the value is not

significant at the .05 level. The obtained data results in a non-rejection of the null hypothesis.

Table XIX compares the independent variable, membership in non-school activities or groups, with the dependent variable, drinking designation. The data obtained provides substantial support for Hypothesis eight. Of the drinker respondents, 61.6 percent compared to 50.8 percent of the non-drinker respondents are found to participate in "no" non-school activities or groups. Conversly, 31 percent of non-drinker respondents compared to 29 percent of drinker respondents are found to participate in "one" non-school activity or group. The largest difference is found in the comparison of membership in "two" groups with 15.1 percent of non-drinkers and 6.9 percent of drinkers responding to this category. Membership in "three" and "four" non-school activities does not reveal as large of differences between the grouped respondents with drinker respondents indicating membership in "three" non-school activities, 2.5 percent, and "four" activities, none, compared to 2.7 and 0.4 percent, respectively, of non-drinkers responding to these categories.

Table XIX

Comparison of Drinking Designation by
Membership in Non-School Activities or Groups

Would you p in which yo	·		s of non-s	chool act	ivities o	r groups
	None	One	Two	Three	Four	
Drinking						
Designation	N (%)	N(%)	N (%)	N(%)	N (%)	Totals
Person Who Drinks	170(61.6)	80(29.0)	19(6.9)	7(2.5)	0(0.0)	276(51.7)
Person Who Does Not Drink	131 (50.8)	80(31.0)	39 (15.1)	7 (2.7)	1(0.4)	258(48.3)
Totals	301 (56.4)	160 (30.0)	58 (10.9)	14(2.6)	1(0.2)	534 (100.0)
x^2	= 12.36	d.f. =	: 4 p	0.5		

A chi square of 12.36 is obtained and with four degrees of freedom this value is significant at the .05 level. Therefore, the null hypothesis is rejected.

Hypothesis nine (H9) states: The more team sports an individual participates in, the less likely he/she is to drink alcohol. Stated as a null hypothesis:

There is no difference between the amount of alcohol an individual drinks and the number of team sports which he/she participates in.

Analysis of the data is based on responses to the following question:

Would you please specify any school team(s)/
sports of which you are a member? (Question
25c - Section I)

The analysis of Table XX involves a comparison of those respondents designating themselves as drinkers and

their involvement in team sports to those respondents who classified themselves as non-drinkers and their involvement in team sports. A large difference is revealed in those respondents participating in "no" team sports, with 57.6 percent of the drinker respondents compared to 41.5 percent of the non-drinker respondents being found in this category. About 24 and 22.9 percent of non-drinker respondents are found to participate in "one" and "two" sports compared to 19.9 and 14.9 percent of drinker respondents. Similarly, 11.6 percent of non-drinker respondents compared to 6.2 percent of drinker respondents are found to participate in "three" sports.

Table XX

Comparison of Drinking Designation by

Membership in Team Sports

Would you member?	please spec	ify any sch	ool team(s)	/sports of	which you	are a
	None	One	Two	Three	Four	
Drinking						
Designation	N(%)	N(%)	N(%)	N(%)	N (%)	Totals
Person Who						
Drinks	159 (57.6)	55(19.9)	41(14.9)	17(6.2)	4(1.4)	276 (51.7)
Dorgon Moo						
Person Who Does Not						
Drink	107(49.8)	62 (24.0)	59 (22,9)	30(11.6)	0(0.0)	258 (48.3)
<i>p</i>	,	(2114)	, , , , ,	,	- (- · - ·	
Totals	266 (49.8)	117(21.9)	100(18.7)	47(8.8)	4(0.7)	534 (100.0)
X ²	= 20.84	d.f. = 4	p <	.05		

The comparison of the independent variable, membership in team sports, and the dependent variable, drinking designation, reveals a significant difference in those respondents

designating themselves as drinkers/non-drinkers. A chi square value of 20.84 is obtained and with four degrees of freedom the value is significant at the .05 level; thus, the null hypothesis is rejected.

Hypothesis ten (H10) states: High school students whose friends are active in school activities are less likely to drink alcohol than those students whose friends are not active. Stated as a null hypothesis:

No difference exists between the likelihood of high school students to drink alcohol and whether or not their friends are active in school.

Analysis of the data is based on the responses to the following question:

1. Are your friends here at school active in school activities? (Ouestion 29 - Section I)

As shown by the data in Table XXI, substantial support for hypothesis 10 exists. Of those designating themselves as non-drinkers, 35.2 percent compared to only 16.8 percent of drinker respondents felt that their friends are "very active" in school activities. Conversly, 23.1 percent compared to 13.6 percent and 9.2 percent compared to 2.7 percent of drinkers and non-drinkers, respectively, responded to friends being "not very active" and "not active at all," respectively. Similar responses of 49.5 percent of drinkers compared to 47.5 percent of non-drinkers are found from those respondents who feel that their friends are "somewhat active."

Table XXI

Comparison of Drinking Designation by
Friends' Activeness in School Clubs/Organizations/Sports

Are your	friends here	at school	active in	school ac	tivities?	
	Very	Somewhat	Not Very	Not Acti	ve Have	
Drinking	Active	Active	Active	At All	No Friend	S
Designation	n N(%)	N(%)	N (%)	N(%)	N (%)	Totals
Person Who Drinks		135 (49.5)	63(23.1)	25 (9.2)	4(1.5)	273(51.5)
Person Who Does Not						
Drink	91(35.4)	122(47.5)	35(13.6)	7(13.6)	2(0.8)	257(48.5)
Totals	137 (25.8)	257 (48.5)	98(18.5)	32(6.0)	6(1.1)	540 (100.0)
x ² :	= 33.78	d.f. = 4	p ረ .	05		

A chi square of 33.78 is obtained and in entering the chi square table with four degrees of freedom the value is significant at the .05 level. The obtained result allows the null hypothesis to be rejected.

Hypothesis eleven (Hll) states: The higher the educational and occupational aspirations that a teenager has, the less likely he/she is to drink alcohol. Stated as a null hypothesis:

There is no difference in the likelihood that a teenager will drink alcohol and the educational and aspirations that he/she has.

Analysis of the data is based on the results of the responses to the following quesitons:

- How much more education do you expect to get?
 (Question 19 Section I)
- 2. If you will not go to college when you finish

high school, which of the following best describes your plans on leaving high school?

(Question 24 - Section I)

Table XXII compares the dependent variable, drinking designation, to the independent variable, educational expectations. Little difference is found between those respondents designating themselves as drinkers or non-drinkers. Of the non-drinkers, 43.8 percent compared to 40.6 percent of the drinkers expect to go to "college." Conversly, 19.4 percent of drinkers compared to 13.5 percent of non-drinkers expect to go to "graduate school." A similarity between the drinker/non-drinker respondents is revealed in their expectations of "not finishing high school" and "finishing high school only" with drinkers responding to these categories 0.7 and 12.6 percent of the time, respectively, and non-drinkers responding to these categories 1.1 and 13.5 percent of the time, respectively.

Table XXII

Comparison of Drinking Designation by Educational Expectations of Respondents

	Will Not	Will	Will Go	Will Go	Will Go	Don't	
	Finish	Finish	To	To Grad	to Bus.	Know	
	High	High	College	School	or Tech		
Drinking	School	School On	ly		School		
Designation	N (%)	N(%)	N(%)	И(%)	N(%)	N(%)	Totals
Who Drinks	2(0.7)	35 (12.6)	113(40.6)	54 (19.4)	33 (11.9)	41 (14.7)	278 (51.0)
Person Who							
Does Not							
Drink	3(1.1)	36 (13.5)	117 (43.8)	36 (13.5)	33 (12.4)	42 (15.7)	267(49.0)
Totals	5(0.9)	71 (13.0)	230 (42.2)	90(16.5)	66 (12.1)	83(15.2)	545 (100.0)

The data in Table XXII provides little support for Hypothesis 11 relating high educational expectations to less likelihood of drinking. A chi square of 3.68 is obtained with five degrees of freedom. This value is not significant at the .05 level; therefore, the null hypothesis is not rejected.

Table XXIII compares the plans of the respondents, other than college, with their designation as a drinker or non-drinker. The obtained data reveals little difference between the grouped respondents: 14.3 percent of the drinker respondents compared to 16.1 percent of the non-drinkers respondents indicated that they planned to "get a full-time job." Similarly, 10.4 percent of the non-drinkers compared to 9.2 percent of drinkers responded that they planned to "go to vocational/trade school."

The largest difference exists in the choice of "join the armed services;" here 8.5 percent of the drinkers compared to 4.4 percent of the non-drinkers are found in this response category.

Table XXIII

Comparison of Drinking Designation by
Plans Following High School

Drinking	Get A Full Time Job	Go to A Voc/Trade School	Join The Armed Services	Don't Know	Other	Plan To Go To College	
Designation	N (%)	N (%)	N (%)	N (%)	N (%)	N(%)	Totals
Person Who Drinks	39(14.3)	25(9.2)	23(8.5)	2(0.7)	22(8.1)	161 (59.2)	272(52.2)
Person Who Does Not Drink	40(16.1)	26(10.4)	11 (4.4)	9(3.6)	19(7.6)	144(57.8)	249(47.8)
Totals	79 (15.2)	51(9.8)	34 (6.5)	11(2.1)	41 (7.9)	305 (58.5)	521 (100.0)

 $x^2 = 8.89$ d.f. = 5 p > .05

Here again little support is found for Hypothesis 11.

A chi square of 8.89 is obtained and in entering the chi
square table with five degrees of freedom the value is not
significant at the .05 level. The obtained results provide
support for not rejecting the null hypothesis.

Hypothesis twelve (H12) states: The teenagers whose close friends drink alcohol is more likely to drink than the teenager whose close friends do not drink. Stated as a null hypothesis:

The teenager whose close friends drink alcohol is no more likely to drink than the teenager whose close friends do not drink.

Analysis of the data is based on the responses to the following questions:

- Do your close friends drink? (Question 14a -Section II)
- 2. How often per week do your close friends drink? (Question 14a - Section II)

The data in Table XXIV compares the independent variable, close friends that drink, with the dependent variable, drinking designation. The data provides substantial support for Hypothesis 12. Of those respondents designating themselves as drinkers, 96 percent indicated that their friends drank and only 4 percent indicated that their friends did not drink. Conversly, of those respondents designating themselves as non-drinkers. only 37 percent indicated that their close friends drink

and 63 percent indicated that their close friends did not drink.

Table XXIV

Comparison of Drinking Designation by
Number of Close Friends That Drink

Do your close	friends drink	?	
	Yes	No	
Drinking			
Designation	N(%)	N (%)	Totals
Person Who Drinks	267 (96.0)	11(4.0)	278(51.0)
Person Who Does Not Drink	98 (37.0)	167(63.0)	265(48.8)
Totals	365 (67.2)	178(32.8)	543 (100.0)
x ² =	212.11	d.f. = 1 p < .	05

A chi square of 212.11 is obtained and with only one degree of freedom the value is signficant at the .05 level. The obtained results allow the null hypothesis to be rejected.

Table XXV compares the amount of times per week that the respondents' close friends drink compared to their own drinking designation. Here again the data provides substantial support for Hypothesis 12 with 64.2 percent of the non-drinker respondents indicating that their close friends do not drink any times per week compared to only 3.6 percent of the drinker respondents reporting in this category. Conversly, drinker respondents reported that their close friends drank more times per week than the close

friends of non-drinker respondents in all amounts per week; "one" through "seven." Most notable differences are revealed in the friends' drinking "one" to "three" times per week (31.6 percent), "two" times per week (38.9 percent), and "three" times per week (17.8 percent) compared to 18.5, 10.8, and 3.8 percent, respectively, of responses of non-drinkers to these categories.

Table XXV

Comparison of Drinking Designation by
Amount That Close Friends Drink

	None	One	Two	Three	Four	Five	Six	Seven	
Drinking									
Designation	N(%)	N(%)	N (%)	N (%)	N(%)	N (%)	N(%)	N (%)	Totals
Person Who									
Drinks	10(3.6)	87(31.6)	107(38.9)	49 (17.8)	12(4.4)	7(2.5)	1(0.4)	2 (0.7)	275 (51.4)
DITHKS	10(3.0)	07 (31.07	107(30.3)	45(17.0)	12 (4.4)	/(2.3)	1(0.4)	2 (0.7)	2/3(31.4)
Person Who									
Does Not									
Drink	167 (64.2)	48 (18.5)	28 (10.8)	10(3.8)	4(1.5)	1(0.4)	1(0.4)	1(0.4)	260 (48.6)
Totals	177(33.1)	135 (25.2)	135(25.2)	59(11.0)	16(2.9)	8(1.5)	2(0.4)	3. (0.6)	535 (100.0)

A chi square of 231.14 is obtained and with seven degrees of freedom this value is significant at the .05 level. The obtained results allow the null hypothesis to be rejected.

Hypothesis thirteen (H13) states: The teenager who is unconcerned about the opinions of his/her teachers have about him/her is more likely to drink than the teenager who is concerned about the opinion of his/her teachers

about him/her. Stated as a null hypothesis:

There is no difference in the likelihood that a teenager will drink by the concern he/she has about the opinion of his/her teachers.

A comparison is made between the designation of the respondent as a drinker/non-drinker and the degree which he/she indicated that he/she cares about his/her teachers' opinion about him/her. A further comparison is made of the respondents' drinking designation and, conversly what they believe their teachers' opinion about them to be. Analysis of the data was based on obtained responses to the following quesitons:

- Do you care what teachers think about you?
 (Question 37 Seciton I0
- 2. How many of your teachers seem to care about how well you do in school? (Question 36 Section I)

Table XXVI compares the relationship of the independent variable, care what teachers think, and the drinking designation of the respondents. The obtained data reveals very strong support for Hypothesis 13. Of the non-drinker respondents, 56.5 percent compared to only 35.3 percent of the drinker respondents indicated that they "care a lot" about what their teachers think about them. Conversly, 44.2 percent of the drinker respondents compared to 35.1 percent of the non-drinkers indicated that they "care some" about what their teachers think about them. Similarly,

only 8.4 percent of the non-drinkers indicated that they "didn't care much" about what their teachers think of them compared to 20.5 percent of the drinkers responding to this category.

Table XXVI

Comparison of Drinking Designation by
Concern for the Opinion of Teachers

Do you care	what teachers	think about	you?	
	Care	Care	Don't Care	
Drinking	A Lot	Some	Much	
Designation	N (%)	N (%)	N (%)	Totals
Person Who Drinks	98 (35.3)	123(44.2)	57(20.5)	278(51.5)
Person Who Does Not Drink	148 (56.5)	92(35.1)	22(8.4)	262 (48.5)
Totals	246 (45.6)	215 (39.8)	79(14.6)	540(100.0)
$x^2 =$	29.69	d.f. = 2	p (. 05	

An obtained chi square of 29.69 with two degrees of freedom is obtained which is significant at the .05 level. This strongly supports the hypothesis that students who are unconcerned about the opinions of their teachers are more likely to drink alcohol. The obtained data thus results in a rejection of the null hypothesis.

Table XXVII compares the respondents' perception of the concern of teachers for the respondent and their designation as a drinker/non-drinker. Hypothesis 13 is again supported with 38.6 percent of the non-drinkers compared to 33 percent of the drinkers feeling that

"almost all" of their teachers care about them. Similarly, 33 percent of the non-drinkers compared to only 25.7 percent of the dirnkers felt that "most" of their teachers care about them. Conversly, 35.5 and 5.7 percent of drinker respondents indicated that only a "few" or "none," respectively, of their teachers seem to care about them compared to 25.5 and 3 percent, respectively, of non-drinkers responding to these categories.

Table XXVII

Comparison of Drinking Designation by
Perception of Respondents' of Teachers' Concern

How many of school?	your teache	rs seem to	care about	how well	you do in	
	Almost	Many	A Few	None		
Drinking	All					
Designation	N (%)	N (%)	N(%) N(%)		Totals	
Person Who Drinks	92 (33.0)	72 (25.8)	99 (35.5)	16(5.7)	279(51.1)	
Person Who Does Not						
Drink	103(38.6)	88 (33.1)	68 (25.5)	8(4.4)	267(48.9)	
Totals	195 (35.7)	160(29.3)	167(30.6)	24(4.4)	546 (100.0)	
x ² =	= 10.38	d.f. =	= 3 p	〈 .05		

A chi square of 10.38 is obtained and in entering the chi square table with three degrees of freedom the value is significant at the .05 level. These obtained results thus allow the null hypothesis to be rejected.

Assessment of Relationships Using Gamma Statistic

The following analysis reveal the results of the

comparison of the amount of times drinking per week is self-reported by the respondents and the independent variables related to each of the thirteen hypotheses.

Using the gamma statistic, it must be kept in mind that the findings represent a symmetric measure indicating the relative preponderance of like (unlike) ranked pairs among pairs ranked differently on both variables. The dependent variable varies in each comparison from zero to seven times drinking per week as self-reported on the questionnaire by the respondents. Each of the independent variables also have different degrees of responses indicated on the questionnaire by the respondents.

There are twenty-six independent variables used for measuring the association of the amount of drinking per week as self-reported by the respondents with the attachments, commitments, beliefs, and involvements to/ with their parents, peers and/or school. These each describe the respondents feelings concerning these concepts and the subsequent association with his/her drinking Table XXVIII presents the results of the comamounts. parisons of these variables. It is clear that the situational context of the question produces different responses about the questions; thus, subsequent different associations. Respondents indicate strongest associations concerning commitments and involvements to/with school and the subsequent activities of their friends. There are considerably

weaker associations found between the amount that respondents indicate drinking and specific attachments to parents and friends. Given these variations in associations, we can proceed to a consideration of the possible determinants of these differences.

Table XXVIII

Comparison of the Amount of Drinking per Week as Self-Reported by the Respondents with the Independent Variables Relating to the Attachments, Commitments, Beliefs, and Involvements of the Respondents

Hypothesis	Independent Variable	Gamma	Significance
1	Desire to be the kind of person best friends are	.010	p 🕽 .05
1	Respect best friends opinion about the important things in life	047	p > .05
1	Best friends stick by respondents if he/she gets in really bad trouble	.168	p > .05
1	People respondent thinks of as best friends also think of respondent as best friend	.037	p > . 05
2	Influence of respondent in making family decisions	.045	p > .05
2	Parents seem to understand respondent	.085	p > .05
2	Rank order of persons most apt to talk over future plans with	.241	*p 〈 .05
3	Perception of fairness of parental rules	.129	p > .05
3	Parents met respondents friends	.007	p > .05
4	Number of times respondent willfully stayed away from school	. 358	*p < .05
5	Amount of times respondent spends studying outside of school	021	p > .05
7	Percent of weekly earnings saved by respondent for future use	.094	p > .05

Table XXVIII cont.

Hypothesis	Independent Variable	Gamma	Sig	nif:	cance
7	Purpose or objective for saving money	.015	р	>	.05
8	Membership in high school organizations or clubs	.185	* p	<	.05
8	Membership in school activities (excluding sports)	.135	р	>	.05
8	Membership in non-school activities or groups	.160	р	>	.05
9	Membership in team sports	.217	* p	<	.05
10	Friends active in school activities	.263	* p	<	.05
11	Educational expectations of respondent	012	Р	>	.05
11	Plans after high school other than college	066	р	>	.05
12	Close friends who drink alcohol	.905	* p	<	.05
12	How often per week close friends drink	.414	* p	<	.05
13	Concern for what teachers think	.267	* p	<	.05
13	Perception of opinion of teachers about	-, 095	р	<u>></u>	.05

* = significance of absolute value at the .05 level of significance

Hypothesis one was tested by comparing the amount of drinking self-reported with those different aspects of the respondents' attachments (image of friends, opinion of friends, loyaly of friends, mutual feeling of friends) to their friends. Respondents that drink alcohol in varying amounts appear no more likely to be strongly attached to their friends than those respondents that do not drink. The data does not support rejection of the null hypothesis.

Hypothesis two measures the association of the amount

of drinking by parental attachments. A very weak association is found when comparing the respondents perceptions of parental understanding, .085, and influence, .045, in family decision making and home rule. A low association, .241, results when comparing the amount of drinking with with the person the respondents indicated that they would be most apt to talk over their future plans with. An overall analysis of the data results in a decision to not reject the null hypothesis.

Hypothesis three was measured comparing the dependent variable, amount of times drinking, and the independent variables: perception of parental rules, parental loyalty, and parents meeting respondents friends. The absolute values of .129, .007, and .158 again revealed negligible associations. The null hypothesis that no difference exists in the likelihood of teenagers to drink based on parental control is thus not rejected.

The responses concerning the commitments of respondents to conventional activities are compared in hypothesis five through eight. A moderate association is found when comparing the amount of drinking indicated by respondents to the amount of times which they indicated willfully staying away from school. The .358 absolute value arrived at is significant at the .05 level and the data results in a partial rejection of the null hypothesis.

The amount of times drinking per week again show a

negligible association when compared with the independent variable, percent of weekly earnings saved and the purpose or objective for saving money. "Weekly earnings saved" reveals a gamma finding of .094 and "the purpose or objective for saving money" reveals a very low negligible association of .015. The data indicates that the null hypothesis is not rejected.

Low associations are present between the amount that respondents drink and their self-reported membership in high school organizations, school activities, and non-school activities. An absolute value of .185, .135, and .160, respectively, is arrived at of which only "member-ship in high school organizations" is significant at the .05 level. The comparison of the dependent variable with the respondents' self-reported membership in these organizations and activities results in a non-rejection of the null hypothesis.

Comparison of the dependent variable to the respondents' self-reported membership in team sports reveals a low association; however, the absolute value of the association, .217, is significant at the .05 level of significance and results in the rejection of the null hypothesis. Similar results are found in comparing the association of the dependent variable, amount of times drinking, and the independent variable, friends active in school activities. An absolute value of .263 is found

which indicates an association which is significant at the .05 level. These findings result in a rejection of the null hypothesis.

Negligible associations are revealed when comparing the dependent variable, amount of times drinking, with the educational expectations of the respondents and their plans after high school. The absolute values of -.012 and .066, respectively, are not significant at the .05 level; thus, the null hypothesis is not rejected.

Conversly, relatively strong associations are found when comparing the dependent variable with the respondents' self-report of their friends' drinking and the amount that their friends drink. The strongest association is found between the amount of drinking reported by the respondents and the self-report of friends drinking with an absolute value of .905. A moderate association with an absolute value of .414 is found when comparing the amount of drinking by the respondents with the amount of drinking which they perceived their friends to do. Findings revealed by this data result in a rejection of the null hypothesis.

The data from comparisons made between the dependent variable reveal different degrees of associations when compared with the independent variables of the "respondent caring what teachers think of them" and the "respondents feeling that teachers care about them" A low association with an absolute value of .267 is found when comparing

the independent variable, amount of drinking by respondents, with the independent variable, respondents concern for what teachers think. This finding is significant at the .05 level. Conversly, when comparing the dependent variable with the respondents' perception of what teachers seem to think of them, a negligible association with an absolute value of -.095 is found. The results of this data reveal a rejection of the null hypothesis.

The procedures outlined at the beginning of this chapter provided the guidelines for answering questions concerning the major questions of this study. It indicated the number and kinds of variables to be investigated, and it indicated the procedures to be used in investigation. As previously stated, twenty-six independent variables were tested against two dependent variables through the use of a separate statistical analysis for each dependent variable: Chi Square (X2) and Gamma (G).

Tables II through XVII revealed the findings as defined by the dependent variable, designation of a person as someone who drinks or does not drink. Table XXIX gives a comparison of the findings resulting from the tests of each of the thirteen hypotheses using both statistics.

		Signi	ficance	at .	05 level
Hypothesis	Independent Variable	Chi	F		Gamma (G)
1	Desire to be the kind of person best friends are				
1	Respect best friends opinion about the important things in life				
1	Best friends stick by respondent if he/she gets in really bad trouble		x		
2	Influence of respondent in making family decisions				
2	Rank order of persons most apt to talk over future plans with				Х
3	Perception of fairness of parental rules	5	Х		
3	Perception of parental loyalty if respondent got into bad trouble		Х		
3	Parents met respondents' friends		х		
4	Number of times respondent willfully stayed away from school		X		Х
5	Aspirations greater than expections				
6	Amount of time respondent spends study- ing outside of school				
7	Percent of weekly earnings saved by respondent for future use				
7	Purpose or objective for saving money				
8	Membership in high school organizations or clubs		Х		X
8	Membership in school activities (excluding sports)				
8	Membership in non-school activities or groups		X		

Table XXIX cont.

		Significance	at .05 level
Hypothesis	Independent Variable	Chi Square	(X2) Gamma(G)
9	Membership in team sports	X	X
10	Friends active in school activities	Х	x
11	Educational expectations of respondent		
11	Plans after high school other than college		
12	Close friends who drink alcohol	Х	Х
12	How often per week close friends drink	X	X
13	Concern for what teachers think	X	Х
13	Percetion of opinion of teachers about respondent	х	Х

X = designates significance at .05 level

Table XXIX demonstrates both support and non-support of the thirteen hypotheses dealing specifically with the concepts of attachments, commitments, involvements, and beliefs of the individual respondents to/with parents, peers, and/or school. The chi square statistic was used to determine whether significant differences existed between the concept affiliations of the respondents and their self-reported drinking designation. The chi square value for rejection of the null hypothesis is .05. Similarly, an absolute value of .185 was needed to reject the null hypothesis when using the gamma statistic.

The null hypothesis stated that no significant differences existed between the attachments, commitments,

involvements, and beliefs of high school students that drink or do not drink alcohol and the amount of times drinking per week which these respondents self-reported. An examination of Table XXIX reveals that the concepts are not as closely related to teenage drinking as first hypothesized.

Attachments to friends, parental influence, and future aspirational and expectational goals revealed no significant differences between drinker and non-drinker respondents. Conversly, parental influence, school attendance, and non-school activity, clubs, and organizational involvements, close friends drinking, and concern for the opinion of teachers seemed to show that designated drinkers have different views concerning the four concepts than do the designated non-drinkers.

There were very few large differences in the self-reported relationships of the attachments, commitments, involvements, and beliefs between the designated drinkers and non-drinkers. Apparently, drinkers and non-drinkers hold similar views toward/with parents, peers, and/or school concerning these four concepts. Further discussion concerning these findings will be found in the summary, discussion, and findings chapter to follow.

Chapter V

SUMMARY, FINDINGS, AND CONCLUSIONS

It is the intent of this chapter to present a summary of the problem researched in this study and the findings as derived through this research. Emphasis will also be placed on suggesting improvements and/or alternatives in order that others might benefit from the findings of this study.

In an earlier discussion, it was pointed out that the problem under consideration was to determine if there is a relationship between the amount and frequency that high school students drink and their attachments, commitments, beliefs, and involvements to/with/in parents, peers, and/or school. In researching this problem the major area of inquiry dealt with the drinking behavior of high school students, including frequency and individual drinking designations compared to those circumstances under which individuals drink, the differences in associations with drinking/non-drinking companions, and the environmental factors of the drinkers vs. non-drinkers.

In order to collect data which would help provide tentative answers to this problem, it was felt that a theory

capable of relating the above mentioned concepts to the amount and frequency of high school student drinking be utilized. The Social Control Theory was decided on. framework of the theory was based on the research presented by Travis Hirschi in Causes of Delinquency. This led to predictions in the form of thirteen hypotheses utilizing the above mentioned concepts and the subsequent relationships there of to parents, peers, and/or school. The testing of these hypotheses provided an opportunity to test the predictiveness of the control theory of delinquency as it related to the single deviant act of "teenage drinking." Control theory in this study was tested through the use of twenty-six independent variables compared with two separate dependent variables: drinking designation of the respondents and the amount of times per week which the respondents self-reported drinking.

On the basis of the survey responses, 48.1 percent of the respondents were designated as "non-drinkers;" that is, these respondents self-reported that they did not drink. This compared to 50.3 percent of the respondents who self-reported themselves to be persons that drink. From this data a working definition of the respondents to be compared was established (drinkers, non-drinkers). Based on these

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This definition is arrived at with more ease than that attained by Hirschi or other "delinquency" researchers as to what constitutes a delinquent vs. non-delinquent. The present study made a specific classification based on the individuals self-report, self-classification as drinker or non-drinker.

comparative groups and other data collected to test the hypotheses, tentative answers to the areas of inquiry are provided.

The findings generated support for seven of the hypotheses testing the Control Theory. These results may be looked at as a starting point for further research using not only this theory but other theories which might be found applicable to the problem of teenage drinking. The relations between traditional variables and forms of delinquency, e.g. teenage drinking in the present study, are very much like those revealed by previous research. It is hoped that these present findings have helped solidify Control Theory and may aid further research in this area.

ATTACHMENTS

Attachments to Friends

The first hypothesis dealt with the respondents' attachments to their friends. In keeping with the Control Theory of delinquency, mixed results were revealed containing both agreement and non-agreement with the findings of Hirschi. Corresponding Hirschi data revealed:

...evidence is clear that attachments to peers does not produce attitudes and values conducive to delinquency. On the contrary, those attached to their peers are less likely to have the attitudes and values traditionally used to account for the presumed relation between attachment to peers and delinquency; thus, the hypothesis is difficult to justify on theoretical grounds.

Data in the present study held this finding to be generally true. The data gathered did not support the hypothesis that drinking students showed greater attachment to their friends than non-drinking students; that is, drinkers and non-drinkers seem to have positive and similar relationships regarding attachments to friends.

Attachments to Parents

Control Theory purports that relations with and attitudes toward parents are in some sense equivalent to the professor's answer to the question, "How good of a student is he, really?" Answers to this question are commonly broken into several components, a majority of which contribute nothing additional to the final result. The alternative is to argue that relations with parents are somehow built into the child, that deviant acts satisfy psychological or social needs stemming from relations with the parents. Hirschi concluded that the decisive links in this communication network are those found between the parent and the child. If the child does not communicate with his/her parents, if he/she does not tell them of his/her activities, then he/she does not have to concern him/herself with their imagined reactions to his/her behavior. Findings in the present study do not reveal full agreement with the conclusions drawn by Hirschi, although non-drinkers do seem to show a more positive

relationship to parental influence. However, the overall findings revealed that attachments to parents are not significantly related and associated to the amount and frequency that teenagers drink.

COMMITMENTS

Commitment to conventional activities is not found to be significantly related to the amount and frequency that high school students drink. Hirschi's findings reveal that delinquents are not seen as strivers, either in word or deed. Total support of these findings is not found in the present study. Drinkers and non-drinkers were found to hold very similar commitments to conventional activities as well as holding similar educational and occupational aspirations and expectations. Significant differences were found, however, between drinkers and non-drinkers when comparing self-reported school non-attendance. respondents designated as non-drinkers reported much greater attendance at school as opposed to designated drinker respondents reporting much higher rates of willfully staying away from school. Further research might be aimed at finding out the extent to which high school students are drinking while willfully staying away from school.

INVOLVEMENTS

Of the elements of the bond to conventional society, involvement in conventional activities is most obviously

relevant to delinquency. Agreement with the findings of Hirschi were revealed in the present study. Hirschi found that boys/girls who smoke, drink, date, and ride around in cars, find adolescence "boring" and so on, are more likely to commit delinquent acts than boys/girls who do not have these attitudes and do not engage in these activities. When focusing specifically on the deviant act of teenage drinking, the present study revealed that involvement in school activities, team sports, and having friends active in school activities, were all directly related to the amount and frequency that teenagers drink. That is, teenagers not involved in these activities were found not only to drink, but to drink in greater amounts.

BELIEFS

Control theorists are in agreement on one point:

delinquency is not caused by beliefs that require delinquency, but rather made possible by the absence of (effective)

beliefs that forbid delinquency. The beliefs most obviously relevant to delinquency are those bearing on the

goodness or badness of delinquent behavior as such. Our

society's legal system surrounds the individual with legal

codes and rules to be observed. Hirschi concluded that

belief in the moral validity of the law is consistently

related to the measures of attachment and commitment

discussed earlier, to include attitudes toward teachers.

The attachments and commitments to conventional and unconventional others lead to further beliefs in conventional society. The present study supported this segment of Control Theory that significant relationships and associations were found between drinkers and non-drinker when comparing the amount and frequency that teenagers report drinking with those teenagers having friends that drink or do not drink. These findings lead to the conclusion that those teenagers with close friends that drink combine this attachment to a strengthened belief in underage drinking as a conventional activity. Conversly, teenage non-drinkers are found to have best friends that also do not drink. most significant relationship of teenage drinking was found when comparing the drinking designation of the respondents and their subsequent involvement with drinking peers. four percent of the respondents who reported that their best friends did not drink indicated that they themselves drank. Conversly, ninety-six percent of the respondents who designated themselves as drinkers reported that their best friends drank.

The extent of involvements with drinking or non-drinking peers seemed to emphasize an importance placed on the use of alcohol as a common bond. No other activity or attitude was found to have significant relationships to the degree found when comparing the drinking behavior or the respondents and that of their best friends. Peer behavior appears to be

the crucial determining factor in teenage drinking. Further research might be aimed at determining whether, in fact, peers are the cause of adolescents starting to drink or if adolescents seek out peers that drink after they start drinking themselves.

FINAL NOTES ON THE UTILITY OF CONTROL THEORY AND IMPLICATIONS

The preceeding section of this chapter has focused upon the larger pattern of the findings derived from the research. Each of the earlier chapters has indicated what bounds have led to the summary generalizations and opened up conclusions and possibilities for future research. This section attempts to focus on the basis for using the Control Theory for the study of teenage drinking.

Admittedly, Control Theory as used in this study was not the absolute answer to the problem of relationships involved in teenage drinking. Problems arise when attempting to determine what motivates the individual teenagers to commit the deviant act of underage drinking. The theory only suggests the similarities of the individuals' attachments, commitments, involvements, and beliefs and subsequent relationships to parents, peers, and/or school and the relationships these have on whether the individual will drink or not drink. From these, speculations are made concerning the similarity in deviant acts based on the similarity of relationships to these concepts. Hirschi concluded from his work that involvement in conventional

activities was not as important as the Theory predicts in delinquency prevention; however, the present study revealed significant differences in the involvements in certain conventional activities by drinker and non-drinker respondents. Hirschi's study revealed an exception to the Control Theory in his finding that the influence of delinquent peers does, in fact, have an importance in the commission of a delinquent act. Though not predictable from the current formulation of Control Theory, the present study revealed data supportive of Hirschi's finding.

Problems of complete replication have appeared when testing Control Theory. For example, Hindelang (1973: 478-80) failed to replicate a positive relationship between attachment to parents and attachments to friends. Further, he failed to show that low attachment to friends increases the likelihood of delinquent behavior. In fact, he found a slight positive relationship between identification with peers and delinquency which is unexplainable in terms of Control Theory.

Control Theory does not clearly allow the empirical findings to clarify the issue of the conceptual unity of the theoretical structure. Certain measures within the overall structure sometimes relate to other conepts better than the one which they were being compared to. These data are not clear-cut: they support both a generality point of view and a specificity point of view. Thus,

there is a need for further empirical and conceptual analysis. Empirically there is a need to develop definitions which will insure a minimal overlap of the conceptual structures. Conceptually, the issue turns in the degree to which the structures within a system can be argued to be theoretically uncorrellated. The latter situation is evident in the present study. That is, drinking designation and the amount of times drinking per week was both correlated and uncorrelated to the subsequent attachments, commitments, beliefs, and involvements to/with parents, peers, and/or school. The control theory allows a flexibility sometimes governed by the interpretations of the individual researcher. Although certain conceptual boundaries do exist, there is a need to develop a more precise structure to insure consistent replication and validation in future studies.

The present study generally supported Control Theory regarding the relationship of parental and peer attachments to the teenager's designation as a drinker or non-drinker.

Possibly, any one or more of the other existing delinquency theories may have been suited for the research of the problem in the present study. A test of a strain theory might have revealed a relationship between social class and teenage drinking. Durkheim's Theory of Anomie might have possibly been shown through the research to relate to a normless teenage society engaging in their own

"non-deviant" act of underage drinking. Theories of
Cultural Deviance also would support reasons leading teenagers
to drink. This theory supports the view that delinquency
(underage drinking) is a conventional learned act. That
is, the assumption is that men are incapable of committing
"deviant" acts. Research of the problem area using this
theory may have pointed to findings suggesting that teenagers simply learn to drink in much the same way that
other teenagers learn any other "conventional" activity.
Persons are moved to deviance because of an excess of
definitions favorable to these actions over definitions
unfavorable to these deviant actions.

Of late, Social Learning Theory, which agrees with and goes beyond the Social Control perspective, has gained notoriety. It provides the needed information about "group processes" not found in Control Theory. That is, concern for attachment to peers is supportive and predictive only after the "type" of peer is taken into account. The combined notion that individuals are "bonded" to others with certain principles from Social Learning Theory strengthens the groundwork for a stronger theory. Social Learning Theory agrees with social control theory in findings emphasizing the importance of supervision by parents. The social learning theory, however, places a stronger emphasis on communication between parents and child and affectional identification by the juvenile with his/her parents.

Obviously, it must be determined before testing any of these theories that there has been some type of deviant act committed (even if the individual does not consider it to be deviant) and a further definition of what is normal. Perhaps the whole phenomena of drinking among teenagers is no more deviant than drinking among adults. That is, the act in itself might only be a type of "status offense" unique among juveniles. Also, it is possible that control theory or any of the other delinquency theories are unsuited for pinpointing the deviant act of teenage drinking and supporting with proper justification any subsequent implications to be drawn.

To make this point about any particular overall theory is not to diminish the importance of the particular concepts within the embracing systems. Conclusions about the concepts used in this study can be drawn with a fair degree of confidence. It is clear, for example, that the notion of "involvement" constitutes the most powerful concept for describing student differences based on drinking designations. Although the self-reported differences in drinker vs. non-drinker groups were relatively minor, crucially important differences in involements between these groups emerged. That is, involvements appear to play a central role in this selected course of human behavior, e.g. teenage drinking, according to the data collected.

The findings about alcohol use make the complexity of deviance most evident. Comprehensive understanding of alcohol use requires knowledge of how it was learned, the context of its use, the amount drank, the meaning or psychological functions of drinking, and the consequences of its use. Two persons drinking the same amount of alcohol may be doing so in different ways: one by him/herself, as a way of expressing a feeling of being nervous or tense; and the other in a group, as a way of expressing his/her feeling of community with his/her companions. The differences between these two patterns is not likely to have such different consequences, but to be differentially related to outside pressures and controls.

RECOMMENDATIONS

As a result of this investigation, the following recommendations are made based upon and supported by the data obtained from the questionnaire results. First, future studies on the teenage drinking problem would be beneficial. The present study presented respondents from a somewhat limited population. As with the study of any segment of society, its representativeness of some universal is always in doubt, especially when this segment has been selected to portray some overall representativeness of the whole. While there are obviously many high schools like the ones which were sampled, it is difficult, on any

sampling basis, to lay claim to inferences which go beyond the boundaries of those in this study. This means, in the most severe terms, that the explanations of the amount and frequency of teenage drinking based on the concept of control theory apply only to these four high schools, or perhaps to others which are demonstratably similar, and greater generalizability must wait upon extension and replication.

Future studies should include elementary grade students as well as junior and senior high students. Some evidence in the present study was contrary to past Control Theory research; therefore, replication of this study and expanded studies should be made to determine what differences are present in studies testing control theory. The results of these future studies may strengthen present Control Theory beliefs. The results of this study might also be used to cross-check similar studies which have been done in the area of teenage drinking.

Another recommendation concerns the use of more indepth descriptive studies to further determine the role of peer groups, parents, and school setting of the drinking behavior of adolescents. Also, factors of age, socio-economic factors, and other significant variables might be researched to determine what effect they might have on teenagers' relationships and attitudes with/about drinking.

A further recommendation concerns the use of as many sources as possible to insure a high level of validity. The present study was able to utilize only a self-report instrument which was filled out by each of the individual respondents. This level of validity is a fairly consistent feature of the majority of studies concerned with all types of alcohol and drug research. Most evident in these studies is the absence of definitions and measurement criteria. Future studies of this nature should utilize school records and police records in addition to self-report by the individual respondents. This technique was employed by Hirschi. The use of these records allows greater ease in cross-checking self-reported responses for apparent validity.

Overall, the study contributes to the present body of knowledge concerning drinking by high school students. These contributions include the generation of a series of hypotheses suitable for empirical testing, an original attempt to demonstrate the importance of definitions as an influence on drinking behavior, and an in-depth presentation of teenage drinking. Aside from the specific hypotheses suggested as plausible for research, the study generated findings both consistent and inconsistent with a portion of previous Control Theory research dealing with the concepts and other past studies dealing strictly with alcohol and drug research. Due to the potential impact of this finding, the suggestion is made that it be subjected to additional

empirical testing as a major contribution to the entire field of delinquency. The compilation of data is suitable for a variety of research and theoretical interests. It can be used to initiate the formulation of answers to some of the issues hypothesized on in this study, as well as to generate additional relationships for empirical testing.

This study represents an attempt to apply the control theoretical approach from the sociology of deviance to a specific, substantive research sample. It is believed that findings derived have resulted in a somewhat accurate assessment of this theory. It is hoped that the findings derived from this study will contribute to and expand the present body of knowledge concerning the problem of teenage drinking.

APPENDIXES

Appendix A

SUPPORTING LETTER

Criminal Justice Department Annex 20 University of Nebraska at Omaha Omaha, Nebraska 68106

The problem of teenage drinking has become, now, more than ever a national concern. Many past studies have aimed at determining the who, where, and when of drinking by teenagers, but few studies have attempted to answer the I am presently a graduate student at the University of Nebraska at Omaha working on my Master of Arts in Criminal Justice. The study I have proposed is aimed at determining if a relationship exists between the amount and frequency that teenagers drink and their attachments, commitments, involvements and beliefs to/ with parents, peers, and/or school. I hope that the results of this research may open the doors to more research in this particular area. I have attached a sample of the questionnaire that I will be using for the study. will be contacting you within the next few days to discuss your interest in giving this questionnaire to your students.

Thank you for your time and cooperation.

Sincerely,

Michael T. Eskey Graduate Assistant Criminal Justice Appendix B

RESEARCH INSTRUMENT

SECTION I

1.	Indicate your sex by placing an X next to Male (1) the appropriate number. Female (2)
2.	Indicate your grade in school. 9th (1) 10th (2) 11th (3) 12th (4)
3.	What was your age on your last birthday? 14, and under(1)
4.	Write the correct number of older or younger brothers and sisters you have in the appropriate space. (Write appropriate number on each line. If you have none, write none.) Younger brothers and sisters Older brothers and sisters
5.	Are your parents living? (1)Both (2)Father only (3)Mother only (4)Neither
6.	Who contributes most to the support for your family? (If you do not live with either or both of your parents, answer for family with which you are now living.) (1) Father (3) Father and Mother equally (2) Mother (4) Some other person(specify)
7.	Do you presently live with (1)both parents(2)mother only(3)father only(4)other(specify)
8.	What does the person mentioned in Question 6 above do for a living? Write in the name of his or her occupation
9.	In addition to this person, does anyone else contribute to the support of your family? (1)Yes(2)No If yes, please specify who or what source
20.	Do you get spending money or an allowance from your parents? Please fill in the blank next to the correct answer. (0)No, or hardly ever (2)Yes, when I ask for it (1)Yes, regularly
11.	Do you earn any money by working at home or away from home? (0)No, or hardly ever (2)Yes, working away from (1)Yes, working at home home
12.	Would you please indicate the approximate amount of spending money you have during the week? (0)None(1)Five dollars or less(2)Five dollars, but less than ten(3)Ten dollars, but less than fifteen(4)Fifteen dollars but less than twenty (5)Twenty dollars or More

13.	Approximately what percent(%) of your weekly earnings do you save for future use?	
14.	For what purpose or objective are you saving money? (1)clothes	
15.	Do you think your father's occupation would be a good life's work for you? (If you are a girl, do you think it would be a good life's work for your future husband?) (0) No good at all (1) Not very good (2) Fair (3) Good (4) Very good	
16.	If you had your choice what kind of life work would you most <u>like</u> to do?	
17.	What kind of work do you actually expect, not hope, to do?	
18.	How far in school did your father go? (Answer for the head of the family with whom you live.) (0) Went to graduate college	
19.	How much more education do you expect to get? (0)Will not finish high school (4)Will go to technical or (1)Will finish high school only business school (2)Will go to college (5)Don't know (3)Will go to graduate school	
20.	How much influence do you have in making family decisions? (1) a lot (3) very little (2) some (4) none	
21.	Do your parents want you to go to college? (1)no (2)yes (3) don't know	
22.	Do your parents seem to understand you? (1)usually(2)sometimes(3)never(4)Don't know	
23.	Do your parents make rules that seem unfair to you? (1) usually (2) sometimes (3) never (4) don't know	

24.	If you will not go to college when you finish high school, which of the following best describes your plans on leaving high school? (0) get a full time job (1) go to vocational/trade school (2) join the Army, Navy, or Air Force (3) other (please specify) (4) don't know
25a.	Would you please specify any high school organizations or clubs to which you belong? (0) do not belong to any
25b.	Would you please specify high school activities (excluding sports) in which you participate? (0)do not belong to any (3)
25c.	Would you please specify any school teams (sports) of which you are a member? (0)do not belong to any (3) (1) (4)
26.	Would you please specify the types of non-school activities or groups in which you particate? (0)do not belong to any (3) (4) (2)
27.	Sometimes people talk about upper, middle, and lower classes in the community and say that a family is one of these. To which of the following do you think that your family belongs, if any? (1) Lower class (4) Upper class (5) Some other (6) Don't know If some other, how would you describe it?
28.	Place in rank order those persons who you would be most apt to talk over your future plans with: (1) your mother (2) your father (5) Minister (3) other relatives (6) Other adults
29.	Are your friends here at school active in school activities? (1) very active (4) not active at all (2) somewhat active (5) I have no friends at this school

30.	Would you like to be the kind of person your best friends are? (1) in most ways (3) not at all (2) in some ways (4) I have no best friends
31.	Do you respect your best friends' opinion about the important things in life? (1) completely (4) not at all (5) I have no best friends (3) a little (5) I have no best friends
32.	Would your best friends stick by you if you got into really bad trouble? (1)certainly (4)don't know (5)I have no best friends (3)I doubt it (5)I have no best friends
33.	Would your parents stick by you if you got into really bad trouble? (1)certainly (5)I doubt it (2)yes, mother only (6)I don't know (3)yes, father only (7)I am not living with or in (4)probably contact with my parents
34.	Do the people you think of as your best friends also think of you as their best friend? (1) all of them do (4) none do (2) most of them do (5) Don't know (3) some do (4)
35.	Have your parents met your friends? (1) most of them(2) some of them(3) none of them(4) I have no friends
36.	How many of your teachers seem to care about how well you do in school? (1)almost all(2)many(3)a few(4)none
37.	Do you care what teachers think of you? (1) I care a lot (2) I care some(3) I don't care much
38.	During the last year did you ever stay away from school just because you had other things you wanted to do: (1)often(2)a few times(3)once or twice(4)never
39.	How did you parents feel about your staying away from school? (1) I never have stayed away (5) they approved (2) they didn't know about it (6) I don't know (7) I am not living with or (4) they disapproved in contact with my parents parents
40.	Have you ever been suspended from school? (1)often (3)once or twice (2)a few times (4)never
41.	Have you ever been picked up by the police? (0)never(1)once(2)twice(3)three(4)four (5)five (6)six (7)seven

42.	Have any of your close friends ever police? (0)no (1)one friend have (3) three friends have	as (2)two friends have		
	(3) three friends have(4) four (5) don't know	or more friends have		
43.	How much influence do you have in a your friends? (1) a lot(2) some (4) none(5) I have no group of	e (3)very little		
44.	How much do you think most teacher friends you go with? (1) very much (3) mot much (4) not at all friends in this school (6) don'	(2) fairly well(5)I have no group of		
	SECTION II			
be so the a stati	The questions in this section are being asked to find out your opinions on the use of alcoholic beverages. There will also be some questions in regard to your own personal use. Remember the answers will in no way be used for anything other than their statistical value, so please be as honest and accurate as possible to protect the validity of this study. Thank you.			
Pleas	Please fill in the blank next to the correct proportions:			
1.	In your opinion what proportion of drink sometimes, but not regularly (0) none (3) thre (1) one-fourth (4) all, (2) one-half	?		
2.	In your opinion, what proportion onever drink or rarely drink? (0) none (1) one-fourth (2) one-half The following suggested reasons ar people to explain why they drink: (1) to be sociable with others (2) afraid of being left out of the (3) not enough supervision, or dis (4) for pleasure or recreation (5) to celebrate some occasion (6) their parents don't care	3) three-fourths		
	(6) because their family drinks (8) they want to be one of the crow (9) to get rid of their worries (10) to prove they can hold it (11) to see what it is like (12) they are rejected by others (13) they are unhappy or sick	d (14)because they don't know better (15)to act grown up (16)other(specify)		

3.	Place in rank order the three most important reasons you feel that high school students drink:
4.	The following suggested occasions for drinking are some of those given by people to explain the situation in which they drink. Select the three you consider the most likely occasions in which high school students will drink: (1) at dances (8) at card parties (2) at parties (9) on fishing or hunting trips (3) at school events (10) at wild parties (4) only on special (11) when they associate with others occasions (5) at weddings (12) at unsupervised parties or (6) New Year's, Christmas gatherings etc. (13) other (specify) (7) at games, or other sporting events
	The three occasions at which high school students are most likely to drink are (by number in rank order),,
5.	Do you consider youself a person who drinks? (1) Yes (2) No If you answered yes, continue; if you answered no go to question 11 (skip 6, 7, 8, 9, 10)
6.	On how many separate occasions do you usually drink per week? (0)none (3)three (6)six (1)one
7.	Do you do your drinking: (1) only on the weekends (both nights) (2) only one weekend night (3) during the week (4) whenever alcohol is available (week day or weekend) (5) other(specify)
8.	Which of the following describes the three most frequent situations in which you drink (place in rank order by numbers in the blank, ex. 1 = most frequent) (1) when I am with a group of friends (2) when I am with my parents (3) when I am with relatives (4) when I am at a party where drinking is going on (5) at some special event (6) on holidays, such as New Year's or Christmas (7) on weekends, for recreation (8) on fishing or hunting trips, or vacations (9) anywhere I am

9.	Which of the following reasons best describe your feelings about drinking? (fill in three you feel most strongly about in rank order) (1) I drink because I like it (2) I drink to be with the crowd (3) I drink when I am unhappy (4) I drink because I have older friends who drink (5) I drink to celebrate some special occasion
10.	What type of alcoholic beverage do you usually drink? (1) beer
	Skip questions 11 and 12 and go to 13
11.	following best describes your reason for tasting it? (0) I do not drink and have not tasted alcohol (1) to see what it was like (2) on a dare (3) because a friend urged me to taste it (4) to see if I could do it (5) I was interested because it was forbidden (6) I was tricked into thinking it was something else
12.	[7] I was angry at my parents or close friends If you don't drink, but have tasted alcohol, which of the following best describes the situations on which you tasted alcohol? [8] I do not drink and have not tasted alcohol [9] I tasted it when I was with a group of friends [9] with my parents [9] with some relatives [9] at some special occasion [9] at a party where drinking was going on [9] on a holiday [1] on a fishing or hunting trip, or vacation
13.	Do your parents drink? Yes No If yes, how often per week? (0) none (4) four (1) one (5) five (2) two (6) six (3) three (7) seven
14.	Do your close friends drink? Yes No If yes, how often per week? (0) none (4) four (1) one (5) five (2) two (6) six (3) three (7) seven

15.	What type of alcoholic beverage do your parents drink (or legal guardians)? (0)they do not drink (4)scotch (1)beer
16.	What type of alcoholic beverages do your close friends drink? (0) they do not drink (4) scotch (1) beer (5) vodka (2) whiskey (6) other(specify) (3) wine
17.	Which of the following best describes your feeling about drinking? (1) drinking is all right (2) drinking is sometimes all right and sometimes wrong, depending upon the circumstances (3) drinking is never right, no matter what the circumstances
18.	Drinking can affect student's school work? YesNo
19.	What is your average grade in school? (A,B,C,D,F,)
20.	What elective courses are you taking?,
21.	Approximately how many hours outside of school do you spend studying per week?

Appendix C

RESEARCH INSTRUMENT RESULTS

The following data represents a breakdown of responses to each question/statement from the survey questionnaire:

- 1. Indicate your sex by placing an X next to the appropriate
 box:
 Male 316 (56.5) Female 243 (43.5)
- 2. Indicate your grade in school. 9th 147 (26.3) 11th 151 (27.0) 10th 151 (27.0) 12th 110 (19.7)
- 3. What was your age on your last birthday?

 14 & under 106 (19.0) 17 126 (22.5)

 15 155 (27.7) 18 32 (5.7)

 16 139 (24.9) 19 & over 1 (0.2)
- Write the correct number of older or younger brothers and sisters you have in the appropriate space. (Write appropriate number on each line. If you have none, write none)

 Younger Brothers & Sisters
 Older Brothers & Sisters

 0 157 (28.0) 5 14 (2.5)
 0 142 (25.4) 5 15 (2.7)

 1 163 (29.2) 6 7 (1.2)
 1 130 (23.2) 6 9 (1.6)

 2 110 (19.7) 7 3 (0.5)
 2 101 (18.1) 7 5 (0.9)

 3 72 (12.9) 8 2 (0.3)
 3 103 (18.4) 8 7 (1.2)

 4 31 (5.5)
 4 47 (8.4)

- 5. Are you parents living?

 Both 525 (93.9) Father only 8 (1.4)

 Mother only 25 (4.5) Neither 1 (0.2)
- 6. Who contributes to the support of your family? (If you do not live with either of your parents, answer for the family with which you are now living)
 Father 378 (67.6) Father & Mother equally 117 (20.9)
 Mother 58 (10.4) Some other person 4 (0.7)
- 7. Do you presently live with:
 Both parents 488 (87.3) Legal custodian 10 (1.8)
 Mother only 49 (8.8) Stepfather 2 (0.4)
 Father only 12 (2.1)
 Number of missing cases 2 (0.4)

8. What does the person mentioned in question 6 do for a living? Write in the name of his or her occupation.

J ==== 11 0110 1101110 0 ==	11-0 110- 0
Professional or Technical	150 (26.8)
Managers and Administrators	126 (22.5)
Clerical and Kindred Work	60 (10.7)
Craftsmen and Skilled Work	88 (15.7)
Operators, except transport	35 (6.3)
Transport Equip. Operators	3 (0.5)
Farmers and Farm Managers	47 (8.4)
Service Workers	17 (3.0)
Household Workers	23 (4.1)
Don't know	10 (1.8)

9. In addition to this person, does anyone else contribute to the support of your family?
Yes 9 (1.6) No 295 (52.8)

Yes, alimony	11 (2.0)
Yes, other parent	195 (34.9)
Yes, other family members	30 (5.4)
Yes, S.S. or welfare	12 (2.1)
Yes, grandparent	5 (0.9)
Total	262 (46.8)
Number of missing cases	3 (0.4)
<u> </u>	

- 10. Do you get spending money or an allowance from your parents? Please fill in the blank next to the correct answer.

 No, or hardly ever 170 (30.4) Yes, when I ask for it Yes, regularly 132 (23.6) 252 (45.1)

 Number of missing cases 5 (0.9)
- 11. Do you earn money by working at home or away from home?

 No, or hardly ever 61 (10.9) Yes, working away from

 Yes, working at home 99 (17.7) home 396 (70.8)

 Number of missing cases 3 (0.5)
- 12. Would you please indicate the approximate amount of spending money you have during the week?

None	21_(3.8)
Five dollars or less	218 (39.0)
Five, but less than ten	146 (26.1)
Ten, but less than fifteen	60 (10.7)
Fifteen, but less than twenty	39 (7.0)
Twenty dollars or more	68 (12.2)
Number of cases missing	<u>7</u> (1.3)

13. Approximately what percent of your weekly earnings do you save for future use?

_			
Zero	150 (26.8)	Fifty	95 (17.0)
One	2 (0.4)	Sixty	8 (1.4)
Five	19 (3.4)	Sixty-five	3 (0.5)
Ten	42 (7.5)	Sixty-six	1 (0.2)
Fifteen	4 (0.7)	Seventy	16 (2.9)
Twenty	25 (4.5)	Seventy-5	36 (6.4)
Twenty-5	37 (6.6)	Eighty	18 (3.2)
Thirty	16 (2.9)	Eighty-5	6 (1.1)
Thirty-5	4 (0.7)	Ninety	29 (5.2)
Forty	17 (3.0)	Ninety-5	11 (2.0)
Forty-5	3 (0.5)	•	

- 14. For what purpose or objective are you saving money?

 Clothing 120 (21.5) Pleasure 110 (19.7)

 Education 153 (27.4) Life 5 (0.9)

 Automobile 117 (20.9) No Plans 2 (0.4)

 Vacation 12 (2.1)
- 15. Do you think your father's occupation would be a good life's work for you? (If you are a girl, do you think it would be a good life's work for your future husband?)

 No good at all 53 (9.5) Good 178 (31.8)

 Not very good 69 (12.3) Very Good 120 (21.5)

 Fair 120 (21.5) Undecided 1 (0.2)

 Number of missing cases 18 (3.2)
- 16. What kind of work do you actually expect, not hope, to do?

Professional or Technical Worker	331 (61.8)
Managers and Administrators	<u>17</u> (3.0)
Clerical and Kindred Workers	12 (2.2)
Craftsmen and Skilled Laborers	36 (6.8)
Operators, except Transport	<u> </u>
Transport Equip. Operators	11 (1.9)
Farmers and Farm Managers	23 (4.3)
Service Workers, except house.	47 (8.8)
Household Workers, private	8 (1.8)
Undecided	43 (8.0)
Number of missing cases	23 (4.3)

17.	If you had your choice what kind of life work would you most like to do? Professional or Technical Workers 234 (41.9) Managers and Administrators 22 (3.9) Clerical and Kindred Workers 55 (9.8) Craftsmen and Skilled Laborers 13 (2.3) Operators, except Transport 15 (2.7) Transport Equip. Workers 10 (1.8) Farmers and Farm Managers 17 (3.0) Service Workers, except house. 40 (7.2) Private Household Workers 10 (1.8) Undecided 106 (19.0) Number of missing cases 30 (5.4)
18.	How far in school did your father go? (Answer for the head of the family with whom you live.) Went to graduate school Went to college Graduated from high school Did not finish high school Did not go beyond 7th grade Went to technical or bus. school Other, please specify Number of missing cases Answer for (Answer for
19.	How much more education do you expect to get? Will not finish high school $5 (0.9)$ Will finish high school only $72 (12.9)$ Will go to college $233 (41.7)$ Will go to graduate school $91 (16.3)$ Will go to technical or bus sch. $67 (12.0)$ Don't know $83 (14.8)$ Number of missing cases $8 (1.4)$
20.	How much influence do you have in making family decisions? A lot 73 (13.1) Very little 98 (17.5) Some 363 (64.9) None 20 (3.6) Number of missing cases 5 (0.9)
21.	Do your parents want you to go to college? No 30 (5.4) Yes 402 (71.9) Number of missing cases 5 (0.9)
22.	Do your parents seem to understand you? Usually _267 (47.8)

- Do your parents make rules that seem unfair to you? Usually 59 (10.6) Never 97 (17.4) Sometimes 385 (68.9) Don't know 13 (2.3) Number of missing cases 5 (0.9)
- 24. If you will not go to college when you finish high school, which of the following best describes your plans on leaving high school?

 Get a full time job

 Go to vocational/trade school

 Join the Armed Services

 Other(please specify

 Don't know

 Go to college

 Number of missing cases

 Number of school

 30 (14.3)

 54 (9.7)

 34 (6.1)

 11 (2.0)

 30 (7.2)

 309 (55.3)
- 25a. Would you please specify any high school organizations or clubs to which you belong?

 Do not belong to any 281 (50.3) Three clubs 15 (2.7) One club 123 (26.8) Four clubs 9 (1.6) Two clubs 84 (15.0) Number of missing cases 20 (3.6)
- 25b. Would you please specify high school activities (excluding sports) in which you participate?

 Do not belong to any 352 (63.0) Three activities
 One activity 123 (22.0) 11 (2.0)
 Two activities 49 (8.8) Four activities
 Number of missing cases 20 (3.6) 3 (0.5)
- 25c. Would you please specify any school teams (sports) of which you are a member?

 Do not belong to any 268 (47.9) Three sports 48 (8.6)

 One sport 117 (20.9) Four sports 4 (0.7)

 Two sports 101 (18.1)

 Number of missing cases 20 (3.6)
- Would you please specify the types of non-school activities in which you participate?

 Do not belong to any 302 (54.0) Three activities
 One activity 161 (28.8) 15 (2.7)
 Two activities 58 (10.4) Four activities
 Number of missing cases 20 (3.6) (0.6)
- 27. Sometimes people talk about upper, middle, and lower classes in the community and say that a family is one of these. To which of the following do you think that your family belongs, if any?

 Lower class ____5 (0.9) Upper class ___2 (0.4)
 Lower middle class ___93 (16.6) Some other ____37 (6.6)
 Upper middle class ____332 (59.4) Don't know ____35 (6.3)
 Middle middle class ____33 (5.9)
 Number of cases missing ____33 (3.9)

28.	Place in rank order those persons who you would be most apt to talk over your future plans with: Parents, peers, other adults 346 (61.9) Peers, parents, other adults 117 (21.0) Other adults, parents, peers 32 (5.7) Other adults, peers, parents 37 (6.6) Number of missing cases 27 (4.8)
29.	Are your friends here at school active in school activities? Very active 139 (24.9) Not active at all Somewhat active 256 (45.8) 32 (5.7) Not very active 99 (17.7) Have no best friends Number of missing cases 25 (4.5) 8 (1.4)
30.	Would you like to be the kind of person your best friends are? In most ways 96 (17.2) Not at all 58 (10.4) In a few ways 372 (66.5) Have no best friends Number of missing cases 10 (1.8) 23 (4.1)
31.	Do you respect your best friends' opinion about the important things in life? Completely 92 (16.5) Not at all 12 (2.1) Pretty much 324 (58.0) Have no best friends A little 105 (18.8) 18 (3.2) Number of missing cases 8 (1.4)
32.	Would your best friends stick by you if you got into really bad trouble? Certainly 175 (31.3) Don't know 78 (14.0) Probably 229 (41.0) Have no best friends Doubt it 50 (8.9) 20 (3.6) Number of missing cases 7 (1.3)
33.	Would your parents stick by you if you got into really bad trouble? Certainly 350 (62.6) Doubt it 27 (4.8) Yes, mother only 27 (4.8) Don't know 40 (7.2) Yes, father only 12 (2.1) Not living with or in Probably 92 (16.5) contact with parents Number of missing cases 9 (1.6) 2 (0.4)
34.	Do the people you think of as your best friends also think of you as their best friends? All of them do $\begin{array}{cccccccccccccccccccccccccccccccccccc$

35.	Have your parents met your friends? Most of them 351 (62.8) None of them 16 (2.9) Some of them 180 (32.2) Have no best friends Number of missing cases 6 (1.1) 6 (1.1)
36.	How many of your teachers seem to care about how well you do in school? Almost all 197 (35.2)
37.	Do you care what teachers think of you? I care a lot 249 (44.5) I don't care much I care some 216 (38.6) Number of missing cases 15 (2.7)
38.	During the last year did you ever stay away from school just because you had other things to do? Often $39 (7.0)$ Once or twice $140 (25.0)$ A few times $119 (21.3)$ Never $251 (44.7)$ Number of missing cases (1.8)
39.	How did you parents feel about your staying away from school? I never stayed away 227 (40.6) They didn't know about it 103 (18.4) They didn't care 40 (7.2) They disapproved 63 (11.3) They approved 61 (10.9) I don't know 41 (7.3) Not living with or in contact with parents 3 (0.5) Number of missing cases 21 (3.8)
40.	Have you ever been suspended from school? Often $7 (1.3)$ Once or twice $38 (6.8)$ A few times $16 (2.9)$ Never $492 (88.0)$ Number of missing cases $6 (1.1)$
41.	Have you ever been picked by the police? Never 414 (74.1) Four 5 (0.9) Once 73 (13.1) Five 6 (1.1) Twice 26 (4.7) Six 3 (0.5) Three 12 (2.1) Seven 13 (2.3) Number of missing cases 7 (1.3)
42.	Have any of your close friends ever been picked up by the police? No $245 (43.8)$ Three friends $32 (5.7)$ One friend has $76 (13.6)$ Four or more $86 (15.4)$ Two friends have $44 (7.9)$ Don't know $70 (12.5)$ Number of missing cases $6 (1.1)$

43.	when with your friends?
	A lot 173 (30.9) None 9 (1.6) Some 329 (58.9) Have no group of friends Very little 33 (5.9) 7 (1.3) Number of missing cases 8 (1.4)
44.	How much do you think most teachers like the group of friends you go with? Very much $95 (17.0)$ Not at all $13 (2.3)$ Fairly well $269 (48.1)$ Have no group of friends Not much $54 (9.7)$ $13 (2.3)$ Number of missing cases $11 (2.0)$ Don't know $104 (18.6)$
	SECTION II
1.	In your opinion, what proportion of high school students drink sometimes, but not regularly? None 55 (9.8) Three-fourths One-fourth 128 (22.9) 110 (19.7) One-half 256 (45.8) All, or nearly all Number of missing cases 8 (1.4) 2 (0.4)
2.	In you opinion, what proportion of high school students never drink or rarely drink? None $56 (10.0)$ One-half $78 (14.0)$ Less than one-fourth $53 (4.5)$ Three-fourths One-fourth $336 (60.1)$ $27 (4.8)$ Number of missing cases $8 (1.4)$ All, or nearly all $54 (9.7)$
3.	Place in rank order the three most important reasons you feel that high school students drink. Social oriented 118 (21.0) Emotion oriented Pleasure oriented 365 (65.3) 15 (3.0) Number of missing cases 30 (6.0) Other 31 (6.2)
4.	The three occasions at which high school students are most likely to drink are: Peer oriented 347 (62.0) Parent oriented School oriented 146 (26.1) 39 (7.8) Number of missing cases 17 (6.6) Other 9 (1.8)
5.	Do you consider yourself to be aperson who drinks? Yes 281 (50.3) Number of missing cases 9 (1.6)

6. On how many separate occasions do you usually drink per week?

None 3 (0.5)Four 8 (1.4) One 5 (0.9) 4 (0.7) 134 (24.0) Five Two 92 (16.5) 29 (5.2) Six Three $\overline{6}$ (1.1) Seven

Not applicable 269 (48.1)

Number of missing cases 9 (1.6)

7. Do you do your drinking: Only on the weekends (both nights 78 (14.0) Only one weekend night 92 (16.5) During the week 10 (1.8) Whenever alcohol is available (weekend or weekday 74 (13.2) Other(specify)

27 (4.8) Not applicable 268 (47.9) Number of missing cases 10 (1.8)

- 8. Which of the following describes the three most frequent situations in which you drink (place in rank order by numbers in the blank.) Parent or relative 13 (2.6) Other Not applicable 269 (48.1) oriented 267 (47.7) Peer oriented Number of missing cases 9 (1.6)
- 9. Which of the following reasons best describes your feelings about drinking (fill in the three you feel most strongly about in rank order)

183 (32.9) I drink because I like it I drink to be with the crowd 29 (5.2) I drink when I am happy 10 (1.8) I drink because I have older __3 (0.5) friends who drink I drink to celebrate some special 50 (8.9) occasion

269 (48.1) Not applicable 14 (2.5) Number of missing cases

What type of alcoholic beverages do you usually drink? 10. Scotch 82 (14.7)Beer 169 (30.2) Whiskey 4 (0.7) Any kind 1 (0.2) <u>16</u> (2.9) Not applicable Wine 7 (1.3) 269 (48.1) Vodka Number of missing cases 11 (2.0)

 $\overline{14}$ (6.3)

11. If you don't drink, but have tased alcohol, which of the following best describes your reason for tasting it? I do not drink and have not 27 (4.8) tasted alcohol To see what it was like 176 (31.5) On a dare $\overline{1}$ (0.2) Because a friend urged to try it 14 (2.5) To see if I could do it 6 (1.1) I was interested because it was forbidden 14 (2.5) I was tricked into thinking it was something else 3(0.5)I was angry at my parents or or close friends 2(0.4)Not applicable $\overline{281}$ (50.3)

Number of missing cases

12. If you don't drink, but have tasted alcohol, which of the following describes the situations in which you tasted alcohol?

I do not drink and have not 24 (4.3) tasted alcohol I tasted it when I was with a 54 (9.7) group of friends 66 (11.8) With my parents 16 (2.9) With my relatives $\overline{33}$ (5.9) At some special occasion At a party where drinking was 41 (7.3) going on $\overline{11}$ (2.0) On a holiday On a fishing trip or hunting 3(0.5)trip, or vacation Not applicable 280 (50.1) 31 (5.5) Number of missing cases

13. Do your parents drink? Yes 389 (69.6) No 133 (23.8) Number of missing cases 37 (6.6) If yes, how often per week? 17 (3.0) 134 (24.0) Four None 131 (23.4) 8 (1.4) Five One 2 (0.4) Two 87 (15.6) Three 45 (8.1) Six 3 (0.5) Seven Number of missing cases 43 (7.7)

14. Do your close friends drink?
Yes 367 (65.7) No 179 (32.0)
Number of missing cases 13 (2.3)

14. cont.

15. What types of alcoholic beverages do your parents drink?

They do not drink 126 (22.5) Scotch 20 (3.6)

Beer 213 (38.1) Vodka 24 (4.3)

Whiskey 26 (4.7) Any type 110 (19.7)

Wine 21 (3.8)

Number of missing cases 19 (3.4)

16. What type of alcoholic beverages do your close friends drink?

They do not drink 174 (31.1) Scotch 1 (0.2)

Beer 226 (40.4) Vodka 5 (0.9)

Whiskey 4 (0.7) Any type 123 (22.0)

Wine 8 (1.4)

Number of missing cases 18 (2.2)

17. Which of the following best describes your feelings about drinking?

Drinking is all right 106 (19.0)

Drinking is sometimes all right,

depending in the circumstances 390 (69.8)

Drinking is never right, no
matter what the circumstances 51 (9.1)

Number of missing cases 12 (2.1)

- 18. Drinking can affect a student's school work?
 Yes 447 (80.0) No 94 (16.8) Undecided 4 (0.7)
 Number of missing cases 14 (2.5)
- 19. What is your average grade in school? A 91 (16.3) D 12 (2.1) B 280 (50.1) F 2 (0.4) C 153 (27.4) Number of missing cases 21 (3.8)

20. What elective courses are you taking? (how many?)

None $\frac{162}{0}$ (29.0) Four $\frac{17}{0}$ (3.0)

One $\frac{168}{172}$ (30.8) Five $\frac{2}{0}$ (0.4)

Two $\frac{172}{0}$ (30.8) Six $\frac{1}{0}$ (0.2)

Three $\frac{20}{0}$ (3.6) Seven $\frac{1}{0}$ (0.0)

21. Approximately how many hours outside of school do you spend studying?

89 (15.9)	Thirteen	1 (0.2)
16 (2.9)	Fourteen	1 (2.0)
57 (10.2)	Fifteen	16 (2.9)
47 (8.4)	Sixteen	2 (0.4)
46 (8.2)	Seventeen	4 (0.7)
78 (14.0)	Eighteen	2 (0.4)
28 (5.0)	Nineteen	1 (0.2)
31 (5.5)	Twenty	12 (2.1)
14 (2.5)	Twenty-five	1 (0.2)
6 (1.1)		
63 (11.3)		
2 (0.4)		
15 (2.7)		
of cases missing	<u>17</u> (3.0)	
	16 (2.9) 57 (10.2) 47 (8.4) 46 (8.2) 78 (14.0) 28 (5.0) 31 (5.5) 14 (2.5) 6 (1.1) 63 (11.3) 2 (0.4) 15 (2.7)	16 (2.9) Fourteen 57 (10.2) Fifteen 47 (8.4) Sixteen 46 (8.2) Seventeen 78 (14.0) Eighteen 28 (5.0) Nineteen 31 (5.5) Twenty 14 (2.5) Twenty-five 6 (1.1) 63 (11.3) 2 (0.4) 15 (2.7)

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