#### Abstract

Today, underage alcohol use is considered a growing social issue. Social scientists often look at the social environment and the institutions of family, school, and religion to understand the onset of adolescent alcohol abuse. Using data from Waves I and II of the National Longitudinal Study of Adolescent Health, I test the extent to which family, school, and religion affect adolescent alcohol use. Multiple regression models focus on the effects of school attachment and commitment, religious attachment, and family bonding on adolescent alcohol use, while controlling for age, gender, race, economic status, and family structure. The results are consistent with other research on the subject showing that adolescents with less time spent in traditional social institutions will have higher frequencies of alcohol use in the past 12 months. Findings show that there is a significant effect (p=.05) of religion, family bonding, and school attachment on adolescent alcohol use. This study adds to the current research on social predictors of adolescent alcohol use. Through this research, policy makers may be able to develop better programs to aid adolescents. Future research includes coupling this model with qualitative methods to help provide insights into adolescent choices regarding alcohol.

## EFFECTS OF SOCIAL INSTITUTIONS ON ADOLESCENT ALCOHOL USE

by

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## **DEDICATION**

The thesis is dedicated to the memory of my grandfather William R. Coon who I wish could be here today to celebrate my collegiate accomplishments. This thesis is also dedicated to my parents Karen and Adolph Kopp who supported me in every way they were able and never quit reminding me of how proud they were of me.

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### CHAPTER1 INTORDUCTION

Today, underage alcohol use is considered a growing social issue. According to the Center for Disease Control (CDC 2008), "alcohol is the most commonly used and abused drug among youth in the United States" (CDC 2008). Additionally, the CDC reports that as many as 72% of all twelfth graders have tried alcohol; of the youth reporting alcohol use in the past 30 days, 19% admit to binge drinking. Furthermore, the Office of Juvenile Justice and Delinquency Prevention reports minors consume "eleven percent of alcohol purchased in the United States" (OJJDP 2002:3). Juveniles who drink are cited to face the following consequences for underage drinking: lower scholastic achievement, violent and antisocial behavior, physical illness due to hangovers and addictions, unplanned and unprotected sexual activity, higher risk of victimization, and death due to alcohol poisoning among other consequences (CDC 2008). Finally, the National Survey on Drug Use and Health reports that the earlier youth begin to consume alcohol, the higher the risk they will develop alcohol dependency or abuse as an adult (SAMHSA 2006). With the heavy effects of adolescent alcohol use, there is a clear need to better understand the causes of teen alcohol use in order to build social policy that will effectively aim to resolve the issue.

Social scientists often look at the social environment and the institutions of family, school, and religion to understand the onset of adolescent alcohol abuse. Arguing that behavior is not innate, but it is learned, sociologists look to the social environment of an individual to

develop causal explanations of delinquent behavior (Macionis 2003). Institutions such as the family, peers, school, and religion act as social controls, which socialize and teach adolescents accepted cultural norms.

The following sections of this chapter address the Theory of Social Bonding, which provides the framework for the analysis. First, I provide a detailed evaluation of Travis Hirschi's (1969) social bond theory. Then, I provide an analysis of the literature for each of the social institutions discussed in this research (family, religion, and school). Finally, I provide a framework for the research question, model, and results provided.

## Social Bonding Theory

In his book "Causes of Delinquency," Travis Hirschi (1969) discusses his theory of social bonding and adolescent delinquency. Hirschi suggests that "A person is free to commit delinquent acts because his ties to the conventional order have somehow been broken" (1969: 3). Through the definition and evaluation of four elements of a social bond - attachment, commitment, involvement, and belief - Hirschi proposes that when any or one element is broken, an individual is at risk for delinquent behavior. Through the elements of a social bond, Hirschi provides an empirical method of testing the effects of social bonds on delinquency.

The first element of a social bond is attachment. As defined by Hirschi, attachment is the relationships an individual has with others including parents, teachers, and peers. Individuals predominately attach to people who play significant roles in their lives. Durkin et al (1999) suggests that, "Attachment involves the degree to which the individual has affectional or emotional ties to these people, identifies with them, and cares about their expectations" (451-452). Accordingly, individuals are attached to others when they internalize how their role

models might behave in a similar situation or how said role model may judge their actions. For example, given the opportunity to steal from the cookie jar, a child who is attached to his or her parents might recognize this behavior as dishonoring his or her parents, and thus may refuse the opportunity. The child behaves as though he or she is being monitored by the parents despite their absence.

The next element of the social bond is commitment, which refers to the time and energy, both physical and emotional, spent on conventional lines of action such as getting an education or a job. When an individual has a strong commitment to a conventional ideal, he or she is less likely to want to risk their commitment by behaving in a deviant manner. For example, high school students who are committed to attending college to receive a higher education are more likely to be committed to studying and maintaining their grade point average. Therefore, a student with a high level of commitment is less likely to act defiantly for fear that any deviant behavior might jeopardize his or her opportunities to attend college.

The third element of a social bond is involvement, which refers to the actual physical involvement in conventional activities such as doing homework or participating in extra-curricular activities. Simply put a person engrossed in conventional activities is "too busy...to find time to engage in deviant behavior" (1969:22). Commitment and involvement are related. Often, an individual who is committed to conventional ideal such as education will be actively involved in the conventional activities necessary, such as studying.

Lastly, belief refers to the strength of ties to a common value system. Common values include the importance of an issue, such as religion, or beliefs about the effects of a delinquent behavior. This belief component includes a general acceptance of the rules of society as being

morally valid and binding, as well as respect for authority (Durkin 1999:452). Belief is often connected to attachment in that when an individual is attached to a member of conventional society such as a parent, he or she is likely to accept their belief system and rules (Hirschi 1969). *Family and Adolescent Bonding* 

Often considered the first and most important social institution in an individual's life, the family plays an essential role in the socialization of an individual. Social Bond theory suggests that parents have both direct control and indirect control over the behaviors of their children. First, children who have a significant attachment to their parents spend more time with their parents and are likely to have less time to commit delinquent acts (Hirschi 1969). Additionally Ary et al (1999:226) find that, "families in which there [are] high levels of conflict and low positive family relations [are] more likely to develop a social context that includes inadequate parental monitoring and associations with deviant peers." The lack of parental mentoring combined with the association with delinquent peers allows adolescents to participate in delinquent outlets.

Second, parents have indirect control over the behaviors of their children when the children perceive their parents as present and consider their parents response to their actions. The form of attachment is developed by the "intimacy of communication" in the family (Hirschi 1969:90). Supporting this notion, Nash, McQueen, and Bray (2005:4) present data that adolescents who report less stress, a positive family environment, parental communication and disproval of alcohol reduces are less likely to engage in underage drinking.

#### School and Adolescent Bonding

School as a social institution plays the role of academic education as well as developing general social skills. Hirschi suggests that those who fail academically are more likely to commit delinquent acts. In addition, "delinquency is a means of relieving frustration generated by an unpleasant school experience" (1969:122). Furthermore, Hirschi finds that "positive feelings toward controlling institutions and persons in authority are the first line of social control" (1969:127). When a student feels that a teacher likes him or her, the individual is more likely to feel he/she is treated fairly and thus less likely to behave in a deviant manner.

Moreover, Ary et al (1999) find, consistent with previous research, "anti-social behavior [including] high-risk sexual behavior [and] academic failure" are significant predictors of substance use (226). However, the results of this study are limited in many ways, including a 90% sample of Caucasians and a sample consisting of only one state. A more diverse sample is needed to create more generalized assumptions of adolescent alcohol consumption. Dornbusch et al (2001) compare delinquency of economically deprived communities considered to be at risk of delinquency. Using the Add Health data, Dornbusch et al (2001) find family and school attachment significantly reduces alcohol use and delinquency, including adolescent alcohol use. Furthermore, Johnson and Hoffmann (2000) in a study of adolescent cigarette use conclude that a positive school attitude among other variables have a negative effect on adolescent anti-social behavior. Johnson and Hoffmann's findings suggest that school factors are important in understanding adolescent deviance.

#### Religion and Adolescent Bonding

Religion often provides the cultural background for a society's moral values. Belief, as Hirschi suggests is connected to the other elements of a social bond. Those who feel a strong connection to a conventional lifestyle are more likely to participate in that lifestyle and less likely to commit acts of deviance. Additionally, religious involvement uses up an individual's time in which the individual cannot commit a deviant act. The same form of indirect controls that parents have over children is in effect here. Those who are attached to a religious belief often consider how God would feel about their actions, and therefore they are less likely to commit deviant actions.

The literature on the effects of religion on adolescent alcohol use is inconsistent. Bachman et al (1991) find that lifestyle influences, including religious affiliation, religious norms, and attitudes toward alcohol, do not contribute to differences in racial/ethnic subgroup drug participation of high school seniors. However, Glassner and Berg (1990) find four distinct forms of social control in the Jewish community that affect the Jewish subgroup's association with alcoholism. The Jewish community, in theory, has more social control. Thus, an adolescent in this community is less likely to participate in deviant behavior such as underage alcohol consumption. Tying religion in with family attachment, Glassner and Berg (1990) conclude that religious rituals and parental attitudes toward alcohol have some effect in reducing alcohol consumption problems amongst Jewish adolescence.

The literature provided in the previous sections supports the general hypothesis that social institutions such as family, school, and religion play a significant role in the social bonding of adolescents. Furthermore, the level of bonding is related to the level of deviant

behaviors including alcohol use, tobacco and drug use, and sexual activity. Using the four elements of a social bond, and the background of the related literature, this research aims to test the extent to which family, school, and religion affect adolescent alcohol use. Specifically, I aim to test the following hypotheses:

H<sub>1</sub>: Higher levels of individual religious commitment and involvement will be associated with lower levels of adolescent alcohol use;

H<sub>2</sub>: Higher levels of individual attachment to family will be associated with lower levels of adolescent alcohol use;

H<sub>3</sub>: Higher levels of individual school bonding and higher grades will be associated with lower levels of adolescent alcohol use.

In the following sections, I will discuss the sample and variables employed for the analysis. Then, I will show the outcome of a multiple regression analysis of the data and discuss the significant effects of the three main variables: family, school, and religion. Finally, I will discuss the implications of this study for future research.

## CHAPTER 2 DATA AND METHODS

## Sample

This research utilizes Wave I and II of the National Longitudinal Survey of Adolescent Health (Add Health). Wave I of the survey consisted of both an in-school survey and in-home questionnaire of approximately 20,000 adolescents, grades seven through 12, in 1994 and 1995. Wave II follow-up in-home interviews were conducted in 1996. The Add Health sample includes individuals up to the age of 21. Because the legal drinking age is 21, individuals "of age" were removed from the sample. My analysis consists of 14,515 respondents who had complete data available after eliminating cases with missing data on the dependent variable. I consider causal order by predicting alcohol use in Wave II with predictors drawn from Wave I. Table 1 provides variable descriptions, means, and standard deviations for the variables used in the analysis.

#### **Measures**

#### Alcohol Use

The dependent variable is measured by alcohol use in the past 12 months from Wave II of the Add Health Survey. Alcohol use is measured by responses to an item that asks respondents to report the frequency with which consumed alcohol in the past 12 months. Respondents recorded the responses: (1) one or two days, (2) once a month or less, (3) two or three days a

month, (4) one or two days a week, (5) three to five days a week, (6) everyday. Thus, higher values represent higher alcohol use.

#### School Bonding and Commitment

School Bonding follows McNulty and Bellair's (2003) model of bonding, and is represented by a principle components factor score comprising six items. Four questions from Wave I of the in school survey assessed the level of connectivity a student felt with the school and teachers (see Appendix A). Each response ranges from: (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, and (5) strongly agree, where higher values indicate less school bonding. Two questions assessing the amount of trouble the student had getting along with teachers and other students are also included. Responses ranged from: (0) never to (4) everyday. Responses are reverse coded so that higher values reflect higher bonding. Finally, as an indicator of commitment, the respondent's average grades are recorded in four subjects: English, math, science, and social studies.

#### Family Attachment

Family Attachment follows McNulty and Bellair's (2003) multi-item principle components factor scale. Family attachment is based on a series of four questions in the Wave I in-home survey, measuring how much an individual feels his or her family understands them and cares for them, how much the family pays attention to them, and how much fun the family has together (see Appendix A). Each response ranges from: (1) not at all, (2) very little, (3) somewhat, (4) quite a bit, and (5) very much. A higher value on the scale indicates greater family attachment.

### Religion

Religiosity is measured as a principle component factor score comprised of three items from the Wave I Add Health survey measuring church attendance in the past 12 months, the importance of religion, and prayer (See Appendix A). For church attendance and prayer, respondents recorded the responses: (1) once a week or more, (2) once a month, (3) less than once a month, (4) never. Responses are reverse coded so that higher values reflect higher attachment. For the importance of religion, respondents recorded the responses: (1) very important, (2) fairly important, (3) fairly unimportant, (4) not important at all. Again, higher values indicate higher attachment to religion.

## Demographic Characteristics

The analysis consists of several control variables selected from Wave I and II. Previous research points to greater delinquency among males. Therefore, respondents biological sex is controlled for with Males coded as one (McNulty and Bellair 2003). Age is measured in years and averages approximately 15 years in Wave II. Race is represented by a set of dummy variables that distinguish Non-Hispanic Whites from the groups, Black, Native America, Hispanic, Asian, and Other. The sample consists of 54% Non-Hispanic Whites, 22% Blacks, and 17% Hispanics. Total Household income is controlled for as a measure of socioeconomic status. The mean income of the sample is \$45,000. Additionally family structure is controlled for with a dummy variable comparing biological two-parent households to other family structures. Forty six percent of families in the sample have two biological parents living in the home.

## **Procedure**

Multi-regression techniques were employed using the statistical software SPSS. Four models were developed, and the independent variables (religion, family bonding, and school attachment) are added successively. Religion is entered into the model first because its effects may be mediated by other variables. I checked the assumptions of multiple regression by testing for multicollinearity with variance inflation factors, none of which exceeded the critical value of four (Fisher and Mason 1981).

Table 1: Descriptive Statistics		
Variable	Mean	Standard Deviation
Alcohol Use	2.2158	2.54731
Hispanic	.1678	.37366
White	.5382	.49856
Black	.2163	.41171
Native	.0069	.08189
Asian	.0631	.24316
Other	.0079	.08866
Male	.4863	.49838
Age	14.8051	1.61713
Biological Parents	.4595	.49838
Household Income	45.7066	46.24740
Family Attachment	.0000	.979775
School Bonding	.0000	.995155
Grades	.0000	1.00679

## CHAPTER 3 RESULTS

Table 2 presents the unstandardized coefficients for each independent variable in our four models. Model 1 considers only the demographic characteristics employed as controls for the following models. These results are consistent with previous research (Oman et al, 2004 and Barnes and Welte1986). Compared to Whites, other racial and ethnic groups consume less alcohol on average, with coefficients ranging from -0.21 to -0.762. With the exception of Native Americans, these results remain significant (p<.05) for the following models. Inconsistent with previous research, this model shows that males are more likely to drink compared to their female peers (-0.263). Additionally, adolescents with two biological parents living in the household (-0.161), and adolescents whose families have lower household incomes (.001) are less likely to consume alcohol underage. Also consistent with the literature, older adolescents are more likely to drink more often than younger adolescents are. The main effects of gender, age, and socioeconomic status remain significant in the following models.

Model 2 adds religious influences to the initial model. Testing hypothesis  $H_1$ , we find that as religious participation increases, adolescent alcohol use decreases (-0.038). The indicators of religious involvement and belief are measured by the importance of religion to an individual and the amount of time spent participating in religious rituals. As theorized by Hirschi, an individual who is committed to a conventional belief system and spends time

participating in conventional activities is less likely to participate in deviant behaviors. Thus, as the results show, the more an individual feels his or her religion is important and the more time they spend in religious participation, the less likely they will consume alcohol underage. While these results do not differentiate between types of religions, they do suggest that participation and belief in a "higher truth" are associated with lower levels of adolescent deviance.

Model 3 considers both religious influences and family bonding. With the addition of family bonding in the model, the previous effects remain significant (p <.05). As religious attachment and family bonding increase, adolescent alcohol use decreases (-0.027 and -0.251 respectively). Model 3 specifically tests and supports H<sub>1</sub> and H<sub>2</sub>. The first element of a social bond is attachment, which suggests that attachment is formed by the emotional ties an individual has with others. These ties can only be formed when an adolescent spends quality time in relationships they enjoy. My model tests these familial ties by finding that that adolescents who feels that their parents care for them, understand them, and pay attention to them as well as have fun with them are less likely to drink alcohol. These finding suggest that an adolescent's positive attitude toward his or her family increases family attachment and therefore decreases adolescent alcohol use.

Model 4 is the full model considering the effects of religion, family bonding, and school attachment and commitment on adolescent alcohol use. While supporting the hypotheses H<sub>1</sub> and H<sub>2</sub>, this model also supports H<sub>3</sub>. Adolescent alcohol use is inversely related with higher levels of religiosity (-0.021), family bonding (-0.206), school attachment (-0.120), and grades (-0.077). Similar to family attachment, when an adolescent has positive attitudes toward school, they are less likely to consume alcohol. Additionally, adolescents who have higher grades are less likely

to consume alcohol. According to Social Bond theory, it is possible that students who remain focused on academic achievement will have higher levels of commitment and involvement and therefore less delinquent behavior. These results suggest that attachment to social institutions as measured by the Add Health Survey is moderately successful in predicting adolescent alcohol use ( $R^2$ = 0.041).

Table 2:Alcohol Use Past 12 Months					
	I	II	III	IV	
Controls					
Hispanic	210**	180**	167**	192**	
Black	762**	703**	689**	703**	
Native	240	288	304	360	
Asian	626**	592**	603**	561**	
Other	471*	465*	473*	473*	
Male	263**	287**	257**	282**	
Age	.151**	.147**	.128**	.125**	
Biological Parent	161**	127**	093*	067	
Household Income	.001**	.001**	.002**	.002**	
Religion		038**	027**	021**	
Family Attachment			251**	206**	
Grades				077*	
School Bonding				120**	
Constant	355	.147	.201	.557	
R-square	.027	.030	.038	.041	
Notes: *(p<.05), **(p<.01) two tailed test					

# CHAPTER 4 DISCUSSION AND CONCLUSION

The results presented in this research suggest that family, school, and religion play an important role in preventing adolescent alcohol use. In addition, this research shows that social institutions play an important role in supporting the elements of a social bond. Positive attachment and interaction to parents, teachers, and peers allow adolescents to become committed to the conventional beliefs of a community. Quoting Durkheim, Hirschi states "the more weakened the groups to which [the individual] belongs, the less he depends on them, the more he consequently depends only on himself and recognizes no rules of conduct then what are founded on his private interests" (1969:16). Without strong social bonds, developing youth would not learn appropriate social beliefs and behaviors, nor would youth feel accountable for deviant actions. Hirschi suggests that "control theorists sometimes suggest that attachment to an object outside one's self, whether it be the hometown, the starry heavens, or the family dog, promotes moral behavior" (1969:32). The research suggests that adolescents with attachment "outside one's self" including to school, parents, and religion are more likely to be committed to conventional beliefs. Furthermore, attachment and commitment to these conventional values provides an avenue for individuals to remain involved in the conventional activities.

Further research should include variables not considered in this research. One measure of attachment often considered in Social Bond Theory is attachment to adolescent peers. Another

variable to consider is an adolescent's prior attitude toward alcohol, parental alcohol use, and access to alcohol. This is important to consider in future research because there is variance in conventional norms for adolescent drinking. Finally, the involvement element of the social bond can be better evaluated by adding types of school activities to the model. Further research may benefit from using qualitative research strategies to assess the attitudes and beliefs of adolescents.

Implications of this research can be seen in public policy and the implementation of social programs. Communities with high levels of single parent families or low academic achievement are at risk for increased levels of adolescent alcohol use. However, it is possible that programs that support quality interactions between adults and adolescents, and programs that support activities in which conventional norms are learned can decrease adolescent alcohol use. Most importantly, adolescents who feel cared for, feel they are treated fairly, and are committed to a conventional belief system are more likely to be non-drinkers. However, it is important that adolescents have consistent bonds and attachments. Youth not only need to have positive bonds with social institutions, they also need to have consistent bonds. Further research should test the effects of social programs meant to be additions to broken homes and communities such as the Big Brother or Boys and Girls Club programs to see if these attachments are effective in preventing adolescent alcohol use. In addition, communities should not only provide positive mentor/mentee bonds, but they should also investigate why conventional bonds (family, school and religion) are breaking down, particularly in highly disadvantaged communities. (MacIver 1967).

## Appendix A:

## Survey Questions Comprising Multi-Item Scales

Religion (alpha = .86)

How important is religion to you? How often do your attend religious services? How often do your pray?

Family Attachment (alpha=.76)

How much do you feel that:

Your parents care about you? People in your family understand you? You and your family have fun together? Your family pays attention to you?

School Bonding (alpha= .73)

You feel close to people at school. You feel like you are a part of your school. You are happy to be at your school. The teachers at your school treat you fairly.

Since school started this year, how often have you had trouble:

Getting along with your teachers? Getting along with other students?

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