STADIUM ALCOHOL POLICY CHARACTERISTICS: AN EXAMINATION OF ALCOHOL POLICY IMPLEMENTATION, DIFFERENCES, AND EFFECTIVENESS

By

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To all people who have guided me
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>4</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>8</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>9</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>10</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>1 INTRODUCTION</td>
<td>12</td>
</tr>
<tr>
<td>Motivation of the Study</td>
<td>12</td>
</tr>
<tr>
<td>Overview of Study</td>
<td>14</td>
</tr>
<tr>
<td>Theoretical Overview</td>
<td>14</td>
</tr>
<tr>
<td>Statement of Purpose</td>
<td>15</td>
</tr>
<tr>
<td>Significance of Study</td>
<td>16</td>
</tr>
<tr>
<td>Research Questions</td>
<td>18</td>
</tr>
<tr>
<td>Limitations</td>
<td>19</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>19</td>
</tr>
<tr>
<td>Basic Assumptions</td>
<td>20</td>
</tr>
<tr>
<td>2 REVIEW OF LITERATURE</td>
<td>22</td>
</tr>
<tr>
<td>Multidisciplinary Nature of Stadium Alcohol Policy Literature</td>
<td>22</td>
</tr>
<tr>
<td>Concepts Associated with the Nature of this Study</td>
<td>22</td>
</tr>
<tr>
<td>Deficiencies and Previous Focus in Stadium Alcohol Policy Literature</td>
<td>23</td>
</tr>
<tr>
<td>Alcohol and Crime</td>
<td>23</td>
</tr>
<tr>
<td>Relationship between Alcohol and Crime</td>
<td>23</td>
</tr>
<tr>
<td>Alcohol Availability and Crime</td>
<td>24</td>
</tr>
<tr>
<td>Relationships between Sport, Alcohol, and Aggression</td>
<td>25</td>
</tr>
<tr>
<td>Sport, Leisure, and Alcohol</td>
<td>25</td>
</tr>
<tr>
<td>Alcohol Consumption Considerations</td>
<td>26</td>
</tr>
<tr>
<td>Sport, Alcohol Consumption, and Aggression</td>
<td>28</td>
</tr>
<tr>
<td>University and College Alcohol Policy</td>
<td>29</td>
</tr>
<tr>
<td>Stadiums and Tailgate Policy</td>
<td>31</td>
</tr>
<tr>
<td>Stadium Alcohol Policy</td>
<td>32</td>
</tr>
<tr>
<td>College Football and Alcohol Consumption</td>
<td>34</td>
</tr>
<tr>
<td>College Football Games and Alcohol-Related Crime and Injuries</td>
<td>37</td>
</tr>
<tr>
<td>College Football Games and Community Crime</td>
<td>37</td>
</tr>
<tr>
<td>Alcohol Policy Effect on College Football Stadium Crime and Injury</td>
<td>38</td>
</tr>
<tr>
<td>Theoretical Considerations</td>
<td>39</td>
</tr>
<tr>
<td>Social Cognitive Theory</td>
<td>40</td>
</tr>
<tr>
<td>Influence of Alcohol on Aggression and Criminal Deviance</td>
<td>42</td>
</tr>
</tbody>
</table>
Temporal Regulation and Intertemporal Substitution ........................................ 43
Closing Remarks Regarding Previous Literature ........................................... 45
Summary of Research Questions ................................................................. 46

3 METHODOLOGY ......................................................................................... 48
Design ........................................................................................................... 49
Data Collection ............................................................................................. 50
  Collection of Qualitative Data ..................................................................... 50
  Collection of Quantitative Data ................................................................. 53
Variables ...................................................................................................... 54
  Independent variables ............................................................................... 55
  Dependent variables .................................................................................. 56
Data Treatment .............................................................................................. 57
Interview Analysis ........................................................................................ 57
Statistical Analyses ....................................................................................... 57

4 RESULTS .................................................................................................... 60
Part 1: College Football Game Administrative Alcohol Consumption Containment and Enforcement ........................................................................... 60
Policy Interpretation and Enforcement .......................................................... 61
  Policy Origins and Development ................................................................. 61
  Stadium Location Differences ...................................................................... 62
  Enforcement Perceptions ............................................................................ 63
On-campus Compared with Off-campus Stadiums .......................................... 67
Alcohol Sales versus Alcohol Prohibition in General Seating ......................... 68
  Financial Benefits ...................................................................................... 70
  Having it Both Ways: Access for Few, Prohibition for Most ....................... 71
Control ........................................................................................................... 73
  Control through Prohibition in General Seating ......................................... 73
  Control Where Sales are Permitted in General Seating .............................. 74
  NCAA Status as a Control .......................................................................... 74
Education and Alcohol Policy ....................................................................... 75
Tradition and Culture .................................................................................... 77
Alcohol-related Issues Experienced on Game Day .......................................... 79
Overall Summary of Policies ......................................................................... 81
Part 2: Relationship among Game Day Characteristics and Game Day
  Behavioral Outcome Variables ....................................................................... 83
  Canonical Correlation Results ................................................................. 83
  Multiple Regression Results ....................................................................... 86
  Crime as dependent variable ...................................................................... 86
  Ejections as dependent variable ................................................................. 86

5 DISCUSSION AND ANALYSIS ................................................................... 92
Linking Alcohol Policy Consideration with Social Cognitive Theory ............ 92
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Determinants</td>
<td>93</td>
</tr>
<tr>
<td>Facilitation and Self-regulation</td>
<td>96</td>
</tr>
<tr>
<td>Observational Learning</td>
<td>96</td>
</tr>
<tr>
<td>Outcome Expectations</td>
<td>97</td>
</tr>
<tr>
<td>Self-efficacy and Collective Efficacy</td>
<td>99</td>
</tr>
<tr>
<td>Avoiding Moral Disengagement</td>
<td>100</td>
</tr>
<tr>
<td>Intertemporal Substitution</td>
<td>101</td>
</tr>
<tr>
<td>Relating Policies to Outcome</td>
<td>102</td>
</tr>
<tr>
<td>Canonical Correlation Findings</td>
<td>102</td>
</tr>
<tr>
<td>Multiple Regression Findings</td>
<td>104</td>
</tr>
<tr>
<td>Crime</td>
<td>104</td>
</tr>
<tr>
<td>Ejections</td>
<td>105</td>
</tr>
<tr>
<td>The Connection between Qualitative and Quantitative Analyses</td>
<td>106</td>
</tr>
<tr>
<td>Conclusions</td>
<td>106</td>
</tr>
<tr>
<td>Summary of Findings</td>
<td>106</td>
</tr>
<tr>
<td>Implications</td>
<td>107</td>
</tr>
<tr>
<td>Limitations</td>
<td>109</td>
</tr>
<tr>
<td>Future Study</td>
<td>110</td>
</tr>
</tbody>
</table>

**APPENDIX**

A  INFORMED CONSENT FORM .............................................................................. 111
B  SAMPLE RECRUITMENT LETTER ...................................................................... 113
LIST OF REFERENCES ....................................................................................... 115
BIOGRAPHICAL SKETCH ..................................................................................... 121
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1</td>
<td>Description of participants in interviews</td>
</tr>
<tr>
<td>4-1</td>
<td>Tests of canonical dimensions</td>
</tr>
<tr>
<td>4-2</td>
<td>Calculation of Redundancy Indices for the FirstCanonical Function</td>
</tr>
<tr>
<td>4-3</td>
<td>Calculation of Redundancy Indices for the Second Canonical Function</td>
</tr>
<tr>
<td>4-4</td>
<td>Standardized Variance of the Dependent Variables Explained by</td>
</tr>
<tr>
<td>4-5</td>
<td>Standardized Variance of the Independent Variables Explained by</td>
</tr>
<tr>
<td>4-6</td>
<td>Standardized Canonical Coefficients (Weights)</td>
</tr>
<tr>
<td>4-7</td>
<td>Canonical Loadings</td>
</tr>
<tr>
<td>4-8</td>
<td>Canonical Cross-Loadings</td>
</tr>
<tr>
<td>4-9</td>
<td>Regression results for crime as dependent variable</td>
</tr>
<tr>
<td>4-10</td>
<td>Regression results for ejections as dependent variable</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>BAC</td>
<td>Blood Alcohol Content</td>
</tr>
<tr>
<td>DUI</td>
<td>Driving under the influence</td>
</tr>
<tr>
<td>FBS</td>
<td>Football Bowl Subdivision</td>
</tr>
<tr>
<td>NCAA</td>
<td>National Collegiate Athletic Association</td>
</tr>
<tr>
<td>SCT</td>
<td>Social Cognitive Theory</td>
</tr>
<tr>
<td>SLT</td>
<td>Social Learning Theory</td>
</tr>
<tr>
<td>TPB</td>
<td>Theory of Planned Behavior</td>
</tr>
</tbody>
</table>
College football stadiums are affected by game day alcohol consumption which contributes to misconduct and law enforcement activity in these venues. Alcohol-related misconduct has become a concern for many university officials, athletic departments, law enforcement officers, and spectators who experience problems that threaten the safety and enjoyment of all of those involved in college football games. This mixed-methods study endeavored to explore the rationales for alcohol policy at these stadiums along with whether a stadium’s location, on-campus or off-campus, start time of game, temperature, quality of opponent, and other game day characteristics affect the law enforcement figures within stadiums located in one Southeastern state in the U. S.

The participants of the qualitative part of the study were facility administrators of the universities who played in the seven stadiums in the state. Reported crime and ejections were compiled from games played in those venues over three years, along with game day information compiled from box scores such as team ranking, start time, temperature, and attendance. Moustakas’ phenomenological approach was used to collect and analyze the interview data. Canonical correlation analysis and multiple
regression analysis were implemented as the quantitative methods in considering the effect between game day variables and reported misconduct.

There are four main categories of findings. First, there were discernable differences between factors that affect the difference in policies between stadiums identified by stadium administrators. Alcohol is served in all of the sampled venues, but only three sold to the general population, while the other limited consumption to those club ticketholders or suite ticketholders. Social Cognitive Theory serves as a tacit influence on the policy development process. A relationship existed between policy factors and the relative numbers of reported crime and ejections, with time of game and attendance being the most significant variables in all models analyzed. It can be concluded that more reported alcohol-related law enforcement incidents occur within off-campus stadiums than on-campus stadiums, while the later the start time of game, the more incidents that occur inside a college football stadium.
CHAPTER 1
INTRODUCTION

Motivation of the Study

Alcohol consumption in sport venues has become a concern for stadium managers, law enforcement, community officials, spectators, and community members (Madensen & Eck, 2008). This is especially true for managers of venues that host college football games during autumn Saturdays in the United States (Wieberg, 2005; Opdyke & Kesmodel, 2009). Venues that host large-scale sporting events are subject to crowd control issues as a result of alcohol consumption before, during, and after events. Alcohol policies are implemented to diminish the impact of alcohol abuse by spectators and to protect all spectators, including those who do not consume alcohol. Administrators operate under policies and procedures depending on their experiences, crowd demographics, and expected fan behavior. It has been documented that, alcohol-related traffic injuries and deaths have occurred stemming from sporting events held in venues that sell alcohol (Southall & Sharp, 2006).

College football games are popular and important social occurrences for many fans in university towns across the United States. Fans would agree that NCAA Division I Football Bowl Subdivision football is at the height of popularity, drawing over 48 million spectators to games during the 2009 season (Johnson, 2010). Many college football teams draw over 90,000 spectators, bringing in large amounts of revenue to universities, and adding an influx of people to small municipalities. High-risk alcohol consumption is often associated with these games and some would argue this is what brings about the festive atmosphere. However, some would argue that the high attendance and alcohol consumption combines to produce many related problems.
These issues include arrests and citations for public intoxication, disorderly conduct, assault, battery, personal injury, and in some cases death (Rees & Schnepel, 2009). As a measure to control this potential crime, misconduct, and injury, regulations and policies are put into place to limit the impact of alcohol-related issues on game day (Toomey & Wagenaar, 1999). Approximately three dozen of the major college football stadiums allow alcohol sales, while most limit sales or consumption to high-priced luxury suites and seats (Opdyke & Kesmodel, 2009). The locations of stadiums vary by being located on-campus and off-campus. In one southeastern state, the on-campus stadiums do not sell alcohol or allow alcohol within their general seating, while alcohol is sold at the off-campus stadiums.

Large crowds and the festive college football experience is a major concern for university administrators, stadium managers, and law enforcement officials. Tailgating and alcohol consumption are a part of the college football spectator experience, yet policies are different depending on location and ownership of stadium, primarily whether the stadium is owned by the university or not. The majority of stadiums do not allow alcohol in their general seating areas as per published alcohol policies on websites (Menaker & Connaughton, 2010). However, most colleges struggle with underage drinking among their students and have a negative outlook of alcohol sales in their sport facilities.

The alcohol policies governing each stadium are different due to local alcohol laws, location, and responsible party for control of the venue. On a general level the built environment, that is, planned infrastructure, spatial relations, and building characteristics can have an impact on alcohol sales, alcohol consumption, and related
crime and injury (Bernstein et al., 2007). This phenomenon is no different with stadium planning and policy development. From a crowd control standpoint, on-campus stadiums most often are controlled by a combination of university athletic departments, university law enforcement, and contracted security, and do not allow alcohol in their general seating area. Off-campus stadiums are generally controlled by private entities and allow alcohol sales and consumption in the venue (Opdyke & Kesmodel, 2009). Therefore, there are differences between on-campus and off-campus stadiums in alcohol consumption patterns. However, it is unclear whether the levels of alcohol consumption occurring during the games, or the policies surrounding alcohol consumption are directly responsible for the crime and injury that occurs with college football stadiums.

Regardless of the reasons for implementing differing policies, stadium managers are concerned with developing effective risk management policies and implementing these policies (Fried & Ammon, 2009). The policies, in turn, may influence the alcohol consumption decisions that patrons make when attending games. Changing the drinking behavior of individuals can limit the amount of injury and crime that occurs at these events. So, the focus of this study is to analyze managerial rationale for stadium alcohol policy and the outcomes of the interaction between policy and alcohol consumption behavior, that is, reported ejection and crime figures within stadiums.

Overview of Study

Theoretical Overview

Theories of aggression and alcohol consumption may be applied to explain the rationale for policy content as well as the relationship between alcohol policy and fan behavior. Social Learning/Social Cognitive Theory (SLT/SCT), which suggests that
behavior is learned through interacting with their environment, has been used to explain alcohol consumption behavior and aggressive behavior (Akers, 2009; Bandura, 1973). The theory of intertemporal substitution/temporal regulation, which explains how individuals substitute for an inability to perform a specific behavior during a regulated period, has been applied to how changes in alcohol policy affect alcohol consumption behavior at college football games (Boyes & Faith, 1993). There has been little research on applying this economic model to alcohol consumption behavior beyond this study. SLT has been used in few studies regarding alcohol policy, specifically dealing with modeling behavior (Abar, Turrisi, & Abar, 2010). This is one theoretical explanation for the implementation differing alcohol policy and the relationship to aggressive behavior. In earlier works on aggression, Bandura (1973) suggested that regardless of outcome, witnessing a sporting event can evoke acts of aggression which can lead to injury-causing behavior and crime. The addition of the concept of self-efficacy is a possible use of SCT in explaining policy implementation. Temporal regulation and intertemporal substitution has been applied to changes in outcomes of alcohol consumption in blood alcohol content (BAC) and driving under the influence (DUI) (Boyes & Faith, 1993). The dissertation uses an exploratory approach to determine the reasons for alcohol policy development and the effect alcohol policy and other game day factors has on game day alcohol-related crime and ejections.

Statement of Purpose

The purpose of this study consists of an exploration of the environmental factors that affect alcohol policy and measures alcohol-related behavioral outcomes that might be affected these policies. First, this consists of inquiry into the composition of policy and administrator rationales regarding development and implementation of various
college football stadium alcohol policies including their own. Second, a consideration of the relationship between alcohol policy and stadium alcohol-related law enforcement problems as measured by reported law enforcement activity (e.g., crime and ejections) is considered. The overarching purpose is to explore what affects policy implementation and observed repercussions of alcohol policy at college football games.

**Significance of Study**

There are a number of rationales for conducting these complementary analyses. College football stadiums experience many spectator behavioral problems, crimes, and crowd control issues related to alcohol consumption as is experienced in any place where individuals gather for sporting events (Madensen & Eck, 2008). College football stadiums have varying posted alcohol policies (Menaker & Connaughton, 2010), but often deal with alcohol-related problems which burden university officials and law enforcement, and can create major risk management issues (Fried & Metchick, 2005; Southall & Sharp, 2006; Rees & Schnepel, 1993). The enacted policies are not informed by theory, but are often reactive. However inductive reasoning can be used to apply theory to explanations of why the components of college football stadiums differ from venue to venue. There has been no effective attempt to determine reasoning for policy and the outcomes of differing policy among different venues. So, this study will help administrators determine what game day factors, including location of their venue, contribute to the number of incidents occurring at football games.

Limited studies have compared the effect of policy on spectator alcohol consumption and associated misconduct at sporting events. Previous research has analyzed the relationship between college football games and alcohol consumption, how alcohol consumption at college football games impacts perception of policy, and
the relationship between college football games and crime. Some studies have used TPB to explain alcohol consumption behavior during these events (Glassman et. al 2008; Glassman et al., 2010). Little attention has been paid to the influence of environmental factors toward differing policies on engaging in problematic alcohol-related behavior. The significance of this study is that college football stadiums have differing alcohol policies, but often deal with alcohol-related problems which burden university officials and law enforcement, and can create major risk management issues. Few studies have compared the effect of policy on those intentions. There has been research that has analyzed the relationship between college football games and alcohol consumption, how alcohol consumption at college football games impacts perception of policy, and the relationship between college football games and crime. However, an effort to understand administrative reasoning and rationale for alcohol policies along with a comparison of the outcome of college football game day drinking behavior as a result of differing policies, among a number of stadiums has not been carried out.

Additionally, the accepted best practice in on-campus stadiums is the prohibition of alcohol in general bowl seating, while off-campus stadiums allow alcohol consumption (Opdyke & Kesmodel, 2009). Studies exploring the impact of alcohol policy on crime, injury, and other health outcomes within individual stadiums have been previously conducted (Bormann & Stone, 2001; Boyes & Faith, 1993; Spaite et al., 1990). However, comparisons of alcohol policy on reported crime and ejection within stadiums have not been conducted. These significances influence the following research questions.
Research Questions

The research questions in this study are influenced by SCT and the theory of intertemporal substitution. SCT suggests that environmental factors affect people’s behavior while conversely people’s behavior influence changes in the environment (Bandura, 1986). So based on SCT as a guiding theory of the study, how does the environment of a college football game affect people’s behavior with regard to alcohol policy? With this in mind the following questions for research consider how the interaction between individuals and their environment affects development and implementation of college football stadium alcohol policy along with some behavioral outcomes that are influenced by policy.

The research questions for analysis are as follows. Is there a relationship between game day environment characteristics and alcohol policy? Is there a relationship between college football stadium location (on-campus or off-campus) and alcohol policy? What factors affect alcohol policy enforcement? Does size of stadium as signified by stadium capacity affect alcohol policy considerations? Do game day characteristics affect alcohol-related deviance outcomes as measured by reported law enforcement records? These previous questions relate how the environment interacts with people’s behavior and vice versa. The following questions are influenced by the theory of intertemporal substitution, which suggests individuals will substitute for their inability to perform a behavior during a regulated period of time, during unregulated periods (Boyes & Faith, 1993). Does alcohol policy correlate with number of ejections or reported crime within a stadium? Related to this, does the type of policy (alcohol sales permitted versus alcohol sales prohibited) affect crime and ejection counts?
Limitations

There are a number of inherent limitations to this study. The first component of the dissertation relies on interview data from one type of administrator which may not paint a complete picture of alcohol policy development and implementation. However, it highlights the thought process of a key policy decision maker. The quantitative component does not account for impact of college football game day outside of stadiums since reported crime data does not give the complete picture of alcohol-related misbehavior within stadiums. Additionally, the inability to gauge the direct impact of football games on crime to a consistent distance from venues, among all venues being compared. Alcohol policies are not enforced to the same degree in each municipality subject to study.

Definition of Terms

Alcohol-related crime. Alcohol-related crime refers to criminal acts such as public drunkenness, unlawful possession of alcohol, possession of alcohol under legal age, vandalism, disorderly conduct, and other aggressive crimes related to the consumption of alcohol.

Alcohol-related problems. These are hardships experienced by law enforcement officers and stadium administrators caused by alcohol consumption and spectator misconduct of stadium patrons.

Reported crime. Criminal acts that have been reported, cited, and included in law enforcement ledgers are considered reported crime.

Stadium alcohol policy. These are restrictions or allowance of alcohol consumption within a stadium. This also pertains to the enforcement of alcohol consumption violations. In addition, it refers to the presence or lack of sales of alcohol.
**Incident.** This is a specific type of crime that results in law enforcement repercussions, including citation, ejection, arrest, or other recorded measure of law enforcement action on game day.

**Open container laws.** Local laws that stipulate individuals cannot carry open alcohol in public are known as open container laws.

**Senior athletic administrators.** These individuals are administrators who work for university athletic department and include athletic directors, athletic facility directors, or any upper-level athletic administrator. This can include the senior facility administrator, the highest level of operations or facility manager of a college football stadium.

**Tailgating.** This is a phenomenon that occurs outside sporting events in the United States. It is a type of party that usually occurs at the rear of a vehicle in a parking lot near a venue where spectators share food and beverages in conjunction with a football game. This activity occurs before, during, and/or after the event, and some revelers choose to participate during the course of the game, as opposed to actually attending games.

**Law enforcement.** The process through which statutes and public safety policies are enforced by uniformed police officers. At a college football game multiple law enforcement agencies work to ensure crowd control and public safety. These can include a university’s police department, city police, county sheriff’s office, state police, and the alcohol control agency officers.

**Basic Assumptions**

This study operates under a number of basic assumptions. The assumption is made that the responses by participants in the interview and survey based studies are
accurate and truthful. Administrators’ articulations of alcohol policies are accurate and consistent with actual game day policy and operations. It is assumed that crime is enforced consistently by police officers with the same consistency on game day and the law is enforced consistently from game-to-game. Perception and rationales can be reliably measured and demonstrated via interview. Also, participants are representative of typical college football game attendees. Crime and ejection statistics from law enforcement were accurately and consistently compiled over the time period observed.
CHAPTER 2
REVIEW OF LITERATURE

Multidisciplinary Nature of Stadium Alcohol Policy Literature

Concepts Associated with the Nature of this Study

The topic of alcohol consumption surrounding college football games, alcohol policy development and enactment in college football stadiums literature, and other associated literature is multidisciplinary in nature and, therefore, can be influenced by many concepts, theories, and disciplines. This review will cover an array of concepts and topics. The primary launching point, the relationship between alcohol and aggression has been well documented, along with the impact of alcohol fueled aggression on crime (Bandura, 1973, Akers, 2009). Alcohol availability and distribution planning of alcoholic sales outlets has received attention for its impact on varying levels of crime. Sport has been related to alcohol consumption, and concurrently related to increases in crime rate, either due to watching it on television, or attending in person (Bandura, 1973).

Treatment of alcohol policy in general, institutional alcohol policy, and sporting event policy is integral to understanding this overall project. Alcohol consumption has become commonplace at sporting events, especially before college football games and during professional events. Thus alcohol policy in sporting events sets the tone for the alcohol policies in college venues. College football games played on campus are subject to college or university alcohol policy, which often influences policies of alcohol consumption during sporting events. Along those lines are the concepts of institutional and/or environmental alcohol management and stadium alcohol risk management.
strategies. Additionally, social theories that can be applied to aggression, alcohol consumption, and alcohol policy but are not explicitly tied to those topics are discussed.

**Deficiencies and Previous Focus in Stadium Alcohol Policy Literature**

Little scholarly literature exists on stadium policy, but there is a recent growth in its study. Much of the literature is applied from economics, criminology, epidemiology, and health promotion as there is little sport management discussion of alcohol policy in college football stadiums. Alcohol consumption at college football games remains a major environmental health and risk management issue. Accompanying issues at college football stadiums are not isolated to game day. The following discussion will establish how the main scholarly treatment of alcohol policy falls outside of sport management literature, and the necessity for exploring it with a sport management policy lens. The relationship between alcohol consumption and crime is well established in criminology, economic, public health, sociological, and limited sport management literature, among others. Studies discussing risk management approaches to alcohol policy in sport venues remain among the few sport management studies in existence relating to this topic. Therefore, it is necessary to venture outside of management literature to develop our theoretical framework for empirical study of alcohol policy considerations at college football stadiums.

**Alcohol and Crime**

**Relationship between Alcohol and Crime**

Empirical studies have evidence that excessive public alcohol consumption contributes to violence and increases the fear of crime (Makkai, 2001). A United States Department of Justice study showed a heavy association between the use of alcohol on crime convictions (Greenfield, 1998). Approximately 36% of the 5.3 convicted offenders...
under the jurisdiction of the Bureau of Justice corrections agencies in 1996 had been consuming alcohol at the time of arrest. Close to 75% of those who committed public-order crimes had been using alcohol. Alcohol was also related to assault, illustrated by the statistic that 4 out of 10 violent crimes involved alcohol use by the offender. The study also found that only 19% reported consuming alcohol alone, while the other 40% used illegal drugs in combination with alcohol (Greenfield, 1998). This data can provide reasoning for the decision to remove alcohol from college football stadiums due to the large number of people in the venue comparable to the size of a small city, the tendency for alcohol consumption, and the link between drunkenness and crime.

**Alcohol Availability and Crime**

A relationship has been shown between how the built environment impacts alcohol consumption and related crime as illustrated by the association between alcohol outlet density and crime in Milwaukee (DiIulio, 1995). Research has found a positive relationship between the density of alcohol sellers and crime in the inner city by using census tract data. Findings propose that having more alcohol outlets in densely populated areas contributes to crime. A similar relationship exists between alcohol outlet density and crime in Detroit (Gyimah-Brempong, 2001). This analysis showed higher crime rates, which included the total, violent, property, and homicide crime rates, being related to alcohol availability. There appears to be a relationship between more reported crimes in areas with higher concentrations of liquor stores and other alcohol sellers (Gyimah-Brempong, 2001). An additional study found an acceleration of crime rate when licenses granted reaches 10 in a specific census tract, showing a density point for alcohol outlets. One study found there was a negative effect of alcohol selling, which could be limited through even dispersal of alcohol availability (Gyimah-Brempong
& Racine, 2006). Therefore, alcohol policy restructuring should impact the quantity of alcohol consumed to counteract the previously shown positive correlation between the availability of alcohol and crime.

Another study also considered the relationship between alcohol outlet density and crime in Austin, Texas and San Antonio, Texas (Zhu, Gorman, & Horel, 2004). However, sociocultural variables were also considered. The authors analyzed neighborhood data describing social structure data, alcohol density, and violent crime. This study revealed that socio-structure covariates explained approximately 59% of crime variance in Austin, and about 39% in San Antonio (Zhu, Gorman, & Horel, 2004). Adding alcohol to the model improved its statistical power and alcohol outlet was a significant predictor of crime with 71% of variance explained by the two variables in Austin and 59% in San Antonio. While social demographics of an area contribute to violent crime, there is a clear association between “alcohol outlet density and violence” suggesting that limiting access and availability to alcohol should have a positive impact on crime reduction efforts (Zhu, Gorman, & Horel, 2004).

Relationships between Sport, Alcohol, and Aggression

Sport, Leisure, and Alcohol

Many research inquiries have considered whether being a sport fans affects levels of aggression. This stems from observations that there is a connection between alcohol and leisure (Carruthers, 1993). Spectator sport is leisure and the expectancy that alcohol is a part of leisure behavior makes sense. Carruthers asserts that individuals believe that alcohol enhances their leisure experiences. Many believe that the amount of alcohol is proportional to the level of enjoyment of the activity. Alcohol served three functions in surveyed participants. It heightened the engagement of the leisure
experience, increased social impulsiveness and personal comfort, and released the
drinker from responsibility (Carruthers, 1993). Spectators are generally unreceptive to
alcohol restrictions at sporting events even though they support general societal level
restrictions away from the venue (McAllister, 1995). Individuals supported alcohol
sponsorship restrictions except at sporting events. Additionally, they found a connection
between sport viewing and alcohol consumption.

One manifestation of this connection is the following consideration of alcohol
consumption patterns at two major-league baseball stadiums (Wolfe, Martinez, & Scott,
1998). Alcoholic beverage drinking behavior was measured at games played in two
major league baseball stadiums. Since men are more likely to purchase alcohol than
women as evidenced in demographic information obtained in one of the stadiums, male
spectators were given breathalyzer tests at the entrance gate and during the fifth inning
as to determine alcohol consumption. Participants between the age of 20 and 35 were
most likely to have consumed alcohol. The researchers observed that 41% of the
sample drank alcohol, but only 8.3% were legally intoxicated at the .08% blood alcohol
level. Close to 5% of individuals tested during the fifth inning planned to drive home
from the game, which illustrates the link between alcohol consumption behavior and
potentially risky behavior after the game (Wolfe, Martinez, & Scott, 1998).

**Alcohol Consumption Considerations**

Some scholars have made attempts to empirically link alcohol consumption to
personal spectator sport involvement, or attachment or support for a sport or certain
sport team described by some as “sport fandom” (Wann, 1998). Wann conducted a
comparison of the degree of fandom of 180 college students – ranging from not
supporting sports at all, to being very much invested in following sports. The frequency
of their consumption of alcohol failed to show a relationship between support of athletics and degree of alcohol consumption. While no correlation existed in this case, it seemed worthwhile to continue to examine the potential link. Nelson and Wechsler (2003) first established a link between fan identification and alcohol consumption, in their analysis of alcohol consumption behaviors and attitudes. Their research showed that sport fans had the inclination for getting into conflicts. Students who identified themselves as “fans” had a tendency to get into conflicts, and suggested a relationship between level of fan (fan or non-fan) and alcohol abuse. Collegiate fans may be more prone to participate in heavy drinking than other kinds of spectators. The study suggested a relationship between identifying oneself as a sports fan and alcohol abuse, and the conclusion was that sports fans drink more than non-fans and acknowledged being involved in more conflicts than non-fans.

Wakefield and Wann (2006) explored the difference between those who they identify as dysfunctional fans and those identified as non-dysfunctional. Dysfunctional behaviors can be categorized as complaining and confronting other spectators at sporting events, or other types of aggressive behavior in those situations (Wakefield & Wann, 2006). Observations predicted that dysfunctional fans of high identification would find alcohol more of a necessity of the sport consumption environment than highly involved low dysfunctional fans. The study explained the link between alcohol consumption and aggressive behavior is dysfunctional fans may drink to decrease inhibitions and increase efficacy in confrontational or dysfunctional behavior. Since highly identified fans are likely to attend sporting events in person a relationship exists between fan identification level and favorability toward alcohol consumption. The
authors concluded that college football games are likely to attract individuals who are inclined to consume alcohol (Wakefield & Wann, 2006).

End et al. (2009) replicated Nelson and Wechsler’s (2003) study finding no significant difference between alcohol consumption amounts between fans and non-fans. They believed that a flaw in their predecessor’s study was the assumption that fan identification equates with attendance of sporting events, but not all spectators are fans, and vice versa (End et al., 2009). They used the original study’s definition of fan and also conducted an analysis according to fan and team identification level and found no significant difference between alcohol consumption amounts and experiencing negative alcohol-related incidents. The authors acknowledged that more research should be conducted to further analyze attitudes toward alcohol consumption and behavior.

**Sport, Alcohol Consumption, and Aggression**

Kaplowitz and Campo (2004) analyzed alcohol consumption and attitudes toward alcohol policy in the context of a sports-related riot. Following a Michigan State University loss in the Final Four of the NCAA Basketball Tournament, the campus experienced fan violence, which led to rioting. The study sought to link the amount of alcohol consumption to student attitudes towards both campus alcohol policies and the riot itself. The results suggested that degree of alcohol consumption “had a direct positive effect on enjoying the riot” (Kaplowitz & Campo, 2004, p. 510). Also, those who drank more objected heavily to restrictive alcohol policies. In general, those who consume more alcohol object to policies restricting alcohol consumption. Related to these concepts, Dimmock and Grove (2005) investigated whether fan identification (i.e., the psychological bond that an individual has to a team or sport) and associated aggression are related with constructs of the TPB, e.g., attitudes, social norms, and
perceived control. In testing Australian fans of different teams in differing sports, attitudes toward aggression or their beliefs about social norms with respect to aggression did not vary between highly identified fans and lowly-identified fans. Conversely, highly identified fans felt less control over their actions at games than fans with low levels of identification. One noteworthy explanation for this relationship is that fans who sense a threat or enhancement to their identity, emote in ways that lead to a lack of behavioral control. Celebratory riots would be attractive for highly identified fans desiring identity enhancement as opposed to lowly-identified fans (Dimmock and Grove, 2005).

A descriptive analysis of a riot at a football game at the University of Wisconsin’s Camp Randall Stadium in 1993, suggested that the violence and disruption was fueled by alcohol abuse by spectators (Fried & Metchick, 2005). A riot ensued at the end of a game between Wisconsin and Michigan, which caused a fence to collapse within the stadium injuring 73 spectators. The authors offered suggestions for preventing similar incidents in the future. Included within these were: increasing penalties for alcohol-related misconduct, encouraging Universities to work with local bars to ban inexpensive alcohol promotions, enforcing of open container laws, offering students who abide by the rules, special incentives or preferential seating, and revocation of season tickets for poor behavior.

**University and College Alcohol Policy**

Previous discussion has established the issues surrounding alcohol consumption related to leisure sporting events. Crime, aggressive behavior, injury, rioting, and death can stem from alcohol abuse activities. Therefore, an alcohol control policy is
necessary. The following discussions highlight alcohol policy considerations on university campuses and in sporting venues.

Universities and colleges face crime, vandalism, injury, and behavioral problems due to alcohol abuse on their campuses.Therefore, administrators formulate policies to deter, decrease, and discourage alcohol abuse and the related environmental health hazard that accompany problem drinking. However, these policies should endeavor to change attitudes and norms regarding drinking, not simply serve as a deterrent (Toomey & Wagenaar, 1999). Environmental policies and strategies should be directed at college students and the community as a whole (Toomey, Lenk, & Wagenaar, 2007). These strategies include reducing alcohol-related problems and consumption among underage individuals, reducing alcohol consumption by all college students, and lowering the emphasis on the role of alcohol in campus life. Environmental alcohol consumption control measures could also be applied to the college football game day environment to limit or decrease potential alcohol-related problems. Gaining support for such strategies might aid the environmental management of alcohol abuse.

Environmental control of alcohol on campuses is imperative due to reports that on-campus crime rates rise when alcohol availability increases. Increases in beer prices and related taxes could limit the amount of binge drinking and underage drinking by college aged females (Chaloupka & Wechsler, 1996). College age males were unresponsive to price increase. Accordingly, controlling availability and increasing price decreases crime rates, depending on the situation. However, other factors such as living in a sorority or fraternity, the ease of availability of alcohol, and living on campus might be better predictors of alcohol consumption by college students (Chaloupka &
Wechsler, 1996). Results of this study parallel previous and subsequent findings that alcohol availability is related to crime.

DeJong, Towvim, & Schneider (2007) give empirical support for the posited policy suggestions by analyzing student support for alcohol enforcement policies and strategies among 32 four-year institutions of higher education in Pennsylvania. A majority of the college students sampled supported five of 12 alcohol problem reduction policy proposals which included: stricter disciplinary sanctions for alcohol-related violence and repeat offenders of campus alcohol policy, stronger repercussions for those who purchase alcohol with false identification, keg prohibition on-campus, and restricting alcohol advertising. The following policy proposals did not receive majority support but were supported by 30% or more: undercover visits to bars to increase legal drinking age compliance, banning alcohol company sponsored events on-campus, elimination of bar and liquor store specials, alcohol tax increases to support programs that keep minors from drinking. This study suggested that administrators should poll students to determine what policies their students are likely to support (DeJong, Towvim, & Schneider, 2007).

**Stadiums and Tailgate Policy**

Stadium alcohol and tailgating policies vary by venue. Miller and Gillentine (2006) inquired into the risk management efforts that major Division I college football stadiums made with regard to tailgating policies. Research determined responsibility for who actually employed policies and “risk areas of concern for tailgating activities” (Miller & Gillentine, 2006, p. 203). They concluded that stadiums should employ a risk management plan in order to keep patrons from unnecessary harm, and protect themselves from negligence lawsuits. Variations exist between alcohol policies at
different professional venues (Fried & Ammon, 2009). After surveying professional
stadium managers, the authors found that alcohol is sold at most professional facilities.
Most enforce alcohol policies that include confiscation of outside alcohol and two beers
per transaction. Tailgating was found at 50% of responding facilities. However, the
responsibility for parking lots where tailgating occurred varied depending on whether
parking lots were in control of stadium management and where the lots were located.

While alcohol policies vary between venues, attitudes directed toward alcohol
policies at one venue can also vary among patrons. Glassman, Werch, Jobli, and Bian
(2007) conducted a comparison of game day policies that included allowing open
containers in designated tailgate areas and increasing the amount of law enforcement,
and limiting tailgating hours. Over half of spectators surveyed did not drink on game
day. Those fans supported restrictive alcohol policies. However, the degree of alcohol
consumed on game day negatively affected the support for alcohol restriction. Students
opposed more underage drinking enforcement, while non-students supported it, but
neither group strongly opposed this proposed measure.

Stadium Alcohol Policy

Lenk, Toomey, and Erickson (2009) assessed the variety and intensity of
professional sport venue alcohol enforcement and related problems. In a telephone
survey of state alcohol beverage control and local law enforcement agencies in host
cities and states in the U.S. that have professional sports stadiums during 2005-06
seasons (n=98), they found that compliance checks were the most common type of
alcohol enforcement in slightly over 50% of agencies. Reports of fighting were the most
common complaints received by almost three-quarters of agencies. Complaints about
intoxicated individuals were received by 65% of state agencies. Venues that hosted
basketball were less likely to have complaints than other venues that did not host professional basketball, while those hosting professional football were more likely to have complaints as opposed to venues with an absence of football played within. The study concluded that high rates of alcohol-related problems but low levels of enforcement occurred at sports stadiums. Additionally, states with lower heavy episodic drinking rates were more likely to have more types of enforcement than those with higher rates. The authors suggested that states with lower rates of heavy episodic drinking may have less alcohol-related issue and a lower frequency of alcohol-related problems, as a result of more systems of alcohol enforcement implemented. Therefore, the culture (or lack) of drinking, along with type of enforcement of alcohol-related laws may impact the levels of alcohol consumption and alcohol-related problems. (Lenk, Toomey, & Erickson, 2009)

Lenk et al. (2010) built upon the previous studies by examining alcohol control policies employed by professional stadiums, by surveying 66 of the 100 venues that host hockey, basketball, baseball, or football games. The majority of stadiums reported allowing no more than two alcoholic beverages for purchase by patrons, and checking identification of individuals who appeared under the age of 30. However, about half of the venues prohibit servers under 21 to serve alcohol to guests. Additionally, only one-third have sections where alcohol sales and consumption are prohibited. Thus, alcohol control policies in stadiums are not standardized, and it is important to determine what policies are the most successful in preventing alcohol-related problems at sports venues.
Erickson et al. (2011) conducted a preliminary study to test the feasibility of collecting the blood alcohol content (BAC) levels of attendees of sporting events and also observe the levels of intoxication of individuals leaving those events. They tested 362 patrons leaving 13 baseball games and 3 football games, considering the factors related to higher measurements of BAC. They concluded that 8% of those in their sample were legally intoxicated, above the .08% BAC level. Additionally, many young adults who participate in pregame tailgate festivities were 14 times more likely to have BAC levels over .08%. The authors suggest that the practices of serving individuals with the stadiums along with tailgating contribute to the elevated BAC levels of patrons, which could lead to more alcohol-related problems after games (Erickson, et al., 2011).

**College Football and Alcohol Consumption**

Previous literature that relates TPB to alcohol consumption has helped inform studies about alcohol consumption at college football games. Conner et al. (1999) concluded that TPB was a suitable model in showing that alcohol consumption intentions, attitudes toward behavior, subjective norms, and perceived behavioral control explained a fair portion of the variance in intentions to consume alcohol. Perceived behavioral control correlated highly with actual drinking behavior in some cases, but not all. The authors found that regularity of drinking, or not drinking alcohol, was associated with intention to consume but lower perceived control over alcohol consumption. Intentions to consume alcohol and actual alcohol consumption were partially explained by a perceived lack of control (Conner, et al, 1999). So the less perceived control the more likely one was to possess intentions to consume alcohol.

A handful of research has focused on college football game day alcohol consumption behavior. TPB might be a sufficient predictor of game day alcohol
consumption (Glassman, et al., 2008). The study explored the fit of TPB in predicting alcohol consumption on game day among college students. A sample of 740 college students assessed participants’ alcohol consumption on game day and the number of alcoholic beverages consumed on game day using path analysis. Behavioral intentions, attitude, and subjective norms were all statistically significant; however, perceived behavioral control was not significant. Since perceived behavioral control was shown to be of questionable applicability as compared with the precursor to TPB, the Theory of Reasoned Action, the latter might prove to be a better predictor for game day alcohol consumption. More effective measures of perceived behavioral control are necessary to conclude that the TPB can predict game day college student alcohol consumption (Glassman et al., 2008). A related study assessed how well TPB can predict college students’ intention to consume alcohol on a college football game day based on consumption rates. Three groups were selected from three rivalry games at University of Florida home football games to complete an anonymous survey on the Monday after those chosen games (Glassman et al., 2010). Path analyses were conducted to test which of the constructs of TPB predicted behavioral intentions and alcohol consumption patterns among social, high-risk, and extreme ritualistic drinking, defined as individuals who drank 1-4, 5-9, and over 10 drinks on game day for males, and 1-3, 4-8, and over 9 for females. Attitude and subjective norms consistently predicted individuals’ intention to consume alcohol across all three groups, but perceived behavioral control was inconsistent in predicting intentions and alcohol consumption (Glassman et al., 2010). Select constructs may be used in predicting alcohol consumption behavior, but the complete applicability of the theory is doubtful based on this study’s findings.
Oster-Aaland and Neighbors (2007) evaluated the impact of alcohol consumption policy change during football game tailgating activities. They analyzed the prevalence of alcohol consumption during tailgating at college football games and how expectations of drinking compared to actual drinking during tailgate parties, and found that many fans considered alcohol consumption a critical part of being a sports spectator. However, attitudes about attending college football games were not changed by completely restricting alcohol consumption at tailgates, nor did it change reported alcohol consumption. Often spectator expectations and attitudes shape the drinking behavior and related legal consequences on game day. So a resulting conclusion remained that overestimation of peer drinking can lead to an environment of excessive alcohol abuse.

One study shows empirically when individuals drink before college football games, they generally consume large quantities of alcohol. Heavy episodic drinking, or 5+ drinks for males or 4+ drinks for females in a drinking session, is prevalent at tailgates before college football games (Merlo, et al. 2011). In a study conducted at two universities approximately, using surveys and breathalyzers to estimate individuals’ breathe alcohol content half of the 466 participants engaged in heavy drinking prior to games (Merlo, et al., 2011). Only 54 individuals from the sample did not consume alcohol at all at tailgates. This shows how widespread alcohol consumption is surrounding college football game festivities. Therefore, public health and responsible alcohol consumption interventions would be helpful in controlling heavy game day drinking and promote a safe environment.

Role modeling behavior as described by Social Learning Theory can also impact the quantity of alcohol consumed by individuals at pre-game football tailgate events
(Abar, Turrisi, & Abar, 2010). Results suggest that drunken behavior by parents at tailgates presented a risk factor for college students’ own alcohol abuse. Perceived drunken behavior by parents at tailgates was a better predictor of drinking and adverse consequences of college student drinking than the influence of heavy episodic drinking by parents on a typical basis. So, the context in which students view their parents’ heavy drinking, in this case tailgating at sporting events, can serve a modeling behavior that students later emulate (Abar, Turrisi, & Abar, 2010).

**College Football Games and Alcohol-Related Crime and Injuries**

**College Football Games and Community Crime**

Two studies have established a relationship between alcohol-related crime and college football game days, suggesting that the amount of alcohol-related crime increases in comparison to non-game days (Merlo, Hong, & Cottler, 2009; Rees & Schnepel, 2009). Analysis suggested that the relationship between college football games and alcohol-related arrests found that more crimes related to alcohol consumption occurred on game days, as opposed to normal days or holidays (Merlo, Hong, & Cottler, 2009). There were nearly seven times more arrests on game days than on normal days or holidays that were included in the sample. They compared college football game days, holidays, and control days, and found more crimes on game days as compared to holidays and non-special days. Arrests occurred closer to the stadium on game day than on other days. Rees and Schnepel (2009) suggested that host cities of college football teams experience increased crime on game days. They found a positive association between home game days and vandalism, assaults, disorderly conduct arrests, and alcohol-related arrests. The largest estimated effect of college football games on crime occurred when an upset occurred. The spike in crime might be
explained by the dramatic increase of people into these cities, and different degrees of law enforcement by police, as opposed to alcohol consumption (Rees & Schnepel, 2009).

**Alcohol Policy Effect on College Football Stadium Crime and Injury**

Colorado’s Folsom Field management recorded a decrease in reported crime when alcohol consumption was prohibited after many years of allowing its sale (Bormann & Stone, 2001). Banning alcohol within a stadium has been shown to decrease crime, arrests, and injuries at college football games (Bormann & Stone, 2001). Their research suggested that banning alcohol at the University of Colorado’s Folsom Field yielded a decrease in delinquent behavior and crime at the games observing a 50% decrease in ejections and 45% in arrests, and an 89% drop in student conduct violations referrals to judicial affairs office (Bormann & Stone, 2001). Thus, bans of alcohol may be considered the best policy by on-campus stadiums, due to empirical evidence.

However, another study has found alcohol policy change might not eradicate alcohol-related problems, particularly injury, just change the type of outcome. Spaite, et al. (1990) observed no significant overall change in alcohol-related injury rate after the alcohol ban but their stadium of interest experienced a difference in the pattern or type of injury. This study considered the effect of banning alcohol on reports of illness and injuries to spectators at a major college football stadium between 1983 and 1986. Alcohol sales were never permitted, but alcohol was allowed to be carried into the venue until 1985. The results suggested no significant overall change in incident rate after the alcohol ban ended, but there was a difference in the pattern or type of injury. (Spaite, et al. 1990)
A case study further supports the aforementioned findings that alcohol policy can have an impact on game day alcohol consumption behavior and related injury (Johannessen, Glider, Collins, Hueston, & DeJong, 2001). The University of Arizona, after administrators observed a noticeable pattern of increased crime and violence during homecoming weekends, concluded that implementing manageable, enforceable, and consistent alcohol control policies surrounding football festivities would decrease the associated incidents experienced before (Johannessen, et al., 2001). The outcomes of stricter alcohol restrictions at college football games and associated activities were less crime, fewer neighborhood calls to law enforcement, and a reduction of other alcohol-related problems in the year the new policies were enacted. Yet, incidents rose to levels observed before the new policies in following years. Therefore, it is difficult to confirm the efficacy of the policies because of the possible impact of other factors such as varying law enforcement deployment over the years. The authors suggested that more oversight and restrictions surrounding homecoming activities where alcohol was served at the University of Arizona yielded less crime and fewer incidents.

**Theoretical Considerations**

There are two theories gleaned from the previous alcohol policy and stadium policy literature that direct the empirical study to be described in the following chapters. The frameworks include Social Learning Theory/Social Cognitive Theory (Bandura, 1986) and the economic theory of intertemporal substitution. SCT and social learning theories can explain the connection between sport and aggression, alcohol consumption, and related crime. Intertemporal substitution can inform whether individuals are likely to consume more alcohol during unregulated periods to make up
for alcohol prohibitions, and in turn contribute to higher crime rates in stadiums that do not consume alcohol as opposed to stadiums that do sell alcohol.

**Social Cognitive Theory**

SCT serves as a guide to explain how individuals interact with their environment and vice versa to influence behavior. This explanation can be extended to help observe how alcohol policies are informed and implemented by extending explanations of how people interact with their environment in situations where alcohol is consumed and controlled. SCT is based on SLT principles established by Miller and Dollard (1941) and Rotter (1954). SCT presents “a multifaceted causal structure in which self-efficacy beliefs operate” together with “cognized goals, outcome expectations, and perceived environmental impediments and facilitators in the regulation of human motivation, action, and well-being” (Bandura, 1998). Bandura (1969) suggested that people have the ability to modify and regulate their behavior based on their learning history, perceptions of the environment, and physical and intellectual capacities. Learning and experiencing new things can change behavior, which guides people’s changing perceptions and cognition, especially alcohol-related behavior (Bandura, 1969). Utilizing these ideas can lead to successful alcohol policies at college football games.

The concepts of SCT can be grouped into five categories: Psychological determinants of behavior, which include outcome expectations, self-efficacy, collective efficacy; observational learning; environmental determinants which include reciprocal determinism, facilitation, and incentive motivation; self-regulation; and moral disengagement (McAlister, Perry, & Percel, 2008). Outcome expectations are individuals’ beliefs regarding the probability and impact of the consequences of their behaviors, that is, people’s anticipation of how they will feel about themselves if they
perform or do not perform a certain behavior. Self-efficacy consists of personal beliefs about one’s ability to behave in a way that brings desired outcomes. There are four ways through which self-efficacy can be developed: Mastery experience enables the person to succeed (Bandura, 2004; Bandura, 1997). Collective efficacy extends the self-belief of self-efficacy to groups. Observational learning occurs when individuals learn to perform new behaviors by exposure to those behaviors, especially by viewing peer models. Incentive motivation stems from providing rewards and/or punishments to change behavior. Reciprocal determinism illustrates how the environment influences individuals and groups, but in addition also considers addresses how people interact with their environment while regulating their own behavior (McAlister, Perry, & Parcel, 2008). Facilitation provides new structures, resources, or environmental changes that enable ease of new behavior performance (Bandura, 1998). Self-regulation refers to an individual’s self-control through self-monitoring (observation of one’s own behavior), goal-setting, feedback (information about behavior performance and how it could differ), self-reward, self-instruction (self-talk before and during a behavioral performance), and finding people to provide social support. Moral disengagement occurs when people think about harmful behaviors and breach moral standards for self-regulation (McAlister, Perry, & Parcel, 2008).

This theory can be applied to situations involving aggressive behavior: Alcohol consumption, college football viewing, and explanations of criminal behavior. According to Social Cognitive Theory (SCT) regardless of outcome, witnessing a sporting event can evoke acts of aggression which can lead to injury-causing behavior and crime (Bandura, 1973). At a general level, the theory asserts that people can work together in
social systems to change an environment to benefit an entire group (Bandura, 1997). SCT can be used to explain behavior surrounding college football games while helping to inform alcohol control policies to implement before, during, and after those events.

**Influence of Alcohol on Aggression and Criminal Deviance**

An attempt to apply SLT, a precursor and essentially complementary to SCT without self-efficacy, as analyzed in criminology, to college football alcohol policies is worth a brief overview in the review of literature. While these theories are generally applied to treatment programs, there are some ways to explain general stadium alcohol policies through social learning. The theory suggests that the learning processes that lead to alcohol abuse also encourage criminal and deviant behavior. Substance abuse behavior is not learned in peer groups, but “drug-abstinent behavior” is (Akers, 2009). In studies focusing on the variable of peer association, a relationship exists between it and delinquency, alcohol use, violent crime, property crime, and other types of deviant behavior (Akers & Jensen, 2007). Along those lines, Akers (1979) shows that the probability of abstinence from alcohol decreases, while frequency increases, when there is more exposure to models who were users as opposed to abstainers. Positive definitions have more of an effect on amount of use than negative ones.

Data from Akers' Boys Town study focusing on alcohol and marijuana use in adolescents can help shed light on decisions to use alcohol by Midwestern adolescents, based on social learning theory (Akers, 2009). Generally, an individual’s use or abstention from alcohol can be explained through differential reinforcement, that is, depending “on the past, present, and anticipated future rewards and punishments perceived to be attached to abstinence and use” (p. 171). The effects of alcohol can serve as reinforcing effects, by “exposure to sources of social reinforcement” either
favorable or unfavorable (p. 171). Individuals learn attitudes about use through
differential association with “primary groups of friends” and family members especially if
it is accepted within the family and close circles of friends (p. 171). They also learn the
behavior of how to use substances to enhance it effects from social influences. If the
individuals define the use as beneficial and acceptable, rather than conforming to
negative attitudes, they are more likely to consume alcohol. Additionally, there is more
social acceptability to extreme consumption of alcohol, due to the prevalence of its
availability.

The study found a strong relationship between an individual’s “definitions and
group definitions, i.e., adult, peer, and religious norm qualities…to which they [had]
been exposed” (p. 185). The individual’s definitions on their own, controlling for group
definitions and other factors, had no effect. Additionally, “the full social learning model of
differential association, imitation, definitions, and differential reinforcement” had a strong
effect on variations in individual abstention from alcohol consumption and marijuana use
(p. 187). Thus, social learning can be a persuasive explanation between the relationship
between alcohol use and crime (Akers, 2009).

**Temporal Regulation and Intertemporal Substitution**

Temporal regulation and intertemporal substitution serves as a potential
explanation of alcohol consumption at college football games, especially keeping
varying alcohol sales allowances or prohibitions. The following study detailing the
effects of alcohol policy amendments described the effect of changing game day policy
on blood alcohol content and law enforcement reports of driving while intoxicated.
(Boyes & Faith, 1993)
One economic theory suggests that the control of alcohol use during a specific time period may shift the negative consequences of alcohol-related delinquency to another uncontrolled period (Boyes and Faith, 1993). Intertemporal substitution refers to a displacement of consumption created by regulation. This shift in alcohol consumption could be applied to the policies that prohibit alcohol within general stadium seating areas. The behavior is allowed during some periods, but the consumable that causes the problem behavior (e.g., alcohol) is taken away for a regulated period of time. Boyes and Faith (1993) apply the economic theory of intertemporal substitution and temporal regulation to alcohol consumption and policy. Public drinking imposes costs on others. They assert that “regulations that interrupt the normal timing of consumption shift at least a portion of that consumption into non-regulated periods” (p. 606). The goal of this is to control a “negative externality,” one reason given for controlling alcohol consumption (p. 596). This shift may be desirable or inconsequential for many goods. For instance, not allowing smoking in a certain place may not lessen the number of smokers, but limit the amount of tobacco smoke and the social cost to others. The substitution may not be socially harmless in the case of alcohol since intoxication increases during non-regulated periods resulting from the “regulation-induced” shift (p. 606). Boyes and Faith show that regulation designed to decrease the “negative externalities” that is, outright bans of alcohol consumption during football games, forced a shift in intoxication to the unregulated periods. More car accidents after games, as well as more arrests from driving under the influence, could result from a higher level of intoxication, since intertemporal substitution of alcohol consumption can lead to drinking and driving.
One might suppose that regulating alcohol during a football game should help “reduce social costs of drinking” through hindering consumption through stadium alcohol bans when the “the expected externality is large and allowing for increased consumption” when expected consequences would be small (p. 596). However the shift caused by intertemporal substitution is not inconsequential. There are three arguments for the unintended effects shifting the externalities. First, the effects of increasing consumption of alcohol in the non-regulated period before the game carries over into the regulated period due to the fact that alcohol concentration does not reach maximum until one hour after the final drink is consumed. Second, the rate and volume of consumption determines the level of intoxication “during any period” (p. 596). “Thus, even if there is not a one-for-one substitution of consumption from the restricted period to the adjacent unregulated periods, average intoxication taken over the adjacent and restricted periods can increase” (p. 596). Third, studies show the magnitude of the likelihood of traffic accidents increases with the “level of intoxication” which shifts the increase of the external effect of drunk driving to after the game (p. 596). Acknowledging that intertemporal substitution may not have the desired effect may give credence to those who assert a preference for the availability of alcohol sales at college football games.

**Closing Remarks Regarding Previous Literature**

Based on the previous literature, two studies will be conducted to analyze and explain the development, and crime and health outcomes of college football alcohol policy. Based on previous considerations, SCT is the most relevant explanation for interventions to counteract aggression and alcohol abuses. Therefore the first study
focuses on revealing themes related to alcohol development and implementation which could possibly be connected to theory.

No further study has built upon the Boyes and Faith (1993) effort in exploring the effect of alcohol policy on spectator misconduct, nor has there been a comparison of the effect of alcohol sales on stadium crime and injury between different venues. Temporal regulation and intertemporal substitution serves as a means of looking at the unintended consequences of stadium alcohol policies created by regulation. The underlying rationales for a policy and its expectations for desired effects or consequence (namely reduction of alcohol-related problems at the game and on campus) may have inadvertent consequences of shifting crime to another time and place. This means that a policy with the intent to help limit the harmful byproducts of alcohol consumption and analogous behaviors associated with heavy drinking simply shifts the problems away from the stadiums plus creating new problems in and around it. Therefore, the second study will test this effect by comparing stadiums with differing policies. In other words, does the likely shift of alcohol availability in stadiums without alcohol sales yield higher crime and ejection rates than stadiums that allow its sales.

**Summary of Research Questions**

The aforementioned literature review influences the research questions for analysis and are as follows. What relationship exists between game day environment characteristics and alcohol policy? Is there a relationship between college football stadium location (on-campus or off-campus) and alcohol policy? What factors affect alcohol policy enforcement? Studies that detail alcohol policy at sporting events guide those three questions (Abar, Turrisi, & Abar, 2010; Erickson et al., 2011; Lenk et al. 2010; Lenk et al. 2009). Does size of stadium as signified by stadium capacity affect
alcohol policy considerations? Do game day characteristics affect alcohol-related deviance outcomes (crime and ejections) as measured by reported law enforcement records? Since these questions are based on environmental influences on behavior SCT and SLT help guide these questions (Bandura, 1986; Bandura 1973; Akers, 2009). The following questions are influenced by intertemporal substitution (Boyes & Faith, 1993). Does alcohol policy correlate with the count of ejections or reported crime within a stadium? Additionally, does the type of alcohol sales policy affect crime and ejection counts? (Spaite et al., 1990; Boyes & Faith, 1993; Bormann & Stone, 2001; Johannessen et al., 2001; Rees & Schnepel, 2009) The next section will detail the methods for analyzing the research questions.
CHAPTER 3
METHODOLOGY

The purpose of this dissertation is to identify and explore major factors that influence the alcohol policy development and implementation by athletic administrators, for college football stadiums and determine what characteristics of game day affect alcohol-related crime and ejections. The research is carried out using a twofold analysis. The first step is to determine what impacts the reasoning for administrative alcohol policy. The second examines what environmental factors affect in-stadium ejections and alcohol-related crime. The benefit of mixed methods is that multiple approaches provide a comprehensive analysis that will help us determine the role that alcohol policy and other variables play in spectator game day behavior.

The qualitative component seeks to determine the rationale for stadium alcohol policy. Previous literature had identified SCT/SLT as a beneficial explanation for the reasons for alcohol consumption at sporting events (Abar, Turrisi, & Abar, 2010; Rees & Schnepel, 2009; Bandura, 1973), and the theory of intertemporal substitution has been used to posit the differences in alcohol-related problems between stadiums that sell alcohol and those that prohibit sales (Boyes Faith, 1993) but have stopped short of determining alcohol policy development and its impact at these events. This inquiry seeks to resolve the following questions for research: What relationship is present between game day environment characteristics and alcohol policy? Is there a relationship between location of a college football stadium (on-campus or off-campus) and alcohol policy? What factors affect enforcement of alcohol policies? Does the size of the stadium affect alcohol policy development by the decision makers?
The quantitative component compares the relationship between alcohol policies at different stadiums to reported crime within stadiums in one Southeastern state over a three year period. The purpose of this component is to determine whether the environmental characteristics of college football game days affect stadium policies affect the amount of spectator ejections and crimes. Questions for research based on the quantitative inquiry include the following. Does the type of policy (alcohol sales permitted v. alcohol sales prohibited) affect reported stadium crime and ejection totals? Is there a correlation between alcohol policy and crime and ejections?. Additionally, is there a relationship between game day characteristic variables (i.e., temperature, start time, conference opponent) and reported spectator crime and ejections?

**Design**

This study followed a mixed-methods analysis, using a phenomenological approach to explore administrative viewpoints of college football game alcohol policy, a canonical correlation analysis, and multiple regression analysis to model the relationship between college football game day variables on spectator deviant behavior as measured by alcohol-related crime. The qualitative interview-based approach helped to inform the framework and variable selection for the canonical correlation analysis and multiple regression models. These analyses are intended to show the relationship between and among location of stadium, alcohol policy, and other dependent variables. The first component explored the phenomenon of alcohol policy control at college football stadiums within venues from a Southeastern state. Moustakas’ (1994) phenomenological approach was used. Using this framework, criteria were established for selecting participants. Subsequently, interviews conducted using a guided semi-structured schedule. Individual, composite meanings were constructed to create a
synthesis of meaning and essences of the experiences. A summarization of the study and findings were subsequently produced (Moustakas, 1994). The quantitative component consisted of testing the relationship between college football game day characteristics and alcohol-related crime and ejections. A canonical correlation was chosen to establish a relationship between the set of independent variables (Hair et al., 2009), (i.e., the game day characteristics) with the set of dependent variables (i.e., crime and ejections), ejections and crime while regression models were used to predict the relationship of independent variables on ejection and crime separately as dependent variables. The subsequent sections detail the data collection for each component of the study, followed by data treatment for each respective part of the study.

**Data Collection**

**Collection of Qualitative Data**

The collection technique that was used was semi-structured face-to-face interviews (Berg, 2002) with senior athletic administrators with direct experience with college football stadium alcohol policy development, implementation, and enforcement. The purposive sampling procedure consisted of choosing athletic administrators in seven athletic departments. The participants in the study include senior level stadium administrators in charge of game day operations of college football stadiums. These individuals were systematically chosen based on their title and involvement in the athletic departments of the sites selected for study. The sites are all in the same state, at universities that sponsor Division I Football Bowl Subdivision (FBS) teams. For a detailed table of stadium characteristics along with a description of the individuals representing each stadium, see Table 3-1.
Eight individuals from seven athletic departments were interviewed. Four include on-campus stadiums that do not sell, serve, or permit consumption of alcohol in their general seating areas. One of these venues has a capacity of 20,000 and a program with less than ten years of football competition, referred to as Stadium A in the study. Two individuals from this location participated in interviews. An administrator from each of the following locations participated in the study. The second has an administrator involved in game day facility operations at a stadium with a capacity of approximately 90,000, hosting a successful program that has a long established football tradition, labeled as Stadium B in the study. Stadium C has a capacity of approximately 48,000, and Stadium D holds 83,000. Three of the universities host their games off-campus in stadiums that sell alcohol. Stadium E has a capacity of 20,000, Stadium F has a capacity of 70,000, and Stadium G has a capacity just over 75,000. Individual administrators who had personal involvement in implementing, carrying out, and evaluating game day operations policies and procedures, including the stadium alcohol policy, were interviewed. These individuals were found by scanning the athletic department directory websites for the individual in charge of football event operations. Individuals were contacted by electronic mail and/or telephone to determine whether they indeed oversaw game day operation. Once an individual was selected, an appointment for a face-to-face interview was arranged. The researcher travelled to the campuses of each administrator and met them for an interview held in their offices. Data was collected via face-to-face semi-structured interviews which lasted between 45 and 90 minutes..
Institutional Review Board (See Appendix A) approval was granted by the University of Florida, and participants were given an informed consent form to review the risks, benefits, goals and purpose of the study, and outline of the overall process of the interviews. All interviewees provided informed consent to participate in the project.

The interviews followed a semi-structured schedule which involved implementing predetermined questions but the interviewer probes into the answers of the prepared standardized queries (Berg, 2002). The interview questions focused on the participants’ knowledge of alcohol policy at their stadium, rationales for their policy, and other aspects of alcohol policy. The interview schedule included the following questions:

- What is your stadium alcohol policy?
- What are the different aspects of the alcohol policy that are enforced?
- Do you allow alcohol sales within your stadium?
- What are some reasons for allowing/not allowing alcohol sales within your stadium?
- Is stadium management responsible for implementing the alcohol policy?
- If not, who implements the policy?
- Is alcohol allowed in some portions of the stadium?
- If yes, where is it allowed?
- Who are the responsible parties for carrying out the alcohol policies on game day?
- Who is responsible for enforcing alcohol policy outside the stadium?
- Are law enforcement officials judicious about citing people for certain alcohol violations?
• What is your personal attitude toward alcohol consumption at college football games?
• What is the amount of alcohol-related problems the stadium experiences on game days?
• How are stadium alcohol violations cited and treated?
• How do you perceive the relationship between alcohol consumption and fan behavior?

Other relevant questions that followed from the conduction of the interview were asked if deemed necessary by the interviewer. Since the interviews were conducted in a semi-structured manner, not all questions in the schedule were asked to all interviewees. Questions were used as a guide to encourage the interviewees to talk about alcohol policy issues on game day in general and within and around their stadium. Interviews were audiorecorded and transcribed verbatim. Final transcripts of each interview were sent to participants for them to confirm whether their comments were accurate and representative of their session.

Collection of Quantitative Data

The objective of the second part of the study was to establish a relationship between game day variables and reported alcohol-related crime and ejections at college football stadiums. Location was determined by locating stadiums on a map and confirming with interview participants as to whether the stadium was considered on or off-campus. Reporting of ejections was determined through the interviews with administrators used in the qualitative component of the study along with the disclosure from law enforcement agencies in charge of those stadiums on game day that they did
not report escorting individuals out of the stadium if they were not charged with a crime.

The other game day variables of start time, temperature, home team ranked, visiting team ranked, attendance, conference opponent, and in-state rival opponent were determined from box scores available from team websites.

**Variables**

Each variable is defined based on the previously reviewed literature, a review of alcohol policies, and the semi-structured interviews. The independent variables are measures of characteristics of college football game day at the stadium. These include alcohol policy-related and other environmental variables related to the game day aspects and surrounding atmosphere of a college football stadium. Alcohol policy-related variables include location of stadium (dichotomous), measured based on being located on-campus or off-campus, and whether ejections are reported. The following variables are influenced by characteristics of game day: time of game as measured by the hour of kickoff, the temperature at kickoff (Boyes & Faith, 1993) whether the home team is ranked, whether the visiting team is ranked (Rees & Schnepel, 2009), attendance, in-state rivalry, and conference games.

The dependent variables are reported crime and ejections from the stadium.

Types of individual reported crimes cited by law enforcement officers within the stadium were defined and deemed as noteworthy by the semi-structured interviews with administrators and analysis of violations listed on crime ledgers/reports from each law enforcement group. These include public intoxication, possession of alcohol under the legal age, disorderly conduct, and assault, among other infractions which result in arrest by law enforcement officers (Rees & Schnepel, 2009). Ejections involve removal of an individual from the venue for violating a stadium policy, but are not considered arrests.
and are therefore not defined as reported crime for the purpose of this study. The following is a list of how the variables were identified in the data analysis and how each was measured.

**Independent variables**

**Reported Ejections.** Law enforcement officers in some locations record the ejections of patrons, while others will escort perpetrators out of the stadium without recording the offense. Ejections are reported (1) and ejections are not reported (0).

**Location.** Location refers to where the stadium is located, either on-campus (dummy coded as 1) or off-campus (0). Off-campus stadiums permit the selling of alcohol, while on-campus stadiums prohibit sales.

**Home team ranking.** This variable describes whether the home team playing the game is ranked in top 25 of a national poll. The variable is measured by if the home team participating in the game measured was ranked in top 25, yes (1) or no (0), based on the ranking listed in the box score.

**Visiting team ranking.** Whether the visiting team is ranked is also an independent variable. The variable is measured by if the visiting team is measured was ranked in top 25, yes (1) or no (0), based on the ranking listed in the box score.

**Game-time temperature.** The temperature at game start in degrees Fahrenheit based on temperature listed on box score.

**Attendance.** This is the attendance of each game listed in the box score.

**Rivalry game.** A game between in-state rivals. The variable is measured as yes (1) or no (0).

**Conference game.** A game played between two members of the same conference. The variable is measured as yes (1) or no (0).
**Start time.** The start time of the game is signified by the hour of start of game (0-24).

**Year.** This is the year in which the game was played. The years of the study are 2008, 2009, and 2010.

**Dependent variables**

**Crime.** This is the count of alcohol-related arrests reported within the stadiums of study. The total number of alcohol-related arrests where individuals were charged with a crime carried out by law enforcement officers within the stadium per game was counted.

**Ejections.** Refers to the count of ejections reported at college football stadiums. Those who are ejected are forcibly removed from the stadium by law enforcement officers but are not arrested or charged with a crime.

Accessing crime and ejection data varied by individual stadium and law enforcement agency. Crime, a law enforcement incident that results in an arrest, was counted from incident reports archived by the police departments with jurisdiction over the stadium at five of the stadiums. Those five university athletic departments did not compile those records or permit the researcher to access them. As a result, the police departments in charge of game day law enforcement gave records of arrests and all other alcohol-related law enforcement activity to the researcher and he conducted a count of the relevant crimes. Records archivists pulled crime report documents from the day of each game of interest. Two stadiums kept records of all law enforcement activity as reported by the police departments. These records were obtained from the stadium administrators. One was via spreadsheet with a detailed breakdown of all incidents recorded per game while the other had a count of total incidents, including alcohol-related crimes and ejections in tabular format. Ejections counts were given for four
stadiums, while three stadiums did not provide that information due to the policy decision of removing individuals from the venue without producing a written report. After the records were analyzed, a count of total crime and ejections within the gates of each individual stadium for each game date was obtained.

**Data Treatment**

**Interview Analysis**

Data was analyzed inductively using criteria established Moustakas (1994) and Berg (2002). The procedure used for analyzing data was phenomenology (Moustakas, 1994). All data was coded by hand due to the small sample size ($n = 8$). Each interview was read one time to expose higher order themes. Common themes that repeatedly emerged were identified among the interviews. Quotations that were representative and correspondent to those themes were chosen and highlighted by the researcher. A copy of each interview was printed out to facilitate determination of relationships between corresponding quotations in which themes were identified. Every statement relevant to the topic was considered to have equal value and subsequently placed into a theme (Moustakas, 1994). The relationship among quotations within the themes was noted and categorized accordingly to provide meanings and the fundamental nature of the phenomenon. The results are presented in Chapter 4.

**Statistical Analyses**

Two statistical analyses were chosen to aide in the analysis of the relationship between college football game day characteristics and reported crime and ejections, canonical correlation analysis and multiple regression. A canonical correlation analysis was conducted to determine the relationship among variables within two set of variables, along with the correlation between the independent and dependent variables.
Tests of canonical dimension to determine the significance of the canonical dimensions as influenced by the dependent variables, calculation of redundancy indices, canonical weights, canonical loadings, and canonical cross-loadings were all obtained to determine the strength of the relationship between game day characteristic variables and reported law enforcement activity, ejections and crime, as a part of the same model.

After considering the relationship between sets of variables, the impact of the independent variables on each dependent variable separately, crime and ejections was determined using multiple regression. The first model regressed crime on the 10 independent variables. There were 126 observations of games within seven stadiums. The independent variables included whether a stadium’s law enforcement reported ejections, location of the stadium (on-campus or off-campus), time of game, temperature, attendance, conference opponent, in-state rival, ranked home team, ranked opponent, and year. The second model regressed ejections on 9 independent variables for the 80 games in four stadiums that reported ejection. The independent variable of reporting of ejections was excluded as a variable in this model. All of the statistical analyses were conducted using R version 2.11.1.
Table 3-1. Description of participants in interviews.

<table>
<thead>
<tr>
<th>Venue</th>
<th>Participant Position</th>
<th>Stadium Location</th>
<th>Interview Location</th>
<th>Approx. Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stadium A</td>
<td>Assistant AD/ Events Director</td>
<td>On-campus</td>
<td>In office</td>
<td>20,000</td>
</tr>
<tr>
<td>Stadium A</td>
<td>Facility Manager</td>
<td>On-campus</td>
<td>In office</td>
<td>20,000</td>
</tr>
<tr>
<td>Stadium B</td>
<td>Associate AD/ Operations Director</td>
<td>On-campus</td>
<td>In office</td>
<td>90,000</td>
</tr>
<tr>
<td>Stadium C</td>
<td>Associate AD/ Operations Director</td>
<td>On-campus</td>
<td>In office</td>
<td>48,000</td>
</tr>
<tr>
<td>Stadium D</td>
<td>Facility Manager</td>
<td>On-campus</td>
<td>In office</td>
<td>83,000</td>
</tr>
<tr>
<td>Stadium E</td>
<td>Assistant AD/ Operations Director</td>
<td>Off-campus</td>
<td>In office</td>
<td>20,000</td>
</tr>
<tr>
<td>Stadium F</td>
<td>Events Director</td>
<td>Off-campus</td>
<td>In office</td>
<td>70,000</td>
</tr>
<tr>
<td>Stadium G</td>
<td>Events Director</td>
<td>Off-campus</td>
<td>In office</td>
<td>75,000</td>
</tr>
</tbody>
</table>
CHAPTER 4
RESULTS

The results of this study are presented in two parts. The first part presents a report of the interview responses of the participants categorized by theme. Discussion, explanation, and analysis of this content are covered in Chapter 5. The second part of this chapter presents the statistical analyses which include canonical correlation analysis and multiple regression. As with the qualitative component, discussion, explanation, and analysis of proposed relationships between the qualitative and quantitative results will be presented in Chapter 5.

Part 1: College Football Game Administrative Alcohol Consumption Containment and Enforcement

Interviews were conducted on the phenomenon of alcohol consumption policy enforcement and implementation at college football stadiums to determine the emerging themes and resonating perceptions of facility and operations administrators at the seven schools that play football in NCAA Division I FBS in a Southeastern state. Analysis of the interviews yielded a number of interconnected themes related to the process of policy enforcement, efficacy of policy, rationales for stadium policy, difference between stadium location and perceptions of issues related to college football game day alcohol consumption by patrons and spectators. These themes include policy rationale and enforcement, the difference between on-campus and off-campus facilities, sales of alcohol versus no sales in the general area, control, education of fans, tradition and culture, and alcohol-related issues experienced on game day. Common themes emerge despite differing perceptions and insights disclosed by the participants.
Policy Interpretation and Enforcement

Overall, the stadiums reported in this study are split between allowing a) alcohol consumption in the entire stadium with the opportunity to purchase alcohol available to all fans, and b) allowing alcohol consumption only within the luxury seating areas. These latter areas include club seating and suites, which are set back from the general seating area. All of the stadiums that sell alcohol to the general public allow beer sales, while Stadium E allowed liquor sales to the general public additionally. Among all of the respondents alcohol policy and crowd control enforcement are the responsibility of local law enforcement agencies.

Policy Origins and Development

For each administrator interviewed, the historical circumstances behind why the stadium alcohol policies were developed were considered relevant to policy implementation and enforcement. Three of the stadiums studied sold alcohol and are located away from their university campuses. One stadium administrator stated: “The alcohol policy is they definitely sell beer and actually liquor. We were fortunate enough to operate under… [a vendor that] had a full liquor license so they sold beer through sub-vendors on the stadium grounds and actually liquor as well” (Stadium F). In stadiums that sell alcohol, the administrators had differing levels of awareness to the purchasing limits. Two venues allowed two beverages per person, while one individual was unaware of the limits that existed in his off-campus stadium. One stadium administrator remarked: “I think they’re only allowed to buy two per visit … [and] they cut off alcohol sales at the beginning of the fourth quarter, so they would sell through the break between the third and fourth quarter.” Another had the following remarks:
[O]ur policy was just adapted from what they already do [at the stadium]. So, obviously it’s overseen by their concessions people, which is an outside agency which comes in and, they are overseen by [stadium] concessions. Their policy is, obviously they are checking ID regardless of age, so everyone gets ID’d and banded, and they check ID each time. They are able to buy two alcoholic beverages per time. Our policy is that, we have a soft shutoff at the end of half time, which means at the end of half time we have either security and/or police go to the back of the line and walk down the line. So it’s not a hard shutoff where at the end of half time we start, anyone in line able to buy alcohol up to that person. That soft shutoff lasts for fifteen minutes. At the end of fifteen minutes it’s a hard shutoff. So anyone who has been in line and hasn’t gotten served within that fifteen minutes, we’re officially done at fifteen minutes. If it’s done before then,… that line is done serving alcohol at that point. (Stadium G)

According to this participant, the shut-off time is implemented in order to give individuals time for alcohol to metabolize through their systems. This was their policy in their previous stadium, and they continued it when they moved into their new venue.

**Stadium Location Differences**

The interviewees made distinctions between alcohol access policies in different parts of their stadiums. Four stadiums, located on university campuses, do not sell alcohol within their general areas but allow for sales or consumption within their luxury suites. When characterizing their alcohol policies a number of the administrators state that there is no alcohol in the stadium, but this only refers to the general bowl area. This sentiment is clear in the following comments from an administrator with an on-campus stadium:

Our alcohol policy here is there is no alcohol in the stadium. There [are] two places you can have alcohol, which is the stadium club, which is for all our club seat holders. They get wrist bands, they go into their own room, where they purchase their drinks, and drink their drinks in the stadium club, [and] can’t leave the stadium club with their drinks. It’s kind of a perk to the club seat holders, and also in our suites. We have alcohol in all suites. Once again, same thing, they can’t leave the suite hallway, with an alcoholic drink in their hand… so the alcohol stays in the suite hallway. (Stadium A)
Other stadiums that do not sell alcohol have similar policies. Stadium B established a policy that “alcohol is strictly prohibited to come through the gates, in any of the seating bowl areas. The only place that alcohol is served is in private suites. And that alcohol cannot leave that area.” In this situation alcohol is acquired through a private account and the beverages are delivered at the beginning of the year or during the week. It is not delivered on game day as alcohol cannot enter the stadium on those days due to venue policy. Stadium C has a policy where “there is no alcohol that can be brought into the stadium. No alcohol is sold in general patron areas of the stadium. The only area that alcohol can be served is in private, premium, seating areas.” This includes the suite areas and the outdoor club seating area. “Beer and wine is served inside the club lounge but is not permitted in the seating area.” The reason for this is the lack of a clear delineation between the club seats and general seating areas. “[W]e don’t permit alcohol into the seats, which is a typical policy. It has to stay indoors in that premium private area” (Stadium C). Stadium D allows alcohol sales within its luxury skyboxes. The box holders decide whether they want to purchase alcohol and do so through a private entity that operates a club that is open year-round for events and meals. Additionally, individuals may purchase alcohol in the club during games, provided they purchase a membership.

**Enforcement Perceptions**

The ability to contain problems through careful implementation of their policies was carried out through stadium staff, public law enforcement, and private security officers. The process is outlined by Stadium B’s administrator as follows:

[S]omebody goes into Gate 13 and has got a bottle of whiskey on him and they’re clearly inebriated and they are inside the gate, and the officer stops that person inside the gate and has a bottle of whiskey, so they…obviously
[have] a prohibited item, they are cited for possession of alcohol then go to the booking room. That booking room is on the east side of the stadium. That’s where they are processed and they’re probably going to be cited for that, arrested for alcohol possession on campus inside the stadium, and if it’s a student, they would go through Judicial Affairs from the academic standpoint. They could have their season tickets taken away, get probation…. Then if it is a regular fan they go through it just like anyone else. They’re cited for alcohol possession, whether they need to be seen in front of a judge, remains to be seen as to how the severity of that charge of what they do, whether it is resisting arrest, or whatever, it’s just like any other law issue that you would have outside the stadium. So, we just happen to have the opportunity here, locally in our stadium on game days because we are processing a bunch of different people. We have 90,000 people all at once; you can’t just be shuttling people down to [local police departments]. We just process them right there, and they’re taken away. If it’s a season ticket holder we have program in place, and if it’s a season ticket holder and you’re ejected or arrested your name comes back to me and we get a list of everyone who has been arrested or ejected and we cross check it against our season ticket holder list. And if anybody that was processed is on our season ticket holder list, they get a letter, and if it’s an ejection letter or arrest letter, it depends. If you get arrested and someone’s using your ticket, you get warned once. If it happens a second time, we’ll have a conversation one-on-one with that person. If it happens a third time you’re subject to losing your season ticket privileges.

Other administrators acknowledged that the revocation of season tickets for the behavior of any individual sitting in the seat of the ticket holder was also done, specifically in Stadium C and G.

Stadium G policy enforcement is comprehensive outside the stadium in parking lots, as well as within the stadium. Ejecting and arresting individuals who violate policy or laws is supposed to be part of the containment process.

We have a decent number of ejections and even sometimes arrests, depending the severity of our, we note whether they are alcohol related or not. We actually have a fair amount of ejections that happen prior to the game being started. Not allowing fans into the stadium because they appear overly intoxicated. So, since we are on private property, we are able to eject people right away and not even allow them into the stadium where you know they could cause even more issues once they started drinking. (Stadium G)

Mobilizing personnel in multiple areas is another strategy to enhance enforcement.
…we have bike police that are going through and if they see fans not abiding they are able to hand [the policy pamphlet] directly to them and give them insight as to what they’re not following. So we got stadium personnel in the parking lot. We got police in the parking lots. We have ABT in the parking lots. So we got a lot of people observing what’s going on in our parking lots to make sure it’s as safe as possible….I think the stadium does a good job in training their personnel as well as working with police to make sure we’re doing the best we can. I think that the concessions do a very good job of holding to their policies. It’s human so it’s not perfect but I think they’re doing a good job of doing that. I think the stadium does a good job of following up on that. We’ve got closed circuit cameras all over. Really able to get pretty much anywhere to …get an eye of what’s going on and I think they do a pretty good job…. We’ve got hundreds of cameras throughout, in all the concourses, and then in the stands there’s multiple cameras that we can pretty much get spot on of what’s going on. So, any calls that come in, right away we’re able to put a camera on that and we got it until someone, and it’s recorded in. (Stadium G)

Several of the stadiums enhance enforcement through a text messaging system.

Stadium security cannot be everywhere at once, and the cameras will not pick up misconduct unless they know where to focus.

We also … have a text message service, so fans are able text in any issues and then right away as soon as those texts come in we put a camera on it and we got it until someone, either law enforcement or security can get to that position to see exactly what’s going on. But … I think it also allows us to check up to see make sure that security or police are following through the policies as well as the concessions…. [I]n the concourses we have cameras who are able to get in onto the concession lines to make sure the shut off is going correctly or that it’s being vended correctly, that they’re not giving out to many drinks of anything like that. (Stadium G)

These stadiums provide a service where individuals can text their location and problems they are experiencing.

[I]t’s been really good for us, because the tough thing about … holding an event for 45,000 people, is communication with people. Obviously we don’t have 45,000 staff. So we have to find a way to get feedback. So, this text messaging tool has helped us do that. People anonymously alert us about anything they want, and they do. (Stadium C)

The game day operations command center gets the information, can zoom the cameras into the problem area and also dispatch security and/or law enforcement into the area.
[W]e found that program… you’re talking we average a hundred plus texts a game. And, those are issues that we never would have heard of. You know, because if somebody’s got an issue or concern in their stadium, then they would have to go to an usher or security person, that person then if they couldn’t deal with it have to call back to the command post, then the command post would need to get the correct people out, whether that’s a clean-up, or a medical issue, or security issue. Now it just happens instantaneous. (Stadium B)

It is unclear if this has led to a decrease in incidents, but it gives them another tool in containing alcohol-related spectator misconduct.

We can put the camera on them, or we can [focus our] binoculars on them, whichever is easier, identify that location quickly, and then dispatch someone there within a minute even it be non sworn security, or security. Or fire rescue, depending on what the issue is. It’s pretty quick. It’s a simple tool that was a great idea. Everybody’s got a cell phone. Everyone can text for the most part. And you can do it anonymously. If someone is sitting in front of you smoking, and we have a no smoking policy, you can say the guy in front of me is smoking I’m seated here and within a minute there’s going to be someone there to take care of it. Same thing if there is someone who is being belligerent or yelling or whatever, or they’re not…. The biggest thing we have is this person isn’t supposed to be sitting here. Their ticket isn’t for here. We’ll have someone come up and ask them. And they’re surprise because “How did they know I was…” That’s the best tool we’ve got, really right now. (Stadium B)

The system is intended to protect fans from possible repercussions or apprehension associated with reporting unruly fan behavior. Administrators have found that if somebody does report a possible infraction to law enforcement and the perpetrator finds out it might lead to a confrontation between those parties, potential altercations, and possible arrests.

Are we getting better, or are we getting worse? It’s hard to measure, because you could feel if you have less text messages then you’re improving. However, I think as the years go by and more people will be used to it, and more people will utilize it. So we may end up getting more texts, where we just don’t have them now. (Stadium B)

Law enforcement can intervene without the culprit’s awareness of who reported him/her.
On-campus Compared with Off-campus Stadiums

The administrators saw differences between on-campus and off-campus alcohol policies, whether they were the actual variations in policies or perceptions of alcohol consumption behavior and alcohol policy efficacy. Stadium A administrators determined that their lack of alcohol sales in the general seating stemmed from campus policy that prohibited alcohol on campus. This follows from the idea of keeping students from consuming alcohol in connection with a sporting event. Other venue administrators had similar sentiments. “Having a stadium on-campus is a little bit different. You bring it right into your academic environment” (Stadium C). Additionally, the Stadium C administrator saw more responsibility being on-campus. “I think you have to take more responsibility when you’re on-campus, that’s the biggest thing [because] it’s an academic institution.” Thus, the location of stadium had much to do with the sales policy.

I think the fact that we are an on-campus facility and…right in the heart of campus has a lot to do with whether we have the ability to sell alcohol in our venue. I think a lot of times stadiums that are off-campus, you’d have more opportunity to do that. Maybe it could be a college team that plays at a professional stadium. (Stadium B)

Stadium B’s administrator also perceived a “steady level of security issues, violence in the stadium, [and] behavioral issues” if alcohol is sold in a venue. He was content with not allowing alcohol sales (as opposed to allowing limited consumption in luxury areas) at football games in his venue.

The sentiment that off-campus venues may sell alcohol and on-campus ones refrain from sales was shared by the administrator at Stadium D when he responded that a venue that’s not owned by the university has alcohol sales for basketball games. “So you’re dealing with your two largest population venues where one doesn’t and one
does. The only difference between them is one’s on-campus and one’s off-campus.”

These were the on-campus venues’ administrators’ perceptions.

Off-campus venue administrators had the following comments on the differences between venues on-campus and those not within the boundaries of universities.

I guess the general rule is if you have an on-campus stadium you don’t… I don’t think it’s a technical rule, but the general consensus is they won’t have general beer or alcohol sales outside of club level or special area. But since we’re off-campus they alleviated the pressure there. We saw the value of the revenue we get from it and in our situation revenue drives the train in most cases. (Stadium E)

The participant from Stadium F suggested that moving the crowd they currently had at an off-campus venue would not change much with regard to game day problems. He suggested they would have “a larger group of younger people attending there. I don’t know if it would result in more arrests or ejections but you would have a slightly different demographic of who’s attending.” Overall, the location of stadium seemed to have an impact on the alcohol sales policy decision.

Alcohol Sales versus Alcohol Prohibition in General Seating

There was considerable tension between the participants’ perceptions of the financial benefits of alcohol sales as opposed to the risks that such sales created of increased misconduct. The rationale for not selling alcohol was generally associated with the potential for problems to occur within the stadium. The interviewees recognized that access to alcohol in or around a stadium, one way or another is going to cause misconduct and other related problems. Stadium E’s administrator implied this.

In my mind, I think if you don’t sell, if you don’t sell alcohol in the stadium, I think you’re actually setting yourself up for more problems in the parking lot, because the student mentality is going to be, you know a binge mentality, so they’re going to know, if they’re going into a stadium and they’re not going to have access to reentry, and they’re not going to have access to buy legally or illegally inside. You know, they’re going to try to binge and get
their buzz on, and try to drink more so it will last them through the game, because they know they’re not going to be able to buy it inside, or otherwise get it inside. It seems to be a little different than what a lot people have, are concerned about….They want to reduce problems in the tailgating areas, by not selling alcohol in the stadium, and I don’t necessarily think there’s a correlation there. I think it actually might be quite the opposite. It may be different on a pro level, but you’re never going to have a pro stadium that doesn’t sell alcohol, because the owners know that’s where the revenue is, you know. (Stadium E)

Yet, this administrator also thought that the idea that on-campus stadiums do not sell alcohol hurt the smaller schools financially. They took in a percentage of alcohol sales at their off-campus venue which totaled around 8,000 to 9,000 dollars per game.

“[T]here’s a lot of money to be made in it, and I think in a situation where you have an entire athletic budget of 14 million dollars, I think it’s an easy decision to make when you’re trying to balance the budget at the end of every year.” The same administrator commented on how the atmosphere of the game is affected by the presence of sales in the stadium.

We don’t go to many stadiums that sell alcohol inside. I think just about every stadium we go to, at least some of the smaller [venues], our conference schools. Everybody that we go to, it seems like the students are right behind us, right behind the bench. You know, there are some places that are better than others…. I think [a conference rival’s] students do it about as good as anybody in….getting on our players. They do it clean. It’s a dry county, obviously there’s no alcohol sales in the stadium. Is that a correlation? It could be. But, any other place it could be alcohol. (Stadium E)

Another conference rival sells alcohol within their on-campus venue and is considered to be a dangerous environment by this administrator.

[They are] one of the worst as far as making sure that it’s a…safe area. They’re right on top of you. We had an incident a couple of years ago where one of our coaches was on the verge of going in to the stands because the kids were spitting on the players and saying things. They had those Thundersticks and they’re down there in their faces and hitting them with the Thundersticks. They’re literally over the top of you … it was pretty rough,
but, we travelled with a couple of campus police so we were keen to it. We keep an eye on it and make sure it doesn’t get out of hand. (Stadium E)

However, this administrator believes that allowing alcohol sales with careful enforcement and control would lead to a low level of game-day issues.

**Financial Benefits**

Another administrator believed that allowing alcohol sales makes his school a good partner with the off-campus host venue “because it allows them to gain some revenues from that source” which is a part of the football environment and alcohol consumption is something the fans want to partake in during games. He also believed that the amount of alcohol-related issues on game day would not vary between venues that sold alcohol and those that did not.

I think they'd have the same issues if they didn’t sell alcohol because I think the people who are prone to use alcohol or consume it to the level that it becomes a situation I think are going to do it whether a stadium sells it or not. I think they’re going to find a way to do it… If they felt like they couldn’t get a beer inside once they get in then they might have the extra beer outside. (Stadium F)

So, he did not perceive there to be much of a difference in alcohol abuse on game day between venues that sold alcohol and those that did not. Additionally, he believed that a stadium that prohibited alcohol sales would not necessarily have fewer issues. On the contrary, it meant that misconduct would be greater outside the stadium.

Probably their impression is they’re going to experience less issues with a stadium that didn’t sell alcohol…I think it’d be a misinterpretation on their part to go in with that assumption because I think that people would probably consume more outside if they couldn’t get it inside. So if they had that impression it would probably be the wrong impression. (Stadium F)

This above statement consistent with the belief of Stadium E’s administrator, that alcohol sales are unlikely to lead to more alcohol-related issues within those stadiums.
Stadium G’s administrator focused on financial advantages to having alcohol sales with the stadium which outweighed any behavioral issues.

Obviously there’s a financial side to it that drives our concessions. There’s a decent amount of revenue that’s gained from it. And there lies a tough give and take there. You have some increased fan behavior issues, and you just [have] to weigh the pros and the cons verses the revenue created from alcohol sales. And it’s tough there as well, because we have a partnership with the stadium and a partnership with the concessionaires, and some contractual things as far as alcohol sales there. Ultimately they are being hurt too if we stop vending alcohol, they get hurt too, so they have a vested interest as well, in our concession numbers.

Alcohol sales create revenue, and that is the tradeoff that the off-campus stadium makes between raising money for the department or more behavioral control in the stadium. Stadium F does not make any revenue from alcohol sales. However, Stadium G does profit from alcohol sales but struggles to reconcile making money with containing problems.

From just event operations it’d be easy to say let’s not sell it, it’d make my life easier, it’d make police’s and security’s job a whole lot easier I think. But ultimately operating budget is affected somewhat in part by our concession numbers as well. It’s a decent amount of money we get from those sales, so it’s tough to do it. I think it’d be easy to say “hey let’s not do it it’s not worth the headache.” (Stadium G)

Therefore, all of the administrators in stadiums that sell alcohol saw some benefits to allowing sales within their venues whether it was from a revenues standpoint or not.

**Having it Both Ways: Access for Few, Prohibition for Most**

The venues that sell alcohol seem to think that prohibiting alcohol sales in their general seating makes their stadiums prone to fewer issues, even though there is an acknowledgement that they are likely turning down increased revenue for their athletic departments. Stadium B’s administrator gave these insights.

[S]omething that is unique to this environment that does not sell alcohol, as opposed to a stadium that does, is that we find during the game that our
 issue and concerns regarding health and security, medical and security issues will peak at the beginning of the game then go down as the game goes on. Whereas if you visit with folks that sell alcohol in their stadiums, a lot of times it’ll peak late in the game, when more people have been drinking during the game. So we find our spike early in the game and it goes down as the game goes on, where I’ve spoken to folks at pro stadiums, or where they sell alcohol, a lot of times it’ll be fairly high at the beginning and continue as the game goes on as it relates to people consuming alcohol during the game…. I think that not allowing alcohol sales in a stadium increases, from a fan’s perspective the enjoyment of the game…. I’ve been to a number of different venues where…alcohol plays a part of the disruption for a lot of fans of the event itself. I think on the flip side, for alcohol sales, a positive aspect is I think there is a demand for that as it related to the fans now days, and I also think from a monetary standpoint you can generate increasing revenue from alcohol sales. Pretty substantial revenue you can generate from alcohol sales, beer and alcohol, no doubt. (Stadium B)

Other stadiums’ administrators agree with the demand for alcohol at college football games. The thinking is alcohol sales might change how one approaches law enforcement and develop and implement policy. The restrictions would change.

You’ve have to have a cost parameter, obviously an age parameter. When are you serving? When are you cutting off? What type of training? Who are the employees? Are they university employees? Are they [concessionaire employees]? Is there a level of insulation between the university and the alcohol sales? What type of funding benefit could come as result of that?…But man it is tempting to think if you charged $7.50 for a cup of beer how many budget problems could you solve through alcohol sales in your stands. (Stadium G)

These stadiums come up with the compromise of allowing alcohol sales in luxury seating, which is the case in all of the on-campus stadiums. The stadium administrators understand that they are forgoing a large portion of revenue by not allowing general seating alcohol sales. Overall, the distinctions between atmosphere and enforcement potential lead to the concept of control.
Control

The need to control alcohol consumption because of the issues and byproducts of alcohol-induced misbehavior emerged as an important theme. Locations with fewer incidents attributed this outcome to management having achieved a high level of control. The administrator at Stadium A felt that their level of control was a reason for their low number of incidents.

If it’s controlled, like how we control ours I think it’s great. People enjoy it, people enjoy themselves, and have a great time at the game…. We have it in a controlled environment, and people don’t get out of control, they enjoy it. We’ve rarely had few problems with it, and it’s great. I don’t see a problem with it. (Stadium A)

Having a sense control over alcohol consumption provided a justification for allowing sales in any area of a stadium.

Control through Prohibition in General Seating

Keeping alcohol within the luxury seating and away from the general seating, clearly present in on-campus venues, was a part of this control. “You have more control in a private area than you would in a general overall stadium.” The reasoning for selling alcohol in limited means was a part of this, but so was higher level administrative policy making.

I’m sure our president wanted to have control of that situation [and] limit the alcohol to just the premium areas, the private areas and not to a public area…. [We] know that our culture demands it in sports. We don’t know why that is. But we know from especially a premium seating standpoint there’s a demand from those patrons to have the ability to have alcohol. Now I guess it’s a demand from all of our patrons. Going back to the control piece, I guess there was a decision made that we would allow for it but we would do it just in a controlled environment where you would have that just in these premium areas inside the suites, inside the private club lounge. So again, the president might be the only one to answer why that was done. But again, you have more control over that than the entire seating area of the stadium, if that makes sense. (Stadium C)
Not allowing alcohol in the general seating area was a product of control for other stadiums as well.

Primarily it’s to keep a level of containment of where the alcohol is going. Having those 89 suites, the large booster box, and the university club, it becomes a fairly significant popular. You could be looking upwards of 2000 to 2500 patrons, so a pretty good chunk of your estimated 84000 if you’re at capacity within [our] stadium. So the idea is to keep those controls within those confines, therefore we can monitor patrons that have had too much to drink whereas if the patrons are taking the drinks out and handing them to friends and family or in some cases creating their own little cottage industry of selling drinks to other patrons, we don’t have the same control over those patrons. So that was the principle reason for why those spots were designated for alcohol not to leave from. (Stadium D)

Therefore, the ability to control dictated the limitations on where alcohol was sold.

Control Where Sales are Permitted in General Seating

Even at a stadium that sells alcohol in its general area, the rationale for doing so was that control could be maintained. The interviewees perceived a small number of people exhibiting problematic behavior at the games.

I think for us it’s pretty well controlled. I think that in cases where you have that type of person as a patron at your game and there are also other people around that person helping to maintain that control. Other fans and friends of that person. I think there’s what I see is a sense of responsibility from other fans to make sure things don’t get out of control. Maybe that’s part of the reason that our [incident] numbers are so low. (Stadium F)

There is a sense that mutual fan responsibility leads to control, not only the law enforcement and policy initiatives put into place within that venue.

NCAA Status as a Control

The status of being an NCAA institution also affects their alcohol policy along with being on campus and in turn impacts the type of control they have over policy making and enforcement. “[W]e’re an NCAA institution…you might not have control at an off-campus site, but if it’s our site, we have control and we’re going to follow the NCAA’s
lead in this” (Stadium C). The NCAA does not allow alcohol sales at its championship events and also encourages institutions to not sell alcohol at their home events.

**Education and Alcohol Policy**

All interviewees mentioned the role of education as an important theme in relation to stadium alcohol policy, and it emerged in two ways: First, in terms of the need to educate fans about behavior which stems from the responsibility of universities as educational entities, and second, in terms of the educational environment in which college football operates. Stadium policy makers claim they have a role to play in educating fans about alcohol consumption and its problematic byproducts. All of the venues have fan guides that have their policy information available for fans, and have game day announcements over public address systems. “[W]e do a video with our head football coach and our chief of police to say don’t drink and drive and we want you to enjoy the game” (Stadium A). Other venues feature game day messages on their video boards about excessive alcohol use and game day safety. Educational initiatives were considered virtually compulsory. “You need to have it, to educate people on how to act, and sometimes keep people aware of their surroundings, to know who to look out for and how to act. It’s something you have to do” (Stadium A). The administrator in Stadium G also found education of patrons to be an extension of control.

You know, we’re forced to hopefully educate our fans with our policies and procedures and hope that they are able to act in an adult manner… to create an enjoyable environment for all… if they want to consume alcohol, they can do it in a manner that they are still able to enjoy the game, and not be a detriment to the fans around them. But there’s definitely issues, and that’s why we have security, and police and we have all means we at our disposal. (Stadium G)
While seemingly a forced exercise, this administrator thought education was essential to alcohol policy control within and around their home stadium even though potential difficulties in educating patrons were acknowledged.

You can try to educate, I think it’s [the] best you can do, but it’s tough when you got 20,000 cars, and you’re trying to get them in quickly but safely as possible and get them into a spot. It’s tough to search every car to make sure. And it’s tough to police that much when you’ve got a parking lot that’s acres big, or even you got to walk a mile to walk to the stadium. It’s tough to police that. So you’ve got to really rely on getting fans to buy into creating and enjoyable atmosphere and doing so responsibly. (Stadium G)

The importance of educating was echoed in Stadium C. One of the reasons was avoiding a “police state” at football games. Law enforcement had a role in educating fans before having to resort to arrest or ejection.

It’s everything, it really is. The good thing, the reason you don’t have arrests is when a police officer comes to you and says if you’re crossing the line somehow, the reason that person cooperates is because they know, we knew that rule but we still broke it and so you broke the rule and you’ve got to leave and there’s no argument. And it’s not just game day here but I think it’s become a cultural thing with this … campaign which doesn’t just apply to football games…. (Stadium C)

Stadium A also put an emphasis on working with local law enforcement with educational communication initiatives

We work with university police on, like I said, getting the word out and helping to get our boosters or our fans that are coming to the game, “hey, these are the policies, procedures you follow on campus on games days as it relates to alcohol but it’s up to the [law enforcement agencies] to enforce whatever those rules are. (Stadium B)

The police are also present outside the stadium with bicycle teams assessing the alcohol consumption in tailgating areas “and informing folks of the policies and procedures, and seeing if there’s people that are inebriated and kind of addressing that outside of the stadium, with our bike teams, it’s kind of an alcohol awareness group”
(Stadium B). Also an alcohol component exists on the public service announcements played before and during games.

Additionally, the educational environment that surrounds college football as an event affiliated with places of higher learning also became apparent. The idea of education resonated more with the administrators affiliated with on-campus facilities. Allowing alcohol sales does not coincide with the goals academic environment. “[T]here is more ownership on campus. I think the university feels they have more responsibility for their students when… it’s essentially an on-campus sanctioned university activity, a football game is, just like any other activity on campus” (Stadium C). The reasons for controlling alcohol consumption in a different way on-campus, specifically not allowing sales within their stadiums, stems from this educational atmosphere.

There’d be lots of questions to ask as it relates. I guess the ideology on campus is because binge drinking is really a prevalent problem on many college campuses and [our institution] is included in that, is the idea of do we want to sponsor the sale of alcohol among a population that we’re also trying to educate. And I think that’s more of the ideology that I steer myself towards. (Stadium D)

Thus, the educational environment creates pressure toward keeping alcohol sales out of university-owned football stadiums or sharply limiting such sales.

**Tradition and Culture**

Tradition and culture surrounding college football game day were cited as a reason for (in some instances) the prevalence or (in other instances) lack of alcohol-related incidents on game day. There are certain accepted behaviors, practices, or ongoing traditions that might increase alcohol consumption. Additionally, the culture surrounding a team or certain opponents can have an influence on game day behavior by fans. One administrator attributed alcohol consumption issues to excitement and
anticipation of the beginning of the season as well as more popular opponents, often rivals.

You certainly have a factor that plays in that you add in for the early season opponents. Maybe it’s the first game … for your freshman it’s the first chance to go to a football game, it’s the first tailgate, it’s the first chance…. Maybe a little bit of an additional factor that goes in there. When those factors were combined with the game being against the [major in-state conference rival] the year that we’ve done that a couple of times, we certainly say quite a different bit of behavior from our fans than if those two things weren’t combined. (Stadium D)

This administrator perceived that the time of game may have some bearing on the amount of incidents or amount of drinking that occurs. People have more time to consume alcohol for later games. “I’m not surprised when I walk by tailgates at seven a.m. for a noon kickoff and there’s a full bar set up there ready for folks to mix and enjoy or pour and enjoy.” Numerous participants agreed that the start time of the game, temperature and the opponent can impact when people arrive for games and start consuming alcohol.

For a 7:00 p.m. game, folks may show up in the middle of the afternoon about three or four, and you still have three or four hours before kickoff. For a noon game it’s sometimes difficult. 10:00 am is still plenty early in the morning, and if it’s in August or September it’s still blistering hot by about that point, anyway. (Stadium D)

Numerous administrators acknowledged that the lack of a tradition can affect the alcohol-related issues. “We’re creating an identity. We don’t have one. We don’t have a tradition” (Stadium C). Three of the programs have only been in existence for a little over ten years, and a fourth had only had football in an on-campus venue for four years, with not much of a tradition of school support. For two of the programs, the administrators cited not having a tradition as a reason for having more problems in the early stages of their home games. The other cited not having a tradition of tailgating or
football success as a reason for relatively few game day incidents at their venue.

Stadium F’s administrator thought the type of individual associated with his university was a reason for the atmosphere on game day even though the games are off-campus.

The culture of [our] football fans for a lack of a better word has been tame. You know we have our rowdy fans but I think they’re also on the whole college football landscape on the tame side. And that may be part of it… I think we breed smarter, nicer people… I think it’s more of an attitude that our department has always had, and our program, our football program, and the university itself, you know kind of being a friendly place to be and trying to treat people the way we be treated when we go other places. That’s what our fan base has primarily been. (Stadium F)

The students have generally been responsible for fewer issues than general non-student, non-alumni fans, by his indication.

The presence of a tradition can impact game day atmosphere and related incidents. Stadium G’s noted that his stadium’s fans have a reputation for poor behavior which can be attributed to their fans’ following.

I think a lot of our issues, it’s just a different clientele to where they’re a little more brash. They’re a little bit more harsh. They’re not fan friendly, but they are just a little more meaner, almost…. It’s hard to say [there’s a] history, but we’ve got a small group of just diehard fans, and we’ve got some fans that, like you said it’s not about the football game. They want to come to get drunk and be belligerent. It’s weird to me to invest that much money to not remember or enjoy the game. But that’s kind of the struggle. (Stadium G)

Many of the incidents are perceived by the administrators to be caused by a few fans who take their roles as supporters of their teams too far.

**Alcohol-related Issues Experienced on Game Day**

The administrators admitted that alcohol was likely a culprit in game day issues in their stadiums. However, they differed on the level of seriousness of these issues and where they came from. The smaller stadiums generally had problems surrounding tailgating events, but the stadiums rarely had problems. Stadiums A and E did not see
alcohol consumption as a major problem within their stadium, and felt that they experienced limited issues within their venue. Stadium E had noteworthy problems when they moved to their new stadium due to an enforcement crackdown by the Bureau of Alcoholic Beverages and Tobacco (ABT). They experienced over 100 arrests for underage alcohol consumption at their games, troublesome due to the fact that the stadium held under 20,000 spectators. Stadium F’s administrator perceived his stadium had few alcohol-related incidents.

The other venue administrators acknowledged an array of alcohol-related problems that stressed stadium operation or public safety staff, and/or led to law enforcement activity by game day security officials. Alcohol consumption by fans led to many of the disruptions experienced on game day.

I would probably say, if we are looking at ejections and arrests, probably 70% of those people that are getting ejected or arrested have… alcohol plays a part in it, let’s put it that way. I do also feel that folks that go through our aid stations, and at times during hot games, it can be overwhelming for out fire rescue folks. The majority, 50%-60% of those folks that are going and seeking aid at the aid stations, it’s alcohol related. Whether it’s dehydration or a fall, or vomiting, or something to that nature. So, I would say over 50% of the issues we deal with both security and medically, have to deal with alcohol use. (Stadium B).

While issues arose due to alcohol consumption, he considered the 100 arrests or ejections occurring on game day to be minor in a stadium with 90,000 spectators present. Stadium C’s administrator considered alcohol-related problems to be manageable in his stadium’s case. They found that more issues occurred when the heat was a factor. A 1:00 pm game in November would seemingly yield “no alcohol issues” compared to a 7:00 pm game in September which would be worse.

You have less issues than you would in September. We’ve talked about this. Again most of our issues are the early season games that are at night. We typically don’t play late season games at night unless T.V. dictates it.
Typically our T.V. window has been earlier in the day so I can’t say we’ve had… I don’t remember one game… I do remember one game we’ve had since it’s opened later in the year that’s been at night, so all of our night games have been in September or early October. And that’s when we have the bigger alcohol issues. They usually occur, honestly they occur in the lots or before they get into the stadium. That is again, some of it may be heat related because there [are individuals] who function well after a certain point and the police usually catch them before. The goal is if there are any people who have had too much; they catch it before the games. That’s been our biggest thing. (Stadium C)

Other stadiums have found issues with rivals, no matter what time of year. Often those games are at night so that may impact the amount of incidents regardless of opponent. The presence of empty bottles of alcohol in the stadium following games was an issues that still occurred even though police performed check of all individuals entering the venue. So patrons would still smuggle alcohol into the stadiums. Additionally one of the stadiums allowed reentry. As a result of this policy individuals could consume alcohol outside the stadium as opposed to purchasing it. So, alcohol consumption by individuals in the general seating areas by underage individuals at stadiums with sales, and by those who could not buy alcohol in the other venues, was still widespread.

**Overall Summary of Policies**

In sum, the interviews yielded an assortment of policies that were enacted by the many of stadiums and the reasoning for implementing them. The most high profile policy is the decision of whether to permit alcohol sales or not. Controlling alcohol abuse of patrons which may cause fan disruptions or crime and ejections in the stadium is rationale for prohibition of alcohol sales, while conversely; controlling alcohol abuse outside the stadium is cited as a reason for selling alcohol to patrons. The stadiums with general seating area prohibition allow alcohol sales or consumption in luxury suites or
club seats because it is a source of revenue, those fans are less likely to buy seats without the added perk of alcohol consumption, security can control the drinking in a smaller area, and these fans are considered less likely to be arrested or ejected for alcohol-related infractions than students or other general seating fans. When alcohol is sold a number of policies are put in place. Checking identification of potential buyers is enforced to prevent underage patrons from buying alcohol, and in some stadiums individuals who want to purchase alcohol must receive a wristband to show they are over the legal age. Additionally, concessionaires put limits of number of beverages per sale (e.g., 2) along with a time during the game when sales are discontinued (e.g., the third quarter).

Policies implemented outside the stadium are aimed at creating a safer environment inside the venue. The media, such as newspapers and websites contain messages to fans about the stadium policies. Not allowing any food or drink into the stadium serves as an attempt to limit or eradicate any alcohol smuggled into the stadium. Educational programs before the games include bicycle police reminding individuals of alcohol consumption laws outside the stadium as well as distributing game day policy pamphlet to stadium patrons. This informs spectators about what behavior is permissible and what is not tolerated by the stadium owners. Within the stadium the text message system has been utilized to help fans patrol their own sections and summon police officers anonymously without fear of repercussions. Security cameras enable a limit security and law enforcement staff to view the whole stadium without dispatching officers to every corner of the venue. Public service announcement, aimed spectator safety, before and during the game remind fans about what behavior is tolerate along
with reminders to not drink and drive after the game. Ejecting patrons and recording this action serves as the ultimate deterrent for alcohol-related misconduct. Other stadiums do not reported ejecting patrons as a means of controlling potentially unruly fans. Season ticket accountability programs that revoke tickets if a seat user is arrested or ejected a certain number of times serves as an incentive for keeping tickets out of the hand of potential binge drinkers who might cause game day problems. Also, incorporation of campus community programs (e.g., “Do the [right] thing” program) can promote good behavior at games and make it a point of pride to support a safe game day environment for the university community. Thus, these policies detailed by the administrators emerged from the quotations gleaned from the interviews categorized in the previously mentioned corresponding themes.

**Part 2: Relationship among Game Day Characteristics and Game Day Behavioral Outcome Variables**

**Canonical Correlation Results**

Canonical correlation analysis was performed using the R version 2.11.1 packages of CCA, fda, zoo, fields and catspec to determine the relationship between two sets of variables, the game day characteristics (independent variables) and crime and ejections (dependent variables). Tests of dimensionality for the canonical correlation analysis, as shown in Table 4-1, indicate that the two canonical dimensions are statistically significant at the .05 level. Dimension 1 had a canonical correlation of 0.73 between the sets of variables, while for dimension 2 the canonical correlation was lower at 0.46. The canonical correlations were of sufficient size to be practically significant. A redundancy analysis was performed on each canonical function (dimension) to reiterate practical significance.
Tables 4-2 and 4-3 show the calculation of redundancy indices for each of the canonical dimensions, also known as functions. Tables 4-4 and 4-5 show the redundancy analysis of dependent and independent variables for both canonical functions. The redundancy index for the independent variables in the first function is .3654, explaining 36.54% of the dependent variable variance. The dependent variables explained 13.50% of the variance in the independent variables. For the second function, the independent variables explained 22.36% of the variance in the dependent variables while the dependent variables only explained 2.88% of the independent variable variance. Together 58.9% of the variance in the dependent variables was explained by the independent variables. Practically, the independent variables accounting for close to 59% of variance is adequate to declare significance in the redundancy index.

Table 4-6 presents the standardized canonical coefficients for the two dimensions across both sets of variables. These results are in terms of standard deviation units for one standard deviation change in the canonical dimension. There is no rule for reporting the size of a standardized canonical coefficient, but .30 is often considered a good cutoff (StatSoft, 2011). For the game day characteristic variables, the first canonical dimension was most strongly influenced by reporting ejections (-.502), conference game (-.449), attendance (-.366), start time (-.338), and rivalry game (-.334); and the second dimension was most strongly influenced by attendance (-1.756), reporting ejections (1.332), location (-.608), home team ranking (.498), and start time (-.460). For incident variables, the first dimension was comprised of ejections as the dominating variable (-0.990). For the second dimension crime (-0.994) was the dominating variable.
Tables 4-7 and 4-8 show the structure for the two canonical functions, canonical loadings and canonical cross-loadings. An interpretation of the canonical loadings finds a loading of .9935 showing that ejections were a representative response to the variables in the first canonical function. The first independent variate has a range of loadings from .0527 to -.5020 with all relationships negative except for one, with a very small value. Reporting ejections (-.8144), attendance (-.6728), and home team ranking (-.6723) were above the accepted canonical loading cutoff of .40 for canonical loadings (Wong & Lan, 2001). For the second canonical function crime was highly negative (-.9989) in the second dependent variate. Away team ranking (-.4915) and the time of game (-.5132) had the highest loading on the independent variate. All other loadings were considered too small for interpretation.

An analysis of the cross-loadings was also performed. In the first canonical function the dependent variable of ejections had the highest cross-loading of -.725. This means that 52.6% of the variance in ejections is explained in the Dimension 1. The independent variables with the highest correlations with the dependent variables were reporting ejections (-.5946) which accounted for 35.4% of dependent variable variance, attendance (-.5002) explaining 25.0% of variance home ranking (.4913) accounted for 24.1% of variance explained. In the second canonical function, the only cross-loading above .30 was crime (-.4561), accounting for 21% of variance in crime explained in the second function. A discussion of the canonical correlation analysis and implications on the relationship between the independent variables, game day characteristics, and the dependent variables, misconduct behavior outcomes are discussed in Chapter 5.
Multiple Regression Results

Crime as dependent variable

Multiple regression analyses were conducted to examine the relationship between reported crime within the stadiums and potential predictors. Table 4-10 summarizes analysis results. The multiple regression model with all 10 predictors produced $R^2 = .22$, $F(10, 114) = 3.21$, $p < .001$. The reporting of ejections ($b = -14.08$, $\beta = -.433$, $r_s = -.001$) had a significant weight indicating that less reported crime occurred in stadiums that reported ejections, but a very small structure coefficient. Location ($b = 7.646$, $\beta = .298$, $r_s = -.060$) has a significant weight indicating showing that games played off-campus experience an increase in crime but a small structure coefficient. Attendance ($b = .00039$, $\beta = .842$, $r_s = .340$) had the most statistical significance of any other variable on reported crimes and a large structure coefficient. Also, the start time of the game ($b = 1.058$, $\beta = .248$, $r_s = .536$) contributed to an increase of reported crimes the later the start time and had the largest structure coefficient. The variables of year, temperature, rivalry game, conference opponent, home team ranking and away team ranking did not contribute significantly to the multiple regression model.

Ejections as dependent variable

Multiple regression analyses were conducted to examine the relationship between reported ejections within the stadiums and potential predictors. The multiple regression model with 9 predictors produced $R^2 = .52$, $F(9, 69) = 8.481$, $p < .0001$. As illustrated in Table 4-9 location of stadium ($b = 23.98$, $\beta = .493$, $r_s = .477$) was significant suggesting that off-campus stadiums experienced more ejections than those on-campus. Attendance ($b = .0005$, $\beta = .553$, $r_s = .428$) was significant indicating that higher game time temperatures are associated with more ejections. Rivalry ($b = 13.75$,
\( \beta = .264, r_s = .365 \) had a significant impact on ejections with games featuring in-state opponents experiencing more ejections. Conference games \((b = 16.86, \beta = .410, r_s = .306.)\) contributed to a significant increase in reported ejections. Also, the start time of the game contributed to an increase of ejections the later the start time. The variables of year in which the game was played, home team ranking, away team ranking, and temperature did not contribute to the multiple regression model.

Table 4-1. Tests of canonical dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Canonical Multiple Correlation</th>
<th>Wilks Lambda</th>
<th>( F )</th>
<th>df1</th>
<th>df2</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.73</td>
<td>.367</td>
<td>7.41</td>
<td>20</td>
<td>228</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>2</td>
<td>.46</td>
<td>.786</td>
<td>3.47</td>
<td>9</td>
<td>115</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Table 4-2. Calculation of Redundancy Indices for the First Canonical Function

<table>
<thead>
<tr>
<th>Variable</th>
<th>Canonical Loading</th>
<th>Canonical Loading Squared</th>
<th>Avg. Loading Squared</th>
<th>Canonical ( R^2 )</th>
<th>Redundancy Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report</td>
<td>-.8144</td>
<td>.6631</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>-.0896</td>
<td>.0080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>-.1855</td>
<td>.0344</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Rank</td>
<td>-.6728</td>
<td>.4527</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Away Rank</td>
<td>-.2898</td>
<td>.0840</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
<td>-.6850</td>
<td>.4692</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>.0243</td>
<td>.0006</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rivalry</td>
<td>-.3262</td>
<td>.1064</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conference</td>
<td>-.0703</td>
<td>.0049</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>-.1603</td>
<td>.0257</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent variate</td>
<td>1.8490</td>
<td>.1849</td>
<td>.730</td>
<td>.1350</td>
<td></td>
</tr>
</tbody>
</table>

| Dependent variables |                  |                           |                      |                  |                 |
| Crime              | -.1483            | .0220                     |                      |                  |                 |
| Ejections          | .9935             | .9870                     |                      |                  |                 |
| Dependent variate  | 1.0090            | .5005                     | .730                 | .3653            |                 |
### Table 4-3. Calculation of Redundancy Indices for the Second Canonical Function

<table>
<thead>
<tr>
<th>Variable</th>
<th>Canonical Loading</th>
<th>Canonical Loading Squared</th>
<th>Avg. Loading Squared</th>
<th>Canonical R$^2$</th>
<th>Redundancy Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report</td>
<td>.1936</td>
<td>.0375</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>.0099</td>
<td>.0001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>.1054</td>
<td>.0111</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Rank</td>
<td>.1614</td>
<td>.0260</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Away Rank</td>
<td>-.4195</td>
<td>.1760</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
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<td>.0352</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
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<td>.0046</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rivalry</td>
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<td>.0265</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conference</td>
<td>-.2066</td>
<td>.0427</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>-.5132</td>
<td>.2634</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variate</td>
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<td></td>
<td></td>
<td></td>
<td>.6230 .0623 .4622 .0288</td>
</tr>
<tr>
<td><strong>Dependent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>-.9989</td>
<td>.0220</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejections</td>
<td>.1139</td>
<td>.9870</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependent Variate</td>
<td>1.0090</td>
<td>.5054</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Table 4-4. Standardized Variance of the Dependent Variables Explained by

<table>
<thead>
<tr>
<th>Canonical Function</th>
<th>Their Own Canonical Variate (Shared Variance)</th>
<th>The Opposite Canonical Variate (Redundancy)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage Cumulative Percentage Canonical R$^2$ Percentage Cumulative Redundancy Index</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.5005 .5005 .730 .3653 .3653</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.5054 1.0059 .462 .2236 .5889</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4-5. Standardized Variance of the Independent Variables Explained by

<table>
<thead>
<tr>
<th>Canonical Function</th>
<th>Their Own Canonical Variate (Shared Variance)</th>
<th>The Opposite Canonical Variate (Redundancy)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage Cumulative Percentage Canonical R$^2$ Percentage Cumulative</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.1936 .1926 .730 .1350 .1350</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.0099 .2035 .462 .0288 .1638</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4-6. Standardized Canonical Coefficients (Weights)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dimension 1</th>
<th>Dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>-.5020</td>
<td>1.3202</td>
</tr>
<tr>
<td>Year</td>
<td>.0818</td>
<td>-.0241</td>
</tr>
<tr>
<td>Location</td>
<td>-.1765</td>
<td>-.6106</td>
</tr>
<tr>
<td>Home Rank</td>
<td>.1868</td>
<td>.5115</td>
</tr>
<tr>
<td>Away Rank</td>
<td>.0527</td>
<td>-.2856</td>
</tr>
<tr>
<td>Attendance</td>
<td>-.3658</td>
<td>-.1.7558</td>
</tr>
<tr>
<td>Temperature</td>
<td>-.2168</td>
<td>-.0501</td>
</tr>
<tr>
<td>Rivalry</td>
<td>-.3382</td>
<td>.1158</td>
</tr>
<tr>
<td>Conference</td>
<td>-.4493</td>
<td>.1828</td>
</tr>
<tr>
<td>Time</td>
<td>-.3338</td>
<td>-.4641</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Dimension 1</th>
<th>Dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime</td>
<td>-.1139</td>
<td>-.9941</td>
</tr>
<tr>
<td>Ejections</td>
<td>-.9895</td>
<td>-.1484</td>
</tr>
</tbody>
</table>

### Table 4-7. Canonical Loadings

<table>
<thead>
<tr>
<th>Correlations between the independent variables and their canonical variates</th>
<th>Dimension 1</th>
<th>Dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>-.8144</td>
<td>.1936</td>
</tr>
<tr>
<td>Year</td>
<td>-.0896</td>
<td>.0099</td>
</tr>
<tr>
<td>Location</td>
<td>-.1855</td>
<td>.1054</td>
</tr>
<tr>
<td>Home Rank</td>
<td>-.6728</td>
<td>.1614</td>
</tr>
<tr>
<td>Away Rank</td>
<td>-.2898</td>
<td>-.4195</td>
</tr>
<tr>
<td>Attendance</td>
<td>-.6850</td>
<td>-.1875</td>
</tr>
<tr>
<td>Temperature</td>
<td>.0243</td>
<td>-.0676</td>
</tr>
<tr>
<td>Rivalry</td>
<td>-.3262</td>
<td>-.1629</td>
</tr>
<tr>
<td>Conference</td>
<td>-.0703</td>
<td>-.2066</td>
</tr>
<tr>
<td>Time</td>
<td>-.1603</td>
<td>-.5132</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correlations between the dependent variables and their canonical variates</th>
<th>Dimension 1</th>
<th>Dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime</td>
<td>-.1483</td>
<td>-.9989</td>
</tr>
<tr>
<td>Ejections</td>
<td>.9935</td>
<td>.1139</td>
</tr>
</tbody>
</table>
### Table 4-8. Canonical Cross-Loadings

<table>
<thead>
<tr>
<th></th>
<th>Dimension 1</th>
<th>Dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlations between the independent variables and their dependent canonical variates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report</td>
<td>-.5946</td>
<td>.0895</td>
</tr>
<tr>
<td>Year</td>
<td>.0654</td>
<td>.0045</td>
</tr>
<tr>
<td>Location</td>
<td>-.1354</td>
<td>.0487</td>
</tr>
<tr>
<td>Home Rank</td>
<td>-.4913</td>
<td>.0746</td>
</tr>
<tr>
<td>Away Rank</td>
<td>-.2116</td>
<td>-.1939</td>
</tr>
<tr>
<td>Attendance</td>
<td>-.5002</td>
<td>-.0867</td>
</tr>
<tr>
<td>Temperature</td>
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<td>-.0313</td>
</tr>
<tr>
<td>Rivalry</td>
<td>-.2381</td>
<td>-.0075</td>
</tr>
<tr>
<td>Conference</td>
<td>-.0514</td>
<td>.0955</td>
</tr>
<tr>
<td>Time</td>
<td>-.1170</td>
<td>-.2372</td>
</tr>
</tbody>
</table>

| **Correlations between the dependent variables and their independent canonical variates** |             |             |
| Crime            | -.1083      | -.4561      |
| Ejections        | -.7254      | .0526       |

### Table 4-9. Regression results for crime as dependent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>Std. Error</th>
<th>β</th>
<th>rs</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>-14.08</td>
<td>4.539</td>
<td>-.549</td>
<td>-.001</td>
<td>-3.102</td>
<td>.0024</td>
</tr>
<tr>
<td>Year</td>
<td>.03</td>
<td>1.279</td>
<td>.002</td>
<td>-.030</td>
<td>.026</td>
<td>.9794</td>
</tr>
<tr>
<td>Location</td>
<td>7.65</td>
<td>3.149</td>
<td>.298</td>
<td>-.060</td>
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<td>.0167</td>
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<tr>
<td>Home Rank</td>
<td>-5.54</td>
<td>3.042</td>
<td>-.213</td>
<td>-.002</td>
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<td>.0712</td>
</tr>
<tr>
<td>Away Rank</td>
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<td>3.184</td>
<td>.125</td>
<td>.475</td>
<td>1.375</td>
<td>.1720</td>
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<tr>
<td>Attendance</td>
<td>.00</td>
<td>.000</td>
<td>.842</td>
<td>.340</td>
<td>4.144</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Temperature</td>
<td>.07</td>
<td>.132</td>
<td>.046</td>
<td>.060</td>
<td>.500</td>
<td>.6181</td>
</tr>
<tr>
<td>Rivalry</td>
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<td>3.230</td>
<td>-.016</td>
<td>.091</td>
<td>-.177</td>
<td>.8597</td>
</tr>
<tr>
<td>Conference</td>
<td>-.90</td>
<td>2.602</td>
<td>-.035</td>
<td>-.185</td>
<td>-.347</td>
<td>.7294</td>
</tr>
<tr>
<td>Time</td>
<td>1.06</td>
<td>3.704</td>
<td>.248</td>
<td>.536</td>
<td>2.856</td>
<td>.0051</td>
</tr>
</tbody>
</table>

Residual standard error: 11.59 on 115 degrees of freedom
Multiple R-squared: 0.2207, Adjusted R-squared: 0.1529
F-statistic: 3.256 on 10 and 115 DF, p-value < 0.001
n=126
Table 4-10. Regression results for ejections as dependent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>Std. Error</th>
<th>β</th>
<th>r_s</th>
<th>t value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>-1.47</td>
<td>2.112</td>
<td>-.059</td>
<td>-.046</td>
<td>-.698</td>
<td>.488</td>
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<tr>
<td>Location</td>
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<td>4.933</td>
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<td>.477</td>
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<td>&lt;.001</td>
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<tr>
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<td>-7.42</td>
<td>4.812</td>
<td>-.018</td>
<td>.498</td>
<td>-.154</td>
<td>.878</td>
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<tr>
<td>Away Rank</td>
<td>-3.29</td>
<td>4.818</td>
<td>-.061</td>
<td>.218</td>
<td>-.683</td>
<td>.497</td>
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<tr>
<td>Attendance</td>
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<td>.000</td>
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<td>&lt;.001</td>
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<td>Temperature</td>
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<td>.142</td>
<td>.001</td>
<td>1.546</td>
<td>.127</td>
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<td>.365</td>
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<td>.001</td>
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<td>Conference</td>
<td>16.86</td>
<td>4.081</td>
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<td>.003</td>
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<td>Time</td>
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<td>.583</td>
<td>.208</td>
<td>.243</td>
<td>2.404</td>
<td>.019</td>
</tr>
</tbody>
</table>

Residual standard error: 15.05 on 69 degrees of freedom
Multiple R-squared: 0.5252, Adjusted R-squared: 0.4633
F-statistic: 8.481 on 9 and 69 DF, p-value < .0001
n=80
CHAPTER 5
DISCUSSION AND ANALYSIS

The objective of this mixed-methods study was to explore the relationships between and among alcohol policy development, implementation, and game day behavioral outcomes. Qualitative findings of this study ranged from determining rationales for alcohol policies on game day, differing perceptions for why alcohol should be sold in college football stadiums, and reasoning for why certain policies are in place, and the relationship between alcohol policy and spectator behavior. The concepts used in SCT provided a basis for organizing the qualitative inquiry. Quantitative data showed a relationship between the game day characteristic variables and alcohol-related deviance outcomes. The following presents a discussion and analysis of the findings.

Linking Alcohol Policy Consideration with Social Cognitive Theory

The interviews with eight administrators at NCAA Division I FBS athletic departments provided insight into the thought processes of policy development but also the social behavioral issues that administrators need to plan for when planning game day crowd control. Control issues are generally geared toward providing a safe environment for patrons. However, alcohol consumption is often at the forefront of game day public safety policies. Interview results showed a focus on eight themes: Policy rationales, policy enforcement, the location of stadiums, sale of alcohol dependent on stadium location, control, education, tradition and culture, and alcohol-related issues. These themes can be interpreted and best explained as environmental strategies that are comprehensible to the theoretical concepts of SCT. The concepts consist of reciprocal determinism, incentive motivation, facilitation, self-regulation, outcome expectations, self-efficacy, collective efficacy, observational learning, and moral
disengagement (Bandura, 1977, 1986, 1997, 1999; McAlister et al., 2008). In applying this theory that explains the experiential, observational capacities of individuals, function, and adaptation of groups can explain the behavioral processes (Bandura, 1986; Bandura 1997) we are able to evaluate the necessary components that go into developing, implementing, and improving alcohol policies in college football stadiums. The following will show how the adaptive capacity of a group, in this case the college football stadium inhabitants which include administrators, stadium employees, and spectators, can influence how the extent to which alcohol consumption problems can be remedied, controlled, and prevented.

Environmental Determinants

Policy makers look at the physical space and rules for behavior that surround a person that might be affected by a policy and they try to alter an environment that encourages preferred behavior and discourages disapproved behavior. The policy rationales and enforcement protocol are influenced by environmental determinants of behavior: reciprocal determinism (Bandura, 2002) which leads to the behavioral modification concepts of incentive motivation (Bandura, 1969, 1986) and facilitation (Bandura, 1988). Reciprocal determinism can be seen in the planning of alcohol policy it itself. This can be done through policies that change behaviors or at least enable individuals to make choices that influence drinking decisions. Uniformly among the stadiums of interest, patrons were prohibited from bringing alcohol into the stadium. With the exception of one stadium, active searches or pat-downs were conducted by security staff. The alcohol sales policies differ between two groups of venues. The on-campus venues do not allow alcohol consumption or sales in general seating, while those located off-campus do. This is consistent with Mitchell, Toomey, & DeJong’s
(2005) findings that only 15% of institutions sampled allowed alcohol sales at on-campus sporting events. However, all the stadiums subject to examination in the interviews allowed alcohol consumption in at least one section of the stadium. Three stadiums allowed sales in club seating, while another allowed consumption in the club and suites areas, but did not have sales during the game. The allowance of alcohol in higher-end seating is consistent with reports of other college football stadiums' alcohol consumption policies for luxury seating (Opdyke & Kesmodel, 2009). There was an agreement among participants that schools did not sell alcohol in the general seating on-campus because of the amount of student patrons, many who are under the legal drinking age, and the responsibility that the university has as an academic institution. Those selling alcohol had limitations on number of beverages per transaction, along with cutting off sales at a prescribed time. Based on the sales policies patrons who are of age may make choices as to their alcohol consumption. In areas where alcohol consumption is prohibited, some spectators choose to drink either before the game in tailgating parties, or smuggle alcohol into the stadium. This is especially the case for underage students shown in numerous previous literature (Glassman et al., 2007; Glassman et al., 2008; Glassman et al., 2010). Many stadium administrators noted that individuals also consume heavily before the game, even when alcohol sales were permitted inside the gates. So, whether alcohol is completely limited, or available with control, individuals still have an influence on the game day environment with regard to drinking.

Control of the environment is a major facet of alcohol policy which was agreed upon by administrators. Limitations on alcohol intake and the choices that individuals
make in their drinking exemplify reciprocal determinism. Incentive motivation is one ecological component can be applied to these policy implementations. A number of policy initiatives were outlined and detailed by the administrators which follow the use of incentives, whether consciously or not.

The use of punishment in dealing with excessive alcohol consumption and related issues is widely known and dealt through arrest but can also be related to the levels of reported crime (Dilulio, 1995; Makkai, 2001). Ejecting or arresting patrons who do not abide by policy or laws were used by all seven stadiums explored is the most time-tested incentive. The question of whether arresting or ejecting unruly fans is actually enough of an incentive or abated excessive alcohol consumption remains to be debated. For the most part the majority of individuals at games are not being dealt with by security or law enforcement, even if they do drink heavily. Some locations found arresting or ejecting people before the game began due to over-intoxication to prevent more issues from occurring before the game. Yet, there was a sense that more control of alcohol consumption led to less problems.

All tickets have stipulations on the back that the privilege of viewing a game may be revoked if policies are violated. However, some locations have taken this one step further. Three of the stadiums implemented a program that includes written reprimands, face-to-face meeting, or at worst revocation of season ticket privileges of the holder if any individual sitting in that seat is arrested or ejected, regardless of if the season ticket subscriber was present or not. This puts an onus on the season ticket holder to not only ensure that he/she and the people in the immediate party behave and do not encounter
law enforcement repercussions. Also, it makes people reconsider putting tickets on the secondary market.

**Facilitation and Self-regulation**

Bandura (2002) suggests that the environment must support new behaviors or behavioral change. If individuals are going to be influenced to cease abusing alcohol, the environment must facilitate behavior modification. Policy enforcement, education, and control themes can be considered informed by the concepts of facilitation and self-regulation. Limiting intake of alcohol can also be a form of self-regulation.

Keeping alcohol away from students in the on-campus environment can be a form of facilitating members of the university community to not consume alcohol. For those who consume alcoholic beverages in stadiums that provide it, having sales limits such as the two beverages per visit and cutoff time like the end of halftime at Stadium G exemplify facilitation. With regard to spectators being able to ensure a safe area in their seating along with contributing to the enforcement process, the text messaging programs provide a means to point out potential problems. This can also be considered a form of self-regulation. In addition, administrators in Stadium C and Stadium G pointed believed that people looked out for each other as a result of a culture instilled at their institutions, either encouraging individuals to act responsibly, as a form of self-regulation.

**Observational Learning**

Observational learning, which is analogous to learning to perform a behavior through peer modeling (Bandura, 1986, 2002; Akers, 1979, 2009), was also a key guiding principle that emerged from all participants in discussing policy rationale, enforcement, education and tradition and culture. The administrators noted that
targeting the learning processes at play with patrons attending college football games were as important as law enforcement crack-downs. One example of public services announcements to encourage safe drinking practices featured the coaches, or other well-known members of the university community, played before and during games. Utilizing newspaper advertisement, articles, or distributing policy materials to fans were also a form of modeling to inform visitors about policies and procedures was favored by some of the participants. Policy guidelines were often handed to pregame tailgaters when they were viewed disobeying the laws/guidelines. The direct efficacy of these interventions is unknown. Prior research has shown that interventions using modeling behavior often have less effect on individuals in high-frequency drinking conditions. (Carey, Scott-Sheldon, Carey, & DeMartini, 2007).

The culture and tradition of tailgating and alcohol consumption also lead to observational learning through peer modeling, whether it was to curtail problem drinking or actually encourage it varied by location. Younger students see older students abusing alcohol at tailgating parties and assume that is the way to participate in college game day. For one stadium, individuals seem to display more restraint that models less aggressive behavior, which may be a reason for a perceived lack of problems. Stadium G had more aggressive fans which led to more incidents, in the administrator’s perception.

**Outcome Expectations**

Outcome expectations can follow from the modeled behavior or beliefs that individuals possess about specific behaviors. This means a determination of the consequences of certain behaviors, the willingness of individuals to be influenced by others’ judgments on their behavior, and how an individual feels about performing or not
performing that behavior (McAlister et al., 2008). Many of the major preconceived notions of the administrators were, if a venue has a large group of individuals in a small area, surrounded by a competitive atmosphere and alcohol consumption, problems will occur and they have to be ready to handle them. There is an acceptance that arrests and ejections are going to happen in this environment. People choose to consume alcohol, but the university and off-campus venues also permitted its consumption before and after games.

The decision of whether to serve alcohol or not and how it affected crow behavior was split among administrators. The locations of stadiums bred differing outcome expectations for the administrators. Off-campus stadium administrators thought it was likely for more problems to occur in stadiums that prohibited alcohol sales. This was due to a “binge mentality” in tailgating alcohol consumption or attending football games, an example of high-risk celebratory drinking which is shown in numerous studies (Neighbors et al., 2006; Oster-Aaland & Neighbors, 2007; Glassman et. al 2007). The Stadium E administrator cited the perception that there was an idea that not selling alcohol would decrease issues in the tailgating areas. The issue that arises is individuals try to consume more alcohol before a game in order to increase their level of intoxication. Prior study has observed confirmed higher intoxication of individuals due to drinking more before games (Boyes & Faith, 1993). Other administrators cited that they believed that not allowing alcohol sales within stadiums would yield a similar amount of incidents, and those who believed not allowing sales meant fewer problems were mistaken. The other off-campus stadium administrator perceived more problems to occur in venues that allowed alcohol for purchase.
On-campus administrators perceived fewer issues in venues that did not allow alcohol sales than their off-campus peers. This was due to their ability to control alcohol consumption in a small, generally enclosed area. This was exemplified by Stadium B’s administrator. He expected fewer issues to occur within the stadium later in the game due to the lack of presence of alcohol in contrast to his observation that professional stadiums experience problems throughout the game. However things like time of game of hot temperatures were likely to produce more incidents in the on-campus stadiums, and the administrators acknowledged they could not prevent this escalation in problems with no control over weather and scheduling.

**Self-efficacy and Collective Efficacy**

Self-efficacy and collective efficacy in the stadium personnel’s ability to control misconduct and other alcohol-related problems arise from themes of policy interpretation and enforcement, control, and education. The ability to influence individuals to not over consume alcohol becomes an important part of policy implementation. Collective efficacy is clear in the overall consensus that the stadiums have control over alcohol consumption and problems through providing it to the general seating area with limitations and cut-offs, not allowing the majority of spectators to consume alcohol, or containing it to one area of the stadium. Another illustration of this concept is cooperation between security and law enforcement to decrease alcohol-related problems which occurs in all of the stadiums. One stadium administrator believed that the culture and a university wide program encouraging all members to “do the [right] thing” enabled patrons and game day personnel to feel like they could work together to create a safe environment on game day (Stadium C). Also, these stadium administrators also play a role as educational administrators. So it is possible that they
consider it to be part of their job to educate students on the benefits of controlling their intake of alcohol.

**Avoiding Moral Disengagement**

Violating standards for avoidance of violence or cruelty towards others is moral disengagement (Bandura, 1999). The tension between law enforcement officers and citizens can often lead to potential problems, especially in heavily attended sporting events. As shown in economic studies, alcohol availability is related to crime totals (Dilulio, 1995; Greenfield, 1998; Makkai, 2001). The rationalization for removed unruly fans from a stadium can be explained through moral disengagement. A number of administrators acknowledge that individuals must be removed from the venue when violating law or policy. Vilifying those who violate policy or creating a culture where individuals are arrested or ejected might create a worse environment for fans. An arrest for violating a policy is likely to be inherently dehumanizing. But, the moral justification for arresting and holding fans in a cell during the game is, as some of the participating stadiums do, those individuals broke the law and therefore should be punished. On the other hand, avoiding moral disengagement seemed to be an implicit tone of the role of education and proactive law enforcement in game day policy. The main goal of policy was to enable to create a safe and enjoyable atmosphere for patrons, understanding that the majority of guests do not misbehave. The stated goal of not creating a police state, as stated by Stadium C’s administrator, while also giving individuals the opportunity to leave the venue without any legal repercussions was one way that a venue avoided moral disengagement. Additionally, some administrators might also attribute the inefficacy of game day policy to people’s choices to drink alcohol on game day regardless of whether alcohol is sold or not.
Intertemporal Substitution

Participants observed that when there is a prohibitionary sales policy it encourages excessive alcohol consumption before and after games. SCT does not adequately provide concepts that completely explain the participants’ reactions to these observations. This part of the phenomenon is explained by the theory of intertemporal substitution which suggests individuals will substitute for the inability to perform a behavior during a restricted period, by engaging in the restricted behavior before or after regulation (Boyes & Faith, 1993). This is illustrated in the present study through the idea that providing a strict enforcement regime against alcohol consumption within the stadium risks encouraging patrons to compensate for their inability to drink during the game by engaging in excessive consumption before or after the game. This causes administrators to treat the idea of absolute prohibition of alcohol consumption within a stadium as ineffective because it does not accomplish the objective of halting misbehavior. Yet, if there is a collective perception among the on-campus stadium administrators interviewed that alcohol consumption causes problems beyond what people can control in the general seating if there are alcohol sales. They believe they can control misbehavior by only allowing alcohol for a few people in an enclosed area. However, based on the phenomenological approach, the small stadiums experience few problems, regardless of sales policy, and both on-campus and off-campus stadium experience alcohol-related problems on game day. Therefore, what evidence exists that not allowing alcohol to the general public actually limits law enforcement activity within the stadium? Predictive statistical models using canonical correlation and multiple regression analyses were utilized to determine this.
Relating Policies to Outcome

Canonical Correlation Findings

The statistical portion of this study has shown that there is a relationship between the stadium alcohol policies and other characteristics of college football game day and spectator conduct and law enforcement outcomes. Canonical correlation analysis found a strong relationship between the game day variables (independent variables) and alcohol-related deviance outcome variables (dependent variables). Both dimensions tested together were statistically significant at the p < .001 level, as was the second dimension by itself, also at < .001 level. This means that both dimensions alone are statistically significant. Redundancy tests showed practical significance of the model, with over 58% of the variance in the dependent variables explained by independent variates.

The standardized canonical coefficients showed the following effects on the canonical dimensions, holding all other variables in the model constant. Canonical coefficients (weights) are considered suitable for prediction (Hair et al., 2009). While there is no set rule for a suitable or significant canonical weight, a canonical coefficient of .30 or higher is considered noteworthy (StatSoft, 2011). For the dependent variables, ejections was the dominant variable in the first function accounting for almost 98% of variance explained in the dependent variables, while crime was dominant for the second function. For the variable of reporting ejections, a one standard deviation increase leads to a 0.50 standard deviation decrease in the score on the first canonical variate for the independent variable set when the other variables in the model are held constant. The other variables that had notable impacts on the first canonical variate were conference games yielding a .45 decrease, attendance with a .37 standard
deviation decrease, rivalry games yielding a .33 decrease, and time yielding a .33 decrease. One standard deviation increase in ejections leads to a .99 decrease in the first canonical variate.

The second canonical variate experienced the following effects holding the other predictors constant in relationship to an increase of standard deviation of the variable: Attendance evoked a 1.76 decrease in the second dimension. Reporting ejections led to a 1.32 increase in the dimension 2 for the independent variable set. Location of the stadium accounted for a .61 decrease in the second variate set. Home ranking yielded a .52 increase in the second set. Additionally, start time of game led to a .46 decrease in the second variate set.

While canonical loadings were reported, interpretation of them in this case is not as appropriate as weights, since the loadings are more useful in interpreting underlying constructs. Cross-loadings are preferable over weights and loadings as they offer a direct interpretation (Hair et al. 2009). Therefore, canonical cross-loadings for the first function showed that ejections (.73) were related to the independent canonical variates, while reporting ejections (-.59), attendance (-.50), and home rankings (-.49) were related to their dependent canonical variates. The second dimension only had crime as a noteworthy value (-.46) in relationship to the independent variates’ effect on the dependent variable.

Based on the canonical correlation analysis reporting ejections yielded the greatest decrease (inverse relationship) in the reported crime variate (dimension 2) followed by home team ranking. Attendance followed by location of stadium, then start time of game had a direct relationship on and influenced an increase in crime. For the
first dimension (the variate related to ejections) reporting ejections had the greatest impact, followed by temperature, attendance, conference games, and rivalry games.

**Multiple Regression Findings**

Two multiple regression models were analyzed to determine the relationship between game day characteristic variables (e.g., temperature, time of game, etc.) and alcohol-related deviance variables (e.g., crime and ejections). Each model had a different outcome variable: reported crime and reported ejections. The models showed that some of the independent variables had more of an impact or effect on the dependent variables.

**Crime**

The first of the multiple regression models considered the relationship between game day variables and reported crime. Reporting ejections, location, attendance, and time of game were significant predictors of crime. Attendance was the most significant predictor of crime, with the beta-weight (.84) and the third largest structure coefficient (.34). For every 1,000 spectators, a stadium was likely to have .39 more reported crimes. Venues reporting ejections are likely to have approximately 14 fewer crimes than those not reporting ejections based on this model. As corroborated by interviews with Stadium C, schools that did not report ejections were likely to arrest individuals if they did not leave the premises when, or were school that experienced low attendances and therefore experienced fewer crimes period. Off-campus stadiums experienced approximately 7.6 more crimes per game than on-campus stadiums, however the structure coefficient was quite low (-.06). Also, of every hour later that a game started, 1.05 more crimes were observed in the total report, with a beta-weight of .25 and the
highest structure coefficient (.54). So, attendance and start time of game are considered the two strongest factors for increased crime on game day.

The year in which the game was played, away team ranking, temperature at start time, and whether the game was a rivalry or conference game were not significant predictors. Home ranking was significant at the $p = .10$ level ($p = .07$) with home teams being ranked yielding 5.5 less crimes than when they were unranked, but this was not significant at the designated .05 and therefore did not contribute to the model.

**Ejections**

The second regression analysis showed the relationship between the policy and game day characteristic variables on reported ejections within the stadiums. The multiple regression model from the included ejection as dependent variable was a stronger fit than the model with crime as dependent variable ($R^2 = .52$ v. $R^2 = .22$). These results possessed similarities and differences to the game day characteristic variables on crime. Location, attendance, and start time of game were all significant, just like in the model with ejection as dependent variable, in addition to rivalry and conference opponents. Off-campus stadiums accounted for 24 more ejections than on-campus stadiums, with beta-weight of .49 and structure coefficient of .48. Games experienced .50 more ejections per 1,000 additional fans with a beta-weight of .55 and structure coefficient of .43. In-state rivalry games accounted for 13.75 more ejections than games without an in-state opponent with a lower beta-weight of .26 and structure coefficient of .37. Later start times accounted for 1.4 ejections per hour later of start time but a lower beta-weight (.21) and structure coefficient (.24).

The canonical correlation results correspond well with the regression models since standardized canonical weights can be interpreted like beta weights (StatSoft, 2011).
Based on both types of analyses attendance was the strongest predictor of crime along with start time of game. Attendance and conference games were the strongest predictors of ejections, as were conference games and rivalry games. Time of game being significant but have the smallest weights and structure coefficients of the five noteworthy predictors. However, due to being significant across both canonical dimensions and the two regression models, it is concluded that greater attendance and later start times of games have the biggest influence on alcohol-related ejections and crime at college football games.

**The Connection between Qualitative and Quantitative Analyses**

A number of findings in the multiple regression analysis corroborate information gleaned from administrator interviews. Fewer reported alcohol-related crimes and ejections were observed in on-campus stadiums which is consistent with perceptions of on-campus administrators. Location affected alcohol-related crime and ejections. Start time affected crime and ejections, which also corresponds with administrator perceptions that they experience more alcohol-related issues during night games. Many administrators discussed the issues they had with rivals, and in-state and conference rivalry games significantly affected ejections. Attendance affected crime and ejections which is also a reasonable conclusion since the stadiums with higher attendances reported more problems in interviews.

**Conclusions**

**Summary of Findings**

The author has been unable to locate literature prior to the present study, to determine the relationship between alcohol policy and game day variables on the one hand, and alcohol-related incidents on the other hand within multiple stadiums. There
are four main categories of findings: First, there are differences in policies between stadiums. All of the stadiums allow alcohol consumption within their gates, but the areas in which they permit it varies. Three stadiums allow game day sales and consumption within all seating areas, while four do not allow alcohol sales or consumption in general seating but do allow suite and club seat patrons to buy or consume alcohol. Second, there are discernable factors that affect the difference in polices. These factors include the presence of a stadium on campus, therefore located in the educational environment, and the conflicting argument that allowing sales either contributes to or diminishes control of potential alcohol-related misconduct. Through SCT it was possible to show how theory tacitly influences policy development process. Third, it was possible to establish a relationship between policy factors and the relative numbers of reported alcohol-related misconduct. Finally, there was a relationship between factors other than policy on reported alcohol-related misconduct. The off-campus stadiums sampled that sell alcohol to their general seating areas experience more alcohol-related crimes and ejections problems. Based on empirical evidence shown in this study, on-campus stadiums experience less alcohol-related problem as a whole, but the starting times of the games and attendance also have a strong impact on crime and ejection figures as well.

Implications

This study has a number of implications for stadium managers, law enforcement, and other practitioners who implement and employ alcohol policies at college football stadiums. A relationship was established between greater attendance and crime and ejections. Since large crowds are desirable for college football games, stadium officials should implement other environmental strategies. Stadiums with high attendances
should consider introducing or continuing to implement more educational policies, such as utilizing local newspapers, university websites, and other forms of communication to inform patrons about their alcohol policies. Many stadiums utilize the text messaging system to help lessen the strain on law enforcement and enable fans to report minor behavioral issues around them before they may become greater problems that affect more spectators. This may be a tactic that stadiums which are not currently employing want to look into implementing.

The results also suggested that later games produced more crime and ejections. Often game time is determined by television companies rather than by the stadium or university officials. Also, games featuring in-state opponents and conference games yielded higher ejection figures. For later games and/or contests of increased interest to fans (rivalry games), in addition to other environmental policies, stadium administrators should consider implementing tailgating restrictions that do not allow patrons to drink on stadium property before a certain time. This could eliminate the amount of alcohol abuse that occurs on stadium property before a game.

Interviews revealed that some stadiums did not report ejections. In one case those who did not leave the premises when asked by law enforcement were arrested and charged with trespass. In other cases ejections were the bulk of law enforcement activity in lieu of charging individuals with crime. Thus, making an attempt to standardize law enforcement practices among stadiums might benefit law enforcement officers and fans. Fans who travel between stadiums would know what to expect and what behavior is considered appropriate. Spectators from a venue with more lenient ejection policies may experience more trouble and possible arrest or ejections when
travelling to other venues due to the expectations they established at their home stadium. Reporting ejections rather than allowing individuals to leave without documenting the incident would help law enforcement and stadium officials to obtain a better idea of the amount of misconduct occurring at games. In addition, implementing an accountability program that punishes season ticket holders who violate stadium policy would also serve as a deterrent to individuals who might be prone to excess drinking and related misconduct.

Conclusions of this study suggest that off-campus games experience more ejections. Less of a relationship exists between off-campus games and crime but it was still statistically significant. An explanation for the difference in total crimes and ejections in off-campus stadiums is alcohol sales in general seating yields higher amounts of crime which is consistent with research on the impact of alcohol outlets on crime (Dilulio, 1995; Gyimah-Brempong, 2001, Gyimah-Brempong & Racine, 2006). This suggests prohibiting alcohol sales within the stadiums off-campus could yield lower instances of crime and ejections.

Limitations

This study has a number of limitations due to the nature of the data collected. The qualitative portion relies on interviews and potential guardedness of interview participants due to the perceived sensitive nature of the content is a possible concern. One of the interviews recorded occurred with two administrators participating at the same time which could have possibly biased the responses. For the data collection of crime reports, measurement of crime and ejections differs by agency. Since different agencies work each stadium, the type of enforcement and whether ejections and crimes are cited consistently from game to game may vary. Using crime and ejections is the
only means to measure game day alcohol-related problems. Some departments did not report ejections but rather escorted individuals out of the stadium or arrested them for non-compliance. Deeming a law enforcement infraction an alcohol-related crime was a judgment call on the part of law enforcement officers as well. For the game day characteristics it is virtually impossible to isolate every variable related to alcohol consumption. Drinking in one’s home or private property likely accounts for much of the excessive drinking that occurs before a game. However, the models do not account for pregame drinking, including drinking that might occur in stadium-owned parking lots. In addition, access to data was also a limitation. Some stadiums kept records that were obtained from police departments and made it accessible for review, while others were unwilling to share their reports. Finally, the data is generalizable to those stadiums in the sample, but not necessarily to all NCAA DI FBS stadiums.

**Future Study**

This study lays a foundation for more exploration into the influence of alcohol policy, alcohol consumption, and other game day variables on spectator behavior. Expanding this approach to include more stadiums is recommended. If feasible, a comparison of all NCAA Division I FBS stadiums should be conducted. In addition, considering an analysis of college basketball arenas, since many sell alcohol, but a different game day culture exists which might yield varying results. Stadiums with enclosed lots with defined areas so crime related to tailgating can be determined. In addition, using the same variables and characteristics to replicate this study in professional games that allow alcohol sales might also prove worthwhile.
Protocol Title: Stadium Alcohol Policy Characteristics: An Examination of Alcohol Policy Implementation, Differences, and Effectiveness

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:

To determine the reasons for differing alcohol policies at on-campus college football stadiums and off-campus football stadiums. Moreover, how do policies address alcohol related injury, reported crime, arrests, traffic accidents, strains on law enforcement, and impact the quality of life for nearby residents on game days.

What you will be asked to do in the study:

You will be asked to take part in an interview with the researcher about your role, attitude, and involvement in alcohol policy implementation at the college football stadium you supervise during home games. Also you will be asked information about policy enforcement and reported crime at your venue on game day.

Time required:

½ hour- 1 hour

Risks and Benefits:

There are no risks in taking part in this interview, nor are there any anticipated direct benefits, however, you may learn about the types of policies being implemented at other stadiums. Additionally, participants will be offered a copy of the study when completed.

Compensation:

You will not be compensated for participating in this research.

Confidentiality:

Your identity will be kept confidential to the extent provided by law. Your information will not be shared with anyone else. Your interview will be classified by the size and the status of the stadium (on-campus or off-campus) that you supervise. Your name will not be used in any report.

Voluntary participation:

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

Right to withdraw from the study:

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

Whom to contact if you have questions about the study:
Brian Menaker, M.A. PhD Student, Department of Tourism, Recreation, and Sport Management. 300 FLG, Dr. Charles S. Williams, Ed.D., Department of Tourism, Recreation and Sport Management.

Whom to contact about your rights as a research participant in the study:

IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.
APPENDIX B
SAMPLE RECRUITMENT LETTER

Dear Participant,

I am a Doctoral student in the Department of Tourism, Recreation, and Sport Management at the University of Florida with a research interest in facility management. I am currently working on my dissertation which is looking at the role of athletic departments in the implementation of alcohol policy at college football stadiums on home game days. I obtained your contact information from the athletic department directory on your department's website and believe you could possibly be of assistance to me with your experience as Associate Director of Athletics / Facilities & Event Management. An integral part of my study includes discussions with higher level administration involved in facility management as to their role and attitudes toward alcohol policy at college football stadiums. As a part of this, I would like to request your participation in a thirty minute face-to-face interview at a time and day of your convenience. I value your input and would like to include your comments as a part of this study. Your name will be kept confidential in the study, when the results are written up. Please let me know if you would be willing to participate or if you are unable to participate, if anyone else familiar with [your athletic department’s] football game day alcohol policy and implementation might be willing to be interviewed. Feel free to contact me if you have any questions regarding your participation in the study. If you agree to participate I will forward a copy of the informed consent document with additional information about the study to review. Please respond to this message to acknowledge receipt, regardless of your decision to participate. Thank you for your time, I look forward to meeting with you, and I hope you are able to be a part of my research.
Respectfully,

Brian Menaker
PhD. Candidate
Dept. of Tourism, Recreation, and Sport Management
University of Florida
Gainesville, FL 32611
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Brian Menaker received his Ph.D in Health and Human Performance with a concentration in sport management from the University of Florida in August of 2011. He studied in the Department of Tourism, Recreation, and Sport Management in the College of Health in Human Performance at the University of Florida from 2008 through 2011. He is originally from Pelham, NY. He received a BA in history from Grinnell College in 2004 and an MA in sport studies in 2007 from the University of Iowa.