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Determinants of Spectator Attendance at Historically Black Colleges' and Universities' Football Games

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THE FLORIDA STATE UNIVERSITY
COLLEGE OF EDUCATION

DETERMINANTS OF SPECTATOR ATTENDANCE

AT HISTORICALLY BLACK COLLEGES' AND UNIVERSITIES' FOOTBALL
GAMES

By

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I dedicated this to
Shirley Chennault-Stringfellow, Mary Stringfellow, and Alonzo Stringfellow, Sr.

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Philippians 4:13 “I can do all things through Christ which strengthens me”

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ABSTRACT

Spectator attendance is a popular topic in the sport management literature. However, the primary focus of work done in this area has been examining professional sports, with collegiate sports lagging far behind. The impetus behind the focus on spectator attendance in collegiate sports is the potential impact it can have on increasing revenue in athletic programs. However, there still is a lack of research in the area of sport management with regards to Historically Black Colleges and Universities (HBCU). Therefore, the purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. Forty-seven NCAA Division I-AA and Division II institutions participated in this study. The data was collected using the Spectator Attendance Survey (DeSchriver, 1996) and the home institution's individual football game boxscores. An economic demand model served as the basis for the study.

The data were analyzed using regression and correlation analyses. The most interesting finding in this study was that 30.6% of the variance ($F(4,216) = 23.82, p < .05$) in spectator attendance at HBCUs football games was accounted for by the following determinants: over six home games, homecoming games, promotional activities, and general admission prices. Winning percentage did not appear to be an important factor. The results of this study imply that special promotions are a significant factor in spectator attendance, yet few special promotions were found. Athletic administrators of these institutions should re-evaluate their marketing practices in order to attract spectators and to incorporate timely promotions to draw more spectators from the general public.

CHAPTER 1

INTRODUCTION

Each year millions of spectators attend intercollegiate events. Campbell (2005) indicated that in 2003 there was an all-time high of over 46 million spectators that attended National Collegiate Athletic Association (NCAA) football games in the four levels of competition (I-A, I-AA, II, and III). The overall attendance for Division I-A was 35,085,646, attendance for Division I-AA was 6,070,116, attendance for Division II was 2,835,856, and attendance for Division III was 2,152,921. Spectator attendance continues to rise. The NCAA (2006) reported that in 2006 just under 48 million spectators attended NCAA football games in the four levels of competition (I-A, I-AA, II, and III). The overall attendance for Division I was 42,538,344, attendance for Division I-AA was 5,723,876, attendance for Division II was 3,005,214 (a record), and attendance for Division III was 2,099,746. DeSchraver and Jensen (2002) reported that universities such as Penn State and the University of Tennessee attract more than 95,000 spectators for each home game, and ticket revenues can eclipse \$3 million for a single contest. This is probably more like \$4-6 million today. The NCAA (2006) indicated that these same institutions in 2006 showed a continuous increase. Penn State averaged 107,567 spectators and University of Tennessee averaged 105,789 spectators. Ohio State University is another institution that averaged over 100,000 spectators, with 105,096. The institution that averaged the most spectators per contest in 2006 was University of Michigan with 110,026 spectators. Campbell (2001) further stated that even Division II institutions, such as North Dakota State University, average over 12,000 spectators per

home contest. Jackson State University, an NCAA Division I-AA Historically Black College and University (HBCU), averaged almost 21,000 spectators. And, Tuskegee University, an NCAA Division II HBCU averaged 11,000 spectators (Onnidan, 2007). DeSchrive and Jensen (2002) indicated that even though the dollar amount of funds generated from football ticket sales are significantly less at NCAA Division II institutions, they are just as important as a source of revenue. Unlike Division I-A institutions, Division II schools generate very little, if any, revenue from sources such as media rights fees, luxury seating, sponsorship, and advertising (DeSchrive & Jensen, 2002).

The phenomenon of attending sporting events continues to be a popular form of entertainment in America. Sporting events are viewed as comparable to other forms of entertainment such as ballet, music, and theater because the spectators have purchased a ticket for the amusement and entertainment value associated with watching gifted performers (Sage, 1990). However, sporting events are not necessarily viewed on an equal basis. There is a wide array of sporting events such as professional team and individual sports, as well as, amateur team and individual sports. The common characteristics found in most sporting events are that participants and spectators are found at the event.

The number of spectators that attend professional and collegiate sporting events each year is in the millions. The total number of spectators that attended the National Basketball Association, the National Football League, and Major League Baseball for 2005 was over 173 million. This figure does not reflect the millions of spectators that attended auto racing, ice hockey, and horse racing events. Intercollegiate athletics is also a well attended sporting event. The National Association of Intercollegiate Athletics (NAIA) reported that in 2005 the total attendance for football and men's basketball was 74 million (NAIA, 2006)

Sports, including intercollegiate athletics, are attractive to consumers for a number of reasons. Eitzen and Sage (1989) found that there are comparable qualities in American society and sport. These comparable characteristics are the primary reason for the spectator attraction to sport. The American economic system that emphasizes the importance of materialism and competition is an example of the comparable

characteristics of sport and American society. These particular characteristics are found in all levels of sport. Sport teams and individuals primary objective is to attain recognition through wins, trophies, and financial rewards. In addition, the significance of hard work and success is mutual by American society and sport. When a team achieves success on the field, spectators get pleasure from watching the outcome of hard work (DeSchrive, 1996, 1999).

As a result of the outcome of sporting events being uncertain, this characteristic is not found in many other types of entertainment. An example of the difference between sport and other types of entertainment is when spectators attend a musical performance. The prior knowledge of the performer and the production provides expectations of the performance. The entertainment value of the performance results from watching the performance. Even though sport spectators are entertained by outstanding performers, such as Shaquille O'Neal and Peyton Manning, the uncertainty of the event outcome is an additional appeal. Before the competition, one team or individual may be favored to win, but the outcome is uncertain until the sporting event is actually played (DeSchrive, 1996, 1999). According to Knowles, Sherony, and Hauptert (1992) and Peel and Thomas (1988), there is a direct relationship between spectator attendance and the uncertainty of event outcome. It was found that a sporting event involves more than the actual contest itself. Sport spectators could possibly be fascinated with the features of sporting events such as the aesthetics of a stadium, the thrill of being part of a large crowd, or even the type and quality of the food and beverages available. Many product extensions were found to increase the gratification level for the spectator, even though the event was the primary product (Stotlar, 1993).

Statement of the Problem

According to Pitts (2001) sport management literature presents the impression that it exists primarily as the study of managing intercollegiate athletics and professional sports. Parks (1992) mentioned that there was a lack of depth and breadth in the sport management education literature. This is especially true with NCAA HBCUs. The only data based studies conducted on HBCUs were done by Armstrong (1998) finding that

HBCU's primary attraction to major HBCU's football games was because of the cultural customer-salient amenities. Armstrong (2001) also found HBCU events had a tremendous positive impact on the immediate and surrounding economics because of the spending patterns of the consumers in attendance. In addition, Armstrong (2002) reported that psychological involvement with HBCUs by spectators influenced attendance at HBCU's sports. Cultural affiliation was found to be a key in attracting Blacks to sport events (Armstrong, 2002). And, research conducted by Jackson, Lyons, and Gooden (2001) found many athletic departments in HBCUs did not have a marketing department. Jackson et al. (2001) pointed out that as a result of HBCUs not having effective marketing programs; their athletic departments overlook the potential financial support from the immediate and surrounding areas. Because of the continued lack of data based research regarding HBCUs, the present study is an effort to add to the sport management literature regarding HBCUs. In addition, the present study can provide the foundation for a line of research in this area, focusing on HBCUs.

Spectator attendance is a popular topic in the sport management literature. An exhaustive literature search revealed that the primary focus of work done in this area has been examining professional sports. Collegiate sports have recently received attention in the sport management literature. However, there is still a lack of research found in this area of sport management, with regards to HBCUs. Of the three Divisions in the NCAA, all of Division I, Division II, and Division III, most of the research has been done on the NCAA Division I-A level. This study will examine the determinants of spectator attendance at the NCAA Division I-AA HBCUs and Division II HBCUs (found in Appendix A). The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. The variation in spectator attendance is explained through the use of an economic demand model. The relationships that exist within the determinants are also analyzed.

Purpose of the Study

The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. The 13 determinants selected for this study were determinants that have the potential to impact spectator attendance at collegiate football games. An economic demand model was used to analyze the 13 determinants. The use of an economic demand model requires the researcher to focus on specific variables that can potentially impact supply and demand. Economic demand models are used in many industries (transportation, environment, housing, engineering, medical, etc.) to establish supply and demand. Nicholson (1987) explained that an economic demand model provides an ability to analyze the effect of a specific determinant on consumer demand, while at the same time keeping all other factors constant. It is used to capture an estimate and predict the activity of consumers, producers, and wage earners. The rationale for using the economic model is to integrate all possible determinants that can potentially influence consumer demand (DeSchrive, 1996, 1999). Ragan and Thomas (1990) defined the economic demand model as the quantity of a product or service that is desired by purchasers. This study will be a replication of research done by DeSchrive (1996, 1999) with all aspects of the original study held intact. According to Wagner (2007), a replication study is the repetition of a research study, generally with different situations and different subjects. The objective of a replication study is to determine if the basic findings of the original study can be generalized to other participants and circumstances (Wagner, 2007). A replication of DeSchrive (1996, 1999) research focusing on HBCUs is important because a study of this nature can potentially reveal different results with this population. In addition, the results may lead to further research with this population. Also, the results may be a useful tool in providing the HBCUs with relevant information that can positively affect attendance at HBCU's football contests and the sports offered by the institutions studied in general.

Significance of the Study

Spectator attendance at sporting events has received a plethora of attention over the last two decades. The impetus behind the focus on attendance is the potential impact that can be seen increasing revenue in athletic programs. The additional revenue needed to effectively operate NCAA institutions has become important in recent years because of declining government support and student financial support. The phenomenon of sport programs experiencing financial losses is not new to the sport industry. According to Bird (1982), Jennett (1984), and Cairns (1987) English League Football experienced the same phenomenon in the 1980's. In their analysis of spectator attendance for English League Football, they used an economic model to develop policy recommendations for the league organizers.

The deficits continue to grow in the majority of NCAA institutions with football. In 2002-03, the average deficit per institution for the three levels of Division I (A, AA, and AAA) was \$7,820,000 (up from \$6,810,000 in 2001). The NCAA Division I-AA (which is the Division I level this study will focus on) had the largest average deficit of the three Division I levels. The NCAA Division I-AA level had an average deficit in 2002-03 of \$3,690,000 (up from \$3,390,000 in 2000-01). There was between eight to nine percent of the NCAA Division I-AA institutions that reported a profit in 2002-03, with the average profit close to \$1,250,000. It was reported that the balance of the NCAA Division I-AA institutions experienced losses averaging \$4,200,000 in 2003. The average deficit per institution at the NCAA Division II level (which is the other NCAA Division this study will focus on) was \$1,640,000 (up from \$1,300,000 in 2000-01). Only five percent of the NCAA Division II institutions reported a profit in 2002-03, with the average profit close to \$400,000. It was reported that the balance of the NCAA Division II institutions experienced losses averaging \$1,800,000 in 2003. This figure is up from the average loss of \$ 1,400,000 in 2001 (Fulks, 2005). The average deficits continue to get larger in these two Divisions of the NCAA. These deficits found in the NCAA Division I-AA and Division II institutions are also prevalent in the NCAA Division I and Division II HBCUs.

The present study is an attempt to provide in-depth information about spectator attendance at HBCU's football games by enhancing the research of Armstrong (1998) finding that HBCU's primary attraction to major HBCU's football games was because of the cultural customer-salient amenities. There is also an attempt to enhance the research conducted by Jackson, Lyons, and Gooden (2001) regarding the lack of marketing programs in HBCU's athletic departments.

There is a need for a study that addresses spectator attendance at NCAA HBCUs. The development of new insights into the determinants of spectator attendance at NCAA Division I and Division II football at HBCUs is the primary impetus of this research. The result of this study is to be a significant contribution to the body of knowledge in the sport management industry regarding HBCU's athletic departments and may potentially be used to develop policy recommendations for increasing football spectator attendance at HBCU's football games. Improved football spectator attendance can have a significant effect on increasing NCAA Division I-AA HBCU's and Division II HBCU's athletic program revenues. The ultimate goal of this study is to add to the body of knowledge and develop theory for the sport management industry field. A study of this magnitude has the potential to stimulate further research in this area, which was pointed out by Quarterman (2006) as being necessary in the sport management industry. According to J. Quarterman (personal communication, October 14, 2002), research that contributes to the body of knowledge that uncovers and makes sense of existing patterns of behavior and phenomena within the sport management industry is a welcome addition. Quarterman (2002) also pointed out that relevant research of this nature will also enable sport management faculty to educate future instructors, practitioners, and researchers by ensuring that they are equipped with the latest knowledge and thinking in the sport management industry.

Conceptual Framework

This study is guided by DeSchrive's (1996, 1999) conceptual framework on spectator attendance of NCAA Division II institutions. DeSchrive's (1996, 1999) studies used an economic demand model commonly found in the literature investigating

professional sports. However, DeSchriver (1996, 1999) found that the economic demand model that was previously used in professional sports was also effective in reporting the significance of determinants in NCAA Division II football games.

Nicholson (1987) created the economic demand model. The economic demand model provides an ability to analyze the effect of a specific determinant on consumer demand, while at the same time keeping all other factors constant. It is used to capture an estimate and predict the activity of consumers, producers, and wage earners. The rationale for using the economic model is to integrate all possible determinants that can potentially influence consumer demand (DeSchriver, 1996, 1999). Ragan and Thomas (1990) defined the economic demand model as the quantity of a product or service that is desired by purchasers.

The major dimensions of this conceptual framework are: residual preferences determinants, game attractiveness determinants, economic determinants, and demographic determinants. This conceptual framework provides insight for the present study by integrating all possible determinants that can potentially influence consumer demand.

Economic demand models have been used in many sport economics studies. DeSchriver (1996, 1999) utilized an economic demand model to examine winning percentage, team performance, and promotional activity of NCAA Division II institutions. DeSchriver and Jensen (2002) also utilized the economic demand model to determine the effect that homecoming has on increasing attendance. In addition, McEvoy, Nagel, DeSchriver, & Brown (2005) utilized the economic demand model to investigate the effect that the age of the facility has on attendance.

The research questions of the present study supports the use of an economic demand model by demonstrating the effect that a specific determinant has on consumer demand, while at the same time keeping all other factors constant. An economic demand model was used by DeSchriver (1996, 1999) to explain the variation in spectator attendance at NCAA Division II football games. The present study is a replication of DeSchriver (1996, 1999) research. However, unlike DeSchriver's (1996, 1999) research, the present study will use the model to examine NCAA Division I-AA HBCUs and selected Division II HBCUs.

Operational Definitions

1. Demographic Determinant. Determinants associated with the human population that can potentially affect the attendance of spectators. The population size, the student enrollment, and the ethnic mix are variables normally associated with demographics (Schofield, 1983a). The demographic determinants selected for this study are student enrollment, miles between competing institutions, and total population of counties within 50 miles of home team city.
2. Determinants. The difference in demand for a product or service is explained by these factors (DeSchriver, 1996, 1999). For this study, the determinants are weather, week in season, weekday game, current winning percentage for home team, homecoming game, special promotion, student enrollment, general admission price, number of competitors in geographical market, miles between competing institutions, total population of counties within 50 miles of home team city, and year stadium built/renovated.
3. Economic Demand Model. A measurement of selected determinants that explain the level of demand for a product or service (Schofield, 1983).
4. Economic Determinant. The resource variable that is found to affect spectator attendance. These variables are normally admission price, forms of entertainment, price of competing, and private income (Drever & McDonald, 1981). The economic determinants for this study are general admission price and number of competitors in geographical market.
5. Game Attendance. The actual attendance of all persons at a sport event that is officially reported by the institution hosting the sport event. The actual number of attendance that is reported is the total number of spectators that attended the event and not the total number of tickets that were sold (DeSchriver, 1996, 1999).
6. Game Attractiveness Determinant. Variables that are associated with the attractiveness of the sport event that can potentially affect attendance. The

presence of star players, special event promotions, and the won/loss record of the competing teams are examples of these determinants (Drever & McDonald, 1981). The game attractiveness determinants for this study are home team winning percentage, homecoming game, and special promotion.

7. Historically Black Colleges and Universities (HBCUs). The Higher Education Act of 1965, as amended, defines an HBCU as: “Any Historically Black College or University that was established prior to 1964, whose principal mission was, and is, the education of Black Americans, and that is accredited by a nationally recognized accrediting agency or association determined by the Secretary [of Education] to be a reliable authority as to the quality of training offered or is, according to such an agency or association, making reasonable progress toward accreditation” (Pope & Associates, 2004).
8. Morrill Land-Grant Act of 1890. Morrill Land-Grant Act of 1890, which specified that states using federal land-grant funds must either make their schools open to both Blacks and Whites or apportion funds for segregated Black colleges as an alternative to Blacks attending White schools (HBCU Network, 2007).
9. Multiple Regression Analysis. A statistical method for examining the relationship between a criterion variable and two or more independent, or predictor, variables. Through its relationship with two or more predictor determinants or variables, this method is utilized to elucidate the variation in a criterion variable (Shavelson, 1988).
10. NCAA. The National Collegiate Athletic Association. The primary governing body for intercollegiate athletics.
11. NCAA Division I-A. One of the three levels found in the NCAA Division I memberships. NCAA Division I-A has a total number of 119 colleges and universities. These institutions are required to provide an average of at least ninety percent of football maximum grants over a rolling two-year period, and annually offer a minimum of two hundred athletics grants in aid or \$4 million total (NCAA, 2006).

12. NCAA Division I-AA. One of the three levels found in the NCAA Division I memberships. NCAA Division I-AA has a total number of 116 colleges and universities. These institutions are required to provide fifty percent of the maximum grants in fourteen sports; or aggregate expenditure of \$964,700 (482,350 for women) on thirty eight full grants (nineteen for women) exclusive of football and basketball; or fifty of full grants (25 for women) excluding football and basketball; or exception for institutions with exceptional reliance on federal assistance for student's needs (NCAA, 2006).
13. NCAA Division I-AAA. One of the three levels found in the NCAA Division I memberships. NCAA Division I-AAA has a total number of 91 colleges and universities. These institutions offer the same number of grants as NCAA Division I-AA, with the exception of football grants because football is not offered at these institutions (NCAA, 2006).
14. NCAA Division II. One of the three divisions found in the NCAA memberships. NCAA Division II has a total number of 296 colleges and universities. These institutions are required to provide fifty percent of the maximum equivalencies in four sports (at least two women's) or, a minimum a total expenditure of \$250,000 (with \$125,000 for women's sports) or, twenty full equivalency grants with at least ten for women's sports (NCAA, 2006).
15. NCAA Division III. One of the three divisions found in the NCAA memberships. NCAA Division III has a total number of 437 colleges and universities. These institutions offer no grants to student-athletes (NCAA, 2006).
16. Residual Preference Determinant. This determinant consists of all other variables that can potentially affect spectator attendance at sport events. The age and size of the stadium, time of the season, and weather conditions are examples of this determinant (Schofield, 1983a). The residual preferences for this study are weather, week in season, weekday game, and year stadium built/renovated.

Assumptions

Assumptions are found in every research venture and must be pointed out and addressed. The assumptions of this study are the following:

1. Spectator attendance at the selected HBCU's football games will be sufficient enough to provide the information needed for this study.
2. The population is adequately represented in the sample.

Delimitations

The delimitations of a study are described as how a study will be narrowed in scope (Creswell, 2003). The following delimitations are sited on this study as a result of spectator attendance and the associated variables differing significantly with the form of sport event.

1. Economic Demand Model. The economic demand model designed for this study will measure the degree of variation in spectator attendance at NCAA Division I-AA HBCU's football games and NCAA Division II HBCU's football games, examined by selected determinants. There was no attempt to utilize this model to address the cultural, political, or social effects on the attendance of NCAA Division II HBCU's football games (DeSchriver, 1996, 1999).
2. NCAA HBCU's Football Teams. The demand function was delimited to NCAA HBCU's athletic programs that competed in football during the 2007 season. To address the variation in attendance for other amateur or professional sports is not how this demand function is to be used (DeSchriver, 1996).
3. Determinants of Fan Attendance. The determinants were chosen as a result of a review of the literature. The selected determinants are not suggesting that these are the only determinants that manipulate spectator attendance (DeSchriver, 1996, 1999).
4. Time. The sample for this study is the 2007 regular season home games. The

reliability of the demand function may be significantly affected with the passage of time (DeSchriver, 1996, 1999).

Limitations

The limitations of a study indicate a potential weakness in the design of a study (Creswell, 2003). The following are the limitations of this study:

1. Purposive sampling will be used for this study. Using this sampling method, the researcher knows the specific characteristics that exist in a particular segment of a population (Baumgartner, Strong, & Hensley, 2002).
2. The sample selection of sports information directors at NCAA Division I-AA HBCUs and selected Division II HBCUs will be assumed to provide responses that are factual and truthful, which is normally found in self-reporting surveys (DeSchriver, 1996, 1999). The sports information directors are used as the sample because their office can provide all of the information requested on the instrument.
3. The results from the survey will be reliant upon whether the instrument for this study is clear and the instrument is completed accurately by the Sports Information Department of the selected HBCUs.
4. Information received from surveys has inherent limitations. Surveys are frequently limited by the sample used and the information received. In addition, there may be inaccuracies and/or misrepresentations in the information received (Baumgartner, Strong, & Hensley, 2002).

Summary

Spectator attendance has received much attention over the years. However, just recently has there been a focus on spectators attending NCAA sport events. Even with the interest in the attendance of spectators at NCAA sport events, the body of knowledge regarding spectator attendance at NCAA HBCUs is limited. In this chapter, a number of considerations have been defined for the purposes of the specific research: statement of

the problem, purpose of the study, HBCUs, significance of the study, conceptual framework of the study, definition of terms found in the study, assumptions of the study, delimitations of the study, and limitations of the study.

CHAPTER 2

REVIEW OF LITERATURE

The intent of this section is to provide an overview of the literature on HBCUS, spectator attendance at sport events, spectator attendance of HBCU's football games, the financial side of intercollegiate athletics – both predominantly White Institutions (PWIs) and HBCUs, and the utilization of economic demand models in sports. The literature reviewed in this chapter is arranged into seven sections. The first section reviews the literature regarding spectator attendance of sporting events. The next section examines spectator attendance of HBCUs. The literature review then provides a section that examines the financial aspects of intercollegiate athletics. This will be followed by a section examining the financial aspects of HBCU's athletics. The fifth section will examine the utilization of economic demand models. This will be followed by the sixth section that will examine the application of economic demand models for spectator attendance in sport. A summary will be provided, with a critical analysis as the final section.

Historically Black Colleges and Universities

Higher education for Black students before the Civil War, for the most part, did not exist. In fact, there were two schools, Oberlin College in Ohio and Berea College in Kentucky that allowed a small number of black students. Cheney University evolved from an elementary and secondary school for black students to an institution of higher

learning. The only two black private colleges that existed were Lincoln University in Pennsylvania and Wilberforce University in Ohio (HBCU Network, 2007).

Post Civil War, Senator Justin Morrill initiated a focus on creating more access to public higher education throughout the United States. The primary intent of the initiative (The Morrill Land-Grant Act of 1890) was to prepare Americans to enter fields such as the applied sciences, agriculture, engineering, and educators. There were many institutions developed as a result of this initiative but few of the institutions were available to blacks. The lone black college created specifically for blacks was Alcorn State University in Mississippi, established in 1870. Alcorn State University is also the first state-supported public institution for the higher education of blacks. Between 1870 and 1910 sixteen black institutions received land-grant funds as a result of the Morrill Land-Grant Act. Before 1870, the American Missionary Association, the Freedmen's Bureau, black churches, and individual blacks created private colleges and universities for the purpose of educating blacks. During this period many blacks operated their own elementary and secondary schools for blacks in the southern states, preparing the students for vocations and advanced education. Thus, a demand was created for higher education. The demand was especially created for teachers to work in black schools (HBCU Network, 2007).

The Great Depression and World War II caused a major financial crisis for private and public black colleges and universities. This crisis was resolved when the black institutions together formed the United Negro College Fund. The black institutions also became the beneficiaries of the *Brown v. Board of Education*, where the Supreme Court ruled that states would be forced to fund the HBCUs and allow black students to attend PWIs. In addition, the judicial decision in 1965 from the case of *Adams v. Richardson* found that ten states were in violation of the 1964 Civil Rights Act. The states were ordered to aggressively integrate their institutions, but not at the expense of the HBCUs because of the importance of the HBCUs in educating African Americans (HBCU Network, 2007).

The government continues to play an important role in the stability of HBCUs. The President Carter administration created a program to strengthen and expand the resources for HBCUs. The President Reagan administration reversed the impact of prior

discriminatory practices aimed at black colleges, which resulted in increased funding to HBCUs. In addition, President G. H. Bush created a commission within the Department of Education that advised the president on issues the HBCUs continue to face (HBCU Network, 2007).

HBCUs continue to play a major role in the education of black students. It has been found that HBCU students graduate with a greater frequency than black students who attend PWIs (HBCU Network, 2007).

Spectator Attendance at Sporting Events

Sport is a major industry in American society, as well as a popular type of spectator entertainment. The sport industry is the eleventh-largest industry in the country and generates over 2% of the Gross Domestic Product (Meek, 1997). The size of the sport industry is reported to be over \$194 billion (Broughton, 2002). Professional and intercollegiate team sports are the two major segments of the sport industry (Sage, 1990).

The financial goal of professional and intercollegiate sports is vastly different. According to Mawson and Coan (1994), the primary objective of privately-owned professional sport organizations has been to generate the most in profits, which is the difference in total costs and total actual revenues. Smith (1992) stated that the increase in labor costs has positioned the majority of professional sport teams to be financially successful. An example of the financial value of professional sport organizations is the approximate value of two pinnacle priced 2005 NBA teams. The New York Knicks value was \$543 million and the Los Angeles Lakers was \$529 million (Forbes, 2005). Mawson and Coan (1994) indicated that the primary source of revenue for franchises on the professional level has been the rights fees of television and the revenues from ticket sales.

Intercollegiate athletic programs have been classified as non-profit organizations. This is vastly different from franchises on the professional level. According to Fleisher, Goff, and Tollison, (1992), intercollegiate athletic programs have been a part of a much larger formation than the institutions have represented. For intercollegiate athletics to maintain their non-profit status, their yearly total revenues are required to have been less

than or equal to the total costs to operate the intercollegiate athletic programs. Increasing salaries and benefits of staff, constructing and renovating facilities, the purchase of equipment is what the excess revenues have normally been used for.

On the other hand, there are similarities of professional organized sports and NCAA Division I athletic programs. These two levels of competition have generated revenues from both rights fees of television and sales of admission tickets.

NCAA Division I-A athletic revenues from ticket sales in 2002-03 was 26%, revenues from radio/television were 7%, and revenues from bowl games and tournaments were 3%. On the other hand, NCAA Division I-AA athletic revenues from ticket sales in 2002-03 were 6%, revenues from radio/television were 2%, and revenues from bowl games and tournaments were less than 1%. NCAA Division II W/Football athletic revenues from ticket sales in 2002-03 were 4%, revenues from radio/television were less than 1%, and revenues from bowl games and tournaments were also less than 1%, as indicated in Table 1 (Fulks, 2005).

Table 2.1

Principal Revenue Sources for NCAA Division I, NCAA Division I-AA, and Division II Athletic Programs, 2002-03*

Sources of Revenue	Percentage of Total Revenue in Division I-A	Percentage of Total Revenue in Division I-AA	Percentage of Total Revenue in Division II W/Football
Student Fees	6.3%	18.4%	14.8%
Institutional Support	10.2%	48.9%	56.9%
Government	1.4%	2.6%	4.7%
Ticket Sales	26.6%	6.5%	4.8%
Private Contributions	17.9%	7.7%	8.1%
Guarantees/Options	3.5%	3.3%	0.6%
Bowls	3.0%	0.03%	0.3%
Radio/Television	7.2%	0.01%	0.1%
Conference Contributions	8.9%	4.2%	0.4%
All Other Sources	14.5%	7.7%	8.8%
Total	99.5%	99.3%	99.5%

*From *Revenues and Expenses of Intercollegiate Athletic Programs: Financial Trends and Relationship-2002-03*, by D. Fulks, 2005, Indianapolis, IN, The National Collegiate Athletic Association.

The primary difference in NCAA Division I-A and what is found in NCAA Divisions I-AA and NCAA Division II is the disparity in sources of revenue. In Division I, the sports that produce the main revenue are men's basketball and football. The basis for this is the fact that these contests are performed before big audiences, as well as frequently broadcast on local, regional, or national television. However, Division I-AA and Division II men's basketball and football game's television time and attendance by spectators is considerably smaller. Consequently, there is more reliance by NCAA Division I-AA and NCAA Division II athletic programs on student fees, institution support, and government support (DeSchriver, 1996, 1999).

According to Fulks (2002), there are a number of sources to obtain revenue for NCAA Division I-AA and Division II athletic programs that have an effect on the attendance of spectators. The sales of tickets have been found to be associated with spectator attendance. Ticket sales represented only 6% of the total sources of revenues for NCAA Division I-AA and 4% of the total sources of revenue for NCAA Division II. On the other hand, ticket sales represented over 26% for the NCAA Division I-A (Fulks, 2002). DeSchriver (1996, 1999) indicated that as spectator attendance increases, the value of the sporting event increases to the consumer. As a result, there may be an attraction for more spectators to attend the event, which may result in an increase in ticket sales. Hilkemeyer (1993) indicated that on the average a sports fan spends between \$1 and \$4 on food and beverages at small athletic events. As a result, an increase of 1,000 spectators per game would result in a \$1,000-\$4,000 increase in concessions revenues. Consequently, a focus on increasing attendance at athletic events may have a positive effect in increasing revenues.

There are also a number of other sources of revenue that have been demonstrated to be associated with attendance at collegiate athletic events, specifically football contests. According to Coughlin and Ereksen (1985), football attendance was a significant factor affecting private contributions to Division I athletic programs. Fulks (2002) indicated that 7% of the total sources of revenue for NCAA Division I-AA athletic programs are obtained from private contributions and 8% of the total sources of revenue for NCAA Division II athletic program. For NCAA Division I-A, 17% of the total sources of revenue are obtained from private contributions. Consequently, to have NCAA Division I-AA and Division II athletic programs focus on increasing attendance by spectators may have a positive association with an increase in private contributions.

Sponsorship spending on American sports by corporations and businesses was found to be \$6.4 billion in 2005 (Street & Smith SportsBusiness Journal, 2006). This revenue source is imperative within the industry of sports entertainment. The major concern of potential sponsors has been the amount of consumers that are potentially exposed to the sponsor's products or services. More exposure of a sponsor's product or service would be found with increased attendance by spectators. Event organizers can potentially increase the amount paid for sponsorship by sponsors with increased exposure by spectators, which result in more revenue for the sport event. As a result of the need for new and innovative methods of increasing revenue in NCAA HBCU's athletics programs, sponsorship has recently been of the utmost importance (Irwin, 1993).

The mid 19th century was the birth of intercollegiate athletics. In 1852, students organized intercollegiate athletics and were virtually unnoticed by the general public. The first athletic competition was student crew teams from Harvard and Yale in a race on a New Hampshire lake. The beginning of the 20th Century saw the rise of several more colleges and universities. This inclusion of other colleges and universities spawned the Intercollegiate Athletic Association of the United States (IAAUS). This was the first intercollegiate sport governing body on the national level. The IAAUS name was changed to the National Collegiate Athletic Association (NCAA) in 1910, and remains the governing body of intercollegiate athletics with a mission to regulate and provide institutional control over the colleges and universities (Sage, 1990).

It wasn't until the Golden Era of Sports, the 1920s, when intercollegiate athletics evolved into an entertainment option for paying spectators. Even then, football was by far the most popular sport attended. Knute Rockne, the football coach of the University of Notre Dame, drew fans to their games for the experience during this period. It was also a time when popular sport stars were major attractions, such as Red Grange the outstanding running back for the University of Illinois (Chu, 1989). Currently, there are over 1,000 colleges and universities that are members of the NCAA (NCAA, 2006). The member colleges and universities of the NCAA are separated into three divisions, Divisions I, II and III. Member institutions are assigned to one of the three divisions based on how many sports are offered by the institution and the financial commitment of the athletic program. The dominant level of competition is found in Division I, which has well over 300 members (NCAA, 2006). And, within Division I there are three separate divisions (I-A, I-AA, and I-AAA). Division I-A is the leader, with regards to the level

of competition. This division has 119 institutions competing and Division I-AA has 116 institutions competing in the 2006 season. The most notable difference between Division I-A and Division I-AA is that the NCAA regulations consent to Division I-A programs allocating a greater number of athletic grants-in-aid to their teams than are allocated in Division I-AA. On the other hand, the 91 Division I-AAA member institutions have competed in football but have not provided athletic grants-in-aid to their football players (Fulks, 1994). Unlike Division II and Division III institutions, Division I-A and I-AA usually allocate more grants-in-aid, as well as having superior financial resources. It is found with the 296 Division II institutions that grants-in-aid are offered but significantly less than in Division I institutions. Athletic grants-in-aid to student-athletes have not been permitted by the NCAA for the 437 Division III colleges and universities. NCAA regulations, limited television exposure and limited financial resources at the Division II and III member institutions have resulted in Division I competition being of higher quality (DeSchriver, 1996, 1999).

According to Quick (2000), the literature on sport fans is plentiful and diverse, mentioning that sport consumption is found to be psychologically, sociologically, or economically based. From a study he conducted that examined the implications of linking fan typology with key variables, it was found that to see the teams play and to be with friends were the most important variables. These results were found from spectators of Australian Rugby and Football between 1996 and 1998.

Another study that focused on spectator attendance factors of professional sport games was conducted by Lee and Bang (2005). Their study sought to determine the effects on the desire of people to attend professional sport games and their intentions to attend future sport events. Promotion, attractiveness, schedule, and economic factors were studied as the attendance factors. Of the 745 questionnaires from the fans of selected professional baseball and soccer sporting events in the 2001-02 season, the antecedent of sport consumers' desire to attend is the promotion, the attractiveness, the schedule, and the economic factors. It was also found that these same variables were influential on intentions to attend in the future.

Preferences are also factors that have been examined and included in the development of attendance models. Game attractiveness or preferential factors related to game attendance, as is found with other entertainment events, have been studied extensively. With regards to sport events, winning percentage (both previous season and present season) was found to be positively

related to attendance. Baade and Tiehen (1990), Branvold, Pan, and Gabert (1997), DeSchriver (1996, 1999), Hansen and Gathier (1989), Kahle, Kambara, and Rose (1996), Krohn, Clarke, Preston, McDonald, and Preston (1998), Marcum and Greenstein (1985), Wakefield (1995), and Zhang, Pease, Hui, and Michaud (1995) all found nonperformance measures to be much more important for losing teams than for winners.

Temporal perceptions of winning have also been investigated. Becker and Suls (1983) found evidence that information about initial performance (winning at the beginning of the season) weighed heavier on fan attendance than the performance of the team later in the season. It was concluded from their study that if a team improves or deteriorates for two consecutive seasons, a positive or negative relationship emerges between temporal performance and attendance (cited in Wells, Southall, & Peng, 2000).

Variables that are positively related to game attendance are also mentioned in the literature as having an effect on attendance at sporting events. According to Zhang, Wall, and Smith (2000), four decision making variables were found to be positively related to game attendance: (a) prospects for postseason, (b) day of the week, (c) win/loss records, and (d) socialization. The purpose of their study was to examine the relationship of selected variables to game attendance level of NBA season ticket holders in the following four areas: socio-demographics, decision making, special program, and customer service. Of the 924 season home game ticket holders of a major Western Conference NBA team, it was found that (a) there is great potential for game attendance increase by both full and half season ticket holders, (b) the major segment of full and half season ticket holders were white males 25-54 years old, (c) age, income, and education are related to game attendance, and (d) 10 variables are positively related to game attendance: 4 decision making variables (1) prospects for postseason, (2) day of the week, (3) win/loss records, and (4) socialization; 4 special program variables (1) upgrade priority, (2) dialogue with head coach, (3) yearbook/ media guide, and (4) draft party; and 2 customer service variables (1) food and drink quality and (2) account executive.

The sport setting was also found to have an affect on attendance. Bernthal and Graham (2003) reported that the setting is a strong motivator. They examined the differences in fan motivation factors among different settings of the same sport. Of the 552 baseball fans (200 from Minor League Baseball & 352 from collegiate games), it was found that attendance motivation does differ between these settings. An advertising campaign with a focus on total

entertainment value proves profitable for Minor League Baseball. On the other hand, an advertising campaign that has a focus on school support/spirit proves profitable for collegiate baseball. Hill and Green (2000) also found that sportscape enhance the likelihood that supporters of the home team will attend future games. They examined the incremental impact of stadium factors on attendance intentions, having first accounted for the impact of team loyalty and involvement with Rugby League. Five hundred thirty spectators from three Australian football venues indicated that sportscape enhanced the likelihood that supporters of the home team will attend future games. So, the fundamental need to increase spectator attendance is to build spectator's psychological involvement with sport itself, and build loyalty to team. A model was proposed by Trail, Anderson, and Fink (2002) to explain sport spectator consumption behavior intentions. Their results indicated that the motives of being a spectator would influence both the team identification level and expectancies, the expectancies would be either confirmed or disconfirmed (which influence the affective state of the fan either directly or indirectly through Basking-In-Reflected-Glory [BIRGing] behavior), and the affective state of the individual would have a direct influence on the consumption intentions of spectators.

The age of the facility was found to have a negative effect on attendance. McEvoy, Nagel, DeSchrive, and Brown (2005) found that as the age of the facility increased attendance decreased. They conducted a study that examined facility age as a factor. The purpose of their study was to determine the number of years the honeymoon effect has on attendance last, following the opening of a new Major League Baseball facility, and if attendance increase significantly later in the facility's lifespan. The sample population was data collected for 40 seasons of competition in MLB, 1962-2001. Data related to MLB statistics such as average attendance, expansion and strike years, and facility age were collected from a variety of baseball-related websites. The major findings were that as the age of the facility increased there was a decrease in average attendance over the first 45 years of the facility's life. Thus, these results support the claim that a honeymoon period does exist for new facilities. The study also concluded that a statistically positive relationship existed between age and attendance for facilities that were more than 48 years of age. Thus, it appears that the so-called "nostalgia effect" is evident in MLB. Facilities, such as Fenway Park and Wrigley Field, that are older may positively relate to additional spectator attendance. However, it should be noted that over the

first 75 years of a facility's life the nostalgia effect will not increase attendance to a level greater than that of a new facility.

The attractiveness of the game was also studied as a factor for attendance at sporting events. Lee (2000) found that a new stadium with plenty of washrooms, adequate parking facilities, comfortable seating with good views, and an attractive or even unusual appearance is appealing. According to Lee (2000) there are six factors that had a positive effect on the fans' and the spectators' desire to attend a sport activity. These factors also had a positive effect on the fans' and the spectators' intentions to attend a future sport activity. The six factors are: the promotions, the attractiveness, the schedules, the economics, the desire to attend, and the intention to attend.

Winning percentage is a factor that has been examined extensively by DeSchrive (1996, 1999), Branvold et al. (1997), and DeSchrive and Jensen (2002). According to DeSchrive (1996, 1999), team performance was found to be a significant factor in attendance. He conducted a study to analyze the contribution of selected determinants in explaining the variation in spectator attendance at NCAA Division II football games. All football games played during the 1994 season, in which the competitors were members of the NCAA's Division II, were utilized for this study. One of the major findings was that winning percentage for games played in the first two weeks of the season was found to be significant. DeSchrive and Jensen (2002) also found that winning percentage had a positive effect on attendance in a study that analyzed the relationship between spectator attendance at NCAA Division II football contests and selected determinants by estimating multiple economic demand models. Two hundred sixty respondents from the sports information/media relations offices of NCAA Division II institutions that compete in football indicated that on-field success has a direct relationship to attendance, and therefore, also has an economic impact on the athletic program.

On the other hand, Branvold et al. (1997) found that winning percentage could not be used to predict attendance in Minor League Baseball. In fact, it was reported that the population of the host city was more closely tied to season attendance for home games. Their study assessed the effects of winning percentage and market size on attendance in Minor League Baseball. The study population was the home season attendance for Minor League Baseball franchises. One hundred forty two teams of the 189 total teams from the National Association of Professional Baseball Leagues data were used. The major finding of their study was that winning percentage

could not serve to predict attendance in Minor League Baseball. It was also found that winning percentage and population of the host city was closely tied to season attendance for home games. In addition, the population of home city accounted for the largest proportion of variance in predicting home season attendance whereas winning percentage accounted for a small portion.

Another factor that was associated with spectator attendance was brand association. According to Gladden and Funk (2002), sport consumers' perceptions of a team are viewed as brand association. They conducted a study to broaden the understanding of brand management in sport by creating the Team Association Model (a scale that identifies dimensions of brand association, a major contributor to the creation of brand equity). It was found that the TAM provides support for two dimensions previously not mentioned in the sport literature: Consumer perceptions of management and the importance of a team's uniform and related insignia in establishing a visual link or cue for brand association. This was the only mention of brand association and sport found in the literature.

The psychological connection that sport fans have with a game, team, or player has received a large amount of attention in recent years. Laverie and Arnett (2000) reported that sport marketers frequently utilize satisfaction as a variable to predict the attendance of fans. Fan identification was found by Madrigal (1995) to have a direct impact on the affect and enjoyment by fans and spectators. The positive impact experienced by fans and spectators translates to satisfaction. His study explored the factors that influence "fan" identity salience. The sample population was 190 respondents from the 1997-98 NCAA Women's Basketball Season. Their results found that if a person is involved with and/or attached to a sport team, he/she is more likely to rate their "fan" identity as more important than other identities. Also, as a person becomes attached to a team his/her "fan" identity becomes a more important part of his/her self-concept.

In an effort to establish measurable results regarding the psychological connection that sport fans have with a game, Mahony, Howard, and Madrigal (2000) developed a psychological commitment to team (PCT) scale. In a study they conducted using the PCT; it was found that winning was related to BIRGing behaviors. The scale was designed to be used in segmenting sport consumers based on loyalty. Their study was an extension of Pritchard, Havitz, and Howard's (1999) work to establish a scale. Students from Ohio State University were used in the study. The results of the study indicated that the PCT scale provides researchers with a

reliable and valid tool for measuring attitude, loyalty, or strength of fan's commitment to a particular sport team.

Funk and James (2001) also developed a framework that focused on the psychological connections of fans to sport teams and characterized concurrently the existing research on sport spectators and sport fans as falling into four general categories along a continuum. Those four categories are: awareness, attraction, attachment, and allegiance. Based on previous theories that differentiate spectators from fans, their finding was that the Psychological Continuum Model (PCM) provided the initial framework for understanding and examining sport-related research in the context of an individual's psychological connection to sport and exploring the temporal process through which that connection moves.

The psychological connection of sport fans was also studied by Platow, Durante, Williams, Garrett, Walshe, Cincotta, Lianos, & Barutchu (1999). In an examination of the role that identification plays in the production of prosocial behaviors, 440 fans from six Australian Rules Football games were studied. It was found that of the team-identified sport fans who provided contributions to a team-related charity, more gave to in-group-identified charity workers than to out-group-identified or non-team-identified charity workers.

Wells, Southall, and Peng (2000) addressed the social-psychological aspect of sport fans attendance. In their study, the intent was to identify the determinants related to attendance at NCAA Division II football games and to develop a model designed to predict attendance using selected determinants. One of the areas examined in their study was the social psychological variables, which were: fan motivations, a sense of belonging, and internalization. The study concluded that the events associated with homecoming are significantly related to an increase/decrease in attendance. Their findings were consistent with Kahle, Kambara, and Rose (1996). Wells et. al. (2000) stated that "Promotions are critical, but promotions by themselves are not enough" (p.209). They found that attendance increased when a special promotion was utilized. In addition, any game that does not have a promotion associated with it is an opportunity missed. Increased planning and organization in regard to promotions will increase the significance of the promotion on attendance.

Star players were also found to significantly increase attendance. According to Rivers and DeSchriver (2002), the teams that have the highest average attendance spend the most money on payroll. They conducted a study to develop a demand model that determined if a relationship

existed between the variation in team payroll and spectator attendance at Major League Baseball (MLB). A secondary purpose of their study was to determine if the presence of star players was related to MLB attendance. The final purpose was to examine additional factors, such as population, income, on-field success, and stadium age (these were included in order to construct a demand model that explained a significant portion of the variation in MLB spectator attendance). Data from four seasons (1997-2000) was used of the teams that competed in Major League Baseball. Data for the Arizona Diamondbacks and the Tampa Bay Devil Rays, the two most recent expansion teams, were collected for the 1999-2000 seasons only. They found that subsequent to controlling for variables, such as income, population, on-field success, and the facility, team payroll is positively related to average game attendance. As mentioned above, the teams that have the highest average attendance spend the most money on payroll. It was also found that for every one percent increase in team payroll in the current season, there was a .27 percent increase in average game attendance. The impact of this is that if a team has a payroll of \$50 million and average game attendance increasing to 27,500, over the course of an 81-game home season that equals to an additional 202,500 spectators. To only analyze the profit from game revenues (e.g., ticket sales, parking, and concessions), if the additional \$5 million or more of profit (about \$22 per spectator), it is economically prudent for the team to increase their payroll to \$55 million.

Loyalty has also been found to be a factor in sport fan attendance. Hill and Green (2000) conducted a study to examine the incremental impact of stadium factors on attendance intentions, having first accounted for the impact of team loyalty and involvement with Rugby League. In this study, 530 spectators from 3 Australian Football venues were sampled. It was concluded that the fundamental need is to build spectator's psychological involvement with sport itself and build loyalty to team.

Another variable found in the literature as having an influence in sport fans attendance is socio-motivational. Pease and Zhang (2001), Zhang, Pease, Lam, Bellerive, Pham, Williamson, Lee, and Wall (2001), and Lough and Kim (2004) studied this variable. Through the use of the Spectator Motivation Scale (SMS), Pease and Zhang (2001) assessed the socio-motivational factors associated with spectator attendance at professional basketball games. Of the 1,012 spectators studied, using the SMS, from six second-half 1993-94 season home games of an NBA team, significant relationships were found with attendance and fan identification with the team,

community image of the team, salubrious attraction of the game, and entertainment value of the game.

According to Zhang et al. (2001), the associations between socio-motivational variables and their relationships to game attendance caused researchers to acknowledge this phenomenon. The socio-motivational theories consist of achievement-seeking, catharsis and aggression, community image theories, entertainment, salubrious-effects, and stress and stimulation. These theories were defined by Zhang et al. as the following: Achievement-seeking theories (spectators express their prestige and accomplishment through identifying with sport game winners, such as success, gaining knowledge, and satisfying their own needs). Catharsis and aggression theories (catharsis or reduction of aggression acts is achieved through watching acts of aggression in sport competitions, such as violence and aggressive actions). Salubrious-effect theories (spectators attend sport events as recreation or diversion activities, such as pleasure and benefits of physical and mental well-being, e.g. escape from work and boredom, and stress relief, by attending games). Stress and stimulation-seeking theories (sport games are seen as stressors by risking, challenging, arousing, and stimulating experiences in socially acceptable ways). Entertainment theories (spectators are attracted to a game for seeking pleasure, sensation, satisfaction, happiness, and moral representation; and aesthetic application of skills in performance attract spectators as art form). Community image theories (spectators attend sport events to support a team that is perceived to be important and contributing to the community). Zhang et al. conducted a study to examine the relationship between five socio-motivation factors and attendance at Minor League Hockey games. Two hundred fifty seven spectators from three season home games of an International Hockey League were used in the study. It was reported that of the five factors, achievement seeking, salubrious effects, and entertainment were the only factors found to be related to game attendance. In addition, they reported that the achievement-seeking theories have been studied mostly in relationship to spectator attendance, and it was found that achievement seeking was a primary spectator-motivation factor. Salubrious-effects were found to be significant in their study. As a result of the game, which is the primary product, it is not directly controllable by team management, suggestions from the report were that a game should be presented as a vacation-like event in an effort to get spectators to relax tensions, relieve boredom, and acquire sensory pleasure. It was also suggested by the authors that team management should put more emphasis on a variety of game-amenity activities (for

example, promotional events), such as music, ice dancing, figure skating, singing, arena decorations, pre-game activities, intermission activities, and souvenirs.

Women's professional basketball was also examined, with regards to attendance and socio-motivations. Lough and Kim (2004) investigated the socio-motivations of spectators who attended women's professional basketball games in South Korea. Of the 503 spectators sampled in the study from eight different women's basketball games played at four different venues including Seoul, In-Cheon, Kwang-Iu, and Seong-Nam, South Korea, the most important socio-motivation for the spectators was found to be the entertainment value. More than 60% of the spectators responded with the highest normative mean scores on entertainment value followed by fan identification (23.5%), team image (10.1%), and salubrious attraction (5.8%). Exactly the same pattern of results was found in Pease and Zhang's (2001) investigation on socio-motivations of NBA spectators, entertainment value ($M = 3.76$, $SD = .75$) having the highest normative mean followed by fan identification ($M = 3.55$, $SD = .84$), team image ($M = 3.57$, $SD = .70$), and salubrious attraction ($M = 2.92$, $SD = .83$). Zhang et al. also showed the entertainment value as having the highest normative mean score in their investigation of Minor League Hockey spectators.

Socio-demographics were investigated by Zhang et al. (2000). Socio-demographics are often used to study characteristics of consumers in clusters (Mullin, Hardy, Sutton (1993). For instance, using the socio-demographic segmentation approach Simmons Market Research Bureau (1995) reported that young to middle aged white males represented close to 50% of the audience in male major league sports. However, it appears that previous segmentation studies aggregated spectators of different consumption levels, not providing unique information about season ticket holders (cited in Zhang et al., 2000). Zhang et al. examined the relationship of selected variables to game attendance level of National Basketball Association season ticket holders in the following four areas: socio-demographics, decision making, special program, and customer service. Nine hundred twenty four season home game ticket holders of a major Western Conference NBA team were examined. Among other things, it was found that there is a great potential of game attendance increase by both full & half season ticket holders.

Zhang, Lam, Connaughton, Bennet, Pham, Killion, Ocker, and Duley (2004) also examined socio-demographics. They conducted a study to assess the variables affecting enjoyment of Minor League Hockey games. They focused on the following two aspects: 1) relationships with

socio-demographics and game attendance, and 2) the mediating effects to the relationship between socio-demographics and game attendance. Of the 2,098 spectators from six home games of a Minor League Hockey game during the second half of a season, it was found that socio-demographic variables (age, gender, race, income, household size, marital status, education, and occupation) are related to game enjoyment factors and game enjoyment factors are positively predictive of game attendance.

Women's sports were found to have unique characteristics that affect attendance by sport fans. Funk, Mahony, and Ridinger (2002) examined women's sports to identify different motivational factors and to examine their usefulness in explaining various levels of support in a specific sport. The sample population was 504 spectators at a professional soccer event, the 1999 U. S. Nike Women's Cup in Louisville, Kentucky. Five factors were found to be useful in explaining how individuals differed in spectator sport level. These five factors were: sport, team, entertainment value, vicarious achievement, or role modeling. Shackleford and Greenwell (2005) went a step further examining women's sports by analyzing the relationship between specific factors and spectator attendance at selected NCAA Division I women's sporting events. Five characteristics found in related literature that may affect attendance and used for their study were: city population, student enrollment, competition from other Division I universities, competition from professional sport teams, and previous season's winning percentage. These characteristics were analyzed to determine how they predict attendance at NCAA Division I women's basketball, soccer, softball, and volleyball events. The sample population was 122 questionnaires returned by the SIDs of the 318 that were mailed out. The major finding was that student enrollment predicted attendance for basketball, softball, and volleyball. In terms of competition, the number of other Division I universities within a 50-mile radius reduced attendance for each of the four sports studied. The number of professional teams in a 50-mile radius did not predict attendance for any of the sports studied. It was also found that a team's prior season winning percentage was a significant predictor for each sport. The only variable in the study not correlated with attendance for any of the four sports was city population. This proposes that institutions located in small towns may not be fated to have low attendance numbers. This is consistent with Robinson and DeSchriver's (2003) findings that consumers with fewer options tend to attend more games than customers in larger areas. Further, they found that customers living in larger areas attend the same number of events during a year as customers

living in small areas, but they spread that event over more teams. Branvold et al. (1997) found similar results. In their study, market size did not influence attendance within AAA baseball. They conjectured that these teams were most often in cities with other professional teams, which cancelled the effect of market size. These results imply that even though there may be more potential consumers in a larger city, those customers usually have more options to attend other sporting events, negating the influence of city size.

Promotions at sport events are a factor that has received a plethora of attention. DeSchriver (1996, 1999) analyzed the contribution of selected determinants in explaining the variation in spectator attendance at NCAA Division II football games. The sample population was all football games played during the 1994 season in which the competitors were members of the NCAA's Division II. The major finding was that ten of the original 22 determinants were statistically significant after completion of the multiple regression backward elimination procedure. Team performance was found to be a significant determinant. From the four determinants that measured previous season performance, only the determinant measuring winning percentage for games played in the first two weeks of the season was found to be significant. Another significant determinant of spectator attendance found in this study was promotional activity.

According to Boyd and Krehbiel (1999), promotions had a positive effect on attendance and supported the use of frequent promotions to help lure fans and spectators. The results of their research found that in eighteen of the 24 teams studied, the promotions held during the week increased attendance significantly. Their study was designed to determine whether promotions are better run weekends, during day games, or against rivals versus non-rivals. The sample population was six Major League Baseball teams during the 1994, 1995, 1996, and 1997 seasons. The six teams included in the study were Chicago Cubs, New York Mets, Cincinnati Reds, Detroit Tigers, Kansas City Royals, and Boston Red Sox. It was found that all of the teams showed positive effects of attendance increases due to promotions of over 8,000 in attendance. It was concluded that promotions are more effective when run during day games and on weekends. According to Wells, et al. (2000), attendance increased when a special promotion was utilized. They found that integrating other activities around promotions was paramount to the success of the promotion at NCAA Division II football games.

DeSchrive and Jensen (2002) also investigated attendance factors for NCAA Division II football contests. They found that promotional activity positively influenced attendance such as homecomings. Their study analyzed the relationship between spectator attendance at NCAA Division II football contests and selected determinants by estimating multiple economic demand models. The sample population was the respondents from the sports information/media relations offices of NCAA Division II institutions that compete in football. There were a total of 260 respondents over a three year period (1994 – 96 respondents, 1996 – 82 respondents, and 1999 – 82 respondents). Homecoming was found to increase attendance by approximately twice as much as the presence of other types of promotions. According to Lee (2000), promotions were one of six factors that had a positive effect on the fans' and the spectators' desire to attend a sport activity. The six factors also had a positive effect on the fans' and the spectators' intentions to attend a future sport activity. The six factors are: the promotions, the attractiveness, the schedules, the economics, the desire to attend, and the intention to attend. A study he conducted was designed to determine the relative importance of factors that influence attendance at professional sport events and determine how those factors relate to consumer behavior(s). There was a focus on the positive factors that affect spectator attendance of sport events. The sample population was 745 fans of professional Baseball and Soccer games in Korea between June & September of 1999. One of the major findings of the study was that the game promotion factor indicated no direct effect related to future interest for attendance at professional sporting events. Boyd and Kriehbiel (2003) found that to maximize the effect of a promotion, it is important to run the promotion at a specific time. They conducted a study to examine three types of promotions and their effects when combined with two significant timing factors, weekend games and games against rivals. Of the six Major League Baseball teams investigated that had an outdoor stadium, promotions were found to be more effective when run during day games and on weekdays. Kim (2004) found that even though promotions can attract sport fans to games, promotions should not be repeated on a continuous basis. This conclusion came from a study conducted to determine the factors that affect overall satisfaction and attendance for a high expenditure and high revenue pro team, and for a low expenditure and low revenue semi-pro team. The sample population was 1,664 spectators from the Minnesota Twins and 847 from the St. Paul Saints. One of the major findings of the study was that a promotional event was ranked 12th by Minnesota Twins home game spectators and 7th by St. Paul Saint's home game

spectators. It seemed that since the spectators at the Saints games, according to findings from the study, liked social gathering with their friends, less identified with the team, and less attached to the baseball game itself, promotional events could be another attraction to stimulate them to the game.

Fortunato (2006) also found that strategic scheduling affected attendance. His study sought to describe a fundamental decision that all sport teams have to make: at which games should they schedule promotional events. It also aimed to provide some insights and examples of how conflicting desires of the team and the sponsor might be resolved. The sample population was games between Major League Baseball's geographic interleague rivals in 2004. This was used to examine scheduling conflict. One of the major findings of the study was that 33 of the 48 games of the sample had some added value from promotional events. Even if the seven games that were part of season-long promotions or part of the 4th of July weekend are eliminated, there are still more than 50% of games where there is almost a guaranteed increase in attendance by also having some promotional event scheduled.

Satisfaction was also a factor that was found in the literature regarding sport fans attendance at games. According to Trail et al. (2002), spectators at men's games were more satisfied with the experience than at women's games. They conducted a study to identify level of importance and level of satisfaction for six venues, gender differences of venue service quality characteristics, difference between male and female sports of venue service quality characteristics, service quality, and product satisfaction. Of the 1,279 spectators used in the study from two men's and two women's intercollegiate home basketball games at a large Midwestern university, it was found that spectators at men's games were more satisfied with the venue cleanliness than at women's, spectators at men's games were also slightly more satisfied with the audio experience, spectators at the men's games made numerous written comments praising the band, and considerably fewer comments were written by spectators of the women's games concerning the band. Of the related literature on spectator attendance, there was no mention of investigating HBCUs.

Spectator Attendance at HBCU's Football Games

Spectator attendance at HBCU's football games was found to be somewhat unique. Armstrong (2002) found that psychological involvement with HBCUs by spectators influenced attendance at HBCU's sports. She conducted a study that was two-fold: to examine the manner in which perception of sport, psychosocial involvement with HBCU's sport experience, and ethnic identification influenced: (a) Black consumers' patronage of HBCU's sports, as well as (b) their general/non-HBCU's sport consumption patterns (i.e., attendance frequency at various sport events, frequency of participation in sport and fitness activities, and sport media consumption). The sample population used was 278 usable questionnaires out of 350 distributed at an HBCU's football classic in the western-region of the United States. The major finding of the study was that the perception of sport does not influence HBCU's sport attendance. It was also found that psychological involvement with HBCU's sports does influence HBCU's attendance. As the respondents psychological involvement with HBCU's sports increased, so did their HBCU's attendance frequency. Therefore, the results indicated that psychological involvement with HBCU's sports appeared to supersede the influence of perception of sport as important and exciting. The psychological involvement with HBCUs was further justified by Jeff McLeod, Assistant Commissioner of the Central Intercollegiate Athletic Association. When asked the question of why spectators attend HBCU's football games, he responded that, "The vast majority of spectators that attend HBCU's football games do so for the opportunity to see old acquaintances, enjoyment of being in the environment of fellow HBCU alumni and students, and the activities associated with the game" (McLeod, 2007).

According to Ferreira and Armstrong (2004), the degree of sport popularity and physical contact displayed in the sport competition was found to be important. Their study was focused on consumers' evaluation of choices, stage three of the decision making process. The specific objectives of this multi-stage study were: (a) to identify salient attributes of students associated with college sport event attendance and (b) to expose the determinant attributes of the students' choice of attendance preference among four sport event alternatives (men's hockey, women's hockey, men's basketball, women's basketball). A convenient sample of 53 students enrolled in three sport-related classes offered by the School of Physical Activity and Educational Services at a large Midwestern university was used for the study. It was found that for stage one, factors

identified as influential in their consumption decisions covered a broad array of items ranging from descriptions of the sport event as a core product (such as speed and pace of the competition), to promotional items, player skill levels, price of tickets, facility conditions, and distribution strategies associated with the events. The results revealed that the factors identified by direct questioning did not differ from the factors already identified in previous research. Findings for stage two were that discriminant analysis and regression analysis revealed that the determinant attributes that most differentiated the sports were the ones directly related to core sport product characteristics: the degree of sport popularity and physical contact displayed in the sport competition. Attributes related to promotional activities and product extension characteristics were also present in the models, but these attributes had lower relative importance to consumers' preferences in comparison to those of the sport product characteristics.

Even though Leonard (2005) felt that geography influenced attendance at traditional collegiate football games, his findings were not necessarily true for HBCUs. The study he conducted was twofold: (1) to evaluate visitor attendance at college football games as an addition to the literature on sport attendance that has previously concentrated on home attendance at professional and minor league games, and (2) to assess the use of geographic principles of spatial interaction in conjunction with demand and production elements as a means of predicting the volume of visitor attendance at college football games. The sample population was 93 games with usable data of the 106 games that visitor attendance was operationalized for the analysis as the number of tickets sold by the visiting teams to conference games of the Mid-American Conference for the 2001 and 2002 seasons. The major finding was that a model that predicts visitor attendance for the majority of college football games could provide a yardstick by which team marketing efforts could be measured.

McEvoy's (2005) position that admission applications of institutions are influenced by sport teams performance is also not completely applicable to HBCUs. His study attempted to determine whether change in winning percentage from one year to the next on any of four sports (football, men's basketball, women's basketball, and women's volleyball) had any relationship with number of applicants to the referent university. The sample used for his study was athletic team performance at schools in six major NCAA Division I-A athletic conferences – the Atlantic Coast, Big East, Big Ten, Big 12/Big Eight, Pacific Ten, and Southeastern Conferences. This study supports previous findings that a significant positive relationship exists between college

football success and applications for undergraduate enrollment at NCAA Division I-A universities. Additionally, this study examined a similar relationship with college men's basketball, women's basketball, and women's volleyball, the latter two of which had received little previous study, and found no significant relationship to exist between success in those sports and applicants. The relationship between a dramatic decrease in team performance and applicants was also examined and significance was not found with any of the four sports studied.

On the other hand, Brokaw, Stone, and Jones (2006) found that fan support for small-college athletic events was influenced by team familiarity. Their investigation was to examine what factors are key in explaining attendance at small-college sporting events. Three small schools in the South and Midwest were examined. Four hundred four questionnaires were usable of 492 questionnaires completed. It was found that win/loss records had relatively low importance in explaining attendance. It was also found that identification with players (team familiarity) was the most important factor, and was not surprising for a smaller college. For current students, the chances of knowing a player are likely to be greater at small colleges. Encouraging the connections to players and the college will have the greatest impact on encouraging heavy use.

This is consistent with Armstrong's (1998) findings that HBCU's primary attraction to major HBCU's football games was because of the cultural customer-salient amenities. Attendance by Blacks at HBCU's sports events was not a direct result of the type of strategic marketing found at PWIs. An investigation by Armstrong (1998) found that there was a need for more effective marketing of HCBUs sports programs. The purpose of her study was to (a) discuss Blacks' interest and involvement in sport, (b) present some key findings about Black consumers, and (c) offer suggestions in which sport organizations may enhance their efforts to market sports to Black consumers. The results of her investigation found that the following list of strategies should be employed when marketing to Black consumers: (1) hire professionals who have the expertise with the Black consumer market, (2) involve the Black media, (3) employ a culturally based approach of marketing communications, (4) engage in activities that allow Blacks to identify with the organization, (5) patronize Black vendors (6) offer product extensions or amenities that have some salience to the Black culture (7) demonstrate concern and respect for the Black community and causes salient to it through socially responsible/cause-related marketing (8) identify appropriate distribution channels to reach Black consumers, (9)

invest in the Black youth, and (10) identify influential Blacks from the community to compose a support network. McLeod (2007) confirmed Armstrong's findings by stating that, "Few of the HBCUs have a designated marketing department whose responsibility is to strategically market HBCU's sports to the surrounding community of the individual institution."

Financial Aspects of Intercollegiate Athletics

The economics of intercollegiate athletics is critical for institutions of all sizes. Promotions have been found to be effective in increasing attendance. Wells et al. (2000) found that attendance increased when a special promotion was utilized. Effective ticket distribution has been found to be a method of maximizing revenue from professional sport events (Lee, 2000). However, there are currently no data based studies available that examined ticket distribution at the collegiate level. This should be an area of concern for administrators of collegiate athletic departments because of the potential additional revenue for the institutions and local community. According to Armstrong (2001), the financial impact that a sport event has on the local community is reason enough to solicit support from the local community. She conducted a study to identify mechanisms to enhance the marketing of the event, compute average direct spending of the attendees and evaluate the overall economic implications of Black consumers' patronage of HBCU's sports. The sample population was 675 respondents of questionnaires received from hotels and sites of the Riverfront Classic (RFC) events and activities, returned by mail from the RFC attendees in Cincinnati, Ohio, and phone interviews. She found that the event had a tremendous positive impact on the immediate and surrounding economics because of the spending patterns of the consumers in attendance.

The involvement of the local community can be very lucrative for the institution and supporters by working together in marketing the event. DeSchraver (1996, 1999) found that winning percentage of the team and promotional activity produced a significant increase in attendance. In essence, implementing a comprehensive marketing and promotion campaign around a sport event should include the local community support to maximize attendance and revenue from the event.

Financial Aspects of HBCU's Athletics

The financial aspects of HBCU's athletics are similar to that of other sport events. However, there are some unique attributes found with HBCUs and revenue from sport events. According to Armstrong (2001), HBCU's sport events have a tremendous impact on the immediate and surrounding economics. As mentioned earlier, she found that the event had a tremendous positive impact on the immediate and surrounding economics because of the spending patterns of the consumers in attendance. McLeod (2007) also explained the impact HBCU's sports have on the immediate and surrounding economics by stating, "The annual CIAA Basketball Tournament, which generates over 25,000 spectators for the week long event, has an economic impact of more than twenty million dollars for the host city."

The primary reason HBCUs have not been effective receiving the financial support from the immediate and surrounding communities for the individual institutions is the lack of effective marketing. Jackson, Lyons, and Gooden (2001) found that many athletic departments in HBCUs did not have a marketing department. They conducted a study to address the marketing of athletics programs at HBCUs. The sample population was 20 HBCU's athletic departments. Their major finding was that 75% of the respondents indicated that they did not have a marketing department. The reasons commonly cited were: lack of funds, staff, and vision within the organization.

An increase in attendance, and consequently revenue, can be achieved with a marketing department in the HBCUs. The research in this area clearly shows that Blacks will consume sport if the events are marketed correctly. According to Armstrong (2002), cultural affiliation is key in attracting Blacks to sport events. The study she conducted was to administer the Sport Fan Motivation Scale (SFMS) to Black consumers and to examine the inclusion of an exploratory cultural affiliation motive. The sample used for the study was 226 Black consumers of an HBCU's basketball game. It was found that cultural affiliation was a viable motive for Blacks' consumption. Similar results are found in previous studies using the SFMS, with the exception of demographics. McLeod (2007) also pointed out that there is an immense need for HBCUs to establish strategic marketing plans to maximize revenue. He further pointed out that the lack of marketing departments in many of the HBCU's athletic departments limit the revenue that can potentially be generated.

Economic Demand Models

The utilization of an economic demand model that has been developed is found to be beneficial in examining an individual sport team's attendance, as well as making comparisons to other sport team's attendance. As athletic administrators attempt to increase both spectator attendance and revenues of the athletic department, utilizing an economic demand model could give support to developing policy proposals.

Countless products, services, consumers, and producers are found in a thriving economy. According to Nicholson (1987) to describe all of the activity in an economy would be impossible. To capture an estimate and predict the activity of consumers, producers, and wage earners, economic demand models have been used. The behavior of consumers that demand product and services is discussed in this section. Ragan and Thomas (1990) defined economic demand as the quantity of a product or service that is desired by purchasers.

Each year products and services are purchased by millions of consumers. Economic demand models have been designed to analyze the factors that affect the purchasing decisions of consumers. Unsophisticated models have been used in the past to examine the effect of price on the demand for a product or service. Ragan and Thomas (1990) found that the level of demand was inversely connected to prices. On the other hand, it has been a challenge to precisely estimate the quantitative effect of a change in price on the demand for a product. A rationale for the challenge in the measurement is the effect of other determinants on product demand. Nicholson (1989) indicated that some examples of these determinants are the prices of associated products, consumer income, and consumer preferences. These determinants may change as the price of a product changes. The impetus of economic demand models has been to integrate all possible determinants that can potentially influence consumer demand (cited in DeSchriver, 1996).

Models have been developed for a large number of different products and services. Bell (1968) indicated that the products have ranged from food, such as fish, to electricity. The most frequently used statistical technique in the design of economic demand models has been multiple regression analysis (Nicholson, 1989). By using this particular technique, researchers have the ability to analyze the effect of a specific determinant on consumer demand, while at the same time keeping all other factors constant. As a result of sport being frequently segmented as an

industry, economic demand models and the factors of sport spectator demand for sporting events was found to be fitting. Consequently, demand has been represented by spectator attendance (cited in DeSchriver, 1996).

Application of Economic Demand Model for Spectator Attendance in Sport

Noll (1974) provided the influential piece dealing with the use of demand models in sport. The study conducted by Noll (1974) examined professional sports in the United States. The sample population was professional baseball, professional basketball, professional football, and professional hockey that are played in the United States. The major findings of the investigation was that fans have a preference for good to poor games, skillful to unskillful players, and a winning to a losing home team. Most of the factors that influenced attendance were the expectation of the interaction with the population of the city in which the game is played: that is, variations in team quality, prices, and other demand-related factors should produce greater variation in attendance in larger cities. It was also found that the stadium or arena that a team plays in can potentially affect total attendance. It was concluded that in all sports there is a propensity for a team of any given quality to have greater attendance if it is located in a large city. The pricing policies of teams were found not to be motivated by any other goal than profits. It was also concluded that in football and baseball, a number of cities that could support franchises chose not to field teams. In addition, in all sports, a winning team draws more fans than a losing one; and, at least in basketball and baseball, star players add significantly to attendance. Furthermore, the importance of having a good team increases with the size of the city, so that owners of teams in larger cities have a greater financial incentive to produce a winner. Interestingly, it was found that despite their high salaries, star players in basketball and baseball are probably paid substantially less than they contribute to the revenues of their teams (Noll, 1974).

Stewart and Smith (1997) produced a typology of a sport spectator. Their work indicated that there are five categories of spectators. They are as follows: 1) The Aficionado: the fans who seek a quality performance, these kinds of fans are game loyal rather than team loyal; 2) The Theatergoer: the fans that seek entertainment values and want a close contest (the contest is their

enjoyment); 3) The Passionate Partisan: the fans who want the team to win and identify strongly with team success and loss; 4) The Champ Follower: the fans who exhibit loyalty that is related to team success. As long as the team is winning or competitive, such fans will continue to consume the offered product; and 5) The Reclusive Partisan: the fans that strongly identify with the team (cited in Kim, 2004). Kim (2004) also pointed out that parts of both Madrigal's (1995) and Laveri and Arnett's (2000) models foundation being on consumer satisfaction theory, the two studies comprised relationships conjectured by identity theory, which was mostly developed by Stryker (1968, 1980, 1994). Ervin and Stryker (2001) pointed out that the source of identity theory is traceable to the structural symbolic interactionist theoretical framework of Mead (1934) and James (1890) (cited in Kim, 2004).

The Sport Fan Motivation Scale was found to be an effective instrument for use in measuring the motivations of sport fans. Wann, Schraeder, and Wilson (1999) conducted a study that reported on three different sample populations to: first, test for gender differences in the SFMS subscale scores and relationship among motivation, age, education, and fandom; second, expand Wenner and Gortz's research and examine sport type preferences; and third, examine intrinsic and extrinsic motivation. The sample population for the first study was ninety six residents of either Western Kentucky or Western Tennessee. The population for the second study was eighty six students enrolled in psychology courses at a mid-southern university. The population for the third study was one hundred fifteen students enrolled in psychology courses at a mid-southern university. The major finding for the first study was that the SFMS was found to be a sound instrument for use in measuring the motivations of sport fans. The major finding for the second study was that sport type preferences were found to have an effect. Individuals with a preference for an individual sport had higher levels of aesthetic motivation. The major finding for the third study was that participants were found to have higher levels of sport fandom than active athletic participation and that sport fans and spectators are quite active.

Trail, Anderson, and Fink (2000) also developed a framework that identified important variables in understanding sport spectator consumption behavior intentions. Their results indicated that the motives of being a spectator would influence both the team identification level and expectancies, the expectancies would be either confirmed or disconfirmed (which influence the affective state of the fan either directly or indirectly through BIRGing behavior), and the affective state of the individual would have a direct influence on the consumption intentions of

spectators. Their framework was designed to propose a model that identifies important variables and relationships from the sport fan/spectator literature to understand consumption behavior. The sample population of the study was previous related literature. It was found that their proposed model was more comprehensive in nature and provides for the syntheses of these factors which, in turn, furnish a multitude of possibilities for future research.

Lee (2000) also developed an attendance model. According to Lee (2000), there are six factors that had a positive effect on the fans' and the spectators' desire to attend a sport activity. These factors also had a positive effect on the fans' and the spectators' intentions to attend a future sport activity. The six factors are: the promotions, the attractiveness, the schedules, the economics, the desire to attend, and the intention to attend. His study was an attempt to determine the relative importance of factors that influence attendance at professional sport events and determine how those factors relate to consumer behavior(s). As mentioned earlier, more than 73% of the spectatorship purchased their ticket in advance either the day of the event to three days before and a low number of tickets were purchased on the Internet.

The Motivation Scale for Sport Consumption (MSSC) was a scale developed to measure the motivations of sport spectator consumption. Trail and James (2001) conducted a study to develop and evaluate the MSSC, to measure the motivations behind sport spectator consumption behavior, and to create and/or test the construct validity and reliability of MSSC. The sample used was 203 season ticket holders for a Major League Baseball team. The MSSC showed good construct validity, convergent validity, and discriminant validity. The internal consistency was also found to be very good. The significant correlations between the motives and three criterion variables showed that the MSSC does have criterion validity.

Wann (2002) investigated the relationship among performance, expectations, and levels of identification with diverse outcomes. The purpose of his study was to develop and validate the Sport Fandom Questionnaire. The sample population was 111 college students receiving extra course credit and 82 residents living in a mid-southern city with an approximate population of 50,000. One of the major findings was that the multiple samples and analyses suggest that the instrument is normally distributed, internally consistent, reliable and valid. It was also found that there was a consistent relationship between SFQ scores and the demographic variables age and sex.

According to Van Leeuwen, Quick, and Daniel (2002), the Sport Spectator Satisfaction Model (SSSM) accounts for both the influences of club identification and the win/lose phenomenon. It also recognizes that spectator satisfaction originated from both the core and peripheral dimensions of the spectator product. As a result, the SSSM effectively provides a clearer understanding of a complex and modestly researched phenomenon: the satisfaction of sport spectators, specifically, the game-attending fans of team sports (Van Leeuwen et al., 2002). A study conducted by Van Leeuwen et al. examined previous spectator satisfaction literature. The purpose of their study was to build a conceptual model of the satisfaction of sport spectators, the SSSM. The sample population was previous spectator satisfaction determinants literature. It was concluded that the SSSM not only accounts for the influences of club identification and the win/lose phenomenon but also acknowledges that spectator satisfaction is derived from both the core and peripheral dimensions of the spectator product.

Some aspects of Oliver's (1997) consumer satisfaction theory was found in Madrigal's (1995) model in an effort to examine the relationship between the disconfirmation of expectancies and the enjoyment, and then the enjoyment to the satisfaction. It was found that the enjoyment explained a little over 12% of the variance in satisfaction. Additional studies by Mahony et al. (2000) found that winning was related to BIRGing behaviors. In addition, Madrigal (1995) suggested that the identification with a sport team would moderate BIRG behavior of the individual and the enjoyment of the game. Both BIRGing and enjoyment would impact attendance satisfaction. The original test by Oliver (1997) that examined the (dis)confirmation of expectancies to the affective state to the behavioral intentions was tested by Trail, Fink, and Anderson (2003). It was found that the (dis)confirmation explained 32% of the variance in the affective state and the affective state explained 11% of the variance in the behavioral intentions. Additional studies conducted by Mahony et al. found that there was a relationship with winning to BIRGing behaviors. Also, studies were conducted by Wann (1996, 2000) that explained the relationship among performance, expectations, and levels of identification with diverse outcomes.

Kim (2004) developed a Consumer Behavior and Preference Model (CBPM) that was created using the foundation of the Sport Spectator Satisfaction Model (SSSM). The model developed by Kim (2004) was found to be effective in testing the effectiveness of the promotional event, with the selection of eight factors to construct a consumer behavior and

preference model. The eight factors were the following: promotional event, identification with the team or player, the general game interest, the game environment, the cost factor, the driving distance, and the ease of purchasing a ticket. In addition, overall satisfaction was measured and tested by six variables to construct a complete consumer and preference model. The six overall satisfaction variables were the following: the service from the employees, the game, the availability of the ticket(s), the parking, the seating, and the concessions. The purpose of his study was to determine the factors that affect overall satisfaction and attendance for a high expenditure and high revenue professional team, and for a low expenditure and low revenue semi-professional team. The sample population was 1,664 spectators from the Minnesota Twins and 847 from the St. Paul Saints. The major finding was that the seven selected variables had an effect on attendance. Also, the six selected variables had an effect on average satisfaction.

Summary and Critical Analysis

According to Quick (2000), the literature on sport fans is plentiful and diverse, mentioning that sport consumption is found to be psychologically, sociologically, or economically based. To see the teams play and to be with friends were the most important variables (Quick, 2000). Attendance factors of professional sport games were examined by Lee and Bang (2005). The antecedent of sport consumers' desire to attend is the promotion, the attractiveness, the schedule, and the economic factors (Lee and Bang, 2005). Preferences are also factors that have been examined and included in the development of attendance models. With regards to sport events, winning percentage (both previous season and present season) was found to be positively related to attendance. Baade and Tiehen (1990), Branvold, Pan, and Gabert (1997), DeSchriver (1996, 1999), Handen and Gathier (1989), Kahle, Kambara, and Rose (1996), Krohn, Clarke, Preston, McDonald, and Preston (1998), Marcum and Greenstein (1985), Wakefield (1995), and Zhang, Pease, Hui, and Michaud (1995) all found nonperformance measures to be much more important for losing teams than for winners. Temporal perceptions of winning have also been investigated. If a team improves or deteriorates for two consecutive seasons, a positive relationship emerges between temporal performance and attendance (cited in Wells, Southall, & Peng, 2000).

A number of variables that are positively related to game attendance are mentioned in the literature as having an effect on attendance at sporting events. According to Zhang, Wall, and

Smith (2000), four decision making variables were found to be positively related to game attendance: (a) prospects for postseason, (b) day of the week, (c) win/loss records, and (d) socialization. The sport setting was also found to have an affect on attendance. Bernthal and Graham (2003) reported that the setting is a strong motivator. Hill and Green (2000) also found that sportscape enhance the likelihood that supporters of the home team will attend future games. The age of the facility was found to have a negative effect on attendance. McEvoy, Nagel, DeSchriver, and Brown (2005) found that as the age of the facility increased attendance decreased. They conducted a study that examined facility age as a factor. These results support the claim that a honeymoon period does exist for new facilities. The attractiveness of the game was also studied as a factor for attendance at sporting events. Lee (2000), found that a new stadium with plenty of washrooms, adequate parking facilities, comfortable seating with good views, and an attractive or even unusual appearance is appealing. According to Lee (2000) there are six factors that had a positive effect on the fans' and the spectators' desire to attend a sport activity. These factors also had a positive effect on the fans' and the spectators' intentions to attend a future sport activity. The six factors are: the promotions, the attractiveness, the schedules, the economics, the desire to attend, and the intention to attend. Winning percentage is a factor that has been examined extensively by DeSchriver (1996, 1999), Branvold et al. (1997), and DeSchriver and Jensen (2002). According to DeSchriver (1996, 1999), team performance was found to be a significant factor in attendance. Winning percentage for games played in the first two weeks of the season was found to be significant. On the other hand, Branvold et al. (1997) found that winning percentage could not be used to predict attendance in Minor League Baseball. In fact, it was reported that the population of the host city was more closely tied to season attendance for home games of Minor League Baseball. Another factor that was associated with attendance was brand association. According to Gladden and Funk (2002), sport consumers' perceptions of a team are viewed as brand association. Consumer perceptions of management and the importance of a team's uniform and related insignia is important in establishing a visual link or cue for brand association.

The psychological connection that sport fans have with a game, team, or player has received a large amount of attention in recent years. Laverie and Arnett (2000) reported that sport marketers frequently utilize satisfaction as a variable to predict the attendance of fans. According to Madrigal (1995), satisfaction has a direct impact on the affect and enjoyment by fans and

spectators of a sport event. The positive impact experienced by fans and spectators translates to satisfaction. His study explored the factors that influence “fan” identity salience. If a person is involved with and/or attached to a sport team, he/she is more likely to rate their “fan” identity as more important than other identities. Also, as a person becomes attached to a team his/her “fan” identity becomes a more important part of his/her self-concept. To establish measurable results regarding the psychological connection that sport fans have with a game, Mahony, Howard, and Madrigal (2000) developed a psychological commitment to team (PCT) scale. Funk and James (2001) also developed a scale that focused on the psychological connections of fans to sport teams. Their work provided the initial framework for understanding and examining sport-related research in the context of an individual’s psychological connection to sport and exploring the temporal process through which that connection moves. The psychological connection of sport fans was also studied by Platow, Durante, Williams, Garrett, Walshe, Cincotta, Lianos, & Barutchu (1999). Their study found that of the team-identified sport fans who provided contributions to a team-related charity, more gave to in-group-identified charity workers than to out-group-identified or non-team-identified charity workers. Wells, Southall, and Peng (2000) addressed the social-psychological aspect of sport fans attendance. They found that the events associated with homecoming are significantly related to an increase/decrease in attendance. Their findings were consistent with Kahle, Kambara, and Rose (1996). Star players were also found to significantly increase attendance. According to Rivers and DeSchriver (2002), the teams that spend the most money on payroll also have the highest average attendance. Team payroll is positively related to average game attendance. Loyalty has also been found to be a factor in sport fan attendance. Hill and Green (2000) conducted a study to examine the incremental impact of stadium factors on attendance intentions, having first accounted for the impact of team loyalty and involvement with Rugby League. It was found that the fundamental need is to build spectator’s psychological involvement with sport itself, and build loyalty to team. Another variable found in the literature as having an influence in sport fans attendance is socio-motivational. Pease and Zhang (2001), Zhang, Pease, Lam, Bellerive, Pham, Williamson, Lee, and Wall (2001), and Lough and Kim (2004) studied this variable. Through the use of the Spectator Motivation Scale (SMS) significant relationships were found with attendance and fan identification with the team, community image of the team, salubrious attraction of the game, and entertainment value of the game. According to Zhang et al. (2001), the associations between

socio-motivational variables and their relationships to game attendance caused researchers to acknowledge this phenomenon. The socio-motivational theories consist of achievement-seeking, catharsis and aggression, community image theories, entertainment, salubrious-effects, and stress and stimulation. Women's professional basketball was also examined, with regards to attendance and socio-motivations. Lough and Kim (2004) investigated the socio-motivations of spectators who attended women's professional basketball games in South Korea. The most important socio-motivation for the spectators was found to be the entertainment value. Women's sports were found to have unique characteristics that affect attendance by sport fans. Funk, Mahony, and Ridinger (2002) also found that five factors were found to be useful in explaining how individuals differed in spectator sport level in a study about spectators at women's sports. These five factors were: sport, team, entertainment value, vicarious achievement, or role modeling. Shackleford and Greenwell (2005) went a step further examining women's sports by analyzing the relationship between specific factors and spectator attendance at selected NCAA Division I women's sporting events. It was found that student enrollment predicted attendance for basketball, softball, and volleyball.

Promotions at sport events are a factor that has received a plethora of attention. DeSchrive (1996, 1999) analyzed the contribution of selected determinants and found that a significant determinant of spectator attendance was promotional activity. Boyd and Krehbiel (1999) found that promotions had a positive effect on attendance and supported the use of frequent promotions to help lure fans and spectators. In addition, promotions are more effective when run during day games and on weekends. According to Wells, et al. (2000), attendance increased when a special promotion was utilized. Any game that does not have a promotion associated with it is an opportunity missed. Increased planning and organization in regards to promotions will increase the significance of the promotion on attendance. DeSchrive and Jensen (2002) found that the presence of homecoming increased attendance by approximately twice as much as the presence of other types of promotions. According to Lee (2000), promotions were one of six factors that had a positive effect on the fans' and the spectators' desire to attend a sport activity. It was also found that the game promotion factor indicated no direct effect related to future interest for attendance at professional sporting events. Boyd and Krehbiel (2003) found that to maximize the effect of a promotion, it is important to run the promotion at a specific time. Promotions were found to be more effective when run during day games and on weekdays. Kim (2004)

found that even though promotions can attract sport fans to games, promotions should not be repeated on a continuous basis. Fortunato (2006) also found that strategic scheduling of promotions affected attendance. It was found that more than 50% of games where there is almost a guaranteed increase in attendance, an additional increase could be experienced by also having some promotional event scheduled.

Satisfaction was also a factor that was found in the literature regarding sport fans attendance at games. According to Trail et al. (2002), spectators at men's games were more satisfied with the experience than at women's games. It was found that spectators at men's games were more satisfied with the venue cleanliness than at women's, spectators at men's games were also slightly more satisfied with the audio experience, spectators at the men's games made numerous written comments praising the band, and considerably fewer comments were written, regarding the band, by spectators of the women's games.

Spectator attendance at HBCU's football games was found to be somewhat different than what is found in PWIs. Armstrong (2002) found that psychological involvement with HBCUs by spectators influenced attendance at HBCU's sports. The results indicated that psychological involvement with HBCU's sports appeared to supersede the influence of perception of sport as important and exciting. One of the findings was that factors identified as influential in their consumption decisions covered a broad array of items ranging from descriptions of the sport event as a core product (such as speed and pace of the competition), to promotional items, player skill levels, price of tickets, facility conditions, and distribution strategies associated with the events. Even though Leonard (2005) felt that geography influenced attendance at traditional collegiate football games, his findings were not necessarily true for HBCUs. The primary reason HBCUs have not been effective receiving the financial support from the immediate and surrounding communities is lack of effective marketing. Jackson, Lyons, and Gooden (2001) found that many athletic departments in HBCUs did not have a marketing department. McEvoy's (2005) position that admission application of institutions is influenced by sport teams' performance is also not completely applicable to HBCUs. The sample used for his study was athletic team performance at schools in six major NCAA Division I-A athletic conferences – the Atlantic Coast, Big East, Big Ten, Big 12/Big Eight, Pacific Ten, and Southeastern Conferences. These schools have effective marketing programs. Brokaw, Stone, and Jones (2006) found that fan support for small-college athletic events was influenced by team familiarity. It was found

that win/loss records had relatively low importance in explaining attendance. This is consistent with Armstrong's (1998) findings that HBCU's primary attraction to major HBCU's football games was because of the cultural customer-salient amenities.

The economics of intercollegiate athletics is critical for institutions of all sizes. Promotions have been found to be effective in increasing attendance. Wells et al. (2000) found that attendance increased when a special promotion was utilized. It was stated that, "Any game that does not have a promotion associated with it is an opportunity missed" (Wells, 2000). There are currently no data based studies available that examined ticket distribution at the collegiate level. According to Armstrong (2001), the financial impact that a sport event has on the local community is reason enough to solicit support from the local community. DeSchriver (1996, 1999) found that winning percentage of the team and promotional activity produced a significant increase in attendance.

The financial aspects of HBCU's athletics are similar to that of other sport events. However, there are some unique attributes found with HBCUs and revenue from sport events. According to Armstrong (2001), HBCU's sports events have a tremendous impact on the immediate and surrounding economics. Jackson, Lyons, and Gooden (2001) found that many athletic departments in HBCUs did not have a marketing department, and as a result of not having effective marketing programs in HBCUs causes the athletic departments to overlook financial support from the immediate and surrounding areas. According to Armstrong (2002), cultural affiliation is key in attracting Blacks to sport events.

According to Nicholson (1987) to describe all of the activity in an economy would be impossible. Ragan and Thomas (1990) defined economic demand as the quantity of a product or service that is desired by purchasers. Ragan and Thomas (1990) found that the level of demand was inversely connected to prices. Nicholson (1989) indicated that some examples of these determinants are the prices of associated products, consumer income, and consumer preferences. The most frequently used statistical technique in the design of economic demand models has been multiple regression analysis (Nicholson, 1989).

Some aspects of Oliver's (1997) consumer satisfaction theory was found in Madrigal's (1995) model in an effort to examine the relationship between the disconfirmation of expectancies and the enjoyment, and then the enjoyment to the satisfaction. There are five categories of spectators, according to Stewart and Smith's (1997) typology of a sport spectator.

The Sport Fan Motivation Scale was found to be an effective instrument for use in measuring the motivations of sport fans (Wann, Schraeder, and Wilson, 1999). Trail, Anderson, and Fink (2000) also developed a model that identified important variables in understanding sport spectator consumption behavior intentions. According to Lee (2000) there are six factors that had a positive effect on the fans' and the spectators' desire to attend a sport activity. These factors also had a positive effect on the fans' and the spectators' intentions to attend a future sport activity. The Motivation Scale for Sport Consumption (MSSC) was another framework developed to measure the motivations of sport spectator consumption (Trail and James, 2001). Wann (2002) investigated the relationship among performance, expectations, and levels of identification with diverse outcomes. The purpose of his study was to develop and validate the Sport Fandom Questionnaire. According to Van Leeuwen, Quick, and Daniel (2002), the Sport Spectator Satisfaction Model (SSSM) accounts for both the influences of club identification and the win/lose phenomenon. Kim (2004) developed a Consumer Behavior and Preference Model (CBPM) that was created using the foundation of the SSSM.

Of the many studies that have been conducted and models developed on spectator attendance, DeSchrive's (1996, 1999) examination of 22 determinants provides a good starting point for understanding spectator attendance at HBCUs. The salient reason for using DeSchrive's (1996, 1999) research as a framework to study HBCUs is the fact that his study is similar in nature to what is to be examined. Specifically, 12 of the 22 determinants examined in his study are appropriate for a study on HBCU's spectator attendance. Also, there has not been a study on HBCUs that focused on the particular determinants that were used in his study. While analyzing the contribution of selected determinants in explaining the variation in spectator attendance at NCAA Division II football games, his investigation found that winning percentage of the team and promotional activity produced a significant increase in attendance. The purpose of this investigation is to build on DeSchrive's (1996, 1999) research by using the same methods that he used in his examination of all NCAA Division II football games and fill a void in the literature by investigating HBCUs in NCAA Division I-AA and selected HBCUs in NCAA Division II.

CHAPTER 3

METHODOLOGY

The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. A quantitative methodological approach was used to collect and analyze the data in order to answer the research questions described in this chapter. This chapter is segmented into the following twelve sections: the design, the variables, the population and sample, the data collection procedures, the survey instrumentation, the category for the residual preference determinants, the category for the game attractiveness determinants, the category for the economic determinants, the category for the demographic determinants, the validity and reliability of the instrument, statistical procedures, and the analysis of the research questions.

Design

This quantitative study employed a non-experimental research approach that is descriptive through the utilization of a survey design. According to Babbie (1990), identifying attributes of a large population from a small group of individuals is a benefit in understanding the entire population. A self-administered survey was used to collect the data. Regression analysis was utilized to analyze the data.

Variables

A variable that is the consequence of or is dependent on antecedent variables is called the *dependent variable*. On the other hand, a variable that is manipulated or changed by the researcher to examine the effect on a dependent variable is called the *independent variable*. However, in non-experimental research the variables are not actively or directly manipulated by the researcher (McMillan & Schumacher, 2001 p. 83). Spectator attendance is the dependent variable for this study. This variable measures the actual number of persons attending a home football game. Each of the Sports Information Departments (SIDs) from the 47 institutions investigated in this study reported the results of their home football games. Spectator attendance is measured on an individual home game basis. There were 13 determinants (independent variables) of NCAA Division I-AA HBCU football game attendance and selected Division II HBCU football game attendance carefully chosen based on the accessibility of information and from a review of the related literature. Jones (1984), Peel and Thomas (1988), and Schofield (1983a) used the word *determinant* throughout the literature regarding sport economic demand models. The 13 determinants are analogous to predictor variables found within linear multiple regressions. An explanation of the dependent variable's variation was found using the determinants. Four categories of determinants were examined; which were residual preference determinants, game attractiveness determinants, economic determinants, and demographic determinants. For research question 1, the residual preference determinants (independent variables) are institutions with six or more home games, weather, week in the season, weekday game, and year the stadium was built/renovated. For research question 2, the game attractiveness determinants (independent variables) are home-team winning percentage, homecoming, and special promotion. For research question 3, the economic determinants (independent variables) are general admission price and number of competitors in the geographical market. For research question 4, the demographic determinants (independent variables) are total student enrollment, mileage between competing institutions, and the population of the county in which the home team is located.

Population and Sample

All home football contests of the NCAA Division I-AA and Division II games (1,380) were the target population during the 2007 football season. The NCAA Division I-AA HBCU home football games and selected NCAA Division II HBCU home football games (221) were the sample population examined in this study. Spectator attendance at NCAA Division I-AA HBCU games and selected NCAA Division II HBCU games vary from game to game. In some cases the spectator attendance was greater at selected NCAA Division II HBCU football games than spectator attendance at NCAA Division I-AA HBCU football games. The institutions selected for this study agreed to be willing participants. The researcher's experience as an athlete, coach, administrator, and relationships with administrators from NCAA Division I-AA and NCAA Division II institutions is the reason the population was selected.

The sample population was composed of the 221 home football games played by the 47 institutions during the 2007 season of NCAA Division I-AA HBCUs and selected NCAA Division II HBCUs (see Appendix A). Data was collected on a single-game basis. This method allowed for the analysis of the effect of sport event-specific determinants on the attendance of spectators. Geographically, the location of the institutions that played these football games were in Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Texas, and Virginia (see Appendix A for the list of institutions). The NCAA Division I-AA HBCUs and selected NCAA Division II HBCUs for this study were both public and private. Student enrollment of the institutions studied ranged from 702 to 11,587 as reported by their SID. The total student population for the NCAA Division I-AA HBCUs in this study was 119,123 and the total student population for the NCAA Division II HBCUs was 56,713. During the 2007 season the 47 selected institutions competed in 10-11 regular-season football games and were the home team for as few as three games and no more than eight games. The majority of the games were played by NCAA Division I-AA members of their conferences and NCAA Division II members of their conferences. Of the 105 HBCUs in the USA, the 47 institutions examined represented 45% of the total HBCUs.

Data Collection Procedures

Approval for the researcher to go forward with this study was received from the Florida State University Institutional Review Board (see Appendix B). Each of the SIDs from the NCAA Division I-AA HBCUs and NCAA Division II HBCUs were contacted by telephone. Participants received the same detailed script by telephone from the researcher explaining the purpose of the study and the importance of their participation (see Appendix C). Participants were also informed that they would receive a packet containing the survey instrument and asked to return the questionnaire to the researcher within two weeks. Respondents were asked to provide accurate numerical responses to the questions and to completely fill in the information table at the end of the survey. DeSchriver (1996, 1999) indicated that the questionnaire was designed to facilitate a high response rate by mailing it directly to the institution's Sports Information Director. The length of the questionnaire was also minimized by including questions for which the only source of data was the institution (DeSchriver, 1996, 1999). Respondents' demographic data was collected from the *2006 Higher Education Directory* and the *2006 Census Snapshot for all U.S. Places* to minimize the burden on them.

Questionnaires were mailed via Federal Express to all 47 NCAA Division I-AA HBCU's and selected NCAA Division II HBCU's SIDs. The sports information directors' names and work addresses were obtained from the *2007-08 National Directory of College Athletics*. Each of the sports information directors of the NCAA Division I-AA HBCUs and selected NCAA Division II HBCUs received a questionnaire (see Appendix D), a cover letter from the investigator (see Appendix E), a letter of informed consent (see Appendix F), and a postage-paid, self-addressed return envelope. All of the questionnaires were numbered in order to monitor the sample members who failed to respond within three weeks of the initial mailing. A postcard reminder (see Appendix G) was sent to members who did not respond to the initial mailing.

Demographic data of the NCAA Division I-AA HBCUs and NCAA Division II HBCUs were retrieved from the *2006 Higher Education Directory*. Identification of all of the counties within a 50-mile radius of a responding institution was retrieved from the *2006 Commercial Atlas and Marketing Guide*. Some portion of the county must lie within a 50-mile radius of the

responding institution's city to be considered within 50 miles of the institution. The county in which the institution was located was included in references to the surrounding population. To establish the population of these counties, the *Survey of Buying Power: Demographics USA 2006* was utilized. To obtain the data regarding the mileage distance between the two competing institutions and the number of NCAA Division I and NCAA II institutions located within 100 miles of the responding institution, *Mapquest*, on the Internet, was utilized.

Survey Instrumentation

The instrument used for this study was developed by DeSchrive (1996, 1999). Permission from Dr. DeSchrive to use his instrument was given (see Appendix H). The questionnaire (see Appendix D) is comprised of questions regarding the attendance of spectators at individual games. Questions were in reference to the weather, week in the season, weekday game, year the stadium was built/renovated, home-team winning percentage in the current season, homecoming, special promotion, general admission price, number of competitors in the geographical market, student enrollment, number of miles between competing institutions, and total population of counties within 50 miles of the home-team city. The questions on the instrument were all objective, requesting hard facts from the SIDs about the playing of their football contests (T. D. DeSchrive, personal communication, April 9, 2010). The attendance questionnaire that was used for this study is located in Appendix D.

DeSchrive (1996, 1999) designed the instrument to be completed by the Sports Information Directors or their representatives at all of the NCAA Division II institutions. This same instrument was used to investigate NCAA Division I-AA HBCU football teams and selected NCAA Division II HBCU football teams. The following information lists the four categories of determinants and explains the representation of each of the 13 determinants examined in this research:

Residual Preference Determinants

1. Number of Home Games. This determinant was not part of the questionnaire sent to the SIDs of the NCAA Division I-AA HBCUs and selected NCAA Division II HBCUs. The inclusion of this determinant was to examine whether the total number of home games had

significance in spectator attendance. There were 161 institutions with five or less home games. On the other hand, 60 institutions were found to have six or more home games.

2. Weather. Each of the 47 institution's SID provided weather conditions for their 2007 home football games. This determinant represents the weather conditions grouped as a determinant (0 = rainfall or snowfall during the time period of the two hours before the start of the football game and/or during the football game; 1 = clear or sunny). Weather was selected as a determinant because of the potential impact on spectator attendance. Previous studies found the presence of rain or snow to be insignificant in determining attendance. Inclement weather during football season is expected and tolerated by spectators (Borland & Lye, 1992; Drever & McDonald, 1981; Marcum & Greenstein, 1985; Wall & Myers 1989).

3. Week in the Season. This is a time trend determinant that refers to the date the game was played. August 25, 2007, was the first weekend of regular-season games. The weekend of November 17, 2007, was the date of the final home games of the season. There were a total of thirteen weeks during the 2007 football season of the HBCUs studied. Week-in-season determinant was used to examine the variance in spectator attendance during the individual thirteen weeks.

4. Weekday Game. Most of the 2007 NCAA Division I-AA HBCU football games and NCAA Division II HBCU football games were played on Saturdays during the months of September, October, and November. However, a limited amount of games were played during the week. A weekend game = 0 (if the game is played on a Saturday or Sunday) and a weekday game = 1 (if the game is played on a Monday, Tuesday, Wednesday, Thursday, or Friday). This determinant was selected because playing the contest on a weekday or weekend may have an impact on attendance by students and the general public.

5. Year Stadium Built/Renovated. This determinant represents whether the stadium was renovated or not. It was selected because the renovation of the stadiums studied may provide information regarding the impact on attendance of more modern facilities and older facilities. An unrenovated stadium = 0 (if the stadium was not renovated) and a renovated stadium = 1 (if the stadium was renovated). The oldest stadium was constructed in 1921. The most modern stadium was renovated in 2007. Noll (1974) found that attendance declines with the age of the stadium. On the other hand, Zygmant and Leadley (as cited in Demmert, 1973) and Baade and Tiehen (1990) report that stadium age was not significant in the attendance of spectators.

Game Attractiveness Determinants

6. Home Team Winning Percentage in Current Season. This determinant was selected because a team's winning percentage was found to be a significant factor in spectator attendance (DeSchrive, 1996, 1999; Branvold, Pan, & Gabert, 1997; DeSchrive & Jensen, 2002). On-field success was found to have a positive effect and directly related to attendance and the economic impact on the sport program.

7. Homecoming. Homecoming games were selected as a determinant because studies have shown a significant and positive relationship between homecoming football games and spectator attendance (DeSchrive, 1996, 1999; DeSchrive & Jensen, 2002; Wells, Southall, & Peng 2000). Each of the 47 institutions studied held a homecoming football game. This determinant represents homecoming games grouped as a determinant (0 = no homecoming game; 1 = homecoming game).

8. Special Promotion. This determinant was selected because attendance has been found to increase when a special promotion was associated with a sport contest (Wells et al., 2000; Lee & Bang, 2005). This determinant was grouped as (0 = if the game did not have a Special Promotion associated with it; 1 = if the game had a Special Promotion associated with the game).

Economic Determinants

9. Price of General Admission. This determinant represents the price of a 2007 football game general admission ticket of the host team as indicated by a responding institution. It was selected because the cost of a ticket potentially has a positive or negative impact on spectator attendance at collegiate football games. The minimum general admission ticket price for the 47 institutions was five dollars. Thirty dollars was the maximum general admission ticket price.

10. Geographic Market Number of Competitors. This determinant represents the actual number of NCAA Division I and II institutions found within a fifty-mile radius of the responding institution that competed in football (DeSchrive, 1996, 1999).

Demographic Determinants

11. Total Enrollment of Students. This determinant represents the total number of full-time undergraduate students who attended the institution during the 2007 football season. It was selected because the student enrollment of an institution potentially affects the attendance of spectators at home games (Schofield, 1983a).

12. Mileage between Competing Institutions. This determinant represents the total number of miles between the cities of the two teams competing in the football game. It was selected because the visiting team potentially has an impact on the attendance of spectators at home games.

13. Total Population of Counties found within 50 miles of the home-team city. This determinant represents the total number of permanent residents who live in counties located within 50 miles of the institution that responded (DeSchriver, 1996, 1999). County population could possibly have an impact on the attendance of spectators at an institution's home game.

Validity and Reliability of the Instrument

With regard to the validity and reliability of the instrument, the researcher gathered empirical information that consisted of actual data. T. D. DeSchriver (personal communication, April 9, 2010) pointed out that no subjective questions (personal, individual, biased, skewed, slanted, prejudiced, or one-sided) were asked on the instrument he created. Objective questions were asked of the SIDs (object, purpose, aim, point, idea, goal, intention, and intent) regarding information available in their offices indicating the outcome of individual games. With the exception of the geographical questions, much of the information was retrieved from the institution's home-game box scores. The SIDs provided hard facts from their institution's home football games for the 2007 season. T. D. DeSchriver (personal communication, April 9, 2010) also stated that "Diagnostic tests such as variance inflation factors, tolerances, and inspection of plots of the independent variables versus the dependent variable were completed to ensure that the regression model met all of the assumptions of regression theory such as linearity, heteroscedasticity, unbiasedness, etc."

Statistical Procedures

Because the data are interval-scaled, parametric statistical procedures were used to analyze the data. A correlation analysis (Pearson Product-Moment Correlation Coefficients) was utilized to analyze the relationships between the 13 determinants. A set of regression analyses was performed to develop the economic demand model function, which explains the variation of spectator attendance at NCAA Division I-AA HBCU home football games and NCAA Division II HBCU home football games. Non-significant determinants were systematically eliminated from the demand function.

Analysis of Research Questions

Statistical procedure mentioned above was the method used to determine the contribution of the 13 independent variables in explaining the variation in spectator attendance at NCAA Division I-AA HBCU home football games and selected NCAA Division II HBCU home football games. This procedure answered the following research questions:

Research Question 1: Is there a significant relationship between the residual preferences and the criterion variable, spectator attendance?

Research Question 2: Is there a significant relationship between the game attractiveness determinants and the criterion variable, spectator attendance?

Research Question 3: Is there a significant relationship between the economic determinants and the criterion variable, spectator attendance?

Research Question 4: Is there a significant relationship between the demographic determinants and the criterion variable, spectator attendance?

CHAPTER 4

RESULTS

The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. Of the total number of questionnaires distributed ($n = 47$), 36 (76.5%) were returned from the initial mailing. A reminder card was sent to the eleven Sports Information Directors (SIDs) who did not return the initial mailing. As a result of the reminder card being sent, the remaining eleven questionnaires were returned. All of the returned questionnaires were usable, with the exception of various unanswered questions. For the unanswered questions, a follow-up call was made to the SIDs in an effort to retrieve an accurate response. As a result of the initial mailing, the reminder card mailing, and follow-up calls, 100% of the information requested on the questionnaires was received. Upon completion of entering the data, printouts of the data tables, scatter plots, and frequencies were examined for visible discrepancies. No outliers or other indicators warranting further inspection existed. All of the data tables and frequencies appeared to be within adequate parameters. A Cronbach's (1951) alpha-internal consistency reliability measure was calculated for the instrument prior to performing the data analysis on the research questions. To determine statistical significance, an alpha level was set at .05 for all research questions.

Demographic Characteristics of the Sample

The SIDs of the 47 NCAA Division I-AA HBCUs and NCAA Division II HBCUs were instructed to complete the questionnaire. Collectively, information from the 47 institutions

(100%) was received, with the gender breakdown of sports information directors consisting of 85.1% male (n=40) and 14.9% female (n=7).

Examination of Descriptive Statistics

A summary of the eight conferences participating in the research and the institutions (47) participating from each conference is described in Table 4.1. The following four conferences had only one HBCU as a member: the Heartland Conference, the Ohio Valley Conference, the Pennsylvania State Athletic Conference, and the West Virginia Intercollegiate Athletic Conference. Twelve participants were represented in the Central Intercollegiate Athletic Association. Only two participants were classified as Independents.

Table 4.1
Respondents by conference affiliation

Conference Affiliation	Frequency	Percentage
Central Intercollegiate Athletic Association	12	25.5
Southern Intercollegiate Athletic Association	10	21.3
Southwest Athletic Conference	10	21.3
Mideastern Athletic Conference	9	19.1
Independent	2	4.3
Heartland Conference	1	2.1
Ohio Valley Conference	1	2.1
Pennsylvania State Athletic Conference	1	2.1
W. Virginia Intercollegiate Athletic Conference	1	2.1
Total	47	100.0

Before the results of data were collected and analyzed for the 13 determinants, the descriptive statistics of the criterion variable—spectator attendance—were discussed. A review of the descriptive statistics is found in the following information and in Table 4.2. Total attendance for the 221 games included in this research was 1,624,543, with a standard deviation of 7447.9. The mean was 7456.9 and the spectator attendance for the individual games ranged from a low of zero to 65,367. Student enrollment for the institutions studied ranged from 702 to

11,587, with a standard deviation of 2775.3. Student enrollment mean was 4332.3 and the total enrollment of students in the institutions studied was 202,595. General admission price varied for the 47 institutions. Five dollars was the minimum amount charged for admission, while \$30 was the maximum charged for admission to an individual contest. General admission ticket price of the 221 institutions had a mean of \$15.5. With regard to the number of institutions that compete for spectators in the geographical market of the host institution, eleven institutions did not have any competitors within a fifty-mile radius and four institutions had the maximum of thirteen market competitors. Geographical competitors of the host institution had a mean of 4.4. There were a minimum of 2 miles between competing institutions and a maximum of 1,225 miles. The mean for miles between competing institutions was 304.8. As a result of the institutions studied being both in rural and metropolitan areas, the minimum county population were 9,194 and the maximum county population was 3,693,050. The mean for the county population of the 221 institutions was 358,018. It was also found that the oldest home-team stadium was built in 1921 and the most recent renovation of a home team stadium was completed in 2007, the year the data was collected for this study. Year stadium was built/renovated had a mean of .2715. Of the 47 institutions studied, only 13 (27.6%) renovated their stadiums. Jackson State University had the earliest stadium renovation, which was in 1980. On the other hand, the most recent stadium renovations occurred in 2007 by Fayetteville State University, Virginia State University, and University of Arkansas-Pine Bluff.

Table 4.2

Descriptive statistics for the 13 Determinants of Spectator Attendance

	N	Minimum	Maximum	Mean	Std. Deviation
Attendance (Dep Var)	221	.00	65367.00	7456.9367	7447.85715
6 + Home Games	221	.00	1.00	.2715	.44574
Weather	221	.00	1.00	.9321	.25210
Week in Season	221	1.00	13.00	6.9638	3.39900
Weekday	221	.00	2.00	.0362	.18721
Year Built/Renovated	221	.00	1.00	.2715	.44574
Current Win Percent	221	.00	100.00	43.7873	34.10099
Homecoming	221	.00	1.00	.2127	.41012
Special Promotion	221	.00	1.00	.1719	.37819
Student Population	221	702.00	11587.00	4332.3529	2775.35238
Gen Admission Price	221	5.00	30.00	15.5475	5.78821
Market Competition	221	.00	13.00	4.4208	3.21068
Miles Betw'n Schools	221	2.00	1225.00	304.8462	218.89575
County Population	221	9194.00	3693050.00	358018.0679	525240.818

The number of institutions with 6 or more home games had two values. For the institutions with 5 or less home games, the value 0 was specified. On the other hand, for the institutions with 6 or more home games, the value 1 was used. Of the 221 games studied, 60 games (27.1%) were from institutions that had 6 or more home games during the 2007 football season. For the institutions with 6 or more home games, the maximum attendance for one of these games was 65,367. The mean for this determinant was 9673.25. The total attendance for these home games were 580,395. Comparatively, for all 221 home games studied, the mean was 7384.2863 and the total attendance was 1,624,543. So, 36% of the total attendance of the home games studied was found with institutions that had 6 or more home games on their schedule. These results revealed institutions with 6 or more home football games had a positive effect on attendance for the 221 games studied.

The weather determinant also had two values. If the weather was either rain or snow within two hours before the contest, the value 0 was retained. Comparatively, if the weather was sunny or clear, the value 1 was used. Rain or snow occurred only at 15 (6.7%) of the 221 games

studied. Average attendance for football games with rain or snow was 13,023, with the maximum attendance being 65,367. Comparatively, over the entire 2007 football season studied, there was an average attendance of 6,937 spectators when the football games were played on a sunny or clear day. Maximum attendance for football games played on a sunny or clear day was 31,563. These results demonstrate weather did not affect attendance for the 221 games studied. It must be noted the average attendance for football games with rain or snow was somewhat misleading. Of the fifteen football games played during rain or snow, one game included institutions that were traditional rivals, North Carolina Central University versus North Carolina A&T, with an attendance of 19,320. Also, one contest was a homecoming game, Bethune Cookman versus North Carolina A&T, with an attendance of 20,013. In addition, the game with the most attendance for the 2007 season was the annual Florida Classic where Florida A&M played Bethune Cookman with an attendance of 65,367 on November 17, 2007.

An examination of the week-in-season determinant revealed that the eighth weekend of the season (October 13, 2007) recorded the most contests with 25. On the other hand, the first week of the season (August 25, 2007) recorded the fewest contests, which were nine. Figure 4.1 provides a chart depicting the attendance at the HBCU football games for the 2007 season. Attendance for the 221 games was entered into this chart for each individual game. Lines on the stems for the thirteen weeks represent spectator attendance for games that were played on that week of the season. Black boxes are clusters of individual game attendance for games played on that specific week. For example, week 1 had nine games that were played on the home team's football field. Attendance for the nine home football games ranged from zero to 6,717 spectators. So the entire box was filled in as a cluster from zero up to 6,717. To further explain, week 2 had a total of 17 home football games. Ten of the home football games had spectator attendance ranging in a cluster from 952 to 7,845. One game had spectator attendance of 12,667. Three games formed a cluster with spectator attendance between 16,827 and 17,316. Additionally, three football games formed a cluster with spectator attendance between 22,000 and 26,970. Week 13 (November 17, 2007) had one game with the most attendance of the season, with 65,367 spectators

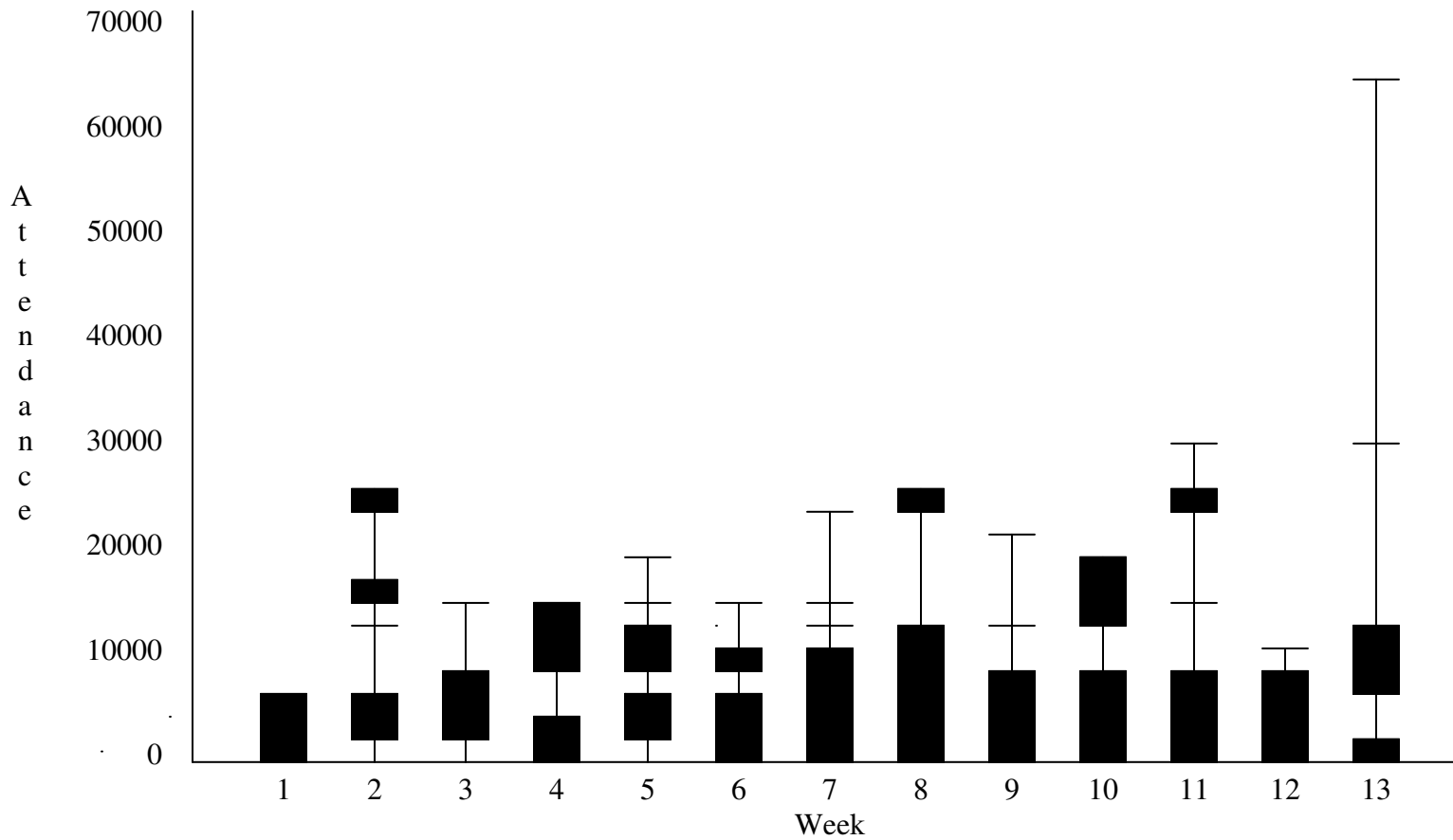


Figure 4.1. Box plot of Attendance by Week in Season

Weekday game determinant had two values. If the contest occurred on a weekend during the regular season, the value 0 was retained. On the other hand, if the contest took place on a weekday, the value 1 was used. It was revealed that 213 contests (96.4%) occurred on a weekend of the regular season. Eight contests (3.6%) occurred on a weekday.

With regards to the year the stadium was built/renovated, this determinant examined whether a renovated stadium had an impact on attendance. A value of 1 was retained if the home team stadium was renovated. If the home team stadium was not renovated the value 0 was used. Of the 47 institutions, 13 (28%) were renovated.

Home-team winning percentage in the current season determinant examined the attendance of spectators throughout the season based on their winning percentage leading up to the home football game played. Results of this determinant indicate games played when the home-team winning percentage was 50 percent or better, an average of over 7,350 spectators attended. On the other hand, games played when the home-team winning percentage was less than 50 percent, an average of 5,019 spectators attended.

Homecoming determinant had two values. If the contest was not a homecoming game the value 0 was retained. Conversely, if the contest was a homecoming game, the value 1 was used. Each of the 47 institutions had a homecoming, which represents 21.2% of the 221 games studied. Average attendance for all homecoming games was 10,682. The maximum spectator attendance for a homecoming game was 31,563.

Promotional activity determinant also had two values. If the contest was not a promotional activity, including a homecoming game, the value 0 was used. However, if the contest was a promotional activity and not a homecoming game, the value 1 was retained. It was revealed that 38 (17.2%) of the 221 contests studied had some form of promotional activity associated with the contest. Average attendance for a game that was associated with some sort of promotional activity was 9,390. Games associated with a promotion had a maximum spectator attendance of 65,367.

General admission ticket price varied based on the individual game of the home institution. Minimum price for a general admission ticket was five dollars. Comparatively, the maximum general admission ticket price was 30 dollars. Average general admission ticket price for the 221 football games was 15 dollars. An interesting observation regarding the general admission ticket price is that three institutions (Jackson State University, Southern University,

and Tennessee State University) charged 30 dollars for a general admission ticket. Average spectator attendance for these three institutions was 15,522. Based on the 30-dollar charge for general admission tickets, it is apparent that these institutions capitalized both on the product offered to consumers in their geographical area and on their winning tradition. Figure 4.2 provides a snapshot of the 221 football games studied and the general admission ticket price for each game.

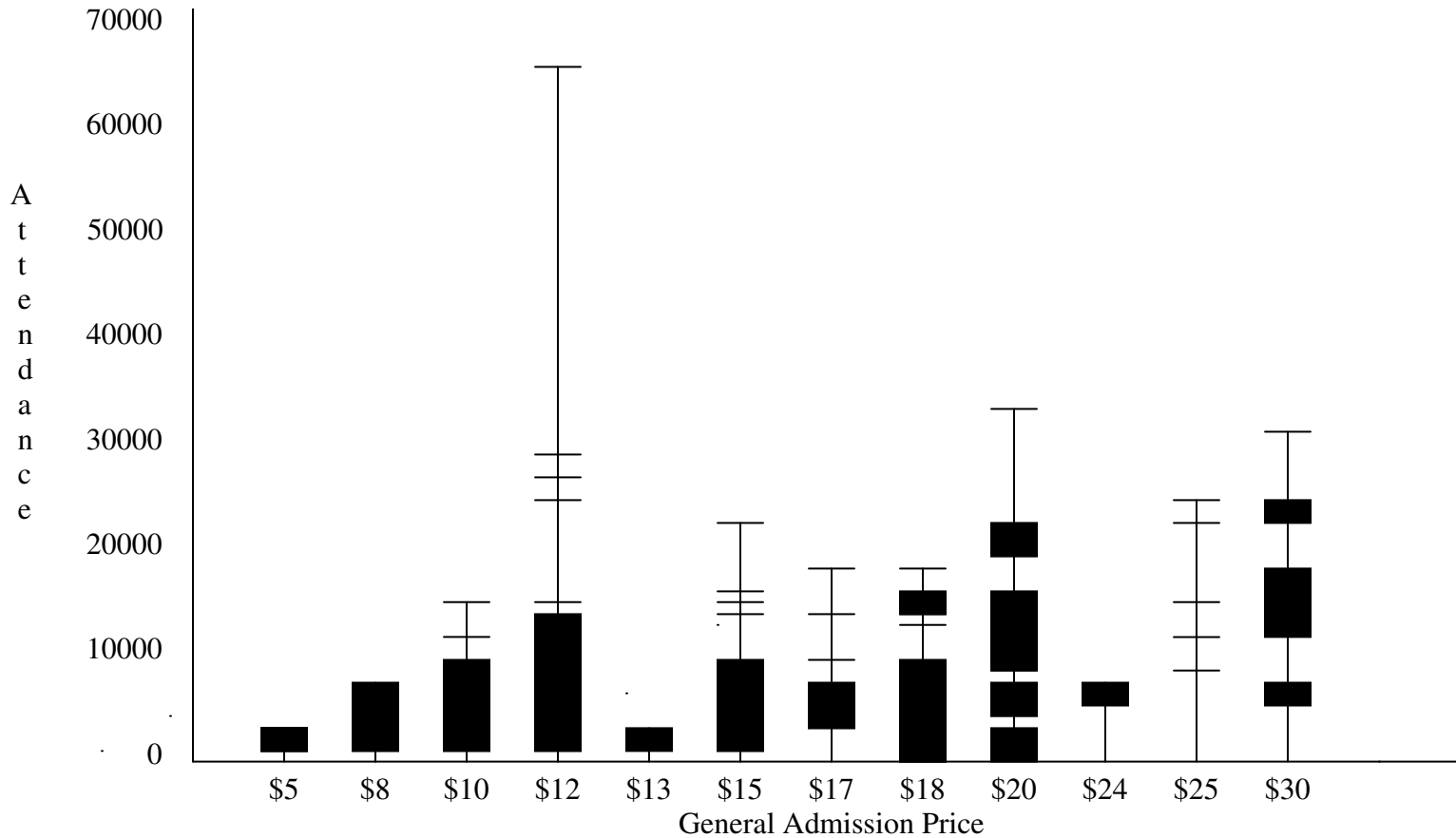
With regard to the number of market competitors within 50 miles of the institution hosting the home game, Livingstone College had the most competitors with 13. Cheney University had a total of 12 competing institutions within 50 miles, and North Carolina A&T had a total of 11. Two institutions, Johnson C. Smith University and North Carolina Central University had nine competing institutions within 50 miles. Five institutions had eight competitors within 50 miles, which were Howard University, St. Augustine's College, St. Paul's College, Shaw University, and Winston-Salem State University. Four institutions—Bowie State University, Central State University, Clark Atlanta University, and Morgan State University—had seven competing institutions within 50 miles. Only two institutions had six competing institutions within a 50-mile radius, which were Morehouse College and Stillman College. Three institutions, Miles College, Tennessee State University, and Virginia State University, had five competing institutions within 50 miles. Additionally, two institutions had four competing institutions within the 50-mile radius: University of Arkansas Pine Bluff and Virginia Union University. A total of 11 institutions had three competing institutions within 50 miles, which included the following: Benedict College, Bethune-Cookman University, Elizabeth City State University, Fayetteville State University, Fort Valley State University, Grambling State University, Hampton University, Kentucky State University, Norfolk State University, Southern University, and Tuskegee University. Seven institutions had only two competing institutions within the 50-mile radius, which were Alabama State University, Lincoln University (MO), Prairie View A&M University, Savannah State University, South Carolina State University, Texas Southern University, and West Virginia State University. Six institutions had only one competing institution within 50 miles: Alabama A&M University, Albany State University, Alcorn State University, Florida A&M University, Lane College, and Mississippi Valley State University. Finally, two institutions were found to have no competing institutions within their 50-mile radius, which were Delta State University and Jackson State University. Competitors

within 50 miles of the home team had a mean of 4.42. Zero was the minimum and a maximum of 13 were calculated for the number of competitors within 50 miles of the home team.

Student enrollment determinant was described as the total number of undergraduate students enrolled at the home institution for the academic year of 2007. Total undergraduate student enrollment for the 47 institutions studied was 202,595. Student enrollment for the 47 institutions had a mean of 4,332.

No significance in the number of miles between the competing institutions and attendance was found. There was also no significance in the population of the county and attendance.

Box Plot of Attendance by General Admission Price



The general admission price for the 221 games was entered into this chart for each individual game. The lines on the stems for each of the general admission ticket price increment represent individual games. The black boxes represent a cluster of games with similar general admission ticket price.

Figure 4.2. Box plot of General Admission Ticket Price by actual cost of ticket

Research Questions

Each of the four research questions are followed by a summary of the analyses.

Research Question 1

Question 1 asks whether there was a significant relationship between the residual preferences and the criterion variable, spectator attendance.

When attendance was examined as a function of the first residual preference determinant—Institutions with 6 or More Home Games—there was a significant difference found applying a simple regression analysis. The maximum number of spectators attending a game from an institution with 6 or more home games was 65,367. A minimum of 751 spectators was found attending one of these games. This determinant did contribute significantly at the .05 level of significance. In addition, this determinant was found to have a correlation of .182 (p -value = .007, <.05) with the attendance of spectators at the contests studied. The proportion of variance explained for this determinant was .033 (3.3%). Institutions with 6 or More Home Games were significantly associated with attendance. The more home games an institution had the higher attendance (positive). Institutions with 6 or more home games lead to an increase of 3,042 spectators.

Attendance was examined as a function of the second residual preference determinant—Weather—which, applying simple regression analysis showed no significant difference. However, on days when the weather was clear and sunny outliers were found. These outliers indicate that attendance was high for games played on clear/sunny days. The maximum number of spectators attending a game on a clear/sunny day was 31,563. Two games were played with the minimum number of zero spectators in attendance. Fifteen of the 221 games played were on a rainy/snowy day. The minimum number of spectators found attending one of these games was 311. The maximum number of spectators attending a game on a rainy/snowy day was 65,367. Even though games with a large number of spectators were found, no sellouts were recorded. This determinant did contribute significantly at the .05 level of significance, but in a negative way. A correlation of -.202 (p -value = .003, <.05) was found with the Weather

determinant and attendance of spectators at the contests studied. With this determinant, the proportion of variance explained was .041 (4.1%).

With regard to attendance examined as a function of the third residual preference determinant—Week in the Season—a simple regression analysis found no significant difference in attendance over the thirteen-week period of the regular season. However, a slight rise in attendance does appear in weeks 8-11. Then attendance wanes in week 12, increasing to 141,793 for the final week of the season. Week-in-Season determinant did not contribute significantly at the .05 level of significance. This determinant was found to have a correlation of .101 (p -value = .135, $>.05$) with the attendance of spectators at the contests studied. The proportion of variance explained for this determinant was .010 (1.0%).

Attendance was also examined as a function of the fourth residual preference determinant—Weekday Game—and a simple regression analysis found no significant difference in attendance. It was found that Weekday Game determinant did not contribute at the .05 level of significance. A Pearson product-moment correlation of $-.052$ (p -value = .442, $>.05$) was found with the Weekday Game determinant and attendance of spectators. With this determinant, the proportion of variance explained was .003 (0.3%).

When attendance was examined as a function of the fifth residual preference determinant—Year Stadium Built/Renovated—a simple regression analysis found .023 (2.3%) of the variance in attendance was explained. With a Pearson product-moment correlation of $.152$ (p -value = .024, $<.05$), results showed attendance was associated with the year the stadium was built or renovated. The Year the Stadium was Built/Renovated determinant did contribute significantly at the .05 level of significance. These results indicate attendance was significantly associated with stadiums recently built or renovated. The proportion of variance explained was .023(2.3%). Thus, the more recent the stadium was built or renovated the higher attendance. A renovated stadium leads to an increase in attendance by 2,533.

Research Question 2

Question 2 asks whether a significant relationship existed between the game attractiveness determinant and the criterion variable, spectator attendance.

Attendance was examined as a function of the first residual preference determinant—Winning Percentage in Current Season—and a simple regression analysis found a marginal significance. With a Pearson product-moment correlation of .131 ($p\text{-value} = .051, =.05$), the attendance is slightly associated with the winning percentage in current season. This result demonstrated that winning percentage was significantly associated with spectator attendance of the contests studied, but only slightly. Therefore, the more games the home team wins the higher attendance. The proportion of variance explained was .017(1.7%). In addition, one additional win in the current season leads to an increase of 28 spectators.

With regard to attendance examined as a function of the second residual preference determinant—Homecoming Game—a simple regression analysis found a significant difference in attendance. A Pearson product-moment correlation of .226 ($p\text{-value} = .001, <.05$), indicated that attendance was directly associated with the homecoming event. The proportion of variance explained was .051 (5.1%). Homecoming games for each institution had higher attendance than regular home games. An additional homecoming game leads to 4,097 more spectators in attendance.

Attendance was also examined as a function of the third residual preference determinant—Special Promotion—and a simple regression analysis found a significant difference in this determinant and attendance. With a Pearson product-moment correlation of .156 ($p\text{-value} = .020, <.05$), attendance was associated with a special promotion. The proportion of variance explained with this determinant was .024 (2.4%). Games with Special Promotions lead to an increase in attendance of 3,079.

Research Question 3

Question three asked if there was a significant relationship between the economic determinants and the criterion variable, spectator attendance.

When attendance was examined as a function of the first economic determinant—General Admission Price—approximately 19% (.186) of the variance in attendance was explained applying a simple regression analysis. With a Pearson product-moment correlation of 0.431 ($p\text{-value} = .000, <.05$), the attendance is found to be directly associated with the general admission price. Hence, the General Admission Price determinant contributed significantly at the .05 level

of significance. Surprisingly, the higher the general admission price the higher attendance found. This occurrence was primarily the result of higher admission cost for games between rival institutions, a special promotion, or teams with strong support from their community. Based on the results, one additional dollar charged for admission leads to an increase in attendance by 554.

Attendance was examined as a function of the second economic determinant—Number of Competitors in the Geographical Market—and approximately 2% (.024) of the variance in attendance was explained with a simple regression analysis. With a Pearson product-moment correlation of $-.156$ ($p\text{-value} = .020, <.05$), the attendance was associated with the number of competitors in the geographical market. Therefore, as one might assume, the higher the number of competitors in the geographical market, the lower the attendance was. The number of competitors in the geographical market did contribute significantly at the .05 level of significance, but in a negative way.

Research Question 4

With regard to attendance examined as a function of the first economic determinant—Student Enrollment—a simple regression analysis found 9% (.099) of the variance in attendance was explained. With a Pearson product-moment correlation of $.321$ ($p\text{-value} = .000, <.05$), the attendance was significantly associated with the number of students enrolled in the home institution. Hence, the more students enrolled in the institution of the home game the higher attendance.

Attendance was also examined as a function of the second demographic determinant—Miles between Competing Institutions— 0.3% (.003) of the variance in attendance is explained applying a simple regression analysis. With a Pearson product-moment correlation of $-.057$ ($p\text{-value} = .400, >.05$), the attendance was not associated with the Miles between Competing Institutions.

When attendance was examined as a function of the third demographic determinant—County Population—a simple regression analysis found 0.00% (.000%) of the variance in attendance explained. With a Pearson product-moment correlation of $-.015$ ($p\text{-value} = .824, >.05$), the attendance was not found to be associated with the county population.

The Pearson product-moment correlation between the criterion variable—spectator attendance—as well as the 13 determinants are found in Table 4.3. The determinants, Week in the Season (1.01, p -value = .135), Weekday Game (-.052, p -value = .442), Miles (-.057, p -value = .400), and County Population (-.015, p -value = .824) did not contribute significantly at the .05 level of significance. Current Winning Percentage (.131, p -value = .051) marginally contributed; therefore, the null hypothesis was rejected. The Weather (-.202, p -value = .00) and Market Competition (-.156, p -value = .020) determinants were found to be significant in a negative way at the .05 level of significance. The determinants found to be significant at the .05 level of significance was 6+ Home Games (.182, p -value = .007), Homecoming (.226, p -value = .001), Special Promotion (.156, p -value = .020), Student Enrollment (.224, p -value = .001), General Admission Price (.431, p -value = .000), and Year Stadium Built/Renovated (.152, p -value = .024).

Table 4.3

Means, standard deviations, and correlations for the 13 determinants of Spectator Attendance

	<i>M</i>	<i>SD</i>	Attendance	6+ Home Games	Weather	Week in Season	Weekday	Current Win %	Home- coming	Special Promo	Students Enrolled	General Admission	Market Competition	Miles	County Population	Built/ Reno
Attendance	7457	7448														
6+ Home G	.2715	.446	.182**													
Weather	.93	.25	-.202**	.043												
Week in Season	6.96	3.40	.101	-.038	.066											
Weekday	.11	.39	-.052	-.064	-.237**	-.048										
Current Winning %	43.79	34.10	.131	.153	.125	.157*	.011									
Homecoming	.21	.41	.226**	-.069	.052	.257**	-.101	.054								
Special Promotion	.17	.38	.156*	.099	.028	-.023	-.088	-.038	-.237**							
Student Enrollment	4332	2775	.321**	.107	-.203**	.079	.126	-.060	.004	.053**						
General Admission	15.55	5.79	.431**	.002	-.074	.050	.175**	.132	.016	.032	.198**					
Market Competition	4.42	3.21	-.156*	-.087	-.099	-.004	-.131	-.307**	.008	-.082	-.054	-.380**				
Miles	305	219	-.057	.052	-.048	.106	.117	-.007	-.008	-.138*	.112	.128	-.283**			
County Population	358018	525241	-.015	-.022	.026	-.056	-.056	-.244**	.000	-.007	.016	-.152*	.156*	-.008		
Built/ Renovated	.2715	.446	.152*	.039	-.159*	.070	.045	.050	.006	.018	.087	.256**	.044	-.019	-.064	

Note: *p < .05, **p < .01

Table 4.4

Summary statistics for the full regression model with Attendance as a function of the 13 determinants

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2880.987	2689.988		1.071	.285
6+ Home Games	2708.239	937.521	.162	2.889	.004
Weather	-6692.089	1715.951	-.227	-3.900	.000
Week in Season	62.511	126.606	.029	.494	.622
Weekday	-4967.418	2295.029	-.125	-2.164	.032
Stadium Built/Renovated	-251.777	962.324	-.015	-.262	.794
Current Win Percentage	18.270	13.219	.084	1.382	.168
Homecoming Game	4654.407	1057.587	.256	4.401	.000
Special Promotion	3151.503	1139.296	.160	2.766	.006
General Admission Price	473.921	86.769	.368	5.462	.000
Market Competition	-108.437	154.374	-.047	-.702	.483
Student Enrollment	.392	.170	.146	2.302	.022
Miles	-4.322	2.025	-.127	-2.134	.034
County Population	.001	.001	.057	1.001	.318

a Dependent Variable: Attendance

* Significant parameter estimate at .05 level.

F Value = 10.417 Degrees of Freedom = 13 $R^2 = .395$ (39.5%) Adjusted $R^2 = 35.8\%$

Four determinants significantly contributed at the .05 level of significance when a multiple regression analysis was used on the 13 variables. Those four determinants were Institutions with 6+ Home Games (p -value = .004), Homecoming Games (p -value = 0.000), Special Promotions (p -value = 0.006), and General Admission Price (p -value = 0.000). Two determinants (Weather, p -value = 0.000, and Weekday Game, p -value = .032) showed a negative effect on attendance. The above model (Table 4.4) explains 39.5% of the variation in attendance; however, some of these variables do not significantly contribute. According to this developed model and at the 95% level of confidence, for each unit of increase Institutions with 6+ Home Games leads to an increase of 2,708 spectators to attend, Homecoming Games leads to an increase of 4,654 spectators to attend, games with Special Promotions leads to an increase of 3,151 spectators to attend, and General Admission Price leads to an increase of 473 spectators to attend.

Table 4.5

Summary statistics for the regression model with Attendance as a function of 6+ Home Games, Homecoming, Special Promotion, General Admission Price

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3480.736	1269.312		-2.742	.007
6+ Home Games	3028.874	952.785	.181	3.179	.002
Homecoming	5022.285	1060.882	.277	4.734	.000
Special Promotion	3753.967	1153.879	.191	3.253	.001
General Admission Price	540.394	72.987	.420	7.404	.000

* Significant parameter estimate at .05 level.

F Value = 23.82 Degrees of Freedom = 4 $R^2 = 30.6\%$ Adjusted $R^2 = 29.3\%$

In this final developed model above (see Table 4.5), 30.6% of the variation in attendance is explained. According to this developed model and at the 95% level of confidence, for each unit of increase an institution with 6+ Home games leads to an increase in attendance of 3,028, a Homecoming Game leads to an increase in attendance of 5,022 spectators, a Special Promotion leads to an increase in attendance of 3,753 spectators, and General Admission Price leads to an increase of 540 spectators in attendance.

Of the 221 home games studied, there were three outliers indicating attendance was over 30,000 spectators (31,563; 32,506; and 65,367). To determine the impact of these outliers on the overall results, the outliers were removed leaving 218 home games analyzed. The results of the regression analysis with the outliers removed were similar to the results of the 221 home games. Three determinants were still found to be significant: Institutions with 6 or more Home Games (p -value = .018), Homecoming Games (p -value = .000), and General Admission Price (p -value = .000). However, Special Promotions determinant was not found to be significant (p -value = .278). These results indicate that the three outliers did not have an impact on the overall results of the 221 home games analyzed.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Empirical research in spectator attendance on the collegiate level continues to be limited. Seven articles (DeSchrive, 1996, 1999; DeSchrive & Jensen 2002; Fize & Bennett, 1989; Kaempfer & Pacey, 1986; Leonard, 2005; Woo, Trail, Kwon, & Dean, 2009) investigated the determinants of spectator attendance at NCAA college football games. However, a substantial amount of research has been conducted on the professional level in a number of sports: baseball (Branvold, Pan, & Gabert, 1997; Marcum & Greenstein, 1985; Noll, 1974; Scully, 1974), basketball (Burdekin & Idson, 1991; Whitney, 1988; Zhang, Pease, Hui, & Michaud, 1995), football (Noll, 1974; Siegfried & Hinshaw, 1979; Zhang, Pease, Hui, & Michaud, 1995), hockey (Hansen & Gauthier, 1989; Schofield, 1983; Zhang, Smith, Pease, & Mahar, 1996), and soccer (Bird, 1982; Dobson & Goddard, 1992; Jennett, 1984; Peel & Thomas, 1988; Rivett, 1975).

The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. Thirteen determinants were selected for this study. These determinants were relevant to spectators of collegiate football games (DeSchrive, 1996, 1999). An economic demand model was utilized to analyze the 13 determinants. Spectator attendance at sporting events has received a plethora of attention over the last two decades. The impetus behind the focus on attendance is the potential impact made by increasing revenue in athletic programs.

The primary goal of the present research was to add to the existing body of knowledge and expand on DeSchrive's (1996, 1999) work. The present study is a replication of research conducted by DeSchrive (1996, 1999) with all aspects of the original study held intact. A

replication of DeSchriver's study focusing on HBCUs was important because research in this area can possibly disclose incongruent results within the sample population. In addition, the results may lead to further research within the population, and may be a useful tool in providing the HBCU athletic administrators with relevant information that would possibly have a positive impact on attendance at HBCU football contests and the sports offered by the institutions studied in general. HBCU athletic administrators may benefit from additional revenue generated from increased ticket sales, concession sales, corporate sponsorship, and donations from private entities resulting in an augmentation of spectator attendance.

An economic demand model commonly found in the literature examining professional sports was utilized by DeSchriver (1996, 1999) and in the present study. The research conducted by DeSchriver (1996, 1999) focused on all of the NCAA Division II institutions. However, unlike DeSchriver's research, the present study used the model to investigate NCAA Division I-AA and NCAA Division II HBCU football games.

The present study was also an attempt to provide in-depth information about spectator attendance at HBCU football games by enhancing the research of Armstrong's findings, which indicate the following: HBCUs' primary attraction to major HBCU football games was the cultural customer-salient amenities (1998); the event had a tremendous positive impact on the immediate and surrounding economics because of the spending patterns of the consumers in attendance (2001); psychological involvement with HBCUs by spectators influenced attendance at HBCU sport events (2002); and cultural affiliation was key in attracting Blacks to sport events (2002). Research conducted by Jackson, Lyons, and Gooden (2001) found that many athletic departments in HBCUs did not have a marketing department. The impact of overlooking this potential financial support from the immediate and surrounding areas is a tremendous loss to these institutions, brought on by the fact that they lack effective marketing programs. Increased NCAA Division I-AA and NCAA Division II HBCU athletic program revenues can be enhanced with improved spectator attendance at home football games.

Discussion of Findings

The researcher investigated the contribution of selected determinants in an effort to explain the variation in spectator attendance at NCAA Division I-AA and NCAA Division II HBCU football games. Of the 13 determinants, four determinants significantly contributed at the .05 level of significance. These four determinants were institutions with 6+ Home Games, Homecoming Games, Special Promotions, and the General Admission Price.

Institutions with six or more home games were found to be significant in this study. The results of this determinant indicated higher spectator attendance at individual games when the home team played more than 5 home games. It must be noted that only 10 institutions (21%) played 6 or more home games. Those institutions were Benedict College, Bethune-Cookman College, Fort Valley State College, Howard University, Jackson State University, Kentucky State University, Morgan State University, Norfolk State University, Southern University, and Stillman College. It is also important to mention that the institutions had no control over scheduling because the administrators of their conferences provided their football schedules. No comparison could be made regarding institutions with six or more home games because there was a lack of research on this topic.

The effect of weather on spectator attendance was examined by Borland and Lye (1992), Drever and McDonald (1981), Marcum and Greenstein (1985), and Wall and Myers (1989). These authors found the presence of rain or snow to be insignificant in determining attendance. However, these studies focused on spectator attendance at professional games. The results of the present study for the weather determinant indicated inclement weather had a negative effect on attendance. This was contrary to the results of the above-mentioned studies of professional games where weather had no significant effect in determining spectator attendance. With regards to collegiate football, DeSchrive (1996, 1999) and DeSchrive and Jensen (2002) were the only authors found to address this issue with collegiate athletics. The results of these three studies found similar outcomes to the current study regarding attendance at collegiate football games during inclement weather. DeSchrive (1996, 1999) found weather to have a correlation coefficient of only $r = .113$ ($r^2 = 0.012$), where 1% of the variance was explained. DeSchrive (1999, p. 63) also pointed out that “attendance was lower for games played during inclement weather.” Additionally, DeSchrive and Jensen (2002, p. 322) found weather to be significant,

stating that “the presence of rain or snow for a game had a negative relationship with attendance.” The present study found weather to have a correlation coefficient of $r = .202$ ($r^2 = 0.041$), where 4% of the variance was explained.

The week-in-season determinant, which focused on the week the contest took place, was found to be insignificant in the present study. This finding was also consistent with DeSchrive's (1996, 1999) results. However, in the current study, spectator attendance overall had a slight increase on average for weeks 8 through 11. Attendance decreased in week 12 close to the season average. But for the final week of the season, spectator attendance increased to a season high average of 14,179 spectators.

The weekday determinant was not significant. This determinant examined whether the game was played on a weekday or a weekend and the resulting impact on attendance. The weekday determinant, at the 95% level of confidence, leads to 4,967 fewer spectators in attendance. As a result of the lack of research regarding weekend versus weekday games, no comparison could be made for this determinant.

Similar results were found in the present study and DeSchrive's (1996, 1999) research regarding the age of the stadium. This determinant was not significant, indicating that the sample population did not regard the age of the facility as a contributing factor in attendance at home football games. This result was also found with DeSchrive (1996, 1999) and DeSchrive and Jensen (2002). However, these results did not agree with earlier research on professional baseball by Baade and Tiehen (1990), Hart et al. (1982), Noll (1974), and Scully (1979).

The interaction of the current-season winning percentage of the home team determinant and spectator attendance was found to be insignificant. Contrary to the findings of DeSchrive's (1996, 1999), Shackelford and Greenwell (2005), and Koo and Hardin (2008) research, finding the current-season winning percentage of the home team to be important to spectators. To further examine the significance of the current-season winning percentage for the population studied in this research, additional variables must be included, such as the demographics of spectators and their interest in the games, whether for the games themselves or for social reasons.

Homecoming games were found to be significant and positively related to spectator attendance. This finding was also consistent with the results of DeSchrive (1996, 1999) and DeSchrive and Jensen (2002). Spectator attendance significantly increased for homecoming games in the present study. The tradition of a homecoming game and all of the campus activities

associated with the Saturday game attracts many alumni of the host institution. The homecoming games for this study were found to attract more spectators based on the regression coefficients. At the 95% level of confidence, for each unit of increase the homecoming game determinant leads to an increase in attendance by 4,654.

Special promotions such as Family Weekend, Football Classics, Hall of Fame Game, Battle of the Bay, Church & Community Day, Take a Kid to the Game Day, Military Appreciation Day, and High School Day were all found to increase spectator attendance significantly. During the 2007 HBCU football season, special promotions were found in only 17% of the games. At the same time, no special promotional activities or homecoming games occurred in 38% of the games. Similarly, DeSchrive (1996, 1999) and DeSchrive and Jensen (2002) also found special promotions to be statistically insignificant. However, the fact that special promotions were found in only 33% of DeSchrive (1996, 1999) non-homecoming games and 40% of DeSchrive and Jensen (2002) non-homecoming games must be acknowledged. Even though the presence of a special promotion for non-homecoming games increased attendance for individual games significantly in the above studies, in each study special promotions were found in a relatively small percentage of the non-homecoming games. Lee (2000) also found special promotions having a positive effect on spectator attendance at sporting events. A special promotion alone does not always guarantee a significant increase in spectator attendance. To maximize spectator attendance and revenue, other activities must be associated with a special promotion. Wells, Southall, and Peng (2000) found that the integration of other activities around special promotions was paramount to the success of promotions at NCAA Division II football games.

As a result of the finding that spectator attendance increased significantly for special promotions, athletic administrators may want to schedule special promotions for games as part of their marketing strategies. Careful thought by athletic administrators must be given to special promotional events because of the cost associated with implementing these programs. When the results of special promotions in the present study are compared with the results found with the DeSchrive (1996, 1999) research, special promotions were found in approximately 17% and 33% of games respectively. In addition, for the games with no promotional activities other than homecoming, the results were approximately 21% and 46% respectively. Unfortunately, the percentage of special promotions for the present study was less than half of what was found in

DeSchrive's (1996, 1999) research. This phenomenon indicates that NCAA Division I-AA and NCAA Division II HBCU football teams are not maximizing the marketing potential of their product.

With regard to the effect of full-time student enrollment on spectator attendance, the present study found a significant correlation with the sample population. This finding agreed with DeSchrive's (1996, 1999) results.

The relationship between general admission price and spectator attendance was found to be significant and positive. With a Pearson product-moment correlation of .431, this finding was consistent with DeSchrive's (1996, 1999) result, which was .550. An examination of the data supports the theory that price will increase as demand for the product increases (Ragan & Thomas, 1990). At the 95% level of confidence, the general admission price determinant leads to an increase in attendance by 473 spectators. It was apparent that the institutions charged a higher price for tickets when they were confident that spectators would pay.

Market competition was not found to be significant as a contributor to spectator attendance. This finding is also consistent with DeSchrive's (1996, 1999) results. However, DeSchrive (1996, 1999) reported that the number of teams within 50 miles was $r^2 = -.0049$, and this same determinant was found to be $r^2 = -.047$ in the present study.

No significant effect regarding the number of miles between competing institutions was found in the present study. This result is also consistent with DeSchrive's (1996, 1999) research. As a result of this finding, the scheduling of opponents because of geographical proximity does not necessarily imply that spectator attendance will increase. In other words, distance was found to have little effect on the attendance of spectators. With all other variables remaining the same, teams coming from a close geographical proximity had no greater spectator attendance than teams that traveled a significant distance to games.

The county population of the host institution was not significant in the present study. This finding is possibly due to the fact that attendance for a home game was primarily from students or spectators residing geographically close to the home team. The lack of significance of overall population was also evident for the combined population of all counties within 50 miles of the home team. DeSchrive (1996, 1999) found this phenomenon to be apparent in his research as well.

The variation in NCAA Division I-AA and NCAA Division II HBCU football spectator attendance was explained in developed models. The final model (see Table 4.5) indicates that institutions with 6 or more home games, homecoming games, special promotions, and general admission ticket price explained 30.6% of the variation in spectator attendance. Unlike DeSchriver's (1996, 1999) research finding on-field success, special promotions, ticket prices, student enrollment, and city population as the significant determinants of spectator attendance explaining 48.8% of the variation, the present study did not find all of these determinants to be significant.

Summary

The data for this study were collected for 221 individual games and from 47 respondents. The number of games for this study was less than DeSchriver's (1996, 1999) research examining 395 games from 95 respondents. A mean number of 4.7 home games was reported by each respondent in the present study, which was .5 home games more than what was found in DeSchriver's research. The most significant finding in this study was that the R^2 of .395 explained over one-third of the variance in spectator attendance. In contrast to DeSchriver's (1996, 1999) results, which found winning percentage, promotional activity, and the general admission price to be the most significant, the R^2 of .395 for the present study was represented by homecoming games, promotional activity, and general admission price. Winning percentage did not appear to be as important in the current research. One of the most important study results was that homecoming celebrations for HBCUs are major events. Attendance increases exponentially for these events because they are always promoted extensively, inclusive with the sale of advertisements and the solicitation of sponsored events associated with the homecoming game. In addition, many alumni, family, and friends look forward to attending the annual event. The second most important result was the tendency to perceive special promotions as a significant factor, yet so few promotions were associated with the home games of the host institutions. Finally, general admission ticket price for attending a regular HBCU football contest was found to be relatively nominal. This characteristic appears to be the same for all of the HBCUs studied, in an effort to attract spectators from the general public. Athletic administrators of these institutions may want to rethink this policy as a way to attract spectators and focus on timely promotions with the potential of luring spectators from the general public to

their sporting events. Wells (2000) summed it up best by stating, “Any game that does not have a promotion associated with it is an opportunity missed.” Surprisingly, none of the institutions studied required students to pay. Administrators of the athletic departments for HBCUs may want to change this policy and incorporate a nominal fee into student fees for attendance at home games. To attach the cost of attending university-sponsored sporting events in the student fees would not detract student attendance at home games. This concept, which is being implemented by many colleges and universities nationwide, will also aid in generating additional revenue for the athletic departments of HBCUs.

Contributions

The present study may be used as a tool for administrators of athletic departments with a desire to explore effective methods for increasing spectator attendance at NCAA Division I-AA and NCAA Division II HBCU football games. The final developed model (see Table 4.5) for the present study indicates that for each unit of increase homecoming games leads to an increase of 5,022 spectators to attend, special promotions leads to an increase of 3,753 spectators to attend, and general admission price leads to an increase of 540 spectators to attend.

The findings of this study may offer a number of policy implications for NCAA Division I-AA and NCAA Division II HBCU administrators of athletics. One implication in particular is when the 13 determinants were examined in the current study; homecoming games have a positive correlation of .226. Homecoming games are a longstanding tradition and are opportunities to maximize promotions. The return on the additional effort can be great with a captive audience of alumni, family, friends, and students.

Special promotions in the current research also significantly increased attendance. However, only 17% of the 221 games played had a promotion associated with the contest. Athletic administrators of NCAA Division I-AA and NCAA Division II HBCUs may want to spend a considerable amount of time developing this area because of the potential increase in spectator attendance. The 17% of games that had a special promotion associated with them showed a significant increase in spectator attendance. Through creative and innovative marketing, special promotions associated with each contest can substantially increase overall

spectator attendance for each institution and generate additional revenue for the athletic department.

Limitations and Future Research

This research revealed several areas for future study. One of the limitations of the present research was that HBCUs lack the marketing effort required to effectively attract spectators to athletic events. Therefore, a determinant that could possibly be included in future research is to determine the number of HBCUs with outside marketing organizations responsible for game-day promotions and the effectiveness of those outside organizations. This approach may be an alternative for athletic administrators who find it financially difficult to assign marketing responsibilities to existing staff or to employ someone specifically for the purposes of marketing athletic events.

A second limitation of the present research is the examination of data for NCAA Division I-AA and NCAA Division II HBCU football games provided by the SIDs. The results were indeed useful in understanding spectator attendance for the selected HBCUs sampled. However, research with a focus on feedback from spectators, instead of athletic administrators, explaining why they chose to attend the games can be much more informative. An example of this type of potential research is to utilize models currently being developed and perfected in the sports management industry. Studies have been conducted examining cultural customer-salient amenities (Armstrong, 2001), the social-psychological aspect of sport-fan attendance (Wells, Southall, & Peng, 2000), the socio-motivational factors (Lough & Kim, 2004; Pease & Zhang, 2001; Zhang et al. 2001), the level of product satisfaction (Trail, Anderson, & Fink, 2002; Van Leeuwen, Quick, & Daniel, 2002), the influence of club identification (Heere & James, 2007; Van Leeuwen, Quick, & Daniel, 2002), the motivation of sports fans to attend games (Trail & James, 2001; Wann, Schraeder, & Wilson, 1999), the psychological connections of fans to sports teams (Funk & James, 2001; Platow et al. 1999), and the psychological commitment to team scale (Mahony, Howard, & Madrigal, 2000). More work is needed to determine whether students attend HBCU football games for a genuine interest in the team or for social purposes. The present study did not measure team loyalty or team identity for attendees of the HBCUs examined.

Another determinant with possibilities for research is the frequency of special promotions found at HBCUs since the present study was conducted. An increase in special promotions with this population may occur as a result of the effectiveness of this strategy for other institutions and the amount of revenue potentially generated.

The final area of possible research is to examine the number of spectators represented by the general public and students from the home institution for HBCUs. This information may be useful for athletic administrators in an effort to determine effective ways to increase spectator attendance.

The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. The research shows that by using the demand model DeSchriver (1996, 1999) designed, it is possible to explain the determinants of spectator attendance. As a result of the information received from this study regarding spectator attendance at HBCU football games, athletic administrators may be interested in examining the effects of the determinants found in this study on other sports for HBCUs.

Conclusion

The purpose of this study was to examine selected determinants in explaining the variation in spectator attendance at selected NCAA HBCU's football games. Previous research focusing on spectator attendance was found primarily in professional sports and NCAA Division I-A institutions. However, in recent years, more research is beginning to focus on smaller NCAA institutions in an effort to find innovative and creative methods to assist athletic administrators in balancing their budgets. This study found that 39.5% of the variance in spectator attendance for NCAA Division I-AA and NCAA Division II HBCU football games could be explained by having 6 or more home games, homecoming games, special promotions, and general admission ticket price. These findings were unlike DeSchriver's (1996, 1999) research, which investigated home football games for NCAA Division II institutions, finding on-field success, special promotions, ticket prices, student enrollment, and city population was found to be significant determinants of spectator attendance, explaining 48.8% of the variation. However, the present study did find similar results regarding the importance of homecoming

games, special promotions, and general admission ticket prices. The results of the present study suggest that spectator attendance at NCAA Division I-AA and NCAA Division II HBCU football games can be enhanced by the addition of special promotions, and not necessarily reliance on on-field success of the home team, student enrollment, or the population of the geographical area as major factors in spectator attendance. Wells et al. (2000) note in their research that “any game that does not have a promotion is an opportunity missed.”

Special promotions were associated with only 17% of the home games in the current research, yet they can play a very important role in attracting spectators to home games. The findings of this study strongly suggest that frequent special promotions, such as Family Weekend, Football Classics, Hall of Fame Game, Battle of the Bay, Church & Community Day, Take a Kid to the Game Day, Military Appreciation Day, and High School Day are key to increasing spectator attendance at NCAA Division I-AA and NCAA Division II HBCU football games. Continued efforts are needed to further explain the type of special promotions most effective at these institutions.

The current study examined actual data from NCAA Division I-AA and NCAA Division II HBCUs. The results of the study can be applied to all small and medium sized NCAA HBCUs with a football program. Further research will need to be done to determine if these factors exist in other small to medium sized programs such as: the National Intercollegiate Athletic Association (NAIA) institutions and National Junior College Athletic Association (NJCAA) institutions with a football program.

The research in sport management is limited investigating the athletic department of small to medium sized NCAA Division I-AA, NCAA Division II, NCAA Division III, and community colleges. Researches commonly found in sports examine major/minor professional sports and NCAA Division I-A institutions. This research is plentiful, especially with regards to professional baseball, basketball (men and women), football, soccer, and tennis. Even with the abundance of research available in professional sports, the focus is primarily on the emotional aspect of reasons why spectators attend sports events.

For this study actual data was compiled into 13 variables that could have an impact on the attendance of football games in small to medium sized NCAA HBCU institutions. HBCUs were selected as the sample population for the research because of the lack of research, inadequate financial support, and the experience and knowledge the researcher has with these institutions.

The results of this study are important because they revealed a lack of marketing and promotion found with these institutions. This phenomenon continues to be evident. Promotional activity was examined for the 2008, 2009, and 2010 football seasons of the institutions in the current study. Comparing these results with the results of the current study, there were 38 promotions (17.2%) of the 221 HBCU home football games in 2007. For the 2008 football season, there were 40 promotions (17.5%) of 228 HBCU home football games. The 2009 football season was similar to the 2008 season having the same number (40) promotions for 232 home football games (17.4%). The most recent football season of 2010 actually showed a decline in promotions at HBCU home games with only 38 of 226 home games (16.8%). This percentage of promotions for 2010 home games was smaller for the same number of promotions in 2007 because two HBCU institutions became members of the NCAA Division II from the NAIA. This suggests that even less marketing and promotion of home football games occurred with the population studied.

It is obvious the institutions selected for this study were found to have a minimum focus on marketing and promoting their events to the surrounding area. Surprisingly, nothing has changed based on the data for the following three years from when the data was collected for this study. The lack of human resources in these institutions to effectively market and promote their programs is the primary reason many of the NCAA Division I-A and Division II HBCUs find it difficult to balance their budget, year after year. Two thirds of HBCUs athletic departments were found not to have an individual designated to market their sports programs (Li & Burden, 2009).

Having worked in two PWIs and with an HBCU, the researcher experienced first-hand the difficulties of generating additional funds for the athletic department. The coaches and administrators are overwhelmed with teaching and coaching duties. When existing staff were asked to assist in raising funds for the department, it would not be uncommon to get the response, "that is not in my job description". However, to provide the student-athletes the quality experience in higher education they worked hard to achieve, it is evident that more needs to be done. Marketing and promoting only 20% of home football games should not be acceptable. An opportunity is missed if any game does not have a promotion associated with it because of the potential revenue that can be generated (Wells, 2000).

With the state of our economy it should be imperative that all athletic departments in small to medium sized institutions of higher education be required to generate additional funds for their programs. Many of these institutions continue to rely heavily on institutional support and as a result are not able to balance their budgets. If this trend continues, these institutions can expect budget cuts, which will lead to reducing the number of programs offered and scholarships available for student-athletes.

APPENDIX A

NCAA Division I HBCU Institutions

Mid-Eastern Athletic Conference Schools (NCAA Division I)

Bethune Cookman College 3,090
Coppin State College 3,451 (No Football)
Delaware State University 3,440
Florida A&M 13,115
Hampton University 5,325
Howard University 7,164
Morgan State University 5,747
Norfolk State University 5,337
North Carolina A&T University 9,735
South Carolina State University 3,888
University of Maryland Eastern Shore 3,448 (No Football)

Southwestern Athletic Conference (NCAA Division I)

Alabama A&M University 5,047
Alabama State University 4,485
Alcorn State University 2,962
Grambling State University 4,440
Jackson State University 6,660
Mississippi Valley State University 2,748
Prairie View A&M University 5,702
Southern University 3,647
Texas Southern University 11,224
University of Arkansas-Pine Bluff 3,132

Other NCAA Division I HBCUs not in an HBCU Conference

<u>School</u>	<u>Conference</u>
Savannah State University 3,172	Independent
Tennessee State University 9,065	Ohio Valley Conference

Total NCAA Division I HBCU Institutions = 23 Institutions

***21 Compete in Football**

NCAA Division II HBCU Institutions

Central Intercollegiate Athletic Association Schools (NCAA Division II)

Bowie State University 5,404
 Elizabeth City State University 2,407
 Fayetteville State University 6,692
 Johnson C. Smith University 1,463
 Livingstone College 960
 North Carolina Central University 8,383
 Saint Augustine's College 1,600
 Saint Paul's College 700
 Shaw University 2,866
 Virginia State University 4,720
 Virginia Union University 1,531
 Winston-Salem State University 5,870

Southern Intercollegiate Athletic Conference (NCAA Division II)

Albany State University 4,033
 Benedict College 2,641
 Clark Atlanta University 4,271
 Fort Valley State College 2,086
 Kentucky State University 2,696
 Lane College 702
 LeMoyne-Owen College 693 **(No Football)**
 Miles College 1,801
 Morehouse College 2,810
 Paine College 863 **(No Football)**
 Stillman College 915
 Tuskegee University 2,936

Other NCAA Division II HBCUs not in an HBCU Conferences

<u>School</u>	<u>Conference</u>
Central State University 2,022	Independent
Cheyney University of Pennsylvania 1,436	Pennsylvania State Athletic Conference
Claflin 1,773	Independent (No Football)
Lincoln University (MO) 2,550	Heartland Conferences
University of the District of Columbia 5,339	Independent (No Football)
University of the Virgin Islands 2,392	Intercollegiate Sports Organization (O.D.I.) League in Puerto Rico. Also a member of the Caribbean University Sports Association (CUSA) (No Football)
West Virginia State University 3,218	West Virginia Intercollegiate Athletic Conference

Total NCAA Division II HBCU Institutions = 31 Institutions

***26 Compete in Football**

APPENDIX B

Human Subjects Approval Letter



Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742

APPROVAL MEMORANDUM

Date: 1/30/2007

To:
Don Stringfellow
P.O. Box 311661
Tampa, FL 33688

Dept.: SPORT MANAGEMENT/PHYSICAL ED.

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
An Assessment of the Determinants of Spectator Attendance at Selected NCAA Division II American Historical Black Colleges and Universities Football Games

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(b) 7 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by 1/31/2008 you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000445.

APPENDIX C

Telephone Script

Dear (Name of SID):

My name is Don Stringfellow and I am a doctoral candidate in the Department of Sport Management, Recreation Management, and Physical Education at the Florida State University. I am conducting a study on the factors that affect attendance at collegiate football games. There have been several studies in the past that examined the factors that affect attendance. However, there is a need to understand the factors that affect the attendance of spectators at NCAA Division I and Division II HBCU's football games. Consequently, I am conducting this study to examine this phenomenon. I would like to send you a packet that includes a questionnaire to fill out and return. Your name and institution will be confidential and the information you provide will only be used for statistical purposes. The results of the study will be shared with all participants. Your cooperation and participation in this study is greatly appreciated. Can I count on your participation in this study?

APPENDIX D

NCAA Historically Black Colleges and Universities Football Attendance Questionnaire

The following questions are designed to obtain information regarding attendance for home football games played at your institution during the 2007 season. Please complete the front and back of this survey and return it in the enclosed envelope. We ask for your cooperation and assure you that all information given will remain confidential. Thank you for your assistance.

1. Please complete the following chart regarding all home football games played at your institution during the 2007 season.
 1. Date: Date the game was played.
 2. Opponent: The opposing team.
 3. Game attendance: The reported game attendance.
 4. Weather: Place an "R" if there was rain or snow in the two hours prior to kickoff or during the game.
 5. Home Team Record: Home team record before the game was played.
 6. Special Promotion: Specify any type of special promotion for the game such as Homecoming, Hall of Fame Day, etc.
(Please specify the actual promotion)

Date	Opponent	Game Attendance	Weather	Home Team Record	Special Promotion
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

(PLEASE TURN TO THE NEXT PAGE)

2. Are enrolled students admitted into home football games free of charge?
YES _____ NO _____

If no, what is the price of admission for students? _____

3. What is the price of a general admission ticket for a football game?

4. What was your football team's final record for the following seasons?

2005 _____

2006 _____

2007 _____

5. In what year was your football stadium constructed? _____
(If exact date is not known, please indicate approximate date.)

6. Has your football stadium undergone a major renovation since the original construction? _____

YES _____ NO _____

If yes, in what year did the renovation take place? _____

If you wish to receive a summary of the study results, please fill in the information below. Thank you again for your cooperation.

Name (Please Print) _____
Address _____

Signature _____

APPENDIX E

Survey Cover Letter

Dear Participants:

I am a doctoral student in the Department of Sport Management, Recreation Management, and Physical Education at the Florida State University. Thank you for sparing your valuable time to help me learn about the factors that affect attendance at NCAA Division I-AA HBCU's football games and NCAA Division II HBCU's football games. Your participation is voluntary and there is no penalty for nonparticipation. The data you are providing will be used in my research study, and may also be a valuable source of information for understanding the nature of spectator attendance factors at HBCU sport events.

There have been several studies regarding the factors that affect spectator attendance. However, there is a need to understand the factors that affect the attendance of spectators at NCAA Division I and II HBCU's football games. Consequently, I am conducting this study to examine this phenomenon.

Your name will be confidential. Please answer as honestly and sincerely as possible. Also, please read carefully all of the questions before answering and follow the instructions given for each part.

Your cooperation and participation in this study is greatly appreciated. If you have any questions and/or comments concerning this study, please do not hesitate to contact me at: Don Stringfellow, [REDACTED], or send me an e-mail at: [REDACTED]. My advisor can be contacted at: [REDACTED].

If you have any questions about your right as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Florida State University Office of Research at: [REDACTED].

Thank you for your assistance and cooperation in my study.

APPENDIX F

Informed Consent Form

TO: Participants of “An Assessment of the Determinants of Spectator Attendance at Selected NCAA HBCU’s Football Games”

FROM: Don Stringfellow, Doctoral Candidate
Department of Sport Management, Recreation management, and Physical Education
200 Tully Building
Tallahassee, FL 32306
[REDACTED]

RE: Informed Consent

Dear Participant:

This is an informed consent for “An Assessment of the Determinants of Spectator Attendance at Selected NCAA Historically Black Colleges and Universities Football Games” study. There may not be any direct benefits to you; however, the possible benefits of your voluntary participation will assist me and other researchers in developing a better comprehension of factors that affect spectator attendance at sport events.

As a participant in this study, you are asked to complete the attached questionnaire. The completion of the questionnaire involves no foreseeable risks to you. Participants must be at least 18 years of age in order to participate in this study. You, the participant, may refuse to answer any of the questionnaire items and may withdraw from the study at any time.

All questionnaires will be kept confidential by the researcher. The questionnaires will be kept in a locked and secure file cabinet. The confidentiality of the participating institution and name of the Sports Information Director will be maintained to the extent allowed by law. The researcher and the four members of his doctoral committee will be the only individuals who will see the responses to the questionnaire.

I, the participant, have read this informed consent and voluntarily consent to participate in the “An assessment of the Determinants of Spectator Attendance at Selected NCAA Historically Black Colleges and Universities Football Games” study for the betterment of the field of sport management and administration. Return of this survey indicates consent to participate in the “An Assessment of the Determinants of Spectator Attendance at Selected NCAA Historically Black Colleges and Universities Football Games” study.

X

Participant’s Signature

APPENDIX G

Postcard Reminder

My name is Don Stringfellow and I am a graduate student at Florida State University. On (Actual Date Survey Packet Was Sent) I mailed your office a survey regarding spectator attendance at NCAA HBCU's football games. I have not yet received a survey from your institution. Your participation is critical to the success of the study. This postcard is a reminder to please complete and return the survey. Thank you in advance, if you have already returned the survey. If you have not returned it, I would greatly appreciate your participation in the study. If you have any questions or have not received a survey please contact me at [REDACTED]. Thank you again for your cooperation.

Sincerely,

Don Stringfellow

APPENDIX H

Permission to Use Instrument

From: Tim DeSchrive [REDACTED]
Sent: Tue 11/29/2005 3:15 PM
To: Stringfellow, Don
Subject: Re: Attendance Factor Instrument Requested

Dear Don:

Feel free to use my research instrument. Unfortunately, I have moved about 3 times since I completed that research. That paper was a result of my doc. dissertation at the Univ. of Northern Colorado. Currently, I do not have an electronic version of the instrument. However, the instrument is located in the appendix of my doctoral dissertation. I am sure that you could obtain a copy of the dissertation thru dissertation abstracts. Feel free to contact me at any time about the work I did on that study. Good luck on your dissertation. Who is your doc advisor at FSU?

Sincerely,
Tim DeSchrive

REFERENCES

- Anonymous (2006). The Sports Industry. *Street & Smith SportsBusiness Journal*. Retrieved on December 6, 2006 from <http://www.sportsbusinessjournal.com>.
- Armstrong, K. (1998). Ten strategies to employ when marketing sport to Black consumers. *Sport Marketing Quarterly*, 3(7), 11-18.
- Armstrong, K. (2001). Black consumers' spending and historically Black college events: The marketing implications. *Sport Marketing Quarterly*, 10(2), 102-111.
- Armstrong, K. L. (2002). An examination of the social psychology of Black's consumption of sport. *Journal of Sport Management*, 16, 267-288.
- Baumgartner, T. A., Strong, C. H., & Hensley, L. D. (2002). *Conducting and reading research in health and human performance* (3rd ed.). Dubuque, IA: McGraw Hill.
- Baade, R. A., & Tiehen, L. L. (1990). An analysis of Major League Baseball attendance. 1969-1987. *Journal of Sport and Social Issues*, 14, 14-32.
- Babbie, E. (1990). The essential wisdom of sociology. *Teaching Sociology*, 18, 526-530.
- Bell, F. W. (1968). The Pope and the price of fish. *American Economic Review*, 58(5), 1346-1350.
- Berenthal, M.J., & Graham, P.J. (2003). The effect of sport setting on fan attendance motivation: The case of Minor League vs. collegiate baseball. *Journal of Sport Behavior*, 26(3), 223-239.
- Boyd, T. C., & Kriehbiel, T.C. (2003). Promotion timing in Major League Baseball and the stacking effects of factors that increase game attractiveness. *Sport Marketing Quarterly*, 12(3), 173-183.
- Branvold, S. E., Pan, D. W., & Gabert, T. E. (1997). Effect of winning percentage and market size on attendance in minor league baseball. *Sport Marketing Quarterly*, 6(4), 35-32.

- Brokaw, A., Stone, G. W., Jones, M. A. (2006). A model of the factors contributing to fan support at small-college athletic events. *The Sports Journal*, 9(4). Retrieved October 8, 2006, from website www.the-sportjournal.org/2006Journal/Vol19-No4/.
- Creswell, J. W. (2002). *Research design: Qualitative, quantitative and mixed methods approach* (2nd ed.). Thousand Oaks: Sage Publications.
- Demmert, H.G. (1973). *The economics of professional team sports*. Lexington, MA: Lexington Books.
- DeSchriver, T. D. (1996). *Factors affecting spectator attendance at NCAA Division II football games*. Doctoral Dissertation: University of Northern Colorado.
- DeSchriver, T. D. (1999). Factors affecting spectator attendance at NCAA Division II football contests. *International Sports Journal*, 3(2), 55-65.
- DeSchriver, T. D., & Jensen, P. E. (2002). Determinants of spectator attendance at NCAA Division II football contests. *Journal of Sport Management*, 16(4), 311-330.
- Ferreira, M., & Armstrong, K. L. (2004). An exploratory examination of attributes influencing student's decisions to attend college sport events. *Sport Marketing Quarterly*, 13, 194-208.
- Forbes (2005). *Forbes home page for business leaders*. Retrieved on December 7, 2006, from <http://www.forbes.com/lists/2005/32/Revenues>.
- Fortunato, J. A. (2006). Scheduling promotional events in Major League baseball: Examining team and sponsor desires. *International Journal of Sports Marketing & Sponsorship*, 7(2), 104-114.
- Fulks, D. L. (2005). *Revenues and expenses of intercollegiate athletics programs: Financial trends and relationships-2002-03*. Indianapolis, IN: The National Collegiate Athletic Association.
- Funk, D. C., & James, J. D. (2001). The psychological continuum model: A conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review*, 4, 119-150.
- Funk, D.C., Mahony, D.F., & Ridinger, L.L. (2002). Characterizing consumer motivation as individual difference factors: Augmenting the sport interest inventory (SII) to explain level of spectator support. *Sport Marketing Quarterly*, 11(1), 33-43.

- Gladden, J. M., & Funk, D. C. (2002). Developing an understanding of brand associations in team sport: Empirical evidence from consumers of professional sport. *Journal of Sport Management, 16*, 54-81.
- HBCU Network (2007). *The history of HBCUs*. Retrieved on February 23, 2007 from [http://www.hbcunetwork.com/The History Of HBCUs.cfm?CFID=2635628&CFTOKEN=17486026](http://www.hbcunetwork.com/The_History_Of_HBCUs.cfm?CFID=2635628&CFTOKEN=17486026)
- Hansen, H., & Gauthier, R. (1989). Factors affecting attendance at professional events. *Journal of Sport Management, 3*, 15-32.
- Hill, B., & Green, C. B. (2000). Repeat attendance as a function of involvement, loyalty, and the sportscape across three football contexts. *Sport Management Review, 3*(2), 145-162.
- Jackson, N.J., Lyons, R., & Gooden, S.C. (2001). The marketing of Black-College sports. *Sport Marketing Quarterly, 10*(2), 138-146.
- Kahle, L. R., Kambara, K. M., & Rose, G. M. (1996). A functional model of fan attendance motivations for college football. *Sport Marketing Quarterly, 5*, 4.
- Kim, J. H. (2004). *An investigation of promotional events and other factors that affect attendance on sporting events*. Doctoral Dissertation: University of Minnesota.
- Koo, G., & Hardin, R. (2008). Difference in interrelationship between spectators' motives and behavioral intentions based on emotional attachment. *Sport Marketing Quarterly, 17*(1), 30-43.
- Krohn, F. B., Clarke, M., Preston, E., McDonald, M., & Preston, B. (1998). Psychological and sociological influences on attendance at small college sporting events. *College Student Journal, 277*-288.
- Laverie, D. A., & Arnett, D. B. (2000). Factors affecting fan attendance: The influence of identity salience and satisfaction. *Journal of Leisure Research, 32*, 225-246.
- Lee, J. H. (2000). *Sport Marketing Strategies through the Analysis of Sport Consumer Behavior and Factors Influencing Attendance*. Doctoral Dissertation: University of Minnesota. Pp. 5, 82-85.
- Lee, J. H., & Bang, J. S. (2005). A structural equation modeling for factors influencing attendance at professional sports events. *International Journal of Applied Sports Sciences, 15*(2), 28-39.
- Leonard, J. M. (2005). The geography of visitor attendance at college football games. *Journal of Sport Behavior, 28*(3), 231.

- Li, M., & Burden, W. (2009, May). *A survey of the sports marketing and sponsorship practices of Historically Black Colleges and Universities (HBCU) playing division I football*. Paper presented at the conference of the North American Society for Sport Management, Columbia, SC.
- Lough, N. L., & Kim, A. (2004). Analysis of sociomotivations affecting spectator attendance at women's professional basketball games in South Korea. *Sport Marketing Quarterly*, 13, 35-42.
- Madrigal, R. (1995). Cognitive and affective determinants of fan satisfaction with sporting event attendance. *Journal of Leisure Research*, 27, 205-227.
- Mahony, D. F., Howard, R., & Madrigal, D. (2000). Using the psychological commitment to team (PCT) scale to segment sport consumers based on loyalty. *Sports Marketing Quarterly*, 9(1), 15-25.
- Marcum, J. P., & Greenstein, T. N. (1985). Factors affecting attendance of Major League Baseball: II. A within-season analysis. *Sociology of Sport Journal*, 2(4), 314-321.
- Mawson, L. M., & Coan, E. E. (1994). Marketing techniques used by NBA franchises to promote home game attendance. *Sport Marketing Quarterly*, 3(1), 37-45.
- McEvoy, C. (2005). The relationship between dramatic changes in team performance and undergraduate admissions applications. *The Sport Journal*. Retrieved on October 8, 2006, from www.thesmartjournal.com/volumeII.html.
- McEvoy, C. D., Nagel, M. S., DeSchriver, T. D., & Brown, M. T. (2005). Facility age and attendance in Major League Baseball. *Sport Management Review*, 8, 19-41.
- Mullin, B. J., Hardy, S., & Sutton, W. A. (2000). *Sport Marketing* (2nd ed.). Champaign, IL: Human Kinetics Publishers.
- NAIA (2006). *The online resource for the National Association of Intercollegiate Athletics*. Retrieved on December 6, 2006, from <http://www.naia.org/wps/portal>.
- NCAA (2006). *2006 National Collegiate Football Attendance*. Retrieved on July 12, 2007, from <http://www.ncaa.org/wps/portal>.
- Nicholson, W. (1987). *Intermediate microeconomics and its applications* (4th ed.). Chicago: The Dryden Press.
- Nicholson, W. (1989). *Microeconomic theory: Basic principles and extensions* (4th ed.). Chicago: The Dryden Press.

- Oliver, R. L. (1977). Effect of expectation and disconfirmation on post exposure product evaluations: An alternative interpretation. *Journal of Applied Psychology*, 62, 480-486.
- Onnidan (2007). Onnidan Online. Retrieved on June 15, 2007, from <http://www.onnidan.com/bcsp/1228/utb1228.htm>
- Parks, J.B. (1992). Scholarship: The other “Bottom Line” in sport management. *Journal of Sport Management*, 6, 220-229.
- Pease, D. G., & Zhang, J. J. (2001). Socio-motivational factors affecting spectator attendance at professional basketball games. *International Journal of Sport Management*, 2(1), 31-59.
- Pitts, B.G. (2001). Sport Management at the millennium: A defining moment. *Journal of Sport Management*, 15, 1-9.
- Platow, M. J., Durante, M., Williams, N., Garrett, M., Walshe, J., Cincotta, S., Lianos, G., & Barutchu, A. (1999). The contribution of sport fan social identity to the production of prosocial behavior. *Group Dynamics: Theory, Research, and Practice*, 3(2), 161-169.
- Pope & Associates (2004). *Historically Black colleges and Universities Websites*. Retrieved on December 8, 2006, from <http://www.smart.net/~pope/hbcu/hbculist.htm>
- Ragan, J. F., & Thomas, L. B. (1990). Principles of microeconomics. San Diego: Harcourt Brace Janovich.
- Robinson, M. J., & DeSchriver, T. D. (2003). Consumer differences across large and small market teams in the National Professional Soccer League. *Sport Marketing Quarterly*, 12, 80-87.
- Quarterman, J. (2003) Sport organization managers and organizational behavior. In J.B Parks, J. Quarterman. (Eds.) *Contemporary Sport Management*. (2nd ed.). Champaign, IL: Human Kinetics Publishers, Inc.
- Parks, J.B., Quarterman, J., & Thibault, L. (2007). Managing sport in the 21st century. In J.B Parks, J. Quarterman, & L. Thibault. (Eds.). *Contemporary Sport Management*. (3rd ed.). Champaign, IL: Human Kinetics Publishers, Inc.
- Quick, S. (2000). Contemporary sport consumers: Some implications of linking fan typology with key spectator variables. *Sport Marketing Quarterly*, 9(3), 149-156.
- Rivers, D. H., & DeSchriver, T. D. (2002). Star players, payroll distribution, and Major League Baseball attendance. *Sport Marketing Quarterly*, 11(3), 164-173.

- Robinson, M. J., & DeSchraver, T. D. (2003). Consumer differences across large and small market teams in the National Professional Soccer League. *Sport Marketing Quarterly*, 12, 80-87.
- Shackleford, E., & Greenwell, C. (2005). Predicting women's division I sports attendance: An analysis of institutional characteristics. *Sport Marketing Quarterly*, 14(3), 139-147.
- Smith, G. (1992, February 24). \$183 million for the Celts? Now that's a stretch. *Business Week*, pp.86-87.
- Trail, G. T., Anderson, D. F., & Fink, J. S. (2000). A theoretical model of sport spectator consumption behavior. *International Journal of Sport Management*, 1, 154-180.
- Trail, G. T., Anderson, D. F., & Fink, J. S. (2002). Examination of gender differences in importance of and satisfaction with venue factors at intercollegiate basketball games. *International Sports Journal*, 6, 51-64.
- Trail, G. T., Fink, J. S., Anderson, D. F. (2003). Sport spectator consumption behavior. *Sport Marketing Quarterly*, 12(1), 8-17.
- Trail, G. T., & James, J. D. (2001). The motivation scale for sport consumption: A comparison of psychometric properties with other sport motivation scales. *Journal of Sport Behavior*, 24(1), 108-127.
- Trochin, W. M. K. (2006). Research methods knowledge base. Web Center for Social Research. Retrieved on February 17, 2007 from <http://www.socialresearchmethods.net/kb/>.
- Van Leeuwen, L., Quick, S., & Daniel, K. (2002). The sport spectator satisfaction model: A conceptual framework for understanding the satisfaction of spectators. *Sport Management Review*, 5(2), 99-128.
- Van Wagner, K. (2007). Replication definition. Retrieved on July 13, 2007, from http://psychology.about.com/od/rindex/g/def_replication.htm
- Wakefield, K. L. (1995). The pervasive effects of social influence on sporting event attendance. *Journal of Sport and Social Issues*, 19(4), 335-350.
- Wann, D. L. (1996). Seasonal changes in spectators' identification and involvement with and evaluations of college basketball and football teams. *Psychological Record*, 46(1), 201-215.

- Wann, D. L. (2000). Further exploration of seasonal changes in sport fan identification: Investigating the importance of fan expectations. *International Sports Journal*, 4(1), 138-144.
- Wann, D. L., Schrader, M. P., & Wilson, A. M. (1999). Sport fan motivation: Questionnaire validation, comparisons by sport, and relationship to athletic motivation. *Journal of Sport Behavior*, 22(1), 114-139.
- Wann, D.L. (2002). Preliminary validation of a measure for assessing identification as a sport fan: The sport fandom questionnaire. *International Journal of Sport Management*, 3, 103-115.
- Wells, D. E., Southall, R. M., & Peng, H. H. (2000). An analysis of factors related to attendance at Division II football games. *Sport Marketing Quarterly*, 9(4), 203-210.
- Zhang, J. J., Lam, E. T. C., Cannoughton, D. P., Bennett, D. G., Pham, U. L., Killion, L. E., Ocker, L. B., & Duley, A. R. (2004). Variables affecting spectator enjoyment of Minor League Hockey games. *International Journal of Sport Management*, 5, 157-182.
- Zhang, J. J., Pease, D. G., Hui, S. C., & Michaud, T. J. (1995). Variables affecting the spectator decision to attend NBA games. *Sport Marketing Quarterly*, 4(4), 29-38.
- Zhang, J. J., Pease, D. G., Lam, T. C., Bellerive, L. M., Pham, U. L., Williamson, D. P., Lee, J. T., & Wall, K. A. (2001). Sociomotivational factors affecting spectator attendance at Minor League Hockey games. *Sport Marketing Quarterly*, 10(1), 43.
- Zhang, J. J., Wall, K. A., & Smith, D. W. (2000). To go or not? Relationship of selected variables to game attendance of professional basketball season ticket holders. *International Journal of Sport Management*, 1, 200-226.

BIOGRAPHICAL SKETCH

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