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# A Decade of Referee Bias against College Football Programs from Historically Black Colleges and Universities

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## Abstract

The central objective of this investigation was to examine within game penalties that were levied against football programs from historically black colleges and universities (HBCUs) in the United States. Previous scholarship that sets an appropriate background on sports science and culture has revealed that referee bias has occurred in many European sports. It was in the methods section of this scholarship that statistical analyses were discussed in terms of game day penalties that occurred within the Football Championship Subdivision (FCS) of the National Collegiate Athletic Association (NCAA) from the 2006 through the 2015 season. The results illustrated that referees penalized football teams from historically black college and universities (HBCUs) significantly more than football teams from predominantly white institutions (PWIs). An interpretation of this quantitative data was subsequently completed and Expectancy Violations Theory (EVT) was appropriately spotlighted in the discussion section of this study in an effort to assign meaning to the analytics of interest.

Keywords: referee bias, football, race, penalties, Expectancy Violations Theory



# Introduction

Melvin Beaunorus Tolson has achieved status in various educational circles as a direct result of building a notable debate program at a historically black college and university (HBCU) during the first half of the 20<sup>th</sup> century. While the efforts of Mr. Tolson to place his Wiley College debate team on equal footing with predominantly white institutions (PWIs) were effectively documented in the popular film *The Great Debaters*, less cultural emphasis has been placed on the endeavors that Mr. Tolson undertook as a football coach (Beil, 2002) at the same aforementioned historically black college and university (HBCU). Many years have passed since Coach Tolson observed the nonverbal behaviors of his football players from the sidelines and scholarship since that time has splintered within the arena of sports science and within the niche of historically black college and universities (HBCUs).

It is imperative for this study to first consider the influences of jersey color and skin color within the culture of sports science. Classic research by Frank and Gilovich (1988) revealed that teams in the National Football League (NFL) and National Hockey League (NHL) whose primary jersey color was black were more likely to be penalized during the game in comparison to National Football League (NFL) and National Hockey League (NHL) teams whose primary jersey color was not black. Extant literature on baseball by Parsons, Sulaeman, Yates, and Hamermesh (2011) discovered that "pitches are slightly more likely to be called strikes when the umpire shares the race/ethnicity of the starting pitcher, an effect that is observable only when umpires' behavior is not well monitored" (p. 1,433). Novel scholarship courtesy of Price and Wolfers (2010) looked at the intersection of referee bias and skin color in basketball and found "systematic evidence of an own-race bias" (p. 1,859) that favored basketball players when they were officiated by referees of the same race. Price and Wolfers (2010) went on to conclude in their basketball study that "players earn up to 4% fewer fouls or score up to 2.5% more points when they are the recipients of a positive own-race bias, rather than a negative opposite-race effect" (pgs. 1,859-1,860). Taken together, these studies provide evidence that racial factors could possibly influence referee decisions within the sports arena.

The present analysis concentrated on game day penalties that were administered against historically black colleges and universities (HBCUs) whose football teams compete in the Football Championship Subdivision (FCS) of the National Collegiate Athletic Association (NCAA) in the United States. A review of previous literature was undertaken to highlight referee bias in sports around the world and to ground the present research in Expectancy Violations Theory (EVT). Statistical analyses that concentrated on official game day penalty records were then examined over a 10-year period in order to compare and contrast team penalties for various academic institutions within the Football Championship Subdivision (FCS). The results of this investigation were then presented and discussed within an appropriate theoretical framework that was germane to culture and sports science. In summation, the general purpose of this study was to determine whether college referees flagged football teams from historically black colleges and universities (HBCUs) more frequently than football teams from predominantly white institutions (PWIs).

A robust amount of academic research has concentrated on referee bias within a multitude of different sports. The lion share of extant literature has focused on European soccer where research on the English Premier League by Boyko, Boyko, and Boyko (2007) revealed that a large degree of variance existed from referee to referee in terms of whether an officiating bias positively benefited the home team. It was also on the European continent that Buramino,



Simmons, and Maciaszczyk (2012) found evidence of a referee bias in Primera Liga soccer matches whereby the home teams were more likely to be awarded a yellow card than the road team if the game was played in a stadium in which the referees were physically separated from the home crowd by running tracks that circled the soccer field. Similar research by Garicano, Palacios-Huerta, and Prendergast (2005) suggested that a desire to secure the social approval of the home crowd fans resulted in soccer referees awarding additional stoppage time for the home soccer team to potentially score the equalizer goal when trailing by a score of one. Garciano and colleagues (2005) also revealed that soccer referees awarded less stoppage time for the away team in games where the home team was leading by a score of one. Additional research devoted to the soccer pitch by Goumas (2014) revealed that crowd density was more likely to induce referee bias than crowd proximity or crowd size. Collectively speaking, the extant literature on soccer has suggested that referee bias is a reoccurring phenomenon that appears to be socially constructed.

A second sport that is heavily researched with regard to referee bias is basketball. A study on basketball by Deutscher (2015) analyzed 113 games and found no evidence of referee bias with regards to game day fouls. However, Rodenberg and Lim (2009) adopted a more narrow focus on referee bias in basketball via analyzing payback calls against the Dallas Mavericks basketball team and found that one official had a "significant negative impact on the Mavericks' performance during the playoffs" (p. 381). It was within that same study that Rodenberg and Lim (2009) went on to conclude that retribution was "a likely explanation for any possible bias exhibited by such referee" (p. 381) against the Dallas Mavericks basketball team. Classic referee bias research within the game of basketball by Lehman and Reifman (1987) revealed that "star players in the NBA were called for fewer fouls at home than away, whereas nonstars were not" (p. 674). Additional literature on referee bias in the sport of basketball by Anderson and Pierce (2009) uncovered data which illustrated that officials were more likely to call personal fouls on the basketball team that had the fewest team fouls at that particular point in the basketball game. When taken together, the aforementioned extant literature on basketball suggests that a referee bias exists albeit within isolated facets of the game.

Additional sports have attracted researchers into examining a possible correlation between referee bias and in game trends. For example, it was within the sport of Olympic water polo that Graham and Mayberry (2016) reported that offensive teams who were either tied or winning were 31% less likely to have a defensive foul called in their favor. In addition, Graham and Mayberry (2016) reported that offensive teams were "about 32% more likely to get an offensive foul called against them than losing teams" (p. 70). Scholarship that analyzed referee bias and game trends in hockey by Abrevaya and McCulloch (2014) suggested that the score of the game, the time of the game, and the number of referees could all influence which hockey team was the next to be penalized. A study of professional American sports by Snyder and Lopez (2015) found evidence that National Football League (NFL) referees were more likely to call penalties in the middle of the game as opposed to the beginning and end of the game. It was back on the soccer pitch in Germany that Unkelbach and Memmert (2008) concluded that referees awarded yellow cards at a lower rate during the beginning of the game then was to be statistically expected. Indeed, the aforementioned investigations provide reason to believe that a relationship may exist between referee bias and game trends yet it is germane to highlight how nonverbal theory interacts with the variables of race and sports.

Expectancy Violations Theory (EVT) is a communication theory that concentrates on how individuals react to behaviors that violate social expectations within various contexts (See



Burgoon & Jones, 1976). Seminal scholarship on expectancy violations focused on the communication outcomes that emerged after expectations were violated especially within the contexts of proxemics and nonverbal communication (e.g., Burgoon & Aho, 1982; Burgoon & Hale, 1988; Burgoon & Jones, 1976). The theory has since been applied to a number of wide-ranging contexts like the intersection of culture and sports in which research by Dix (2016) found that normal expectancies associated with African American misbehavior were violated in reporting the unanticipated finding that Caucasian athletes who were accused of using performance-enhancing drugs were actually perceived as less intelligent than African American athletes who were accused of using performance-enhancing drugs. All things considered, Expectancy Violations Theory (EVT) offers a solid theoretical foundation for sports science research on referee behavior because it provides a straightforward means for illustrating that officiating crews react to unexpected and prohibited aggressive touching behaviors that perceptually violate the rules of American football via flagging the player who appeared to commit the illegal action.

The ways in which the present research differs from existing literature is best explicated via discussing the rationales and needs for the current investigation. As alluded to previously, the main rationale for the current investigation is to expose a sociocultural issue centered on whether football teams from historically black colleges and universities (HBCUs) in the United States are being disproportionately penalized in college football. A secondary rationale for this study is to extend the existing research on referee bias into the larger world of sports. Very little is presently known about referee bias at the collegiate level and the current research has been designed to address this noticeable gap in the literature. There is a need for this study since no existing scholarship has simultaneously concentrated on both of the two main variables of interest for the present research which are (a) a potential referee bias in college football and (b) nonverbal behaviors at historically black colleges and universities (HBCUs) in America. Taken together, the core rationales for the current research coupled with the previously cited literature on referee bias, nonverbal theory, and racial perceptions have led to the proposition of the following hypothesis and to the proposition of the following research question:

H1: Football teams from historically black college and universities (HBCUs) within the Football Championship Subdivision (FCS) will incur an average number of team penalties from 2006 through 2015 that is higher than the average number of team penalties for football teams from predominantly white institutions (PWIs) from 2006 through 2015.

RQ1: What football teams within the Football Championship Subdivision (FCS) will be the most penalized by college referees from the 2006 through the 2015 season?

#### **Materials and Methods**

#### Procedures

The data for team penalties within the Football Championship Subdivision (FCS) was extracted after completing a Google search on the terms: FCS (Division 1-AA) College Football Team Penalties. It was on the following ESPN website that the data of interest was collected:

www.espn.com/college-football/statistics/team/\_/stat/downs/group/81. Each individual season was examined by changing the "season" in the drop-down box on the aforementioned website



in order to ascertain the total number of team penalties for each individual university. All penalties (e.g., offensive, defensive, special teams, etc.) were included in the current analysis. A 10-year period that included every season from 2006 through 2015 was examined in the current research. The data for each year in the aforementioned 10-year period was integrated into the present research. Each specific season was individually examined at first. Aggregate data was then calculated and analyzed for all of the 10 years from 2006 through 2015. Every team that was in the Football Championship Subdivision (FCS; formerly known as Division 1-AA) for the entirety of the 10-year period was included in the present analysis. University football teams that moved up to the Football Bowl Subdivision (FBS) or moved down to Division II were removed from the present analysis in order to secure the most accurate representation of the penalty data that occurred over the entire 10-year period. This resulted in a total of 111 (N = 111) universities being included in the sample. The total of 111 (N = 111) Football Championship Subdivision (FCS) teams included 21 (N = 21) university football programs that were from historically black colleges and universities (HBCUs) while 90 (N =90) of these university football programs were from predominantly white institutions (PWIs). A team was categorized as a historically black college and university (HBCU) or predominantly white institution (PWI) based on their own self-description and conference affiliation. All in all, the data that was analyzed thereby represented 100% of the schools that were in Football Championship Subdivision (FCS) for the entire time period from 2006 through 2015.

# Data Analysis

Calculations and tabulations for team penalties for Football Championship Subdivision (FCS) teams were subsequently completed in the statistical program for the social sciences (SPSS). Teams in the Football Championship Subdivision (FCS) were first rank ordered by the total number of team penalties that each football team was flagged for in each individual season from the 2006 through the 2015 season. The total number of team penalties and the mean number of team penalties for each Football Championship Subdivision (FCS) team for all of the ten seasons from 2006 through 2015 were then computed in SPSS. The mean number of team penalties was tabulated in SPSS via adding the total number of team penalties for each individual Football Championship Subdivision (FCS) team and then dividing by the number of seasons (10) for each individual Football Championship Subdivision (FCS) team. This calculation revealed the mean number of team penalties for every Football Championship Subdivision (FCS) team for the entire 10-year period from 2006 through 2015. The mean number of team penalties for each individual Football Championship Subdivision (FCS) team was now able to be compared to the mean number of team penalties for the entire Football Championship Subdivision (FCS) for the 10-year period that spanned from 2006 through 2015. It was at this point of the analysis that the mean number of team penalties for each Football Championship Subdivision (FCS) team was then converted to a z-score for the aforementioned 10-year period from 2006 through 2015. Converting the mean number of team penalties for each individual Football Championship Subdivision (FCS) team for the aforementioned 10-year period from 2006 through 2015 to z-scores allowed the standard p value of .05 to be assessed in the current research. In short, the mean number of team penalties, the total number of penalties, and the accompanying z-score for each Football Championship Subdivision (FCS) team for the 10-year period from 2006 through 2015 was tabulated for the current research.



#### Results

The following results emerged in this sports science analysis of team penalties for college football teams in the Football Championship Subdivision (FCS). First, it should be noted that support emerged for the proposed hypothesis as football teams from historically black colleges and universities (HBCUs) averaged more penalties than football teams from predominantly white institutions (PWIs) from 2006 through 2015 (See Table 1). The mean number of team penalties for the 21 historically black colleges and universities (HBCUs) that competed in the Football Championship Subdivision (FCS) for every season from 2006 through 2015 was 93.89 (sd = 8.63) during the aforementioned decade whereas the mean number of team penalties for football teams from the 90 predominantly white institutions (PWIs) that competed in the Football Championship Subdivision (FCS) for every season from 2006 through 2015 was 68.78 (sd = 9.68) during the aforementioned decade. Moreover, every historically black college and university (HBCU) individually averaged more team penalties per year from 2006 through 2015 than the collective mean number of team penalties per year for the entire Football Championship Subdivision (FCS). The previously stated mean number of team penalties for the football teams from historically black colleges and universities (HBCUs) was 93.89 (sd = 8.63) from 2006 through 2015 while the collective mean number of team penalties for all of 111 Football Championship Subdivision (FCS) teams that includes historically black colleges and universities (HBCUs) and predominantly white institutions (PWIs) who competed every season from 2006 through 2015 was 73.53 (sd = 13.67). In summation, the uncovered findings for the study hypothesis revealed that (a) college referees flagged football teams from historically black colleges and universities (HBCUs) for team penalties at a higher average than football teams from predominantly white institutions (PWIs) and also exposed that (b) every football team from a historically black college and university (HBCU) was above the collective mean number of team penalties for the entire Football Championship Subdivision (FCS) from 2006 through 2015.

The research question for this study asked: What football teams within the Football Championship Subdivision (FCS) will be the most penalized by college referees from the 2006 through the 2015 season? As Table 1 illustrates in rank order, the thirteen most penalized football teams from the 2006 through the 2015 season were 1) Bethune-Cookman University, 2) Hampton University, 3) Jackson State University, 4) Texas Southern University, 5) Grambling



| <u>University/Team</u>       | Mean Number<br>of Penalties Per<br>Season for<br>Football<br>Championship<br>Subdivision<br>(FCS) Teams<br>from | Total Number of<br>Penalties Per<br>Season for Football<br>Championship<br>Subdivision (FCS)<br>Teams from<br><u>2006-2015</u> | Mean Number of<br>Penalties (in Z-<br>Scores) for<br>Football<br>Championship<br>Subdivision<br>(FCS) Teams<br>from |
|------------------------------|---|--|---|
| 1) BETHUNE-COOKMAN           | <u>2006-2015</u><br>111   | 1110   | <u>2006-2015</u><br>2.73996**   |
| 2) HAMPTON                   | 109   | 1090   | 2.73990***  |
| 3) JACKSON STATE             | 103   | 1030   | 2.17686*  |
| 4) TEXAS SOUTHERN            | 101.5   | 1035   | 2.04522*  |
| 5) GRAMBLING STATE           | 100.9   | 1019   | 2.00134*  |
| 6) TENNESSE STATE            | 98  | 980  | 1.78926*  |
| 7) ALABAMA STATE             | 96.8  | 968  | 1.70151*  |
| 8) SOUTH CAROLINA STATE      | 95.2  | 952  | 1.5845  |
| 9) MORGAN STATE              | 94  | 940  | 1.4967  |
| 10) ARKANSAS PINE BLUFF      | 93.9  | 939  | 1.4894  |
| 11) PRAIRIE VIEW A&M         | 93.7  | 937  | 1.4748  |
| 12) FLORIDA A&M              | 93  | 930  | 1.4236  |
| 13) MISSISSIPPI VALLEY STATE | 92.9  | 929  | 1.4163  |
| 14) Southeastern Louisiana   | 92.8  | 928  | 1.409   |
| 15) Northwestern State       | 92.6  | 926  | 1.3944  |
| 16) NORFOLK STATE            | 91.6  | 916  | 1.3212  |
| 17) ALCORN STATE             | 91.4  | 914  | 1.3066  |
| 18) SOUTHERN                 | 91.3  | 913  | 1.2993  |
| 19) Jacksonville             | 88.7  | 887  | 1.1092  |
| 20) Portland State           | 88  | 880  | 1.058   |
| 21) SAVANNAH STATE           | 87.7  | 877  | 1.036   |
| 22) HOWARD                   | 85.3  | 853  | 0.8605  |
| 23) Stephen F Austin         | 85.2  | 852  | 0.8532  |
| 24) ALABAMA A&M              | 85.1  | 851  | 0.8459  |
| 25) Eastern Washington       | 85.1  | 851  | 0.8459  |
| 26) Weber State              | 84.4  | 844  | 0.7947  |
| 27) Sam Houston State        | 82.9  | 829  | 0.685   |
| 28) NORTH CAROLINA A&T       | 82.3  | 823  | 0.6411  |
| 29) Tennessee-Martin         | 81.9  | 819  | 0.6119  |

Table 1. Mean Number of Penalties, Total Penalties, and Z-Scores for Football Championship Subdivision (FCS) Teams in the United States from the 2006-2015 Season



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| 30) McNeese                  | 81.7 | 817 | 0.5972  |
|------------------------------|------|-----|---------|
| 31) Jacksonville State       | 79.2 | 792 | 0.4144  |
| 32) Eastern Illinois         | 79   | 790 | 0.3998  |
| 33) Central Arkansas         | 78.7 | 787 | 0.3778  |
| 34) Montana                  | 78.1 | 781 | 0.334   |
| 35) Stony Brook              | 78.1 | 781 | 0.334   |
| 36) Montana State            | 77.8 | 778 | 0.312   |
| 37) Sacramento State         | 77.6 | 776 | 0.2974  |
| 38) Fordham                  | 77.3 | 773 | 0.2755  |
| 39) Northern Arizona         | 76.7 | 767 | 0.2316  |
| 40) Idaho State              | 76.5 | 765 | 0.217   |
| 41) Southern Utah            | 76.4 | 764 | 0.2096  |
| 42) North Dakota State       | 76.3 | 763 | 0.2023  |
| 43) Coastal Carolina         | 75.4 | 754 | 0.1365  |
| 44) Nicholls                 | 75.3 | 753 | 0.1292  |
| 45) Charleston Southern      | 74.8 | 748 | 0.0926  |
| 46) Austin Peay              | 74.6 | 746 | 0.078   |
| 47) Western Illinois         | 74.5 | 745 | 0.0707  |
| 48) New Hampshire            | 74.4 | 744 | 0.0634  |
| 49) Eastern Kentucky         | 73.9 | 739 | 0.0268  |
| 50) DELAWARE STATE           | 73.8 | 738 | 0.0195  |
| 51) Northern Colorado        | 73.8 | 738 | 0.0195  |
| 52) James Madison            | 73.4 | 734 | -0.0098 |
| 53) Sacred Heart             | 73   | 730 | -0.039  |
| 54) Northern Iowa            | 72   | 720 | -0.1121 |
| 55) Morehead State           | 71.6 | 716 | -0.1414 |
| 56) Towson                   | 70.9 | 709 | -0.1926 |
| 57) Tennessee Tech           | 70.7 | 707 | -0.2072 |
| 58) Albany                   | 70.5 | 705 | -0.2218 |
| 59) UC Davis                 | 70.5 | 705 | -0.2218 |
| 60) South Dakota State       | 70.2 | 702 | -0.2438 |
| 61) Wagner                   | 69.8 | 698 | -0.273  |
| 62) Maine                    | 69.7 | 697 | -0.2803 |
| 63) Robert Morris            | 69.4 | 694 | -0.3023 |
| 64) Marist                   | 68.9 | 689 | -0.3388 |
| 65) Harvard                  | 68.8 | 688 | -0.3462 |
| 66) Southeast Missouri State | 68.5 | 685 | -0.3681 |
| 67) Illinois State           | 68.4 | 684 | -0.3754 |
| 68) St Francis (PA)          | 68.3 | 683 | -0.3827 |
|                              |      |     |         |



| 69) Western Carolina    | 68.1 | 681 | -0.3973 |
|-------------------------|------|-----|---------|
| 70) Drake               | 67.2 | 672 | -0.4632 |
| 71) Central Connecticut | 67   | 670 | -0.4778 |
| 72) Indiana State       | 66.8 | 668 | -0.4924 |
| 73) Southern Illinois   | 66.4 | 664 | -0.5217 |
| 74) Liberty             | 66.3 | 663 | -0.529  |
| 75) San Diego           | 66.2 | 662 | -0.5363 |
| 76) Murray State        | 65.9 | 659 | -0.5582 |
| 77) Samford             | 65.6 | 656 | -0.5802 |
| 78) Cornell             | 65.2 | 652 | -0.6094 |
| 79) Rhode Island        | 65   | 650 | -0.6241 |
| 80) Gardner-Webb        | 64.3 | 643 | -0.6752 |
| 81) Duquesne            | 63.8 | 638 | -0.7118 |
| 82) Villanova           | 63.6 | 636 | -0.7264 |
| 83) Cal Poly            | 63.4 | 634 | -0.7411 |
| 84) Yale                | 63   | 630 | -0.7703 |
| 85) VMI                 | 62.8 | 628 | -0.7849 |
| 86) Valparaiso          | 61.4 | 614 | -0.8873 |
| 87) Lafayette           | 61.3 | 613 | -0.8946 |
| 88) Richmond            | 61.3 | 613 | -0.8946 |
| 89) Missouri State      | 60.9 | 609 | -0.9239 |
| 90) Delaware            | 60.6 | 606 | -0.9458 |
| 91) Brown               | 60.3 | 603 | -0.9678 |
| 92) Georgetown          | 59.8 | 598 | -1.0043 |
| 93) Lehigh              | 59.8 | 598 | -1.0043 |
| 94) Monmouth            | 59.7 | 597 | -1.0116 |
| 95) Elon                | 58.9 | 589 | -1.0702 |
| 96) Chattanooga         | 58.3 | 583 | -1.114  |
| 97) Dartmouth           | 58.3 | 583 | -1.114  |
| 98) Butler              | 57.5 | 575 | -1.1725 |
| 99) Holy Cross          | 57.3 | 573 | -1.1872 |
| 100) Youngstown State   | 57.3 | 573 | -1.1872 |
| 101) Colgate            | 56.7 | 567 | -1.231  |
| 102) Dayton             | 56.7 | 567 | -1.231  |
| 103) Wofford            | 56.7 | 567 | -1.231  |
| 104) Furman             | 56.5 | 565 | -1.2457 |
| 105) Columbia           | 56   | 560 | -1.2822 |
| 106) Davidson           | 55.9 | 559 | -1.2895 |
| 107) Princeton          | 54   | 540 | -1.4285 |
|                         |      |     |         |

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|---------------------|-------------------------------|-----------------------------|---------|
| 108) William & Mary | 52.5                          | 525                         | -1.5382 |
| 109) Penn           | 52.3                          | 523                         | -1.5528 |
| 110) Bucknell       | 51.9                          | 519                         | -1.5821 |
| 111) The Citadel    | 51.7                          | 517                         | -1.5967 |

*Note*: The teams in capital letters and boldface represent Historically Black Colleges and Universities (HBCUs). \*\*p < .01, \*p < .05

State University, 6) Tennessee State University, 7) Alabama State University, 8) South Carolina State University, 9) Morgan State University, 10) University of Arkansas at Pine Bluff, 11) Prairie View A&M University, 12) Florida A&M University, and 13) Mississippi Valley State University. All of these 13 football programs represent historically black colleges and universities (HBCUs). Put another way, the 13 most penalized football teams from 2006 through 2015 in the Football Championship Subdivision (FCS) were all football teams from historically black colleges and universities (HBCUs).

Additional results of interest emerged after z-scores for team penalties were computed for individual institutions (See Table 1). The Football Championship Subdivision (FCS) team that was flagged for the most team penalties from 2006 through 2015 was the Bethune-Cookman University Wildcats. It was during this time period that Bethune-Cookman University averaged 111 team penalties per year from the 2006 through the 2015 season. Standardizing this score resulted in a z-score of 2.73 for Bethune Cookman University with regard to the number of standardized team penalties per year (See Table 1). Statistically speaking, significant results emerged at the .01 level for Bethune-Cookman University (p = 0.003) in terms of the average number of team penalties their team incurred per year during the aforementioned decade. Non-statistically speaking, the historically black college and university (HBCU) that is the Bethune-Cookman University Wildcats averaged more penalties per year than every other football team in the Football Championship Subdivision (FCS) from 2006 through 2015.

The Hampton University Pirates were the second most penalized football team in the Football Championship Subdivision (FCS) in the time period that ranged from 2006 through 2015. It was during this period of time that Hampton University averaged 109 team penalties per year from the 2006 through the 2015 season. The process of standardizing the mean number of team penalties for the Pirates of Hampton University yielded a *z*-score of 2.59. Academically speaking, the emergent *z*-score for the Hampton University Pirates was statistically significant at the .01 level (p = 0.004). Non-academically speaking, the historically black college and university (HBCU) that is the Hampton University Pirates ranked second in terms of the average number of team penalties per year from 2006 through 2015 in the Football Championship Subdivision (FCS).

The next 11 most penalized schools after 1) Bethune-Cookman University and 2) Hampton University in the Football Championship Subdivision (FCS) from 2006 through 2015 were also from historically black colleges and universities (HBCUs) as illustrated by Table One. The list of schools included in this range were 3) Jackson State University, 4) Texas Southern University, 5) Grambling State University, 6) Tennessee State University, 7) Alabama State University, 8) South Carolina State University, 9) Morgan State University, 10) University of Arkansas at Pine Bluff, 11) Prairie View A&M University, 12) Florida A&M University, and 13) Mississippi Valley State University. Five of the schools in this tier were also found to have been penalized by referees at a statistically significant level after a standardization to *z*-



scores was completed. More specifically, the historically black colleges and universities (HBCUs) of Jackson State University (M = 103;  $z_{\text{penalties}} = 2.17$ ; p = 0.01), Texas Southern University (M = 102;  $z_{\text{penalties}} = 2.04$ ; p = 0.02), Grambling State University (M = 101;  $z_{\text{penalties}} = 2.00$ ; p = 0.02), Tennessee State University, (M = 98;  $z_{\text{penalties}} = 1.78$ ; p = 0.03), and Alabama State University (M = 97;  $z_{\text{penalties}} = 1.70$ ; p = 0.04) also independently garnered an average number of team penalties per season that was statistically significant at the .05 level. Stated simply, the historically black colleges and universities (HBCUs) of Bethune-Cookman University, Hampton University, Jackson State University, Texas Southern University, Grambling State University, Tennessee State University, and Alabama State University were flagged for team penalties by referees at a significant level from 2006 through 2015. Indeed, the unearthed results from the Football Championship Subdivision (FCS) yielded several interesting points of discussion.

# **Discussion and Conclusion**

The present investigation revealed that historically black colleges and universities (HBCUs) in American college football were more penalized than predominantly white institutions (PWIs) in the Football Championship Subdivision (FCS) from 2006 through 2015. It could be argued based on the results of the conducted analyses and from the findings of previous literature that a combination of variables lead to a referee bias against football teams that represented historically black colleges and universities (HBCUs). The following paragraphs identify within a prima facie context four explanations and interpretations on the analyzed data that revealed historically black colleges and universities (HBCUs) were more penalized than average.

One notable reason why historically black colleges and universities (HBCUs) were more penalized than average is because the marching bands from historically black colleges and universities (HBCUs) shape the football game day experience. It almost goes without saving that the prominence, power, and experiences of marching band members at historically black colleges and universities (HBCUs) versus predominantly white institutions (PWIs) or historically white institutions (HWIs) are markedly different. As Essoka (2014) notes: "HBCU marching bands, much like athletic programs at HWIs, can be very powerful organizations on college and university campuses. However, their significant influence extends far beyond their entertainment aspect" (p. 134). The significant influence of the marching bands of historically black colleges and universities (HBCUs) is the most prevalent during the actual football game. The manifestation of loud percussion and animated energy created by the marching bands of historically black colleges and universities (HBCUs) before and during a football game creates a state of abnormal psychological arousal that is distracting for referees who officiate games that feature at least one football team from a historically black college and university (HBCU) relative to referees who officiate college football games that only feature predominantly white institutions (PWIs). The psychological distraction that is created by the marching bands of historically black colleges and universities (HBCUs) influences the ability of referees to effectively process the legality or illegality of the haptic behaviors of football players during the game. That is, the ability of referees to effectively perform the evaluative task of officiating a game is hindered by the marching bands of historically black colleges and universities (HBCUs).

The distraction assertion that marching bands from historically black colleges and universities (HBCUs) are sufficiently empowered to stir entertainment and commotion in a manner that



impairs the ability of referees to effectively call a game falls in line with the central axiom of distraction/conflict theory (Baron, 1986) that posits distractions inhibit evaluative performance on mentally complex tasks. Contextually speaking, game day referees are directly exposed to the distracting influence of the marching bands of historically black colleges and universities (HBCUs) during the "zero quarter" that occurs immediately before the game and during the actual game itself when the marching bands of historically black colleges and universities (HBCUs) are situated in the stands while the referees are within an audible range. It would seem that the rampant and reoccurring stimuli from the marching bands of historically black colleges and universities (HBCUs) produces a degree of cognitive overload that results in an adverse effect on the correct officiating of the game relative to the stimuli produced from the marching bands of predominantly white institutions (PWIs).

A second discussion point that offers an explanation as to why historically black colleges and universities (HBCUs) were penalized at an above average level within the Football Championship Subdivision (FCS) from the 2006 through the 2015 time period is because of black identity. It is plausible that more team penalties were administered to historically black colleges and universities (HBCUs) due to (a) self-perceptions of black identity that are maintained by African American athletes who play for football teams from historically black colleges and universities (HBCUs) and due to (b) other-perceptions of black identity that are maintained by college referees who officiate football games that involve historically black colleges and universities (HBCUs). In terms of the previous, it could be argued that African American football players from historically black colleges and universities (HBCUs) intrapersonally conceptualize the football field as a place to establish their socialized black identity of being a physically dominant and athletically skilled player. This intrapersonal conceptualization may lead to inappropriately aggressive behaviors in the field that violate the rules of the game. The stout feelings of racial pride and black identity that are housed within football players from historically black colleges and universities (HBCUs) are important to consider in this context as too are the other-perceptions of black identity that reside within game day referees.

Analyzing the notion of black identity via the lens of game day referees offers additional perceptual insight on the results of the current analysis. It is fair to assume based on the results of this investigation and based on previous literature that some game day referees are inherently biased when it comes to racial perceptions and also biased when it comes to the broader construct of color perceptions within a sporting context. For example, Frank and Gilovich (1988) found that teams whose primary jersey color was black were more likely to be penalized than teams whose primary jersey was not black. A similar psychological phenomenon appears to be at play when other-perceptions of skin color intersects with the phenomenon of a referee bias within the Football Championship Subdivision (FCS). One argument that naturally emerges on this front is that there are isolated referees who will unfavorably perceive and disproportionately flag football players from historically black colleges and universities (HBCUs) because of their own adverse perceptions of black identity. This small faction of referees in the Football Championship Subdivision (FCS) is likely to conceptualize African American football players as more aggressive and potentially deviant transgressors of fair play simply due to the skin color of the athlete. This effect appears to be magnified for biased referees in games that feature historically black colleges and universities (HBCUs) because these teams feature a greater proportion of African American football players relative to predominantly white institutions (PWIs). When taken together, the selfperception of black identity for African American football players who play for historically



black colleges and universities (HBCUs) coupled with other-perceptions of black identity that are negative for isolated pockets of referees who conceptualize African American football players as individuals who are likely to violate the rules of fair play jointly provide perceptual indicators on why football teams from historically black colleges and universities (HBCUs) were more penalized than average.

A third discussion point that offers insight with regard to team penalties within the Football Championship Subdivision (FCS) from 2006 through 2015 centers on organizational culture and player coaching. The data that materialized from the 2006 through the 2015 season suggests that a laissez faire attitude on team penalties was directly or indirectly communicated from coaches to players at the most penalized football programs during this time period. The coaching staff members of the most penalized football programs in the Football Championship Subdivision (FCS) arguably conceptualized aggressive play that is unfair as a more salient element than disciplined play. This speaks in part to the organizational culture that is present within the football culture and the institution at large. Further evidence on how discipline interacts with organizational culture and player coaching becomes more apparent upon comparing the seven most penalized football programs against and the seven least penalized football programs during the aforementioned decade. While it is appropriate to reiterate that statistically significant results emerged for the seven most penalized football teams who were all from historically black colleges and universities (HBCUs) during the aforementioned period of time, it is equally interesting to note the makeup of the seven least penalized football teams within the Football Championship Subdivision (FCS) from 2006 through 2015. As Table One illustrates, the seven least penalized schools during the aforementioned time period were 1) The Citadel, 2) Bucknell University, 3) University of Pennsylvania, 4) The College of William & Mary, 5) Princeton University, 6) Davidson College, and 7) Columbia University. Interestingly, three of the seven aforementioned universities hail from the famed culture of the Ivy League. Furthermore, it is also necessary to highlight that the least penalized football program from 2006 through 2015 was The Citadel whose mission statement articulates their cultural emphasis on developing "leaders in all walks of like by instilling the core values of The Citadel in a disciplined and intellectually challenging environment" (The Citadel, n. d., Mission statement). The organizational focus that The Citadel places on discipline combined with an honor policy that states "A Cadet will not lie, cheat or steal, nor tolerate those who do" (The Citadel, n. d., Core values statement) exemplifies an organizational philosophy in which the coaches and players expect disciplined behavior and a commitment to playing by the rules within the classroom and on the football field. The positive connotations ascribed to disciplined Cadets along with pre-game festivities at The Citadel which exposes referees to football players from the Citadel running through a line of impeccably dressed Cadets has been instrumental in terms of this institution being the least penalized football program in the Football Championship Subdivision (FCS) from 2006 through 2015. In other words, the weight of organizational culture and player coaching should not be overlooked with regard to considering the team penalty data for the aforementioned decade.

A final possible reason why seven historically black colleges and universities were penalized at a statistically significant level is tied to nonverbal theory. Theoretically speaking, many communication scholars would hurriedly point to seminal scholarship on Expectancy Violations Theory (Burgoon & Jones, 1976) as a way to logically explain team penalties in the Football Championship Subdivision (FCS). For instance, Expectancy Violations Theory (EVT) would posit that a referee observes a nonverbal football behavior that violates the normal expectancy in terms of the rules of fair play and would subsequently react by flagging



the source of the violating behavior. Indeed, Expectancy Violations Theory (EVT) offers an applicable and fundamentally sound foundation for understanding the scope of football penalties within the silo of an individual game. However, it is when a more thorough consideration of the game day experience within a broader context is contemplated that a different conclusion starts to materialize. College football officiating crews have their own team meetings as a crew in advance of officiating a football game within the field of play. It is during these team meetings in the days and hours leading up to a football game that referees can formally and informally discuss strategies for effectively officiating the game, identify players who were frequently penalized in previous games, as well as access data on overall team penalties from previous games and seasons. The pre-game dialogue of referees and available data that illustrates the increased amount of penalties that were administered against historically black colleges and universities (HBCUs) in the past thusly perpetuates preconceived notions in the minds of officials that violations of fair play are likely to occur when historically black colleges and universities (HBCUs) take the field of play. This pregame theorization amongst referees facilitates an eager propensity to flag historically black colleges and universities (HBCUs) and thereby fosters a negative snowball effect that cumulatively results in historically black colleges and universities (HBCUs) being penalized at an above average rate. Simply put, the pre-game theorizing and stereotyping that occurs in referee meetings before a game perpetuates an above average number of team penalties being levied against football teams from historically black colleges and universities (HBCUs).

In conclusion, the current analysis illustrated that college referees in American football flagged football teams from historically black colleges and universities (HBCUs) for team penalties at an above average rate in comparison to football teams from predominantly white institutions (PWIs) from the 2006 through the 2015 season. One notable limitation of this study was that the interpretations of the analyzed data were completed in an indirect matter. The prima facie explanations that were presented make it difficult to conclusively reconcile the stated interpretations of the analytic data. Nevertheless, this type of prima facie explanation is commonplace within the social sciences and also sets the stage for successive academic inquiry. Along that line, future research on referee bias against historically black colleges and universities (HBCUs) in the Football Championship Subdivision (FCS) could employ qualitative interviews with college referees or utilize ethnographic research methods that require repeatedly attending football games that involve at least one historically black college and university (HBCU) in order to corroborate the discussion of the current research. Frequently attending the football games of historically black colleges and universities (HBCUs) in person would help solidify the analytic data of this study, precipitate additional dialogue on the matter, and possibly help eradicate this American football bias against historically black colleges and universities (HBCUs) in a manner that would appease a famed academic and football coach by the name of Melvin Beaunorus Tolson.

## **Conflicts of Interest**

The author has no conflicts of interest to acknowledge.

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