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The Rooney Rule: Affirmative Action Policy and Institutional Discrimination in the National Football League

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UNIVERSITY OF MIAMI

THE *ROONEY RULE*: AFFIRMATIVE ACTION POLICY AND
INSTITUTIONAL DISCRIMINATION IN THE NATIONAL FOOTBALL LEAGUE

By

Erica R. Smith

A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

Coral Gables, Florida

December 2008

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THE *ROONEY RULE*: AFFIRMATIVE ACTION POLICY AND
INSTITUTIONAL DISCRIMINATION IN THE NATIONAL FOOTBALL LEAGUE

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African American underrepresentation in positions of power within the intercollegiate and professional sports hierarchy continues to be a major concern among the media, professional sports organizations, and academic researchers. Although African Americans dominate the rosters of college and professional football teams, they remain grossly underrepresented in the management ranks.

In 2002, the NFL designed a diversity plan that is commonly referred to as the "*Rooney Rule*" in order to increase the recruitment of African-Americans in head coaching positions. This dissertation is based on an examination of the impact of this policy in fostering diversity in NFL hiring patterns for the pre- and post- Rooney Rule eras. The study's objectives were (1) to examine the effectiveness of the Rooney Rule in increasing the hiring of African-American head coaches and (2) to identify and describe the factors and mechanisms that function to either enhance or impede mobility for minority candidates. To achieve these aims data was compiled from a variety of archival

sources, including NFL and news media records. Furthermore, an integrative theoretical model was developed to assess the previously overlooked factors, particularly job authority, affecting mobility for minorities.

The results revealed that the Rooney Rule has been effective in increasing the number of African-American coaches interviewed and ultimately hired as NFL head coaches. However, it was also found that there are more factors that impede rather than enhance mobility opportunities within the management ranks of the NFL. The integrative theoretical model predicted that race would play a role in a candidate receiving consideration for and being hired for a high authority, high power job. It was concluded that the factor that predicts mobility the most, as assessed by hiring, is authority level; which is the area in which African-Americans are underrepresented, thus leading to decreased chances of being interviewed or hired. Analyses indicated that African-American coaches are found in the less powerful coaching positions, are offered fewer interviews, and are hired less frequently; providing support for the argument that race continues to be important in the connection between leadership and selection for management positions.

DEDICATION

I must first and foremost acknowledge the loving grace with which the Lord has constantly surrounded me. For it is only by the grace of God that this project is completed.

I want to especially thank my friends, Michelle, Lisa, Ronke, and Shawna whose shoulders I cried on, whose ears I complained in and who provided tremendous support and inspiration.

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Chapter 1: Introduction

This chapter presents an overview of the research study. The first section provides the background of the problem of social mobility in the National Football League. The next section focuses on the National Football League's response to the problem of the underrepresentation of African-Americans in positions of power. The third section outlines the purpose and significance of the study, the limitations of previous theoretical frameworks and the contributions this study intends to make in addressing the previously mentioned research limitations. The last section outlines the research objectives and research questions designed to address the study's research objectives.

Background of the Problem

Over forty years ago, former American Sociological Association (ASA) President Hubert Blalock (1962) theorized that in spite of the growing representation of African-Americans in professional sports, retired African-American athletes would face obstacles moving into coaching and front office positions. His projection has indeed proven true. African-Americans continue to be underrepresented in positions of power within both intercollegiate and professional sports (Lapchick, 2001, 2003, 2004, 2005, 2006). Today, African-Americans dominate the rosters of college as well as professional football (African-American players constitute 66% of the NFL players and 44% of NCAA Division I football players), yet they remain grossly underrepresented in the management ranks (<http://www.NCAA.org>).

Over twenty-five years ago, Braddock (1980) analyzed the process of managerial recruitment in the National Football League and estimated that had race not operated to their disadvantage, there should have been roughly twenty African-Americans selected as

head coaches during the twenty year period (1960-80) of his study. Yet, in the quarter century since that landmark study, there have been just nine African-Americans appointed as head coaches in the National Football League (NFL). Fritz Pollard, an African-American who, along with Paul Robeson, was a charter member of the Akron Pros of the American Professional Football Association, the forerunner to the National Football League, later served as the head coach of the Hammond Pros of the APFA from 1923 to 1925, becoming the first African-American head coach in professional football. The pattern of continued underrepresentation of African-Americans in front office and field management positions in professional team sports has led to allegations by social scientists (Madden, 2004; Lapchick, 2001, 2003, 2004, 2005, 2006; Braddock, 1980; Loy and McElvogue, 1970) and pressure groups (e.g., Black Coaches Association, Congressional Black Caucus) that this reflects racial discrimination against African-Americans by owners and officials of professional sports teams.

The National Football League's Response to the Problem

In light of the fact that athletes traditionally move from the playing field to coaching and other front office positions, Kenneth Shropshire (1996) raised the question, how can you compel owners or management to consider this pool of African-American candidates (Shropshire, 1996)? The answer he suggested was financial sanction by the relevant league or by the NCAA when an owner or university breached the established standards (Shropshire, 1996). It has been said that the only way to get someone to do what you want is to hit him or her in the pockets. Consistent with this line of thought two prominent lawyers, Johnnie Cochran and Cyrus Mehri, published a report that proposed a Fair Competition Resolution to "promote an atmosphere in which African-American

coaches are fairly and equally considered for head coaching positions" (Cochran & Mehri, 2002:6). The resolution proposed incentives and penalties in an attempt to motivate NFL owners toward a more open selection process.

Public pressure, including a study critical of NFL hiring practices (Cochran and Mehri, 2002) and pressure from the Pollard Alliance as well as the African-American Coaches Association, prompted the NFL to adopt diversity policies designed to increase opportunities for African-Americans to become head coaches.

Shropshire (1996) outlined a three-phase program designed to create diversity within the sports industry. The first phase requires recognition of the existence of racism, discrimination and limited-access networks as barriers to equitable opportunities. The second phase evolves into a period where racial diversity is not only accepted, but becomes viewed as the gold standard. To achieve diversity, affirmative action can be utilized as one strategy. This allows a focus on opportunities for those qualified African-Americans who have been previously ignored largely because of their race. This strategy will also be useful in minimizing the potentially adverse impact of the old boy's network, which is so widely utilized in managerial recruitment in professional sports. The third phase of the transition is completed when the industry's management is representative of American society without the help of affirmative action programs. This ultimate goal will be achieved when those with power and control are able to hire solely based on an applicant's credentials and not their race (neither adhering to the old boy's network or working within affirmative action policy).

In 2002, as a result of Johnnie Cochran's pressure on the National Football League, an agreement was brokered with the NFL designed to increase the recruitment of

African-Americans in head coaching positions. The NFL agreed to establish a committee of team owners to investigate the issue of diversity. This resulted in the creation of a diversity plan that is commonly referred to as the "*Rooney Rule*". The NFL's recently adopted diversity plan was named after Pittsburgh Steelers owner Dan Rooney, chairman of the league's diversity committee. The *Rooney Rule* requires National Football League teams to interview at least one minority candidate for every head coaching vacancy, or face fines. This diversity policy was put in place on December 20, 2002, when league owners and top executives endorsed the guidelines set forth by the diversity committee to promote awareness of minority candidates for top jobs. The first season to operate under the Rooney Rule was the 2003 season.

The adoption of the Rooney Rule corresponds to the suggestions outlined in Shropshire's diversity program. While there are both some encouraging (increase in awareness) and discouraging (team fined for violation) early signs, the overall effect of this policy on increasing diversity off the playing field is yet to be determined.

Research Significance

The present study provides an effectiveness assessment of an affirmative action policy in improving diversity and the possible impediments that may exist, which would explain the lack of mobility minorities experience within the labor market, in particular, the National Football League. Discrimination, human/social capital, stacking and attribution have been some of the common theories relied on to explain racial inequality within the arena of sports.

Some have argued that the lack of diversity among head coaches within the NFL has resulted from an over reliance on "closed social networks" where a small group of

White coaches are recycled and African-American coaches, despite superior records, are denied similar opportunities (Madden, 2004; Shropshire, 1996; Braddock, 1980). Owners of NFL franchises have defended their past and current hiring practices claiming that the practice of hiring a head coach is not a racial issue but one based on objective criteria. However, there is no known preset list of qualifications that a candidate must meet to be considered for a head coaching position. Nor is there a catalog of the objective criteria that a candidate must fulfill for consideration. The decision-making process for managerial positions is “replete with ambiguity and uncertainty. This uncertainty encourages the use of stereotypes, attributions, and decision frame biases to simplify this subjective decision process. And these biases work to the detriment of minority managerial candidates,” (Thomas & Rich, 2005: 301).

History demonstrates how African-Americans have continually engaged in the battle for equal consideration and treatment. “Despite the nation’s fervently professed ideals of democracy and equality...racism pervaded every segment of American society,” (Spivey, 1988:282 as cited in Miller & Wiggins). While the tenets of sports are meritocracy and fair play, the arena of sport has proved that it is not an exception to the discrimination that permeates American social institutions. Although starting in the 1930s African-American men were recruited for their athletic ability, certain sports remained white-only until the 1950s (Spivey, 1983; 1975). And while there were sports in which African-American athletes played and excelled, they still faced discrimination and segregation on and off the field. This disparate treatment of African-American athletes, mirrored the daily struggle of blacks in the society at large (Miller & Wiggins, 2004; Spivey, 1983; Spivey & Jones, 1975). Looking as far back as the 1930s and 40s,

African-American athletes have complained about a host of problems, from the stacking of African-American athletes in certain positions, prejudice coaches, racial stereotyping, to the bias of local sports commentators in favor of white athletes (Miller & Wiggins, 2004; Spivey, 1983; Spivey & Jones, 1975).

In what has been termed the post civil rights era, race relations scholars debate whether discrimination continues to be a factor impeding African-American progress. One characteristic of the times is the transformation of the nature of discrimination into a form that is much more implicit and abstract in nature. Even in the post-civil rights era, American sport has not escaped the prevailing form of racial discrimination. While overt racial discrimination has basically been eradicated in sports, implicit racial bias persists and negatively affects racial minorities (Thomas & Rich, 2005). Yet, some argue that the gains of the Civil Rights movement ushered in a new color-blind era where racial discrimination has been virtually eliminated and race-conscious social policies are no longer necessary (Thernstrom & Thernstrom, 1997; Wilson, 1978). On the surface, statistics concerning the relatively high proportion of African-American athletes at the professional levels of sports might indeed convey a message that African-Americans have overcome the struggle and face a level playing field. However, despite the increased representation of African-Americans, as athletes on the field, discrimination in sports has not been completely eliminated (Wiggins & Miller, 2003). For instance, others have identified new and more elusive systemic barriers appearing in the place of old, blatant Jim Crow barriers that serve to limit equality of opportunity for African-Americans and other minorities (Sears, van Laar, Carrillo, & Kosterman, 1997; Kinder & Sanders, 1996). These new barriers include institutional practices that prevent minorities from achieving

equitable representation in positions of power and control in organizations (top level managers, presidents, CEOs), including, the field of professional sports (i.e. coaches, general managers, and owners). For example, several studies have documented that these new barriers have resulted in positional segregation, salary discrimination, underrepresentation of African-Americans in management, and biased media treatment against African-American athletes (Madden, 2004; Braddock, 1978, 1980; Eitzen & Yetman, 1972; McPherson, 1975a, 1975b; Loy & McElvogue, 1970).

Dr. Donald Spivey, chair of the Department of History at the University of Miami, a respected historian of the African-American experience notes that, “Football mirrored society with the same lines of discrimination and inequality that existed in society in general,” ([http:// www.minnesota.publicradio.org](http://www.minnesota.publicradio.org)). Thus, despite the increased representation of African-Americans as athletes on the field, discrimination in sports has not been completely eliminated and the racial constitution of its athletes has only worked to obscure the barriers that exist in the NFL’s upper-management positions (Shropshire, 1996). In this sense, African-American underrepresentation in top management positions in professional football parallels their underrepresentation in the upper ranks of the corporate world. On one hand, this may not be surprising since sports as a social institution is often described as a microcosm and reflection of society as a whole (Spivey, 2003; Lapchick, 1996; Frey & Eitzen, 1991). Kenneth Chenault, one of the only African-American CEO Officers of a Fortune 500 company, noted the disparity parallels corporate America where not one of the one hundred largest corporations in America has an African-American chief executive officer (Smith, 1997). Thus, the lack of racial diversity in coaching may be said to reflect the larger demographic imbalance in

corporate America than it represents any unique aspect of the sport's world (Nixon, 2008; Nixon and Frey, 1996). On the other hand, because sport has also been characterized as society's most egalitarian and meritocratic social institution, one might expect more equitable access to positions of power and authority in sports organizations compared to other sectors of the labor market.

Sports provide an ideal context in which to examine race and discrimination because "it offers an opportunity for research on highly crystallized forms of social structure not found in other systems or situations," (Luschen, 1990:59 as cited in Frey & Eitzen, 1991). An investigation of the hiring practices in the NFL is not simply about revealing problems of unequal opportunity in mobility that may exist in the NFL, but can shed light on inequities in other major institutions in American society.

Research Objectives

This research study was undertaken to examine the current process of managerial recruitment in the National Football League. The study addresses shortcomings of previous research on racial inequality in professional sports, by taking an integrative approach. Despite their contributions, a limitation of past theories is the focus on a singular explanation (human/social capital, stacking, centrality, etc). An integrative approach acknowledges the need for more than one explanation for such a complex issue.

Past research has provided a foundation and point to the significance of race. However, further research is needed in order to discern the mechanisms behind mobility. An integrative approach will build on previous theories and expand the discussion to provide an examination of the underlying processes through which race might be a factor

in movement through the selection and hiring process. Specifically, this study adds the concept of authority level to the discussion and examines the role of authority levels as a mechanism to produce or impede mobility within the National Football League.

The study uses data compiled from a variety of sources, including NFL team and news media records and other archival sources. To examine the NFL head coach hiring processes, a time series design is employed to evaluate National Football League head coach hires during the period of the 3 years prior to the implementation of the Rooney Rule and 3 years following the inception of this policy.

The purpose of this research study was to examine the effectiveness of the Affirmative Action Plan instituted by the NFL and to identify the institutional discrimination mechanisms that shape the paths of mobility for minority candidates through the current managerial recruitment process in the National Football League.

The research objectives are:

1. To determine if there was an increase in the number of African-American head coaching candidates hired following the Rooney Rule.
2. To determine if a lack of human/social capital is a factor in the hiring process for head coach vacancies, by comparing the credentials of African-American and White candidates.
3. To assess the role of race as a factor in the hiring process for head coach vacancies on NFL teams:
 - a. by assessing the effect of race on interview pools (candidates who are interviewed for head coaching positions); and

- b. by assessing the effect of race on selection of head coaches (the candidate hired from the interview pool).
4. To identify possible impediments to mobility and equal representation in NFL head coaching positions.
5. To examine the distribution of authority level positions in the NFL by race and experience.
6. To examine the underlying processes through which race might affect an individual's movement through the selection and hiring stages for a position as head coach in the NFL:
 - a. by identifying and describing the (institutional discrimination) mechanisms that may function to impede mobility for African-American candidates; and
 - b. by identifying and describing the mechanisms that may function to enhance mobility for White candidates.

Research Questions

The following research questions were designed to address the research objectives and will be tested to assess whether demographic, coaching credential measures, centrality and human capital factors identified in the literature contribute to the racial inequities found in the coaching ranks of the National Football League.

1. Are coaches with more experience more likely to be interviewed/ hired for an open head coaching position with the NFL than coaches with less experience?
2. Does the distribution of authority levels differ based on experience?

3. Are whites more likely to be interviewed/hired for an open head coaching position in the NFL than African-Americans?
4. Are African-Americans overrepresented or “stacked” in lower authority (non-central) level positions and underrepresented in higher authority (power/central) level positions in comparison to their White counterparts?
5. Are coaches with higher authority level (power/central) position experience more likely to be interviewed/hired for an open head coaching position with the NFL than coaches with lower authority level (non-central) position experience?
6. Are coaches with higher coaching efficiency (measured by post-season appearances) more likely to be interviewed/hired for an open head coaching position with the NFL than coaches with lower coaching efficiency (measured by post-season appearances)?

In addition to the above research questions, which describe the current status of hiring in the National Football League in relation to race and other factors, several theoretically generated hypotheses will be stated and tested, based on the literature review and theoretical framework developed in Chapter 2 which follows.

Chapter 2: Literature Review

This chapter presents a review of previous and existing research regarding the racial inequality in the current labor market and establishes why there is a need for an alternative framework that explains factors affecting a candidate's entrance and mobility within the labor market, in particular, the National Football League. The theoretical literature provides a foundation for a review of the empirical literature, which follows. The theoretical review includes: (1) an overview of theories and empirical tests used to explain racial inequality in the labor market as a whole; (2) an overview of theories and empirical tests that have been employed to explain racial inequality in sports, including attribution theory, social networking, centrality thesis and stacking; (3) an introduction of a model to guide an integrative theoretical approach to be employed in the present analysis of racial inequities in head coach hiring in the National Football League.

While several theories have attempted to explain racial inequities in head coach hiring in the NFL, they have primarily focused on pay, position, and recruitment and, thus, have not been able to adequately explain the occupational segregation, hiring and mobility issues faced by African-Americans. A broader context for understanding what is happening in the NFL can be gained by looking at the issue of underrepresentation of minorities in the labor market in general.

Explanation for Underrepresentation in the Labor Market

Generally within the labor market the level of access to entry-level positions has been used to measure minority representation. However, this tends to detract from the continuing practices that have denied qualified minority candidates equal access to the

high-level positions within an organization. As Lapchick notes, "the hiring practices in the NFL mirror the racial hiring practice of corporate America" (Lapchick, 1996: 98).

Existing research on racial stratification in upper-tier occupations has focused on a range of critical issues. One area of research has documented the discriminatory placement of African-American managers and supervisors in politically induced, "racialized" job functions that offer racially delineated and marginalized mobility tracks within White management hierarchies (Brown & Erie, 1981; Collins, 1983, 1989, 1993; Durr & Logan, 1997). Additional research has established that African-American managers and executives tend to have relatively few opportunities to exercise higher-order and reward relevant job functions such as job authority, job autonomy, and substantive complexity of work (Wilson, 1997; Tomaskovic-Devey, 1993a, 1993b; Kluegel, 1978). Lastly, studies of racial differences in socio-economic rewards in upper-tier occupations have found that, compared to Whites, African-Americans receive inferior returns in the form of income and socioeconomic status for their personal investments, such as education and work-related experience (Thomas, 1993, 1995; Farley & Allen, 1987).

Research on workforce diversity has highlighted that minorities in organizations face the following barriers: stereotyping and preconceptions of roles and abilities (Bertrand & Mullainathan, 2004; Braddock & McPartland, 1987), statistical discrimination (Kaufman, 2002; Bielby & Baron, 1986; Tomaskovic-Devey, 1993a, 1993b), social closure (Tomaskovic-Devey 1993a, 1993b), homologous reproduction (Kanter, 1977) exclusion from informal networks of communication (Giscombe &

Mattis, 2002; Ibarra, 1993; Kanter, 1977), and lack of significant experience, visible and/or challenging assignments (Hurley, Fagenson-Eland & Sonnenfeld, 1997).

Stereotypes

Pettigrew (1979), Berger and Luckmann (1966), Allport (1954), and Becker (1957) have examined how stereotypes and attributions interact with structural situations to produce discrimination and the resulting social classes/groupings that exist in society and the labor market. Stereotypes have been described as schemas based on overgeneralizations of a group that correspond to a person's accumulated knowledge, beliefs, experiences, and expectancies in relation to the subject at hand (Kim, 2002). These schemas are in turn what people use to organize information, sorting people into in-group and out-groups. The existence of "social schemas" causes us to classify individuals and objects into different categories--African-American and White, important and trivial, female and male-- and to create a mental prototype of a "typical" category member (Reskin, 2000). They act as hidden biases on information processing which may result in discrimination, both unintentional and unconscious, (Kim, 2002). In a society which is ethnically and racially differentiated and has divided along the lines of dominant and subordinate groups, social and economic stratification occurs when the dominant group uses power in its economic, political, or social form to erect an opportunity structure in which less powerful groups are consigned to lower social and economic positions, (Arnold, 2004). This complex process includes a pivotal subprocess in which the dominant group seizes upon an easily verifiable and differentiating characteristic of potential and actual competitors -- religion, language, racial or ethnic origin, lack of property, or educational qualification -- and uses it as a pretext for excluding them from

competition for economic, political and social advantages. An external feature, such as race or gender, summons the negative definitions and attributions of a group and that particular feature becomes the predominant mode of identifying minority members in connection with social and economic inclusion/exclusion, (Arnold, 2004). In turn, the factors that persist over time operate as potential or actual impediments to a person's mobility (Arnold, 2004). This gives rise to reflexive stereotypes, representations and judgments about them that increase prejudice and discrimination against them in educational, work and social settings (Pettigrew 1979; Allport 1954).

One of the main effects of anti-African-American stereotypes and judgments is revealed most clearly in the selections made by members of the dominant White group during the course of their search (Arnold, 2004). In other words, because of attitudes based on negative definitions of African-Americans as a group, the dominant group is more inclined to select a non-African-American over an African-American applicant in various settings; for instance searching for a low or managerial employee (Braddock & McPartland, 1987; Pettigrew & Martin, 1987; Kaufman, 1986) or a prospective home-buyer (Massey & Denton, 1987).

Social identity theory, which incorporates the concept of stereotypes, contends that managers are likely to use salient social categories as an indicator of similarity and thus are more likely to prefer individuals with whom they share category membership (Kanter, 1977; Tajfel & Turner, 1979). This theory suggests that in the hiring process, managers are more likely to select applicants similar to themselves. Using a variety of methodologies, research on selection processes in organizations has provided support for social identity theory (Lewis & Sherman, 2003). Some studies have even demonstrated

that simply having an African-American-sounding name can affect the number of callbacks received for job interviews compared to having a White-sounding name (Bertrand & Mullainathan, 2004). These selection biases that favor White candidates over minorities can have implications for recruiting minority employees, which result in racial discrimination and inequality within the labor market.

Economic Theories of Discrimination

“Economic discrimination occurs when information on a given worker’s group is unrelated to the economic value of that worker’s labor, and use of information on group membership harms a group,” (Sattinger, 1998: 225). Various economists have attempted to offer economic explanations for the phenomenon of racial discrimination, such as, Becker on market imperfections, Thurow on economic motives, Arrow on employment relations, and Darity on social hierarchy. Most of the economic literature on discrimination is based on neoclassical economic analysis, which is primarily concerned with the interaction of individual economic agents in markets (Reich, 1981). Largely, neoclassical economists view racism as irrational and have hypothesized that it will be wiped out by market forces. The competition among employers that occurs in the labor market is expected to eliminate wage differences and discrimination based on race. Accordingly, the challenge for economists has been how to explain the persistence of racial discrimination in the labor market despite the neoclassical expectation of its elimination (Reich, 1981).

Becker (1957, 1971) focused on employer discrimination using distastes (preferences) and market imperfections to explain the continuing racial inequality observed in the labor market. Becker (1957, 1971) argued that Whites prefer not to hire

African-Americans based on what has been termed a 'taste for discrimination'. If an employer finds interaction unpleasant and behaves in a way that indicates a willingness to pay to avoid contact with the unpleasant individual or group, that employer displays a taste for discrimination (Becker 1957, 1971).

In contrast to Becker, Thurow (1969) argues that economic gain is the main motive for discrimination rather than personal preferences (or tastes). Thurow (1969) asserts that the economically dominant racial group achieves the (economic) benefit through collective action. Thurow (1969) classifies seven types of discrimination that Whites use to maximize their advantage when they act as a cartel against African-Americans: (1) employment discrimination, resulting in higher African-American unemployment, (2) wage discrimination, resulting in lower African-American rewards for equal work, (3) human capital discrimination, resulting in poorer investments in African-American education, (5) capital discrimination, resulting in limited African-American access to the market, (6) monopoly power discrimination, resulting in relegating African-Americans to the secondary labor market and (7) occupational discrimination, resulting in occupational entry barriers against African-Americans. Thurow's work is helpful in specifying the mechanisms used and the conditions in which Whites receive economic advantages.

While Thurow looks at the economic motives and benefits that Whites gain from discrimination, Arrow (1972) explains that discrimination forces African-Americans to 'crowd' into low paying jobs, which limits African-American labor supply to high paying/power occupations. This allows Whites to gain from working in the higher paying and occupy the high power jobs, which are closed to African-Americans.

Darity (1989) acknowledges the competitive processes among workers and proposes that an occupational hierarchy exists. Darity (1989) maintains that different clusters of occupations are associated with different class positions and that the members of a particular racial group can monopolize preferred positions in a system of occupational stratification.

Arrow (1972) proposes another view that sees discrimination developing from employers' rational efforts to minimize personnel costs. Arrow's model takes into consideration the concept of statistical discrimination, where employers form a stereotype about worker characteristics to minimize the costs that might otherwise be required to make well-informed hiring decisions.

Statistical Discrimination

Title VII of the 1964 Civil Rights Act makes it illegal for firms to collect information that can be used to discriminate against applicants. These laws are used to promote equal opportunity by getting firms to focus on the individual merit of candidates. However, these laws cannot keep companies from focusing on easily observable demographic characteristics, such as gender, ethnicity, or age leading to statistical discrimination (Sattinger, 1998).

Statistical discrimination is said to occur when individuals' characteristics are imperfectly observed resulting in judgment on the basis of the average characteristics of groups they belong to as well as their own characteristics (Sattinger, 1998). Kaufman (2002), Bielby and Baron (1986), Tomaskovic-Devey (1993) among others, have used theories of statistical discrimination to examine occupational segregation. The use of these models offers an explanation for the continuing workplace segregation, even in

contexts where employee attributes vary little by sex or race. Statistical discrimination may appear in the form of differences in employment criteria or differences in interviews per worker (Sattinger, 1998). The theoretical assumption is that employers use real or perceived statistical differences among race and sex groups to evaluate the productivity of potential employees.

Sattinger (1998) approached statistical discrimination by looking at employment criteria and interview rates, which explains observable difference in employment rates among groups. Discrimination in an active recruitment model takes the form of unequal likelihoods of interviews rather than unequal employment criteria. Employers are able to influence the composition of the interview pool through where they advertise, how they advertise, and the source of the applicants (Sattinger, 1998). For example, applicants who learn about a job opening through a current employer are more likely to belong to the same group as the new employer.

Research on employment differences between groups, including quit rates, interview rates, and job offer rates is given a theoretical basis from statistical discrimination. Models of statistical discrimination anticipate that groups with higher incidence of unfavorable characteristics will get fewer interviews and fewer job offers per interview. Holzer (1987) examined group differences in the job search process and identified job offer rates as a major reason for unequal employment outcomes.

The distinct feature of statistical discrimination is that it occurs in the absence of any tastes for discrimination. Statistical discrimination does not look at whether discrimination is efficient or whether firms are intentionally doing anything wrong but it looks at the impact on groups. As Sattinger states:

The significance of statistical discrimination is that it is generated by a market system that is more or less perfectly competitive. Unequal treatment and economic discrimination are not aberrations. They do not require significant or meaningful departures from full information, and in particular do not require imperfect competition, tastes for discrimination, or utility maximization by firms. All that is needed is an employment-relevant characteristic that is imperfectly observed. The existence of statistical discrimination shows that the tendency of a market system is instead to divide the labor market into groups that are treated separately and that experience unequal conditions (p. 229).

The preceding review focused on theories that have been used in attempts to explain racial inequality and underrepresentation of minorities within occupational management ranks. The following section examines processes that create conditions of underrepresentation in management.

Status and Social Closure

Weber's essay, *Economy and Society* (1922) argues that power has sources that are independent of economic power. According to Weber, the degree of respect or honor shown to an individual in society is called status. Thus, one source of power is status. This refers to the degree to which an individual is respected and honored by society. People with similar status share a similar status situation, and this encourages them to form into status groups. Status closure occurs when membership of a status group becomes closed to outsiders. According to Tomaskovic-Devey, (1993) "Status closure processes are the means by which super ordinate groups preserve their advantage by tying access to jobs or other scarce goods to group characteristics," such as race (p.9). Tomaskovic-Devey further notes that this approach is distinct from standard accounts of

discrimination by pointing out “historical and contemporary patterns of exclusion involve not only discrimination or market mechanisms of job allocation but also privilege, (Tomaskovic-Devey, 1993:10).

Social closure, operating similarly to status closure, is an active strategy and the ability and desire to exclude subordinated groups may vary depending on the organizational and cultural structures (Tomaskovic-Devey, 1993). A number of studies have identified organizational formalization as one such structure, arguing that formal rules and procedures maximize meritocratic hiring procedures. For example, Bielby and Baron (1986) and Kaufman (1986) found negative relationships between formalization and segregation, respectively, for sex and for race.

Social closure assumes that discrimination is a vehicle for maintaining advantage, and that status groups attempt to maximize the opportunities and advantages of group members. Thus, male workers on the one hand, and Whites on the other, are thought to work actively to preserve their positions in the labor force. This suggests that practices designed to exclude women and minority men are particularly in force in better jobs (Tomaskovic-Devey, 1993).

Structural Integration

Structural integration refers to the levels of heterogeneity (dissimilarity) in the formal structure of an organization (Cox, 1991). Two measures of structural integration were identified: “(1) overall employment profile and (2) participation in the power structure of the organization” (Cox, 1993:216). In the labor market several barriers, including institutional bias, may serve to limit minority opportunities. For example, although traditional job interviews offer many advantages to both employers and job

candidates, two facts about them combine to create a strong potential for cultural-diversity-related bias: (1) the “similar to me” phenomenon and (2) the fact that interviewers, especially those making the final decisions, tend to be members of the dominant group (Cox, 1993: 217). While most managers consider themselves objective, evidence indicates that selection decisions are heavily skewed by the extent to which the decision maker views the job candidate as being similar to themselves (Arnold and Feldman, 1986).

Two dominant concepts put forth by scholars to explain the exclusionary effects of sport as an institution are homologous reproduction and hegemony (Messner, 1988; Schell & Rodriguez, 2000; Whisenant, Miller, and Pedersen, 2005).

Homologous Reproduction and Hegemony

Rosebeth Kanter (1977) first introduced the concept of homologous reproduction when offering explanatory factors for women employed in male dominated professions. Kanter suggested that within the labor market, homologous or homosocial reproduction occurs whereby a group in power systematically reproduces itself in its own image (Stangl & Kane, 1991). Simply stated, the homologous reproduction theory asserts that people reproduce their environment to mirror themselves and the selection of candidates whose backgrounds and experiences are similar to those of the decision makers in a way in which the dominant group’s influence is sustained (Kanter, 1977; Lovett & Lowry, 1994; Stangl & Kane, 1991). Thus, the dominant group exercises and maintains its position of power by filtering the people allowed into its circle of influence based on who has characteristics similar to the group’s characteristics.

Antonio Gramsci introduced the concept of hegemony, which asserts that the dominant group maintains their privileged status in society by subtly imposing an ideology that establishes their cultural practices as superior and the most legitimate. Hegemony has since been used to explain how social dominance is exercised and inequalities maintained within and through the domain of sports (Schell & Rodriguez, 2000). An institution is considered hegemonic when a dominant ideology it promotes is broadly embraced and reinforced within a society (Burgess, Edwards, and Skinner, 2003). When this concept has been applied to sport, it has been found that the privileged White male culture legitimizes its domination by (re) producing ideologies which define subordinate groups (women, minorities) as inferior, and outline the boundaries that subordinates should stay within (Costa & Guthrie, 1994). Through various practices (i.e. inequitable media coverage, stereotyping, social networks, homologous reproduction) the primary powerbrokers in sport participate in the maintenance of hegemony (Whisenant et al., 2005).

More often than not, the dominant group is composed of White males and the presence of shared backgrounds and experiences often produces a network that is closed to African-American males. This exclusion from positions, which recurrently includes the exclusion from even consideration (interviews), is the result of social characteristics, not the lack of competencies for the position. As a result, homologous reproduction in leadership positions works to maintain hegemonic masculinity with its acceptance of White men in power as just the status quo. This phenomenon has also been referred to as the “culture of similarity” (Doherty & Chelladurai, 1999:288). Over a decade ago, scholars such as Cox (1993) documented organizational bias. Recent studies have

updated this research and have found that there is still a major barrier to equity, diversity, and access for non-majority groups existing in organizations (Doherty & Chelladurai, 1999; Gilbert, Stead, & Ivancevich, 1999).

Particularistic Mobility Thesis

The “particularistic mobility thesis” is reminiscent of Blumer, Allport and Pettigrew who identified how employers in work settings characterized by meritocratic ideologies make recruitment decisions that reinforce existing patterns of racial exclusion. Employment related decisions tend not to be discriminatory in intent, but ultimately result in the exclusion of racial minorities.

The particularistic mobility thesis has recently been used to examine institutional discrimination in predominantly White firms (Wilson, 1997, 2001). These studies recognize a central source of exclusion found at the heart of many institutionally discriminatory practices: employer decisions regarding recruitment and promotion are susceptible to “particularistic manipulation” (Klugel, 1978). According to Wilson (1997), employer decisions are often based on a range of personal characteristics that are racially stereotyped, vaguely defined and difficult to measure, such as good character, sound judgment, and leadership potential.

Studies have found that the high value placed on vaguely defined criteria related to an applicant’s personal characteristics adversely affects African-American access to authority. Previous research (Braddock & McPartland, 1987; Fernandez, 1975, 1981) contends that African-Americans are handicapped by their reliance on racially segregated job networks which inhibits them from engaging in the informal interactions that demonstrate crucial personal qualities. Occupational mobility is also hampered by what

Braddock and McPartland (1987) termed “informational bias,” which operates as a form of “statistical discrimination” and minorities’ credentials (i.e., prior work experience, references, and school performance) are viewed as less credible.

Human capital theory has suggested that minority applicants do not acquire the requisite credential needed to obtain mobility or authority level in their occupation careers. However, the problem may be the operation of “internal labor markets,” which do not facilitate the flow of direct information to prospective employers on a minority candidate’s credentials and performance (Reskin, 1993; Braddock & McPartland, 1987). Thus, even though minorities may be qualified for a position, processes of statistical discrimination exclude them from consideration for many jobs. In light of these discriminatory methods, several studies suggest that minorities accumulate exceptional individual credentials and experience as an attempt to overcome discriminatory processes (Madden, 2004; Bielby, 1987; Fernandez, 1975).

Following this line of reasoning, the particularistic mobility thesis predicts that the determinants of job authority should be fundamentally different for African-Americans and Whites (Wilson, 1997). Specifically, African-Americans should reach positions of authority based on a more deterministic and formal route. This translates to an imbalanced workplace in terms of job authority and job position paths. African-Americans will be evaluated for promotion into authority positions on the basis of more traditional individualistic characteristics, including educational attainment, work experience, and tenure with employer (Mueller, Parcel, & Tanaka, 1989). The particularistic mobility thesis posits that African-American’s path to authority positions will typically be more systematic and ordered than for White workers. Specifically, they

will only be granted job authority by those employers for whom they have directly demonstrated the required personal characteristics. African-Americans will only reach positions of job authority after obtaining relevant experience at a similar hierarchical level in the job structure. Wilson (1997) provides three findings that support the particularistic mobility thesis. First, most significant predictors for African-Americans and Whites are different, meaning that they had different paths to travel to reach positions of job authority. Second, more determinants were statistically significant for African-Americans; consequently, the model has greater explanatory power for African-Americans than Whites, suggesting that African-Americans follow a more circumscribed route to job authority. Third, analysis of human capital and path to promotion variables indicates that African-Americans' more circumscribed route to job authority is based on a closer scrutiny of formal credentials and related experience at a similar level in the occupational structure. Overall, Wilson (1997) found greater racial differences in the effects of human capital variable at high authority levels suggesting that particularism may be more pronounced at higher levels of decision making responsibility, such as salary and promotions, as opposed to simple supervisory responsibilities. Several findings suggest that both African-Americans and Whites reach the lower authority levels via a relatively formal process. Specifically, both African-Americans and Whites reach authority levels through internal promotion from a next to last job at the same occupational level. However (Wilson, 1997; Wilson, Sakura-Lemessy, & West, 1999) findings indicate that the route for African-Americans to achieve low or high authority levels is more formal when compared with Whites. Relative to Whites, African-Americans must have a list of formal credentials and have previous work experience at a

similar position in the job structure to reach authority positions. These findings suggest that the previously reviewed theories of statistical discrimination and social closure are useful in the explanation of restricted minority access to high power positions (Wilson, 1997). Several studies have used the Weberian concept of “social closure” to explain the processes where dominant group members attempt to preserve their advantage by tying access to “power” jobs to group characteristics (Tomaskovic-Devey, 1993). The relatively deterministic process necessary to reach the top authority positions operates as a mechanism of social closure for African-Americans (Wilson, 1997). Wilson (1997) notes that African-Americans’ dependence on the accumulation of human capital credentials such as relevant job experience limits opportunities for authority attainment because of discriminatory obstacles encountered in their acquisition. Whites do not suffer from these impediments and can reach authority positions through formal and informal channels, such as social networks that are not available to African-Americans, which in turn widens the pool of prospective employers and available authority slots. In contrast, African-Americans’ inability to showcase their human capital skills restricts both the pool of prospective employers who will consider them for authority slots, as well as the number of authority slots available.

Explanations for Underrepresentation in the National Football League

Labor attorney Cyrus Mehri points out that the problem of underrepresentation of African-Americans in the NFL coaching ranks is very similar to the problems he has seen in corporate discrimination cases. "Becoming a head coach is not based on merit--it is based on who you know...this is very much a metaphor for what is going on in corporate America," says Mehri (as quoted in Simmons, 2002:2).

Research has identified a number of employment barriers that tend to limit the opportunities for African-Americans to enter, or advance, in the coaching profession. These barriers are grounded in several theories (e.g., attribution theory, social networks, centrality, and stacking), which social scientists have employed to explain both specific and general patterns of racial inequality in sports (Lapchick, 1994, 1998, 2004; Sellers, 1993; Brooks & Althouse, 1993; Adler & Adler, 1991; Edwards, 1973). For example, Sage (1993) identified racial stratification as one of the most significant barriers facing African-American coaches, indicating:

the higher levels where the greatest power, prestige, and material rewards reside, are more insulated from direct scrutiny, so those who control access to the higher levels tend to employ subtle ways of maintaining discriminatory practices. Managerial positions in intercollegiate sports continue to elude African-Americans. Those who are college coaches are overwhelmingly stacked as assistant coaches. There is a scandalously low percentage of African-American athletic directors in collegiate sports. Most executive vacancies continue to go to Whites, sometimes by thinly disguised ploys that eliminate African-Americans from serious consideration for the position, (p. 11)

Human and Social Capital Theory

Human and social capital theories have previously been used to justify the difference in career mobility found between White and African-American coaches, arguing that African-American coaches possess less human capital in the form of experience, training, and education and less social capital (weaker or smaller social networks) than White coaches.

Human capital theory posits that personal investments in education, experience, training, and credentials will result in increased job mobility, promotions, and job authority (Becker, 1993). Empirical research has confirmed that human capital investments predict progression in management (Judge, Cable, Boudreau, & Bretz, 1995).

Based on this theory, it is argued that, since African-American coaches do not experience the same rate of job mobility, job success or authority attainment, they are expected to have fewer human capital investments (Dehass, 2003). However, the evidence does not support this contention. With the exception of Marvin Lewis, every African-American coach in NFL history has taken his team to the playoffs within two seasons of starting as a head coach. Art Shell, Ray Rhodes, Dennis Green, Tony Dungy, Herman Edwards, and Lovie Smith all made at least one conference championship game appearance.

Bourdieu defined social capital as, “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (Bourdieu 1986: 248). Social capital is a broad term that encompasses the ‘norms and networks facilitating collective actions for mutual benefits’ (Woolcock, 1998:155). Accordingly definitions of social capital generally include reference to social networks and the productive benefits stemming from them.

Social Networks

Social network theory explains job access and mobility in terms of networks used to solicit informal and subjective information about social and professional opportunities, such as job openings. Often catch phrases such as “who you know not what you know” are examples of social network theory in practice. Similarly, individuals use their social networks to put their proverbial “foot in the door,” which could create a barrier for other candidates applying for the same position. Since an individual’s social networks tend to

be homologous, or mirror the individual's broad characteristics (i.e. sex, race, socioeconomic status), this further creates and maintains an increasingly restrictive network for people of color to establish and maintain (Harrison, 2004).

Network members who interact with others that are similar in race or gender are believed to benefit from increased career outcomes. This is based on the belief that there is a more substantial amount of information and social support exchanged within these relationships compared to mixed race or gender relationships (James, 2000).

Additionally, having little or no demographic similarity between network members has been shown to restrict relationships from forming, which, in turn, limits the benefits that could result from them (Ibarra, 1993, 1997). Thus, homogeneity in one's social network with regard to racial similarity is expected to be a valuable social capital resource.

Research has indicated that minorities are often excluded from majority members' informal social networks frequently impeding their ability to succeed (Ibarra, 1993, 1997; Northcraft & Gutek, 1993; Morrison & Von Glinow, 1990; Kanter, 1977). In diverse organizations, informal coalitions may develop around shared category membership (e.g. race and gender), resulting in critical information bypassing formal networks of reporting relationships in favor of informal networks based on functions or social categories (Schneider & Northcraft, 1999). Thus, individuals left out of these informal networks may have difficulty succeeding or rising in organizations (Ibarra, 1993; Kanter, 1977).

Shropshire (1996) addressed the association between stereotypes, minorities' exclusion from upper-management positions and social networks. He found that in professional sports, head coaching selections are influenced by unconscious bias which stems from the internalization of stereotypes regarding African-American intellectual

inferiority and leads to the establishment and maintenance of “old boy” networks. The term “old boy network” is simply another expression used to describe the social networking systems and perceptions that exist with majority group based communities. These networks have a tendency to reinforce traditional power structures by limiting hiring practices and mobility to other elite or majority members and their acquaintances (Shropshire, 1996). This often operates to exclude African-Americans and other minorities from prized jobs, resources, or power.

Generally, social capital theory is used as an explanation for racial differences in career success achievements. Using social capital as the basis for explaining racial differences in career success, the expectation is for African-American coaches to possess less capital than their White counterparts. Specifically, we expect that African-American coaches might possess less social capital with respect to social networks, providing an explanation for why African-Americans have been found to attain less career success than their White equivalents. Thus, social capital could be thought of as an intervening variable between race and career success.

Discrimination-Based Explanations

Another category of explanations used to account for racial disparities in career success focuses on discrimination in the workplace. The occupational discrimination argument suggests that any disparities in mobility, authority level or organization outcomes are a function of racial minority status, rather than differences in achieved personal investments (e.g., human and social capital). Greenhaus, Parasuraman, and Wormley, (1990) described two different forms of discriminatory practices that occur in the workplace: access discrimination and treatment discrimination.

Access discrimination examines the limitations that minority group members encounter prior to entering a job, which are not related to their actual or potential job performance. This form of discrimination occurs at the time a job is filled (rejection of applications, limited job postings, and limited interviews) and prevents members of a particular group from entering a job, organization, or profession (Greenhaus et al, 1990; Ilgen & Youtz, 1986). The consequences of access discrimination include failing to receive a job for which one is qualified, failure to advance in authority level, and disproportionate pay (Greenhaus et al, 1990). Treatment discrimination “occurs when subgroup members receive fewer rewards, resources, or opportunities on the job than they legitimately deserve on the basis of job-related criteria” (Greenhaus et al., 1990: 64-65). Awareness of how these discriminatory practices function has led some to conclude that African-Americans “have to be more qualified and work twice as hard to get ahead” (Wilson, Sakura-Lemessy, & West, 1999: 196).

While most studies have focused on access discrimination and its consequences within the corporate labor market, there has been recent research on the presence of access discrimination within the context of sports. One result of access discrimination is intolerant work atmospheres. According to Fink, Pastore, and Riemer (2001), employees in the sports field are met with an unreceptive atmosphere if they lack characteristics similar to the typical majority employee (White, Protestant, able-bodied, heterosexual males). Consistent with the claim that access discrimination results in the failure to receive a job, it has been found that the overwhelming majority of intercollegiate coaching positions have been filled and continue to be filled by White males (Lapchick, 2006; Lapchick, 2005; Lapchick, 2004; Cunningham, Sagas, & Ashley, 2001). Recent

data from the NCAA supports this claim. In the 2006 Racial Report Card, Lapchick found that Whites held at least 89.5 percent of all head coaching jobs in each of the three NCAA divisions; while African-Americans held just 7.7 percent of Division I head coaching jobs. When reviewing NCAA Division II and III schools, the rates dropped to 3.4 percent and 4.1 percent, respectively. The report also found a lack of diversity in the executive offices. Among Division I-A presidents, 94.9 percent were White, 3.4 percent were African-American and 2 percent were Latino. Among all of the NCAA Division I programs, excluding the historically African-American conferences, all 36 of Division I conference commissioners were White (Lapchick, 2006). Counting Randy Shannon's recent hiring (in 2006) to head the University of Miami football team, six of 119 Division I-A head football coaches are now African-American. While African-American players make up 45.4 percent of the athletes on Division I football teams, African-Americans only account for 6.1 percent of head coaching positions (Lapchick, 2006). Everhart and Chelladurai (1998) suggest, "While coaching is open to numerous applicants, the most likely population from which coaches of a particular sport are drawn is the players of that sport," (p. 190).

Attribution Theory

The limited mobility of African-Americans among the ranks of football has been attributed to unfavorable attributions or negative stereotypes which many Whites hold regarding African-Americans. Brooks and Althouse (1993) suggest that White leaders often perceive African-American football coaches as lacking the leadership abilities and decision-making skills necessary to be placed into positions of leadership and authority. The question has always been about whether African-Americans could be the

acknowledged leaders on their teams. This may explain the rarity in finding centers, middle linebackers and quarterbacks who were African-American. Coaches stereotyped African-American athletes as lacking such qualities needed for these positions – center, guard, and quarterback – as reliability, quick mental comprehension, and thinking ability. In football, African-Americans have been stereotyped as having speed, strength, and other natural abilities that make them excel at the running back, wide receiver, and defensive back positions (Williams & Youssef, 1979). Specifically, Williams and Youssef (1975) found that coaches stereotyped the African-American positions- running back, defensive back, and wide receiver – as requiring physical speed and quickness. Not surprisingly, Williams and Youssef (1979) also later found that nearly 89% of Whites in high school, 96% in college and 81% in the professional leagues occupied the central playing positions. This research reveals that coaches view certain positions as requiring characteristics, which are attributed to particular racial groups. These characteristics are often generalized to all African-Americans, characterizing them as physically superior and well-suited for physical endeavors, but lacking intellectually, and ill-suited for leadership roles. Adherence to the idea of attribution suggests that players may be channeled by persons in authority (i. e., coaches and owners) into positions, which match racial stereotypes.

Stacking Theory and Playing Position

Since the 1950s, African-Americans have been positionally segregated or “stacked” in each of the three major American sports (Margolis & Piliavin, 1999; Coakley, 1998; Curtis & Loy, 1978a, 1978b; Best, 1987; Leonard, 1987, 1977; Edwards, 1973; Loy & McElvogue, 1970; William & Youssef, 1972, 1975, 1979). The practice

known as "stacking," is a term first used by professor Harry Edwards of the University of California at Berkeley. Stacking is considered the over or underrepresentation of a racial group in certain playing positions or fields of sport. As a result, ascribed characteristics rather than achieved characteristics influence the process of assignment to positions (Edwards, 1973). The occurrence and degree of stacking have been well documented by researchers, though there is no firm agreement on the underlying cause(s) of this phenomenon.

In 1970, Loy and McElvogue, utilizing concepts proposed by Blalock (1962) and Grusky (1963), hypothesized that the extent of social interaction associated with a position and the degree to which it is central in a group would be directly related to racial segregation on the playing field. Their findings suggest that central positions are significantly more likely to be filled by Whites than by African-Americans, supporting their hypothesis that the interaction potential of playing positions leads to the disproportionate representation of one race over another (Loy and McElvogue, 1970). Using Grusky's (1963) ideas that racial discrimination is most likely to occur at central positions in any social organization they conclude that positions of centrality are positively related to racial segregation in professional team sports. Within this context, central positions were defined as those involving high levels of interaction and decision-making, while the opposite applied to non-central positions (Melnick, 1996). This contention was supported by an examination of baseball (catcher, pitcher, shortstop, second base and third base were identified as central), and football (quarterback, center, offensive guard, and linebacker were identified as central) (Margolis & Piliavin, 1999; Lavoie & Leonard, 1994; Ball, 1973). Specifically in football, coaches "stacked" or

distributed the African-American football players in just a few positions, and left the other so-called "thinking" positions like quarterback, center and middle linebacker reserved for Whites. In an analysis of the NFL to compare the effects of position segregation, career length, and experience on African-American and White players it was found that position segregation continued even though the number of African-American players in the NFL had increased over time (Best, 1987). Moreover, even with the increase in African-American participation, the quarterback, center, and kicker positions remained almost exclusively White (<http://www.nfl.com>, 2006; Best, 1987).

As previously stated, the stacking phenomenon concentrates African-American athletes in non-central positions which are thought of as less cerebral and central to a team's success. Consequently, African-American players in central positions, particularly quarterbacks, have had to make position changes in order to survive in the NFL. Marlin Briscoe, the NFL's first starting African-American quarterback, was converted into a wide receiver in the 1970s after his initial success as a pivot (Wiggins & Miller, 2003; Entine, 2000). Tony Dungy, the head coach of the Indianapolis Colts, was a successful quarterback in his college days but made the jump to defensive back in order to get a chance in the NFL (Entine, 2000). The concept of stacking, stereotyping of skills and the movement of African-American players from central to non-central positions has been empirically examined and it was hypothesized that switching positions would occur as a player progressed and was pushed toward the "race-appropriate" position (Eitzen & Sanford, 1975). Findings indicated that for African-American professional football

players a shift had occurred from central to non-central positions as they moved from high school and college to the professional ranks (Wiggins & Miller, 2003; Eitzen & Sanford, 1975).

Today, the perception is that stacking is no longer an issue, since African-Americans have become prominently represented in the major professional sports. However, according to the latest Racial Report Card a different picture is painted (Lapchick, 2006). The report revealed that, although 66% of the players are African-American, these players are disproportionately found at the running back, wide receiver positions, cornerback, safety and defensive end positions. Despite some changes over the past two decades, at the start of the 2005- 2006 season, among the 32 NFL teams, there were just 6 quarterbacks, 1 center and no kickers who were African-American and listed as starters (<http://www.nfl.com>).

Centrality Thesis

The centrality thesis is important to the concept of stacking because it provides a theoretical and empirical explanation for the over-representation of whites in certain football positions. In the centrality thesis argument, Grusky (1962) proposed that certain positions are linked to mobility opportunities in that they are intelligent positions and, therefore, the occupants of these positions have the capacity for management. Adhering to the belief in “thinking” positions and leadership skills being linked to race, African-Americans have been excluded from certain positions as players leading to their underrepresentation as coaches or administrators. Since the concept of centrality was originally proposed by Loy and McElvogue (1970), to explain the existence of racial discrimination in American sport, an examination of the phenomenon in various sports

has occurred (Lavoie & Leonard, 1994; Leonard, 1987; Chu & Seagrave, 1980; Curtis & Loy, 1978a; Eitzen & Yetman, 1977; McPherson, 1975; Ball, 1973). Expounding upon the concepts of stacking and centrality, researchers (Johnson & Johnson, 1995; Eitzen & Sandford, 1975; Edwards, 1973) have concluded that the relative centrality of a particular position is only important in relation to the degree that it controls outcomes. This position has been referred to the 'outcome control hypothesis,' with Harry Edwards being the first to apply it to sports (Edwards, 1973). This hypothesis maintains that the centrality concept is not about actual location but the degree of control and leadership associated with a position (Edwards, 1973). Edwards maintains that African-Americans are likely to be excluded from positions that have a direct, important role in determining the outcome of the contest. Researchers (Eitzen & Sage, 2003; Johnson & Johnson, 1995; Edwards, 1973) applied this hypothesis to baseball pitchers, quarterbacks in football as well as place-kickers, finding that these position not only function as the center of coordinating game activities, but they also exert greater control over what happens in terms of action and outcome. Edwards (1973) writes, "...the factor of centrality itself is significant only in so far as greater outcome control and leadership responsibilities are typically vested in centrally located positions since actors holding these positions have a better perspective on the total field activity" (p. 209). Following this hypothesis, it would be expected that African-Americans are likely to be excluded from positions that entail responsibility, decision-making, and outcome control.

Coakley (2001) explores the question of why Whites have been viewed as more adept for leadership roles. Positions of leadership and dependability are filled with White athletes, while African-American athletes are more likely to be found in positions of

speed and power that have less emphasis on cognitive qualities. This may be due to the existence of the deep-seated stereotype of African-Americans where they are seen as not being able to handle cerebral tasks (Hunter, 1998). While it is not as overtly exhibited as in the past, this opinion still appears to linger in the psyche of those in power. The stereotype of the ‘dumb-jock,’ which views athletes as great athletically but lacking intelligence, still persists, particularly when describing African-American athletes (Eitzen, 1999; Hoberman, 1997). This discriminatory way of thinking about race manifests itself in many ways, including how organizations are structured. Coakley (1998) pointed out that the Whites who controlled sport (coaches, general managers, etc) have habitually operated under the assumption that only Whites were cut out for the so-called ‘thinking positions’ in major team sports. These positions have been linked to promotional prospects on the grounds that they are intelligent positions and therefore have the capabilities necessary for upper level management. As a result, African-Americans have been pushed into certain positions and away from other positions. Consequently, Whites predominantly make up the upper levels of management and coaching positions.

Stacking Theory and Coaching Positions

The theoretical concept of stacking has extensively been used to explore racism on the sports field for decades. However, stacking also has practical implications for players, in terms of its connection to coaching opportunities. Beyond the on-field inequities created by stacking, another consequence of stacking relates to post-playing career opportunities for athletes as coaches and managers. A number of studies suggest that coaches and managers tend to come from playing positions that are central, rather

than peripheral (Massengale & Farrington, 1977; Scully, 1974; Grusky, 1963). These studies suggest that decision makers are more apt to hire players who were more central in determining the outcome of games. The implication has been that central players have a greater understanding of the game as a whole, and should be able to transition more easily into leadership roles than individuals who played in more isolated positions (Coakley, 2001, 1998; Massengale & Farrington, 1977; Scully, 1974; Grusky, 1963). This phenomenon is one explanation for the racial inequities in the hiring process, given that the players occupying the more central positions tend to be disproportionately White, thereby, creating a racially disproportionate candidate pool for coaching positions.

Researchers have found that African-American coaches are underrepresented in higher status positions and have significantly fewer promotions, lower status, and less satisfaction in their coaching careers than White coaches (Sagas & Cunningham, 2005; Anderson, 1993). Additionally, African-American coaches also perceive more barriers to head coaching opportunities and perceive race to be a greater barrier to career advancement than White coaches (Sagas & Cunningham, 2005).

Braddock (1980) studied the influence of race, stacking, and other factors on managerial recruitment within the NFL. Braddock's study focused on the racial distribution of former players as assistant coaches and head coaches in the NFL, comparing the ascribed characteristic (race) to achieved characteristics (education, leadership ability, and competence). In addition, Braddock estimated the proportion of African-American players who might be selected as head or assistant coaches, if race were not a factor in the selection process. Braddock concluded that, while assistant coaching experience is a major prerequisite for players to become head coaches, race

operated to limit African-American players from becoming assistant coaches and getting into the queue to be considered for head coaching vacancies. Additionally, it was found that African-American players were underrepresented in the central leadership positions, which also limited African-American players post career opportunities. Braddock (1980) indicated that coaches spent a greater amount of time working with central position players. As a result, closer ties formed between the coach and the players in the central positions. In turn, coaches provided recommendations to upper management about these players for possible future coaching positions.

Two decades later, Madden (2004) examined differences in NFL coaches by race from 1990 through 2002. Data were analyzed from current NFL coaches and team win-loss regular season records and playoff appearances between 1986 and 2001. Madden examined whether race affects the likelihood of being fired, the playoff records for African-American and White coaches, and the overall records for African-American and White coaches. Madden concluded that African-American coaches averaged more wins than White coaches in their first-year (9.1 vs. 8.0 wins per season, respectively; and 71 percent of first-year African-American coaches made the playoffs as compared to 23 percent of White first-year coaches). Twenty percent of African-American coaches were fired in the year they made the playoffs, while only 7 percent of White coaches were fired in the year they made the playoffs. Based on these results, Madden concluded that race affects the tenure of a coach in the NFL.

When examining the issue of why African-American coaches lack the upward mobility to become head football coaches in the NFL, researchers concluded that for advancement into upper level positions African-American coaches must strive to become

offensive coordinators, a position which is responsible for ultimately deciding the play calling (Brown, 2002; Anderson, 1993; Denmark, 1991; Braddock, 1980). It was further reasoned that this type of leadership experience by African-American coaches would enable them to participate and display some of the significant characteristics necessary to become a head coach.

Researchers have empirically examined the characteristics that were necessary for an African-American coach to secure a job on a major college football staff (Brooks & Althouse, 1993; Adler & Adler, 1991; Banks, 1979). Noting that knowledge of the game, recruiting, and the personality of the coach were essential characteristics for a coach to obtain a position, it was found that a African-American coach's participation on the collegiate level as a former football player significantly contributed to his chances of securing a coaching job at a major program, and that the majority of African-American coaches were assigned to coach non-central positions – running back, defensive back, and wide receiver. Although African-American coaches were capable of coaching the central positions: quarterback, center, guard, and linebacker, Banks (1979) concluded that African-American coaches were not given the opportunity.

Latimer and Mathes (1985) examined the social background and educational, athletic, and career characteristics of African-American Division I college football coaches. They found that despite receiving more accolades and recognition than White coaches for their college achievements, the African-American coaches only coached the non-central peripheral positions that they played in college. Latimer and Mathes (1985) suggest that over-representation of African-American coaches in non-central positions is due to their personal success as players in non-central positions on the college level. In

addition, they contend that African-Americans are used predominantly to coach non-central positions because of the high percentage of African-American athletes who play these positions and concluded that this practice of segregation could represent a form of discrimination, since African-Americans are predominately not given the opportunity to play central positions. Racist ideology and stereotypes have traditionally portrayed minorities as lacking the ability to “think quickly” or the aptitude to lead teams as head coaches. Sage (1998) maintains that African-Americans account for less than 5% of the key management positions in professional and intercollegiate sports. As of Spring 2006 there were only 5 African-American head football coaches in Division 1-A football out of 119 positions (4%). Thus, African-Americans experience stereotyping and restricted opportunities in their coaching opportunities as well.

According to Brooks and Althouse (2000), the lack of African-American men and women in head coaching positions and other leadership positions in college athletics may be a result of one or more of the following conditions:

1. Overt discrimination by athletic directors.
2. African-American not playing “central” positions.
3. African-American not having the same professional pathways available to White coaches.
4. African-American coaches not having access to existing head coach recruiting networks.

Since one pipeline for the head coaching candidate pool is college coaches, the underrepresentation of African-American coaches on the collegiate level translates to a scarcity of African-American head football coaches in the National Football League. Centrally placed assistant coaching positions have been identified as functioning as feeder positions into the head coaching ranks. Research has found that head coaches are often chosen from the more central assistant coaching positions, such as offensive or

defensive coordinator (Brown, 2002; Anderson, 1993; Denmark, 1991; Braddock, 1980). Brown (2002) found that (a) assistant coaches represent positions from which head coaches are often selected; and (b) African-American coaches occupy 22% of these positions, making assistant football coaches a diverse candidate pool from which to recruit head coaches. As a result, research on assistant coaches may reveal some of the factors affecting African-American coaches' exclusion from the head coaching hiring process.

Sagas and Cunningham (2005) compared the differential career success of African-American and White assistant football coaches based on their proximity to the head coaching position, promotions received, and career satisfaction. The findings of the study provided support for the assertion of disparities in career success as a consequence of discrimination in the workplace; concluding that White coaches experienced greater career satisfaction, had a greater number of career promotions and were in positions that were in closer proximity to the head coach, in comparison to the African-American coaches (Sagas & Cunningham, 2005).

Coaching Credentials and Characteristics

Some have argued that the lack of diversity among head coaches within the NFL results from an over reliance on "closed social networks," where a small group of White coaches are recycled and African-American coaches, despite superior records, are denied similar opportunities. Owners of NFL franchises have defended their past and current hiring practices, arguing that the practice of hiring a head coach is not a racial issue but one based on objective criteria. However, no preset credentials list exists for what a

candidate must possess to be considered for a head coaching position; meaning that there is no known profile for objective selection criteria and that the hiring process is more subjective than it appears on the surface.

Baltimore Ravens president David Modell, who headed the search committee that ultimately recommended Brian Billick, acknowledged that when searching for a head coach, the desired attributes of a candidate are all characteristics that define leadership (Barnidge, 2002). Former general manager for the San Diego Chargers, John Butler, was responsible for picking Marty Schottenheimer and feels that experience is essential and desires someone who has a proven résumé (Barnidge, 2002).

One of the considerations for a position as a NFL head coach is prior experience as an NFL coach. This is based on the belief that experience leads to some of the most important attributes for success in the NFL, namely, mental toughness, adaptability under pressure and ability to deal with the overall focus that the NFL demands (Barnidge, 2002). Alex Spanos, owner of the San Diego Chargers acknowledged that he searches for an NFL coach who has been to the playoffs, confirming the belief that perceived accomplishment and experience are fundamental in the hiring process (Barnidge, 2002).

A widely held view is that when more African-American assistants and coordinators become accomplished and gain more experience, the doors to head coaching positions will open with the same frequency as they do for their White counterparts. Is there really a lack of African-American assistants and coordinators? Out of the 47 head coach hires for the last 7 years, only 16 of the hires have been coaches with coordinator experience (college or NFL). In 1980, among 14 African-American coaches who were assistants, not one of them held the position of coordinator. In 1997, 103 African-

American assistant coaches and five coordinators in 1997 were working in the NFL, (<http://www.Cincinnati.com>, 2002). As of the end of the 2005 NFL season, there were 154 African-American assistant coaches, including 15 coordinators (Lapchick, 2006). Given the statistics, can the explanation of limited African-American coordinators and assistant coaches defend the league's recent head coaching hiring record?

In 2002, Johnnie Cochran and Cyrus Mehri, released a report entitled "African-American Coaches in the National Football League: Superior Performances, Inferior Opportunities," which highlighted the NFL's dismal record of minority hiring in management positions and threatened legal action if this situation was not proactively addressed by the National Football League. The report revealed that: (1) while African-Americans comprised 70% of NFL players, only 6% of coaches and 28% percent of assistant coaches were African-American; (2) African-American coaches averaged 2.7 more wins than White coaches in their first season; (3) in their final season, terminated African-American coaches still outperformed White coaches with an average of 1.3 more wins than terminated White coaches; and (4) although only six of 400 NFL head coaches hired since 1992 were African-American, they significantly outperformed their White counterparts in wins and playoff appearances (67% versus 39%).

The study, commissioned by Cochran, which examined the 15 head coaches hired between 1997 and 1999, found that five of them—Jon Gruden, Kevin Gilbride, Chan Gailey, Jim Fassel and Steve Mariucci—were rookie NFL head coaches. They averaged seven years of NFL coaching, four years as an assistant coach, and three years as a

coordinator. These statistics for the (White) rookie head coaches were significantly lower than the collective averages of the current African-American head coaches (Madden, 2004).

A comparison between any one of the top African-American candidates and some of the recent head coaches hired casts doubt on the equality of standards that are being used to measure African-American assistants and coordinators. For example, recent African-American prospects, including Marvin Lewis, Art Shell, Emmit Thomas, Ted Cottrell, Tim Lewis, Terry Robiskie, Tyrone Willingham, and Ray Sherman, are repeatedly listed as prominent African-American candidates. These African-American candidates have nearly twice the cumulative experience as the previously mentioned White rookie head coaches. Even though these African-American coaches have an average of almost four more years of NFL experience than their White counterparts, they have been repeatedly overlooked (Madden, 2004). In 2000, there were 8 coaching positions open, only one African-American candidate was interviewed and none were hired. How can lack of experience justify this phenomenon? For instance, Mike Sherman was hired as the head coach for the Packers after one season as their offensive coordinator. Whereas, the only African-American candidate, Art Shell, who has over 10 years coaching experience, was offered only one interview for the openings in the 2000 season. It should be noted that: Although the 2006 season marked the return of Herman Edwards and Art Shell for their second head coaching jobs, there was not a single first time minority candidate hired. Art Shell was hired as the head coach for the Oakland Raiders in the 2006 NFL season and Herman Edwards was traded to the San Francisco 49ers. As another example, Sherman Lewis, an assistant coach with 20 years of NFL

service including 10 years as a coordinator, has directed offense for the 49ers and the Green Bay Packers and won four Superbowl championships. Nevertheless, Steve Mariucci, formerly a quarterbacks coach serving under Lewis, and Jon Gruden, an assistant coach whom Lewis mentored, were hired as head coaches of the San Francisco 49ers and the Oakland Raiders, respectively (<http://www.nfl.com>). Both were positions for which Lewis was not even offered an interview. Given that these anecdotal comparisons of coaching candidates do not support the customary justifications for the scarcity of African-American head coaches in the NFL—season records, coaching efficiency and head coaching experience—they raise important questions about fairness in the NFL's hiring practices. Moreover, the existence of a possibly discriminatory workplace and the denied access to power positions point to the necessity for an examination of the hiring process and the subsequent mobility issues that occur within the National Football League, all of which will be undertaken by the present study.

Chapter 3: Theoretical Framework

While trying to understand the persisting inequality found in the labor market researchers have identified that minorities in organizations face the following barriers: exclusion from informal networks of communication (Giscombe & Mattis, 2002; Ibarra, 1997,1993; Kanter, 1977), stereotyping and preconceptions of roles and abilities (Bertrand & Mullainathan, 2004; Braddock & McPartland, 1987), lack of significant experience, visible and/or challenging assignments (Hurley, Fagenson-Eland & Sonnenfield, 1997), statistical discrimination (Kaufman, 2002; Tomaskovic-Devey, 1993; Bielby & Baron, 1986), social closure (Tomaskovic-Devey 1993), and homologous reproduction (Kanter, 1977).

Most research has attempted to explain the gap between African-American and White achievements in terms of differences in socioeconomic status (Blau & Duncan, 1967), differences in human capital (Becker, 1993; Arrow, 1972), segregation across labor market sectors or firms (Wilson, 2001; Wilson, 1997; Baron & Newman, 1990; Kaufman, 1986; Baron et al, 1986; Edwards, 1979). Individual level characteristics, such as social/human capital credentials and indicators of background socioeconomic status, have also been identified as impediments to occupational mobility. However, few have investigated how different racial groups attain job authority and its relation to mobility. The need to link empirical research with theories that have been advanced to explain occupational mobility among African-Americans within management is revealed by the review of the literature. Previous research has not formulated theoretically grounded explanations that account for the differences found in the rate of occupational mobility for African-Americans and Whites within the labor market. Additionally, previous

empirical research is neither complete nor consistent in the array of concepts, measures and explanations for differences in mobility. Many explanations have been proposed; however, presently no single, dominant theoretical framework exists. To advance the understanding of the complexity of factors operating for African-Americans, it is necessary that research efforts focus on developing an integrated theoretical framework to examine the issues. Attention, therefore, should be devoted to the full range of factors that interact to impact the occupational mobility among African-Americans in the labor market.

Statistical discrimination occurs when employers look at characteristics, such as race, that are not relevant to the job and erroneously evaluate the productivity of potential employees (Sattinger, 1998). In the recruitment process discrimination may take the form of unequal likelihoods of interviews and promotions. The theoretical assumption is that employers use real or perceived statistical differences among race and sex groups to evaluate the productivity of potential employees. Thus, even though minorities may be qualified for a position, processes of statistical discrimination exclude them from consideration for many jobs. Empirical research supporting both sex (Bielby & Baron 1986) and race (Kaufman 1986; 2002) inequities suggests that the concept of statistical discrimination will add to the understanding the relationship between the stereotyping and differential hiring found in the labor market and the NFL. In the integrative model, statistical discrimination will be used to explain the difference in interview rates for African-American candidates.

Previous research has focused on human and social capital explanations for the racial gap in occupational attainment, but has not thoroughly explored the internal labor

market mechanisms that contribute to the differences in mobility. Thus, a crucial part of the mobility process has been omitted. Structural integration, an internal labor mechanism, refers to the levels of dissimilarity produced in the formal organizational structure (Cox, 1991). Two concepts that contribute to structural integration and will further the understanding of the complexity in the mobility process are social closure and homologous reproduction.

Social closure occurs when a relationship or network is closed in order to monopolize economic and social opportunities (Tomaskovic-Devey, 1993). A series of empirical tests have been used to support the idea that social closure can be used to explain the restricted access minorities experience to occupational positions with authority (Wilson, 2001, 1997; Tomaskovic-Devey 1993; Baldi & McBrier, 1997). Specifically, the findings in Wilson (1997) point to how “the relatively deterministic process necessary to reach the authority positions operates as a mechanism of social closure for African-Americans” (p. 48).

Homologous reproduction theory maintains that minority exclusion from top level positions is a result of the dominant group hiring and promoting employees who are most similar to themselves (Kanter, 1977). This exclusion from positions, which recurrently includes the exclusion from even consideration (interviews), is the result of social characteristics, not the lack of competencies for the position (Lovett & Lowry, 1994; Stangl & Kane, 1991; Kanter, 1977). Accordingly, it is realistic to believe that organizations will not deviate far from the already established norms in terms of types of employees hired, thereby, decreasing the chances for diversity.

While the systematic reproduction of primarily one racial group may not necessarily be spiteful and hiring outcomes may not be due to intentional discriminatory acts, it does represent a problem in terms of equity and access for minorities. Within the sports context, scholars have historically used the concept of homologous reproduction to explain the underrepresentation of females in sports leadership positions (Whisenant et al, 2005; Stahura & Greenwood, 2001; Stangl & Kane, 1991); however, these theoretical approaches have not been extended to the experience of minority males in professional sports organizations. The integrative approach will include social closure and homologous reproduction to understand the mechanisms creating the racial gap in mobility and attainment of authority level positions.

The underlying assumption of past studies is that a single system of attainment functions in the same manner for African-Americans and Whites. This means that if African-Americans and Whites had equivalent educational attainment, job experience, and location in the work structure that the African-American and White attainment gap would disappear (Baldi & McBrier, 1997). This is one limitation found in several studies. To address this shortcoming, the concept of job authority level will be added to the study's measures to identify the effect that different levels of job authority (i.e., power, central, and peripheral/non-central) have on the selection and hiring process.

The particularistic mobility thesis addresses the lack of research in authority level and the differential impact it may produce for racial groups. However, it has previously only been used in corporate American. This study will utilize the particularistic mobility thesis' concept of authority levels as a lens to examine how race affects placement in the coaching position hierarchies and how groups attain occupational mobility.

Sociological literature has identified three types of authority within the authority hierarchy: sanctioning, decision-making, and formal position. A position with sanctioning authority has the power to impose sanctions on subordinates whereas decision-making authority is allowed direct participation in decisions affecting policy within an organization. At the top of the authority hierarchy exists the formal position, which has authority over other authority figures (Wright, Baxter, & Birkelund, 1995).

According to social closure theory, African-Americans will attain fewer and lower positions of authority due to the preservation of higher authority jobs for dominant group members. Research has shown that African-Americans are found in positions with less managerial authority and/or are consigned to positions that primarily hold authority over other African-Americans (Smith, 2002; Collins, 1997; Mueller, Parcel, & Tanaka, 1989; Kluegel, 1978). Adhering to the stated types of authority, overseeing the ethnic group to which you belong is the lowest level of authority and usually comes with limited power (Smith, 2002; Collins, 1997). In the NFL this would equate to African-Americans being found in the coaching positions over the non-central playing positions that are primarily populated by African-American players.

Building on the idea of authority, the study's integrative approach will compare the previously identified authority levels to the hierarchy that exists within the NFL management ranks: sanctioning authority to peripheral/non-central positions, decision-making authority level to the central positions, and the formal position to the power positions.

The conceptual model, building upon previous research, is offered to provide a more comprehensive, integrative explanation of the mobility process for African-Americans

(see Figure 1 and Figure 2). The present study addresses the limitations discussed in previous research on racial inequality in the labor market. These limitations suggest the need for an integrative framework. The integrative approach utilizes the concepts of statistical discrimination, structural integration, homologous reproduction, social closure, and job authority to extend the research previously done on racial inequality. Based on previous research that points to a lack of capital in African-American candidates, human/social capital measures (education and experience) will also be used to assess their effect on the mobility process for African-Americans. The model's primary dependent variable is attainment of a head coaching position in the NFL. The conceptual model supposes that attainment of a head coaching position for African-American will be influenced by multiple factors coming out of different theoretical perspectives. This integrative approach leads to the expectation of different results in individual characteristics for African-American and White coaching candidates. The application of this approach anticipates that the determinants of job authority will be significantly different for African-Americans and Whites. In particular, African-Americans, relative to Whites, should reach positions of authority on the basis of a more deterministic and formal route. This route will include a progression through the authority hierarchy and significant experience at each level.

Application of these concepts to the context of sports organizations should enable a better examination of (institutional) discrimination and mobility within the National Football League; which will allow the exploration and identification of discrimination mechanisms operating behind occupational segregation.

The hypotheses to be tested were designed to assess whether the structural integration mechanisms of social closure and homologous reproduction have influenced the attainment of job authority and contributed to the placement of candidates in the coaching hierarchy. In this regard, this study goes beyond being a descriptive study to developing an integrative approach in order to test the following general hypotheses:

Hypothesis 1: Coaches with more experience are more likely to be interviewed and hired.

Hypothesis 2: Coaches with higher coaching efficiency (post-season experience) are more likely to be interviewed and hired.

Hypothesis 3: Whites are more likely to be found in the higher authority positions while African-Americans are more likely to be found in the lower authority positions

Hypothesis 4: Candidates with lower authority level positions are less likely to be hired for a head coaching position than candidates with higher authority level positions.

Hypothesis 5: Candidates who played a central position are more likely to be found in the higher authority positions.

Hypothesis 6: Candidates who played a central position are more likely to be interviewed/hired.

Chapter 4: Data and Research Methods

Sampling Design

This study examines data collected in order to produce two groups. The main sampling frame includes all candidates that were eligible to be interviewed for the open head coaching positions in the 3 years prior and the 3 years following the introduction of the Rooney Rule. This time period covers the 2000-2006 NFL seasons. The sampling frame consisted of all the coaches interviewed for the open head coaching positions during the 2000-2006 seasons as well as coaches working in the NFL during this same time period. For the purposes of this study, NFL coaches considered eligible for interviews and thus were included in the sample were limited to position coaches, coordinators, assistant head coaches and head coaches in the NFL during the 2000-2006.

The second group made up the subsample of interviewed coaches. This subset is comprised of the identified candidates that received interviews for the open head coaching positions during the 2000-2006 NFL seasons. The candidates in this subset included both NFL and college coaches.

The period examined in this study was limited to the 2000-2006 NFL seasons because it represents two very specific points of reference that are most relevant to the topic (the 3 years prior and the 3 years following the introduction of the Rooney Rule).

The data used in this study was collected through unobtrusive methods (searches of NFL team and news media, and other archival sources). The archival searches of NFL team and news media (complete list of sources found in sites section) were completed in a 3-step process to compile the data. Unobtrusive methods were used because they do not

require intrusion in the research context. Webb, Campbell and Schwartz (1981) found that unobtrusive methods of collecting data do not interfere with the response itself and they increase the range of testable variables.

The initial step consisted of searching sources to create the first group (subsample of interviewed candidates), coaches that were actually interviewed for open head coaching positions between the 2000-2006 seasons. Since there is no published list of interviewees this search required the utilization of multiple sources.

The second step was identifying the NFL coaches employed during the 2000-2006 seasons, which created the second group (eligible candidate population). This process consisted of visiting the 32-team websites to compile a current coaching roster and extending the list to include the coaches that may no longer work in the NFL but were employed prior to 2006. This was done through the use of the NFL Record and Fact Book, All Time Team coaching rosters, NFL.com (complete list of sources found in sites section).

The third step was checking for the accuracy and completeness of both groups. To ensure accuracy the lists were crosschecked between references.

The archival searches produced an extensive list of the head-coaching candidates (and their credentials) that were available to be considered/interviewed for the open head coaching positions in the three years prior to and the three years after the introduction of the Rooney Rule.

The data analysis strategies employed to explore the research questions include univariate analysis, which provided descriptive statistics on the study variables, cross-tabulations, ANOVA and logistic regression.

Dependent Variables

Interviews Received

This continuous variable reflects the number of times a coach was granted an interview for an open head coaching position for each of the years in the 2000 - 2006 time period. A summary was created by summing the number of ones over the years (resulting in a range of 0-7). For analysis purposes interview was recoded as a dummy variable. It is coded as 1 for interviewed and 0 for not interviewed.

Coaches Hired

Hiring was coded as a variable that categorizes the candidates that were hired for an open head coaching position for each of the years in the 2000 - 2006 time period. It is coded 1 for hired and 0 for not hired. A summary was created by summing the number of ones over the years (resulting in a range of 0-7).

Authority Level

Coaching positions were recoded to represent experience at power positions (head coach, assistant head coach, offensive coordinator, defensive coordinator), central positions (quarterback, offensive line, linebackers), non-central positions (remaining positions). For the purpose of analysis each position in this category was recoded 0 = no experience and 1= experience.

Independent Variables

We assessed the influence of 5 categories of factors on the hiring process (interviews received and coaches hired). The measures examined include demographic variables, leadership skills, coaches' credentials, coaching efficiency, and years of experience. The following independent variables were selected based on theory and previous research.

Demographic Variables

Race

Under race the following categories were included as defined by the United States Government Office of Management and Budget (OMB, 1997). Respondents in this study were identified and placed in the applicable classification category. The categories included: African-American =1 Refers to a person having origins in any of the African-American racial groups of Africa. White =2 refers to persons with origins in any of the original peoples of Europe, Middle East, or North Africa. Hispanic=3 Refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin; People from Spanish-speaking countries, or the descendants of people from Spanish speaking countries. Asian/Pacific Islander=4 for analyses purposes was later combined due to the small numbers of both. This combination was chosen based on the fact that before the 1997 revision of OMB standards the racial category was known as Asian or Pacific Islander. Asian refers to a person having origins in any of the original peoples of the Far East, Southeast Asian, or the Indian subcontinent. Pacific Islander refers to a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. For analysis purposes a African-American-White dichotomy was used. This was based on the fact that the coaching population sample was found to be composed primarily of African-American and Whites totaling ninety-eight percent.

Gender

This was categorized as a dummy variable where female was coded 0 and male was coded 1.

Age

The Year of Birth is employed as a continuous variable based on the date of birth provided by the available archival sources (range from 1938 to 1983.) Year of birth was recoded to represent coaches' age range with 1930-1939 coded as 1, 1940-1949 coded as 2, 1950-1959 coded as 3, 1960-1969 coded as 4, 1970-1979 coded as 5, 1980-1989 coded as 6.

Educational Attainment

Educational attainment refers to the highest level of schooling a person has attained in terms of grades of secondary school completed and certificates or diplomas obtained. It also refers to post secondary institutions attended and certificates, degrees or diplomas granted. Education was treated as a categorical variable with less than having a bachelor's degree coded as 0, having a bachelor's degree coded as 1, and receiving an advanced degree including college degrees such as Master of Arts (MA), Master of Science (MS), Juris Doctorate (JD), Doctor of Philosophy (PhD) and Medical Doctor (MD) coded as 2.

Leadership (Centrality)

For the purposes of this study leadership (centrality) was measured by the position centrality of coaching candidates that previously played football on the college or professional level. In football, the central positions are quarterback, guard, center and defensive linebacker (Loy and McElvogue, 1970). The measure was treated as a categorical variable with no playing experience coded as 0, central (quarterbacks, guards, centers, linebackers) coded as 1 and peripheral (running backs, receivers, tackles, defensive ends, defensive backs) coded as 2.

Coaching Credentials

The dimension of coaching credentials was measured using a diverse set of items (coaching efficiency and coaching experience) which were used either singly, or combined into a summated index.

Coaching Efficiency

Three variables (conference game appearances, conference game titles, superbowl game titles) were utilized to represent the coaching efficiency dimensions. These measures were based on the statistical performance records maintained and reported by the NFL.

The coaches' post season record database will consist of the individual candidate's career win-loss record for post season games utilizing statistics collected from the NFL official website, NFL team websites, and candidate official biographies.

Conference Game Appearances

This continuous variable reflects the number of times a coach appeared in the NFL Conference Championship Games throughout his entire NFL coaching career.

This continuous variable reflects the number of times a coach appeared in the NFL Conference Championship Games prior to the adoption of the Rooney Rule.

This continuous variable reflects the number of times a coach appeared in the NFL Conference Championship Games after the adoption of the Rooney Rule.

Conference Game Titles

This continuous variable reflects the number of times a coach won a NFL Conference Championship Game Title throughout his entire NFL coaching career.

This continuous variable reflects the number of times a coach won a NFL Conference Championship Game Title prior to the adoption of the Rooney Rule.

This continuous variable reflects the number of times a coach won a NFL Conference Championship Game Title after the adoption of the Rooney Rule.

Superbowl Game Titles

This continuous variable reflects the number of times a coach won a NFL Superbowl Championship Title throughout his entire NFL coaching career.

This continuous variable reflects the number of times a coach won a NFL Superbowl Championship Title prior to the adoption of the Rooney Rule.

This continuous variable reflects the number of times a coach won a NFL Superbowl Championship Title after the adoption of the Rooney Rule.

Coaching Experience

In this study coaching experience was measured by two indicators: total years coaching experience, which is measured by a candidates participation on both the NFL and college levels (in the areas of head coaching, assistant head coaching and coordinator experience) and NFL coaching experience which measured by an index of a candidate's NFL position coaching experience.

Head Coaching Experience

In this study total head coaching experience was measured by prior years of head coaching (NFL and/or college); a first year coach has zero years of experience. The years of experience were broken down into no experience coded as 0, between 1 and 3 years experience coded as 1, between 4 and 6 years experience coded as 2, between 7 and 9

years experience coded as 3, and greater than 10 years of experience coded as 4.

Analyses will look at total years of experience and years of experience within the NFL.

Assistant Coaching Experience

In this study previous assistant head coaching experience on the NFL or college level was treated as a dichotomous variable with previous experience as an assistant head coach coded as 1 and no assistant head coaching experience coded as 0.

Coordinator Experience

In this study coordinator experience on the NFL or college level was treated as a categorical variable with no coordinator experience coded as 0, previous experience defensive coordinator coded as 1 and as offensive coordinator coded as 2.

NFL Career Coaching Experience

Candidates NFL career coaching experience was measured by a summated index consisting of 22 items, which are the identified NFL coaching positions.

The positions include:

- Head coach
- Assistant head coach
- Offensive coordinator
- Defensive coordinator
- Quarterbacks
- Offensive line
- Assistant offensive line
- Defensive line
- Assistant defensive line
- Defensive backs
- Assistant defensive backs
- Secondary
- Assistant secondary
- Safeties
- Tight ends
- Linebackers
- Wide receivers
- Running backs
- Special teams

Special teams assistant
Defensive quality control/defensive assistant
Offensive quality control/offensive assistant

This continuous variable reflects each year that a candidate worked in each of the NFL coaching categories. Total NFL coaching experience for each candidate was then computed by summing the number of years worked over the 22 possible positions. Total coaching experience was recoded into experience range with 0-9 years coded as 1, 10-19 years coded as 2, 20-29 years coded as 3, 30-39 years coded as 4, 40-49 years coded as 5.

Data Analysis

The data analysis strategies employed to explore the research questions include univariate and multivariate analysis. The results of these analyses are presented in four sections. The first section presents the descriptive statistics of the sample and subsample (Tables 1-5). Univariate analysis was performed which provided descriptive statistics on the study variables, including means, standard deviation, minimum and maximum, and other univariate statistics where applicable. The second section presents cross tabulations and Pearson chi-square tests of independence for the applicable research questions (Tables 6-13). The third section presents the binomial logistic regression analyses (Tables 14- 23). The fourth section presents the regression analyses for the test of the overall model (Tables 24-25).

Ordinary Least Squares has typically been used to examine the issue of inequality in the labor market and testing the association between human/social capital, tenure, income, and race. However, OLS is a linear regression model that assumes that the dependent variable is continuous, unbound, and measured on an interval or ratio scale. This is not the case with all of the variables utilized in this study. This study includes

measures of demographic, experience, efficiency, and authority level. The measures are a combination of continuous and ordinal scale. For this analysis, the dependent variables are dummy coded with a value of 1 if the candidate was interviewed, hired, or had experience at the authority level in question or 0 if the candidate had not been interviewed, hired or had no experience at the respective authority level. Given the dichotomous nature of the dependent variables, logistic regression is used to determine if a set of independent variables has a unique predictive relationship to a dichotomous dependent variable. The objective of the analysis is to identify factors that contribute to the probability of being in a particular category relative to the base category, which is designated by the research. Logistic regression methods are analogous to multiple linear regression methods when the dependent measure is dichotomous (coded into variables of 0 and 1). Modeling with logistic regression allows the contrast of different theoretical sets of predictor variables to be performed. A common way of assessing the influence of an independent variable on the dependent variable is to look at the odds-ratio, which is an index of how likely it is that the respondent scored either of the two given values for the independent variable. Typically, the impact of predictor variables are usually explained in terms of odds ratios.

The output from the logistic analysis includes one less vector of coefficients than there are choices in the model. Thus, for the analysis of a two-category dependent variable, one vector of coefficients is produced. In the present analyses, the base category includes those candidates not interviewed, not hired, not occupying a power position, not occupying a central position, and not occupying a non-central position; so the coefficients

for each independent variable represent the probability of being in the category of intent (1), interviewed, hired, authority level (power position, central position, or non-central position) versus being in the reference category (0).

For this analysis, there are 3 different dependent variables (interviewed, hired, authority level) being explored. The dependent variables are coded (1) if: the candidate was interviewed, hired, authority level (occupied a power position, occupied a central position, or occupied a non-central position). Logistic regression applies maximum likelihood procedures to estimate coefficients for the effect of the predictor variables on the outcome variable. The logistic procedure will predict the "1" category of the dependent variable, making the "0" category the reference category. The logistic regression calculates changes in the log odds of the dependent, not changes in the dependent itself. In this way, logistic regression estimates the probability of a certain event occurring.

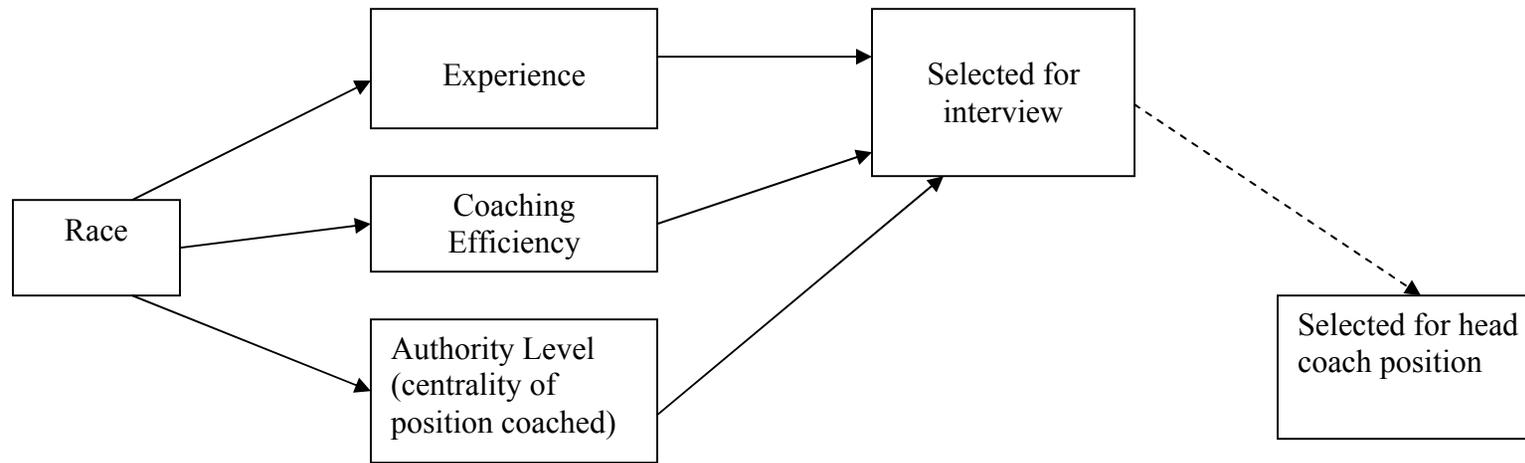
In the multivariate analyses, a multi-step approach to model building was utilized. Because of an interest in assessing the influence of race¹, the first step is to estimate the independent influence of race on the dependent variable; whether the candidate was interviewed, hired, authority level (occupied a power position, occupied a central position, or occupied a non-central position). Then the other predictors are entered into the equation as control measures and to assess their relationship to the dependent variable. This hierarchical design allows the determination of whether certain factors (demographics, coaching experience, coaching efficiency, and centrality) alter the odds

¹ For analysis purposes an African-American-White dichotomy was used. This was based on previous theoretical research and because the sample distribution was found to be composed primarily of African-American and Whites totaling ninety-eight percent.

of being interviewed, being hired, or authority level. If the statistical effect of race persists when other factors that could potentially explain variances in interviews, hires, and authority level, are controlled, then race is assumed to constitute a predictor of the outcomes. On the other hand, if the statistical effect of race does not persist when the additional predictors are controlled, then it is assumed that the effect of race is moderated by the additional factors.

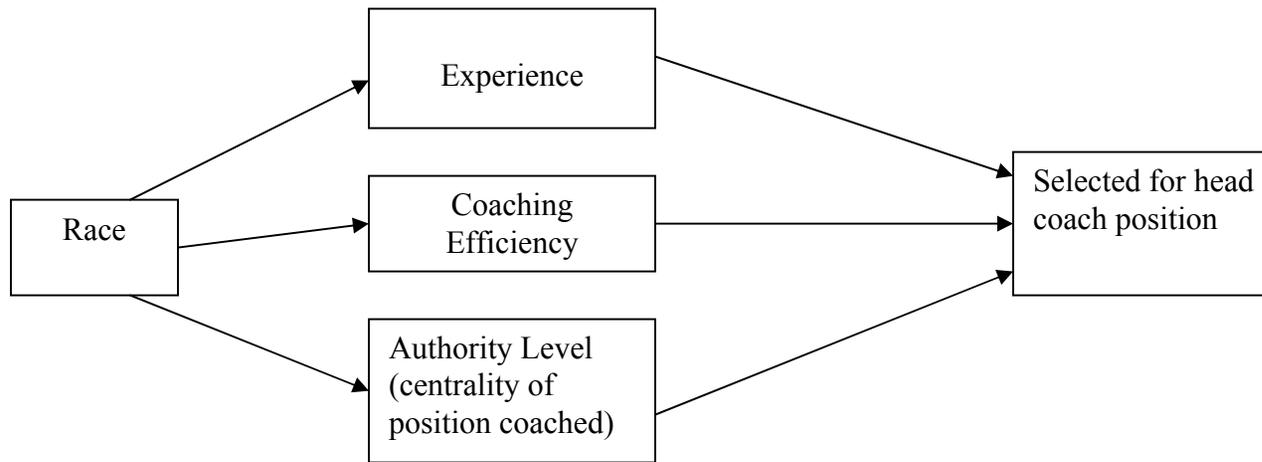
Predictors were entered into the model in clustered blocks. The order of entry within each cluster is determined by the initial bivariate analysis that illustrated relationship, stepwise selection (to assess which variables contribute to the regress equation) and theoretical concerns. This approach is appropriate to the study's purposes: it controls on the independent variables, thereby assessing whether the hiring process is the same for all candidates when they have similar values along factors such as demographics, centrality, etc.

Figure 1 Conceptual Model of the Hiring Process in the National Football League



Note: “----->” indicates that only candidates who were selected for interviews are included in the analysis process of being selected for a head coaching position

Figure 2 Conceptual Model of the Hiring Process in the National Football League



Chapter 5: Results

The data consist: of demographics, leadership (position centrality), authority level, coaching credentials, total career coaching experience, NFL position coaching experience, and coaching efficiency (post season records) for the 589 coaches that were included in the pool of coaches that were interviewed or eligible to be interviewed between 2000 and 2006. Tables 1-5 present descriptive statistics of the sample and subsample. Tables 6-13 display cross tabulations and Pearson chi-square tests of independence for the applicable research questions. For the sake of presentation, for these bivariate analyses, authority level and coaching efficiency were each recoded into dummy categories. Tables 14- 23 present the regression analyses for the corresponding hypotheses. Tables 24-25 present the regression analyses for the test of the overall model. Appendix A contains the list of the coaches hired during the study period. Appendix B presents a breakdown of the coaches interviewed for the open head coach positions for the NFL 2000 – 2006 seasons. Appendix C contains the tables of the univariate analysis and logistic regressions.

Descriptive Statistics

Table One presents percentage distributions of the study variables for the eligible coaching candidates between 2000 and 2006. The Sampling Frame representing the pool of eligible coaching candidates for the 2000-2006 seasons totaled 589 candidates.

The candidate pool included 391 White candidates, 186 African-American candidates, 6 Hispanics, and 5 Asian/Pacific Islanders. Table Two presents the total number of candidates and the racial percentage distributions².

The subsample of interviewed candidates had a total of 94 candidates that were interviewed during the 2000-2006 NFL seasons. A total of 215 interviews were granted to candidates in an attempt to fill the 45 head coaching positions that were available during the 2000-2006 NFL seasons. It should be noted that the total of interviews and the sum of the interviewees would not be the same or represent the number of actual candidates. This is important to note because a candidate may be counted more than once in the sum total if they received an interview in more than one season. On average, 19 candidates were interviewed in a season, with the exception of 2006 in which 42 candidates were interviewed. Table 3 provides the year by year racial distribution of the subsample, coaching candidates that received interviews. The average interviewee pool was made up of 26 % African-American candidates, 72 % White candidates, 1% Hispanics and 0 % Asian/Pacific Islanders.

The total sample included candidates whose years of experience (includes college and NFL) ranged from 0, for those that had just entered the NFL, to the maximum number of years coaching experience, which was found to be 49 years. Within the total sample of eligible coaching candidates, the average years of total career coaching experience was 19 years with a standard deviation of 10.3 years. The age of the candidates included in the study ranged from 23 years old to 71 years old. The average

² Tables 1 and 2 provide a view of the entire coaching population. However, for analysis purposes an African-American-White dichotomy was used. This was based on previous theoretical research and because the sample distribution was found to be composed primarily of African-Americans and Whites totaling ninety-eight percent.

age of a candidate was 48 years old. The majority of candidates had a bachelor's degree (68%) and 32% had an advanced degree. While 77% of the candidates had no overall head coaching experience (NFL or college), the percentage increased to 84% when looking at the candidates that did not have head coaching experience at the NFL level. Approximately 90% of the candidates had no assistant head coaching experience on the NFL level and 82% did not have assistant head coaching experience on the NFL or college level. Approximately 52% of the sample had no experience in a coordinator position on the college or NFL levels. Of those with experience, 23% had served as a defensive coordinator and the remaining 25% had served as an offensive coordinator. For a complete overview of the minimum, maximum, means, and standard deviations of the study variables refer to Tables 4 and 5.

Test of Research Questions

The first research question pertaining to the relationship between experience and the hiring process is presented in this section. As previously theorized interview and hires were found to be positively associated with experience (career and NFL). Cross tabulations are presented in Tables 6 and 7. These analyses were conducted on career and NFL experience separately to explore the differences in the type of experience. Table 6 illustrates the relationship between the hiring process and NFL coaching experience. Only 2 coaches, 4% of coaches, with no previous NFL experience were interviewed and none of the coaches without NFL experience were hired for an open head coaching position. There were 24 coaches or 9% of coaches with 1-9 years of NFL experience were interviewed and 9 coaches or 3% of coaches with 1-9 years of NFL experience were

hired. Finally, 26 coaches, 34% of coaches, with 20 years of more of NFL experience were interviewed and 12 coaches, 16% of coaches, with 20 years of more of NFL experience were hired.

Table 7 illustrates the relationship between the hiring process and total career coaching experience. The analyses reveal a positive association between career coaching experience and interviews/hires. There were no coaches without career experience that were interviewed or hired. There were 4 coaches or 3% of coaches with 1-9 years career experience that were interviewed and 1% of all coaches with 1-9 years career experience were hired. While, 14% of coaches with 10-19 years of career experience were interviewed and 7% of coaches with 10-19 yrs of experience were hired. Of coaches with 20 years or more of career experience, 23% were interviewed and 11% were hired, 65 coaches and 31 coaches, respectively. Therefore, as the years of experience increased the likelihood of being interviewed and subsequently hired increased as well.

The second research question, regarding the distribution of authority levels based on experience, is addressed in this section. Cross tabulations are presented in Tables 8 and 9. These analyses were conducted on career and NFL experience separately to explore the differences that resulted based on the type of experience. Table 8 examines the distribution of authority level by total career coaching experience. According to the statistics the more experience a coach has over their career, the more likely a coach is to have experience coaching at the high authority level. The analyses show that four percent of coaches with 1-9 years of coaching experience have coached a power position. While, twenty seven percent of coaches with 10-19 yrs of career experience have experience at the power position. And fifty-two percent of coaches with 20 years or more of career

experience had coached a power position. When examining the low authority level, analyses revealed that 19% of coaches with 1-9 years of coaching experience have coached a central position. While, 29% percent of coaches with 10-19 yrs of career experience have experience coaching at the central position. And 43% of coaches with 20 years or more of career experience had coached a central position. Finally, when looking at the non- authority level, total career experience was negatively associated with coaching a non-central position. Analyses revealed that 8 coaches with no previous career experience were found to occupy a non-central position. Eighty percent of coaches with 1-9 years of career experience had coached a non-central position. While, 58% of coaches with 10-19 years of career experience have experience at the non-central position. And 32% of coaches with 20 years or more of career experience had coached a non-central position. As the years of experience increased the likelihood of having experience coaching a non-central position decreased.

Table 9 illustrates the distribution of authority levels by NFL coaching experience. According to the statistics the more experience a coach has in the NFL, the more likely a coach is to have experience coaching at a higher authority level. The analyses show that 17 percent of coaches with 1-9 years of NFL coaching experience have coached a power position, compared to 57 percent of coaches with 10-19 yrs of experience and 70 percent of coaches with 20 years or more of NFL experience. When examining the low authority level, analyses revealed that 29% of coaches with 1-9 years of NFL coaching experience have previously or currently coach a central position. While, 44% percent of coaches with 10-19 yrs of experience and 47% of coaches with 20 years or more of NFL experience had coached a central position. Finally, when looking at the

non- authority level, NFL experience was negatively associated with coaching a non-central position. Analyses revealed that 49 coaches with no previous NFL experience were found to currently occupy a non-central position. Sixty-two percent of coaches with 1-9 years of NFL experience had coached a non-central position. While, 32% of coaches with 10-19 years of experience and 17% of coaches with 20 years or more of NFL experience had coached a non-central position. These findings suggest that although both career and NFL coaching experience have a positive association with experience at higher authority levels, the years of experience was negatively associated with experience coaching at the non- authority level. In other words, as years of experience increased the likelihood of coaching a non-central position decreased.

Research Question 3 asks: Are whites more likely to be interviewed/hired for an open head coaching position in the NFL than African-Americans? The relationship between race and the hiring process is illustrated in Table 10. When looking at the occurrence of interviews, 12% of African-Americans compared to 18% of Whites were interviewed. When looking at rate of hiring, the percentage was more than 2 times the amount for Whites compared to African-Americans, with 4 % of African-Americans and 9% of Whites being hired for head coaching positions within the NFL.

For the purposes of the study the authority levels were divided into high authority/ power positions (head coach, assistant head coach, defensive/ offensive coordinator); low authority/ central positions (quarterback, offensive line, and linebackers coaches) and non-central positions (remaining coaching positions). Research question 4 addresses the concept of “stacking” coaching candidates in different authority level positions based on race. Table 11 displays the distribution of African-Americans and Whites across the

hierarchical level of job authority. This question will be answered in two methods; looking at the percentage of coaches with higher authority level coaching experience and the percentage of coaches without non-central coaching experience. In general, the descriptive statistics indicate that African-Americans are underrepresented at all levels of job authority. More specifically, there is substantial disparity at the higher authority level, with only 33 African-American candidates having experience at the high authority/power level positions (accounts for 18% of African-American coaches) compared to 163 White candidates with experience at the high authority /power positions (accounts for 42% of White coaches). Thus, 82% of African-Americans had no experience coaching power positions in comparison to 58% of Whites. At the low authority/central positions there exists a larger experience gap, with 16% of African-American having experience coaching central positions compared to the 41% of Whites who had experience coaching at the central positions. Finally, at the non-central positions, the difference is more substantial when it is taken into account that 73 % of African-American coaches had non-central experience versus 40% of the White coaching candidates. Stated another way, this means that only 27 % of African-American coaches had never worked at the non-central level versus 60% of White coaches who had never worked at the non-central level. These statistics support the theoretical literature and confirms our predictions that African-Americans would be overrepresented in the lower authority level positions and underrepresented in the higher authority level positions of head coach, assistant head coach, defensive/ offensive coordinator; central positions (low authority) quarterback, offensive line, and linebackers coaches.

Research question 5 asks: Are coaches with higher authority level (power/central) position experience more likely to be interviewed/hired for an open head coaching position with the NFL than coaches with lower authority level (non-central) position experience? Table 12 presents the relationship between authority level and the hiring process. The analysis reveals that coaches with experience at the higher authority levels were more likely to be interviewed. When examining the high authority level, 42% of coaches were interviewed and 22% of coaches were hired. When examining the low authority level 21% of coaches with experience at central positions were interviewed and 10% were hired. At the non authority level, only 3% of coaches were interviewed and none of the candidates were hired.

The relationship between having no experience at coaching position or authority level and the rate of interviews and hiring also provides insight into this issue. Only 2.6% of coaches with no experience coaching a power position received an interview, and none of these candidates were hired. When looking at the low authority level, it was found that 13% of coaches with no experience were interviewed and 6% of coaches with no experience coaching a central position were hired. Finally while 29% of coaches with no non-central coaching were interviewed, 100%, all of the coaches hired had no experience at the non authority level. Stated another way, if you have experience at the non-central position you may receive an interview but your lack of authority may act as an impediment to being hired. Thus, all of the candidates hired for open head coaching positions had experience at either the low or high authority level positions.

In this section research question 6 is addressed. Table 13 illustrates the relationship between the coaching efficiency candidates and the hiring process. Having

post-season experience increases the likelihood of being interviewed and subsequently hired. There was a larger disparity seen in the effect of post-season experience on interviews with approximately 15% difference. Of the coaches with no conference title game appearances, 7% were interviewed compared to 24% of coaches with at least one conference title game appearance. Of the coaches with no conference title, 11% were interviewed compared to 25% of coaches with at least one conference title. Of the coaches with no superbowl title, 13% were interviewed compared to 28% of coaches with at least one superbowl title.

There was a substantial disparity seen in the effect of post-season experience on being hired with approximately 10% difference. Of the coaches with no conference title game appearances, 2% were hired compared to 12% of coaches with at least one conference title game appearance. Of the coaches with no conference title, 4% were hired compared to 13% of coaches with at least one conference title. Of the coaches with no superbowl title, 5% were hired compared to 17% of coaches with at least one superbowl title. These results support the belief that higher coaching efficiency increases the chances of being interviewed and ultimately hired for an open head coaching position.

Test of Hypotheses

Experience and the Hiring Process

This section examines the relationship between coaching experience and the hiring process in the NFL. The analyses were conducted on career and NFL experience separately to explore the differences in the type of experience. Hypothesis 1 predicted that coaches with more experience are more likely to be interviewed/hired for an open head coaching position with the NFL. Table 14 presents the results of logistic regression

coefficients, standard errors, and odds ratios on the probability of receiving an interview among experience levels. Based on the correlation analyses, which revealed a strong relationship between interviews and National Football League coaching experience, NFL experience was independently assessed in Model 1. The model provided an affirmative answer to the question of whether experience increases the likelihood of receiving interviews. Model 1 was significant at the $p < .01$, revealing a strong positive association. One additional year of NFL experience increased the odds of being interviewed by 10%, controlling for other variables in the model. In Model 2, when the second measure of experience, total career experience was added, the effect of NFL experience remained statistical significant, ($b = .08$), $p < .001$. However, total career coaching experience did not prove to be a good predictor of interviews.

Table 15 presents the results of logistic regression coefficients, standard errors, and odds ratios on the probability of being hired for a head coaching position among experience levels. In Model 1, the results prove that NFL experience is a strong predictor of being hired ($b = .09$). A one-year increase in NFL experience is associated with a 1.10 increase in the log odds of being hired, all else equal. In Model 2 the additional variable of total career experience was included. The addition of a control variable did not change the strength or direction of the logistic coefficient for NFL experience. In this model, total career experience did not prove to be significant but NFL experience remained the same ($b = .09$), $p < .01$.

Coaching Efficiency and the Hiring Process

This section offers an examination of the association of coaching efficiency, indicated by post-season coaching records and the hiring process. In the study, the coaching

efficiency measures were Conference Championship Game Appearance, Conference Championship Game Title, and Superbowl Title. Hypothesis 2 predicts that coaches with higher coaching efficiency (post-season experience) are more likely to be interviewed and hired. The results are presented in Tables 16 and 17. To avoid the multicollinearity issues, each measure was assessed independently (Models 1-3), and then in Model 4 all measures were included. In table 16 regression analyses for coaching efficiency variables predicting interviews received are presented. Model 1 shows, on average, a candidate with a conference appearance is 1.3 times more likely to be interviewed than a candidate without a conference appearance. Model 2 shows, on average, a candidate with a conference title is 1.4 times more likely to receive an interview than a candidate without a conference title. Model 3 shows that, on average, a candidate with a superbowl title is 1.6 times more likely to be interviewed than a candidate without a superbowl title. In Model 4 the model was adjusted to include all coaching efficiency variables. With all other factors constrained, conference appearance remained the only significant predictor for interviews received, and the effect increased ($b= 1.35$), $p < .001$.

In table 17 regression analyses for coaching efficiency variables predicting candidates hired are presented. Model 1 also illustrates that, on average, a candidate with a conference appearance is 1.3 times more likely to be hired than a candidate without a conference appearance. Model 2 shows, on average, a candidate with a conference title is 1.45 times more likely to be hired than a candidate without a conference title. Additionally, Model 3 shows that, on average, a candidate with a superbowl title is 1.7 times more likely to be hired than a candidate without a superbowl title. In Model 4 the

model was adjusted to include all coaching efficiency variables. With all other factors constrained, conference appearance remained the only significant predictor for being hired, and the effect increased ($b= 1.4$), $p< .001$.

The Hierarchal Coaching Structure and Particularistic Mobility Thesis Testing

This section focuses on the distribution of coaches across the hierarchal coaching structure. For the purposes of the study, the central positions were split into two authority levels: high authority/ power positions (head coach, assistant head coach, defensive/ offensive coordinator) and low authority/ central positions (quarterback, offensive line, and linebackers coach). The remaining coaching positions were considered the non-authority/non-central positions. Based on the Particularistic Mobility Thesis, hypothesis 3 predicted that Whites are more likely to be found in the higher authority positions while African-Americans are more likely to be found in the lower authority positions. This prediction was supported by the analysis. Table 18 presents the results of logistic regression coefficients, odds ratios, and standard errors on the probability of high authority level/ power position experience among demographic variables. Model One introduces race, allowing the determination of the average group difference in obtaining high authority level experience. The coefficients of Table 18 for Model 1 show clear racial differences for power positions. The results reveal a positive relationship between race and the high level positions of authority. On average, the odds of a White candidate having a power position are 4 times the odds of a African-American candidate. In Model 2, educational attainment and age were added. The adjustments in Model 2 show that when the additional demographic measures are added that the racial coefficient stays statistically significant ($p< .001$) and its magnitude and direction stay strong ($b= 3.5$).

The results also show that older candidates are, on average, less likely to have power position experience ($b = .91$). Of the three demographic measures, race and age are significant in explaining the differences in achieving power/high authority level positions.

Table 19 presents the results of logistic regression coefficients, odds ratios, and standard errors on the probability of low authority level/central position experience among demographic variables. Model One introduces race, to determine the average group difference in obtaining low authority level experience. The coefficients of Table 26 for Model 1 show clear racial differences for the low authority level. On average, the odds of a White candidate having experience at a central position are 3.9 times the odds of a African-American candidate. In Model 2, the additional measures, educational attainment and age, were added. The adjustments in Model 2 show that when the additional demographic measures are added that the racial coefficient stays statistically significant ($p < .001$) and its magnitude and direction stay strong ($b = 3.5$). The results also show that age is important for prediction the log odds of achieving low authority level experience; revealing an inverse relationship. The odds of having central experience decrease by a factor of .96 for one year increase in age, controlling for all other variables. In both model designs, when other demographic measures were controlled, the odds of a White candidate having power or central level experience remained significant in explaining the differences in achieving power level positions.

Table 20 presents the results of logistic regression coefficients, odds ratios, and standard errors on the probability of non-authority level/non-central position experience among demographic variables. Race was found to have an inverse relationship with the

non-central/ non-authority level position. Model One introduces race, to determine the average group difference in obtaining non-central position experience. The coefficients of Table 20 for Model 1 show clear racial differences for the non-authority level. On average, the odds of a White candidate having experience at a non-central position were .23 times the odds of a African-American candidate. In Model 2, the additional measures, educational attainment and age, were added. The adjustments in Model 2 show that when the additional demographic measures are added that the racial coefficient stays statistically significant ($p < .001$) and its magnitude and direction stay strong. Controlling for other variables, the odds of a White candidate having experience at a non-central position were 48% less than the odds of a African-American candidate having non-central position experience. The results additionally illustrate that age is important for predicting the log odds of being at the non-authority level; revealing an inverse relationship. The odds of having non-central experience decrease by a factor of .1.08 for one year increase in age, controlling for all other variables. These results support the hypothesis and affirm the contention that stacking occurs based on the ascribed characteristic of race. Ultimately, this results in the majority of African-American candidates being found in non-central coaching positions.

Authority Level and the Hiring Process

This section explores the association between experience coaching central positions and the probability for selection of interview and the ultimate hiring of candidates. In the previous literature and studies on centrality and stacking, the positions were separated into two groups, central and non-central. This study went beyond previous study methodology and incorporated the concept of authority levels; central positions were split

into two authority levels: 'high authority' for power positions (head coach, assistant head coach, defensive/ offensive coordinator) and 'low authority' for central positions (quarterback, offensive line, and linebackers coach), the remaining positions were considered 'non-authority' for the non-central positions. Hypothesis 4 predicts that candidates with lower authority level positions are less likely to be hired for a head coaching position than candidates with higher authority level positions. Table 21 presents the results of logistic regression analysis run for authority level variables predicting interviews. In both models power proved to be a strong predictor of receiving an interview. In model 1, power was independently assessed. In model 2, the additional authority level predictors were included and power was still shown to be a positive strong predictor of interviews. With an odds ratio of 26.68 in model 1 and 26.11 in model 2, coaches with experience at power positions were 26 times more likely to be interviewed than a candidate without power experience, all else equal. In model 2 with the addition of the remaining authority levels, power remained a good predictor however central positioning did not prove to be a good predictor and did not have a significant effect. The analyses also revealed that candidates with non-central were less likely to be interviewed than a candidate without non-central experience. Yet, the effect was not statistically significant.

Table 22 presents the coefficients of the logistic regressions run for authority level to predict the probability of a candidate being hired. The results illustrate that none of the authority levels proved to be a significant predictor of hires. Hence, the prediction that candidates with lower authority level positions are less likely to be hired for a head coaching position than candidates with higher authority level positions was not proven.

Leadership (Centrality) Testing

Previous research on the central position hypothesis asserts that there is a relationship between the centrality of players' positions on teams and their likelihood of achieving sports management positions, (Braddock, 1980). For the purposes of the study, the central positions were split into two authority levels: high authority/ power positions (head coach, assistant head coach, defensive/ offensive coordinator) and low authority/ central positions (quarterback, offensive line, and linebackers coach), the remaining coaching positions were considered the non-authority/ non-central positions. The summary of the logistic regression analysis for position centrality predicting the study's dependent variables is presented in Table 23.

Hypothesis 5 predicts that candidates who played a central position are more likely to be found in the higher authority positions. The results from this study provide support for a connection between centrality, measured by the position played in college or the NFL and the corresponding coaching positions (power, central, non-central). Regressions showed that, centrality was a strong predictor of power and central coaching positions. The odds of a coach that played at a central position coaching at a power position are 1.86 times the odds of a candidate who played a non-central position. While, the odds of a coach that played at a central position coaching at a central position are 5.3 times the odds of a candidate who played a peripheral position. An inverse relationship was shown between centrality and non-central coaching experience. A coach who played a central position is .31 times less likely to coach a non-central position than a coach who played a

peripheral position. The results support the centrality thesis that a candidate is more likely to have experience coaching on the same authority level position that the candidate had previously played.

Hypothesis 6 predicts that candidates who played a central position are more likely to be interviewed/hired. Based on previous studies (Braddock, 1980; Grusky, 1963) it is expected that centrality of the position played by the coaching candidate would be positively associated with being hired for a head coaching. However the results did not support the assertion that playing position centrality will result in hires. While playing position centrality had a positive and significant effect on interviews, the results show a positive, yet insignificant relationship to hires. All else equal, a candidate that played a central position is 1.6 times more likely to be interviewed, than a candidate that played a non-central position.

Affirmative Action Policy—Rooney Rule

The final part of the analysis is a test of the overall model: Experience, coaching efficiency³ and authority level are assessed simultaneously and based on previous literature and research, the effect of race is expected to influence both selections for an interview and for a head coaching position over and above the effects of the other predictors. This analysis will be conducted for both Pre and Post Rooney eras. Given the dichotomous outcome measures (interviewed/hired) for our analyses, the model is examined using logistic regression; a multi-step approach to model building was utilized. Because of an interest in assessing the influence of race, the first step is to estimate the independent influence of race on the dependent variable (interviewed and hired). Then

³ To avoid the problem of multicollinearity the single indicator of coaching efficiency is conference championship game appearance.

the other predictors are entered into the equation as control measures and to assess their relationship to the dependent variable. This hierarchical design allows the determination of whether certain factors (demographics, coaching experience, coaching efficiency, and centrality) alter the odds of being interviewed and being hired. If the statistical effect of race persists when other factors, which could potentially explain variances in interviews and hires, are controlled, then race is assumed to constitute a predictor of the outcomes. On the other hand, if the statistical effect of race does not persist when the additional predictors are controlled, then it is assumed that the effect of race is moderated by the additional factors. Logistic regression results are presented separately for the Pre-Rooney and Post-Rooney eras.

Being Interviewed

Table 24 reports the logistic regression of coaches' race on having received an interview for a vacant head coaching position with, and without controls for prior coaching experience, job authority level, and success in reaching conference playoffs. The unstandardized regression coefficients represent the net or direct effect of each of our predictor variables on having received an interview for a vacant head coaching position in the NFL. Standard errors are also reported in the tables. The reported Odds Ratios allow us to compare the odds of having received an interview for a vacant head coaching position across categories of the predictor variables.

The left panel of Table 24 examines, for the Pre-Rooney era, the effects of coaches' race, prior coaching experience, job authority level, and success in reaching conference playoffs on having received an interview for a vacant head coaching position. In Model 1, without controls, we see that race is not significantly related to having

received an interview for a vacant head coaching position. African-American coaches were less likely (though not quite significantly so) to be interviewed during the Pre-Rooney era ($b = -.52$, $S.E. = .370$, ns). Specifically, African-American coaches were roughly 40 % less likely to have been interviewed than white coaches (Odds Ratio: .596). In Model 1, the Cox & Snell R-Square is .004, indicating that coaches race alone, account for less than one-half percent of the total variation in receiving an interview for a vacant head coaching position in the National Football League. In Model 2, with controls for prior coaching experience, job authority level, and success in reaching conference playoffs, we see that race remains not significantly related to having received an interview for a vacant head coaching position. However, when controls for credentials are included in the model, African-American coaches were slightly more likely (though not significantly) to be interviewed during the Pre-Rooney era ($b = .145$, $S.E. = .409$, ns). Specifically, with controls for African-American coaches were roughly 16 % more likely to have been interviewed than white coaches (Odds Ratio: 1.156). Each of the credentials variables had a significant effect on having received an interview for a vacant head coaching position. More experienced coaches were significantly more likely than less experienced coaches to be interviewed during the Pre-Rooney era ($b = .052$, $S.E. = .025$, $p < .05$). Specifically, highly experienced coaches were roughly 5% more likely to have been interviewed than less experienced coaches (Odds Ratio: 1.053). Put differently, each year of prior coaching experience increases the odds of receiving an interview by roughly five percent. Coaches with low job authority (i.e., coached non-central positions) were significantly less likely than coaches with greater job authority (i.e., coached central or power positions) to be interviewed during the Pre-Rooney era ($b = -2.203$, $S.E. = .632$,

$p < .001$). Specifically, lower authority of non-central coaches were roughly 120% less likely to have been interviewed than high authority coaches (Odds Ratio: -2.203). More successful coaches (i.e., made conference playoffs) were significantly more likely than less successful coaches to be interviewed during the Pre-Rooney era ($b = 1.291$, S.E. = .504, $p < .01$). Specifically, highly successful coaches were roughly 263% more likely to have been interviewed than less successful coaches (Odds Ratio: 3.635). In Model 2, the Cox & Snell R-Square is .110, indicating that coaches race along with prior coaching experience, job authority level, and success in reaching conference playoffs, account for roughly 11 percent of the total variation in receiving an interview for a vacant head coaching position in the National Football League.

The right panel of Table 24 examines, for the Post-Rooney era, the effects of coaches' race, prior coaching experience, job authority level, and success in reaching conference playoffs on having received an interview for a vacant head coaching position. In Model 1, without controls, we see that race is not significantly related to having received an interview for a vacant head coaching position. African-American coaches were less likely (though not quite significantly so) to be interviewed during the Post-Rooney era ($b = -.21$, S.E. = .279, ns). Specifically, African-American coaches were roughly 19% less likely to have been interviewed than white coaches (Odds Ratio: .811). In Model 1, the Cox & Snell R-Square is .001, indicating that during the Post-Rooney era coaches race alone, account for less than one-tenth percent of the total variation in receiving an interview for a vacant head coaching position in the National Football League. In Model 2, with controls for prior coaching experience, job authority level, and success in reaching conference playoffs, we see that race becomes significantly related to

having received an interview for a vacant head coaching position. When controls for credentials are included in the model, African-American coaches were somewhat more likely than white coaches to be interviewed during the Post-Rooney era ($b = .604$, $S.E. = .316$, $p < .10$). Specifically, with controls for credentials, African-American coaches were roughly 83% more likely to have been interviewed than white coaches (Odds Ratio: 1.829). Among the credentials variables, only job authority had a significant effect on receiving an interview for a vacant head coaching position during the Post-Rooney era. Coaches with low job authority (i.e., coached non-central positions) were significantly less likely than coaches greater job authority (i.e., coached central or power positions) to be interviewed during the Post-Rooney era ($b = -2.722$, $S.E. = .467$, $p < .001$). Specifically, lower authority or non-central coaches were roughly 93% less likely to have been interviewed than high authority coaches (Odds Ratio: .066). More experienced coaches were more likely (but not significantly) than less experienced coaches to be interviewed during the Post-Rooney era ($b = .013$, $S.E. = .022$, ns). Specifically, highly experienced coaches were only 1% more likely to have been interviewed than less experienced coaches (Odds Ratio: 1.013). More successful coaches (i.e., made conference playoffs) were more likely (though not significantly) than less successful coaches to be interviewed during the Post-Rooney era ($b = .055$, $S.E. = .080$, ns). Specifically, highly successful coaches were only about 6% more likely to have been interviewed than less successful coaches (Odds Ratio: 1.056). In Model 2, the Cox & Snell R-Square is .117, indicating that coaches' race along with prior coaching experience, job authority level, and success in reaching conference playoffs, account for

roughly 12 percent of the total variation in receiving an interview for a vacant head coaching position in the National Football League during the Post-Rooney Rule era.

Summary

To examine the NFL head coach hiring processes, a time series design was employed to evaluate National Football League head coach hires during the period of the 3 years prior to the implementation of the Rooney Rule and 3 years following the inception of this policy. The study's conceptual model illustrates the factors involved in the hiring process for an open head coaching position in the National Football League. Based on the literature it was hypothesized that these factors would include race, authority level, and credentials (experience and post season record). Analyses were performed to determine not only the affect of race, authority level, and credentials (experience and post season record) in the hiring process but also the influence of the Rooney Rule on these factors. It was predicted that African-Americans would be less likely to be interviewed for an open head coaching position in the National Football League than whites. In the Pre-Rooney years when examining the effect of race alone, this prediction did prove to be true, with African-American coaches being roughly 40% less likely to have been interviewed than white coaches; however it was not statistically significant. When examining the Post-Rooney years the influence of race was minimized and African-American coaches were roughly 19% less likely to have been interviewed than white coaches; however the effect was still not statistically significant. Thus, in model 1, race on its own did not prove to be a good predictor of interviews in either the Pre or Post-Rooney years. When controls for credentials are included in the model race becomes significantly related to having received an interview, in the Post-Rooney period

African-American coaches were 83% more likely to have been interviewed than white coaches; however it remained insignificant in the Pre-Rooney years. These results proved that with the implementation of the Rooney Rule increased the likelihood of African-American coaches receiving an interview. It was also predicted in the hypotheses that candidates with lower authority levels would be less likely to be interviewed than candidates with higher authority level. This prediction was proven to be true in both the Pre and Post-Rooney eras, with the analyses indicating that non-central coaches were roughly 120% less likely and 93% less likely to have been interviewed, respectively. Although non-central coaches were still less likely to receive an interview than a power or central position coach it can be concluded, the Rooney Rule proved effective in increasing the diversity of the candidate pool by increasing the likelihood of non-central coaches receiving an interview. It was also predicted that candidates with better credentials (more experience and better post-season records) would be more likely to be interviewed. The analyses revealed that in the Pre-Rooney period both experience and post season success increased the odds of receiving an interview; however in the Post-Rooney era neither experience nor successful records was a good predictor of interviews.

These results validate the belief that there are underlying mechanisms at play in the hiring process. While race is not directly a good predictor of interviews, authority level and credentials were good predictors. Given the fact that the descriptive results proved that African-Americans are found in the non-central positions at a significantly higher rate than white candidates, it could be said that credentials act as the mediator between race and interviews.

Getting Hired

Table 25 reports the logistic regression of coaches' race on being hired for a vacant head coaching position (having received an interview) with, and without controls for prior coaching experience, job authority level, and success in reaching conference playoffs. The unstandardized regression coefficients represent the net or direct effect of each of our predictor variables on having being hired for a vacant head coaching position in the NFL. Standard errors are also reported in the tables. The reported Odds Ratios allow us to compare the odds of being hired for a vacant head coaching position across categories of the predictor variables.

The left panel of Table 25 examines, for the Pre-Rooney era, the effects of coaches' race, prior coaching experience, job authority level, and success in reaching conference playoffs on being hired for a vacant head coaching position (having received an interview). In Model 1, without controls, we see that race is not significantly related to being hired for a vacant head coaching position. African-American coaches were less likely (though not quite significantly so) to be hired during the Pre-Rooney era ($b = -1.33$, $S.E. = .860$, ns). Specifically, African-American coaches were roughly 73% less likely to have been hired than white coaches (Odds Ratio: .265). In Model 1, the Cox & Snell R-Square is .060, indicating that coaches race alone, account for six percent of the total variation in being hired for a vacant head coaching position (having received an interview) in the National Football League. In Model 2, with controls for prior coaching experience, job authority level, and success in reaching conference playoffs, we see that race becomes significantly related to being hired for a vacant head coaching position. When controls for credentials are included in the model, African-American coaches were

less likely to be hired during the Pre-Rooney era ($b = -1.704$, $S.E. = .902$, $p < .10$). Specifically, with controls for credentials, African-American coaches were roughly 92% less likely to have been hired for a vacant head coaching position (having received an interview) than white coaches (Odds Ratio: .182). However, none of the credentials variables-- prior coaching experience, job authority level, and success in reaching conference playoffs --had a significant effect on having been hired for a vacant head coaching position (having received an interview) in the NFL. In Model 2, the Cox & Snell R-Square is .110, indicating that coaches race along with prior coaching experience, job authority level, and success in reaching conference playoffs, account for roughly 11 percent of the total variation in being hired for a vacant head coaching position (having received an interview) in the National Football League in the Pre-Rooney era.

The right panel of Table 25 examines, for the Post-Rooney era, the effects of coaches' race, prior coaching experience, job authority level, and success in reaching conference playoffs on being hired for a vacant head coaching position (having received an interview). In Model 1, without controls, we see that race is not significantly related to being hired for a vacant head coaching position. African-American coaches were less likely (though not quite significantly so) to be hired during the Post-Rooney era ($b = -.29$, $S.E. = .567$, ns). Specifically, African-American coaches were roughly 26% less likely to have been hired than white coaches (Odds Ratio: .744). In Model 1, the Cox & Snell R-Square is .004, indicating that coaches race alone, account for less than one-half percent of the total variation in being hired for a vacant head coaching position (having received an interview) in the National Football League. In Model 2, with controls for prior coaching experience, job authority level, and success in reaching conference playoffs, we

see that race remains not significantly related to being hired for a vacant head coaching position. However, when controls for credentials are included in the model, African-American coaches were less likely to be hired during the Post-Rooney era ($b = -.299$, $S.E. = .597$, ns). Specifically, with controls for credentials, African-American coaches were roughly 26% less likely to have been hired for a vacant head coaching position (having received an interview) than white coaches (Odds Ratio: .741). Again, none of the credentials variables-- prior coaching experience, job authority level, and success in reaching conference playoffs --had a significant effect on having been hired for a vacant head coaching position (having received an interview) in the NFL. In Model 2, the Cox & Snell R-Square is .107, indicating that coaches race along with prior coaching experience, job authority level, and success in reaching conference playoffs, account for roughly 11 percent of the total variation in having been hired for a vacant head coaching position (having received an interview) in the National Football League during the Post-Rooney era.

Summary

Based on the literature it was hypothesized that race, authority level, and credentials (experience and post season record) were factors involved in the hiring process for an open head coaching position in the National Football League. It was predicted that African-Americans would be less likely to be hired for an open head coaching position in the National Football League than whites. This prediction did prove to be true however it was not statistically significant in the Pre or Post-Rooney years. Race did not show significant direct effects in predicting hires. Of particular interest is the Rooney Rule difference in the extent to which the effect of race is mediated by

credentials. In the Pre-Rooney era race show significant effects in predicting hires, with African-Americans being less likely to be hired (92%). Hence, to a substantial extent, the effects of race appear to operate through credentials. However in the Post-Rooney era race fails to reach significance when controls for credentials were added. Finally in neither the Pre nor Post-Rooney years did any of the credentials controls prove to be a good predictor of being hired in the National Football League.

Chapter 6: Discussion and Conclusions

Discussion

The purpose of this study was to develop and apply an integrative theoretical model to examine the current process of managerial recruitment in the National Football League. Specifically, the study explored the impact of the Rooney Rule in fostering diversity in the NFL's selection and hiring process in the Post-Rooney Rule years compared to the Pre-Rooney Rule era. A guiding assumption was that specific theories alone supply only partial explanations and that an integrative model would provide a more concrete basis for examining racial inequality in professional sports. By taking an integrative theoretical and methodological approach, the research addresses the shortcomings of previous research. The major limitation of past theories was the reliance on a singular explanation (human/social capital, stacking, centrality, etc.). An integrative approach acknowledges the need for more than one explanation for such a complex issue as mobility and race.

Past research provided a foundation in the areas of inequality in the labor market and professional sports. Yet, there existed a need to determine the mechanisms behind career mobility. This integrative approach built on the theories of centrality, institutional discrimination, and particularistic mobility. Specifically, this study adds the concept of authority level to the discussion and examines the role of authority levels as a mechanism to produce or impede mobility within the National Football League. The research objectives were:

1. To determine if there was an increase in the number of African-American head coaching candidates hired following the Rooney Rule.
2. To determine if a lack of human/social capital is a factor in the hiring process for head coach vacancies, by comparing the credentials of African-American and White candidates.
3. To assess the role of race as a factor in the hiring process for head coach vacancies on NFL teams:
 - a. by assessing the effect of race on interview pools (candidates who are interviewed for head coaching positions); and
 - b. by assessing the effect of race on selection of head coaches (the candidate hired from the interview pool).
4. To identify possible impediments to mobility and equal representation in head coaching positions.
5. To examine the distribution of authority level positions in the NFL by race and experience.
6. To examine the underlying processes through which race might affect an individual's movement through the selection and hiring stages for a position as head coach in the NFL:
 - a. by identifying and describing the (institutional discrimination) mechanisms that may function to impede mobility for African-American candidates; and
 - b. by identifying and describing the mechanisms that may function to enhance mobility for White candidates.

These objectives were addressed and met through the exploration of the study's research questions. These research questions were designed to examine both the hiring process and the possible impediments along the path of mobility. The data analysis strategies employed to explore the research objectives and questions included univariate analysis, which provided descriptive statistics on the study variables, analysis of variance (ANOVA), and logistic regression.

Primary data collection provided an excellent data set for conducting an integrative analysis of the underlying mechanisms in the hiring process of the National Football League. The data provided a complete description of the population in question, NFL assistant coaches. Independently collecting data allowed the inclusion of both new measures and various factors that had been previously identified in past studies.

The expectation of a differential racial distribution across authority level and its role in the hiring process were identified in the univariate analyses and supported in the bivariate logistic regression results. Analyses revealed that power positions were the strongest predictor of selection in the NFL head coaching hiring process. Additionally, African-Americans were more likely to have experience at the non-central positions than power positions. Thus, lending support to the particularistic mobility thesis, which asserts that minorities will be found at lower level authority positions and will accordingly experience longer and more formal paths to authority. The major findings of this study are as follows:

1. Statistically, the Rooney rule improved diversity in the hiring process and can be considered effective based on two facts: following the Rooney Rule the numbers of minority coaches interviewed/ hired increased and since the inception of the

Rooney Rule the number of African-American head coaches has increased from 2 to 7⁴. The statistics show that the years prior to the Rooney Rule had a smaller overall interview pool and the Rooney Rule resulted in a larger overall interview pool and a larger number of minority candidates interviewed.

2. The research findings reveal that since the inception of the Rooney Rule the number of African-American head coaches has increased from 2 to 7⁵. However, the findings also revealed that there are more factors that impede rather than enhance mobility opportunities. Analyses indicated that African-American coaches are found in the less central (less powerful) coaching positions, are offered fewer interviews, and are hired less frequently; providing support for the argument that race continues to be important in the connection between leadership, authority level and management positions.
3. Coaching candidates with higher authority levels were more likely to be hired.
4. White coaches were more likely to be found in the higher authority levels (power and central coaching positions).
5. African-American coaches were more likely to be found in lower authority positions. The analyses revealed that African-Americans have less experience at power positions but more experience at non-central or peripheral positions. This fact translates into fewer interviews and hires for African-Americans. This supported the prediction of the particularistic mobility thesis that for African-Americans authority level will act as an impediment to selection in the hiring process. It was found that none of the hired candidates (African-American or

⁴At the time of analysis the number of African-American head coaches was 7. However, ending the 2007 NFL season the number of coaches has fallen to 6.

⁵Ending the 2007 NFL season the number of coaches has fallen to 6.

White) had experience at the non-central authority level; compared to the fact that all of the hired candidates had experience at the power authority level. Ultimately pointing to the fact that authority level experience can work to facilitate or impede mobility.

6. African-Americans were less likely to have experience as coordinators (on the college or NFL levels). It was found that African-American coaches with coordinator experience received fewer interviews than Whites with coordinator experience. Additionally, African-Americans with coordinator experience were hired less frequently than Whites with coordinator experience. This supports the contention that returns on experience are lower for African-Americans in comparison to Whites.
7. In the Pre and Post-Rooney Rule years race was not a good predictor of interviews or hires.
8. In the Pre-Rooney Rule years when controlling for credentials African-Americans were less likely to be hired for an open head coaching position.
9. In the Post-Rooney Rule years when controlling for credentials African-Americans were more likely to be interviewed.
10. In the Pre-Rooney Rule years credentials (experience and post-season success) increased the likelihood of receiving an interview.
11. In the Pre and Post-Rooney Rule years low authority level decreased the likelihood of receiving an interview.
12. Head coach positions hires following the Rooney Rule did not reveal a significant increase in minorities in comparison to the percentage of candidates.

Conclusion

These findings support the utility of an integrative approach in understanding the mechanisms that are operating in the hiring process. While they are consistent with the research findings of some previous studies on race, mobility and management, these findings challenge the explanatory strength of any single theory. The findings suggest that when we rely on a single theoretical explanation to guide research, the scope is severely limited. For this study, an integrative model that synthesized theoretical perspectives was used. The use of the centrality thesis provided the basis for theory building and allowed for the examination of the association between centrality in playing position, centrality in coaching position, and the hiring process. The Particularistic Mobility Thesis and institutional discrimination were then used to explain the different outcomes in authority level attainment and how this related to the hiring process. The inclusion of authority level measures allowed the examination of race effects on job authority attainment and the role that authority levels played in the NFL hiring process.

The results of this study have both methodological and theoretical implications. First, the results identify the limitations of studies that examine factors from a single theoretical perspective. Second, the findings support the need for an integrative approach to study racial inequality in management.

To answer the question of what accounts for the disparity in interviews and hiring rates, it is not as simple as looking at the statistics to see if race impacts interviews and hiring. The surface answer would be no, race was not found to be a significant predictor of interviews or hires. Though, to understand the selection process, it is necessary to look at what factors were significant predictors of interviews and hiring. It was found that having experience at a high authority level position significantly increased the likelihood

of a candidate receiving an interview. In addition, it was found that race significantly predicts the likelihood of receiving high authority. Thus, it could be said that authority level could be thought of as an intervening variable between race and job mobility. This occurrence was supported by logistic regression analysis performed to determine the predictability of race in authority level positioning. The results revealed that the odds of a African-American candidate having non-central experience are greater than the odds of a White candidate having non-central experience. These results support the contention that stacking occurs based on the ascribed characteristic of race, resulting in the majority of African-American candidates being placed in the non-central coaching positions. Instead of an ascribed characteristic, such as race, operating as the selection variable, now power is the filter for inclusion or exclusion. On average, a White candidate is more likely to have high authority level experience and a person with a high authority level is more likely to receive an interview and be hired for an open head coaching position. Therefore, a White candidate is more likely to be hired than a African-American candidate.

Previous research on the centrality hypothesis asserts that there is a relationship between the centrality of players' positions on teams and their likelihood of achieving sports management positions, (Braddock, 1980). The results from this study provide support for a connection between leadership (position centrality) and high authority level management positions (head coach, assistant head coach, defensive coordinator, and offensive coordinator).

Within the NFL, each team has approximately twenty-two categorically hierarchical coaches, with the majority of responsibility falling on the offensive and defensive coordinators. These coordinators are being trained and groomed to become

head coaches and they typically comprise the candidate pools for head coaching vacancies. According to Lapchick (2003), “coordinator positions are considered to be the pipeline to the head coaching position.” Given the fact that coordinator experience is considered one of the requisites for head coaching experience, cross tabulations were performed to investigate the relationship between coordinator experience, race, interviews received, and candidates.

Analyses revealed for both African-American and White candidates with no previous coordinator experience, an equal number of coaches (2) were hired. However, that was not the case with the coaches that possessed coordinator experience. Whites with defensive coordinator experience were granted 3 times the amount of interviews and were hired for 4 times the amount of head coaching positions. While Whites with offensive coordinator experience were granted 7 times the interviews and received 17 times the number of head coaching positions. These results support previous literature and highlight the rate of return on experience is significantly different for African-Americans and Whites.

As part of the human capital argument, it has been said that a coach’s record, particularly a Superbowl title, is an important determinate in advancement. This is not supported by the study’s statistics. Logistic regressions were performed for the years prior to the Rooney Rule and the Post-Rooney years and only conference championship appearances proved to have a significant effect; all of the candidates that were hired had at least one conference appearance. Interestingly, having a conference title or a Superbowl title did not make a statistically significant impact on interview or hiring rates in either the Pre or Post Rooney seasons.

The human capital argument suggests that the reason African-Americans are underrepresented is due to their lack of experience. Accordingly, in professional sports where the saying is, that the 'NFL is hiring experience'; the expectation is to find a significant difference in experience according to race. The logistic regression statistics proved that a candidate's experience was a significant predictor of interviews and hires. However, the analysis of the means also proved that there was no significant difference in experience for African-American and Whites. The average years of total career experience was 16 for African-Americans and 19 for Whites. While the average years of NFL experience was 8 for African-Americans and 9 for Whites. The statistics show that an increase in NFL experience increased your likelihood of being interviewed and hired. So if African-American and Whites have the same amount of experience then what account for the difference in hiring rates?

One aim of this study was to assess the claim of the NFL that there is not equal representation of African-Americans in head coaching positions because a lack of qualified candidates exists. A one-way analysis of variance was conducted to evaluate the relationship between race and the other study variables for the candidates that had been interviewed. Using .05 as the statistical significance threshold, running back coaching experience and tight end coaching experience are the variables that remained after the ANOVA procedure was run. There was no statistically significant difference in the means for credentials, coaching experience, coaching efficiency or leadership measures of the candidates that had been interviewed.

This study has shown that the Rooney Rule has been effective in increasing the number of African-American head coaches within the NFL. Since the adoption of the

Rooney Rule, the number of African-American head coaches has doubled. When looking strictly at the statistics, the Rooney Rule has served its purpose; diversity within the NFL coaching staff has increased. The start of the 2006 NFL season was brought in with 7 African-American head coaches, that equates to 22% of the head coaching staff occupied by African-Americans and the remaining 78% occupied by Whites. That is a significant increase from the 6%, in the Pre-Rooney era. In the Pre-Rooney era African-Americans were less likely than Whites to receive an interview or be hired for an open position.

Post-Rooney, the number of African-American coaches interviewed and ultimately hired as a NFL head coaches has increased. However, the overall hiring percentages are still low. The idea behind the Rooney Rule was to mandate diversity within candidate pools so that each team gains exposure to the available minority, coaching candidates. While the likelihood of being interviewed increased for African-American coaches, following the implementation of the Rooney Rule, African-American coaches still remained less likely to be hired than White coaches for an open head coaching position. The data show that although there has been an increase in the number of minority candidates interviewed, this increase has not translated into a significant hiring ratio. In the 2000-2006 seasons, the hiring percentage for minorities was 7%; there were 42 hires, yet only 6 were African-American.

Since the implementation of the Rooney rule the number of minority interviews increased, yet the number of hires was not on par with the percentages of candidates. This outcome was expected based on the literature and supported by the analyses, which show that race does not have a statistically significant affect on interviews or hiring. However, race does have an effect on authority level. This is important to explore because authority

level was a strong predictor of interviews. It was found that both the power (high) and central (low) authority level were positively associated to receiving interviews and, therefore, being hired. While, the non-central (non) authority level was negatively associated to interviews and being hired for a head coaching position. The present research results supports the contention of the Particularistic Mobility Thesis, which states that race plays a factor in a candidate receiving consideration for and being hired for a high authority, high power job (Wilson, 1997, 2001).

In the NFL, the high authority positions are head coach, assistant head coach, defensive and offensive coordinator. The percentage of White candidates who had experience at these power positions equaled 83 % and the percentage of African-American candidates equaled 17%. In the NFL, the central positions (quarterback, linebacker, are the low authority jobs; the distribution of experience was 84 % White and 16 % African-American. The non-central positions are the remaining positions in the NFL and were considered the non authority jobs. The African-American percentage equaled 47% and the White percentage equaled 54%.

A cross-sectional examination of race, authority level, and hires illustrates their association to one another. The data showed that White candidates are more likely to occupy both central and power positions and that all of the candidates hired possess experience at either the power or central positions. Consequently, a White candidate is more likely to be hired for the head coaching position than an African-American candidate.

African-Americans have the experience and the post-season record, both of which have been previously used to justify the lack of diversity in the management ranks of the

NFL. However, the statistics clearly show that neither explains the difference in career mobility and attainment for African-American and White coaches. The factor that predicted mobility the most, as assessed by hiring, was authority level which is the area in which African-Americans are underrepresented; thus leading to decreased chances of being interviewed or hired.

Sociological Significance

This study has documented that there are clear racial differences in the hiring process between African-American and White coaching candidates. The sports arena offers a unique opportunity and perspective for labor market research by exposing and examining the dual nature of American society with its paradoxical blending of democracy and inequality (Spivey, 2003). The knowledge of the race and credentials of the candidates allows the estimation of the extent of discrimination in a more detailed manner than in other industries. The fact that we found differences between African-American and White candidates with similar credentials raises several questions regarding the limitations of previous approaches to research on race and discrimination. In this regard, the study helps to advance our understanding of the mobility issues of workers by redefining the way previous research has conceptualized workplace inequality. Plus, allowing the exposure and examination of the internal labor market mechanisms that contribute to the differences in mobility.

In this study, we used an integrated conceptual model that is a synthesis of individual and structural factors coming out of several theoretical perspectives, which allowed the assessment of racial inequality within the arena of sports. The results of this study demonstrate the usefulness of utilizing an integrated conceptual framework to

assess the differences in the mobility process among the ethnically diverse work population in the United States. By developing and applying the framework suggested in this study we can add to a much greater understanding of the full range of factors that interact to impact the occupational mobility among African-Americans in the labor market. While much of this study's findings are consistent with both theoretical and empirical literature on racial inequality in the workplace, the overall findings of this study challenge the explanatory power of any single theory. Our findings suggest that using an integrative approach is more useful in understanding the underlying mechanisms involved in the hiring process. By broadening the theoretical scope of analysis to include measures for authority level, this approach has enhanced our ability to explain the complex and multi-dimensional nature of mobility and inequality in the workplace. This study adds to the research on discrimination by illustrating how theories of discrimination, specifically social closure, can be applied to the study of access to different authority levels within an organization and the consequent influence on mobility in the workplace.

Limitations

The rich data collected in this study permitted several limitations of previous studies to be addressed, such as the incomplete and inconsistent array of concepts, measures and explanations for differences in mobility. However there are limitations which must be addressed.

Discrimination has been an intriguing but frustrating subject for social science. It is intriguing because it represents a powerful mechanism underlying many historical and contemporary patterns of inequality; frustrating because it is elusive and difficult to

measure. While the results of these analyses may point to discrimination and social closure explanations, this study did not directly test either of them. Although the findings of this study did highlight unequal outcomes for African-American and White candidates, the main limitation of this approach is that it is difficult to effectively account for all the factors relevant to unequal outcomes. This leaves open the possibility that the disparities we attribute to discrimination may in fact be explained by some other unmeasured cause(s). Thus, it cannot be explicitly stated that there are not other processes leading to the results that appear to be discrimination and the social closure that stops African-American coaches from moving up in the coaching profession.

Discrimination in statistical models is often measured as the residual race gap in any outcome that remains after controlling for all other race-related influences (Zimmer, 2008). However, it is argued that statistical information on racial gaps in outcomes is rarely enough to support conclusions about the role of racial discrimination in the absence of a detailed understanding of the decision processes of decision makers (Zimmer, 2008). In the labor market this would mean understanding the processes by which hiring or promotion occurs and the information available to employers in making employment or promotion decisions. Although this study did find a residual race gap in the hiring process outcomes and does provide a look at the underlying mechanisms, a limitation of the study is the lack of multiple methods in the same study so that comparisons can be made across methods. Because no single approach to measuring racial discrimination allows researchers to address all the important measurement issues and the measurement of racial discrimination can vary with the method used, using focused case studies of employer decision processes would provide the requisite depth of

understanding of employer behavior to support the statistical analysis conducted in this study. These studies of decision-making processes should be also be informed by an integrative theoretical model that accounts for the various ways in which discrimination might occur.

Recommendations

Despite these limitations this study provides important findings. This study shows that although it is difficult to measure racial discrimination, it is possible to conduct important, appropriate research in the area of racial inequality that adds to our knowledge. The analyses indicated that equally qualified African-American and White coaching candidates are hired in the NFL but that African-Americans become increasingly disadvantaged with regard to promotions and authority level over time. These results suggest that research on employer decision processes related to mobility in the hierarchal institutional structure could merit greater attention than a simple replication of studies of factors in initial hiring decisions.

The present research examined the effects of race, authority level, and credentials in an attempt to offer a more complete explanation of the social network processes that lead to racial disparity among NFL football coaches. Specifically, the results show that similar credentials interact with race to produce different levels of mobility for African-American and White coaches. While more research is necessary to determine the extent of these factors' role, finding that they are significant and particularly that similar credentials can produce different mobility results for African-American and White coaches has implications for theory, research, and policy regarding the racial disparity among football coaches.

In both the Pre and Post-Rooney Rule eras higher job authority increased the likelihood of being interviewed and hired. The statistics have shown that although the number of African-Americans interviewed has increased, just being interviewed is not sufficient. Based on these findings, the Rooney Rule should be implemented in the central and power positions for improved minority representation. African-Americans need to be more represented at the higher authority level positions and this will result in an increase in the chance of African-Americans ultimately being hired for head coach positions.

As the results of this study show, formal hiring policies demonstrate promise. However, they deal primarily with the hiring of head coaches. As the present and previous analyses have shown, racial disparity exists at the level of assistant coach. And if Reskin (1993) is correct that internal labor markets perpetuate racial disparity, especially when lower level jobs are segregated, then any attempts to address the disparity at the level of head coach will likely be unsuccessful without first addressing the disparity among assistant coaches.

We have identified that the central and power positions function as “feeder positions” in the NFL. Since the issues found in the NFL are not exclusive to sports, it is essential that other labor markets identify their feeder positions, examine the representation of minorities in these positions and establish a program to increase their mobility.

The results of this study indicate that authority level is a significant predictor of interviews and hires and that there are clear racial differences in the hiring process. In this regard, this study also helps to advance the understanding of how attainment of authority

level positions and job mobility operates differently dependent on race. By reconceptualizing the mobility process and the mechanisms behind the disparity in attainment this study provides a foundation for research on diversity in other arenas. The findings of this study may also be used to impact policies and improve practices designed to create diversity in managerial positions, for both the NFL and corporate America.

References

- Adler, P. & Adler, P. (1991). *Backboards & Blackboards: College Athletics and Role Engulfment*. New York: Columbia University Press.
- Allport, G. (1954). *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- Anderson, D. (1993). Cultural diversity on campus: A look at intercollegiate football coaches. *Journal of Sport and Social Issues*.
- Arnold, H. & Feldman, D. (1986). *Organizational Behavior*. New York: McGraw-Hill.
- Arnold, J. (2004). *Work Psychology (4th edition)*. Harlow: Pearson.
- Arrow, K. (1972). *Some mathematical modes of race discrimination in the labor market, racial discrimination in economic life*. Mass: D.C. Heath
- Baldi, S. & McBrier, D. (1997). Do the determinants of promotion differ for blacks and whites? *Work and Occupations*, 24(44), 478-497.
- Ball, D. (1973). Ascription and position: A comparative analysis of “stacking” in professional football. *The Canadian Review of Sociology and Anthropology*, 10, 97-113.
- Banks, O. (1979). How black coaches view entering the job market at major colleges. *Journal of Physical Education and Recreation*, 50(5), 62
- Barnidge, T. (2002). How to hire a coach: Finding mr. right. Retrieved from <http://www.nfl.com/insider/story/5917206>
- Baron, J., Davis-Blake, A., and Bielby, W. (1986). The structure of opportunity: How promotion ladders vary within and among organizations. *Administrative Science Quarterly*, 31, 248–73.
- Baron, J. & Newman, A., (1990). For what it's worth: organizations, occupations, and the value of work done by women and nonwhites. *American Sociological Review*, 55, 155–175.
- Becker, G. (1957, 1971). *The Economics of Discrimination*. Chicago: The University of Chicago Press.
- Becker, G. (1993). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education (3rd ed.)*. Chicago: The University of Chicago Press.
- Berger, P. & Luckmann, T. (1966). *The Social Construction of Reality: A Treatise in The Sociology of Knowledge*. New York: Anchor Books.

- Bertrand, M. & Sendhil M. (2003). *Are Emily and Greg more employable than Lakisha and Jamal? : A field experiment on labor market discrimination*. MIT Dept. of Economics: WP 03-22.
- Best, C. (1987). Experience and career length in professional football: The effect of positional segregation. *Sociology of Sport Journal*, 4(4), 410-420.
- Bielby, W. & Baron, J. (1986). Sex segregation and statistical discrimination. *American Journal of Sociology*, 91, 759-799.
- Bielby, W. (1987). Modern prejudice and institutional barriers to equal employment opportunities for minorities. *Journal of Social Issues*, 43, 79-84.
- Blalock, H. (1962). Occupational discrimination: Some theoretical propositions. *Social Problems*, 9, 240-247.
- Blau, P., & Duncan, O. (1967). *The American Occupational Structure*. New York: John Wiley.
- Blumer, H. (1965). Industrialization and race relations. In G. Hunter (Ed.), *Industrialization and Race Relations*. (pp. 220-253). London: Oxford University Press.
- Bourdieu, P. (1986). The forms of capital. In John Richardson, Ed. *Handbook of Theory and Research for the Sociology of Education*. (pp. 241-258). New York: Greenwood Press.
- Braddock, J. (1980). *Institutional Discrimination: A Study of Managerial Recruitment in Professional Football*. National Football League Players Association, Washington, DC.
- Braddock, J. (1978). Television and college football: In black and white. *Journal of Black Studies*, 8, 369-379.
- Braddock, J. & McPartland, J. (1987). How minorities continue to be excluded from equal employment opportunities: Research on labor market and institutional barriers. *Journal of Social Issues*, 43, 5-39.
- Brooks, D. & Althouse, R. (1993). Racial imbalance in coaching and managerial positions. *Racism in College Sports: The African-American Athlete's Experience*. Morgantown, WV: Fitness Information Technology.
- Brooks, D. & Althouse, R. (2000). *Racism in College Athletics*. Morgantown, VW: Fitness Information Technology.

- Brown, M. & Erie, S. (1981). Blacks and the legacy of the great society: The economic and political impact of federal social policy. *Public Policy*, 29, 299-330.
- Burgess, I., Edwards, A., and Skinner, J. (2003). Football culture in an Australian school setting: The construction of masculine identity. *Sport, Education, and Society*, 8, 199-212.
- Chu, D. & Segrave, J. (1980). Leadership recruitment and ethnic stratification in basketball. *Journal of Sport and Social Issues*, 4, 13-22.
- Coakley, J. (1998). *Sport in society* (6th Edition). New York: McGraw-Hill.
- Coakley, J. (2001). *Sport in society* (7th Edition). New York: McGraw-Hill.
- Cochran, J. & Mehri, C. (2002). *Black Coaches in the National Football League: Superior Performance, Inferior Opportunities*. Retrieved from the World Wide Web: <http://www.findjustice.com/ms/nfl/indextop.html>
- Collins, S. (1983). The making of the black middle class. *Social Problems*, 30, 369-381.
- Collins, S. (1989). The marginalization of black executives. *Social Problems*, 36, 317-331.
- Collins, S. (1993). Blacks on the bubble: The vulnerability of black executives in white corporations. *The Sociological Quarterly*, 34, 429-447.
- Collins, S. (1997). *Black corporate executives: The making and breaking of a black middle class*. Philadelphia: Temple University Press.
- Costa, D. & Guthrie, S. (1994). Feminist perspectives: Intersections with women and sport. In *Women and Sport: Interdisciplinary Perspectives* (pp. 235-252). Champaign, IL: Human Kinetics.
- Cox, T. (1993). *Cultural Diversity in Organizations: Theory, Research & Practice*. San Francisco, CA: Berrett-Koehler Publishers.
- Cox, T. (1991). The multicultural organization. *The Executive*, 5(2), 34-47.
- Cunningham, G., Sagas, M., and Ashley, F. (2001). Occupational commitment and intent to leave the coaching profession: Differences according to race. *International Review for the Sociology of Sport*, 36, 131-148.
- Curtis, J. & Loy, J. (1978a). Positional segregation in professional baseball: replications, trend data and critical observation. *International Review of Sport Sociology*, 4(13), 5-21.

- Curtis, J. & Loy, J. (1978b). Race/Ethnicity and relative centrality of playing positions in team sport. *Exercise and Sport Science Review*, 6, 285-313.
- Darity Jr., W. (1989). What's left of the economic theory of discrimination? *The Questions of Discrimination*. Conn: Wesleyan University Press.
- DeHass, D. (Ed.). (2003). *2001-02 Race Demographics of NCAA Member Institutions' Athletic Personnel*. Indianapolis, IN: National Collegiate Athletic Association.
- Doherty, A. & Chelladurai, P. (1999). Managing cultural diversity in sport organizations: A theoretical perspective. *Journal of Sport Management*, 13, 280-297.
- Durr, M. & Logan, J. (1997). Racial submarkets in government employment: African American managers in New York State. *Sociological Forum*, 12, 353-370.
- Edwards, R. (1979). *Contested Terrain: The Transformation of the Workplace in the 20th Century*. New York: Basic Books.
- Edwards, H. (1973, November). The black athletes: 20th century gladiators for white America. *Psychology Today*, 43-52.
- Edwards, H. (1973). *Sociology of Sport*. Homewood, IL: Dorsey Press.
- Eitzen, D. (1999). *Fair and foul: Beyond the myths and paradoxes of sport*. Boulder, CO: Rowman and Littlefield Publishers, INC.
- Eitzen, D. & Sage, G. (2003). *Sociology of North American Sport (7th Edition)*. New York: McGraw-Hill.
- Eitzen, D. & Sanford, D. (1975). The segregation of blacks by playing position in football: Accident or design? *Social Science Quarterly*, 55, 948-959.
- Eitzen, D. & Yetman, N. (1977). Immune from racism? Blacks still suffer from discrimination in sports. *Civil Rights Digest*, 9, 3-13
- Eitzen, D. & Yetman, N. (1972) Managerial change, longevity, and organizational effectiveness. *Administrative Science Quarterly*, 17, 110-116
- Entine, J. (2000). *Taboo: Why black athletes dominate sports and why we're afraid to talk about it*. New York: Public Affairs.
- Everhart, C. & Chelladurai, P. (1998). Gender differences in preferences for coaching as an occupation: The role of self-efficacy, valence, and perceived barriers. *Research Quarterly for Exercise and Sport*, 69(2), 188-200.

- Farley, R. & Allen, W. (1987). *The color line and the quality of life in America*. New York: Russell Sage.
- Fernandez, J. (1975). *Black Managers in White Corporations*. Lexington, MA: Lexington Books.
- Fernandez, J. (1981). *Racism and Sexism in White Corporations*. New York: Wiley.
- Fink, J. & Pastore, D. (1999). Diversity in sport? Utilizing the business literature to devise a comprehensive framework of diversity initiatives. *Quest*, 51, 310-327.
- Frey, J. & Eitzen, D. (1991). Sport and society. *Annual Review of Sociology*, 17, 503-22.
- Garson, G. (2006) Univariate GLM, ANOVA, and ANCOVA. Retrieved from http://davidmlane.com/hyperstat/factorial_ANOVA.html
- Gilbert, J., Stead, B., and Ivancevich, J. (1999). Diversity management: A new organizational paradigm. *Journal of Business Ethics*, 21, 61-76.
- Giscombe, K. & Mattis, M. (2002) Leveling the playing field for women of color in corporate management: Is the business case enough? *Journal of Business Ethics*, 37,
- Greenhaus, J., Parasuraman, S., and Wormley, W. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, 33, 64-86.
- Grusky, O. (1963). The effects of formal structure on managerial recruitment: Study of baseball organization. *Sociometry*, 26, 345-353.
- Hoberman, J. (1997). *Darwin's athletes: How sport has damaged black America and preserved the myth of race*. Boston, MA: Houghton Mifflin Company.
- Holzer, H., (1987). Informed job search and black youth unemployment. *American Economic Review*, 77, 447-452.
- Hunter, D. (1998). Race and athletic performance: A physiological review. In G. A. Sailes (Ed.), *African Americans in Sport* (pp. 85-102) New Brunswick: Transaction Publishers.
- Hurley, A., Fagenson-Eland, E., and Sonnenfeld, J. (1997), Does cream always rise to the top? An investigation of career determinants, *Organizational Dynamics*, 26 (2), 65-71.
- Ibarra, H. (1997). Paving an alternative route: Gender differences in managerial networks. *Social Psychology Quarterly*, 60, 91-102.

- Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18, 56-87.
- Ilgen, D. & Youtz, M. (1986). Factors affecting the evaluation and development of minorities in organizations. In K. M. Rowland & G. R. Ferris (Eds.), *Research in Personnel and Human Resource Management* (Vol. 4, pp. 81-124). Greenwich, CT: JAI Press.
- James, E. (2000). Race-related differences in promotions and support: Underlying effects of human and social capital. *Organization Science*, 11, 493-508.
- Johnson, B. & Johnson, N. (1995). Stacking and “stoppers”: A test of the outcome control hypothesis. *Sociology of Sport Journal*, 12, 105-112.
- Judge, T., Cable, D., Boudreau, J., and Bretz, R. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology*, 48, 485-519.
- Kanter, R. (1977). *Men and Women of the Corporation*. New York: Basic Books.
- Kaufman, R. (2002). Assessing alternative perspectives on race and sex employment segregation. *American Sociological Review*, 67, 547-572.
- Kaufman, R. (1986). The impact of industrial and occupational structure on black-white employment allocation. *American Sociological Review*, 51, 310-323.
- Kim, M. (2002). Discrimination in the Wen ho Lee case: Reinterpreting the intent requirement in constitutional and statutory race discrimination cases, 9 *Asian Law Journal* 117 - 161, 134- 144.
- Kinder, D. & Lynn S. (1996). *Divided by Color*. Chicago: University of Chicago Press.
- Kluegel, J. (1978). The causes and costs of racial exclusion from job authority. *American Sociological Review*, 43, 285-301.
- Lapchick, R. (1996). *Sport in Society: Equal Opportunity or Business as Usual?* Thousands Oak, CA: Sage Publications.
- Lapchick, R. (2001). *Racial and Gender Report Card*. Retrieved from <http://www.sportinsociety.org/rgrc.2001.html>
- Lapchick, R. (2003). *Racial and Gender Report Card*. National Consortium for Academics and Sports: National Office at the University of Central Florida.
- Lapchick, R. (2004). *Racial and Gender Report Card*. National Consortium for Academics and Sports: National Office at the University of Central Florida.

- Lapchick, R. (2005). *Racial and Gender Report Card*. National Consortium for Academics and Sports: National Office at the University of Central Florida.
- Lapchick, R. (2006). *Racial and Gender Report Card*. National Consortium for Academics and Sports: National Office at the University of Central Florida.
- Latimer, S. & Mathes, S. (1985). Black college football coaches' social, educational, athletic and career pattern characteristics. *Journal of Sport Behavior*, 8, 149- 162.
- Lavoie, M. & Leonard, W. (1994). In search of an alternative explanation of stacking in baseball: The uncertainty hypothesis. *Sociology of Sport Journal*, 11 (2), 140-154.
- Leonard, W. (1987). Stacking in college basketball: A neglected analysis. *Sociology of Sport Journal*, 4(4), 403-409
- Leonard, W. (1977). Stacking and performance differentials of whites, blacks and latins in professional baseball. *Review of Sport and Leisure*, 2, 77-106.
- Lewis, A. & Sherman, S. (2003). Hiring you makes me look bad: Social-identity based reversals of the in-group favoritism effect. *Organizational Behavior and Human Decision Processes*, 90(2), 262-276
- Lovett, D. & Lowry, C. (1994). "Good old boys" and "good old girls" clubs: Myth or reality? *Journal of Sport Management*, 8, 27-35.
- Loy, J. & McElvogue, J. (1970). Racial segregation in America. *International Review of Sport Sociology*, 5, 5-24.
- Madden, J. (2004). Differences in the success of NFL coaches by race, 1990-2002: Evidence of last hire, first fire. *Journal of Sports Economics*, 5, 6-19.
- Margolis, B. & Piliavin, J. (1999). "Stacking" in major league baseball: A multivariate analysis. *Sociology of Sport Journal*, 16 (1), 16-34.
- Massengale, J. & Farrington, S. (1977). The influence of playing position centrality on the careers of college football coaches. *Review of Sport and Leisure*, 2, 107-115.
- Massey, D. & Denton, N. (1987). Residential segregation of blacks, hispanics, and asians by socioeconomic status and generation. *Social Science Quarterly*, 43, 197-211.
- McPherson, B. (1975a). The segregation by playing position hypothesis in sport: An alternative hypothesis. *Social Science Quarterly*, 55, 960-966.

- McPherson, B. (1975b). The black athlete: An overview and analysis. In D. M. Landers (Ed.), *Social Problems in Athletics: Essays in the Sociology of Sport* (pp. 122-149) Urbana, IL: University of Illinois Press.
- Melnick, M. (1996). Maori women and positional segregation in New Zealand netball: Another test of the Anglocentric Hypothesis. *Sociology of Sport Journal*, 13 (3), 259-273.
- Messner, M. (1988). Sports and Male Domination: The female athlete as contested ideological terrain. *Sociology of Sport Journal*, 5, 197-211.
- Miller, P. & Wiggins, D. (2004). *Sport and the Color Line: Black Athletes and Race Relations in Twentieth-century America*. New York: Routledge.
- Morrison, A. & Von Glinow, M. (1990). Women and minorities in management. *American Psychologist*, 45, 200-208.
- Mueller, C., Parcel, T., and Tanaka, K. (1989). Particularism in authority outcomes of black and white supervisors. *Social Science Research*, 18, 1-20.
- NCAA (2006). *Student Athlete Ethnicity Report 1999-2000, 2002-2004*. The National Collegiate Athletics Association: Indianapolis. Retrieved from <http://www.NCAA.org>
- Nixon, H. & Frey, J. (1996). *A Sociology of Sport*. Belmont, CA: Wadsworth Publishing.
- Nixon, H. (2008). *Sport in a Changing World*. Boulder: Paradigm Publishers.
- Northcraft, G. & Gutek, B. (1993) Discrimination against women in management: Going, going, gone, or going but never gone? In E. Fagenson (ed.), *Women in Management: Trends, Issues, and Challenges*. Newbury Park: Sage Publications, 219-245.
- OMB Directive 15 Federal Register Notice October 30, 1997 Retrieved on June 21, 2006.
- Pettigrew, T. & Martin, J. (1987). Shaping the organizational context for black American inclusion. *Journal of Social Issues*, 43, 41-78.
- Pro Football Draft Guide. (1999; 2000; 2001; 2002). *The Sporting News*. New York: Times Mirror Magazine.
- Reich, M. (1981) *Racial Inequality: A Political-Economic Analysis*, Princeton University Press, Princeton.
- Reskin, B. (2000). The proximate causes of employment discrimination. *Contemporary Sociology*, 29(2), 319-328.

- Reskin, B. (1993). Sex segregation in the workplace. *Annual Review of Sociology* 19:241-270.
- Sagas, M. & Cunningham, G. (2005). Racial differences in the career success of assistant football coaches: The role of discrimination, human capital, and social capital. *Journal of Applied Social Psychology*, 35, 773-797.
- Sage, G. (1998). *Power and Ideology in American Sport: A Critical Perspective (2nd ed.)*. Champaign, IL: Human Kinetics.
- Sattinger, M. (1998). Statistical discrimination with employment criteria. *International Economic Review*, 39, 205-232.
- Schell, L. & Rodriguez, S. (2000). Our sporting sister: How male hegemony stratifies women in sport. *Women in Sport and Physical Activity Journal*, 9, 15-34
- Schneider, S. & Northcraft, G. (1999) Three social dilemmas in managing the diverse organization: A social identity perspective. *Human Relations*, 52, 1445-1467.
- Scully, G. (1974). Discrimination: The case of baseball. In R.G. Noll, *Government and the Sports Business* (pp 223-254). Washington, DC: Brookings Institution
- Sears, D., van Laar, C., Carrillo, M., and Kosterman, R. (1997). Is it really racism? The origins of whites' opposition to race-targeted policies. *Public Opinion Quarterly*, 61, 16-53.
- Sellers, R. (1993). Black student-athletes: Reaping the benefits or recovering from the exploitation. In Brooks, D. & Althouse, R. (Eds.), *Racism in College Athletics: The African-American Athlete's Experience*. Morgantown, WV: Fitness Information Technology, Inc.
- Shropshire, K. (1996). *In Black and White: Race and Sports in America*. New York, NY: New York University Press.
- Simmons, C. (2002). *Cochran and Mehri Take Aim at NFL: Lawyers Team Up To Take On Underrepresentation of African American Head Coaches*. Retrieved from <http://www.blackenterprise.com/cms/exclusivesopen.aspx?id=53&p=0>
- Smith, E. (1997). Someone's knocking at the door. *Black Enterprise Magazine*. Retrieved from http://www.findarticles.com/p/articles/mi_m1365/is_n10_v27/ai_19340490
- Smith, R. (2002). Race, gender, and authority in the workplace: Theory and research. *Annual Review of Sociology*, 28, 509-542.
- Spivey, D. (2003). *Fire from the Soul*. Durham, NC: Carolina Academic Press.

- Spivey, D. (1983). The black athlete in big-time intercollegiate sports, 1941-1968. *Phylon*, 44, 116-125.
- Spivey, D. & Jones, T. (1975). Intercollegiate athletic servitude: A case study of the black Illinois student athlete, 1931-1967. *Social Science Quarterly*, 54, 939-947.
- Stahura, K. & Greenwood, M. (2001). Occupational employment patterns within women's intercollegiate athletics: Revisiting homologous reproduction. *Research Quarterly for Exercise and Sport*, 72, 110-113.
- Stangl, J. & Kane, M. (1991). Structural variables that offer explanatory power for the underrepresentation of women coaches since Title IX: The case of homologous reproduction. *Sociology of Sport Journal*, 8, 47-60.
- Steil, M. (2005). The origin of Floyd of Rosedale: An article about the nfl's ban on african-american players in the 30's and 40's. Retrieved from <http://www.minnesota.publicradio.org>
- Tajfel, H. & Turner, J. (1979). An integrative theory of intergroup conflict. In Austin, W. and Worchel, S. *The Social Psychology of Intergroup Relations*, 94-109. Monterey, CA: Brooks-Cole.
- Thernstrom, S. & Thernstrom, A. (1997). *America in Black and White: One Nation Indivisible*. New York: Touchstone.
- Thomas, M. (1993). Race, class, and personal income: An empirical test of the declining significance of race thesis, 1968-1988. *Social Problems*, 40, 328-342.
- Thomas, M. (1995). Race, class, and occupation: An analysis of black and white earnings for professional and non-professional males, 1940-1990. *Research in Race and Ethnic Relations*, 8, 139-156.
- Thomas, R. & Rich, B. (2005). Under the radar: The resistance of promotion biases to market economic forces, *Syracuse Law Review*, 55, 301-319.
- Thurow, L. (1969). *Poverty and Discrimination*, D.C.: Brookings Institution.
- Tomaskovic-Devey, D. (1993a). *Gender and Racial Inequality at Work*. Ithaca, NY: ILR Press.
- Tomaskovic-Devey, D. (1993b). Labor-process inequality and the gender and race composition of jobs. *Research in Social Stratification and Mobility*, 12, 215-247.
- Webb, E., Campbell, D. & Schwartz, R. (1981). *Nonreactive Research in the Social Sciences*, Boston: Houghton Mifflin.

- Weber, M. (1922). *Economy and Society*. ed. G. Roth and C. Wittich. Berkeley: University of California Press.
- Whisenant, W., Miller, J., and Pedersen, P. (2005). Systemic barriers in athletic administration: An analysis of job descriptions for interscholastic athletic directors. *Sex Roles*, 53, 911-918.
- Wiggins, D. & Miller, P. (2003). *The Unlevel Playing Field: A Documentary History of the African American Experience in Sport*. Champaign, IL: University of Illinois Press.
- Williams, R. & Youssef, Z. (1972). Consistency in football coaches in stereotyping the personality of each position's player. *International Journal of Sport Psychology*, 3(1), 3-11.
- Williams, R. & Youssef, Z. (1975). Division of labor in college football along racial lines. *International Review of Sport Psychology*, 6(1), 3-13.
- Williams, R. & Youssef, Z. (1979). Race and position assignment in high school, college, and professional football. *International Review of Sport Psychology*, 10(4), 252-258.
- Wilson, G. (1997). Pathways to power: Racial differences in the determinants of job authority. *Social Problems*, 43, 38-54.
- Wilson, G., Sakura-Lemessy, I. and West, J. (1999). Reaching the top: Racial differences in mobility paths to upper-tier occupations. *Work & Occupations*, 26, 165-87.
- Wilson, W. (1978). *The Declining Significance of Race: Blacks and Changing American Institutions*. Chicago: The University of Chicago Press.
- Woolcock, M. (1998). Social capital and economic development: Towards a theoretical synthesis and policy framework. *Theory and Society*, 27, 151-208.
- Wright, E., Baxter, J. and Birkelund, G. (1995). The gender gap in workplace authority: A cross-national study. *American Sociological Review*, 60, 407-35.
- Zimmer, M. (2008). A chain of inferences proving discrimination. *University of Colorado Law Review*, 79 (4).

Appendix A

Head Coaches Hired in NFL Seasons 2000-2006*

NFL Teams With Head Coaching Openings and Coaches Hired

2000	2001	2002	2003	2004	2005	2006
<u>Miami Dolphins</u> Dave Wannstedt	<u>Detroit Lions</u> Marty Mornhinweg	<u>Tampa Bay Bucs</u> Jon Grunden	<u>Detroit Lions</u> Steve Mariucci	<u>Arizona Cardinals</u> Dennis Green	<u>San Francisco 49ers</u> Mike Nolan	<u>Oakland Raiders</u> Art Shell
<u>Green Bay Packers</u> Mike Sherman	<u>New York Jets</u> Herman Edwards	<u>San Diego Chargers</u> Marty Schottenheimer	<u>Cincinnati Bengals</u> Marvin Lewis	<u>Washington Redskins</u> Joe Gibbs	<u>Cleveland Browns</u> Romeo Crennel	<u>Buffalo Bills</u> Dick Jauron
<u>New England Patriots</u> Bill Belichick	<u>Cleveland Browns</u> Butch Davis	<u>Indianapolis Colts</u> Tony Dungy	<u>Dallas Cowboys</u> Bill Parcells	<u>Atlanta Falcons</u> Jim Mora, Jr	<u>Miami Dolphins</u> Nick Saban	<u>Houston Texans</u> Gary Kubiak
<u>Dallas Cowboys</u> Dave Campo	<u>Washington Redskins</u> Marty Schottenheimer	<u>Carolina Panthers</u> John Fox	<u>Atlanta Falcons</u> Wade Phillips	<u>Buffalo Bills</u> Mike Mularkey		<u>KC Chiefs</u> Herman Edwards
<u>Cincinnati Bengals</u> Dick LeBeau	<u>KC Chiefs</u> Dick Vermeil	<u>Oakland Raiders</u> Bill Callahan	<u>San Fran 49ers</u> Dennis Erickson	<u>Oakland Raiders</u> Norv Turner		<u>Minnesota Vikings</u> Brad Childress
<u>N.O. Saints</u> Jim Haslett	<u>Buffalo Bills</u> Gregg Williams	<u>Washington Redskins</u> Steve Spurrier	<u>Jacksonville Jaguars</u> Jack Del Rio	<u>Chicago Bears</u> Lovie Smith		<u>Green Bay Packers</u> Mike McCarthy
<u>St. Louis Rams</u> Mike Martz	<u>Houston Texans</u> Dom Capers			<u>New York Giants</u> Tom Coughlin		<u>N.O. Saints</u> Sean Payton
<u>New York Jets</u> Al Groh						<u>New York Jets</u> Eric Mangini
						<u>St. Louis Rams</u> Scott Linehan
						<u>Detroit Lions</u> Rod Marinelli

*African American Coaches in bold.

Appendix B

Candidates Interviewed in NFL Seasons 2000-2006*

*Hired Candidates in bold.

2006 Season (10 teams)

<u>Buffalo Bills 2006</u>		
<i>Candidates Interviewed (Source: Nfl.com)</i>		
Dick Jauron	Bobby April	Mike Sherman
Jim Caldwell	Dom Capers	James Lofton

<u>Oakland Raiders 2006</u>			
<i>Candidates interviewed (Source Nfl.com, associated press, USATODAY)</i>			
Ken Whisenhunt	Art Shell	Al Saunders	John Shoop
James Lofton	Rod Marinelli	Bobby Petrino	Mike Martz

<u>Houston Texans 2006</u>		
<i>Candidates Interviewed (Source: Nfl.com)</i>		
Gary Kubiak	Scott Linehan	Kippy Brown
Al Saunders	Jerry Gray	Cam Cameron

<u>KC Chiefs 2006</u>	
<i>Candidates Interviewed (Source: Nfl.com and Kansas City Star)</i>	
Al Saunders	Jim Fassel
Herman Edwards	Ron Meeks

<u>Green Bay Packers 2006</u>			
<i>Candidates Interviewed (Source: Nfl.com, Associated press, espn.com)</i>			
Wade Phillips	Sean Payton	Tim Lewis	Mike McCarthy
Jim Bates	Maurice Carthon	Ron Rivera	Russ Grimm

2006 Season continued

<u>Detroit Lions 2006</u>				
<i>Candidates Interviewed (Source: Nfl.com, Scout.com)</i>				
Mike Martz	Mike Singletary	Jim Haslett	Russ Grimm	Maurice Carthon
Jerry Gray	Rod Marinelli	Dick Jauron	Gary Kubiak	Tim Lewis
Cam Cameron	Ron Rivera			

<u>Saints 2006</u>		
<i>Candidates Interviewed (Source: FoxSports.com, associated press, espn.com, PFW.com)</i>		
Sean Payton	Maurice Carthon	Mike Martz
Donnie Henderson	Mike Sherman	

<u>Minnesota Vikings 2006</u>			
<i>Candidates Interviewed (Source: Nfl.com, Pioneer Press)</i>			
Brad Childress	Ted Cottrell	Gregg Williams	Jim Schwartz
Al Saunders	Jim Caldwell	Ron Rivera	

<u>St. Louis Rams 2006</u>			
<i>Candidates Interviewed (Source: St.louisrams.com, Associated Press, espn.com)</i>			
Tim Lewis	Scott Linehan	Cam Cameron	Ken Whisenhunt
Ron Rivera	Mike Zimmer	Jim Fassel	Donnie Henderson

<u>New York Jets 2006</u>			
<i>Candidates Interviewed (Source: FoxSports.com, espn.com)</i>			
Eric Mangini	Jim Haslett	Tim Lewis	Mike Heimerdinger
Mike Tice	Joe Vitt	Donnie Henderson	Mike Westhoff

2005 Season (3 teams)

<u>San Francisco 49rs 2005</u>		
<i>Candidates Interviewed (Source: The sports network.com, The Daily Ardmoreite)</i>		
Romeo Crennel	Mike Nolan	Jim Schwartz
Mike Hemiderdinger	Tim Lewis	

<u>Cleveland Browns 2005</u>		
<i>Candidates Interviewed (Source: The sports network.com, Washington Post)</i>		
Romeo Crennel	Jim Bates	Russ Grimm
Mike Nolan	Terry Robiskie	Brad Childress

<u>Miami Dolphins 2005</u>	
<i>Candidates Interviewed (Source: Nfl.com, Washington Post, associated press)</i>	
Nick Saban	Art Shell
Jim Bates	Randy Shannon

2004 Season (7 teams)

Oakland Raiders 2004

Candidates Interviewed (Source: espn.com, PFW.com)

Norv Turner	Sean Payton	Dennis Green
Maurice Carthon	Al Saunders	Greg Knapp

Chicago Bears 2004

Candidates Interviewed (Source: espn.com, PFW.com)

Nick Saban	Lovie Smith	Jeff Tedford	
Russ Grimm	Ralph Friedgen	Romeo Crennel	Pat Hill

Atlanta Falcons 2004

Candidates Interviewed (Source: espn.com, SI.com, PFW.com)

Jim Mora, Jr	Lovie smith	Romeo Crennel
Mike Mularkey	Tim Lewis	Wade Phillips

New York Giants 2004

Candidates Interviewed (Source: SI.com, PFW.com, nfl.com)

Lovie Smith	Charlie Weis
Romeo Crennel	Tom Coughlin

Arizona Cardinals 2004

Candidates Interviewed (Source: SI.com, PFW.com, The Daily Ardmoreite)

Jim Fassel	Jim Johnson
Dennis Green	Romeo Crennel

Washington Redskins 2004

Candidates Interviewed (Source: PFW.com, nfl.com)

Jim Fassel	Ray Rhodes
Dennis Green	Joe Gibbs

Bills 2004

Candidates Interviewed (Source: PFW.com, nfl.com)

Dick Jauron	Mike Mularkey		Jim Fassel
Charlie Weis	Lovie Smith	Jerry Gray	Romeo Crennel

2003 Season (5 teams)

<u>49rs 2003</u>				
<i>Candidates Interviewed (Source: SI.com, PFW.com)</i>				
Jim Mora, Jr.	Jim Johnson	Greg Blache		Rick Neuheisel
Dennis Erickson	Ted Cottrell	Monte Kiffin	Brad Childress	<i>Romeo Crennel</i>

<u>Cincinnati Bengals 2003</u>		
<i>Candidates Interviewed (Source: Cincinnati enquirer, NFL.com, PFW.com)</i>		
Mike Mularkey	Tom Coughlin	Marvin Lewis
Mark Duffner	Jim Anderson	

<u>Jacksonville Jaguars 2003</u>		
<i>Candidates Interviewed (Source: PFW.com, The Daily Ardmoreite)</i>		
Jack Del Rio	Kirk Ferentz	Dennis Green
	Nick Saban	Mike Mularkey

<u>Detroit Lions 2003</u>
<i>Candidates Interviewed (Source: PFW.com)</i>
Steve Mariucci
**Only interview/team was fined

<u>Dallas Cowboys 2003</u>	
<i>Candidates Interviewed (Source: SI.com)</i>	
Bill Parcells	Dennis Green

2002 Season (6 teams)

<u>Carolina Panthers 2002</u>		
<i>Candidates Interviewed (Source: espn.com, nfl.com)</i>		
Marvin Lewis	Tony Dungy	Jim Mora, Jr.
Steve Spurrier	John Fox	Ted Cottrell

<u>Chargers 2002</u>	
<i>Candidates Interviewed (Source: SI.com, espn.go.com)</i>	
Marty Schottenheimer	Ted Cotrell
Norv Turner	

<u>Washington Redskins 2002</u>
<i>Candidates Interviewed (Source: washingtonredskins.com)</i>
Steve Spurrier
No others reported

<u>Raiders 2002</u>	
<i>Candidates Interviewed (Source: cnnsi.com)</i>	
Bill Callahan	Dennis Green
Al Saunders	

<u>Indianapolis Colts 2002</u>
<i>Candidates Interviewed (Source: PFW.com, indystar.com)</i>
Tony Dungy
Ted Cotrell

<u>Tampa Buccaneers 2002</u>				
<i>Candidates Interviewed (Source: espn.com, SI.com, St. Petersburg Times, cnnsi.com)</i>				
Lovie Smith	Marvin Lewis	Nick Saban	Mike Mularkey	Bill Parcells
Steve Mariucci	Charlie Weis	Jon Gruden	Norv Turner	

2001 Season (7 teams)

<u>Cleveland Browns 2001</u>	
<i>Candidates Interviewed (Source: espn.com, CNNSI.com)</i>	
Gregg Williams	Marvin Lewis
Butch Davis	

<u>Buffalo Bills 2001</u>	
<i>Candidates Interviewed (Source: espn.com, CNNSI.com)</i>	
Marvin Lewis	John Fox
Ted Cottrell	Gregg Williams

<u>New York Jets 2001</u>	
<i>Candidates Interviewed (Source: nfl.com,)</i>	
Maurice Carthon	Ted Cottrell
Dom Capers	Herman Edwards

<u>Washington Redskins 2001</u>	
<i>Candidates Interviewed (Source: cnnsi.com)</i>	
Marty Schottenheimer	Terry Robiskie
Bill Parcells	

<u>Detroit Lions 2001</u>	
<i>Candidates Interviewed (Source: associated press,)</i>	
Marty Mornhinweg	
Gary Moeller	

<u>Texans 2001</u>			
<i>Candidates Interviewed (Source: chron.com)</i>			
Dom Capers	Al Saunders	Ted Cottrell	Butch Davis
Gary Kubiak	Wade Phillips	Art Shell	

<u>KC Chiefs 2001</u>	
<i>Candidates Interviewed (Source: associated press)</i>	
Dick Vermeil	
No others reported	

2000 Season (8 teams)

<u>Green Bay Packers 2000</u>			
<i>Candidates Interviewed (Source: CNNSI.com, Milwaukee journal sentinel, cbs.sportline.com)</i>			
Marty Schottenheimer	Mike Sherman	Barry Alvarez	
Mike Martz	Larry Peccatiello	Butch Davis	Frank Beamer

<u>Miami Dolphins 2000</u>
<i>Candidates Interviewed (Source: CNNSI.com)</i>
Dave Wannstedt
No others reported

<u>Patriots 2000</u>
<i>Candidates Interviewed (Source: CNNSI.com)</i>
Willie Shaw
Bill Belichick

<u>Cowboys 2000</u>	
<i>Candidates Interviewed (Source: The Post.com)</i>	
Dave Campo	Hudson Houck
Joe Avezzano	

<u>Saints 2000</u>	
<i>Candidates Interviewed (Source: CNNSI.com, wndu.com, cbs.sportsline.com)</i>	
Art Shell	Gary Kubiak
Jim Haslett	

<u>Rams 2000</u>	
<i>Candidates Interviewed (Source: nfl.com, cnnsi.com)</i>	
Mike Martz	
No other candidates, Assistant promoted to head	

2000 Season continued

<u>Jets 2000</u>
<i>Candidates Interviewed (Source: cbs.sportline.com, cnnsi.com)</i>
Al Groh
No others reported

<u>Bengals 2000</u>
<i>Candidates Interviewed (Source: cnnsi.com)</i>
Dick LeBeau
No others reported

<u>Cardinals 2000</u>
<i>Candidates Interviewed (Source: cnnsi.com)</i>
Dave McGinnis
No others reported

Appendix C

Tables

Table 1

Percentage Distributions for Study Variables		
Variables		Percentage
Race	African american	32.3
	White	67.6
Age Range	69 - 78	1.7
	59 - 68	21.2
	49 - 58	31.3
	39 - 48	32.0
	29 - 38	12.9
	19 - 28	.9
Education	Less than Bachelors	.2
	Bachelors	67.5
	Advanced Degree	32.3
Centrality of Position	Did Not Play	4.5
	Central	42.5
	Peripheral	53.0
Head Coaching Experience	No Experience	77.5
	1-3 Years	6.9
	4 - 6 Years	6.2
	7 - 9 Years	4.7
	10 or More Years	4.7
Assistant Head Coach Experience	No Experience	82.3
	Previous Experience	17.7
Coordinator Experience	No Experience	51.5
	Defensive Coordinator experience	23.2
	Offensive Coordinator experience	25.3
Power Position	No Experience	66.0
	Experience	34.0
Central Position	No Experience	66.7
	Experience	33.3
Non-central Position	No Experience	49.6
	Experience	50.4
Total Career Coaching Experience	0 Years	1.4
	1 - 9 Years	21.1
	10 - 19 Years	28.6
	20 - 29 Years	31.9
	30 - 39 Years	15.4
NFL Coaching Experience	0 Years	1.6
	1 - 9 Years	8.5
	10 - 19 Years	49.0
	20 - 29 Years	29.1
	30 - 39 Years	12.0
Interviews Received	0	1.4
	1	84.1
	2	7.4
	3	2.8
	4	3.1
	5	.7
	6	1.0
	7	.3
Times Hired	0	.2
	1	.3
	2	92.6

Table 2
Racial Percentage of Eligible Coaching Candidates for the 2000-2006 Seasons

	N	BLACK	WHITE	HISPANIC	ASIAN/PACIFIC ISLANDER
2000-06	589	187	391	6	5
	100%	31.7%	66.4%	1%	.8%

Table 3**Racial Percentage of Interviewed Coaches for the 2000-2006 Seasons**

	N	BLACK	WHITE	HISPANIC	ASIAN/PACIFIC ISLANDER
2000	19	11%	84%	5%	0%
2001	18	33%	67%	0%	0%
2002	18	28%	72%	0%	0%
2003	20	30%	70%	0%	0%
2004	25	24%	76%	0%	0%
2005	12	33%	67%	0%	0%
2006	42	26%	71%	2%	0%

Table 4
Descriptive Statistics for Independent and Dependent Variables:
Total Eligible Coaching Candidates Sample 2000-2006

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Demographics					
Race	589	1	4	1.71	.53
Sex	589	1	1	1	.00
Birth Year	586 (3)	1935	1983	1958	10.01
Education	445 (144)	0	2		
Leadership					
Leadership	588 (1)	0	2		
Coaching Qualifications					
Career Experience	588 (1)	0	43	18.87	10.32
NFL Experience	588	0	58	9.40	7.89
Head Coaching Experience	588 (1)	0	4		
Asst Head Coaching Experience	588 (1)	0	1		
Coordinator Experience	588 (1)	0	2		
NFL Coaching Positions					
Head Coach	588 (1)	0	23	.75	2.69
Assistant Head Coach	588 (1)	0	16	.30	1.24
Offensive Coordinator	588 (1)	0	17	.66	2.09
Defensive Coordinator	588 (1)	0	21	.74	2.37
Quarterbacks	588 (1)	0	10	.40	1.31
Offensive line	588 (1)	0	32	.66	3.00
Assistant offensive line	588 (1)	0	7	.09	.52
Defensive line	588 (1)	0	21	.68	2.62
Assistant defensive line	588 (1)	0	8	.06	.49
Defensive backs	588 (1)	0	17	.49	1.80
Assistant defensive backs	588 (1)	0	6	.05	.43
Secondary	588 (1)	0	15	.29	1.43
Assistant secondary	588 (1)	0	2	.01	.15
Safeties	588 (1)	0	5	.02	.27
Tight end	588 (1)	0	17	.51	1.66
Linebackers	588 (1)	0	21	.70	2.37
Wide receivers	588 (1)	0	24	.67	2.46
Running backs	588 (1)	0	27	.71	2.84
Special teams	588 (1)	0	23	.70	2.77
Assistant special teams	588 (1)	0	9	.16	.79
Defensive quality control/defensive assistant	588 (1)	0	24	.45	1.83
Offensive quality control/offensive assistant	588 (1)	0	7	.29	.90
Coaching Efficiency					
Conference Championship Game Appearance	588 (1)	0	13	1.29	1.76
Conference Championship Title	588 (1)	0	6	.65	1.13
Superbowl Title	588 (1)	0	5	.36	.84
Interviews					
Int2000	589	0	2	.03	.19
Int2001	589	0	3	.04	.25
Int2002	589	0	3	.04	.25
Int2003	589	0	2	.04	.21
Int2004	589	0	5	.06	.38
Int2005	589	0	2	.03	.19
Int2006	589	0	4	.12	.50
Hirings					
Hird2000	589	0	1	.01	.11
Hird2001	589	0	1	.01	.11
Hird2002	589	0	1	.01	.10
Hird2003	589	0	1	.01	.09
Hird2004	589	0	1	.01	.11
Hird2005	589	0	1	.01	.07
Hird2006	589	0	1	.02	.13
Valid N (Listwise)	586				

() indicate missing cases

Table 5
Descriptive Statistics for Independent and Dependent Variables:
Subsample of Interviewed Candidates 2000-2006

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Demographics					
Race	94	1	3	1.79	.46
Sex	94	1	1	1	0
Birth Year	94	1936	1971	1953	7.74
Education	73 (21)	1	2		
Leadership					
Leadership (Centrality)	94	0	2		
Coaching Qualifications					
Career Experience	94	3	43	23.57	8.84
NFL Experience	94	0	33	14.03	7.72
Head Coaching Experience	94	0	4		
Asst Head Coaching Experience	94	0	1		
Coordinator Experience	94	0	2		
NFL Coaching Positions					
Head coach	94	0	20	2.87	4.44
Assistant Head coach	94	0	16	.78	2.01
Offensive coordinator	94	0	11	1.04	2.02
Defensive coordinator	94	0	21	2.57	4.16
Quarterbacks	94	0	5	.45	1.18
Offensive line	94	0	19	.48	2.42
Assistant offensive line	94	0	0	.00	.00
Defensive line	94	0	11	.56	2.06
Assistant defensive line	94	0	0	.00	.00
Defensive backs	94	0	10	.99	2.42
Assistant defensive backs	94	0	3	.04	.36
Secondary	94	0	11	.40	1.52
Assistant secondary	94	0	2	.02	.21
Safeties	94	0	0	.00	.00
Tight end	94	0	6	.39	1.21
Linebackers	94	0	11	1.11	2.52
Wide receivers	94	0	11	.52	1.69
Running backs	94	0	22	.56	2.54
Special teams	94	0	23	.73	3.17
Assistant special teams	94	0	3	.06	.38
Defensive quality control/defensive assistant	94	0	4	.27	.81
Offensive quality control/offensive assistant	94	0	3	.17	.56
Coaching Efficiency					
Conference Championship Game Appearance	94	0	8	2.12	1.79
Conference Championship Title	94	0	6	1.13	1.43
Superbowl Title	94	0	5	.72	1.22
Interviews					
Int2000	94	0	2	.21	.44
Int2001	94	0	3	.26	.59
Int2002	94	0	3	.26	.59
Int2003	94	0	2	.23	.47
Int2004	94	0	5	.40	.87
Int2005	94	0	2	.16	.45
Int2006	94	0	4	.77	1.05
Hirings					
Hird2000	94	0	1	.07	.26
Hird2001	94	0	1	.07	.26
Hird2002	94	0	1	.06	.25
Hird2003	94	0	1	.05	.23
Hird2004	94	0	1	.07	.26
Hird2005	94	0	1	.03	.18
Hird2006	94	0	1	.11	.31
Valid N (Listwise)	94				

() indicate missing cases

Table 6
NFL Coaching Experience by Interviews and Hires

Hiring Process	NFL Coaching Experience			
	No experience	1- 9 yrs experience	10- 19 yrs experience	20 yrs and above experience
Interview				
Yes	4%	9%	24%	34%
No	96%	91%	76%	66%
Total	100%	100%	100%	100%
Chi-square	42.91***			
Hired				
Yes	0%	3%	13%	16%
No	100%	97%	87%	84%
Total	100%	100%	100%	100%
Chi-square	26.57***			

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 7
Total Career Coaching Experience by Interviews and Hires

Hiring Process	Career Coaching Experience			
	No experience	1- 9 yrs experience	10- 19 yrs experience	20 yrs and above experience
Interview				
Yes	0%	3%	14%	23%
No	100%	97%	86%	77%
Total	100%	100%	100%	100%
Chi-square	27.24***			
Hired				
Yes	0%	1%	7%	11%
No	100%	99%	93%	89%
Total	100%	100%	100%	100%
Chi-square	13.70**			

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 8
Authority Level Distribution by Total Career Coaching Experience

Authority Level	Career Coaching Experience			
	No experience	1- 9 yrs experience	10- 19 yrs experience	20 yrs and above experience
Power Position				
Yes	0%	4%	27%	52%
No	100%	96%	73%	48%
Total	100%	100%	100%	100%
Chi-square	95.80***			
Central Position				
Yes	0%	19%	29%	43%
No	100%	81%	71%	57%
Total	100%	100%	100%	100%
Chi-square	29.79***			
Non-Central Position				
Yes	100%	80%	58%	32%
No	0%	20%	42%	68%
Total	100%	100%	100%	100%
Chi-square	93.53***			

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 9
Authority Level Distribution by NFL Coaching Experience

Authority Level	NFL Coaching Experience			
	No experience	1- 9 yrs experience	10- 19 yrs experience	20 yrs and above experience
Power Position				
Yes	0%	17%	57%	70%
No	100%	83%	44%	30%
Total	100%	100%	100%	100%
Chi-square	146.31***			
Central Position				
Yes	0%	29%	44%	47%
No	100%	71%	56%	53%
Total	100%	100%	100%	100%
Chi-square	41.87***			
Non-Central Position				
Yes	100%	62%	32%	17%
No	0%	38%	68%	83%
Total	100%	100%	100%	100%
Chi-square	120.04***			

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 10
Interviews and Hires by Race

Hiring Process	Race	
	Black	White
	n=186	n=391
Interview		
Yes	12%	18%
No	88%	82%
Total	100%	100%
Chi-square	3.56	
Hired		
Yes	4%	9%
No	96%	91%
Total	100%	100%
Chi-square	5.48*	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 11
Authority Level by Race

Authority Level	Race	
	Black	White
	n=186	n=391
Power Position		
Yes	18%	42%
No	82%	58%
Total	100%	100%
Chi-square	32.22***	
Central Position		
Yes	16%	41%
No	84%	59%
Total	100%	100%
Chi-square	36.35***	
Non-Central Position		
Yes	73%	40%
No	27%	60%
Total	100%	100%
Chi-square	53.86***	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 12
Authority Level Distribution by Interviews and Hires

Hiring Process	Authority Level					
	Power		Central		Non-Central	
	Yes	No	Yes	No	Yes	No
Interview						
Yes	42%	3%	21%	13%	3%	29%
No	58%	97%	79%	87%	97%	71%
Total	100%	100%	100%	100%	100%	100%
Chi-square	148.48***		5.13*		76.27***	
Hired						
Yes	22%	0%	10%	6%	0%	15%
No	78%	100%	90%	94%	100%	85%
Total	100%	100%	100%	100%	100%	100%
Chi-square	90.32***		2.49		47.28***	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 13
Distribution of Coaching Efficiency Measures by Interviews and Hires

Hiring Process	Coaching Efficiency					
	Conference Championship Appearance		Conference Championship Title		Superbowl Title	
	Yes	No	Yes	No	Yes	No
	N=318	N=270	N=217	N=371	N=125	N=463
Interview						
Yes	24%	7%	25%	11%	28%	13%
No	76%	93%	75%	89%	72%	87%
Total	100%	100%	100%	100%	100%	100%
Chi-square	29.77***		20.28***		17.06***	
Hired						
Yes	12%	2%	13%	4%	17%	5%
No	88%	98%	87%	96%	83%	95%
Total	100%	100%	100%	100%	100%	100%
Chi-square	21.97***		15.86***		21.08***	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 14
Logistic Regression Analysis for Experience Level Predicting Interviews Received

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Experience</u>						
NFL	.09***	.02	1.10	.08***	.02	1.08
Total Career	-	-	-	.02	.02	1.02
Constant	-2.68***			-2.86***		
<i>-2 log Likelihood</i>	465.50			464.50		
<i>Degrees of Freedom df</i>	1			2		
<i>Chi-square χ^2</i>	40.81***			41.81***		

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 15
Summary of Logistic Regression Analysis for Experience Level Predicting Hires

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Experience</u>						
NFL	.09***	.02	1.10	.09**	.03	1.09
Total Career	-	-	-	.01	.02	1.01
Constant	-3.61***			-3.70***		
<i>-2 log Likelihood</i>	282.80			282.68		
<i>Degrees of Freedom df</i>	1			2		
<i>Chi-square χ^2</i>	23.22***			23.34***		

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 16
Logistic Regression Analysis for Coaching Efficiency Variables Predicting Interviews Received

Predictor	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>									
<u>Coaching Efficiency</u>												
Conference Championship Appearance	.26***	.06	1.29	-	-	-	-	-	-	.30**	.11	1.35
Conference Championship Title	-	-	-	.33***	.08	1.39	-	-	-	-.31	.24	.73
Superbowl Title	-	-	-	-	-	-	.45***	.11	1.57	.38	.23	1.46
Constant	-2.07***			-1.93***			-1.88***			-2.07***		
-2 log Likelihood	485.62			491.62			489.88			482.76		
Degrees of Freedom <i>df</i>	1			1			1			3		
Chi-square χ^2	20.69***			14.70***			16.44***			23.56***		

Note: **p* < .05; ***p* < .01; ****p* < .001

Table 17
Logistic Regression Analysis for Coaching Efficiency Variables Predicting Hires

Predictor	Model 1			Model 2			Model 3			Model 4			
	<i>B</i>	<i>SE B</i>	<i>e^B</i>										
<u>Coaching Efficiency</u>													
Conference Championship Appearance	.28***	.07	1.33	-	-	-	-	-	-	-	.31*	.15	1.37
Conference Championship Title	-	-	-	.37***	.10	1.45	-	-	-	-	-.43	.34	.65
Superbowl Title	-	-	-	-	-	-	.53***	.13	1.70	.56	.32	.32	1.75
Constant	-3.02***			-2.86			-2.82***			-3.00***			
<i>-2 log Likelihood</i>	290.03			293.94			291.08			286.62			
<i>Degrees of Freedom df</i>	1			1			1			3			
<i>Chi-square χ^2</i>	15.99***			12.09**			14.94***			19.40***			

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 18
Logistic Regression Analysis for Demographic Variables Predicting Power Authority Level

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Demographics</u>						
Race	1.40***	.265	4.06	1.26***	.28	3.54
Age	-	-	-	-.09***	.013	.91
Educational Attainment	-	-	-	-.25	.24	.78
Constant	-3.08***			181.85***		
<i>-2 log Likelihood</i>	526.35			461.26		
<i>Degrees of Freedom df</i>	1			3		
<i>Chi-square χ^2</i>	33.24***			98.34***		

Note: **p* < .05; ***p* < .01; ****p* < .001

Table 19
Logistic Regression Analysis for Demographic Variables Predicting Central Authority Level

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Demographics</u>						
Race	1.36***	.265	3.90	1.27***	.27	3.55
Age	-	-	-	-.04***	.01	.96
Educational Attainment	-	-	-	-.16	.22	.48
Constant	-3.04***			77.87***		
<i>-2 log Likelihood</i>	524.54			509.66		
<i>Degrees of Freedom df</i>	1			3		
<i>Chi-square χ^2</i>	31.14***			46.01***		

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 20
Logistic Regression Analysis for Demographic Variables Predicting Non-Central Authority Level

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Demographics</u>						
Race	-1.55***	.233	.21	-1.48***	.25	.23
Age	-	-	-	.08***	.012	1.08
Educational Attainment	-	-	-	.22	.23	1.25
Constant	2.67***			-155.46***		
<i>-2 log Likelihood</i>	551.73			497.95		
<i>Degrees of Freedom df</i>	1			3		
<i>Chi-square χ^2</i>	49.89***			103.66***		

Note: **p* < .05; ***p* < .01; ****p* < .001

Table 21
Summary of Logistic Regression Analysis for Authority Level Variables Predicting Interviews

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Authority Level</u>						
Power	3.28***	.35	26.68	3.26***	.74	26.11
Central	-	-	-	-3.93	.29	.68
Non-Central	-	-	-	-.18	.85	.83
Constant	-3.61***			-3.39***		
<i>-2 log Likelihood</i>	359.01			357.09		
<i>Degrees of Freedom df</i>	1			3		
<i>Chi-square χ^2</i>	147.31***			149.23***		

Note: **p* < .05; ***p* < .01; ****p* < .001

Table 22
Summary of Logistic Regression Analysis for Authority Level Variables Predicting Hires

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Authority Level</u>						
Power	9.93	13.88	20612.14	9.73	28.55	16788.872
Central	-	-	-	-.40	.35	.67
Non-Central	-	-	-	-.40	32.67	.67
Constant	-11.20			-10.80		
<i>-2 log Likelihood</i>		206.25			204.89	
<i>Degrees of Freedom df</i>		1			2	
<i>Chi-square χ^2</i>		99.78***			101.13***	

Note: **p* < .05; ***p* < .01; ****p* < .001

Table 23
Logistic Regression Analysis for Playing Position Centrality Variable Predicting Dependent Variables

Predictor	Interviews			Hires			Power Authority Level			Central Authority Level			Non-Central Authority Level		
	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>SE B</i>	<i>B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>	<i>B</i>	<i>SE B</i>	<i>e^B</i>
<u>Leadership</u>															
Central Playing Position	.47*	.23	1.60	.18	.32	1.20	.62***	.18	1.86	1.67***	.19	5.30	-1.19***	.18	.31
Constant	-1.88***			-2.60			-.94***			-1.51***			.52***		
<i>-2 log Likelihood</i>	502.42			305.86			727.20			651.90			752.47		
<i>Degrees of Freedom df</i>	1			1			1			1			1		
<i>Chi-square χ^2</i>	4.25*			.321			12.31***			82.18***			47.38***		

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 24
Effects of Race and Credentials on being *Interviewed* for NFL Head Coaching Vacancies ($N=588$)

	<u>Pre-Rooney</u>						<u>Post-Rooney</u>					
	<u>Model 1</u>			<u>Model 2</u>			<u>Model 1</u>			<u>Model 2</u>		
	<u>Odds Ratio</u>	<u><i>b</i></u>	<u>S.E.</u>	<u>Odds Ratio</u>	<u><i>b</i></u>	<u>S.E.</u>	<u>Odds Ratio</u>	<u><i>b</i></u>	<u>S.E.</u>	<u>Odds Ratio</u>	<u><i>b</i></u>	<u>S.E.</u>
Race (Black)	.596	-.518	.370	1.156	.145	.409	.811	-.210	.279	1.829	.604 ^d	.316
Authority (Non-central)				.110	-2.203 ^a	.632				.066	-2.722 ^a	.467
Experience (Years)				1.053	.052 ^c	.025				1.013	.013	.022
Playoffs (Conference)				3.635	1.291 ^b	.504				1.056	.055	.080
Constant	.095	-2.35 ^a	.177	-.030	-3.519 ^a	.489	.149	-1.907 ^a	.149	.199	-1.617 ^a	.290
Chi Square		244.930 ^a			68.655 ^a			.575			73.290 ^a	
Cox and Snell R ²		.004			.110			.001			.117	

Note: a = $p < .001$; b = $p < .01$; c = $p < .05$; d = $p < .10$

Table 25
Effects of Race and Credentials on Interviewed Candidates being *Hired* to Fill NFL
Head Coaching Vacancies

	<u>Pre-Rooney</u>						<u>Post-Rooney</u>					
	<u>Model 1</u>			<u>Model 2</u>			<u>Model 1</u>			<u>Model 2</u>		
	<u>Odds</u>			<u>Odds</u>			<u>Odds</u>			<u>Odds</u>		
	<u>Ratio</u>	<u>b</u>	<u>S.E.</u>	<u>Ratio</u>	<u>b</u>	<u>S.E.</u>	<u>Ratio</u>	<u>b</u>	<u>S.E.</u>	<u>Ratio</u>	<u>b</u>	<u>S.E.</u>
Race (Black)	.265	-1.329	.860	.182	-1.704 ^d	.902	.744	-.295	.567	.741	-.299	.597
Authority (Non-central)				.000	-21.671	2320				.000	-20.404	1625
Experience (Years)				.934	-.068	.053				1.000	.000	.049
Playoffs (Conference)				2.575	.946	.504				1.263	.234	.179
Constant	.944	-.057	.338	1.637	.493	1.078	.576	-.552 ^d	.288	.395	-.929	.623
Chi Square		2.790 ^d			8.832 ^d		.277				8.188 ^d	
Cox and Snell R ²		.060			.179		.004				.107	

Note: a = $p < .001$; b = $p < .01$; c = $p < .05$; d = $p < .10$

