EXPLAINING VARIATION IN THE SEX COMPOSITION OF COACHES

FOR WOMEN'S INTERCOLLEGIATE ATHLETIC TEAMS

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Abstract

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This study examines the effects of institutional processes on the increased presence of

men as head coaches of intercollegiate women's athletic teams. The social institution of sport is

and has historically been a very male dominated environment. At the time, Title IX was created

as a means to solve the problem of gender inequality for women and one way it did this was by

providing more opportunities for women athletes. Before Title IX was passed, women

dominated the majority of coaching positions in women's athletics. Ironically, this piece of

legislation also provided more coaching opportunities for men who were willing to cross over

into women's athletics. Over the next thirty-two years, there was an influx of male coaches into

women's collegiate athletics to where they now occupy a majority of the coaching positions. The

hypotheses tested in this study examined the influence of gendered environments in athletic

departments and athletic conferences. This study also investigated how the prestige of a school's

membership in a powerhouse conference affected the presence of male coaches on women's

teams. The results yielded mixed support for institutional theory and the effects of a gendered

environment. However, some of the most interesting results showed a decrease in the odds of a

male coach when a school was in a powerhouse conference. This and other pieces of this study's

results raises questions about the effect of prestige on sex composition in coaching. This prestige factor is measured by type of sport as well as membership in a powerhouse athletic conference. An important line of future research is how athletic prestige in its various forms affects the sex composition of coaching.

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Dedication

This dissertation is dedicated to my favorite people in the world: Colter, Ian, Olivia, Angelina, and Kyle.

CHAPTER ONE

INTRODUCTION

Topic of Study

This study examines the increased presence of men as head coaches of intercollegiate women's athletic teams. More specifically, my question is what institutional factors contribute to the increased presence of male coaches in women's intercollegiate athletics? Various explanations have been proposed for this visible increase over the last twenty-six years. Some scholars suggest that following the passage of Title IX there has been a general increase in labor market opportunities for women in other fields (Acosta and Carpenter 2005). Other researchers focus on structural constraints like statistical discrimination and "old boys networks" that have infiltrated women's athletics (Hasbrook 1988; Knoppers 1989, 1992; Wilkerson 1996). Athletic directors who control access to these jobs suggest a combination of factors including the absence of a qualified pool of female applicants, gender socialization, and family obligations. However, I argue that there are other unexamined processes that operate within schools, athletic programs, and athletic conferences that affect the increased presence of male coaches in women's athletics.

In this research I use institutional theory and isomorphic processes to examine the sex composition of coaches in women's collegiate athletics. No past research has utilized institutional theory (new or old) and I contend that this theoretical framework will provide a strong explanation of some of the institutional processes operating in collegiate coaching position in women's athletics. This research is important because it continues the emphasis on macro level explanations of gendered occupations through exploring institutional factors and the influence of gendered environments on the placement of workers in organizations.

This occupation provides a fascinating place to study gender dynamics for two reasons. First, the social institution of sport is and has historically been a very male dominated environment (Birrel 1987; Theberge 1990; Knoppers 1992). Organized sport originated around the end of the nineteenth and beginning of the twentieth century in response to what was seen as a growing crisis in masculinity. This crisis stemmed from changing gender norms and the entrance of women into the workforce and education (Messner 1988; 1990). Organized sport and the Boy Scouts were male dominated organizations created to properly train young boys and men on how to be masculine. Secondly, women dominated the majority of coaching positions on women's teams before sex equity legislation, popularly known as Title IX was passed on June 23rd, 1972. This piece of legislation was signed into existence by then President Richard Nixon and prohibits sex discrimination in educational institutions that receive federal funding.[i] In 1972, more than 90 percent of women's team coaches were women and this dropped roughly 32 percent in a six year span to 1978, tipped over to a majority male by 1987, and has continued to decrease. As of 2004, 55.9 percent of the head coaches on women's teams were men (Acosta and Carpenter 2004; see Figures one, three, and four for overall year by year change). This legislation that was supposed to ensure sex equity in educational institutions may have provided the initial trigger for this entrance of male coaches into women's teams. On one hand this movement of men into coaching positions on women's teams that were once dominated by women is a sign of equity. However, that same movement has not happened for women coaches in men's athletics. And in the case of women's athletics, men have become *a majority* (55.9 percent) of the coaches. And if recent trends persist, men's growth will continue to increase in the future.

As schools strived to come into compliance they did so by adding more women's teams and thus opening up additional coaching positions. The combination of job availability, along with an increase in financial support, led to an increase in prestige and attracted more male coaches into women's athletics (Wilkerson 1996; Lopiano 2001). As Mary Jo Kane stated:

> I think it can be summed up in one word: power…the stakes have gotten higher—there's money, scholarships, TV contracts. It's a new career for men, and men have taken over. I think there is still this deep-seated cultural assumption that if you want to take your program big time, you want to get a real coach, so you should get a male coach (Kane quoted in Anderson, 2001).

Athletic directors who make hiring decisions for these coaching positions attributed this decline in women coaches to supply side factors such as human capital and gender socialization. In particular, they cite the lack of qualified women, lack of interested women, and time constraints placed on women due to family obligations (Acosta and Carpenter 1988). While Acosta and Carpenter acknowledge that employment opportunities outside of sport in other occupations have expanded for women since the advent of Title IX, they and others (Hasbrook 1988; Knoppers 1989, 1992; Wilkerson 1996) suggest that demand side factors such as statistical discrimination, "old boys networks," and institutional inertia may be more plausible explanations for the change in sex composition in head coaching positions for women's teams. Indeed, the job of head coach in sport "'immediately creates an image of masculinity' that affirms male aggressiveness, strength, prowess, and independence" (Sabock, 1985, p. 100-101, cited in Wilkerson 1996). These dynamics create a picture of a job that has tipped from predominately female to a majority male in the masculinized institution of sport. As Kane suggested, is the increase in power and new career path for male coaches the main appeal? Or are there other

institutional dynamics at work that factor into the influx of male coaches in women's collegiate athletics?

Gendered Organizations and Occupations

The study of gender and work has become a thriving field of inquiry within sociology. According to Abbott (1993), the most important and widely studied topic that emerged from his analysis of the work and occupations literature was gender. Until Acker's (1990, 1992) argument about organizations as gendered, many researchers who studied work organizations remained oblivious to their male dominance and the implications of this dominance for workers. Acker contended that in order to see a work organization as gendered, you must understand that "advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine" (Acker 1990, p. 146).[ii] This gendered aspect of work organizations is directly linked to many subtopics of study in the field of gender and work. Perhaps the most popular topic has been sex segregation in the workplace (See Bielby and Baron 1984, 1985, 1986; England 1984; 1992; Wharton 1986, 1989; Wharton and Baron 1987; Reskin 1984; 1993; Reskin and Roos 1992).[iii] Another topic that closely overlaps with sex segregation is the gendered wage gap between women and men in the labor market (England, Farkas, Kilbourne, and Dou 1988; Marini 1989; England and Browne 1992; Roos and Gatta 1999; Prokos and Padavic 2005). The development of studies into sex segregation and the wage gap also coincided with studies on the feminization and masculinization of certain occupations (See Reskin and Roos 1990; Rich 1995; Lincoln 2004).

This attention to gender in the workplace created additional attention to the experience of women and men who were not necessarily feminizing or masculinizing an occupation by causing

significant proportional gains, but clearly "crossing over" into nontraditional gendered occupations. Some of these examples include women marines (Williams 1989), women doctors (Hesselbart 1977), men in nursing, school teaching, librarianship, and social work (Williams 1992; 1995), clerical temporary workers (Henson and Rogers 2001), flight attendants (Young and James 2001), and early childhood services (Cameron 2001). These "crossing over" studies were mainly case studies and used qualitative interviews to understand women and men's experiences in nontraditional gendered occupations. As a result, they are limited in terms of generalizability.

This present study speaks directly to occupational segregation and crossing over processes because the occupation of coaching is very sex segregated. For example, the 2005 Bureau of Labor Statistics report on employed persons by detailed occupation and sex stated in the occupational category that included athletes, coaches, umpires, and related workers, 69.2 percent of these jobs were occupied by men. However, within men's intercollegiate athletics, less than 2 percent of the head coaches are women and as mentioned previously, women only constitute about 44 percent of the head coaching jobs in women's athletics − women hold a total of 3704 of the 8402 head coaching jobs (Acosta and Carpenter 2005). Furthermore, of the 270 new jobs from 2002 to 2004, men have taken 143 (53 percent) of those positions (Acosta and Carpenter 2005). Thus, we see segregation not only at the occupational level but also within jobs on women and men's teams. While this segregation is much more severe in men's athletics, the shift from predominately female to a majority male coaches in women's intercollegiate athletics raises questions about what the future trends and implications of these trends will be in these positions. To understand these trends, the previous research done on gender in coaching will help explain some of these segregation and discrimination processes. At the same time, it will

also reveal some gaps that will be filled through the incorporation of sociological theories into understanding the gender composition of coaching in women's athletics.

Gender in Coaching

The research on coaching and gender has for the most part centered on women coaches and their experiences in the male dominated world of sport (For an exception, see Wilkerson 1996). However, in order to understand the intricacy of gender dynamics – whether it is at the individual, interactional, or institutional level – we must look at both sides of the coin. Since masculinity and femininity are defined in opposition to each other it is impossible to talk about one without considering the other. In addition, the research on coaching up to now has examined various topics at both the high school and collegiate level as well as compared coaching between the United States and other countries. However, there has not been any research that has explored the presence of male coaches in women's athletics at both the Division I and Division II level or that uses sociological theories as done in this research.

Knoppers, Meyer, Ewing, and Forrest (1989, 1991, 1993) explored a variety of gender related issues in Division I coaching in the late eighties and early nineties. Knoppers initiated this line of research with three theoretical pieces (1988; 1989; 1992) that fleshed out possible explanations for sex segregation and male dominance in coaching. She was one of the first researchers to incorporate theoretical and empirical sociological research from the work and occupations literature into the study of gender in athletic coaching. Knoppers (1989) argued that coaching was not an "equal opportunity occupation" and noted the large numbers of male coaches' crossing over into women's athletic teams coinciding with the decrease in number of women coaches. She offered three different sociological grounded explanations for this change: an individualist approach, workplace structural approach, and a socialist feminist approach

(1988). Individualist explanations rely on traditional human capital arguments (Becker 1985) that there are differences between women and men in their choice of careers, level of skills, and overall work behavior. Yet Knoppers and others (Acosta and Carpenter 1988) found this approach inadequate for fully explaining the gender shift in the occupation of coaching in intercollegiate women's athletics. This approach does not account for or explain women in other time demanding jobs, the continual gender wage gap between equally qualified women and men workers, or the fact that men have successfully crossed over into women's athletics (56 percent in 2004) but women have not made the same transition into men's athletics (Less than 2 percent in 2004).

With these deficiencies in mind, Knoppers suggested considering the impact that the structure of a workplace has on workers and to consider things like hiring/firing practices, networks, types of jobs, career ladders, access to power, and in/out group proportions. Indeed, many female athletic administrators explained the decline in women coaches to the "old boys network," an absence of women centered networks, minimal support systems for women, burnout, and discrimination in the hiring process. Yet, according to Knoppers, this structural approach is insufficient to explain male dominance and sex because it fails to explain the influence of external structural constraints (NCAA) and incorrectly assumes that all coaching positions are the same regardless of sport. Thus, Knoppers suggested using a socialist feminist approach to explain sex segregation and male dominance in coaching. This approach combines patriarchy and capitalist notions that underlie and drive competitive sports to explain male dominance in coaching. As Kane stated (In Anderson 2001), the financial power of women's athletics has grown in a capitalist direction and the cultural assumption is that male coaches are better suited to lead these powerful and financially successful programs.

These three theoretical perspectives inform Knoppers, Meyer, Ewing, and Forrest's (1989, 1991, 1993) research on gender and coaching in sport. For example, they (1989) examined salary differences between male and female intercollegiate coaches using the three perspectives outlined earlier and found the most support for capitalist patriarchy. They showed that coaches' wages were influenced for women and men by the type of sport they were in, as well as their gender. Gender ratios were also significant in predicting men's salaries but not women's salaries. For example, a higher number of men than women in the athletic department corresponded with higher men's salaries. These researchers (Knoppers, Meyer, Ewing, and Forrest 1991) also examined opportunity and work behavior for Division I coaches. The results from this study revealed that college coaching was a low opportunity job in many coaches' minds and opportunities in college coaching for women were even more restricted than for men. Their third study (1993) focused on the effects of gender ratios on social interaction between women and men coaches. They found that an increase of women in this male dominated sphere led men to raise gender boundaries within the athletic department. This evidence of homosocial bonding among men in the department resulted in further sex segregation.

Unequal opportunity in coaching, as documented by Knoppers, generated a new angle into this coaching question, that of the "token woman coach." Kane and Stangl (1991) evaluated the token status of women coaches in men's sport and found that in overall numbers women coaches were still very much a token group. Even when they did break through into men's athletics, they were assigned to coach less prestigious sports and marginalized. Theberge (1993) confirmed this token status in her interviews with women coaches. She found clear evidence of the social construction of gender in women coaches' experiences. She showed that attention to gender was used to confirm the womens' token status, while simultaneously confirming the

superiority of men's sport participation and the physical differences between men and women. This view of power relations between male and female coaches was also found to describe the male coach-female athlete relationship (Tomlinson and Yorganci 1997). A male coach's position of power over female athletes was another example of male dominance in the sport world. Tomlinson and Yorganci reached a disturbing conclusion when they reported that "the normalcy of conditions conducive to harassment and abuse and the culture of coach domination are the most striking findings of our study" (p. 152).

The consequences of male dominance in sport reveals some reasons to explain why the representation of women coaches has dropped. Yet what happens to these women coaches when they do enter the masculine domain of coaching or athletic administration and remain in these occupations for some time? There have been a variety of studies done on factors like motivation and attrition, burnout, and retention in the occupations of coaching and athletic administration for women. Weiss and Stevens (1993) tested social exchange theory (Thibaut and Kelley 1959) to explain the motivation and attrition of female coaches at the high school and collegiate level. They found that current coaches expressed more satisfaction, benefits, and less costs of the coaching profession than former coaches. Donna L. Pastore and colleagues examined burnout among women's team coaches in junior colleges and identified successful strategies for retaining both coaches and administrators in women's athletics. For example, Pastore and Judd (1993) discovered that female coaches had higher levels of emotional exhaustion than male coaches and suggested these women may carry more responsibility than men for solidifying the significance and value of women's athletics. Furthermore, Pastore (1994) learned that emphasizing good communication in the workplace was the key strategy for retaining female high school coaches. At the college level, coaches and administrators stressed the importance of work balance,

collegial support and recognition, and inclusivity as factors in their decisions to stay or exit the workplace of organized sport (Pastore, Inglis, and Danylchuk 1996).

This research suggests that the male dominance of sport and women's token status as coaches in this domain help explain the increased presence of male coaches in women's athletics. This correlation between men, masculinity, and coaching was also confirmed in a survey of high school athletic administrators in Missouri (Wilkerson 1996). Wilkerson tested Blalock's (1962) "uncertainty hypothesis" in her survey of people who make hiring/firing decisions in athletics. She found that administrators who eschewed any gender preference in hiring placed more value on subjective criteria (e.g. ability to make players competitive and maximize their potential) than measurable objectives (e.g. win-loss records, degree, college varsity experience) when making their hiring decisions. Thus, Wilkerson concluded that this uncertainty hypothesis provided one way for athletic administrators to discriminate against women coaching candidates in favor of men coaches. They did this by denying "the importance of quantifiable criteria and rely on subjective credentials…whose importance is difficult to dispute and impossible to measure" and therefore contributing to the rise in male coaches dominance in women's athletics (Wilkerson 1996: p. 424).

Past scholarly literature on gender and coaching has explored a variety of interesting topics, including highly relevant ones to this study like sex segregation and male dominance in coaching. However, they have often focused on women coaches, used different methods of inquiry, and different populations of comparison from this study. This study's major contributions will be its comparison between Division I and Division II women's athletics and its use of a regionally and athletically representative (powerhouse vs. nonpowerhouse) sample. Secondly, this research is grounded in the powerful sociological tradition of institutional theory.

Only one line of previous research (Knoppers and colleagues) has taken advantage of the exploratory power of sociological theory that has grown out of the work and occupations literature. In fact, attention to the sociological study of sport in general has been paltry at best (Allen 2004). According to Allen (2004), only two articles on sport in the last fifteen years have been published in the three major sociological journals.[iv] Attention to the study of sociological processes like hiring and sex composition in the workplace and the use of sociologically grounded frameworks like institutional theory within the context of sport is long overdue.

In conclusion, this section described central themes in the gender and work literature and the study of gender in athletic coaching. The examination of gendered organizations, sex segregation, and salary differences in the general sociological literature has been utilized in the sociology of sport literature. In particular, Knoppers and her colleagues' work showed the usefulness of sociological theory in the study of gender and sport. This combination of the gender and work literature with the gender and sport literature illustrated the importance of continuing to study social inequality in the workplace and sport. An examination of the history of the six sports in this study will confirm the value in exploring various forms of social inequality in sport. Each sport was created and organized with the interests and needs of white middle class men in mind and to the exclusion of women and other minority groups. The arrival of Title IX and the ensuing growth in women's sport is documented in this historical section. This will show important evidence for why the coaching positions on women's teams increased in their prestige and attracted the interest of male coaches.

The Association for Intercollegiate Athletics for Women (AIAW) and the History of Six

Women's Sports

The Role of the AIAW and Basketball: The Pioneers. The sport of basketball was created by Canadian Dr. James Naismith for his students at the YMCA training school in Springfield, Massachusetts in 1891. Looking back on its humble beginning, it is unlikely that neither Naismith nor anyone else envisioned the sport growing to the heights at which it has today in men or women's play (Smith 1998). The first women's intercollegiate basketball game was played between California-Berkeley and Stanford University in 1896. Ironically, until 1919 coaching was prohibited during games except at halftime (Smith 1998). The game grew in the early twentieth century. By 1925 there were thirty-six states with high school basketball for women. Then in 1926, the Amateur Athletic Union (AAU) was formed. The AAU was the premiere organization that sponsored amateur women's teams but had no university or college affiliation.

While conservative American values eschewed the participation of women in sport for fear of the possible masculinizing effects (Lenskyj 1986; Blinde and Taub 1992; Cahn 1993; Smith 1998), women continued to compete in local amateur and industrial leagues through the WWII era. By the early 1970s the sport began to really grow at the college level. In 1969, the first National Invitational Tournament for women's intercollegiate basketball was held at West Chester State College in Pennsylvania under the direction of coach Carol Eckman (Hutchison 1991). Just a couple years later in 1972, the AIAW took over the reigns of women's intercollegiate basketball and helped the sport grow immensely until 1982, when the NCAA took control of women's basketball. The AIAW formed with three major goals in mind. First, they wanted to team with the passage of Title IX and help create opportunities for college women to

become student-athletes (Morrison 1993). They also became the leading advocates for gender equality in collegiate sports for women and a supporter of equality between revenue and nonrevenue sports (Morrison 1993). They began their organization with 280 member institutions.

The U.S. Congress passed Title IX in 1972. However, enforcement and compliance with the law were slow due to the public's fears about women's sport and homosexuality (Cahn 1993, 1994). In addition, there were various legal challenges to shield college athletics and certain men's athletic teams (e.g. football, basketball) from the legislation. Large universities were still focused on men's sports and reluctant to invest resources in women's sport (despite Title IX). Smaller southern schools with no men's football, such as Old Dominion, Louisiana Tech, The College of Immaculata, and Delta State University, dominated women's intercollegiate basketball until UCLA won their first title in 1978 (Smith 1998). Immaculata College's (Pennsylvania) women's basketball team, also known as the "Mighty Macs," became the very first women's basketball powerhouse winning three straight national championships beginning in 1972 (Miller 2002). Under the leadership of the AIAW, women's intercollegiate basketball grew by leaps and bounds over the next ten years. The organization offered its first scholarships to women athletes in 1973 (Miller 2002). The second national championship tournament in Flushing, NY, under the auspices of AIAW, made a modest profit of $4,630.00 and turned out 3,000 fans for the championship game between Immaculata College and Queens College (Hutchison 1991). By 1976, the profits almost tripled to $11,160.00. Seven thousand fans came out for Delta State's 69-64 victory over Immaculata College. The involvement of corporate sponsorship beginning with the Kodak All-American team in 1975 and the interest of CBS in purchasing rights to broadcast the championship game showed further evidence of the growing

popularity and prestige of women's intercollegiate basketball (Hutchison 1991). UCLA's 1978

victory "marked the end of 'small college' dominance of women's basketball…(Immaculata and

Delta State) and the advent of large universities with greater financial resources for their

programs" (Hutchison, p. 319). This year also saw the formation of the first women's

professional basketball league (Women's Basketball League, WBL), which only survived two

seasons due to low funding and weak leadership.

The 1980s were watershed years for both the AIAW and women's intercollegiate

basketball. First, the AIAW expanded its tournament field to Division I, II, and III in 1980

(Hutchinson 1991). In addition, the NCAA began to express interest in managing the women's

championships. This began a bitter battle between the NCAA and AIAW over control of

women's intercollegiate sport. Some universities were interested in having both their men and

women's programs under the same governing body (NCAA), but there were also equally as

adamant sources like women's coaches and administrators that wanted women's collegiate sport

to remain under the AIAW and not succumb to the male model of the NCAA (Morrison 1993).

Many critics of the AIAW argued that the AIAW model[v] was inferior to the NCAA model,[vi] and

the greater resources and power of the NCAA eventually led to the demise of the AIAW

(Morrison 1993). In 1982, NBC broke their television contract to host women's intercollegiate

championships with the AIAW and the NCAA held its first championship for women's

basketball in all three divisions (Hutchinson 1991).[vii] This first year of women's basketball

competition under the umbrella of the NCAA coincided with a 20 percent loss in AIAW

membership and a 48 percent drop in Division I championship participation (Morrison 1993).

This marked the demise of the AIAW and the association was dissolved. Donna Lopiano, the

last president of the AIAW saw its downfall as inevitable, stating "I'm not sure it could have

worked out differently. What happened was really the choice of the more powerful organization [NCAA]" (Hawes 1999a). Despite the dissolution of the AIAW, they were trailblazers in women's intercollegiate athletics. The AIAW grew from 280 members in 1972 to 971 in 1980 and established 41 national championships for female student-athletes in 19 sports (Hawes 1999b). The end of the AIAW also coincided with male coaches increased interest in coaching women's teams (Katz 2002). The AIAW helped inspire the formation of the Women's Basketball Coaches Association. This organization was formed in 1982 and their first convention in Virginia Beach had one hundred coaches in attendance (Miller 2002). 1983 was the NCAA's first year as the sole intercollegiate women's basketball sponsor. That year ESPN televised regular season games, CBS broadcast the championships, and the tournament marked the introduction of USC great Cheryl Miller, who went on to become one of the most dominant intercollegiate women's basketball players (Hutchison 1991).

Women's basketball remains the most popular women's sport in U.S. colleges and universities. In 1977, 90.4 percent of institutions offered varsity basketball. As of 2004, 98.6 for Division I institutions, 96.5 percent for Division II, and 99.2 percent for Division III (Acosta and Carpenter 2005). Yet, when you consider coaches, you see a reverse trend. Seventy-nine percent of basketball coaches were female in 1977, as compared to 60.7 percent in 2004 (Acosta and Carpenter 2005). While women's numbers on the women's sport side were dropping, they could barely breakthrough in men's collegiate basketball. Rick Pitino, head coach at University of Kentucky, hired the first women's assistant coach on a male basketball team in 1990 (Miller 2002). Bernadette Mattox at Kentucky followed by Stephanie Ready, an assistant on the men's team at Coppin State in 1999 were the first two female coaches to cross over into men's

intercollegiate basketball. Much of AIAW's early work focused on basketball and basketball remains the most dominant intercollegiate women's sport (Acosta and Carpenter 2005).

Volleyball – West Coast Dominance. Volleyball was created in 1895 by William G. Morgan at the YMCA in Holyoke, Massachusetts for his physical education classes for businessmen (Volleyball Worldwide 2006). Morgan referred to his new creation as "mintonette," blending the characteristics of baseball, basketball, tennis, and handball together into a less physical game for his pupils (Volleyball Worldwide 2006). Early signs of volleyball for women appeared at Smith College in 1901 when Senda Berenson, a physical education director, hosted volleyball at the college's "demonstration day" (Miller 2002). In 1962, the University of Minnesota-Duluth and the University of Hawaii became the first colleges to add women's volleyball teams. In 1971 the AIAW hosted the first women's volleyball championship, Sul Ross State (Alpine, Texas), led by Mary Jo Peplier, won the first of their two straight championships (Miller 2002). By the early 1980s teams like USC and Hawaii began to dominate the volleyball scene, and the sport continued to grow at the collegiate level. In 1981 the NCAA held their first championship for women's volleyball in all three divisions, and this sport was one of the initial three women's sports (cross country and field hockey) to compete for a championship (Hickok 2005). USC took the first NCAA sanctioned national championship in volleyball in 1981 and California State University-Sacramento claimed the Division II championship. With the exception of Nebraska, Penn State, and Texas each finishing as champions one year, all NCAA champions over the years have been from the west coast. They include schools like USC, Stanford, Long Beach State, UCLA, Washington, Pacific, and Hawaii. For example, in Division I, Stanford claimed its record fifth national championship in 2001. In

Division II, Central College (Pella, Iowa) dominated in during the late 1990s and early 21st century, and won their third consecutive championship in 2001 (Miller 2002).

A landmark for fan interest in women's collegiate volleyball occurred during 1995, when the NCAA championships exceeded 100,000 in attendance and Nebraska defeated Texas in the final (Miller 2002). While the growth of popularity in volleyball was not as extreme as soccer or even softball and track and field, the sport remained in the number two spot for the most popular sport in NCAA institutions. It increased from 80.1 percent in 1977 to 94.6 percent in 2004 (Acosta and Carpenter 2005). As far as coaching changes, men held 13.3 percent of the head coaching jobs in 1977 and increased their share to 40.5 percent in 2004 (Acosta and Carpenter 2005).

Soccer – The Beneficiary of Title IX. The birth of intercollegiate women's soccer demonstrates one of the success stories of Title IX legislation. Soccer has been one of the fastest growing women's sports at the collegiate level (Oglesby et al. 1998). In 1977, collegiate soccer was the twentieth most popular sport, with 2.8 percent of institutions fielding teams. By 2004 that number rose to four with 88.6 percent of schools offering a team. Broken down by division, 92.3 percent of Division I schools have soccer, 76.2 percent in Division II, and 94.1 percent in Division III institutions (Acosta and Carpenter 2005). On the coaching side, male coaches held 70.6 percent of the head coaching positions in 1977. This number has dropped ever so slightly to 69.9 percent in 2004 (Acosta and Carpenter 2005).

Worldwide, soccer (or futbol) is considered the most popular sport. European countries were the early pioneers of soccer for both women and men. However, it was a long time before women were given the opportunity to compete. Initially, British women began playing during WWI when men were away at war and they were filling the men's factory jobs (Pettus 1998).

American college women began to play soccer during "field days" from the 1930s through the 1950s. The breakthrough for U.S. women in soccer did not occur until the early 1970s. Because soccer was initially linked with the "rough and tumble blue-collar set," women were discouraged from playing the sport (Markel, Waggoner, and Smith 1997: p. 32).

In contrast to the working class and poor beginnings of soccer in other parts of the world, the birth of U.S. soccer started in the suburbs among middle and upper class white children (Pettus 1998). In 1976 Phil Pincince became coach of Brown University's women's team and by 1977 there were enough Ivy League teams for an Ivy League Championship. By 1980, famed head coach Anson Dorrance at the University of North Carolina (UNC) coached the first women's Tar Heels team. He went on to guide the program to elite status, winning eleven of the first twelve Division I national championships. Overall, his teams have claimed sixteen of the twenty-two championship games ever played. When the NCAA showed no interest in a women's soccer championship, Dorrance and Chris Lidstone, University of Colorado coach, went to the AIAW. Despite not having the AIAW minimum number of teams, the organization agreed to sponsor the first women's soccer championship in 1981. It included twelve of the fifty women's teams competing that season (Pettus 1998; Miller 2002). The NCAA held their first Division I championship in the following year. In 1988, the first Division II championship was held in Miami Shores, Florida; California State University-Hayward defeated Barry University in the final game (Miller 2002). This same year the NCAA created the Herman Trophy, an award given each year to the best female Division I soccer player. In 1994, Mia Hamm of UNC became the first soccer player to win the Honda-Broderick Cup, given to the top NCAA Division I athlete (Miller 2002).

UNC is credited with producing some of the most dominant women's soccer players of all time, including April Heinrichs, Michelle Akers, Mia Hamm, Carla Overbeck, Christine Lilly, Tisha Venturini, Debbie Keller, Lorrie Fair, Tiffany Roberts, Cindy Parlow, and Lindsey Tarpley among others. This UNC dynasty and Dorrance's involvement in women's soccer created additional interest outside the college realm. In 1991, FIFA (Fédération Internationale de Football Associatio), sponsored the first women's world cup in China, won by the U.S. The U.S. won again in 1999, when 90,185 fans watched them defeat China on Brandi Chastain's penalty kick in a shootout at the Rose Bowl in Pasadena, California (Pettus 1998). This was the most watched soccer game in U.S. television history, as over 40 million viewers tuned in for the event (Wahl 1999). The World Cup success for women's soccer in the U.S. during the 1999 tournament was considered the final impetus that organizers needed to establish the first women's professional league. This league began play in 2001, with eight teams in Atlanta, Boston, North Carolina, New York, Philadelphia, San Diego, and Washington D.C. (Miller 2002). While UNC continues to be a dominant powerhouse in women's soccer today, there is now a good deal of parity, as other schools – Florida, Notre Dame, Santa Clara, Portland – have claimed their first championships. However, the Tar Heels' legacy of seventeen national championships in twenty-three years is a feat that no other institution has come close to matching yet.

Softball – Beneficiary of Title IX. While softball is usually thought of as a woman's sport – the male equivalent of baseball – softball play started with men on Thanksgiving Day in Chicago in 1887. For women, softball began at a high school in Chicago, Illinois in 1895 as a less dangerous alternative to baseball (Lancaster 2000).

Similar to the humble beginnings of soccer in Britain for women during WWI, softball burst onto the American scene during WWII. The All-American Girls Baseball League was created as a short term replacement for major league baseball during the war. Employers supported the league because they believed, that by highlighting health and fitness, they would keep the women's morale up while the men were away (Oglesby 1998). One key figure in the development of softball for women was Mildred "Babe" Didrikson. After winning two gold medals at the 1932 Olympics in Los Angeles, Babe was recruited to a few men's major league baseball tryouts (Cayleff 1995). Although she did not make the roster, she is credited with being one of the first great female baseball players.

Like soccer, women's collegiate softball was a true beneficiary of Title IX. The gender equity movement in academic institutions filtered out to high schools and little leagues all around the country (Nutt 1998). Indeed, in 1989, Julie Croteau became the fist woman to play on a male collegiate baseball team, when she suited up for St Mary's College in Maryland. She went on to break through the gender barrier for coaching as the first woman assistant on a men's Division I team at the University of Massachusetts in 1995 (Nutt 1998). As more resources were invested in women's softball, the level of play improved and certain schools, like San Jose State University and Fresno State, developed into softball powerhouses (Nutt 1998).

The AIAW, along with the Amateur Softball Association, sponsored the first College Women's World Series in 1979 in Omaha, Nebraska (Sherrow 1996). The first NCAA women's softball championship was showcased in 1982 in all three divisions. Softball remains one of only two exclusively female collegiate sports (field hockey) (Lancaster 2000). In Division II, Sam Houston State University defeated California State University-Northridge in the first championship (Miller 2002). No doubt aided by the year round warm temperatures, UCLA and

Arizona have become two of the most dominant women's softball programs in the country. The Bruins won eleven of the first twenty-four championships while Arizona claimed six titles (NCAA 2006). Accomplished players like Lisa Fernandez and Dot Richardson of UCLA competed at the Olympic level, bringing home the 1996 gold medal.

Men comprised only 16.5 percent of the coaches in 1977 and that number grew to 35.2 percent in 2004 (Acosta and Carpenter 2005). This increase of male softball coaches has mirrored the increase in number of institutions offering teams, with softball ranked as the fourth most popular women's sport in 1977 (48.4 percent of schools offered teams). This ranking dropped to five in 2004, but the overall percentage increased substantially to 86.4 percent of NCAA schools offering teams (Acosta and Carpenter 2005).

Track and Field – Breaking Cultural Barriers. Track and field has historically been a sport intertwined with the politics of race and gender (McElroy 1998). Record-breaking track and field women like Babe Didrikson Zaharias, Wilma Rudolph, Jackie Joyner-Kersee, and Florence Griffith-Joyner have been at the forefront of the fight for racial and gender inequality through their sport participation.

As mentioned earlier in the section on softball, Babe was one of the most legendary competitors, taking home three medals at the 1932 Olympics in Los Angeles, California. Babe challenged gender norms for women in sport with her physical presentation and boisterous attitude. Cayleff (1995) observed that Babe was "battered by the press for her boy-girl image . . . [and] Babe soon abandoned her androgyny to present herself publicly as 'feminine'" (p. 3). Despite breaking through many traditional gender norms with her outstanding athletic performances in basketball, baseball, and track and field, Babe was unable to avoid the cultural focus on her femininity or lack thereof.

Another trailblazer in women's track and field was Wilma Rudolph, who dominated at Tennessee State University (Nashville) in the late 1950s and two Olympic Games in 1956 and 1960. During the 1960 Rome, Italy games, she was named the "the fastest woman in the world." Rudolph rose from very humble beginnings as a premature baby who battled double pneumonia, scarlet fever, and polio in St. Bethlehem, Tennessee to successfully compete in track and field (McElroy 1998).

Jackie Joyner-Kersee and Florence Griffith-Joyner (sister-in-laws) are two of the most successful and recognized track and field athletes of the 1980s and 1990s. Joyner-Kersee won six Olympic medals in four different Olympic Games, and was a fan favorite due to her "gracious nature and competitive sport despite challenging the odds and a modest beginning" (McElroy 1990: p. 25). She grew up in a poor section of East St. Louis and went on to earn a track and field and basketball scholarship to UCLA in 1980. Florence Griffith-Joyner married Jackie's brother and became a part of the dominant Kersee track and field family. She went on to win five medals in two Olympics including four medals in the 1988 Olympics in the Seoul Games (McElroy 1998). Interestingly, these two women were often accused in the press of feuding over the spotlight, but Joyner-Kersee called the rumors sexist (McElroy 1998).

While women like Babe, Joyner-Kersee, and Griffith-Joyner broke through barriers in the Olympics, women's collegiate track and field made its humble beginning in 1895 at Vassar College where the first women's track and field meet was held (McElroy 1998). This "field day" at Vassar triggered track and field interest at other schools across the country (Oglesby 1998). The University of Wisconsin and University of Nebraska created teams in the following years. By the 1940s and 1950s, historically black institutions like Tuskegee Institute and Tennessee State University began their dominance of intercollegiate women's track and field. This was the

only sport for African American women at the time (McElroy 1998). The TSU women's team was referred to as the "Tigerbelles" and their most famous alumnus was Wilma Rudolph. The sport of track and field emerged over the next couple decades and flourished with the support of the AIAW after Title IX in the 1970s. In January 1981 the NCAA offered their first championship at Brigham Young University and by 1983 there was also a separate indoor championship (Miller 2002). It was not until 1985 that Division II and III had their own indoor championships. Louisiana Tech University made a name for itself as one of the most dominant programs for women track and field athletes by collecting thirteen of twenty-three (outdoor) and eleven of twenty-three (indoor) team championships since the NCAA began sponsoring the sport (Hickok 2005). Track and field for collegiate women has continued to grow in popularity. In 1977, it was ranked fifth with 46.4 percent of institutions fielding teams, rising to number seven in 2004, with 67.4 percent of schools with teams (Acosta and Carpenter 2005). On the coaching front, men have made enormous progress. Men held 47.7 percent of the coaching positions in 1977 and 80.3 percent of the positions in 2004 (Acosta and Carpenter 2005). Thus, like women's intercollegiate soccer, men currently hold the majority of these head coaching positions.

Swimming and Diving – Olympic Glory. The evolution of swimming and diving for women went from "vaguely illegitimate but glitzy entertainment to a legitimate and somewhat monotonous show of strength and speed" (Karbo 1998). Similar to other sports, swimming/diving got its start in England at the end of the nineteenth century. These women swimmers were usually seen as either "eccentric British adventuresses" or "wild girls" who disregarded safety and gender norms at the time to pursue their sport in various lakes, rivers, or public pools (Karbo 1998). When WWI began and men left for the war, women filled life guard

positions and become more assimilated into the swim culture. Intercollegiate swimming has not garnered as much attention as those swimmers/divers who have gone on from college (or skipped college in some cases) to achieve Olympic glory. By 1973, women's collegiate swimming began to attract attention, as the University of Miami awarded the first athletic scholarships to four women swimmers (Miller 2002).

The first women's Olympic swim team was assembled in 1920. By the early 1980s, women swimmers/divers began to attract public attention with their success. Tracy Caulkins made the Olympic team in 1980 as a seventeen year old. She went on to college at the University of Florida where she broke sixty-two records, won forty-eight titles, the most in women's history (Karbo 1998). Caulkins also won three gold medals at the 1984 Olympic games in Los Angeles, California and was crowned Female Athlete of the Year by the United States Olympic Committee. Another well known collegiate and Olympic swimmer was Janet Evans who spent two years at Stanford University as a record breaker, but left when NCAA restrictions cut the amount of time she was allowed to train (Karbo 1998). Evans went on to win two medals at the 1992 Barcelona games. Like most other intercollegiate women's sports, swimming held their first NCAA championship in 1982 at the University of Florida, with the home squad capturing the title (Miller 2002). At the Division II level, 1982 also marked the first championship, with California State University-Northridge capturing the inaugural title (Miller 2002). Some of the most dominant teams of the last twenty-four years include Texas, who won seven of the first ten championships, and Stanford, who earned eight championships (Miller 2002). The last eight years have seen Georgia and Auburn split the championships with four a piece.

The growth in popularity of women's swimming at the collegiate level was minimal over time. In 1977, it ranked number six with 41 percent of schools offering teams. In 2004, it moved up to number nine with 48.7 percent of schools offering swimming (Acosta and Carpenter 2005). However, in the coaching ranks, the sport was a popular one for male coaches over the years. In 1977, 46.4 percent of swimming coaches were male and by 2004 men comprised 74.4 percent of the coaching positions.

In conclusion, the gendered environment of athletic departments and coaching positions within these organizations provide an excellent sphere to study gender and workplace dynamics. This study fills a disconnect between general sociological studies of gender and work and the study of gender inequality in sport. This gap is filled through the use of institutional theory, which has been used in organizational studies of the workplace, but is absent in gender studies of coaching in sociology until now. The historical development of women's intercollegiate basketball, volleyball, soccer, softball, track and field, and swimming demonstrates why gender dynamics in collegiate sport continue to change overtime at both the level of athlete and coach. Understanding the growth in these sports and the gender aspects of their respective histories will help explain some of the analyses in this research.

The next chapter will review institutional theory in sociology and its application to the hypotheses in this study. Chapter three will detail the data and methods of this study and chapter four will report and discuss the statistical results. In conclusion, chapter five will bring all final thoughts together with a discussion of the possible implications of this study for future research.

CHAPTER TWO

THEORETICAL FOUNDATION

This study examines institutional factors that contribute to the increased presence of male coaches in women's intercollegiate athletics. The major theoretical foundation that drives the research hypotheses is institutional theory. Institutional theory primarily focuses on formalized organizations, such as educational institutions, government regulatory agencies, social service agencies, and corporations. Because this study is examining the gendered nature of an occupation within the larger organizational field of a college or university, I will focus my discussion of institutional theory on research done in higher education institutions.

The Development of Institutional Theory

What is institutional theory? Ownership of this theory has been claimed by numerous disciplines of researchers, both within the study of organizations and beyond. However, due to the wide range of claims on the theory some have come to conclude, "that there is no such thing as 'institutional theory'" (Kraatz and Zajac 1996: p. 813). Indeed, researchers most often find it easier to explain what institutional theory is not, versus what it is (DiMaggio and Powell 1991). Institutional theory is used to study social, political, and economic processes but the concepts, assumptions, and settings in which it is empirically applied vary depending on the discipline that is using it. For example, economists like Veblen (1898; 1909) and Commons (1924), and political scientists like Wilson (1889) and Burgess (1902) have used institutional theory in their respective disciplines. This study employs the sociological version of "new institutionalism" and specifically that form which is used in the study of formal organizations (DiMaggio and Powell 1991).

Old and New Institutional Theory. Both "old and new" institutional theories share five major assumptions (see Table 1.1 in DiMaggio and Powell). First, the reality of organizational life does not always follow the formalized statement of goals and processes in the organization. This discontinuity between stated goals and reality is also reflected in the fact that both forms reject the rationale actor view of organizations. This view assumes that organizations perform deliberate functions toward the accomplishment of specific goals. While organizations have rationally ordered systems, these systems do not allow for the occurrence of nonrational events. Both old and new institutionalism emphasize the role of the states' influence over organizations and their options. In addition, organizations are influenced by their environments.

While these different versions of institutional theory share some common ground, historical changes have led to a significant divergence in terms of analytical focus, role of the environment, change and conflict, and the role of individual action (DiMaggio and Powell 1991). For example, in terms of the influence of environment, old institutional theory sees organizations as entrenched in local communities whereas new institutional theory considers organizations to be situated in a more general organizational field. Turning to organizational strategy, old institutional theory saw very calculated strategies of action. These strategies were influenced by the political climate of the organization and directed its course and how it dealt with conflict.   In comparison, new institutional theory often denies possible problems inside and between organizations and they focus on formal administrative structures that are in place to squelch any form of conflict or division. So while old and new institutional theory share commonalities and differences, these distinct forms can be better understood with a look back at some of the most influential actors in the development of each version of the theory.

While institutional theory in sociology can be tracked back to some of the early founders of sociology like Cooley, Durkheim, Weber, and Mead, this description of old institutional theory will primarily focus on the more recent predecessors of new institutional theory. "Old institutional theory" is traced back to Phillip Selznick's research on formal organizations (Selznick 1948, 1949, 1957). Selznick drew on Merton's (1957) theory of organizations, which saw them as having a strict commitment to procedures that were not always helpful in reaching their stated goals. In fact, in some cases these procedures led to unintended consequences. In fact, according to Selznick, "the most important thing about organizations is that, though they are tools, each nevertheless has a life of its own" (Selznick 1949). Selznick (1957) viewed institutionalization as the process through which an organization takes on a unique identity over time. In his view, organizations were malleable social systems influenced by their historical development, the actors or groups within them, and the environment surrounding them. Values, in particular, became key driving forces of institutionalization as organizations strived to follow their procedures and meet their goals. Even when these values were not beneficial helping the organization meet its stated goals, they became so entrenched in its identity that leadership forces within would strive at all costs to maintain them. Selznick noted that any sign of vulnerability would put an organization at risk. The risk that forces outside an organization would change the goals and structures of the organization was a major factor in Selznick's study of the TVA.

Among Selznick's most important work is his study of the growth of the Tennessee Valley Authority (TVA) (Selznick 1949). This government sponsored regulatory agency, backed by major government funding, was created during the depression to help the Tennessee Valley recover from floods and improve the area's economic growth. Selznick discovered that the early goals and structures of the TVA changed over time due to the work of individuals in

leadership positions within the organization and the influence of powerful outside groups.

Leaders of the TVA believed that in order for the organization to survive, they had to change

specific procedures and goals of the organization. This coincided with their decision to appease

influential and powerful local community groups (agricultural groups) outside of the

organization in their policy decisions over issues like land control. These tradeoffs between the

TVA and local leaders, also known as cooptation, were used in order to gain legitimacy for the

agency. Since Selznick focused more on internal relations of organizations and the informal

structures, he saw the value of social power both within an organization in its structures, and

outside of it when the TVA struck bargains with interests like those of agricultural groups.

However, while Selznick brought the concept of values to the attention of organizational

theorists, his work was limited by its descriptive nature. He did not explain how values are

infused in organizations (Scott 1987). This study of values was taken up later on by W. Richard

Scott (1995).

Arthur Stinchcombe (1965, 1968), a student of Selznick's, extended the study of social

power in institutionalization processes within organizations by further emphasizing how

organizational values are only retained if powerful individuals in the organization follow and

reinforce those values. Therefore institutionalization occurs when those organizational actors

who hold positions of power and influence maintain their values by controlling the entry ports

inside an organization. This is done through hiring decisions and processes of socializing new

entrants in the values of the organization. Stinchcombe argued that this power and control

contributed to the stability of organizations over time (Stinchcombe 1968). The next evolution

of institutional theory in sociology came with "new (neo) institutional theory," as developed by

John Meyer and his colleagues (Meyer 1977; Meyer and Rowan 1978; DiMaggio and Powell 1983).[viii]

The key difference between old and new institutional theory is the latter's focus on change and adaptation as opposed to constraint and conformity. Old institutional theory viewed organizations as continually changing and adapting to their environment. Organizations were seen as flexible social systems that would alter their goals in the interest of success and legitimacy, even if that means engaging in cooptation with outside constituencies. While the maintenance of values by power holders within the organization is important, the flexibility to change in the interests of bigger goals is a key component of old institutional theory. In comparison, new institutional theory considers the potential for organizational change as less likely. However, if change does occur it will most often be in the direction of increased conformity to other organizations in its field (DiMaggio and Powell 1983). In new institutional theory, this change is most often viewed through cultural-cognitive processes and the way meaning is socially agreed upon by organizations (DiMaggio and Powell 1991). An organization either adapts or has a system of beliefs and cultural frame imposed upon it (Scott 1995).

Meyer and Rowan's (1977) article on the role of rational myths in organizations is considered the introduction to new institutionalism in sociology (DiMaggio and Powell 1991). This article focused on the way institutionalized rules, otherwise known as rational myths, contribute to an organization's ability to gain legitimacy, resources, stability, and its end survival. According to Meyer and Rowan, without adherence to these rules an organization's survival and success were in question. These rules are formed through the influence of professions, the state, public opinion, and the mass media, as well as from other organizational sources, including educational system, the legal system (laws and courts), regulatory agencies,

certification and accreditation bodies, and governmental sources (Meyer and Rowan 1978). However, in Meyer and Rowan's view, institutionalization is not a product of an organization striving for better results or bowing to the influence of increased technology. Instead, social and cultural pressures from the surrounding environment drive the creation and adaptation of these rules. Indeed, Meyer and Rowan draw on Berger and Luckmann's (1967) view that rational myths underlie many individuals understanding of social reality. These myths are taken for granted assumptions rather than a product of an individual's views or actions (Scott 1987). Other institutional scholars also stressed the role of cultural pressures in their institutional analyses (Scott 1992, 1995; DiMaggio and Powell 1983, 1991).

W. Richard Scott's contribution to new institutional theory involves his focus on the cultural-cognitive elements of institutional analysis in organizations (Scott 2005). This cultural-cognitive scope is seen in his creation of the three pillars that distinguish various modes of institutional analysis (Scott 1995). However, before reviewing these pillars I will discuss two other aspects of Scott's mark on new institutional theory: the societal sector and vertical hierarchies within these sectors. Scott teamed with Meyer (1991) to develop the idea of a "societal sector." They believed that organizations exist in and are impacted by a much larger system of relations. This system contains various other organizations and connects them to a wider interorganizational system. Organizations that produce a certain good or service have to rely on other organizations to supply them with raw materials, provide financial support to their production and labor processes, and regulate their activities. As previous institutional theorists (e.g. Meyer and Rowan, DiMaggio and Powell) have pointed out, organizations are influenced by their environment and these environments extend beyond just local influences.

Scott identified three major elements that support and sustain institutions: normative, regulative, and cultural-cognitive pillars (Scott 1995). The regulative pillar of institutionalization has appeared in a variety of scholars work going all the way back to Weber's (1968) discussion of mores and rule systems to Meyer and Rowan's (1977) rationalized myths.[ix] This regulative view of institutions concentrates on more formally established rules or laws that impact an organization. Scott (1995) argued that organizations create rules within them and then have sanctions and punishment systems in place in the event that organizational actors do not conform. The organizational logic for these rules is that they contribute to the smooth functioning of the organization by constraining and regulating individuals' activities. This regulative pillar does not clearly explain why institutionalization occurs, but it does account for how institutional processes persist in organizations (Scott 1995).

One study that examined these regulative processes is Stern's (1979) work on the development of the NCAA, which is the regulatory organization that oversees intercollegiate athletics. Stern learned that the NCAA grew immensely over the first half of the twentieth century into a very powerful and controlling organization. The NCAA strictly enforced the rules of intercollegiate athletics and imposed harsh sanctions on member institutions that did not conform to these regulative processes. The impetus for this effort to clean up NCAA athletics was driven by visible examples of institutions who broke the rules and the growing threat of outside forces becoming involved in the regulative process. A similar response can be seen in contemporary Major League Baseball (MLB) when both the administrative structure of MLB and the players' union agreed to stricter sanctions on the use of illegal substances by its players. The threat from political leaders in the Senate and the executive branch compelled the league to act before larger systems became involved.

While the regulative pillar focuses on standardized systems of rules that drive the institutionalization process, normative pillars also constrain social behavior but in a more informal way. The normative element of institutionalization creates informal values and norms that regulate the behavior of organizational actors (Scott 1995).[x] Values set forth the desired or preferred views of an organization and norms specify the method individuals should use to pursue these values. There is a certain moral aspect to the normative pillar for individuals. They look to these values and norms to structure their individual choices and will most often conform because of the social expectations upon them, yet conformity also serves their individual interests. Furthermore, as Scott argued, one of the enduring features of organizations is the presence of vertical hierarchies. Due to these hierarchies, the same set of values and norms are not applied to every individual in an organization. Some individuals have different sets of values and norms because of their position in the vertical hierarchy. This normative view clarifies the importance of values and norms as one aspect of the cultural rules that contribute to institutionalization. Selznick's (1949) notable study of the TVA that I summarized earlier in this chapter is an example of normative processes at work. Selznick detailed the development over time of a specific set of norms by TVA workers when they allowed their organization's decisions to be co-opted by outside groups in order to enhance the survival prospects of the TVA.

The cultural-cognitive element of institutionalization was developed by Scott and fueled by earlier work on institutionalization by Zucker (1977), Berger and Luckmann (1967), Meyer and Rowan (1977), and DiMaggio and Powell (1983). This cognitive approach to institutionalization centers on individuals' reliance on taken for granted assumptions and rules that are used to construct a shared view of reality with others (Scott 1995). These rules and assumptions inform the frames that individuals develop to create and assign meaning to their

beliefs and actions. Stability in an organization is created when individuals share the same cultural symbols and meaning, which they then internalize themselves on a cognitive level. This cognitive dimension of institutionalization often leads to mimicking between individuals or in DiMaggio and Powell's (1983) term – isomorphism. This cultural-cognitive pillar along with the regulative and normative pillars in institutionalization processes each play a part in establishing the legitimacy of an organization by indicating the presence of cultural support for certain rules and ideas of operation (Scott 1995).

DiMaggio (1991) explored the role of a group of individuals who played a major part in the introduction of art museums in late nineteenth century America. He discovered that three major groups in the art world (Carnegie Corporation, academic art historians, and wealthy art patrons) vigorously pursued the expansion of art museums in the U.S. because of their own personal and professional interests in art. They created certain cultural conditions around art in order to foster a similar frame among the public. This frame assigned value to art culture and suggested it was a sphere in need of cultivation. While their intentions may have grown out of their own self-interest, they ended up contributing to the formal organization of U.S. art museums.

One of the key features of institutional theory is it devotes attention to the overall setting and the cultural and historical framework in which social practices are embedded. Powell and DiMaggio examine the relationship between organizations and their environments and show how culture plays a major part in the direction of organizational activity (Powell and DiMaggio 1991). Instead of taking the efficiency approach to bureaucracy vis a vis Weber (1952), these proponents of institutionalism argue that the bureaucracy of organizations is driven by a different rationale, the aspiration to be more homogenous. Thus, DiMaggio and Powell use

neoinstitutionalism to explain similarities across organizations in the same field, not variation, as once was the explanatory goal of Weber. Neoinstitutionalism appears in many organizational fields and one of them is education.

The Organizational Field of Education

The organizational field of education is an important consideration in explaining gender patterns in coaching positions within women's athletics. Women's intercollegiate athletics is located within the organizational field of education and thus is subject to larger organizational forces within the college or university's institutional sphere. For example, at Washington State University, the organizational chart for administration illustrates how intercollegiate athletics is listed under the control of the university president, who is himself, under the supervision of the Board of Regents. While intercollegiate athletics may be considered a somewhat separate and unique world compared to other parts of the educational institution, it is required to follow certain institutional rules, norms, values, and taken for granted understandings that are part of the larger educational mission of the university. For example, because the main goal of educational organizations is to educate its students, athletic programs are required to comply with university, as well as NCAA, standards of academic eligibility. In line with the values and egalitarian philosophy of many universities and colleges, these educational institutions seek to portray an image of non-discrimination and equal opportunity for all potential students and employees. Furthermore, athletic programs and their university or college share certain norms and taken for granted understandings of behavior and the need to represent the institution in a professional manner. Thus, the frames of meaning and values of educational organizations with clear vertical hierarchies play a significant role in determining the occupants of various positions within the organization.

DiMaggio and Powell (1983) defined the organizational field as "those organizations that in aggregate, constitute a recognized area of institutionalized life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services and products" (p. 143). This idea has been further developed by Hirsch's (1985) "industry system" and Scott and Meyer's (1991) "societal sector" in the study of organizations. Women's intercollegiate athletic teams are part of a community of related organizations that include the athletic department, the university or college, the athletic conference they compete in, local community and fan base, and the NCAA that oversees all member institutions. There are common meaning systems that these teams share with other related organizations in their values, rules, and assumptions, and they interact a great deal with each other through operation processes (e.g. athletic departments supervise teams and coaches, universities/colleges set rules for teams and coaches to follow, conferences organize competitions for teams, the NCAA coordinates and supervises the athletic programs of member institutions).

Large scale educational organizations have become dominant spheres of life in the United States and other countries in the twentieth century (Coombs 1968). Since the late 1970s, educational researchers have argued that educational spheres are "loosely coupled" environments. This loose coupling means that the structural changes in schools were purposely disconnected from the technical core of the organization, otherwise known as the instruction that happened in classrooms (March and Olsen 1976; Weick 1976; Meyer and Rowan 1978). Certain standards for teachers, students, and curriculum were institutionalized in educational organizations to reflect the wider legal and normative rules of the outside environment (Meyer and Rowan 1978). Indeed, scholars have argued that the success and stability of educational organizations is due in large part to the highly institutionalized environment. Meyer and Rowan

distinguish educational organizations from other organizational spheres like factories where the

focus is on technical theories (Meyer, Scott, Cole, and Intili 1978; Meyer, Scott, and Deal 1981).

The role of the institutional environment in educational has been shown in studies such as the

organization of schools and districts in their educational activities and programs (Meyer, Scott,

Cole, and Intili 1978), the preference of institutional sources over the use of technical sources in

their influence on schools' organizational structure (Meyer, Scott, and Deal 1981), the

institutional environment's effect on administrative organization (Meyer, Scott and Strang 1987),

and the bureaucratization of U.S. schools that is driven by the increasing national institutional

structure of education (Meyer, Scott, Strang, and Creighton 1988).

This decoupling of education structures from the technical core is done to meet the

demands of both outside environment pressures and the expectations of teachers. Yet at the

same time, despite the initial push to separate them, these technical and institutional

environments are not distinct from each other and do indeed overlap in some cases (Powell 1991;

Scott 2001). In fact, one unresolved question is whether outside environmental influences can

penetrate the structures of education and find their way into the classroom and curriculum

(Coburn 2004). In her study of reading instruction in two urban elementary schools in the state

of California (1983-1999), Coburn (2004) found these environmental forces do invade the

technical core of education. This is consistent with others (Oliver 1991; Scott 2001) who have

suggested that actors' agency in organizations is a matter of considerable importance. In some

cases, actors can negotiate the logistics of institutional environment pressures.

The Organizational Role of the NCAA

Within institutional theory, it is found that single organizations are situated in larger

fields of organizations and similar in their structure (Meyer and Rowan 1977; Bartley and

Schneiberg 2002). In this research, universities and colleges are organized within the overarching field of Division I and Division II National Collegiate Athletic Association (NCAA) institutions. Schools and athletic departments within these schools represent an accepted sphere of institutionalized activity and encompass the key components of institutionalized life: similar resources, presence of the state (federal government or NCAA), comparable goals, competition with other organizations (conference rivalries), participation in professional associations (women's basketball coaches association), professionalization, and similar structuration in terms of rules and regulations (DiMaggio and Powell 1983). Organizations like NCAA institutions in this study are also regulated by other entities such as the state (local, state, and/or federal). In this research, the state includes both the federal government and the NCAA. The federal government is a relevant source of power and influence because it created and enforces federal legislation (Title IX) that compels universities who receive federal support to comply with gender equity regulations at their institutions, both in athletics and other educational areas of university operations (e.g. scholarships, financial aid). The office of Civil Rights in the Department of Education oversees the enforcement of these laws and advises schools that need assistance on how to maintain federal compliance.

The NCAA also plays a major supervisory role in intercollegiate athletics. This association is the largest intercollegiate athletic association in the world. It was established in 1906 to regulate and set rules for amateur athletics at the urging of President Theodore Roosevelt, who had become concerned with the increased number of deaths and severe injuries in men's intercollegiate football (http://www.ncaa.org). The NCAA is considered a voluntary association that encompasses roughly 1200 institutions and their athletic conferences. This association coordinates and supervises the athletic departments at all of these schools. While

membership is voluntary, schools join in order to attain legitimacy for their athletic programs.

As will be discussed in Chapter three, the NCAA was split into three divisions in 1973: Division

I, Division II, and Division III. In addition, the NCAA is organized into various cabinets and

committees that include school representatives (e.g. athletic directors, faculty athletic

representatives, school presidents) as well as individuals like paid professionals that are not

directly employed by member institutions. Decisions are made and issues are addressed such as

amateur eligibility, academic eligibility, athlete recruitment, problems of athlete abuse,

promotion of championship events, creation and interpretation of rules, financial aid issues. The

NCAA also enacts legislation that investigates social problems and possible solutions related to

athletics and athletes (e.g. sports injuries, gender equity, degree completion, race and ethnic

minority issues) (http://www.ncaa.org).

The NCAA plays a significant role in setting institutional standards through its (1)

creation of athletic program rules and the bestowal of legitimacy through membership to

institutions, (2) distribution of financial resources to schools, and (3) the maintenance of

bureaucratic control through rules and regulations around issues like compliance, academic

eligibility, and amateur eligibility. With all of these tenets and characteristics of a finely tuned

organization, the NCAA and its member institutions provide a rich environment to study

institutional processes that affect the sex composition of coaches in women's intercollegiate

athletics.

Institutional Isomorphism.

DiMaggio and Powell draw on Hawley's (1968) concept of isomorphism to explain

homogeneity in organizational structures and processes. Organizations may frame this

homogenization as a method of reaching important goals and enhancing the efficiency of their

organization. However, it is quite often found that these changes do very little for improving efficiency unless these organizations receive rewards and more legitimacy for becoming similar in appearance to other organizations in their field. In fact, the desire to be prosperous and similar to other organizations in the same field is at the heart of institutional isomorphism (DiMaggio and Powell 1983; Han 1994; Woodruff 2000; Scheid and Suchman 2001).

The three mechanisms of institutional isomorphism are: coercive processes, mimetic processes, and normative processes (DiMaggio and Powell 1983). These three processes, while defined separately, are not necessary discrete from each other and do overlap at times depending on the organizational processes being studied. Yet they tend to develop from different circumstances and often result in different outcomes (DiMaggio and Powell 1991). The factors that lead to isomorphic mechanisms in a field are split into two categories, organizational predictors and field predictors (DiMaggio and Powell 1983). Organizational predictors concentrate on the ways that organizations in a field become more similar to each other. Any one or combination of the three mechanisms of isomorphic change can trigger this homogenization. Field predictors come in the form of characteristics of organizational fields that become strong indicators of isomorphic processes.

The first type of institutional isomorphism is coercive processes, which occur when the pressure of demands from other organizations in the same field become too much to ignore. They also arise when certain cultural expectations of the general society exert enough pressure on an organization that they feel the need to fall in line with and conform to the structure and form of other organizations in the field. These forces may seem overtly coercive or come about in a more persuasive form (DiMaggio and Powell 1991). Federal government and state mandates like Title IX, The Family and Medical Leave Act, or the Pregnancy Discrimination Act

(1979) are becoming increasingly important for public organizations like schools so overt coercive pressures are abundant because if organizations do not act in accordance with laws, there are very concrete costs (DiMaggio and Powell 1983; Oliver 1991) (For examples, see Swidler 1979; Milofsky 1981; Strang and Chang 1993; Frank, Hironak, and Schofer 2000). For example, one school may feel pressure from other schools in the same area to appoint a director of diversity to oversee diversity issues and discrimination problems in the school. This pressure could come from feminist and/or civil rights groups outside of the school. Another example might be the pressure exerted on a school or any large organization to develop and implement a recycling program. This pressure comes from both other organizations in the field adopting this type of program as well as pressure from outside the organization by environmental activist groups.

The second mechanism of institutional isomorphism is mimetic processes. Mimetic processes occur when there is uncertainty in an organization over its goals or how to respond to environmental change leading it to look to how other organizations have dealt with these issues. Thus, organizations model or mimic themselves after other organizations in order to meet certain goals of legitimacy and success (For examples, see Westney 1987; Guler, Guillen, and MacPherson 2002; Polillo and Guillen 2005). For example, as women have entered the labor market in greater numbers over the last thirty to forty years, organizational environments have changed and more companies have responded to employee needs with work-family policies.

The final mechanism of isomorphic change is normative processes. These practices occur in response to professionalization in an organizational field. Most often these normative practices arise in the form of professional development where individuals in the same occupation receive similar educational and work based training. Thus, these individuals who occupy the

same positions in different organizations within a field become almost identical in their work performance. In addition, the professional networks that grow in the form of local, regional, or national associations in the field provide another avenue for socialization in a profession and the move toward homogeneity (For examples, see March and March 1977; Hirsch and Whisler 1982; Kobrin 1985; Chaves 1996; Simmons and Elkns 2004). This similarity in education, training, and entry into the field through isomorphic change quite often leads to the "homosocial reproduction" of actors across the field (Kanter 1977). For example, professional conferences in academia and medical and legal professions provide a place for these professionals to showcase their latest research results, teaching pedagogies, or surgical procedures. Professional colleagues attend these types of presentations and then may often take a piece of knowledge they acquire there and reproduce it in their own work and organization.

Criticisms and Revisions of Institutional Theory

This study will test the propositions of new institutional theory but I would be remiss not to recognize some of the compelling criticisms of institutional theory. While new institutional theory has recorded substantial progress in describing and explaining how institutional processes affect organizational environments, it has also failed to address several important questions. For example, by underlining the lack of attention in new institutionalism to organizational self-interest and active agency, Oliver (1991) described how some organizations respond to institutional processes in a more strategic and proactive way. She referred to this approach as "strategic institutionalism." Oliver called attention to the variety of ways that organizations may conform or resist conformity: acquiesce, compromise, avoid, defy, and manipulate. Not all organizations will conform and contribute to growing homogeneity. Instead, some organizations will respond in *different* ways to each other over similar pressures within their organizational

field, and may in some cases produce original and innovative organizational forms (Oliver 1991).

Scott (2005) suggested three additional areas within institutional theory that require further study. First, the diversity of institutional arrangements is a neglected feature of institutional theory's analysis of organizations. Furthermore, boundaries within the organization and at the field level are easier to penetrate by groups and ideologies than has often been assumed in this framework (Some examples of this variety within institutional arrangements include DiMaggio's (1991) work on art museums and Campbell and Pedersen's (1996) work on changing legacies within postcommunist European economies). The second area of change Scott (2005) suggested was the need to acknowledge organizational actors' ability to influence rules (rationalized myths), norms, and beliefs within organizations. Scott (1995) argued that there has been a focus on "bottom-up" influences and the "effects" (instead of processes) of institutionalization. It is time to bring agency (DiMaggio 1988) back into institutional theory. Some researchers (DiMaggio 1988; Powell 1991, Scott, Rueff, Mendel, and Caronna 2000) have also criticized institutional theory for having an excessively deterministic view of the environment and the actors within this environment as "overly socialized" (Scott, Rueff, Mendel, and Caronna 2000: p. 32) (Some examples of this attempt to include agency of the actor include DiMaggio's (1988) piece on interest and agency and Barley's (1986) study of hospital actors responses to new technology).

The final direction of change that Scott (2005) recommended is a move toward recognizing and investigating deinstitutionalization in organizations. Large and continuous forces are needed to maintain institutional processes in formal organizations, so there is a possibility that some institutional systems can and do falter. In addition, wider societal sectors

are also at risk for erosion so consideration of possible factors that may explain the failure of institutional processes in organizations is paramount. Recent studies in the health care services field that has gone under extensive changes have centered on examples of deinstitutionalization (Scott, Ruef, Mendel, and Caronna 2000; Scott 2004).

Application of Institutional Theory: Male Coaches in Women's Athletics

This research asks questions and formulates hypotheses based on the tenets of new institutional theory. While there has been research on gender and coaching in sport, the use of institutional theory has not been rigorously applied to the movement of males into coaching in women's intercollegiate athletics (For the use of institution theory in predicting Black and White assistant coaches occupational commitment and intent to leave the coaching profession, see Cunningham, Sagas, and Ashley 2001). This research will examine institutional processes that impact the growth of male head coaches in women's in athletics, which is a job that was once dominated by women (See Figures 1-4).

Consideration of the structure and the context of the environment are important because they underline the significance of the setting in social processes like hiring (Reskin 2003). Structural and contextual effects, such as the number of women's athletic teams in a department, the percentage of other male coaches in the department, the percentage of other male coaches in the athletic conference, or the powerhouse ranking of the school play important roles in the sex composition of head coaches. Thus, these contextual and structural effects play an important part in many organizations and their hiring processes.

The hiring process is one of the least understood parts of the employment process (Petersen, Saporta, and Seidel 2005). However, understanding what occurs in this process is important for understanding gender and racial/ethnic inequality in workplace outcomes. In fact,

some researchers claim that the most significant problem for women and other disadvantaged groups in hiring is *access* to jobs through hiring, promotion, transfers, and dismissals (Lazear 1991; Epstein 1992). Indeed, "hiring is the ultimate point of disadvantage" (Petersen, Saporta, and Seidel 2005: p. 417). Since access to data on hiring is not easily accessible, this study relies on public archival data that is used to test institutional processes.

The three types of isomorphic processes operate in a variety of ways in the world of women's intercollegiate athletics. The passage of federal gender equity legislation (Title IX) led to an increase in the number of women's teams, more financial support for women's athletics, and as a result of these two factors, an elevated level of legitimacy attached to this occupation. Not surprisingly, these positions became more attractive to men who began to cross over into what once was a female dominated job (Wilkerson 1996). Hypotheses are created to test the predictability of institutional isomorphism in the form of coercive, mimetic, and normative processes. More specifically, these analyses will explain what kind of processes help explain the sex composition of coaches in six intercollegiate women's sports: basketball, volleyball, soccer, softball, track and field, and swimming.

Coercive Pressures in Hiring Processes for Coaching. Coercive pressures, whether they be overt (e.g. EEOC and Affirmative Action policies) or covert (e.g. "old boys network") often have a strong impact on institutional processes like hiring in organizational environments. Organizations try hard to attain a legitimate reputation in order to comply with certain cultural norms as well as to avert potential formalized sanctions for not following legal standards (DiMaggio and Powell 1983).

In part one of this test of institutional theory, I predict that the higher the number of women's intercollegiate athletic teams at an institution, the less likely there will be a male in

these head coaching positions. The rationale for this hypothesis is that institutions that rely on federal funds and/or state funds have regulations that require them to offer equal employment opportunities. These coercive processes force schools to try and display evidence of equal opportunity in their positions. Since the athletic department at most schools is very often male dominated across positions, the one area in which these departments can try to achieve the image of gender equality in hiring is within women's programs.[xi] As a result, the more women's teams in an athletic department, the more potential opportunities to demonstrate an institution's fulfillment of equal employment opportunities in hiring by appointing women, and the less likely men will fill these coaching positions.

Normative Pressures in Hiring Processes for Coaching. In part two of this test of institutional theory, I predict that normative processes of professionalization will increase the odds of a male coach on women's athletic teams. These processes are maintained by those people in an occupational field through regulating entry into the field (DiMaggio and Powell 1983). One way is through mandating certain educational or licensing requirements. Another way is through the networks that develop between organizations and impact the hiring process. In these networks, some individuals move from a job in one organization to a job in another organization. I contend that the higher percentage of male coaches of women's teams in the athletic department demonstrates how members of an occupation work to regulate the entrance of workers through defining the culture of the work environment (DiMaggio and Powell 1991).

While some occupations' sex composition and gender type differ (Britton 2000), in the case of sport, its gendered nature and sex composition converge in the dominance of men at all levels: athlete, coach, and administrator. The demographic composition of a workplace can help explain hiring processes (Reskin, McBrier, & Kmec 1999). There are various gatekeepers in

educational institutions, including the president of the university, deans, provosts, department chairs, and in the case of college athletics, athletic directors, and head coaches. Other coaches who have attained power and success in an athletic department may also serve as gatekeepers. In fact, at some schools these elite coaches may have more influence than the athletic director. These gatekeepers' demographic attributes have the potential to impact the hiring process and eventual demographic composition of certain jobs (Pfeffer 1983). Powerful groups work to maintain their power and privileges and this can translate into discriminatory decisions in hiring processes (Reskin 1988).[xii] If the gatekeepers of certain occupations are predominately men, then they have the power to determine who gets allowed in and who does not (Stewart 1982; Reskin 1988). Kanter (1977) used the term "homosocial reproduction" to describe the process whereby gatekeepers hire people similar to them into high prestige and highly rewarded management positions.

Athletic departments create a certain cultural environment through many processes (e.g. distribution of resources, academic support services, community relations) and the hiring of personnel is one major determinant for establishing the culture of this organizational environment. This filtering of coaches is not just done through the presence of other male coaches at the institution who have a part in shaping the occupational subculture, but also coaches outside the institution who provide recommendations as part of the social networks in professional athletic associations. Therefore, a higher percentage of other male coaches in the athletic department will significantly increase the odds of male coaches on women's teams.

Mimetic Pressures in Hiring Processes for Coaching. Mimetic processes play a major role in part three of my test of institutional theory. Organizations in the same field often mold themselves after similar organizations in their field that they see as successful (DiMaggio and

Powell 1983). A reliance on shared resources and evidence of similar structuration can significantly increase the likelihood of modeling. Intercollegiate athletic conferences compete for resources (e.g. financial revenue, recruits, coaches, etc.) and have a clearly defined structure of participation and operations. Thus, I argue that when there is a higher percentage of male coaches in the conference, it will lead each individual school to mimic this hiring practice.

Mimetic and Coercive Pressures in Hiring Processes for Coaching. The final two tests of institutional theory use membership in a powerhouse athletic conference as a predicator of mimetic and coercive processes. As previously mentioned, mimetic processes occur when organizations wish to emulate other successful organizations (DiMaggio and Powell 1983). However, more than one process of institutional isomorphism can happen simultaneously in organizational adoption. Dworkin and Messner (1999) argue, "sport has proven to be one of the key institutional sites for the study of the social construction of gender" (Also see Messner 1988, 1992; Messner and Sabo 1990). Numerous scholars have found that sport is often viewed as a highly masculinized sphere and coaching as a male-dominated occupation in this field (Birrel 1987; Theberge 1990; Knoppers 1992). Accordingly, there are certain cultural norms attached to the occupation of coaching and the most essential norm is that the occupant of the position is a man.

An approach used to explain this type of hiring process centers on the characteristics that go along with the decision maker's image of the ideal worker. One way this process is described is through statistical discrimination in the hiring process (Bielby and Baron 1986). Statistical discrimination occurs when employers use race or sex as a proxy for an applicant's potential skills and contributions in their decision about what applicant to hire (Reskin, McBrier, and Kmec 1999). For example, since sport and coaching are considered masculine domains

(Theberge 1990; Knoppers 1992), decision makers in athletic departments may evaluate their candidates using gender as proxy for the most suitable person to fill the position, that being a man.

Thus I argue that while sport and coaching in general is viewed as masculine, institutions in prestigious and highly respected athletic conferences will be *even more* male dominated. The athletic conference a school resides in plays a major role in external views of their legitimacy, power, and success. While there is a hierarchy of successful results between schools in a conference, they all compete with each other for a good deal of their regular season before any postseason competition ensues. Rivalries are created and reproduced over the years and since conference members are most often located in the same regional area, they regularly compete for one of the most important tools in working toward their goals of success – student-athletes. Athletic powerhouse schools are defined by their final rank in the NCAA's Director's Cup competition. The Director's Cup is a competition among all schools with varsity athletic teams in the NCAA. The results of all varsity athletic teams (men and women) at each school are combined and used to estimate each school's final ranking at the end of the academic and athletic year. So the combination of mimicry in emulating successful programs and the pressure to conform to established cultural norms that define coaching as a masculinized sphere increase the odds that schools in "powerhouse conferences" will have more male coaches in women's athletics.

The next chapter describes this study's data and methods. I begin with a description of the data and the sources from which I compiled and constructed my data set. In addition I discuss in detail all of my variables and the statistical techniques utilized to examine and test my research hypotheses.

CHAPTER THREE

DATA AND METHODS

Data

The goal of this research is to test institutional theory and its strength in explaining the relationship between organizational hiring trends for elite athletic programs and the sex of head coaching positions in intercollegiate women's athletics. In particular, this research measures the effects of various institutional processes on the sex composition of intercollegiate coaches in women's athletics.

These analyses use data from two hundred ninety-five colleges and universities in the United States from four academic years: 1973-1974, 1985-1986, 1995-1996, and 2001-2002. These four panel years were selected to get a representation from each decade since Title IX was passed in 1972. Various gender related historical events and social change over the 30-year time period from 1972 to the last panel year in 2002 make examining each decade important. First of all, it was essential to see time periods before and after the end of the Association of Intercollegiate Athletics for Women (AIAW) and after significant lawsuits and legislation from the 1970s and 1980s (Acosta & Carpenter 2002). The AIAW merged with the NCAA in 1981 and the merger brought about the demise of the AIAW, which had been the leading organizational advocate for women's collegiate sports and led to a change in the institutional gatekeeper for women's sport, giving the reins of power over women's sport from women in the AIAW to men in the NCAA (Hawes 1999). The 1990s marked the beginning of another backlash against gender equity in sport, as many Title IX opponents at the college athletic level (coaches, players) and political level (members of Congress) requested a reexamination of this

gender equity legislation. These and other significant historical events contributed to the choice of sampling from each decade following the 1972 passage of Title IX.

Separated by division, 173 of these schools are National Collegiate Athletic Association (NCAA) Division I schools and 122 are NCAA Division II schools. A list of these schools appears in Appendix A. I define and analyze schools by year so 1180 school years are the units of analysis. It is important to separate out Division I and Division II and compare these two groups of schools because there are significant differences in the sport environment between these two groups. Therefore the coaching positions and who occupies these positions may show some variation due to these distinctive environments. For example, Division I schools differ from Division II schools in four major ways: required number of sports for women and men, scheduling criteria, attendance requirements for men's football, and minimum and maximum financial aid rewards for schools and sports (http://www.ncaa.org/about/div_criteria.html). Division I institutions must sponsor at least seven sports for women and seven for men and at least two of these sports must be team sports for each sex. Division II institutions are required to sponsor at least four sports for women and four for men (two team sports for both groups) and additionally must have each playing season represented by each sex (http://www.ncaa.org/about/div_criteria.html). In terms of scheduling criteria, women's and men's basketball must play all but two of their games against Division I schools (one third in home arena) while other sport teams must play one hundred percent of their minimum number of contests against Division I opponents. On the other hand, Division II football and women's and men's' basketball must play fifty percent or more of their contests against Division II or Division I teams. Other Division II sports have no scheduling requirements. Division I football teams have certain attendance criteria they must meet whereas no Division II teams have attendance

requirements. In Division I, there are minimum financial aid awards for athletic departments and maximum awards for individual sports. Division II sports have maximum financial aid awards and usually have a lot of local or in-state student-athletes. Many Division II athletes do not receive full or in some cases any kind of scholarship so they often contribute through various methods toward their educational expenses.

Sampling Procedure

Different sampling methods were utilized for this sample of Division I and Division II institutions. In Division I, I used purposive sampling because my goal was to select a geographically representative sample and ensure a balance of both "powerhouse" athletic conferences and lower ranked athletic conferences. I selected four conferences from each of the four regions of the country for Division I schools.[xiii] Two of these four conferences were highly competitive athletic conferences with strong national reputations and the other two were lower tier conferences with less national prominence. In Division II, with which I have less familiarity, I employed a probability sampling methods called systematic sampling where I obtained a list of Division II institutions, divided it into eight regions from a NCAA website and systematically selected every other conference from this list leading to the selection of sixteen different conferences.

Data Sources

The data for these analyses were gathered from a variety of archival sources. These sources include the following: *The Blue Book of College Athletics* (four editions), *The NCAA Directory* (four editions), various university and college websites, and the National Association of Collegiate Athletic Directors website (http://nacda.collegesports.com).

The Blue Book of College Athletics is the primary data source for these analyses and is an annual publication that has been published every year since 1931. This source provided me with the names of each women's team coach from which I was able to determine their sex. In the case of gender-neutral names, I did a web-based search and in most cases was able to find other sources that allowed me to determine the sex of the coach. *The Blue Book* also contained the names of university/college presidents, athletic directors, school denomination, a list of men's and women's sports, and the athletic conference of each school. In some cases, when the athletic director or school president information was missing, I filled in this data with *The NCAA Directory*. This publication has been published on an annual basis since 1975 and contains data from the NCAA's database on individual schools, conferences, and various athletic associations. The primary difference between *The Blue Book* and *The NCAA Directory* is the directory does not have individual coach and team information. It includes only school location, contact information, and a list of athletic administrators.

I used various university and college websites to find out the institutional status (private or pubic) of the school if it was not evident in the previously mentioned sources. The National Association of Collegiate Athletic Directors website provided PDF files with the Director's Cup Rankings which are used to determine the all-sport national award for athletic departments in the NCAA. It is a cross sectional all-sport award given to the top athletic program every year. Separate awards are given for Division I (since 1993-1994), Division II (since 1995-1996), Division III (since 1995-1996), and NAIA (since 1995-1996).

Variables

All variables used in these analyses are included in Table 1 with the source they came from and the method of coding.

Dependent Variables

Sex of Head Coach for Women's Athletic Team. The outcome of interest is the sex of a head coach on a woman's athletic team. This dichotomous variable is coded 1 for male and 0 for female. There are six dependent variables used to measure the effects for different sports: basketball, volleyball, soccer, softball, track & field, and swimming. The data for this variable came from *The Blue Book of College Athletics* (four editions).

Independent Variables

Total Number of Women's Athletic Teams in Institution. This variable was calculated by adding up the number of all varsity athletic teams for women at each institution. The data for this variable came from *The Blue Book of College Athletics* (four editions)

Percentage of Other Male Coaches in Athletic Department. Another predictor variable is the percentage of other male coaches in the athletic department of a school. This variable was calculated in six different forms for the six sports analyzed in this study. Therefore the percentage of other male coaches in the athletic department, excluding the coach for the sport under analyses was calculated six times (basketball, volleyball, soccer, softball, track, swimming). This variable was constructed by taking the number of male coaches for women's teams and subtracting the coach of each specific sport, divided by the total number of women's team coaches minus one. This variable was calculated for all four years of observation. The data for this variable came from *The Blue Book of College Athletics* (four editions).

Percentage of Other Male Coaches in Athletic Conference. Another predictor variable is the percentage of other male coaches in the athletic conference, recorded for each school and each sport. The percentage of other male coaches in the athletic conference was calculated for each school, always excluding the coach at that school and was done for all sports: basketball,

volleyball, soccer, softball, track, swimming. This variable was constructed for each school under observation by taking the number of male coaches for women's teams in each sport in the conference (not including the coach from that school) and dividing this number by the total number of women's team coaches in the conference. This variable was calculated for every school when there were at least three or more teams in a particular sport in the conference and for all four years of observation. The data for this variable came from *The Blue Book of College Athletics* (four editions).

Powerhouse Conference Ranking. Athletic powerhouse schools are defined by their final rank in the NCAA's Sport's Academy Director's Cup competition. The Director's Cup is a competition among all schools with varsity athletic teams. The success of all women's and men's teams are combined and used to estimate each school's final ranking at the end of the academic and athletic year. This variable was constructed separately for Division I and Division II schools for the third and fourth panels (1995-1996 and 2001-2002) because data was not available for the earlier two panels. In 1995-1996, Division I had two hundred forty-one schools and Division II had one hundred seventy-two schools in the Director's Cup Final Standings. In 2001-2002, Division I had two hundred sixty-five schools and Division II had two hundred thirteen schools in the final standings. Since all schools in my sample were not included in the standings, I created two different powerhouse conference variables. The first variable was created by taking the top thirty schools and determining which conferences had four or more representative at the Division I level and two or more representatives at the Division II level. These were coded as "powerhouse conferences." Hence, all schools in a conference with a strong representation in the final standings were coded 1. Other schools in conferences not well represented in the top thirty of the final standings were coded 0.

The second version of this variable was created by grouping all schools into their conference and then using their Sears Cup scores, calculating the average Sears Cup score for each conference. Schools that had no Sears Cup score were coded as zero. Next, the average Sears Cup conference score was calculated and any conference that scored at or above the average was coded as a powerhouse conference (1) and all other conferences were coded as non-powerhouse conferences (0). Therefore, each individual school received a code based on these calculations. The data for these two powerhouse conference variables came from the *Director's Cup Rankings* from the National Association of Collegiate Athletic Directors website.

Controls

Athletic Director. One control variable is sex of the athletic director. The athletic director is the highest-ranking administrator in an institution's intercollegiate athletic program and either makes or approves final decisions on hiring in the athletic department. Like my dependent variable, this dichotomous variable is coded 1 for male and 0 for female. I identified sex of athletic director for ninety-five percent of my observations. This variable was calculated for all four years of observation. The data for this variable came from *The Blue Book of College Athletics* (four editions) and *The NCAA Directory* (four editions).

College/University President. I include a control for sex of the university president. The university president is the highest-ranking administrator in an institution and at some schools can have significant influence over intercollegiate athletic directors who make or approve final decisions on hiring head coaches in an athletic department. Like previous variables, this dichotomous variable is coded 1 for male and 0 for female. I identified sex of university president for ninety percent of my observations. This variable was calculated for all four years

of observation. The data for this variable came from *The Blue Book of College Athletics* (four editions) and *The NCAA Directory* (four editions).

Total Number of Athletic Teams in Institution. This variable was calculated by adding up the number of all varsity athletic teams for women and men at each institution. The data for this variable came from *The Blue Book of College Athletics* (four editions).

Non-Religious Private Institution. This dichotomous variable was measured to designate institutions with religious affiliations and those with no religious affiliation. This variable was calculated by combining two variables called "religion" (coded 1=religious and 0=no religious affiliation) and "institution" (coded 1=public, 0=private) into one variable. Institutions were coded as 1 if they were a nonreligious private institution and 0 if they were a public institution (reference category). The data for this variable came from *The Blue Book of College Athletics* (four editions) and various university and college websites.

Religious Private Institution. This dichotomous variable was measured to designate institutions that were private religious and those that were not private religious. This variable was calculated by combining two variables called "religion" (coded 1=religious and 0=no religious affiliation) and "institution" (coded 1=public, 0=private) into one variable. Institutions were coded as 1 if they were a private religious institution and 0 if they were a public institution (the reference category). The data for this variable came from *The Blue Book of College Athletics* (four editions) and various university and college websites.

Region of Country. I include a dummy variable for every institution's region. This code is assigned to each institution based on the state they were in according to United States Census Bureau designations. This variable was calculated for all four years of observation.[xiv] The data for this variable came from the United States Census Bureau.

Time. I included a time variable for the powerhouse conference models. Data was included for two years and a dummy variable was created for this measure. Time was coded 1 for the 2002-2003 data and 0 for the 1995-1996 data.

Methods

Microsoft Excel 2000 was used to perform data management procedures and Intercooled STATA 8.0 was used to perform all statistical analyses. I used pooled time series models in my logistic regression analyses to assess the effects of predictor variables and controls on the sex composition of head coaches in six women's intercollegiate sports: basketball, volleyball, soccer, softball, track & field, and swimming. Logistic regression was used because it is the appropriate method when models contain a binary dependent variable like sex of coach (Long 1997). Analyses began with simple descriptive statistics to measure trends in sex of coach over the four panels. Logistic regression was then employed to test the value of my predictor variables. Correlations were run on all of my models to ensure that multicollinearity was not a problem among my variables. Please see Appendix B for entire correlation tables. There are some highly correlated variables in these tables but they were not ever used together in the same models. Chapter four will present the results of my analyses and chapter five will discuss the results of this research.

CHAPTER FOUR

RESULTS AND DISCUSSION

Descriptive Results. Before discussing the multivariate results and hypothesis tests I will

summarize some of the descriptive statistics that outline a picture of the growth and trends in

women's intercollegiate athletics over time. The number of women's collegiate athletic teams

has generally increased over the four time periods examined in this study and is presented in

Table 2.

By sport, basketball grew the most over time followed by volleyball, soccer, softball,

track & field, and swimming. In terms of growth in numbers by division, Division I, which has

always had a larger number of teams, grew more rapidly than Division II in total numbers.

Looking at this growth over time period, there was enormous growth in absolute numbers

between period one (1973-1974) and period 2 (1985-1986) in both divisions (See Table 2),

which was certainly due in large part to institutions striving to come into compliance with Title

IX standards. The increase in number of teams between the remaining time periods was much

more modest than the large increase following the passage of Title IX legislation.

On the coaching front, there has been a steady growth of men coaching women's

collegiate athletic teams from the late 1970s to 2004 (Acosta and Carpenter 2005). In 1972, the

year Title IX was enacted, over 90 percent of coaches in all divisions and all sports were female.

Six years later in 1978 when compliance with Title IX became mandatory, that percentage

changed to 58.2, which meant there has been a significant influx of men into the occupation of

coaching women's collegiate teams. As of 2004, men comprise 55.9 percent of the coaches for

women's teams. See figures 1-4 on pages 91-93 for detailed overtime representations of the sex

composition of coaches for women's teams overall, by division, and by sport (Acosta & Carpenter 2005).

The descriptive results for variables used in these analyses are in Table 3. The means, standard deviations, and ranges for all dependent and independent variables were calculated for Division I, Division II, and both divisions grouped together in the descriptive statistics. There were six dependent variables calculated to account for all six sports examined in this study. All of these dependent variables measured the odds of a male head coach at each school with data gathered from four time periods in each of the following sports: basketball, volleyball, soccer, softball, track & field, and swimming.[xv] These dependent variables are binary variables so all six variables ranged from 0-1 (0=female, 1=male). The number of observations for head basketball coaches over this four year panel was 816 and on average, they were 40 percent male. Head volleyball coaches were also 40 percent male but had slightly less than basketball with total observations of 720. Head softball coaches on average were 35 percent male and totaled 607 observations. On the other hand, soccer, track & field, and swimming had much higher mean scores for male coaches, which gave a picture of a more male dominated position in these three sports. The average for male coaches in soccer was 74 percent (N=455) and swimming had a slightly higher average of 77 percent (N=400). However, women's track & field recorded the highest average of male head coaches with a mean of 80 percent (N=503). Based on these descriptive results, the sports with lower total number of teams (soccer, swimming, track & field) had higher averages of male head coaches than those sports with higher numbers of teams (basketball, volleyball, and softball). This preliminary result suggests that sports with longer standing traditions of popularity at the collegiate level (Acosta and Carpenter 2005) like

basketball, volleyball, softball were more likely to have a higher representation of female head coaches.

When you look at these descriptive statistics and separate the dependent variables out by division, the three sports of soccer (69 percent), track & field (80 percent), and swimming (77 percent) tended to have higher means of male coaches in women's athletics while softball (27 percent) revealed the lowest average for male coaches in Division I. Conversely, the means of male coaches for basketball (31 percent) and volleyball (41 percent) were close in range. Roughly equivalent to Division I, in Division II, sports like soccer (84 percent), track & field (79 percent), and swimming (75 percent) recorded higher means in comparison to basketball (55 percent), volleyball (38 percent), and softball (46 percent).

In conclusion there were minor differences in some sports and significant difference between means in other sports. Basketball, soccer, and softball showed significant differences in the means between Division I and II (basketball $p<.001$, softball $p<.001$, and soccer $p<.001$). Whereas volleyball, track & field, and swimming did not have any major difference in means between Division I and II. These differences suggest that there is some gender variation in head coaching positions in sports like basketball, soccer, and softball between divisions, but this variation is not as evident in other sports like volleyball, track & field, and swimming.

These gender distinctions in coaching between sports were consistent across divisions. Soccer, track & field, and swimming all had higher averages of male coaches in contrast to basketball, volleyball, and softball, which recorded higher averages of female coaches. One unique aspect of soccer as a sport is its immense growth and increase in popularity following Title IX making it a true beneficiary of the gender equity legislation. This growth may have attracted male soccer coaches who were unable to break into men's soccer and with the pre-Title

IX lack of interest in women's soccer there may not have been many women interested in coaching at the time. On the other hand, swimming and track and field are distinctive because they are smaller and less visible sports the women's and men's teams often train together which has meant that over the years institutions have often hired one coach for both teams and the likelihood of women's coaches in men's athletics is a very rare occurrence. Likewise, softball, volleyball, and basketball have retained very popular positions within women's sport over time and this may account for the smaller numbers of male coaches.

Multivariate Results – Institutional Theory – Part 1. The first section of my multivariate results summarizes the effects of the predictor variable, number of women's athletic teams, on the odds of a male coach. One of the three mechanisms of change in institutional isomorphism is coercive processes that organizations experience when there are certain cultural expectations about how they should operate and the image they present in relation to other organizations in the field (DiMaggio & Powell 1983). One cultural expectation is that the sphere of sport is a very masculinized realm and men are more often expected to appear in key positions like coaching (Birrel 1987; Theberge 1990; Knoppers 1992). However, organizations also strive to appear legitimate by giving the appearance that they are achieving certain socially and legally sanctioned expectations like gender equity. Therefore I predict that schools with a higher number of women's teams will strive to appear more legitimate by placing women in the coaching positions for women's teams.

>*H1: A higher number of female sport teams will decrease the odds that a head coach is male.*

Tables 4a and 4b contain nested models for each sport along with school control variables and controls for time.

Five of the twelve models reported a significant *decrease* in the odds of a head coach being male with a one unit increase in total number of women's sport teams. Overall, these results support the prediction in hypothesis one that a higher number of female sport teams will decrease the odds that a head coach is male. In basketball the predictor variable significantly decreased the odds of a male coach by 7 percent at the Division I level (p<.05) and 14 percent at the Division II level (p<.05). At the Division I level, softball (p<.001), track & field (p<.05), and swimming (p<.10) significantly decreased the odds of a male coach anywhere from 9 to 19 percent.

To contrast, the sports where total number of women's sports teams *increased* the odds of a male coach (soccer and track & field, p<.10) were only in Division II. These were also two of the sports that had higher overall means of male coaches as discussed in the descriptive results. Therefore, the presence of women's teams in Division I sports has a more negative effect on the presence of a male coach in comparison to Division II.

This distinction between divisions demonstrates that at schools with significant support for women's athletics exhibited through the number of women's athletic teams, there is a higher odds that the coaches of these teams will be female. This could reveal a source of pressure on the athletic program and school in the form of coercive isomorphism to hire female coaches (DiMaggio and Powell 1983). While Title IX is only applicable to student-athletes, most educational institutions have hiring practice regulations that require them to not show any preferential treatment by sex in hiring. In an environment like sport that already has a substantial male focus and representation, women's sports may be the only branch left in the athletic department where the institution can demonstrate they are equal opportunity employers. In addition, more informal pressures could be at work that compel the program to hire female

coaches who can serve as role models for their players and show that there are future employment opportunities in athletics for these female student-athletes whose professional sport opportunities are few and far between in comparison to men.

Furthermore, Division II athletics is considered a less prestigious level of intercollegiate sport and therefore less visible to the public. This is evident as institutions invest substantially less in their athletic programs and have less teams than Division I schools. Perhaps these types of schools do not feel as much pressure to demonstrate gender equity in hiring because they do not have an environment like Division I sports with large resource draining sports like men's basketball and football. Therefore, the distribution of funding is a lot simpler at the Division II level and easier to distribute funds in an equitable way so the pressure to demonstrate gender equity in other components like hiring is not as urgent.

Another element of this pattern of male coaches at Division II schools with more total women's teams is that in the descriptive statistics the sports of soccer and track and field in Division II had higher means of male coaches. This may indicate that despite a more visible presence and attention to women's sport in general, in Division II these sports have historically been male dominated. Track and field has often been a sport where there was one coach for both the women's and men's teams and soccer was one of the emerging sports that grew rapidly following the passage of Title IX. So the odds that schools hired a male coach over a female coach when they only had one position for both teams combined with the wealth of opportunities that the growth of women's soccer presented could explain the higher odds of male coaches in these two sports at the Division II level.

Institutional Theory – Part 2. The second section of my multivariate results summarizes the effects of the percentage of male coaches in athletic department on the odds of a male coach.

Institutional isomorphism was previously applied to coercive processes but it also occurs through

normative processes that lead organizations in the process of professionalization. While

professionalization is typically referred to through formal education and professional networks in

the literature, professionalization also happens when certain norms and standards in an

occupational subculture are institutionalized (DiMaggio and Powell 1983). The athletic

department at a school generates its own occupational subculture over time based on various

decisions made about issues like hiring personnel, distributing of funds, generation of revenue,

academic needs, and community involvement. Therefore, in line with institutional theory, I

hypothesized that the presence of other male coaches in the athletic department would

demonstrate an institutionalization of certain norms and standards around hiring men for

coaching positions. For that reason hypothesis three tests the predictability of the percentage of

male coaches in an athletic department on odds of a male coach.

> *H2: A higher percentage of other male head coaches in an athletic department will*
>
> *increase the odds that a head coach in a specific sport is male.*

Tables 5a and 5b contain an initial and a full model for each sport along with the following

control variables: athletic director, university/college president, total number of women's and

men's sports at school, and school variables (non-religious schools and religious private

schools). Athletic director was includes as a control variable in these models because of their

direct influence on what coach is hired. Total number of sports was included in this model

because a higher number of sports in the department may indicate a stronger and more thriving

athletic program that might attract more male coaches due to the prestige and resources

available. Please see previous sections for explanations of why the other two control variables –

university/college president and school variables - were included. My results focus on the results in the full model.

Two of the ten[xvi] models reported a significant increase in the odds of a head coach being male with an increase in percentage of male coaches in the athletic department at the Division I level (basketball, p<.05; softball, p<.05). In Division II, volleyball decreased the odds of a male coach (p<.01). These results show some support for hypothesis two which predicted a higher percentage of other male coaches in the athletic department would increase the odds of a male coach in Division I basketball and softball.

However, Division I soccer had the only significant predictor variable that decreased the odds of a male coach (p< .10) by 72 percent. One noteworthy aspect of these finding is with the exception of Division I soccer, all of the significant predictor variables greatly increased the odds of a male coach. For example, in Division I basketball, a one-unit increase in the percentage of male coaches in the department yielded a 209 percent increase in the odds that the basketball coach would be male. Similarly, in Division II volleyball and Division I softball, there was a 439 to 454 percent increase in the odds that the coaches would be male in these sports.

The world of coaching in intercollegiate athletics is a historically male field (Birrel 1987; Theberge 1990; Knoppers 1992). When dominant groups retain control over powerful and prestigious positions they work especially hard to restrict the entrance of outsiders into these positions (Reskin 1988). Historically sport was the playfield of middle and upper middle class white men until they realized they could use sport as a means of social control in an increasingly capitalist society that required a disciplined and hard working labor force (Messner 1992). This philosophy led to the opening of doors in sport for working class men and people of color. Yet

this change did not just generate productive workers, it also turned sport into a environment in which social meanings, identities, and inequality could be contested. These kind of challenges can cause powerful groups like men in sport to clamp down on the entrances in spheres like an athletic department.

Past research on organizational work environments has shown that men in masculinized domains prefer a socially homogeneous environment because it provides them with a great degree of comfort when they are in the company of similar men who team with them in the reproduction of the masculine environment (Lipman-Bluman 1976; Kanter 1977; Witz and Savage 1992; Collinson and Hearn 1995; Bird 1996). The results of this hypothesis for Division I basketball and softball and Division two volleyball show support for DiMaggio and Powell's (1991) contention about the use of normative processes by work groups. They also show signs of homosocial bonding that occurs in highly masculinized environments. The presence of other workers can play a major role in defining the culture of the work environment as masculine and thus regulating the entry of new workers. Therefore, these results confirm this combination of theories on work environments by showing an increase in the percentage of male coaches in an athletic department increased the odds of a male coach in the sports of basketball, volleyball, and softball.

These robust results in Division I sports like basketball and softball suggest that the increased number of other male coaches in an athletic department plays a significant role in predicting the odds of a male coach as well as in Division II volleyball. Interestingly enough, the percentage of other male coaches appears to be more important in this case than the long standing tradition of a higher overall mean of female coaches as shown earlier in the descriptive statistics.

However, Division I soccer presents a bit of a paradox as a higher percentage of male coaches in the athletic department decreased the odds of a male coach by a substantial 72 percent. While men have historically had a higher percentage of the coaching positions in women's soccer, this result may indicate that more women are beginning to enter the coaching ranks in soccer. When Title IX was passed, soccer was not one of the more popular sports for women, in fact it was ranked twenty out of twenty-four on the popularity list of women's sport in 1977 and by 2004 it had risen to the third most popular sport (Acosta and Carpenter 2005). So at the time there were not a lot of women coaches in the pipeline for those coaching positions as there may be now with the rise in women's soccer at the collegiate level, in the youth ranks, and internationally with the success of the U.S. Women's National team that has won world championships and Olympic medals. Yet, this is further complicated by coaching trends that show the overall percentage of male coaches in 1977 was 70.6 percent and in 2004 it was 69.9 percent so overall the numbers of male coaches have stayed largely the same (Acosta and Carpenter 2005). This question of what role soccer plays in the odds of a male coach will be further addressed in the conclusion of this study when the results in their entirety are discussed.

Institutional Theory – Part 3. Similar to the previous section but taking the analyses to the conference level, this section reports on the effect of percentage of male coaches in a school's conference on the school's odds of having a male coach in each sport. Through mimetic processes, organizations often imitate each other without regard for efficiency because they want to be identified with other successful organizations in the organizational field (DiMaggio and Powell 1983). Mimicking other successful organizations can garner these organizations an external indication of increased prestige. Athletic conferences may attempt to imitate each other since they are in close proximity and competing for various resources (e.g.

recruits, coaches, hosting conference tournament). The strategies of successful teams whether it be their competitive strategies (e.g. game or match strategies), conditioning and weight training programs, the use of special assistants (e.g. nutritionists, sports psychologists) or the type of student-athlete they recruit can be key components of their accomplishments that other schools may try to mimic.

Therefore, in line with institutional theory, in hypothesis three, I predicted that the percentage of other male coaches in the conference would be a significant predictor on the odds of a male coach.

H3: A higher percentage of other male head coaches in a certain sport within the athletic conference will increase the odds that a head coach is male.

Tables 6a and 6b contain an initial and full model for each sport along with one control variable, region of country. Region of country is included because schools in athletic conferences are generally located in the same region of the country and therefore it is important to separate out the effects of region from the predictor variable. For example, the Pacific Ten conference includes schools in Washington, Oregon, California, and Arizona. Since these models concentrate on the conference level of analysis, school level variables (nonreligious and religious private, school president, athletic director) were not included in these models. My results focus on the results in the full model.

Division II swimming[xvii] (p<.01) reported an increase in the odds of a head coach being male. Division I basketball (p<.05) and track and field (p<.01) reported a decrease in the odds of a male coach male with a one unit increase in percent of male coaches in conference. One factor that might explain this decrease in the odds of a male basketball coach is that schools in conferences who already have a large contingent of male coaches may see a recruiting or public

relations advantage to hiring a female basketball coach. This aspect of their team might set them apart from other schools and make their program unique with a female coach. Furthermore, since women's basketball is the most popular and visible women's collegiate sport, a school may feel pressured to resist the "old boys" hiring network and make an effort to lead gender integration efforts within the conference coaching ranks since they know that the basketball team will more often than not receive the most public attention in comparison to other women's sports in the program.

However, in Division II swimming, an increase in the percentage of male coaches in the conference significantly *increased* the odds 7.23 times of a male coach. The initial model for this dependent variable showed an even higher odds ratio (10.06**) and while it dropped slightly with regions of country controls, it still maintained strong odds of a male coach. This result could reflect the fact that there are fewer professional opportunities for swimming coaches outside of the college environment. As discussed in chapter one, swimming has been a more noticeable sport at the Olympic than the collegiate level. Many of the exceptional swimmers do not even bother entering college or in some cases like Janet Evans, they leave college early due to stringent guidelines placed on the training regimens of college swimmers. At the same time, there are much fewer competitive Olympic level swimmers in need of a coach than in other sports that have more individual athletes or teams with coaching positions to fill. In addition, overall statistics of gender in swimming coaches show that men have increased their presence in women's intercollegiate swimming over the years with a 46.4 percent share in 1977 to 74.4 percent in 2004. Thus something has drawn more men into these positions and it may be related to the limited career opportunities beyond the collegiate level. These results both support and

challenge hypothesis three, which stated that a higher percentage of male head coaches in an athletic conference would increase the odds that a head coach is male.

Institutional Theory – Part 4. This final section of results evaluates the effects of two powerhouse conference variables on the net odds of having a male coach in each of the six sports. In line with institutional theory, it is expected that schools in powerhouse conferences will mimic each other to improve their performance and remain competitive with other organizations (schools in their conference) in their field (DiMaggio & Powell 1983). Furthermore, coercive processes are also in operation as conformity to certain cultural norms that view sport as a male domain and prestigious coaching positions as more appropriate occupations for men (Birrel 1987; Theberge 1990; Knoppers 1992). Therefore, I hypothesized that when a school is designated as being a member of a powerhouse conference, this will increase the odds of a male coach in these six sports. So hypothesis four tests the predictability of the powerhouse conference designation on the odds of a male coach.

> H4: *Membership in a powerhouse conference will increase the odds that a head coach is*
>
> *male.*

There are two different measures of the powerhouse conference variable. Please see pages **56-57** in the methods chapter for a more in depth explanation of these two powerhouse conference measurements. Percentage of male coaches in conference is used as a control variable for both models because a higher number of male coaches in the conference may indicate a stronger and more thriving conference, which in turn might attract more male coaches due to the prestige and reputation factors. In addition, in order to determine whether time is a factor in comparisons of this powerhouse conference ranking, a dummy variable for time period is also included as a control for the latter two time periods that powerhouse conference data was available in. School

variables (nonreligious and religious private) and other school level influences (e.g.

university/college president, athletic director, and total number of women's teams) were not

appropriate for this theory and the two forms of powerhouse conference variables used here.

Tables 7 summarize the results of these models in an initial (7a) and full model (7b).

Powerhouse Variable I. In analyses for the first powerhouse variable, four of the twelve

models reported a significant *decrease* in the odds of a head coach being male when a school is

in a powerhouse conference. These powerhouse conference variables included basketball

(p<.05) and softball (p<.05), at both the Division I and II levels. These results, which are in

sharp contrast to the hypothesis, suggest that membership in a powerhouse conference decreased

the odds of a male coach. This is surprising because much of the scholarly literature on sport has

argued that since sport is by definition a very male dominated sphere that men would be even

more likely to appear in the coaching positions in the highly competitive and elite programs.

The sports of basketball and softball which had significant predictor variables at both

Division I and II demonstrated fairly substantial negative effects ranging from a 41 to 54 percent

decrease in the odds that a basketball or softball coach would be male when in a powerhouse

conference. However, both of these sports still in overall numbers have a majority of female

coaches with 60.7 percent in basketball and 64.8 in softball (Acosta and Carpenter 2005). Again,

these results seriously challenge hypothesis four which stated that membership in a powerhouse

conference school would increase the odds of a male coach.

Powerhouse Variable II. Tables 8 contain an initial model (8a) and full model (8b) for

the results for the second powerhouse conference variable. Three of the eleven models[xviii]

reported a *decrease* in odds of a head coach being male when a school was in a powerhouse

conference. Division I volleyball was the only sport where a powerhouse conference designation

increased the odds of a male coach, in this case by 65 percent (p<.05). These results for

volleyball follow hypothesis four that membership in a powerhouse conference would increase

the odds that a head coach is male. Yet this was the only sport in both powerhouse conference

models that produced an odds ratio in favor of a male coach. In overall numbers, volleyball is

still one of the few sports that have a majority female presence in the head coaching position

(Acosta and Carpenter 2005). So this result is perplexing but might simply be explained by the

different measure used in this powerhouse conference model.

Three of these predictor variables (basketball p<.05; soccer, p<.10; softball, p<.05) were

statistically significant at the Division I level and decreased the odds of a male coach anywhere

from 42 to 61 percent. These results (with the exception of Division I volleyball) like with the

previous powerhouse conference measure, go against hypothesis four which predicted that

powerhouse conference schools would increase the odds of a male coach. The three sports that

reported a decrease in the odds of male coach in a powerhouse conference also showed fairly

significant effects ranging from a 42 to 61 percent drop in the odds of a male coach.

However one difference from the previous powerhouse conference measure was the

inclusion of soccer, which has historically been dominated by male coaches. Again, these results

seriously question whether elite athletic programs in powerhouse conference schools necessarily

target male coaches because of the masculine realm of sport. Overall, basketball and softball

still hold a majority of female coaches but soccer has a majority of male coaches. It may be the

case that there is another unidentified mechanism involved beyond the overall numbers that

increases the odds of a female coach in these highly visible and powerful athletic programs.

All Key Variables in One Model. In order to measure which predictor variable had the

strongest influence on the odds of a male coach, I included all of these variables in one model.

Table 9 includes separate models for each division and sport. Due to data irregularities I will not discuss these models in either division for the sports of track and field and swimming.

Looking at these results by variable, the school variables (nonreligious and religious private), the Midwest and southern regions, and the percentage of other male coaches in the conference were significant more often across all divisions and sports than any of the other predicator variables. In particular, the nonreligious school variable greatly increased the odds of a male coach in Division II volleyball by 347 percent (p<.01), Division I soccer by 282 percent (p<.05), and Division I softball by a little over 1000 percent (p<.001). Religious private also had some substantial odds ratios in Division II volleyball it increased the odds of a male coach by 129 percent (p<.05), Division I soccer by 128 percent (p<.05), and in Division I softball by 339 percent (p<.01). Since public institutions are the reference category for these variables it indicates that males have better odds to be coaches at both nonreligious private and religious private institutions and women are more likely to acquire coaching positions at public institutions. This could be looked at as a reflection of the EEOC and Affirmative Action policies that are often strong components of public educational institutions and these institutional aspects of the hiring process may reach beyond faculty and non-athletic staff positions into head coaching positions in women's sport.

In all the significant Midwest and south variables with the exception of Division I and II soccer, the odds of male coaches were lower which suggests that the excluded category, the eastern region, is an area in which there are more male coaches of women's teams. On the other hand, in Division I soccer, there was an increase in the odds of a male head coach in both the Midwest and southern region.

When examining the percentage of male coaches in a conference variable, the odds of male coaches decreased by 86 percent in Division I basketball (p<.01), 83 percent in Division I soccer (p<.05), and 98 percent in Division I softball (p<.01). Therefore, percentage of other male coaches in a conference was a very important negative predictor of the odds of a male coach in the three Division I sports of basketball, soccer, and softball. This is in line with the previous model that used percentage of male coaches in a conference as a predictor variable and found negative effects for basketball and track and field and positive effects for swimming. Yet again, this challenges hypothesis three which assumed that more male coaches in the conference would increase the odds of a male coach by school.

The powerhouse conference predictor variable was consistent with its previous effects in the both powerhouse conference models and in this model showed a decrease in the odds of a male coach in Division I basketball and softball. These results further confirm the robustness of this predictor variable and the surprising negative effects of membership in a powerhouse conference on the odds of a male coach in these six women's collegiate sports with the one exception of Division I volleyball.

CHAPTER FIVE

Summary of Findings

One of the most interesting aspects of this study is the focus on women's athletics in the larger male dominated sphere of intercollegiate athletics. However, it is clear that sport is still a male dominated sphere. Yet, Title IX was passed in order to challenge that male dominance and provide girls and women with the same opportunities in sport as men. Thus, this historical trend of men's movement into coaching positions in women's sport is particularly significant because male coaches inevitably have to balance out competing gender dynamics in these positions. On one hand these men are in a job that is defined as masculine, but they are also in women's sport. The prestige in women's sport has increased since the advent of Title IX, but it is still not as elite as men's athletics. Therefore, is the draw for male coaches the availability of more positions and increased power in some segments of women's athletics? Or, as I argue, are there other institutional processes operating in schools, athletic programs, and athletic conferences that affect men's entrance into women's athletics?

The results of this study show support for the use of new institutional theory in predicting the odds of male coaches in women's intercollegiate athletics. This study examined six different sports in two divisions, which created a total of twelve dependent variables. The use of different sports and divisions was done in order to search for potential variation. There is a great degree of variation between these sports in their historical development both inside and outside of college athletics. In addition, Division I and II are significantly different environments in intercollegiate sport. Division I sports have become highly visible and extremely commodified in men's athletics and signs of this growth and expansion are beginning to trickle over into women's sports.

The first hypothesis that used the number of women's sports as a conceptualization of institutional isomorphism in the form of coercive processes showed some support for this idea in Division II basketball and Division I basketball, soccer, track and field, and swimming. The second hypothesis that measured the effects of the percentage of male coaches in an athletic department on the odds of a male coach illustrated minimal support for institutional isomorphism but in the form of normative processes. This was evident in Division I basketball, softball, soccer and Division II volleyball. On the other hand, hypothesis three that included percentage of male coaches in the conference as a predictor found mixed support for its predicted effect on the odds of a male coach. In Division I basketball and track and field results went against the predicted effect while Division II swimming supported the hypothesis. In a surprising turn, hypothesis four that used two different forms of the powerhouse conference variable showed the negative effect these variables had on the odds of a male coach.

Overall, one general conclusion that can be drawn from these results is that a "gendered environment" in women's intercollegiate athletics has significant effects on the sex of head coaches. In this study, this gendered environment comes in the form of the number of women's teams and the percentage of other male coaches in the athletic department or at the conference level. This environment in gendered in two ways. First, the institution of sport is defined as a masculine sphere and this is seen through its symbols and images and the financial support bestowed on men's athletics (Dworkin and Messner 1999). The second way is seen in some of the results in this study that demonstrate a stronger presence of male coaches in an athletic department or conference is correlated with the increased odds of a male coach in some of these sports. Indeed, this confirms that gender is a powerful organizing principle in women's collegiate athletics (Lorber 1994). In fact, when women's and men's athletic programs are

separated out, the presence of male coaches falls substantially (Sanders 1985). Thus, the integration of women and men's intercollegiate athletics also adds to the explanation of this movement by men into coaching women's teams.

However, another interesting result from this study provides a different way of looking at this gender and sport relationship. This is through prestige measures of intercollegiate athletic programs. In sharp contrast to predictions, both powerhouse conference variables showed that the elite ranking of an institution might be more relevant for the presence of women in these coaching positions in Division I basketball, softball, and soccer and Division II basketball and softball. It is expected that male coaches would gravitate to these prestigious programs because of the visibility and financial benefits, resources, and community support for these teams. Attaining jobs in more competitive programs is very much in line with the masculine ethic of sport and of the value assigned to top jobs. Past work and occupations research showed that men's jobs lose their value, they usually leave and find another more important job (Reskin and Roos 1990). This is why the expectation was that men would be more likely to retain positions in powerhouse conference programs. As a result, this finding is perplexing and indicates that there must be more happening in the organizational environment of these powerhouse athletic departments. Indeed, further exploration of these schools through use of the Sears Cup rankings is a line of research that is rich with possibilities for telling a story about elite athletic programs and gendered environments.

Theoretical Implications

One way in which to look at the question that drove this study – what institutional factors affect men's crossing over into women's athletic coaching positions? – is to expand it to the larger issue of gendered social change in U.S. society. Women's entrance into sport was part of

a much bigger shift in women's roles in education and the workplace. This social change led to a crisis in masculinity (Messner 1992; Dworkin and Messner 1999) and a backlash against women's gains in the public sphere (Faludi 1991). Indeed, Lopiano (2001) argued that this entrance of women into sport has made men very uncomfortable. In an effort to retain their dominance in the masculine sphere of sport, they have made athletic careers in coaching or administration very difficult for women in those career paths. Women who follow an athletic career path usually face various barriers like the lesbian stigma in women's sport (Blinde and Taub 1992), discrimination in receiving job offers along with promotions and equal salaries with men (Lopiano 2001; Knoppers, Meyer, Ewing, and Forrest 1989), and the time demands that make coaching positions - especially at the Division I level - very difficult to balance with personal and family needs (Hanlon 1990). In addition, due in part to Title IX, women have a much wider range of career opportunities beyond traditionally female donated fields like nursing and teaching. Therefore, athletic related jobs like coaching and administration for women have a lot of competition from other occupations (Lopiano 2001).

Coincidentally, this question of women's presence as coaches in intercollegiate sport is a timely topic for women activists and the NCAA. The Committee on Women's Athletics is evaluating a proposal to begin an annual hiring report card in intercollegiate women's athletics that is very similar to the one produced by the Black Coaches Association (Wieberg 2006). However, a report card would only confirm what most people already know which is women's numbers have been and continue to decline in coaching positions. While this might draw a wider scope of attention to the issue outside of the sport's world, it would be more beneficial to investigate and identify the mechanisms that are driving this ascriptive inequality (Reskin 2003).

Future Research

This research has generated a few important future research questions that could give further information around this entrance of male coaches into women's athletics. First, why are men attracted to these jobs? Is it just the availability of a job and the increased support and resources available to women's athletics, or is there something else going on at the interactional level that might explain some male coaches' preference for coaching women over men.

In addition, there is a wealth of potential research questions that could be asked through the use of the Sears Cup data on schools with highly successful and powerful athletic programs. What, if any, gender patterns are evident in both powerhouse and nonpowerhouse athletic programs? Do these patterns vary by sport and division? Is there a difference between public and private institutions in these rankings? This is easily accessible public archival data that could be transformed into a tool for understanding athletic programs in higher education.

Another aspect of this gender and coaching dilemma that is not included in this study is what effects do race and ethnic identity have on attaining these positions? Similar to gender, there is clearly documented evidence that people of color have more difficulty landing head coaching positions but this question of how race and ethnicity intersects with gender needs further examination.

Finally, the findings demonstrate that even legal enforcement of federal legislation like Title IX at the institutional level has led to more gender equality for male coaches in women's athletics but it has not had the same effect for women coaches in men's athletics. And Title IX certainly did not change cultural constructions of gender in sport and the sanctions leveled against women in athletics who do not conform to those expectations. This brings to light a significant observation about the relationship between institutional mechanisms like Title IX

with the attitudes and beliefs about women in sport. Mechanisms like Title IX are put in place to change inequalities embedded in the structures of education and sport, but the belief at the foundation of Title IX has not changed traditional notions of gender within sport.

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Table 1. Source and Coding Information for Variables

Variable	Coding	Source
Sex of head coach	1=male 0=female	Blue Book
Athletic director	1=male 0=female	Blue Book and NCAA directory
Other male coaches in athletic department (bb)	Percentage	Blue Book
Other male coaches in athletic conference (bb)	Percentage	Blue Book
Powerhouse Conference Rank 1	1=powerhouse conference 0=non-powerhouse conference	Director's Cup Rankings
Powerhouse Conference Rank 2	1=powerhouse conference 0=non-powerhouse conference	Director's Cup Rankings
Dummy for region of country	1=northeast 2=midwest 3=south 4=west	U.S Census Bureau
Sex of university president	1=male 0=female	Blue Book and NCAA directory
Total number of women's athletic teams at school	Frequency	Blue Book
Total number of athletic teams at school (women and men)	Frequency	Blue Book
Nonreligious private school	1=nonreligious private 0=public	Blue Book and Internet

Table 1 continued. Source and Coding Information for Variables

Variable	Coding	Source
Religious private	1=private religious 0=public	Blue Book and Internet
Division	1=division one 2=division two	Blue Book and NCAA directory
Time	1=2002-2003 0=1995-1996	Director's Cup Rankings

Table 2. Total Number of Women's Collegiate Athletic Teams by Sport, Division, & Year

	1973-74 Division I & II		1985-86 Division I & II		1995-96 Division I & II		2001-02 Division I & II	
Basketball	5	4	160	86	167	107	166	115
Volleyball	7	3	126	67	156	92	157	107
Soccer	0	0	32	7	123	57	152	84
Softball	3	1	99	61	116	92	135	98
Track & Field	3	0	120	28	138	37	134	42
Swimming	3	2	110	14	111	21	113	23
Total	**21**	**10**	**647**	**263**	**811**	**406**	**857**	**469**

Source: Blue Book, National Collegiate Athletic Association (NCAA) Directories, and Internet.

Table 3. Descriptive Statistics for Variables

	Division I				Division II				Total			
	Mean	**SD**	**Range**	**N**	**Mean**	**SD**	**Range**	**N**	**Mean**	**SD**	**Range**	**N**
Dependent Variables												
Male basketball coach	.31	.46	0-1	501	.55	.50	0-1	315	.40***	.49	0-1	816
Male volleyball coach	.41	.49	0-1	449	.38	.49	0-1	271	.40	.49	0-1	720
Male soccer coach	.69	.46	0-1	307	.84	.37	0-1	148	.74***	.44	0-1	455
Male softball coach	.27	.44	0-1	353	.46	.50	0-1	254	.35***	.48	0-1	607
Male track & field coach	.80	.40	0-1	396	.79	.41	0-1	107	.80	.40	0-1	503
Male swimming coach	.77	.42	0-1	340	.75	.44	0-1	60	.77	.42	0-1	400
	Mean	**SD**	**Range**	**N**	**Mean**	**SD**	**Range**	**N**	**Mean**	**SD**	**Range**	**N**
Independent Variables												
Division	1	0	1-1	692	2	0	1-2	488	1.41	.49	1-2	1180
Region of country	2.51	.97	1-4	692	2.43	.90	1-4	488	2.48	.94	1-4	1180
Total # of women's sports	6.22	4.22	0-19	692	3.62	2.78	0-10	487	5.15***	3.91	0-19	1179
Athletic director	.93	.25	0-1	665	.90	.29	0-1	428	.92^t	.27	0-1	1093
School president	.46	.50	0-1	681	.51	.50	0-1	380	.48	.50	0-1	1061
Powerhouse conference 1	.45	.50	0-1	346	.48	.50	0-1	244	.46	.50	0-1	590
Powerhouse conference 2	.31	.46	0-1	346	.25	.43	0-1	244	.28^t	.45	0-1	590

Independent Variables continued	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N
Total sports	15.91	5.91	0-41	692	9.41	4.81	0-23	488	13.22***	6.34	0-41	1180
Nonreligious Private	.11	.31	0-1	692	.19	.39	0-1	488	.14***	.35	0-1	1180
Religious private	.20	.40	0-1	692	.37	.48	0-1	488	.27***	.44	0-1	1180
% of male coaches in athletic department excluding basketball	.42	.22	0-1	692	.39	.38	0-1	312	.41	.35	0-1	1180
% of male coaches in athletic department excluding volleyball	.36	.22	0-1	692	.35	.37	0-1	488	.36	.34	0-1	1180
% of male coaches in athletic department excluding soccer	.24	.19	0-1	692	.19	.31	0-1	488	.22**	.30	0-1	1180
% of male coaches in athletic department excluding softball	.29	.21	0-1	692	.34	.38	0-1	488	.31**	.35	0-1	1180
% of male coaches in athletic department excluding track & field	.30	.30	0-1	692	.13	.26	0-1	488	.23***	.30	0-1	1180

Independent Variables continued	Mean	SD	R	N	Mean	SD	R	N	Mean	SD	R	N
% of male coaches in athletic department excluding swimming	.24	.29	0-1	692	.07	.22	0-1	488	.17***	.27	0-1	1180
% of other male basketball coaches in conference	.31	.14	0-.63	335	.56	.22	0-1	488	.41***	.21	0-1	558
% of other male volleyball coaches in conference	.44	.22	0-1	335	.46	.20	0-1	216	.45	.21	0-1	551
% of other male soccer coaches in conference	.69	.16	.3-1	307	.82	.21	0-1	205	.74***	.19	0-1	512
% of other male softball coaches in conference	.27	.18	0-1	335	.46	.22	0-1	219	.34***	.22	0-1	554
% of other male track & field coaches in conference	.81	.15	.2-1	319	.84	.17	.5-1	111	.82*	.16	.2-1	430
% of other male swimming coaches in conference	.82	.20	0-1	334	.91	.14	.6-1	72	.84***	.19	0-1	406
Midwest region	.30	.46	0-1	692	.25	.44	0-1	488	.28^{t}	.45	0-1	1180
South region	.35	.48	0-1	692	.47	.50	0-1	488	.40***	.49	0-1	1180
West region	.17	.37	0-1	692	.08	.27	0-1	488	.13***	.34	0-1	1180
Time	.50	.50	0-1	346	.50	.50	0-1	244	.50	.50	0-1	590

Source: Blue Book, National Collegiate Athletic Association (NCAA) Directories, and Internet. Notes: Means that were significantly different between Division I and Division II. ^{t}p<.10, *p<.05, **p<.01, ***p<.001.

Table 4a. Summary of Logistic Regression Analysis (e^β)^a – Institutional Theory Part 1 (initial model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
Total # of women's teams	.92 (.04)	.86* (.06)	1.03 (.04)	1.04 (.08)	.97 (.05)	1.22 (.17)	.84*** (.04)	.94 (.07)	.90* (.04)	1.30^t (.20)	.88** (.04)	.98 (.17)
Non-religious												
Religious private												
N	501	315	449	271	307	148	353	254	396	107	340	60
Pseudo R^2	.01	.01	.00	.00	.00	.02	.03	.00	.01	.03	.02	.00
Log likelihood	-308.01	-213.80	-304.17	-180.31	-190.51	-64.55	-199.78	-199.78	-193.88	-52.90	-178.37	-33.73

Table 4b. Summary of Logistic Regression Analysis (e^β)^a – Institutional Theory Part 1 (full model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
Total # of women's teams	.93* (.04)	.86* (.06)	1.05 (.04)	1.02 (.08)	.94 (.05)	1.27^t (.18)	.81*** (.04)	.94 (.07)	.90* (.04)	1.34^t (.23)	.91^t (.05)	.93 (.17)
Non-religious	.71 (.25)	.94 (.31)	.57 (.20)	2.88 (.99)**	2.51^t (1.22)	2.74 (1.80)	4.96*** (2.13)	.78 (.27)	1.35 (.55)	.59 (.47)	.55^t (.20)	1.52 (1.26)
Religious private	1.53^t (.37)	1.35 (.35)	1.13 (.28)	1.47 (.42)	1.50 (.47)	2.79* (1.44)	2.82*** (.87)	.93 (.26)	2.79* (1.37)	1.66 (1.04)	3.65* (1.98)	2.56 (1.95)
N	501	315	449	271	307	148	353	254	396	107	340	60
Pseudo R^2	.02	.02	.01	.03	.01	.05	.08	.00	.03	.04	.05	.02
Log likelihood	-305.65	-212.89	-302.56	-175.48	-187.88	-62.37	-188.75	-174.78	-191.06	-52.19	-172.53	-32.91

Table 5a. Summary of Logistic Regression Analysis $(e^{\beta})^{a}$ – Institutional Theory Part 2 (initial model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
% of male coaches in athletic department	3.92** (1.77)	1.41 (.53)	1.19 (.52)	5.75*** (2.99)	.37 (.25)	2.70 (2.42)	8.79*** (5.56)	1.60 (.77)	NA	NA	2.85[t] (1.79)	2.33 (2.81)
Sex of athletic director									NA	NA		
Sex of president of school									NA	NA		
Total # of sports									NA	NA		
Nonreligious									NA	NA		
Religious private									NA	NA		
N	501	315	449	271	307	148	353	254	NA	NA	340	60
Pseudo R^2	.02	.00	.00	.03	.01	.01	.03	.00	NA	NA	.01	.01
Log likelihood	-305.95	-216.19	-304.51	-174.26	-189.61	-64.99	-199.16	-174.95	NA	NA	-180.51	-33.50

Notes: [a]Standard errors in parentheses. [t]p<.10, *p<.05, **p<.01, ***p<.001. Source: Blue Book and Internet.

Table 5b. Summary of Logistic Regression Analysis (e^{β})[a] – Institutional Theory Part 2 (full model)

Variables	Basketball Div 1	Basketball Div 2	Volleyball Div 1	Volleyball Div 2	Soccer Div 1	Soccer Div 2	Softball Div 1	Softball Div 2	Track & Field Div 1	Track & Field Div 2	Swimming Div 1	Swimming Div 2
% of male coaches in athletic department	3.09* (1.48)	1.61 (.65)	1.38 (.65)	5.39** (2.95)	.28^t (.21)	2.52 (2.36)	5.54* (3.81)	1.49 (.74)	NA	NA	2.25 (1.59)	NA
Sex of athletic director	1.60 (.63)	2.00^t (.75)	.63 (.21)	.78 (.33)	.99 (.45)	1.62 (.97)	1.42 (.69)	.86 (.33)	NA	NA	1.80 (.76)	NA
Sex of president of school	.99 (.21)	1.18 (.29)	1.48* (.30)	.71 (.19)	.94 (.24)	1.18 (.56)	1.02 (.28)	.71 (.19)	NA	NA	1.26 (1.36)	NA
Total # of sports	.94* (.02)	.92* (.03)	1.01 (.02)	.98 (.04)	.99 (.03)	1.04 (.08)	.91*** (.03)	.98 (.04)	NA	NA	.94* (.03)	NA
Nonreligious	.73 (.26)	.89 (.29)	.63 (.22)	3.01** (1.09)	2.03 (1.00)	2.60 (1.75)	6.02*** (2.78)	.75 (.26)	NA	NA	.62 (.25)	NA
Religious private	1.32 (.34)	1.23 (.33)	1.11 (.29)	1.31 (.39)	1.83^t (.61)	2.29 (1.24)	2.36** (.77)	.80 (.24)	NA	NA	3.19* (1.78)	NA
N	479	300	429	256	295	139	339	241	NA	NA	327	NA
Pseudo R^2	.04	.03	.02	.06	.02	.04	.10	.01	NA	NA	.06	NA
Log likelihood	-284.56	-199.64	-286.05	-160.58	-178.82	-60.00	-176.74	-164.54	NA	NA	-160.31	NA

Notes: [a]Standard errors in parentheses. ^{t}p<.10, *p<.05, **p<.01, ***p<.001. Source: Blue Book and Internet.

Table 6a. Summary of Logistic Regression Analysis $(e^\beta)^a$ – Institutional Theory Part 3 (initial model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
% of male coaches in conference	.28 (.24)	3.96* (2.58)	2.60^t (1.40)	2.39 (1.78)	.54 (.46)	4.43 (5.37)	1.37 (1.12)	3.28^t (2.30)	.09^t (.11)	NA	10.06** (7.43)	NA
Midwest										NA		NA
South										NA		NA
West										NA		NA
N	325	209	304	185	262	128	243	182	259	NA	217	NA
Pseudo R^2	.01	.02	.01	.01	.00	.01	.00	.01	.02	NA	.04	NA
Log likelihood	-199.53	-141.32	-204.99	-126.93	-164.84	-53.04	-135.74	-123.59	-122.09	NA	-105.90	NA

Table 6b. Summary of Logistic Regression Analysis $(e^\beta)^a$ – Institutional Theory Part 3 (full model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
% of male coaches in conference	.15* (.14)	2.72 (1.82)	1.56 (.94)	1.57 (1.28)	.53 (.46)	3.01 (3.81)	.28 (.27)	.97 (.79)	.02** (.02)	NA	8.23** (6.59)	NA
Midwest	.70 (.27)	.32* (.15)	1.94^t (.72)	.50 (.24)	1.55 (.60)	.76 (.66)	.32* (.15)	.58 (.27)	1.82 (.84)	NA	1.38 (.65)	NA
South	1.37 (.48)	.32* (.14)	1.26 (.47)	.82 (.35)	1.55 (.57)	.53 (.38)	.58 (.24)	.30** (.13)	2.01 (.89)	NA	1.36 (.69)	NA
West	.77 (.33)	.25* (.17)	2.65* (1.08)	.85 (.54)	1.29 (.53)	.19 (.18)t	1.67 (.79)	1.71 (1.29)	11.33** (9.55)	NA	1.22 (.68)	NA
N	325	209	304	185	262	128	243	182	259	NA	217	NA
Pseudo R^2	.02	.02	.03	.02	.01	.04	.04	.06	.06	NA	.05	NA
Log likelihood	-196.97	-136.74	-201.30	-125.65	-163.95	-51.46	-129.88	-117.98	-116.39	NA	-105.63	NA

Notes: [a]Standard errors in parentheses. [t]p<.10, *p<.05, **p<.01, ***p<.001. Source: Blue Book and Internet.

Table 7a. Summary of Logistic Regression Analysis $(e^{\beta})^a$ – Institutional Theory Part 4A (initial model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
Powerhouse conference I	.66^t (.16)	.47** (.13)	.93 (.21)	.85 (.24)	.75 (.20)	1.16 (.55)	.47* (.15)	.46** (.14)	.68 (.21)	.45 (.32)	.46* (.16)	3.14 (2.33)
% of male coaches in conference												
Time												
N	335	224	315	201	275	141	251	192	273	79	224	44
Pseudo R^2	.01	.03	.00	.00	.00	.00	.02	.03	.01	.02	.02	.05
Log likelihood	-206.79	-150.09	-213.80	-137.83	-171.80	-61.01	-137.20	-128.86	-132.18	-31.21	-112.49	-22.36

Table 7b. Summary of Logistic Regression Analysis $(e^{\beta})^a$ – Institutional Theory Part 4A (full model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
Powerhouse conference I	.59* (.15)	.51* (.16)	.87 (.21)	.78 (.24)	.71 (.20)	.97 (.49)	.46* (.15)	.48* (.16)	.65 (.22)	.68 (.53)	.61 (.24)	3.32 (5.84)
% of male coaches in conference	.16* (.15)	1.99 (1.44)	2.20 (1.23)	2.13 (1.61)	.41 (.36)	4.43 (5.39)	.62 (.54)	1.51 (1.18)	.03* (.04)	2.97 (5.56)	7.09* (5.60)	10.59 (48.06)
Time	.98 (.24)	1.12 (.32)	1.33 (.33)	1.09 (.33)	.96 (.26)	.87 (.47)	.68 (.21)	.68 (.21)	.47* (.16)	.86 (.63)	.93 (.32)	1.17 (1.93)
N	325	209	304	185	262	128	243	182	259	59	217	21
Pseudo R^2	.02	.03	.02	.01	.01	.01	.03	.03	.04	.01	.05	.04
Log likelihood	-197.46	-138.89	204.13	-126.53	-164.06	-53.00	-132.16	-120.72	-119.13	-28.04	-105.04	-8.26

Notes: ^{a}Standard errors in parentheses. ^{t}p<.10, *p<.05, **p<.01, ***p<.001. Source: Blue Book and Internet.

Table 8a. Summary of Logistic Regression Analysis $(e^{\beta})^a$ – Institutional Theory Part 4B (initial model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
Powerhouse conference II	.63^t (.17)	.65 (.20)	1.80* (.44)	1.07 (.34)	.61^t (.16)	.95 (.53)	.42* (.15)	.62 (.21)	.97 (.31)	.43 (.28)	.89 (.30)	NA
% of male coaches in conference												NA
Time												NA
N	335	224	315	201	275	141	251	192	273	79	224	NA
Pseudo R^2	.01	.01	.01	.00	.01	.00	.02	.01	.00	.03	.00	NA
Log likelihood	-206.73	-152.97	-211.02	-137.98	-170.64	-61.05	-136.96	-131.38	-132.92	-31.04	-115.01	NA

Table 8b. Summary of Logistic Regression Analysis $(e^{\beta})^a$ – Institutional Theory Part 4B (full model)

	Basketball		Volleyball		Soccer		Softball		Track & Field		Swimming	
	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2	Div 1	Div 2
Variables												
Powerhouse conference II	.54* (.16)	.74 (.24)	1.65* (.42)	1.00 (.33)	.58^t (.17)	.98 (.57)	.39* (.15)	.70 (.24)	.98 (.33)	.83 (.59)	.89 (.31)	NA
% of male coaches in conference	.14* (.13)	3.25^t (2.19)	1.66 (.95)	2.36 (1.76)	.33 (.29)	4.41 (5.45)	.54 (.48)	2.59 (1.89)	.04* (.06)	2.89 (5.50)	10.07** (7.46)	NA
Time	.98 (.24)	1.14 (.33)	1.38 (.34)	1.11 (.33)	.95 (.26)	.87 (.47)	.66 (.20)	.74 (.23)	.50* (.17)	.92 (.66)	.93 (.32)	NA
N	325	209	304	185	262	128	243	182	259	59	217	NA
Pseudo R^2	.02	.02	.02	.01	.01	.01	.03	.02	.03	.01	.06	NA
Log likelihood	197.20	-140.77	-202.40	-126.87	-163.03	-53.00	-131.60	-122.65	-119.97	-27.79	-103.84	NA

Notes: ^{a}Standard errors in parentheses. ^{t}p<.10, *p<.05, **p<.01, ***p<.001. Source: Blue Book and Internet.

Table 9. Summary of Logistic Regression Analysis (e^{β})[a] – All Key Variables

Variables	Basketball Div 1	Basketball Div 2	Volleyball Div 1	Volleyball Div 2	Soccer Div 1	Soccer Div 2	Softball Div 1	Softball Div 2	Track & Field Div 1	Track & Field Div 2	Swimming Div 1	Swimming Div 2
Sex of athletic director	1.67 (.81)	3.11* (1.51)	.60 (.26)	1.28 (.66)	.91 (.49)	2.38 (1.63)	2.37 (1.97)	1.31 (.65)	1.40 (.81)	NA	3.11[t] (1.84)	NA
Sex of school president	1.30 (.76)	.62 (.36)	1.48 (.79)	.37 (.23)	1.01 (.56)	2.70 (2.17)	1.48 (1.13)	.31* (.19)	1.74 (1.29)	NA	1.72 (1.28)	NA
Total # of women's teams	.94 (.06)	.88 (.09)	1.00 (.07)	.86 (.10)	1.02 (.08)	1.46[t] (.30)	.82 (.08)	1.03 (.12)	.90 (.08)	NA	.94 (.09)	NA
Nonreligious	.70 (.32)	.70 (.33)	.53 (.24)	4.47** (2.29)	3.82* (2.31)	2.06 (1.76)	11.11*** (7.19)	.43 (.23)	1.09 (.65)	NA	.55 (.35)	NA
Religious private	1.06 (.36)	1.11 (.44)	.88 (.30)	2.29* (.91)	2.28* (.89)	3.07 (2.31)	4.39** (2.19)	.62 (.28)	3.16[t] (2.19)	NA	3.11 (2.22)	NA
Midwest region	.39* (.18)	.31* (.19)	1.74 (.74)	1.29 (.78)	2.67* (1.21)	.65 (.74)	.15** (.09)	.50 (.32)	1.81 (1.12)	NA	1.76 (1.02)	NA
South region	1.26 (.54)	.28* (.14)	1.04 (.45)	1.61 (.82)	2.71* (1.25)	.42 (.36)	.58 (.36)	.27** (.14)	1.90 (1.19)	NA	2.38 (1.51)	NA
West region	.48 (.23)	.25[t] (.19)	2.96* (1.42)	1.49 (1.11)	2.06 (1.02)	.39 (.49)	1.70 (1.06)	1.13 (.96)	17.71** (17.26)	NA	1.55 (1.00)	NA
Time	.72 (.42)	1.79 (1.04)	1.11 (.61)	2.57 (1.66)	.97 (.54)	.32 (.27)	.37 (.28)	1.62 (.97)	.22* (.17)	NA	.62 (.46)	NA
% of male coaches in department	2.45 (1.86)	.60 (.37)	.22 (.16)	4.92* (3.92)	.32 (.27)	2.44 (2.83)	2.26 (2.45)	.37 (.28)	109.12*** (134.40)	NA	.63 (.77)	NA
% of male coaches in conference	.04** (.04)	1.90 (1.51)	.94 (.64)	1.24 (1.09)	.17* (.16)	5.43 (7.85)	.02** (.03)	.75 (.76)	.00*** (.00)	NA	.95 (1.11)	NA
Powerhouse conference	.47* (.15)	.70 (.26)	1.07 (.32)	.83 (.31)	.65 (.21)	.79 (.54)	.38[t] (.19)	.50 (.22)	.70 (.31)	NA	.70 (.33)	NA
N	311	198	290	174	251	120	232	171	249	NA	209	NA

Pseudo R^2	.06	.08	.06	.09	.05	.13	.21	.11	.20	NA	.09	NA
Log likelihood	-179.60	-124.03	-185.85	-109.50	-150.09	-43.99	-101.20	-104.47	-96.37	NA	-94.51	NA

Notes: [a]Standard errors in parentheses. [t]p<.10, *p<.05, **p<.01, ***p<.001. Source: Blue Book and Internet.

Figure 1. Percentage of male coaches by division
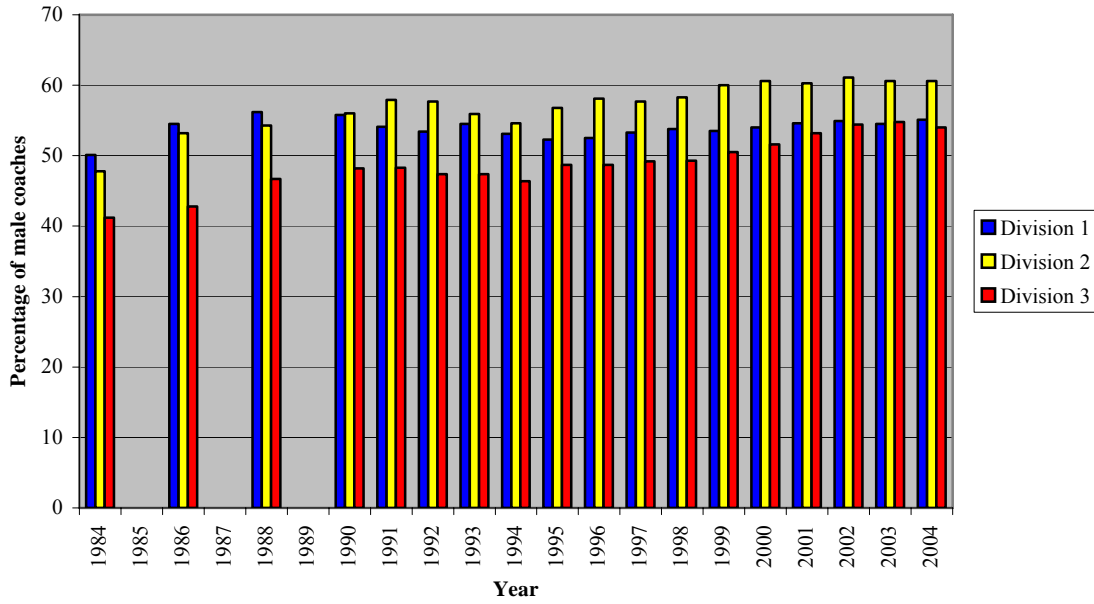
Figure 2. Percentage of male coaches in women's athletics from 1984 to 2004 by division
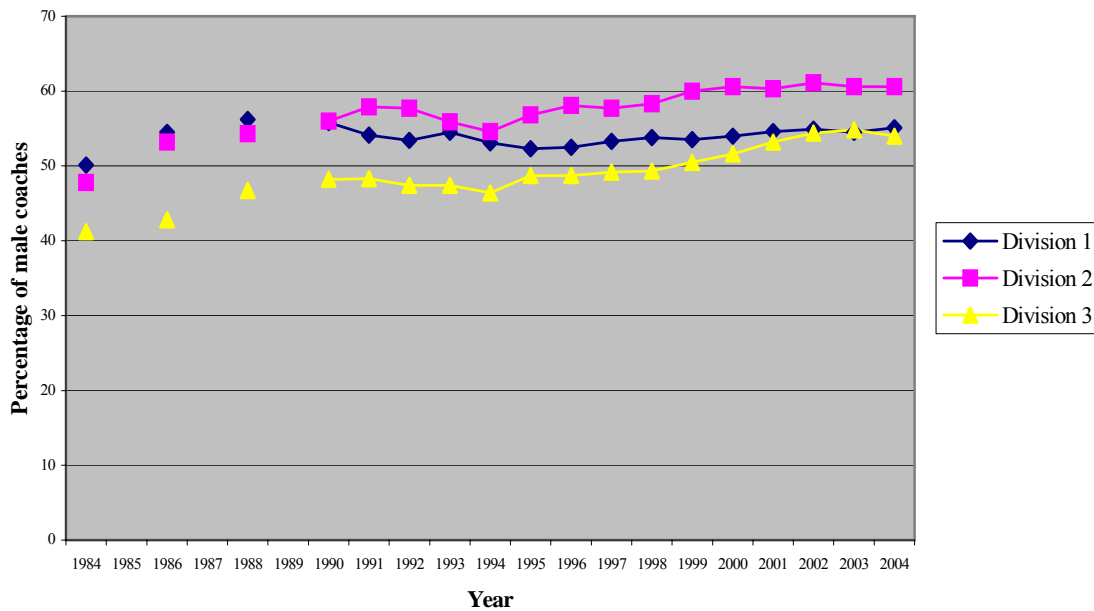
Figure 3. Percentage of male coaches in women's athletics by sport from 1977 to 2004
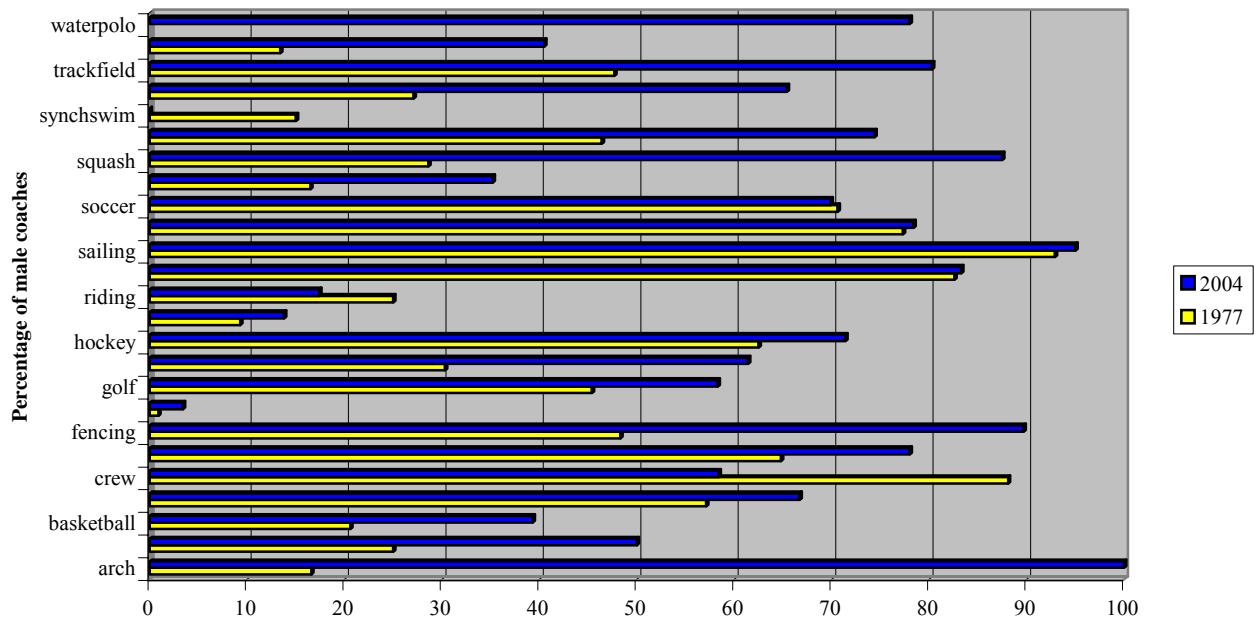
Figure 4. Percentage of male coaches in women's athletics by sport in 1977 and 2004
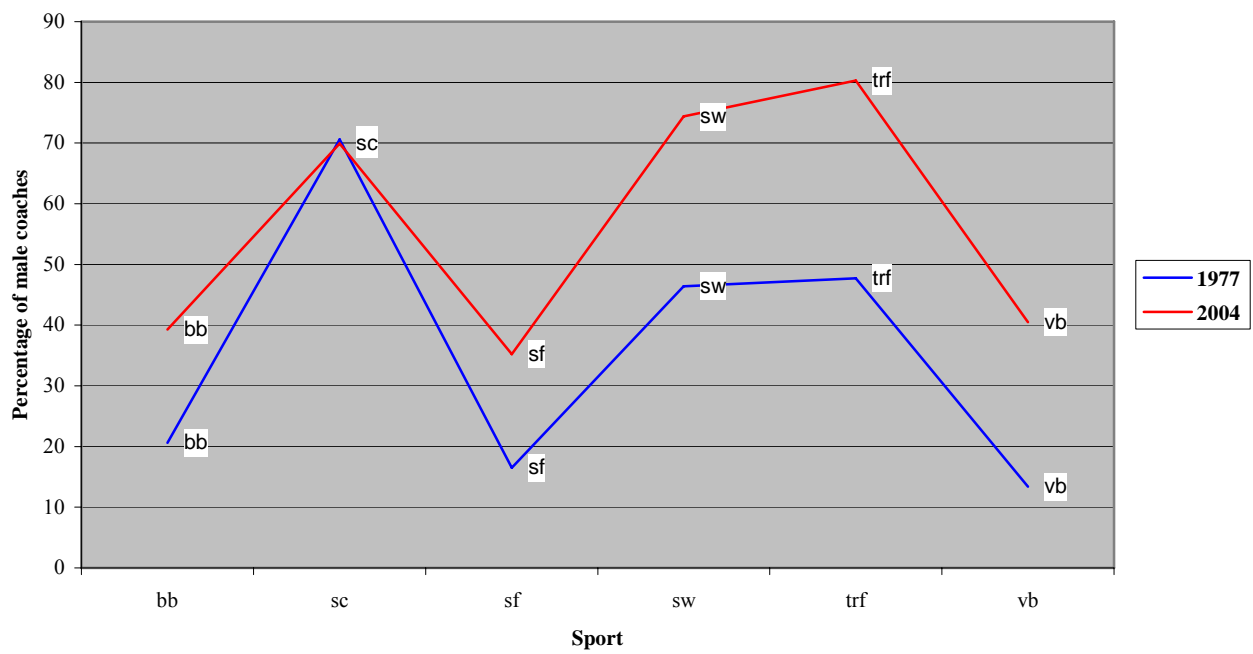
APPENDIX A

LIST OF UNIVERSITIES AND COLLEGES IN SAMPLE

Boston College	Drexel University
Duquesne University	Fordham University
George Washington University	Georgetown University
Hofstra University	La Salle University
Providence University	Rutgers University
Seton Hall University	St Bonaventure University
St Joseph's University	St. John's University
Syracuse University	Temple University
University of Deleware	University of Massachusetts-Amherst
University of Rhode Island	University of Alabama, Huntsville
University of Missouri, Rolla	University of Montevallo
College of William & Mary	East Carolina University
University of Richmond	Arkansas Tech University
Harding University	Ouachita Baptist University
University of Arkansas, Monticello	Clemson University
Duke University	North Carolina State University
University of Maryland-College Park	University of North Carolina-Chapel Hill
University of Virginia-Charlottesville	Wake Forest University
Carson-Newman College	Christian Brothers University
Lincoln Memorial University	Tusculum College
University of Central Arkansas	University of Connecticut-Storrs
Delta State University	University of West Alabama/Livingston
Marquette University	University of Notre Dame
Southern Arkansas University	Indiana University-Bloomington
Michigan State University	Northwestern University
Ohio State University	Purdue University-West Lafayette
University of Illinois-Champaign	University of Iowa
University of Michigan-Ann Arbor	University of Minnesota-Twin Cities
University of Wisconsin-Madison	State University of West Georgia
Valdosta State University	Iowa State University
Kansas State University	Oklahoma State University
Oklahoma University	University of Colorado-Boulder
University of Kansas	University of Missouri-Columbia
University of Nebraska-Lincoln	Bemidji State University
Michigan Technological University	Southwest Minnesota State University
Baylor University	Texas A&M University
Texas Christian University	Texas Tech University
University of Arkansas-Fayetteville	University of Houston
University of Texas-Austin	Concordia College (New York)
Concordia University (MINN)	Cal Polytechnic State University

California State University-Northridge
Gonzaga University
Wayne State College
Long Beach State University
Winona State University
Towson University
Lincoln University (Missouri)
Truman State University
Bradley University
University of Louisville
Southwest Baptist University
Washburn University of Topeka
Drury University
Oklahoma Panhandle State University
Saginaw Valley State University
Columbia University
Dartmouth University
Princeton University
Yale University
St. Mary's University (Texas)
Bowling Green State University
Eastern Michigan University
Miami University
Ohio University
Western Michigan University
Lake Superior State University
SUNY-Buffalo
Bethune-Cookman College
Gannon University
Howard University
North Carolina A&T State University
University of Maryland-Eastern Shore
Hampton University
Catawba College
Mars Hill College
Oregon State University
University of Arizona-Tuscon
University of California-Los Angeles
University of Oregon
University of Washington
Adelphi University
New York Institute of Technology
Queens College (New York)
University of Bridgeport
Auburn University

University of California-Riverside
University of Idaho
California State University-Fullerton
University of Pacific
George Mason University
Central Missouri State University
Northwest Missouri State University
Emporia State University
Drake University
Wichita State University
Wayne State University (Michigan)
University of Illinois-Chicago
Newberry College
Presbyterian College
Brown University
Cornell University
Harvard University
University of Pennsylvania
St. Edward's University
Ball State University
Central Michigan University
Kent State University
Northern Illinois University
University of Toledo
Ferris State University
Northwood University
University of Findlay
Florida A&M University
Deleware State University
Morgan State University
South Carolina State University
Grand Valley State University
Norfolk State University
Lenoir-Rhyne College
Arizona State University
Stanford University
University of California-Berkley
University of Evansville
University of Southern California
Washington State University
C.W. Post Campus/Long Island University
Philadelphia University
Southampton Campus of Long Island University
University of New Haven
Louisiana State Unversity

Mississippi State University	University of Alabama-Tuscaloosa
University of Florida	University of Georgia
University of Kentucky	University of Mississippi-Oxford
University of South Carolina	University of Tennessee-Knoxville
Vanderbilt University	Bloomfield College
Dowling College	Nyack College
St. Thomas Aquinas College	Loyola Marymount University
Pepperdine University	Santa Clara University
St Mary's College of California	University of San Francisco
Alderson-Broaddus College	Bluefield State College
Concord College	Davis and Elkins College
Fairmont State College	Glenville State College
Shepherd College	West Liberty State College
West Virginia State College Institute	West Virginia University Institute of Technology M
West Virginia Wesleyan College	Wheeling Jesuit University
Florida State University	Georgia Tech University
Illinois State University	Indiana State University
Loyola University-Chicago	Old Dominion University
Saint Louis University	Tulane University
University of Akron	University of California-Irvine
University of California-Santa Barbara	University of Cincinnati
University of Dayton	University of North Carolina-Charlotte
University of North Carolina-Wilmington	University of Portland
University of San Diego	University of Wisconsin-Green Bay
University of Wisconsin-Milwaukee	Utah State University
Villanova University	Virginia Commonwealth University
West Virginia University	Xavier University
Ashland University	Florida Southern College
Hillsdale College	Missouri Southern State University-Joplin
Missouri Western State College	Northern Michigan University
Northern State University	Rockhurst University
University of West Florida	Central Washington University
Northwest Nazarene University	Seattle Pacific University
St. Martin's College Lacey	Western Oregon University
Western Washington University	Humboldt State University
Seattle University Seattle	Butler University
Cleveland State University	Coppin State College
Creighton University	Depaul University
James Madison University	Marshall University
Penn State University	Southern Illinois-Carbondale
Southwest Missouri State University	University of Alabama-Birmingham
University of Detroit-Mercy	University of Memphis
University of Miami	University of Northern Iowa
University of Pittsburgh	University of South Florida
University of Southern Mississippi	Virginia Tech University

Wright State University
Youngstown State University
Barry University
Caldwell College
Dominican College (New York)
Eckerd College
Felician College
Florida Institute of Technology
Georgian Court College
Goldey-Beacom College
Henderson State University
Holy Family University
Lynn University
Mercy College
Mercyhurst College
Minnesota State-Crookston
Minnesota State-Moorhead
Molloy College
New Jersey Institute of Technology
Nova Southeastern University
Ohio Valley College
Pittsburg State University
Rollins College
Saint Leo University
Salem International University
Teikyo Post University
University of Alaska Anchorage
University of Alaska Fairbanks
University of Charleston
University of North Alabama
University of Tampa
University of the Incarnate Word
University of the Sciences in Philadelphia
Wilmington College (Delaware)
Wingate University

Division I – Correlations Among Variables – Basketball

	Male basketball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male basketball coaches in conference
Male basketball coach	1.00										
Total # of women's teams	-0.11	1.00									
Athletic director	0.04	0.02	1.00								
School president	-0.01	0.09	-0.03	1.00							
Powerhouse conference 1	-0.10	0.47	0.01	-0.01	1.00						
Powerhouse conference 2	-0.10	0.15	-0.08	-0.00	0.75	1.00					
Total # of women's and men's sports	-0.10	0.86	0.06	0.02	0.46	0.17	1.00				
Nonreligious	-0.06	0.24	0.04	-0.05	0.11	-0.11	0.27	1.00			
Religious private	0.04	-0.13	0.10	0.01	-0.15	-0.24	-0.09	-0.18	1.00		

% of male coaches in athletic depart ment	0.06	-0.16	0.14	-0.02	-0.08	-0.04	-0.14	-0.04	0.28	1.00	
% of male basketball coaches in conference	-0.07	-0.17	0.05	-0.02	-0.29	-0.30	-0.15	-0.03	0.10	0.07	1.00

	Male Basketball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male basketball coaches in conference
Time	-0.02	0.12	-0.02	0.88	-0.01	-0.02	0.04	-0.02	-0.01	-0.03	-0.01
Midwest	-0.08	-0.02	0.02	-0.00	-0.20	-0.05	-0.11	-0.11	-0.03	0.03	-0.23
South	0.12	-0.16	-0.17	-0.00	0.12	0.22	-0.16	-0.05	-0.15	-0.08	0.22
West	-0.04	-0.12	0.05	-0.00	-0.07	0.05	-0.08	0.00	0.11	0.18	-0.07

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.02	1.00		
South	0.01	-0.49	1.00	
West	0.01	-0.30	-0.33	1.00

Correlations Among Variables – Volleyball

	Male volleyball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male volleyball coaches in conference
Male volleyball coach	1.00										
Total # of women's teams	-0.03	1.00									
Athletic director	-0.09	0.04	1.00								
School president	0.12	0.06	-0.02	1.00							
Powerhouse conference 1	-0.02	0.51	0.03	-0.01	1.00						
Powerhouse conference 2	0.13	0.17	-0.07	-0.00	0.74	1.00					
Total # of women's and men's sports	-0.03	0.86	0.07	-0.01	0.50	0.20	1.00				
Nonreligious	-0.10	0.30	0.04	-0.08	0.10	-0.14	0.31	1.00			
Religious private	-0.02	-0.12	0.10	0.03	-0.11	-0.21	-0.09	-0.17	1.00		
% of male coaches in athletic department	-0.13	-0.18	0.19	-0.03	-0.11	-0.12	-0.16	-0.04	0.24	1.00	
% of male volleyball coaches in conference	0.10	0.09	0.05	0.22	0.02	0.23	0.11	-0.02	-0.02	-0.06	1.00

	Male Volleyball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male volleyball coaches in conference
Time	0.10	0.13	-0.00	0.88	0.01	-0.02	0.04	-0.01	0.00	-0.04	0.27
Midwest	0.06	-0.09	0.01	-0.00	-0.21	-0.05	-0.10	-0.12	-0.01	-0.04	0.22
South	-0.09	-0.14	-0.18	0.01	0.10	0.22	-0.15	-0.08	-0.16	0.03	-0.36
West	0.12	-0.17	0.06	-0.02	-0.09	0.05	-0.11	0.00	0.13	0.14	0.23

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.03	1.00		
South	0.02	-0.48	1.00	
West	-0.01	-0.32	-0.33	1.00

Correlations Among Variables – Soccer

	Male soccer coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male soccer coaches in conference
Male soccer coach	1.00										
Total # of women's teams	-0.02	1.00									
Athletic director	-0.02	0.04	1.00								
School president	-0.01	0.01	-0.05	1.00							
Powerhouse conference 1	-0.07	0.45	0.02	-0.03	1.00						
Powerhouse conference 2	-0.09	0.08	-0.08	-0.02	0.73	1.00					
Total # of women's and men's sports	-0.02	0.85	0.07	-0.04	0.44	0.11	1.00				
Nonreligious	0.07	0.37	0.06	-0.08	0.16	-0.12	0.36	1.00			
Religious private	0.07	-0.25	0.10	-0.01	-0.24	-0.30	-0.18	-0.20	1.00		
% of male coaches in athletic department	-0.06	-0.18	0.13	-0.03	-0.11	-0.08	-0.15	-0.08	0.28	1.00	
% of male soccer coaches in conference	-0.07	-0.12	-0.01	-0.02	-0.23	-0.27	-0.16	0.14	0.09	0.09	1.00

	Male Soccer coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male soccer coaches in conference
Time	-0.00	0.05	-0.00	0.85	-0.03	-0.06	-0.00	-0.01	-0.05	-0.05	-0.00
Midwest	0.06	-0.09	0.02	0.03	-0.18	-0.03	-0.11	-0.13	0.03	0.03	-0.02
South	0.01	-0.12	-0.19	-0.01	0.15	0.28	-0.13	-0.11	-0.18	-0.08	0.08
West	0.01	-0.21	0.04	-0.03	-0.11	0.04	-0.14	-0.01	0.08	0.10	-0.07

	Time	Midwest	South	West
Time	1.00			
Midwest	0.02	1.00		
South	0.00	-0.43	1.00	
West	-0.02	-0.30	-0.34	1.00

Correlations Among Variables – Softball

	Male softball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male softball coaches in conference
Male softball coach	1.00										
Total # of women's teams	-0.14	1.00									
Athletic director	0.13	0.05	1.00								
School president	-0.07	0.08	-0.02	1.00							
Powerhouse conference 1	-0.15	0.54	-0.02	0.03	1.00						
Powerhouse conference 2	-0.17	0.17	-0.12	0.02	0.75	1.00					
Total # of women's and men's sports	-0.17	0.85	0.08	0.02	0.51	0.18	1.00				
Nonreligious	0.20	0.39	0.11	-0.08	0.12	-0.19	0.36	1.00			
Religious private	0.21	-0.15	0.12	0.01	-0.15	-0.25	-0.11	-0.14	1.00		
% of male coaches in athletic department	0.08	-0.20	0.12	0.02	-0.09	-0.02	-0.17	-0.12	0.27	1.00	
% of male softball coaches in conference	0.05	-0.13	0.04	-0.19	-0.30	-0.32	-0.10	0.03	0.23	0.14	1.00

	Male Softball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male softball coaches in conference
Time	-0.07	0.10	-0.01	0.89	0.01	-0.03	0.04	-0.03	0.00	0.04	-0.19
Midwest	-0.14	-0.13	0.02	-0.04	-0.22	-0.06	-0.12	-0.12	0.04	0.04	-0.38
South	-0.06	-0.18	-0.20	0.04	0.18	0.32	-0.19	-0.15	-0.21	0.11	-0.01
West	0.16	-0.08	0.03	-0.03	-0.09	0.02	-0.04	-0.01	0.07	0.03	0.38

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.05	1.00		
South	0.03	-0.49	1.00	
West	-0.00	-0.31	-0.28	1.00

Correlations Among Variables – Track & Field

	Male track & field coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male track & field coaches in conference
Male track & field coach	1.00										
Total # of women's teams	-0.12	1.00									
Athletic director	0.07	0.03	1.00								
School president	-0.06	0.05	-0.01	1.00							
Powerhouse conference 1	-0.04	0.43	0.05	-0.05	1.00						
Powerhouse conference 2	-0.14	0.10	-0.05	-0.02	0.72	1.00					
Total # of women's and men's sports	0.01	0.86	0.06	-0.04	0.44	0.13	1.00				
Nonreligious	-0.04	0.26	0.07	-0.11	0.10	-0.16	0.28	1.00			
Religious private	0.11	-0.05	0.09	0.01	-0.01	-0.17	-0.02	-0.15	1.00		
% of male coaches in athletic department	0.29	-0.10	0.14	-0.01	-0.07	-0.06	-0.08	-0.03	0.16	1.00	
% of male track & field coaches in conference	-0.12	-0.28	0.01	-0.19	-0.10	0.06	-0.25	-0.15	0.02	-0.01	1.00

	Male track & field coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male track & field coaches in conference
Time	-0.08	0.10	0.01	0.87	-0.05	-0.04	0.00	-0.06	-0.02	-0.01	-0.29
Midwest	0.01	-0.14	0.02	0.03	-0.24	-0.04	-0.13	-0.09	-0.07	-0.08	-0.14
South	-0.02	-0.20	-0.19	-0.01	0.08	0.21	-0.19	-0.09	-0.04	0.04	0.09
West	0.12	-0.08	0.07	-0.02	-0.01	0.11	-0.05	-0.03	-0.15	0.06	0.31

	Time	Midwest	South	West
Time	1.00			
Midwest	0.01	1.00		
South	-0.01	-0.53	1.00	
West	0.00	-0.25	-0.30	1.00

Correlations Among Variables – Swimming

	Male swimming coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male swimming coaches in conference
Male swimming coach	1.00										
Total # of women's teams	-0.19	1.00									
Athletic director	0.11	0.04	1.00								
School president	0.04	0.06	0.01	1.00							
Powerhouse conference 1	-0.14	0.47	-0.04	-0.02	1.00						
Powerhouse conference 2	-0.01	0.15	-0.16	-0.00	0.68	1.00					
Total # of women's and men's sports	-0.18	0.79	0.06	-0.02	0.42	0.15	1.00				
Nonreligious	-0.19	0.32	0.06	-0.13	0.13	-0.15	0.31	1.00			
Religious private	0.13	-0.11	0.10	0.00	-0.13	-0.29	-0.05	-0.17	1.00		
% of male coaches in athletic department	0.03	-0.09	0.15	-0.03	-0.02	-0.05	-0.04	0.02	0.30	1.00	
% of male swimming coaches in conference	0.19	-0.42	-0.04	0.08	-0.36	-0.07	-0.42	-0.53	0.25	0.07	1.00

	Male swimming coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male swimming coaches in conference
Time	0.00	0.12	0.04	0.88	0.00	-0.02	0.04	-0.06	-0.00	-0.03	0.01
Midwest	0.06	-0.16	0.06	-0.01	-0.22	-0.00	-0.16	-0.16	-0.10	-0.04	-0.02
South	0.06	-0.12	-0.23	0.01	0.09	0.21	-0.15	-0.13	-0.13	-0.04	0.28
West	-0.01	-0.09	0.02	-0.01	-0.02	0.13	-0.00	0.11	0.03	0.08	-0.05

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.03	1.00		
South	0.03	-0.47	1.00	
West	0.00	-0.28	-0.28	1.00

Division II – Correlations Among Variables – Basketball

	Male basketball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male basketball coaches in conference
Male basketball coach	1.00										
Total # of women's teams	-0.12	1.00									
Athletic director	0.12	0.05	1.00								
School president	0.00	0.20	0.08	1.00							
Powerhouse conference 1	-0.19	0.20	0.05	-0.03	1.00						
Powerhouse conference 2	-0.11	0.27	0.02	-0.07	0.63	1.00					
Total # of women's and men's sports	-0.10	0.84	0.10	0.14	0.31	0.36	1.00				
Nonreligious	-0.02	0.15	0.01	-0.02	-0.02	0.06	0.11	1.00			
Religious private	0.03	-0.00	-0.09	0.02	-0.06	-0.14	-0.02	-0.37	1.00		
% of male coaches in athletic department	-0.02	0.07	0.03	-0.13	-0.11	-0.02	0.04	0.04	0.14	1.00	
% of male basketball coaches in conference	0.15	-0.23	-0.07	0.07	-0.43	-0.27	-0.29	0.01	-0.15	-0.07	1.00

	Male Basketball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male basketball coaches in conference
Time	0.04	0.21	0.01	0.82	-0.09	-0.07	0.15	-0.00	0.00	-0.01	0.11
Midwest	-0.08	0.14	0.01	0.03	0.29	0.57	0.18	-0.20	-0.24	-0.09	-0.14
South	-0.08	-0.14	0.12	0.00	0.11	-0.26	-0.13	0.02	0.05	-0.05	0.03
West	-0.04	0.07	-0.03	0.03	-0.16	-0.16	-0.00	-0.13	0.08	0.08	-0.11

	Time	Midwest	South	West
Time	1.00			
Midwest	0.02	1.00		
South	-0.04	-0.57	1.00	
West	0.06	-0.16	-0.23	1.00

Correlations Among Variables – Volleyball

	Male volleyball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male volleyball coaches in conference
Male volleyball coach	1.00										
Total # of women's teams	-0.05	1.00									
Athletic director	0.03	-0.04	1.00								
School president	-0.07	0.10	0.08	1.00							
Powerhouse conference 1	-0.08	0.15	-0.00	-0.07	1.00						
Powerhouse conference 2	-0.01	0.24	-0.02	-0.11	0.62	1.00					
Total # of women's and men's sports	-0.04	0.83	0.03	0.07	0.24	0.30	1.00				
Nonreligious	0.18	0.12	-0.02	-0.06	-0.03	0.05	0.10	1.00			
Religious private	0.08	0.07	-0.03	0.05	0.01	-0.09	0.04	-0.37	1.00		
% of male coaches in athletic department	0.16	0.12	0.08	-0.08	-0.17	-0.04	0.11	-0.05	0.11	1.00	
% of male volleyball coaches in conference	0.09	0.02	0.04	0.06	-0.19	-0.08	0.04	0.23	0.02	0.06	1.00

	Male Volleyball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male volleyball coaches in conference
Time	0.01	0.15	0.04	0.83	-0.10	-0.08	0.10	-0.01	-0.01	0.00	0.06
Midwest	-0.14	0.09	0.00	-0.01	0.23	0.53	0.09	-0.21	-0.21	-0.03	-0.29
South	0.06	-0.09	0.05	-0.01	0.16	-0.24	-0.08	0.01	0.13	-0.18	-0.01
West	0.02	-0.01	-0.04	0.05	-0.19	-0.18	-0.05	-0.14	0.04	0.10	0.12

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.03	1.00		
South	0.00	-0.58	1.00	
West	0.09	-0.17	-0.25	1.00

Correlations Among Variables – Soccer

	Male soccer coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male soccer coaches in conference
Male soccer coach	1.00										
Total # of women's teams	0.14	1.00									
Athletic director	0.13	0.19	1.00								
School president	0.02	0.17	0.11	1.00							
Powerhouse conference 1	0.00	0.38	0.09	0.09	1.00						
Powerhouse conference 2	-0.03	0.40	0.10	0.01	0.60	1.00					
Total # of women's and men's sports	0.04	0.82	0.27	0.15	0.48	0.46	1.00				
Nonreligious	0.03	0.11	0.00	-0.07	-0.06	0.02	0.08	1.00			
Religious private	0.09	-0.17	-0.14	-0.03	-0.02	-0.18	-0.14	-0.57	1.00		
% of male coaches in athletic department	0.09	-0.08	-0.02	-0.17	-0.21	-0.01	-0.03	0.01	0.08	1.00	
% of male soccer coaches in conference	0.12	0.01	0.04	-0.04	-0.01	-0.09	0.02	-0.03	0.03	-0.03	1.00

	Male Soccer coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male soccer coaches in conference
Time	-0.06	0.15	0.05	0.77	-0.00	0.02	0.13	-0.06	-0.05	-0.01	-0.04
Midwest	0.04	0.22	0.17	0.16	0.28	0.56	0.20	-0.20	-0.18	0.03	0.00
South	-0.08	0.01	-0.04	-0.03	0.24	-0.14	0.06	0.05	0.17	-0.19	-0.08
West	-0.09	0.01	0.02	0.09	-0.15	-0.14	-0.05	-0.14	-0.03	0.05	-0.17

	Time	Midwest	South	West
Time	1.00			
Midwest	0.08	1.00		
South	-0.03	-0.47	1.00	
West	0.18	-0.13	-0.23	1.00

Correlations Among Variables – Softball

	Male softball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male softball coaches in conference
Male softball coach	1.00										
Total # of women's teams	-0.05	1.00									
Athletic director	-0.00	0.04	1.00								
School president	-0.15	0.20	0.06	1.00							
Powerhouse conference 1	-0.20	0.27	0.04	0.00	1.00						
Powerhouse conference 2	-0.08	0.28	0.05	-0.04	0.66	1.00					
Total # of women's and men's sports	-0.06	0.84	0.09	0.12	0.36	0.35	1.00				
Nonreligious	-0.08	0.18	0.06	-0.01	-0.04	0.03	0.14	1.00			
Religious private	-0.04	-0.06	-0.14	-0.03	0.01	-0.10	-0.07	-0.40	1.00		
% of male coaches in athletic department	-0.03	-0.05	0.08	-0.07	-0.23	-0.09	-0.07	0.01	0.18	1.00	
% of male softball coaches in conference	0.16	-0.13	-0.01	-0.27	-0.39	-0.21	-0.20	0.04	0.01	0.19	1.00

	Male Softball coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male softball coaches in conference
Time	-0.08	0.22	-0.02	0.81	-0.06	-0.02	0.12	-0.01	-0.02	0.00	-0.20
Midwest	0.04	0.17	-0.01	0.05	0.32	0.56	0.17	-0.23	-0.27	-0.16	-0.01
South	-0.25	-0.12	0.06	0.02	0.16	-0.20	-0.11	0.03	0.08	-0.05	-0.39
West	0.13	0.08	-0.04	-0.02	-0.19	-0.16	0.00	-0.13	0.07	0.06	0.29

	Time	Midwest	South	West
Time	1.00			
Midwest	0.04	1.00		
South	-0.01	-0.52	1.00	
West	0.03	-0.14	-0.24	1.00

Correlations Among Variables – Track & Field

	Male track & field coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male track & field coaches in conference
Male track & field coach	1.00										
Total # of women's teams	0.15	1.00									
Athletic director	0.13	-0.06	1.00								
School president	-0.14	0.17	0.06	1.00							
Powerhouse conference 1	-0.10	-0.08	0.08	-0.17	1.00						
Powerhouse conference 2	-0.14	0.15	0.06	-0.19	0.65	1.00					
Total # of women's and men's sports	0.10	0.74	-0.02	0.13	-0.04	0.22	1.00				
Nonreligious	0.04	0.38	-0.00	-0.01	-0.04	-0.01	0.36	1.00			
Religious private	0.25	0.09	0.21	0.07	-0.12	-0.17	0.17	0.23	1.00		
% of male coaches in athletic department	0.29	0.01	0.35	-0.09	-0.05	-0.08	0.05	-0.09	0.31	1.00	
% of male track & field coaches in conference	0.12	0.20	0.16	-0.11	-0.09	-0.24	0.12	0.38	0.24	0.03	1.00

	Male track & field coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male track & field coaches in conference
Time	-0.12	0.16	0.06	0.75	-0.36	-0.28	0.13	0.09	-0.01	0.09	-0.01
Midwest	-0.63	0.08	-0.09	-0.02	0.18	0.62	0.10	-0.29	-0.28	-0.18	-0.63
South	0.19	-0.26	0.17	-0.10	0.33	-0.28	-0.17	0.08	0.17	0.13	0.19
West	0.39	-0.12	-0.02	0.15	-0.42	-0.38	-0.25	-0.15	0.16	0.01	0.39

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.16	1.00		
South	-0.14	-0.56	1.00	
West	0.28	-0.45	-0.17	1.00

Correlations Among Variables – Swimming

	Male swimming coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male swimming coaches in conference
Male swimming coach	1.00										
Total # of women's teams	-0.33	1.00									
Athletic director	-0.09	-0.13	1.00								
School president	-0.12	0.06	0.23	1.00							
Powerhouse conference 1	0.15	0.41	-0.11	-0.46	1.00						
Powerhouse conference 2	-0.35	0.67	-0.19	-0.25	0.32	1.00					
Total # of women's and men's sports	-0.28	0.86	-0.16	0.14	0.24	0.66	1.00				
Nonreligious	-0.50	0.02	0.11	-0.02	0.24	-0.07	-0.15	1.00			
Religious private	0.04	0.10	0.18	0.16	-0.12	0.08	0.40	-0.38	1.00		
% of male coaches in athletic department	-0.04	0.48	-0.15	-0.17	0.23	0.29	0.49	-0.36	0.21	1.00	
% of male swimming coaches in conference	0.08	-0.67	0.27	-0.08	-0.20	-0.82	-0.74	0.30	-0.23	-0.25	1.00

	Male swimming coach	Total # of women's teams	Athletic director	School president	Powerhouse conference 1	Powerhouse conference 2	Total # of women's and men's sports	Nonreligious	Religious private	% of male coaches in athletic department	% of male swimming coaches in conference
Time	-0.08	0.12	-0.19	0.91	-0.42	-0.17	0.21	-0.07	0.08	-0.10	-0.20
Midwest	-0.43	0.62	-0.23	-0.24	0.22	0.83	0.49	0.02	-0.16	0.24	-0.62
South	0.35	-0.67	0.19	0.25	-0.32	-1.00	-0.66	0.07	-0.08	-0.29	0.82
West	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	Time	Midwest	South	West
Time	1.00			
Midwest	-0.14	1.00		
South	0.17	-0.83	1.00	
West	NA	NA	NA	1.00

[i] The Department of Education uses a three-prong test to determine whether a school is in compliance with Title IX. A school is compliant if it passes a *single* prong. The three prongs are: (1) Proportion of intercollegiate athletic opportunities with enrollment; (2) Historical effort of the institution (within the last three years); and (3) The demonstrated success of an institution in meeting the interests and abilities of female students (Siegelman and Wahlbeck 1999). However, Title IX does not apply to staff positions like coaches in educational institutions. These positions are governed by the college or university's own nondiscrimination policies.

[ii] Britton (2000) contends that this idea of gendered organizations has been theoretically and empirically underdeveloped and looking at organizations as inherently gendered, nominally gendered, or gendered via discourses of hegemonic masculinity and femininity creates difficulty in further analysis of organizations.

[iii] Jacobs 1989; Bridges 1990; Strang and Baron 1990.

[iv] American Sociological Review, American Journal of Sociology, and Social Forces.

[v] This model was student-centered and an education-oriented model (Katz 2002).

[vi] Highlighted winning, financial profit, athletic scholarships, and more competitive recruiting (Katz 2002).

[vii] In this first year of NCAA sponsorship, California Polytechnic University-Pomona won the Division II championship and Elizabethtown College (Pennsylvania) won the Division III championship.

[viii] For a more micro level explanation of institutional processes, see Zucker's (1991) work.

[ix] Scott noted that economists view on institutionalization is one that heavily relies upon formal rules of operation (For examples, see Moe 1984; Williamson 1975; North 1990).

[x] Scott referred to earlier institutional theorists like Durkheim, Parsons, and Selznick who advocated this normative approach.

[xi] Women only hold 18.5 percent of administrative positions in NCAA programs (8.7 percent in Division I and 16.9 percent in Division II) so the majority of athletic administrators are male (Acosta and Carpenter 2005). In addition, it is a rare occurrence that women will cross over and coach men's teams. Within-occupational segregation is very typical for the college coaching occupation since many men hold coaching positions in women's sports but few women hold these positions in men's sports (Knoppers 1989; Staurowsky 1990; Wilkerson 1996)). Over the last thirty years, women have comprised less than 2 percent of the coaches in men's intercollegiate athletic teams and the majority of this group are coaches for teams where men and women practice together (e.g. tennis and swimming) and rarely any of the "big-time" sports like men's football or basketball (Acosta and Carpenter 2005).

[xii] This point relates to Stincombe's (1965, 1968) work on how the holders of social power in an organization determine and maintain the values of the organization. In this case, one of those values is a male head coach.

[xiii] With the exception of the west region where only three conferences were available for selection.

[xiv] Region one states, otherwise known as "Northeast" included: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania. Region two states, otherwise known as "Midwest" included: Indiana, Illinois, Michigan, Ohio, Michigan, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Region three states, otherwise known as "South" included: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas. Region four states, otherwise known as "West" included: Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, Wyoming, Alaska, California, Hawaii, Oregon, and Washington.

[xv] Academic years 1973-1974, 1985-1986, 1995-1996, and 2001-2002.

[xvi] Due to estimation problems Division I and II track & field were not included in this analyses.

[xvii] Division II swimming and track & field were not included due to estimation problems.

[xviii] Division II swimming was not included due to estimation problems.

[xix] Please take note that those variables with high correlations like powerhouse conference one and powerhouse conference two variables or total number of women's sports and total number of men's sports were used in separate models and never included together in the same model.