

A SPIKE IN FEMALE PARTICIPATION: A STUDY ON THE VIABILITY OF SAND
VOLLEYBALL SPONSORSHIP AT THE NCAA DIVISION I LEVEL

Scott R. Howell

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial
fulfillment of the requirements for the degree of Masters in Art in the Department of
Exercise and Sport Science (Sport Administration).

Chapel Hill
2012

Approved by:

Barbara Osborne, J.D.

Dr. Erianne Weight, Ph.D.

Erin Lindsey, M.A.

ABSTRACT

SCOTT R. HOWELL: A Spike in Female Participation: A Study on the Viability of Sand Volleyball Sponsorship at the NCAA Division I Level (Under the direction of Barbara Osborne, J.D., Dr. Erianne Weight and Erin Lindsey, M.A.)

In January 2010, the NCAA passed legislation designating sand volleyball as the newest emerging sport for women. Institutions may begin to add sand volleyball for a variety of reasons such as interest expressed by female students or the sport can be an avenue to comply with Title IX requirements. In order for sand volleyball to attain championship status, forty institutions must sponsor the sport within a ten year window.

This research explores the current prevalence and interest in sand volleyball at the NCAA Division I level. Understanding the current level of interest in sand volleyball will help assess the practicality of sand volleyball to become a NCAA championship sport. This study also examines how factors such as budgetary concerns, Title IX compliance issues, perception of promiscuity, availability of competition concerns, and interest expressed by current females influence Senior Woman Administrators' and head indoor volleyball coaches' decision on whether or not they would support the sponsorship of sand volleyball at their institution. This study not only compares the responses between Senior Woman Administrators and head indoor volleyball coaches, but further analyzes the each group of respondent's answers of variables such as gender, age, experience in athletics, winning percentage, geography and institutional characteristics.

TABLE OF CONTENTS

Chapter I.....	1
Statement of Purpose.....	3
Research Questions	3
Definition of Terms	4
Assumptions	6
Limitations.....	6
Delimitations	6
Significance of Study	6
Chapter II	9
Brief History of Title IX.....	9
Legitimacy Theory	13
Prong 1	17
Prong 2	22
Prong 3	23
Gender Gap.....	26
Potential Solutions.....	29
NCAA Emerging Sports.....	33
Sand Volleyball	35

Chapter III.....	40
Instrument & Data Collection.....	40
Sample.....	42
Survey Distribution & Collection Procedures	42
Data Analysis	42
Chapter IV.....	47
Research Question I.....	47
Research Question II.....	48
Research Question III	53
Research Question IV	56
Research Question V.....	57
Research Question VI	60
Chapter V	66
Legitimacy Theory	66
Research Question I.....	68
Research Question II	70
Research Question III.....	72
Research Question IV.....	75
Research Question V& VI.....	75
Overall Themes Tied Found in the Literature Review	80
Recommendations for Future Research	81
Works Cited	83

LIST OF TABLES

1. A Comparison of Between Subject Factors Among Senior Woman Administrators.....	49
2. A Comparison of Head Coach's Opinion Influence Among Senior Woman Administrators	50
3. A Comparison of Within Subject Likelihood Among Senior Woman Administrators.....	51
4. A Comparison of Between Subject Factors Among Head Coaches	53
5. A Comparison of Within Subject Likelihood Among Head Coaches	54
6. A Comparison of the Mean Response Rates Between Senior Woman Administrators & Head Coaches.....	57
7. The Effect of Football Classification on the Likelihood of Adding Sand Volleyball—Senior Woman Administrators.....	58
8. The Effect of NCAA Volleyball Region on the Likelihood of Adding Sand Volleyball—Senior Woman Administrators.....	59
9. The Effect of Football Classification on the Likelihood of Adding Sand Volleyball—Head Coaches.....	61
10. The Effect of NCAA Volleyball Region on the Likelihood of Adding Sand Volleyball—Head Coaches.....	62
11. A Comparison of NCAA Volleyball Region Means Between Senior Woman Administrators and Head Coaches.....	65

CHAPTER I

When Title IX of the Education Amendments Act was passed in 1972, it allowed females greater access to participation opportunities across sports including the intercollegiate level. Since 1972, collegiate institutions have been grappling with changes in the application and meaning of the law from the Office of Civil Rights, Congress and the Supreme Court. With further instruction from the Office of Civil Rights Policy Clarification Letter distributed in 1979, institutions received better instructions on how to comply with Title IX requirements. The Clarification Letter gives three options to schools when they are attempting to satisfy the requirement of accommodating the interests and abilities of the underrepresented sex at their institution: achieving substantial proportionality, showing a history and continuing practice of program expansion or fully and effectively accommodating the interests and abilities of the members of the underrepresented sex (OCR Policy Clarification Letter, 1979). The gender gap still disadvantages females, but this gap has decreased and made progress over the past forty years (Anderson, et al., 2006). Schools that have made progress and schools that are working to make progress in providing an equitable amount of participation opportunities must look at adding sports in order to satisfy one of the three prongs.

In 1994, the NCAA Gender-Equity Task Force was commissioned to provide feedback on the current status of female participation in intercollegiate sports and to

provide recommendations on how to improve their experience such as expanding the number of participation opportunities afforded to females (NCAA Emerging Sports Timeline, 2011). One of the recommendations from this commission was to create a list of Emerging Sports (NCAA Emerging Sports Timeline, 2011). The purpose of this list was to identify sports that are not currently offered by the NCAA but where there is significant interest in the sport and potential growth. Since this list has been created, a total of four sports have been granted championship status (NCAA Emerging Sports Timeline, 2011). Emerging sports are important for institutions as they can be counted when they are attempting to fulfill the NCAA divisional membership requirements and can be used to demonstrate Title IX compliance as well (NCAA Emerging Sports for Women, 2011).

In January 2010, the NCAA passed legislation that officially designated sand volleyball as the latest edition to the emerging sports list (Sand Volleyball a Go in Division I, 2010). Since this decision, a total of sixteen schools have announced their commitment to field a varsity female sand volleyball team (Collegiate Sand Volleyball Picks Up Steam, 2011). However, in order for the sport to achieve NCAA championship status, it must attract a minimum of forty institutions to sponsor the sport (Criteria for Emerging Sports, 2011).

Therefore, this research study aims to better understand the current level of interest in sand volleyball at the intercollegiate level and to determine what influences decision makers, such as Senior Woman Administrations, when they are looking at sponsoring a new sport. Finally, the research aims to see if there is a difference in

opinion between Senior Woman Administrators and head indoor volleyball coaches regarding their perceptions of the sport.

Statement of Purpose

The purpose of this research is to explore the current prevalence and interest in sand volleyball in NCAA Division I. Understanding this will help one to assess the practicality of sand volleyball in becoming a NCAA championship sport. This study will also examine the reasons cited by Senior Woman Administrators and head indoor volleyball coaches on whether they would choose to sponsor sand volleyball.

Additionally, this study compare the answers between Senior Woman Administrators and head indoor volleyball coaches, respondents who expressed interest in adding the sand volleyball and those who are not interested in sand volleyball, and the NCAA Volleyball Regions of Central, East, Mideast, Midwest, Northeast, Pacific, South and West to see if there are significant differences between the segments when comparing them.

Research Questions

1. What is the prevalence of sand volleyball as a varsity sport currently or soon-to-be sponsored by NCAA Division I institutions?
2. What variables are significant indicators of influence in a Senior Woman Administrator's decision to support the adoption of sand volleyball as a varsity sport?
3. What variables are significant indicators of influence in an indoor head volleyball coach's decision to support the adoption of sand volleyball as a varsity sport?

4. Are there significant differences between Senior Woman Administrator's and head indoor volleyball coaches in variables that influence the decision to support the adoption of sand volleyball as a varsity sport?
5. Are there significant differences based on [R5A– R5E] that affect whether a Senior Woman Administrator considers adopting sand volleyball as a varsity sport?
 - A. Region
 - B. Football classification
 - C. Enrollment
 - D. Number of sponsored varsity sports
 - E. Years of experience as a Senior Woman Administrator
6. Are there significant differences based on [R6A– R6F] that affect whether a Senior Woman Administrator considers adopting sand volleyball as a varsity sport?
 - A. Region
 - B. Football classification
 - C. Enrollment
 - D. Number of sponsored varsity sports
 - E. Gender
 - F. Total number of Division I volleyball wins

Definition of Terms

NCAA- The National Collegiate Athletic Association is a voluntary organization through which the nation's colleges and universities govern their athletic programs.

Division I- The subdivision of the NCAA consisting of 340 active members (NCAA.org, 2011).

Title IX- “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...” (20 USC § 1681).

NCAA Emerging Sport- An emerging sport is a sport recognized by the NCAA that is intended to provide additional athletics opportunities to female student-athletes.

Institutions are allowed to use emerging sports to help meet the NCAA minimum sports-sponsorship requirements and also to meet the NCAA's minimum financial aid awards (Criteria for Emerging Sports).

Participation Opportunity- A participation opportunity at the varsity level offered to student-athletes in an NCAA sponsored sport at the Division I institution.

Sport- For purposes of reviewing emerging sports for women proposals, a sport shall be defined as an institutional activity involving physical exertion with the purpose of competition versus other teams or individuals within a collegiate competition structure. Furthermore, sport includes regularly scheduled team and/or individual, head-to-head competition (at least five) within a defined competitive season(s); and standardized rules with rating/scoring systems ratified by official regulatory agencies and governing bodies (Criteria for Emerging Sports).

Assumptions

- It is assumed that all subjects will answer the survey questions honestly and completely.
- The completion of the study is voluntary for all subjects.

Limitations

- The study is limited to current Senior Woman Administrators and head indoor volleyball coaches at NCAA Division I universities with public e-mail addresses.
- There is the possibility that there will be a non-response bias due to the voluntary nature of the survey.
- This study does not include the opinions of athletic administration members other than the Senior Woman Administrator.
- This study does not include the opinions of assistant indoor volleyball coaches or Director of Volleyball Operations; only those of the head indoor volleyball coach.

Delimitations

- This study is limited to full time Senior Woman Administrators and head indoor volleyball coaches during the 2011-2012 athletic year and the results from this study may not be generalized to Senior Woman Administrators and head indoor volleyball coaches in NCAA Division II or III or NAIA or coaches in other sports.

Significance of the Study

The intent of this research study is to assess the viability of the sport of sand volleyball by gauging the current interest of Division I institutions in sponsoring sand

volleyball. At the end of this study, one can better understand whether or not the sport can fulfill all of the requirements necessary for an emerging sport to attain NCAA championship status. If it is deemed that it is not very likely for sand volleyball to gain NCAA championship status, one can better understand the reasons that institutions have in sponsoring the sport.

One of the biggest advocates of sand volleyball is the American Volleyball Coaches Association (AVCA). The AVCA believes that sand volleyball can increase the demand and interest in the sport of indoor volleyball. It will be interesting to see if the head indoor volleyball coach's responses from the survey align with the support of the AVCA in its belief that addition of sand volleyball will be positive for institutions and volleyball as a whole.

If the sport is deemed to be viable and a likely candidate to become the next NCAA championship sport, it will give institutions across Division I another resource when they are attempting to comply with Title IX. It is important to note that the addition of sand volleyball may not be ideal for institution. Additionally, one can better understand the motivations for the addition of the sport; is it solely for Title IX compliance purposes or because there is a genuine unmet interest in the sport by the underrepresented sex at the institution?

The research questions are designed in a way to see if there are specific factors that influence a Senior Woman Administrator and a head indoor volleyball coach's opinion whether or not to support the addition of sand volleyball. Furthermore, the study aims to explain any differences in opinions between Senior Woman Administrators and a

head indoor volleyball coaches. If there is a split in opinion, this could cause difficulty to make sand volleyball a success at the institution. However, if head indoor volleyball coaches support the addition of the sport, then this would be an encouraging sign for the success of sand volleyball at Division I institutions.

Finally, when interpreting the results of the study one can have a better understanding of the characteristics of the type of institutions that are planning to add sand volleyball. This will help give peer institutions and researchers a better understanding of the type of school that would be the most likely candidate to add sand volleyball.

CHAPTER II

Brief History of Title IX

In 1972, the United States Congress passed a thirty-seven word of piece legislation that would be later commonly known as Title IX that changed the landscape of sports for men and women: “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance...” (20 U.S.C. § 1681). Although the legislation’s original intent was not specifically to prevent gender discrimination in athletics, athletics has garnered the most public attention. Title IX applies to any program or activity at educational institutions that receive any type of federal funding; therefore athletics, as an extracurricular activity, becomes subject to the scope of Title IX compliance.

However, the Supreme Court narrowed the scope of Title IX significantly in deciding *Grove City College v. Bell* (1984) by ruling that only programs and activities that directly receive federal aid are subject to Title IX. This program specific approach in essence freed college athletic departments from Title IX. Congress restored the institution-wide approach in enacting the Civil Rights Restoration Act in 1988 which broadened the definition of “program and activity” to include “all operations of a [institution]...any part which is extended financial assistance” (20 U.S.C. § 1681).

In 1975, the Office of Civil Rights (here in after referred to as ‘OCR’) issued regulations which described how Title IX was supposed to apply to athletics. Generally, an institution must show compliance in three primary areas in order for the athletics program to be Title IX compliant (Regulations, 1975). These three requirements are financial assistance, athletic benefits and opportunities, and student interests and abilities (Regulations, 1975).

The first condition, financial assistance, requires male and female athletics scholarships to be proportional to the amount of participation opportunities offered to males and females in the athletic department (Regulations, 1975). It is important to note that equal financial assistance for males and females is not required (Regulations, 1975)(Regulations, 1975). Therefore, if females make up 55% of the participation opportunities in an athletic department, then females should receive 55% and males should receive 45% of the scholarship dollars spent by the athletic department.

The second requirement, athletic benefits and opportunities, outlines a list of factors that are considered when evaluating whether or not equal opportunities exist between the genders (Regulations, 1975). These factors include accommodation of athletic interests and abilities, equipment and supplies, scheduling of games and practice time, travel and per diem allowances, opportunity for coaching and academic tutoring, assignment and compensation of coaches and tutors, locker rooms and other facilities, medical and training services, housing and dining services, publicity, and recruitment and support services (Regulations, 1975). In order to determine whether or not male and female sport programs are equal, OCR assesses each of the factors previously mentioned,

and evaluates these factors by comparing the availability, quality, kind of benefits, kind of opportunities and kind of treatment between the men's programs as a whole and the women's programs as a whole (Regulations, 1975). It is important to note that each of the factors between men's and women's programs do not have to be identical. For example, men's and women's basketball do not have to be mirror images of each other. Instead, any differences between the men's and women's programs must only be negligible when evaluating the overall athletic program (Regulations, 1975).

Finally, Title IX requires an institution to meet the students' interests and abilities by offering varsity athletic opportunities to both genders in which they compete against other teams of similar completion levels (Regulations, 1975). When an institution is deciding which sports it should offer, it is not required to offer a certain amount of sports, but the institution should gauge students' expressed interests in particular sports and make sure it does not disadvantage the underrepresented sex when developing its sport offerings (Regulations, 1975). However, there was a great deal of confusion and misunderstanding on how to measure a school's compliance in accommodating student's interests and abilities. In 1979, OCR issued "A Policy Interpretation: Title IX and Intercollegiate Athletics" which assisted athletic departments in the fulfillment of the third requirement of Title IX by introducing what is now commonly known as the Three Prong Test. An institution is not required to fulfill all three prongs but only need to satisfy one prong in order to show compliance.

The first option is "whether intercollegiate level participation opportunities for male and female students are provided in numbers substantially proportionate to their

respective enrollments” (Policy Interpretation, 1979, p. 10). If the undergraduate student body is 60% female and 40% male, then the athletic department would need to have approximately 60% of their participation opportunities offered to females and 40% to males (Policy Interpretation, 1979). Although there is no fixed number in the Policy Interpretation, it is assumed that schools with a disparity of up to 2% either way would still be in compliance, as that negligible amount takes into consideration growth and fluctuation of the undergraduate student body.

Secondly, the second option an institution can utilize to achieve compliance is if it “can show a history and continuing practice of program expansion which is demonstrably responsive to the developing interest and abilities of the members of that sex” (Policy Interpretation, 1979, p. 10). However, the letter does not go into further details about a timeline or any other guidelines on how an institution can demonstrate a “history and continuing practice of program expansion” (Policy Interpretation, 1979, p. 10).

The third prong of compliance is showing that the institution “[has] demonstrated that the interests and abilities of the members of that sex have been fully and effectively accommodated by the present program (Policy Interpretation, 1979, p. 10).

Measurements in this area would include interest surveys, looking at the sports offered at the club and intramural levels, inquiries from students about starting a team in a specific sport, and examining sports offered at the high school and club levels within the geographic area where the school would typically recruit.

Cohen v. Brown University (1996) is a critical case dealing with the proportionality prong of Title IX. After Brown University cut four sports including women’s volleyball and women’s

gymnastics, they were sued for Title IX non-compliance as it did not offer substantial proportionate amount of participation opportunities for women (*Cohen v. Brown University*, 1996). Brown University claimed that women were not as interested in athletics when compared to men, and even so, that they had a strong women's sport offering because they had seventeen sports for women (*Cohen v. Brown University*, 1996).. However, the First Circuit court ruled that Brown University did not provide a substantially proportionate amount of participation opportunities (*Cohen v. Brown University*, 1996). Because the university had cut women's teams, it was not able to rely on either of the either parts of the Three-Prong Test either, and was found to be not compliant with Title IX.

Legitimacy Theory

The use of legitimacy theory and the theory of preservation through transformation helps explain why women are often given secondary status in society by looking at the relationship between societal norms and the decision making of the group of people who hold power in society (predominantly men). Being conscious of how this relationship has evolved over time helps one better understand why females are often discriminated against by males in athletics and administration.

Legitimacy theory maintains that an organization's management will act in a manner that creates the appearance that the organization's value system is harmonious with the value system of the social system in which the organization is a part (Islam, et al., 2010). Furthermore, the organization has entered into a social contract with the larger society, and any breach of this social contract will bring negative consequences for the organization making it much more difficult to survive much less thrive (Islam, et al., 2010). Simply, a legitimate organization (one that is accepted by society) is one that fulfills the social contract (Islam, et al., 2010). However, the values and expectations that

a society holds are not permanent; instead, they evolve over time which makes it necessary for the organization to adapt to the changes in order to not to violate the terms of the social contract (Islam, et al., 2010).

Part of legitimacy theory acknowledges that what society views as acceptable evolves and changes over time (Islam, et al., 2010). This is where legitimacy theory and the theory of preservation through transformation cross paths. When society changes what it views as acceptable, the status regimes (those who hold decision making power) must adapt to these changes in order to continue to hold power (Islam, et al., 2010; Siegal, 1997). Siegal explains that in order for a status regime to continue to hold control by subordinating women, it must “repudiate past practices [which] can exculpate present practices, if we characterize the wrongs of the past narrowly enough to differentiate them from current regulatory forms” (Siegal, 1997, p. 1146). What this means is that the changes that the status regime makes need to appear legitimate to society and give the perception that the subordinated group is gaining power, but in reality this newfound power is negligible in the larger picture as the status regime continues to hold the power.

At the crux of the article “Why Equal Protection No Longer Protects: The Evolving Forms of Status-Enforcing State Action” (Siegal, 1997), is the idea that the ways in which the legal system enforces social stratification change over time based off societal changes and what society views as acceptable. The process in which a status regime is able to retain power is called “preservation-through-transformation” (Siegal, 1997, p. 1113). This means that the “status-enforcing state action evolves in form as it is contested” or as society changes its views on what is ethical (Siegal, 1997, p. 1113). Siegal refers to Rogers Smith who stated that to understand the American political

system, it needs to be viewed as the “interaction of...liberalism, republicanism, and...inegalitarianascriptive” (Siegal, 1997, p. 1115). Inegalitarianascriptive applies to the concept that certain people in society are placed in social strata beyond their control -- for example women (Siegal, 1997). These groups are subjected by the status regime and the treatment and freedoms these groups receive are determined by the interplay between the changes in society and the responses by the status regime to these changes.

An example of how a status regime’s control over a minority group is looking at the history of marriage law between men and women in the United States. In the beginning, a husband had the right to his wife’s “person, labor, and property....and duty to represent her in legal system” (Siegal, 1997, p. 1116). Slowly, women acquired the rights of holding property, rights in their earning potential and legal system rights. However, a woman could still not deal with these issues in court without her husband (Siegal, 1997). Wives had received what seemed many new rights but these did little to help them as they “still lacked ordinary forms of legal recourse in a relationship that typically dominated their lives” (Siegal, 1997, p. 1117). This was a key point since at this time most of the work women performed was at home or on the farm and did so with their husbands. Any dispute about compensation or working conditions could not be pursued in court in an unbiased manner with their husband’s presence in court. A new transition gave way to a new public policy: marriage “subsisted and flourished in a private domain beyond the reach of the law” (Siegal, 1997, p. 1118). This implied that issues that arose in marriage should be settled between the husband and wife in the privacy of their own home and not in the courts. This kept women subjugated as it was up to men to decide the solution for problems and left women with no recourse in the legal

system. It appeared that women had been granted equality with numerous other legal rights, but the equality that they had earned was still in the hands of men.

Legitimacy theory has also been defined as “organizations [which] continually seek to ensure that they operate within the bounds and norms of their respective societies, that is, they attempt to ensure that their activities are perceived by outside parties as being legitimate” (Weight, 2006, p.46). In the article, “The Pursuit of True Legitimacy—Division IA Title IX Compliance After the Additional Clarification of Prong Three” (Weight, 2006), legitimacy theory was applied to prong three of Title IX for evaluating institutions who used the OCR survey in order to accommodate the interests and abilities of the underrepresented sex at their institution. An institution must fulfill their end of the social contract (Title IX), and to do so it must fulfill one of the three prongs. At the time of Weight’s study, just sending out the survey to students on campus was enough to show compliance under prong three. Therefore, the institution is fulfilling its terms in the social contract by giving off a perception of legitimacy to society, but in reality, it is nothing more than a superficial move as the majority of institutions do not value the results of the survey or add participation opportunities based off the results of the survey (Weight, 2006).

What complicates the current landscape is that the majority of decision makers in business and athletic organizations are white males who carry a certain level of conscious or subconscious sexist and/or racial biases that influence their policy decision making (Siegal, 1997). Because there is not fair representation of women in key decision making positions in intercollegiate athletics, female student-athletes are adversely affected because the decisions made affecting intercollegiate sports and student-athletes come

from men who subconsciously or consciously make decisions that often disadvantage females.

Prong One

In the article “All Sports Are Not Created Equal: College Football and a Proposal to Amend the Title IX Proportionality Prong”, Jay Larson claims that the majority of institutions are forced to comply with prong one because it is the only fully objective and quantifiable test when compared to prongs two and three (2004). Fulfilling the proportionality prong is complicated where institutions offer football due to its large roster size (Larson, 2004). When an athletic department is trying to balance football, women’s sports and men’s sports, an athletic department is forced to cut men’s Olympic sports and add “women’s sports with large roster sizes instead of those with strong interest levels” (Larson, 2004, p. 1600).

Schools that offer football generally offer more participation opportunities for women but have a more difficult time in complying with prong one (Larson, 2004). In order to create a plan of action for offering more participation opportunities, the 1996 OCR Clarification letter suggests institutions “identify national and regional interest levels for particular sports and adding women’s teams to varsity status based on these interest levels” (Clarification of Intercollegiate Athletics Policy Guidance: The Three-Part Test, 1996). To a certain extent, this is how rowing has gained popularity, but rowing may also have gained popularity from athletic departments because of its large roster size as a way to offset football. Scott Rosner’s article, “The Growth of NCAA Women’s Rowing A Financial, Ethical and Legal Analysis”, explores some of the legal

issues surrounding Title IX and rowing. When an institution is considering the addition of rowing, they have to make sure it fits in their Title IX compliance strategy; however, each option has its positives and negatives. The appeal for the addition of rowing under prong one is that rosters for rowing can total up to one hundred, therefore becoming the “women’s football” in terms of varsity participation opportunities (Rosner, 2001, p. 311). Institutions have cited that adding rowing to achieve substantial proportionality prong is the biggest reason for adding the sport (Rosner, 2001). The appeal of the large number of participation opportunities and the low costs per participation opportunity is a huge attraction for schools who are trying to off balance football (Rosner, 2001). With a roster of sixteen student-athletes max, one has to question whether or not schools would add sand volleyball due to the small roster size, especially in regions where there appears to be little or no interest in the sport. Often there is “not a strong interest in [a] particular region to field [rowing] and “other sports that do have a strong interest at the high school level are not added simply because the sport does not require a large number of participants to help offset the football team” (Larson, 2004, p. 1611-12).

Andrew Zimbalist attempts to refute the claims that Title IX is the root for the elimination of men’s sports in his article, “What To Do About Title IX” (2003). Zimbalist begins by explaining that the greatest decline for men’s wrestling teams actually occurred in a time when Title IX was not strictly enforced; from 1982-1992 (Zimbalist, 2003). In this ten year span, the number of men’s wrestling teams dropped from 363 to 275 and men’s gymnastics fell from 79 to 40 (Zimbalist, 2003). However, he cites that decline was not because of Title IX but for other reasons. For gymnastics, legal liability was a major concern among institutions and this lead to many institutions dropping the sport.

This conclusion is verified because the number of women's gymnastics teams fell by 83 teams, more than men, during the same time period (Zimbalist, 2003). For wrestling, it appears that a lack of interest is the biggest reason for a decline as males are becoming more interested in soccer and football (Zimbalist, 2003). While many blame the proportionality prong for the elimination of men's teams, a study by the General Accounting Office (GAO) found that 71.6% (53/74 cases) investigated by OCR used either prong two or three in their Title IX compliance strategic plans (Zimbalist, 2003). This evidence refutes the notion brought by other authors that prong one is the compliance choice of the majority of institutions.

Glenn George (2010) discusses the belief that many people assume that women are not as interested in sports as much as men. This raises the issue that if this perception is based off of stereotypes present in society, then Title IX has failed in its mission (George, 2010). On the other hand, this adds merit to the argument that men and women are inherently different in their interest in sports (George, 2010). Therefore, women's football is not the answer to solving proportionality and institutions must turn to adding multiple current women's NCAA championship sports and emerging sports to fix the proportionality issue (George, 2010). However, she adds that many of these emerging sports are expensive, and very unlikely to be picked up at the middle and high school level which limits the pool to pull athletes from for college (George, 2010). As much as the increase of participation opportunities in sports like volleyball and soccer are a positive step, the majority of institutions already offer these sports and the participation opportunities for these sports is already maxed out (George, 2010). Institutions will need

a mixture of emerging sports to create more avenues to attract more females in order to comply with prong one.

Deborah J. Anderson, John J. Cheslock & Ronald G. Ehrenberg sought to attempt to find what factors best predicted Title IX compliance for the proportionality prong by analyzing the mean proportionality gaps between Division I, II and III in 1995-96 and comparing these to the mean gaps in 2001-02 in their article “Gender Equity in Intercollegiate Athletics: Determinants of Title IX Compliance” (2006). Due to the perceived importance of prong one, these researchers thought that it is important to analyze the mean proportionality gaps for schools. The mean proportionality gap is defined as “the percentage of undergraduates who are female minus the percentage of athletes who are female multiplied by 100” (Anderson et al., p. 231). The descriptive results yielded that in 1995-96, Divisions I, II and III had mean proportionality gaps of -14, -18.1 and -14.3, respectively (Anderson, et al., 2006). In 2001-02, the mean proportionality gaps were -10.2 in Division I, -16.7 in Division II and -13.6 for in Division III; all resulting in progress (Anderson, et al., 2006). This data and previous research helped guide the authors to create a multiple regression model to explain the variance between prong one compliance (dependent variable) and the independent variables of private institution, institution located in the Northeast, institution located in the Midwest, institution located in the South, if an institution is a Historically Black College or University (HBCU), a competitive admissions selection process, more selective admissions selection process, highly/most selective admissions selection process, endowment assets per WFTE (weighted full-time equivalency enrollment), tuition and fees of the institution, state appropriations per WFTE, giving dollars per

WFTE, percentage of female undergrads, full time undergraduate enrollment (FTE) , Division I, II and III membership, and if the institution offers football (Anderson, et al., 2006).

The results of the study found that private institutions have significantly larger proportionality differences than public schools and that there is a larger gap between schools in the south and Midwest compared to schools located in the regions of the Northeast and West (Anderson, et al., 2006). Schools that were more selective (more stringent admissions process) had smaller proportionality gaps (Anderson, et al., 2006). Not surprisingly, schools with more financial resources had a smaller proportionality gap (Anderson, et al., 2006). The larger the full-time undergraduate enrollment resulted in lower proportionality gaps, but the higher proportion of women to men was a negative determinant for compliance under the proportionality prong (Anderson, et al., 2006). Membership in Division II and III with the sponsorship of a football team increased the institution's proportionality gap (Anderson, et al., 2006). In 1995-96, the independent variables of private, Northeast, Midwest, South, HBCU, competitive, more selective, highly/most selective, endowment assets per WFTE, tuition and fees, state appropriations per WFTE, giving dollars per WFTE, percentage of female undergrads, FTE undergraduate enrollment, Division I, II and III membership, and football accounted for 57.1% of the variance for the proportionality gap and 60.5% in 2001-02 (Anderson, et al., 2006). A total of 696 institutions were used in the sample for 1995-96 and 684 institutions in 2001-02; this takes into account schools which had missing information (mainly financial information) and schools that had a negative proportionality gap (Anderson, et al., 2006).

Kimberly Yuracko reacts to criticism that the proportionality prong of the three-part test is causing the damage to sport and its mission in her article, “Title IX and the Problem of Gender Equality in Athletics” (2003). Yuracko first states that prong one is actually the best option for providing females an equitable amount of participation opportunities in sports (Yuracko, 2003). The “meritocratic ideal” of Title VII (jobs given to the person, either male or female, with the best qualifications) does not fit in the case of Title IX because men and women are not competing for positions on the same team (Yuracko, 2003, p.66). Because separate sports for men and women is a logical conclusion, Yuracko argues that the number of participation opportunities of athletes should not be determined by the level of interest of the general student body as this is biased to what opportunities they have experienced growing up (Yuracko, 2003). Yuracko supports the argument for proportionality because it represents a key part in the “cultural transformation” of gender equity in athletics (Yuracko, 2003, p. 74). As a result, proportionality is critical in changing people’s opinions and seeing this change represented in increased number participation opportunities for females (Yuracko, 2003).

Prong Two

Many institutions have added rowing as a varsity sport which helps an institution to achieve compliance under prong two because it is an established and viable championship sport (Rosner, 2001). Schools are further helped by the fact that rowing has experienced tremendous popularity dating back to becoming the first emerging sport to attain championship status in 1998 out of the original nine emerging sports (Rosner, 2001). The success of rowing makes it a viable choice for institutions as they work toward compliance under prong two when they attempt to show a continuing practice of

program expansion for the underrepresented sex. However, rowing's success does not apply to all emerging sports. Squash was taken off the emerging sports list as it failed to attract sponsorship from forty institutions (NCAA Emerging Sports for Women, 2011).

On the other hand, many are concerned about a school's success using prong two. Some of these concerns are that a clear strategy has not been outlined from compliance under prong two by OCR (Larson, 2004). One does not know a timeline for when a sport should be added that shows an institution is showing a continuing practice of expansion. Should a sport add a new sport every five years? Ten years? Furthermore, compliance under prong two is only a short term solution (George, 2010). Every athletic department has a history of growth after 1972 as athletic departments did not offer athletic participation opportunities to women, and then programs were added in the 1970's and 1980's (Larson, 2004). But in recent times, it is hard to keep adding women's teams (over an unstated amount of time) due to budgetary limitations (Larson, 2004). When one looks at prong two through the lens of legitimacy theory, it is hard for institutions to legitimate when it is unknown what society views as acceptable because of the vagueness of prong two and clarification by OCR and the fact that does not help schools formulate a clear long term strategy.

Prong Three

Prong three is criticized for its subjective nature and inadequate explanation of determining what a significant level means (Larson, 2004; George, 2010). Larson (2004) argues that prong three is unclear on what level of interest from the underrepresented sex is considered to be significant. Does this mean that for every sport there is interest in it

should be considered to be added? How does one distinguish between general interest and actual interest in playing the sport? How does one quantify interest and how much is enough to merit the addition of the sport? After the email survey was disbanded in 2010, there is little guidance on how to comply with prong three (Larson, 2004).

Rosner (2001) believes that the subjective nature of prong three poses a variety of problems for Title IX compliance as well. The criteria used to evaluate the third prong looks at whether the institution has requested to add or elevate a particular sport by its current or admitted students, the participation in a particular club or intramural sport at the institution, participation in certain interscholastic sports by admitted students and sports participation rates in high schools, amateur athletic groups and community sports leagues in the areas which an institution draws most of its undergraduate students (Rosner, 2001). Although, many schools do offer the sport, there are concerns about rowing such as whether or not there is actually a demand for the sport and if there is competition in close proximity. A 1998 survey revealed that 90% of all varsity rowers had no prior rowing experience before college (Rosner, 2001).

In the article, “How to Evaluate the Implementation of Title IX at Colleges and Universities and Attitudes and Interest of Students Regarding Athletics”, proposes a method in trying to better understand the motivations of females that participate in collegiate athletics (Murray, 2003). The article is concerned in knowing why participation and interest, for both men and women, has increased over the past 30 (Murray, 2003). In the article “A Look at Title IX and Women’s Participation in Sport”, the survey conducted explores three questions in Division II athletics: to determine female student’s interest in sports; to determine whether students think their university is

in compliance with Title IX; and to compare the interests in sports exhibited by male and female students (Baker, et al, 2003). Time restraints, not interest, was found to be the main reason why more females did not participate in varsity sports (Baker, et al, 2003). Additionally, the study found that females were satisfied with the sport offerings of their athletic department (Baker, et al, 2003). Finally, the study found that males had higher interest in athletics, fitness and sports activities than females (Baker, et al, 2003). From this study, it suggests that the institution in which the survey had been administered has reached Title IX compliance by satisfying students' interest, and that other reasons explain why participation is lower (Baker, et al, 2003).

The results of the Baker, et al. study help Murray frame a new study that seeks to compare several schools results of Title IX compliance and better create a strategy for schools to comply with more than just one prong (2003). This would help schools understand what motivates males and females to play sports, and perhaps come up with another way to satisfy Title IX under prong three by doing an in-depth assessment of interests and abilities (Murray, 2003).

Yuracko also reacts to the theory of awarding participation opportunities based solely on interest. She states that this does not fit into society's model of awarding resources; just because someone is interested in something does not mean they are qualified for that position and deserve to receive the position (2003). Therefore, even though there may be casual interest in a sport, a sport should not be added for mere casual interest.

When evaluating methods of compliance for prong three using the legitimacy theory, it is evident again to know what is and is acceptable. How does an institution balance general interest in a sport and significant interest in a sport to the point that it should be added? Furthermore, how does one define what level of interest is significant to add a sport? Due to the ambiguous language of prong three, it does not make it an appealing option for schools when attempting to comply with Title IX because it is not objective enough for institutions to know if their Title IX compliance strategy is acceptable or not.

Gender Gap

Before a solution can be made to improve the gender gap, it is necessary to take a step back and analyze why the gender gap exists. To do this, one has to look at the history of athletic participation of both females and males dating back to the adoption of Title IX. Understanding the history of athletic participation and factors affecting the gender gap are critical when attempting to craft specific and relevant solutions that actually address the problems of the gender gap and create a positive change.

Betsey Stevenson focuses on the effect of Title IX on high school male and female participation rates since 1972 to 2004 in the article “Title IX and the Evolution of High School Sports” (2003). Although the focus is on high school students, the findings are important in understanding how and why males and females are motivated to participate in sports.

Title IX was a catalyst for the rise of women’s sports, but it is important to note that female participation rates had been increasing prior to the passage of Title IX;

instead the years of growth after Title IX are part of a larger trend in the rise of women and athletics (Stevenson, 2007). Basketball and track and field saw a large increase in female participation growth and the participation rate for these two sports is on par with males (Stevenson, 2007). The sports that had the largest participation losses in male sports were sports that saw large increases in female participation such as field hockey, badminton, softball, gymnastics and volleyball (Stevenson, 2007). This phenomenon could also be explained by the shifting societal norm that these sports are designated as “girl” sports (Stevenson, 2007). Finally, sports such as tennis, swimming, water polo, indoor track and field, lacrosse and cross-country have positive growth rates for both males and females, but slightly higher for females (Stevenson, 2007). This suggests that gender-neutral sports have benefited more from the passage of Title IX and gender specific sports have managed minimal growth (Stevenson, 2007).

The study also examined the relationship of geography and participation ratios of males and females. On average, there was a seventeen point difference between male to female participation rates (Stevenson, 2007). States with higher participation rates had a larger disparity between the genders when compared to states with low participation rates (Stevenson, 2007). It was revealed that states with the highest level of female participation growth also had the highest amount of male participation growth (Stevenson, 2007). Significant factors affecting the gender gap (at .05% alpha level or below) were proportion of urban environments, number of college educated residents and ratio of female to male employment (Stevenson, 2007). Other significant factors that influenced the participation of girls were the school size, urban environment, temperature, amount of money spent per student, college educated adults, ratio of female

to male employment rate, proportion of parents who are home owners, percentage of African-Americans and family income (Stevenson, 2007). It is interesting to note that there were more state factors that were deemed significant that affected the participation of females in contrast to males. States that view gender equity and equal funding important values are more likely to have a smaller gender gap (Stevenson, 2007). A final comparison of characteristics of male and female high school athletes found that urban environments, the size of the black population, father's education and AFQT (Armed Forces Qualification Tests) scores were significant factors when comparing males and females (Stevenson, 2007). Participation increases with family income as well as having married parents (Stevenson, 2007).

In 2008, the Women's Sports Foundation conducted a study that looked to see if gender, economic factors and geography actually affected females participation in sport. The survey included responses from 2,185 boys and girls from third to twelfth grades and 863 parents (Sabo & Veliz, 2008). The study found that poor urban girls have the lowest participation rates (1 out of 4), more girls report never participating in sports than boys (36% versus 18 %), girls begin participating in sports later than boys, girls play in a larger array of physical activities while boys tend to play traditional sports, girls are more likely to cite academics as a reason for dropping out of sports (36% versus 26%), girls report dropping out of sports to participate in other activities 22 percent of the time and boys do not cite participating in other activities as a reason for dropping out of sports (Sabo & Veliz, 2008). One of the biggest findings was that boys invest more of their interest and identity in sports even if they aren't playing a sport (Sabo & Veliz, 2008).

Furthermore, 42 percent of boys stated that sports are a big part of their identity in comparison to only a 16 percent response rate from girls (Sabo & Veliz, 2008).

It is important to look at the characteristics of females who are going to college today: there are more minorities, more females are likely to come from poorer backgrounds, more females are likely to get a job in college to pay for college than men, more females are likely to volunteer, females traditionally study more, and have lower participation rates in exercise and sports than males (Potuto & O'Hanlon, 2006). When one looks at the new group of female students who are going to college, they are not ones that have a strong background in sport participation, and even if they did, are not as likely as males to continue their sport participation in college (Potuto & O'Hanlon, 2006). This will be challenging for schools where the percentage of females continues to grow at institutions but attracting females to play traditional and emerging sports will become increasingly difficult when one understands their background or lack of background in sports. The results that geography, economics and social factors heavily influence sport participation for males and females at a young age helps explain why the gender gap exists. This point is echoed by George who comments that a female's interest in participating in sports in college is only as strong as their experiences in sport in their childhood (2010). The gender gap problem starts well before college and the blame should not be exclusively placed on college but instead with youth, middle school and high school sports (George, 2010).

Potential Solutions

Now that the issues surrounding the gender gap have been discussed, one can better craft solutions to address the gender gap. These solutions vary as some action is

needed before the start of collegiate athletics while some solutions to current structure of intercollegiate athletics need to be made.

In order to help address the concern of the gender gap, greater effort must be made to generate interest in sports for females, especially minorities, at the middle and high school level as it is seen that interest in sports is closely tied to access and opportunity especially in the urban environments (George, 2010).

To increase the number of participation opportunities for females, more sports need to be added to institution's sport programs. However, with limited resources and few universities offering emerging sports, one doubts the viability of emerging sports at the intercollegiate level as they rarely exist at the youth level in schools and limited to those with privileged backgrounds (George, 2010). Emerging sports do not open up many new opportunities for females who do not already have an abundance of sport participation opportunities. However, it is true that emerging sports do increase the number of participation opportunities available to females and satisfy genuine interest among females. This suggests that a wider variety of sports are needed to be offered to women in addition to the traditional sports in order to generate greater female participation.

In Jessica Gavora's book, *Tilting the Playing Field: Schools, Sports, Sex and Title IX*, she discusses that feminist theory advocates that differences in behavior between boys and girls are socially constructed (2002). Since these actions are socially constructed, they can be changed to create a more equal society (Gavora, 2002). Feminist theory challenges Darwin's theory that men and women are hardwired differently which

explains why men and women act and think differently (Gavora, 2002). Gavora argues that downplaying these inherent differences between males and females actually hurt women's chances for opportunities in sports (Gavora, 2002). Women should be able to make their own distinctive spin on sports that highlight their strengths, and not conform to men's sports which highlight male strengths (Gavora, 2002). At the same time, women should not try to change men's sports. By recognizing these differences, physical activities which have a great amount of female interest and ability should be incorporated into women's sport offerings such as dance, aerobics and competitive cheerleading (Gavora, 2002).

Another reason why females may be rejecting sports is due to the time demand (Potuto & O'Hanlon, 2006). Earlier evidence showed that females are more likely to be involved in other activities such as volunteer service, studying and working a job, therefore females simply do not have time for sports compared to males. Perhaps it is possible to scale back the time commitment of sports in college like other high profile jobs have to better attract and retain women (George, 2010). This flexibility would decrease the time demand for females and they could better balance their interests of school, athletic participation and other volunteer and service activities.

Deborah Brake echoes this sentiment that accepting the distinctive sport activity interests of males and females is important when accommodating each gender's interests and abilities (2007). The current intercollegiate structure that "refus[es] to require a mirror imaging of the men's and women's athletic programs" actually helps both sexes (Brake, 2007, p. 537). If women were forced to play the sports offered to men, then it is highly certain that the interests and abilities of women are not met and vice-versa (Brake,

2007). Therefore, Title IX acknowledges that differences may exist, and this flexibility actually helps legitimize Title IX as it allows female athletes the freedom to be able to choose what sports they may want to play.

George compares the process of determining proportionality under Title IX to Title VII and the hiring process -- that without discrimination in the hiring process, the pool of candidates will mirror the racial and gender makeup of the pool from which the employer is hiring (2010). In the context of sports, for determining the proportionality for student-athletes, she takes issue with pool of student-athlete candidates: the entire undergraduate body (George, 2010). Just like when a company is hiring a person, their candidate pool is not the entire working population but those who have applied. Similarly in athletics, the candidate pool is the high school student athletes. It would be more accurate to use current student-athletes in high school as this would better reflect the qualified pool of candidates to be student-athletes at the collegiate level (George, 2010). For example, the national participation number for females in high school is 41% and the intercollegiate athletics participation number is approximately 43%; thus discrimination level is considerably less and more relevant when looking at participation rates through this lens (George, 2010).

In the final part of Zimbalist's essay, he focuses on budget saving initiatives (2003). Most notable is a reduction of football scholarships from 85 to 60 which could save approximate \$750,000 annually for each institution and is a sufficient amount to fund at least two Olympic sports teams (Zimbalist, 2003). Next is to limit coach's salaries by requesting from Congress an anti-trust exemption (Zimbalist, 2003). He points out inconsistencies such as many football and basketball coaches are paid on the same terms,

but finds it illogical because on average football brings approximately three times as much revenue into the athletic department than basketball (Zimbalist, 2003). Also, many football coaches get paid more or the same as NFL head coaches whose teams bring in up to ten times more revenue than collegiate teams (Zimbalist, 2003). Other strategies include reducing travel party sizes to events (players and personnel), eliminating teams staying at a local hotel the night before a home game, reducing coaching staff sizes, cutting the length of the playing season in sports among others (Zimbalist, 2003). Lastly, Zimbalist responds to critics that football should be taken out of the equation because it complicates the proportionality prong; he cites that “a sport’s presumed profitability is not a relevant criterion” and that there shouldn’t be gender discrimination “where revenue generation is equal” (Zimbalist, 2003, p. 58). There shouldn’t be any gender discrimination period, no matter the revenue potential.

NCAA Emerging Sports

In 1994 when the NCAA Gender-Equity Task Force was commissioned, one of its recommendations was to compile a list of emerging sports for women to help offer more participation opportunities to females in intercollegiate athletics (NCAA Emerging Sports Timeline, 2011). The NCAA defines an emerging sport as “a sport recognized by the NCAA that is intended to provide additional athletics opportunities to female student-athletes. Institutions are allowed to use emerging sports to help meet the NCAA minimum sports-sponsorship requirements and also to meet the NCAA’s minimum financial awards” (Criteria for Emerging Sports, here-in after referred to as ‘Criteria’, 2011). For a sport to be placed on the Emerging Sports List, a proposal must be submitted that offers documentation and supporting information that the sport is a legitimate sport

in addition to ten commitment letters from institutions that sponsor or intend to sponsor the sport (Criteria, 2011). The NCAA defines a sport as:

“...an institutional activity involving physical exertion with the purpose of competition versus other teams or individuals within a collegiate competition structure. Furthermore, sport includes regularly scheduled team and/or individual, head-to-head competition (at least five) within a defined competitive season(s); and standardized rules with rating/scoring systems ratified by official regulatory agencies and governing bodies” (Criteria, 2011, ¶2).

The proposal can use evidence such as collegiate recreation and intramural sponsorship, high school sport sponsorship, non-scholastic competitive programs, association and organization support, U.S. Olympic Committee support, conference interest in sports sponsorship, coaches’ association support and professional sports support (Criteria). With sand volleyball, two of the strongest areas of support for the sport came from the American Volleyball Coaches Association, who submitted a legislative recommendation to the NCAA, and from the strong success that men’s and women’s sand volleyball has experienced as an Olympic sport since its adoption in 1996 (Emerging With a Spike, 2011). In order for an emerging sport to receive championship status, a minimum of forty NCAA programs must field a varsity team within a ten year window of the adoption of the activity as an emerging sport or “show steady progress toward that goal to remain on the list” (NCAA Emerging Sports Timeline, 2011, ¶2, here-in after referred to as ‘Timeline’).

Since 1994, there have been four emerging sports that have attained championship status: rowing in 1997, both ice hockey and water polo in 2000-01, and bowling in 2004 (Timeline, 2011). In 2008-2009, women’s bowling had grown to 55 teams fielded in the NCAA with 29 of those coming from Division I (Zgonc, 2010). In 2008-09, there were

84 women's ice hockey teams fielded with 35 of these coming from Division I (Zgonc, 2010). Schools sponsored 146 rowing teams across all three divisions in the NCAA including 87 in Division I (Zgonc, 2010). Sixty women's water polo teams were sponsored in 2008-09 with 32 of these coming from Division I (Zgonc, 2010). In 2009, women's archery, badminton, synchronized swimming and team handball were taken off the emerging sports list because of lack of interest and growth (Timeline, 2011). In 2008-09, there was only one team in all of the NCAA that offered women's archery, two women's badminton teams, eight women's synchronized swimming teams and since 1998, no institution ever sponsored team handball (Zgonc, 2010). Currently, there are three sports on the emerging sports list: equestrian, rugby and sand volleyball (Timeline, 2011). As of 2008-09, there were 46 equestrian teams sponsored throughout the NCAA and five rugby teams between the three divisions of the NCAA (Zgonc, 2010). When sand volleyball was officially added in August 2011, squash was deleted from the current emerging sport lists in August 2011 (NCAA Emerging Sports for Women, 2011). In the Gender Equity Presentation at the 2011 NCAA Convention in San Antonio, Karen Morrison (Director, Gender Inclusion, NCAA), Jeff Ward (Director of Athletics, Bowdoin College) and Janet Judge, Esq. (President, Sports Law Associates LLC) suggested that triathlon, competitive cheer or acrobatics/tumbling or stunts, table tennis, wrestling, baseball and flag football could be candidates to be added on the NCAA emerging sports list.

Sand Volleyball

According to an article released by the NCAA, "Information Related to Emerging With a Spike", sand volleyball will have an estimated starting cost of \$100,000-\$150,000

and operating costs of \$35,000-\$50,000 per year. This figure includes coaching salaries, scholarships (up to three), travel, per diem and lodging for ten student-athletes and a coach for three to five road trips, one official per each championship match of tournament play and recruiting. As for the competition structure and rules of the game, it has been decided that there is a minimum of eight contests (three have to be duals) with a maximum of sixteen dates of competition (Emerging With a Spike, 2011). Each match will be decided by the team who first wins two sets and with the first and second sets being played to twenty-one and the third set being played to fifteen, the winning team has to win by two points (Emerging With a Spike, 2011). A team will consist of fourteen to sixteen student-athletes per team in which five duos will compete in a match; the winner of the two teams is designated by the first team to win three matches (Emerging With a Spike, 2011; Collegiate Sand Volleyball Picks Up Steam, 2012, here in after referred to as 'Picks Up Steam'). This format is similar to how team tennis is scored with the winner being the team claiming four points first. Sand volleyball courts can be constructed outside or inside depending on how much the school is willing to spend and other factors such as local climate and existing facilities (Emerging With a Spike, 2011).

According to the various university sport club websites, currently none of the schools that have pledged their support for sand volleyball have a club sport sand volleyball team. Additionally, according to the National Federation of State High School Associations (NFSHSA) sport participation survey conducted in 2010-11, no state reported sand volleyball as a sport sponsored by a high school. This lack of tangible participation data reflects that at the high school level there does not appear to be a large demand for sand volleyball, and that sand volleyball has not garnered a regional much

less national footprint in high schools (NFSHSA Sport Participation Survey, 2011). However, the Sporting Goods Manufacturer's Association reported that participation rates for sand volleyball grew by 7.6% from 2007-2008 (Emerging With a Spike, 2011). Additionally, female participants under the age of eighteen totaled 217,000 in 2007 and grew to 240,000 in 2008, and the Sporting Goods Manufacturing Association reported that there were over 300,000 females in 2009 (Emerging With a Spike, 2011; Picks Up Steam, 2012). A survey found that 64% of females playing sand volleyball stated that they choose to play only sand volleyball and not indoor volleyball (Emerging With a Spike, 2011). Over a two year period starting in 2007, the number of girls participating in sand volleyball in the United States Beach Junior Tour grew from 534 to 1,757 in 2009 (Emerging With a Spike, 2011).

At this time, there are sixteen institutions that have confirmed they will offer a varsity sand volleyball program starting in the 2011-12 academic year: the University of Southern California, University of California, Santa Barbara, California State University, Long Beach, the University of Hawai'i, Florida State University, College of Charleston, Jacksonville University, Florida Atlantic University, Mercer University, University of North Florida, University of Alabama at Birmingham, Saint Leo University, Stetson University, Warner University, Webber International, and Tulane University (Picks Up Steam, 2012). Thirteen of these schools will compete at the Division I level. Interestingly, each of these schools are either located on the Gulf coast or Pacific coast. Additionally, there are over thirty other institutions that are contemplating the addition of sand volleyball to their sport offering program (Picks Up Steam, 2012). Five schools will offer scholarships for sand volleyball as well (Picks Up Steam, 2012).

Division III has decided not to add sand volleyball to their current sport offerings (Brown, 2012). A survey was conducted regarding institutional interest into sand volleyball in which 314 institutions responded (71% return rate), and the results showed that only 13% of the schools said sand volleyball should be added the emerging sports list (Brown, 2012). Furthermore, only seven percent of the schools stated they would actually consider adding sand volleyball if it was placed on the emerging sports list (Brown, 2012). The survey discovered that 75% of the institutions stated that current or potential student-athletes would not even be interested in participating in the sport (Brown, 2012). The survey also uncovered potential reasons explaining why institutions are not strongly considering sand volleyball; for example, extended playing season for indoor volleyball into sand volleyball season, uniform concerns, only 14% of schools reported that they had facilities that could support sand volleyball and nine percent of schools said there were facilities in close proximity to campus and only seven percent of institutions reported that they could financially support sand volleyball (Brown, 2012). However, schools were not opposed to adding a new sport; thirty-four percent of the respondents were interested in adding competitive cheerleading and twenty four percent expressed interest in adding triathlon (Brown, 2012).

Using legitimacy theory as a lens to evaluate the literature on Title IX and emerging sports helps one better understand the rationale of institutions for adding sand volleyball. There are numerous benefits that an institution can enjoy from adding sand volleyball, but at the same time there are many concerns about the sport. When one uses legitimacy theory to evaluate these reasons why sand volleyball may or may not be added, it will not only determine if it is a reasonable option to provide relief to

underrepresented females but if the addition of the sport actually fulfills unmet interest in the sport or it is an insincere attempt to fulfill Title IX requirements.

CHAPTER III

The purpose of this study was to determine the likelihood of sand volleyball becoming a NCAA championship sport by determining the number of institutions that are currently offering or interested in offering sand volleyball in the next nine years. Furthermore, it was the intent of the study to determine the significant variables that influence a Senior Woman Administrator's and head indoor volleyball coach's response on whether or not their institution would support the sponsorship of sand volleyball. Finally, the study aimed to determine the influence of certain demographic factors in a Senior Woman Administrator's and head indoor volleyball coaches' decision to support the sponsorship of sand volleyball.

Instrumentation & Data Collection

The instrument utilized in this study was founded upon a rigorous review of literature. Relevant questions were compiled, and a panel of experts including two University of North Carolina at Chapel Hill sport administration professors and a current Division I head indoor volleyball coach were consulted in the creation of this survey. In order to enhance survey validity, a pilot study was conducted by having a Division I Associate Athletic Director and volleyball coach verify that the questions were clear and the survey questions were able to capture the responses needed to answer the research questions.

The data for this research study was collected through an e-mail survey sent to 330 Senior Woman Administrators and 316 head indoor volleyball coaches. There was one open position among Senior Woman administrators and 11 head coaching positions open meaning a valid e-mail contact was not available for these 12 potential respondents. All e-mail addresses for Senior Woman Administrators and head coaches came from Division I institutions that sponsor indoor volleyball. Participants were e-mailed an online survey through Qualtrics. The survey sent to Senior Woman Administrators asked a variety of demographic questions regarding their institution's undergraduate enrollment, the number of varsity sports sponsored at their institution, the NCAA volleyball region their institution belongs, their institution's football classification and the number of years of experience they have working in intercollegiate athletics. Head indoor volleyball coaches were asked similar questions as well as their gender and winning percentage and total number of wins as a Division I head coach.

Both subject groups were asked questions that pertained to the likelihood that their institution would support or not support the addition of sand volleyball. To address this issue, the survey asked five questions using a Likert scale with "1" representing "Not at all Likely" and "5" representing "Very Likely". Fill-in-the-blank, multiple choice, "check all that apply" and open-ended question formats were also utilized within the instrument. All questions were directly tied to answer one of the six research questions proposed for the study.

Sample

The target population for this study included head indoor volleyball coaches and Senior Woman Administrators at Division I institutions in the 2011 fall season. Only subjects with the title of “head coach” or “Senior Woman Administrator” were included in the study. Assistant indoor volleyball coaches, head or assistant sand volleyball coaches and any other female athletic administrators were.

Survey Distribution & Collection Procedures

The survey questions were entered into the online survey service provider, Qualtrics, via the Odum Institute at the University of North Carolina at Chapel Hill where a link was created for the survey. The e-mail addresses of all Senior Woman Administrators and head indoor volleyball coaches were collected through institutional athletic websites. After all of the subject’s email addresses were collected, a letter that explained the purpose of the survey with a survey link, was sent to all subjects. The survey was distributed to 330 Senior Woman Administrators and 316 head indoor volleyball coaches.

The confidentiality of the respondents was ensured by not asking for the respondents name or institution in the survey. The respondents were assured that their responses would only be used for the purposes of this study.

Data Analysis

The data was entered into the statistical program of SPSS for Windows version 19.0. Information received for both Senior Woman Administrators and head indoor

volleyball coaches was analyzed to answer each of the six research questions posed for this study.

An analysis of descriptive statistics was used to determine the current prevalence of sand volleyball in Division I and how many institutions might be considering the addition of sand volleyball to their athletic departments for the first research question.

The second research question aimed to answer whether or not there any significant indicators of influence that affect a Senior Woman Administrator's decision to support the addition of sand volleyball as a varsity sport. Five statements were asked in an attempt to discover these significant indicators: a need to increase opportunities for Title IX compliance, interest has been expressed by female students to add sand volleyball, budgetary concerns associated with adding the sport, there are few competitors within our competitive region and concern about the perception of promiscuity in the sand volleyball uniform. Each respondent was asked to rate the level of influence of these five factors using a Likert scale with the choices of "strongly disagree (1)", "disagree (2)", "neither agree or disagree (3)", "agree (4)" and "strongly agree (5)." Additionally, Senior Woman Administrators were asked if the head coach's opinion, either negative or positive, for the sponsorship of sand volleyball affected their response to sponsor sand volleyball. Senior Woman Administrators were given a Likert scale to respond to the question regarding the head coach's opinion with response choices of "not at all influential (1)", "slightly influential (2)", "moderately influential (3)" and "very influential (4)." A One-Way Between ANOVA was then run with the independent variable being the Senior Woman Administrator's response to the "likelihood" of their

institution adding the sport and the dependent variables were “Title IX”, “interest expressed”, “promiscuity”, “competitive region”, “budget” and “head coach’s opinion.”

After each One-Way Between ANOVA, the p-value of each ANOVA was reported as well. An alpha level of .05 was previously agreed upon before testing to be the significance threshold when the data was interpreted. In the event that the One-Way Between ANOVA found a significant finding, $<.05$, a Tukey post-hoc test was run to determine how many and which pairwise comparisons were significant.

After a One-Way Between ANOVA was run for all six questions, a One-Way Within ANOVA was also run with the dependent variable being each of the five choices to “likelihood” of adding the sport and the five independent variables were “Title IX”, “interest expressed”, “promiscuity”, “competitive region” and “budget.” The variable of “head coach’s opinion” was not included in the One-Way Within ANOVAs because the question was not formatted the same way as the other five since it only had four answer choices on the Likert scale. The One-Way Within ANOVA separated all of the respondents into five groups based upon to their response to the question pertaining to the likelihood of their institution adding sand volleyball. From there, the One-Way ANOVA compared the means to each group’s responses to the questions pertaining “Title IX”, “interest expressed”, “promiscuity”, “competitive region” and “budget” to discover whether or not there were significant differences between those means in each level of the likelihood of their institution adding sand volleyball. Comparing these means from each of the “likelihood” groups helps identify which, if any, of the five factors were influential in the Senior Woman Administrator’s response on whether or not their institution would support the addition of sand volleyball at their institution. Furthermore,

if a significant finding, with an alpha level of .05, was found for the set of data, a list of pairwise comparisons that distinguished which pairs were significant from each other was present.

This same process and statistical procedures used for the second research question was also used for the third research question with two minor differences: head coach was the independent variable for the One-Way Between ANOVA and the question of “head coach’s opinion” was not asked to this group of respondents.

The fourth research question examined differences between Senior Woman Administrators and head coaches in their responses about what their institution would add sand volleyball. Therefore, a Two-Way Between ANOVA was run; this compared the means of the responses of the Senior Woman Administrators and head coaches by each of the five “likelihood” levels of adding sand volleyball. The output gave three relevant p-values; two for the main effects, “position” and “likelihood” and the interaction effect, a p-value comparing the means of the independent variables of “position” and “likelihood.” A p-value of .05 was established as the alpha level to determine whether or not the data was significant.

The fifth research question sought out to see if the institutional demographic factors of region, football classification, institutional enrollment, number of varsity sports, and the number of years of experience working as a Senior Woman Administrator affect the Senior Woman Administrator’s responses on the likelihood of their institution adding the sport of sand volleyball. To do this, five One-Way Between ANOVA’s were run. In each of the five ANOVAs, each of the factors of region, football classification,

institutional enrollment, number of varsity sports, and the number of years of experience as a Senior Woman Administrator were the independent variables and the dependent variable in all five ANOVAs was the “likelihood” of the institution adding sand volleyball. An alpha level of .05 was selected as the threshold and in the event that there was a significant finding, a Tukey post-hoc test was run for that set of data.

The same tests and procedures run to answer the fifth research question were also performed in the analysis of the sixth research question. There was one difference here; the variable of number years of experience as a Senior Woman Administrator was replaced by the variable of total number of wins and a sixth variable of gender was added.

CHAPTER IV

Research Question 1

To answer the research question what is the prevalence of sand volleyball as a varsity sport currently or soon-to-be sponsored by NCAA Division I institutions, the survey distributed to both Head Coaches and Senior Woman Administrators asked the respondents “Currently, does your institution offer sand volleyball at the: varsity level, club level, intramural/recreational level or does not offer sand volleyball at any level?” Additionally, the survey sought to discover how likely it is that an institution will add sand volleyball in the next nine years. Respondents were given the answer choices of “not at all likely”, “somewhat likely”, “neither likely or unlikely”, “somewhat likely or very likely”.

Among Senior Woman Administrators, there were 121 completed responses to the question regarding the likelihood of the addition of sand volleyball. Nine respondents stated that sand volleyball is currently offered as a varsity sport at their institution while 16 respondents replied that sand volleyball is offered at intramural/recreational level and 96 respondents replied that their institution does not offer sand volleyball at any level. It is important to note that none of the Senior Woman Administrators replied that sand volleyball is offered at the club level.

There were 118 Senior Woman Administrators who submitted responses to the question addressing the likelihood of their institution adding sand volleyball in the next nine years. Among these responses, there were 60 responses that stated “not at all likely”,

19 responded “somewhat unlikely”, 16 answered “neither likely or unlikely”, 14 replied “somewhat likely” and only nine respondents stated that it is “very likely” that their institution will add sand volleyball in the next nine years. Interestingly, just over half, 51%, of the head coaches stated that it is “not at all likely” that their institution will add sand volleyball.

There were 124 head coaches who submitted completed responses to question regarding the current offering of sand volleyball at their institutions. Eight head coaches responded that their institutions currently offer sand volleyball, one response that sand volleyball is offered at the club level, 21 coaches replied that sand volleyball is offered at the intramural/recreational level and 84 head coaches stated that their institution currently does not offer sand volleyball at any level.

Finally, there were 128 head coaches that submitted responses to the question “How likely is it that your institution will add sand volleyball in the next nine years?” Among head coaches, there were 52 responses that stated “not at all likely”, 25 responded “somewhat unlikely”, 19 answered “neither likely or unlikely”, 13 replied “somewhat likely” and only 19 respondents stated that it is “very likely” that their institution will add sand volleyball in the next nine years.

Research Question 2

The second research question aimed to answer whether or not there were any significant indicators of influence that affected a Senior Woman Administrator’s response on whether or not their institution would support the addition of sand volleyball as a varsity sport.

Table 1 organizes the results of the One-Way Between ANOVA for Senior Woman Administrators. Table 1 ranks each of the five factors by their mean, with the greatest mean first, as well as the standard deviation for each factor. Within each factor group, significant pairwise comparisons are listed with the mean difference and the p-value.

Table 1, A Comparison of Between Subject Factors Among Senior Woman Administrators

<i>Factor</i>	<i>M</i>	<i>SD</i>	<i>Mean Difference</i>	<i>p-value</i>
Budget*	3.77	1.246		.040
Not at all likely v. Somewhat likely			0.67	.030
Competitive Region	3.71	1.189		.157
Title IX*	2.83	1.361		.000
Not at all likely v. Somewhat unlikely			1.37	.000
Not at all likely v. Neither likely or unlikely			1.47	.000
Not at all likely v. Somewhat likely			1.87	.000
Promiscuity	2.16	1.111		.573
Interest Expressed*	2.08	1.105		.000
Not at all likely v. Somewhat likely			1.25	.001
Not at all likely v. Very likely			1.46	.004

Note. The scale ranged from Not at all likely (1) to Very likely (5). The sample breakdown for the table was the following: SWA (n = 111).

There was one factor, the influence of the head coach's opinion on the Senior Woman Administrator's response, that was different than the other five factors as there were only four answer choices, "not at all influential (1)", "slightly influential (2)", "moderately influential (3)" and "very influential (4)", were provided on a Likert scale given to respondents.

Table 2 lists the means and standard deviations of each "likelihood" level in response to the question regarding the head coach's opinion on adding sand volleyball.

Table 2, A Comparison of Head Coach's Opinion Influence Among Senior Woman Administrators

Head Coach's Opinion		
Likelihood of Adding SVB	Mean	Std. Dev.
Not at all likely	2.03	1.017
Somewhat likely	2.58	0.769
Neither likely or unlikely	2.56	0.892
Somewhat likely	3.21	0.579
Very likely	2.88	0.991

Note. The scale ranged from Not at all influential (1) to Very influential (4). The sample breakdown for the table was the following: SWA (n = 111).

When the ANOVA performed, there was an overall p-value of .000. The Tukey post-hoc test discovered only one significant pairwise comparison and it was between the means of “not at all likely” and “somewhat likely.”

Table 3 organizes the results of the One-Way Within ANOVA for Senior Woman Administrators. The table lists the p-value for each “likelihood” group as well as the percentage of respondents in the sample that chose that particular “likelihood” response. All of the significant pairwise comparisons within each “likelihood” level are listed with the mean difference between the two factors and the p-values as well.

Table 3, A Comparison of Within Subject Likelihood Among Senior Woman Administrators

<i>Factor</i>	<i>Mean Difference</i>	<i>p-value</i>	<i>Response Percentage</i>
Not at all likely*		.000	50.91%
Interest Expressed v. Competitive Region	2.11	.000	
Interest Expressed v. Budget	1.79	.000	
Interest Expressed v. Promiscuity	0.57	.024	
Title IX v. Competitive Region	1.66	.000	
Title IX v. Budget	1.34	.000	
Title IX v. Interest Expressed	0.45	.007	
Competitive Region v. Promiscuity	1.54	.000	
Somewhat unlikely*		.000	16.37%
Interest Expressed v. Budget	2.24	.000	
Interest Expressed v. Competitive Region	2.17	.000	
Budget v. Promiscuity	2.11	.000	
Competitive Region v. Promiscuity	1.84	.000	
Title IX v. Interest Expressed	1.50	.001	
Neither likely or unlikely*		.000	13.64%
Budget v. Promiscuity	1.81	.000	
Competitive Region v. Promiscuity	1.62	.001	
Title IX v. Promiscuity	1.72	.005	
Interest Expressed v. Budget	0.50	.048	
Somewhat likely*		.000	12.73%
Title IX v. Promiscuity	1.86	.000	
Budget v. Promiscuity	1.07	.001	
Interest Expressed v. Budget	1.21	.055	
Very likely		.069	6.36%

Note. The scale ranged from Not at all likely (1) to Very likely (5). The sample breakdown for the table was the following: SWA (n = 110).

In the qualitative section, one of the questions asked Senior Woman Administrators to provide feedback on why another sport, other than sand volleyball, was chosen to be added. Among Senior Woman Administrators, the biggest themes here were that there is not enough interest in sand volleyball or there is more interest in other sports, sand volleyball does not offer enough participation opportunities and that there were not enough teams in their competitive region. Climate and facility costs were also listed as reasons why other sports were considered but to a lesser degree.

The next free-response question posed was to cite any other reasons that might influence the respondent to support the addition of sand volleyball. The biggest reason cited by Senior Woman Administrators was that the institutions currently do not have the facilities to support the sport and the costs associated of building the facilities are too much. Another reason that compliments the facilities concern is weather. Building outdoor courts is costly enough, but for schools in climates where it is cold and winter lasts longer, the costs of building an indoor facility are even more expensive. Other reasons given were lack of interest, few teams in their competitive region and that they are already Title IX compliant or that sand volleyball does not provide a significant amount of participation opportunities. Two respondents had similar answers; one stated that “If everyone else is doing it, we will most likely have to. We do not want to add it, but if everyone else does, we do not want to be at a recruiting disadvantage.” A similar response mentioned that “if other conference teams begin to add sand we will too...[our] coach [is] not excited about it but realizes it's probably going to happen.” This brings up a point that the more institutions that add sand volleyball, the more pressure it places on other schools, especially schools in a particular region that adding sand volleyball is more likely, to add the sport even if the institution is against its addition. There was only one statement that raised concern about the student-athlete welfare among Senior Woman Administrators and head coaches; this respondent replied: “...the health of student-athletes who would now be competing year-round in a sport that has significant overuse injuries already.”

Research Question 3

Table 4 organizes the results of the One-Way Between ANOVA for head coaches. The table ranks each of the five factors by their mean, with the greatest mean first, as well as the standard deviation for each factor. Within each factor group, significant pairwise comparisons are listed with the mean difference and the p-value.

Table 4, A Comparison of Between Subject Factors Among Head Coaches

Factor	<i>M</i>	<i>SD</i>	<i>Mean Difference</i>	<i>p-value</i>
Budget	4.23	0.996		.769
Competitive Region	3.67	1.301		.177
Title IX*	2.94	1.202		.000
Not at all likely v. Very likely			1.66	.000
Not at all likely v. Somewhat likely			1.51	.001
Not at all likely v. Somewhat unlikely			0.92	.009
Not at all likely v. Neither likely or unlikely			0.91	.022
Interest Expressed*	2.38	1.082		.000
Not at all likely v. Very likely			1.63	.000
Not all likely v. Neither likely or unlikely			1.09	.001
Not at all likely v. Somewhat likely			1.16	.007
Not at all likely v. Somewhat unlikely			0.79	.013
Promiscuity	1.84	0.987		.051
Not at all likely v. Somewhat likely			0.68*	.049
Somewhat likely v. Very likely			1.10	.066

Note. The scale ranged from Not at all likely (1) to Very likely (5). The sample breakdown for the table was the following: HC (n = 106).

Table 5 organizes the results of the One-Way Within ANOVA for head coaches. The table lists the p-value for each “likelihood” group as well as the percentage of respondents in the sample that chose that particular “likelihood” response. All of the significant pairwise comparisons within each “likelihood” level are listed with the mean difference between the two factors and the p-values as well.

Table 5, A Comparison of Within Subject Likelihood Among Head Coaches

<u>Factor</u>	<u>Mean Difference</u>	<u>p-value</u>	<u>Response Percentage</u>
Not at all likely*		.000	41.90%
Interest Expressed v. Budget	2.47	.000	
Interest Expressed v. Competitive Region	1.99	.000	
Interest Expressed v. Budget	1.93	.000	
Competitive Region v. Promiscuity	2.03	.000	
Title IX v. Competitive Region	1.45	.000	
Title IX v. Promiscuity	0.58	.011	
Title IX v. Interest Expressed	0.54	.012	
Somewhat unlikely*		.000	20.00%
Competitive Region v. Promiscuity	2.29	.000	
Interest Expressed v. Budget	1.77	.000	
Interest Expressed v. Competitive Region	1.58	.000	
Title IX v. Promiscuity	1.38	.005	
Title IX v. Budget	1.10	.040	
Neither likely or unlikely*		.000	16.19%
Budget v. Promiscuity	2.41	.000	
Interest Expressed v. Budget	1.65	.000	
Competitive Region v. Promiscuity	1.65	.004	
Title IX v. Budget	1.29	.006	
Somewhat likely		.039	8.57%
Very likely*		.000	13.33%
Budget v. Promiscuity	2.43	.000	
Title IX v. Promiscuity	2.36	.000	
Competitive Region v. Promiscuity	1.43	.002	
Interest Expressed v. Promiscuity	1.79	.010	

Note. The scale ranged from Not at all likely (1) to Very likely (5). The sample breakdown for the table was the following: SWA (n = 105).

When head coaches were asked why other sports instead of sand volleyball was chosen to be added, the overwhelming reason cited why another sport would be chosen over sand volleyball was that sand volleyball did not provide enough participation opportunities, unlike sports like women's lacrosse, softball or field hockey. Another reason cited was that the costs of adding sand volleyball were too much. Additionally, although cited less frequently, were that there was little interest expressed in sand volleyball and the current lack of facilities.

Furthermore, it was interesting to read the open-ended responses to the question of why their institution may or may not support the addition of sand volleyball. Coaches were more thorough in their responses and provided more feedback on why they would or would not support the addition of sand volleyball. The most frequent responses on why sand volleyball would not be an option at their school were costs, facilities and weather. These three are intertwined; there are no existing facilities and depending on the location of the school, the amount of money to build outdoor or indoor facilities would be too much. Another concern cited is that the addition of sand volleyball would detract away from the indoor program in terms of budget and coaches. They replied that their indoor coaching staff is already overloaded and feared that if sand volleyball was added, the athletic department would not allocate the appropriate resources to fund sand volleyball. Lack of teams in their competitive region was also a reason cited why head coaches were not in favor of adding the sport. One respondent stated that the likelihood of adding the sport depended on the conference, in this case the Big 12, and their level of support for the sport. Another Big 12 coach stated that no other Big 12 teams were adding the sport, so it was very unlikely that their institution would add sand volleyball.

Finally, the responses regarding the sport of sand volleyball among the head coaches was somewhat mixed. Some coaches stated that "...sand volleyball is a wonderful outlet for volleyball athletes. I think it is a great opportunity for our sport...The recruiting and training advantages for coaches could be enormous." Another head coach echoed this sentiment as they said that "...it would be an advantage in recruiting...for both indoor and outdoor programs." However, others reply that they are concerned that the addition of sand volleyball will only favor select schools as seen by

one response: “I think it will benefit only areas that have the weather and sand year round. It will suffer in the East and North...” One head coach found the lack of demand nationally a concern and provided a cynical response about administrators and their support for the sport:

...there is very little national demand for this as a collegiate sport as evidenced by the lack of junior participation. It also has weak support from coaches. Its main support is from administrators, many of whom view it as an inexpensive way to approach Title IX compliance and are under informed about the realities of implementing the sport.

Research Question 4

The fourth research question compared the responses of Senior Woman Administrators and head coaches in an attempt to distinguish any significant differences between the two group’s responses to each of the five variables. Table 6 reports the overall mean and standard deviation of the combined Senior Woman Administrator’s and head coach’s responses as well the means and standard deviations for both sample groups. Additionally, the p-value of each factor with the combined responses from each sample is listed.

Table 6, A Comparison of the Mean Response Rates Between Senior Woman Administrators & Head Coaches

Factor	<i>M</i>	<i>SD</i>	<i>p-value</i>
Budget	4.00	1.153	.192
HC	4.23	0.996	
SWA	3.77	1.246	
Competitive Region	3.69	1.242	.750
HC	3.67	1.301	
SWA	3.71	1.189	
Title IX	2.84	1.284	.081
HC	2.94	1.202	
SWA	2.83	1.361	
Interest Expressed	2.23	1.101	.632
HC	2.38	1.082	
SWA	2.08	1.103	
Promiscuity	2.00	1.063	.128
HC	1.84	0.987	
SWA	2.16	1.111	

Note. The scale ranged from Not at all likely (1) to Very likely (5). The sample breakdown for the table was the following: SWA (n = 111), HC (n = 106).

Research Question 5

The fifth research question sought to see if the institutional demographic factors of region, football classification, institutional enrollment, number of varsity sports, and the number of years of experience working as a Senior Woman Administrator affect the Senior Woman Administrator's responses on the likelihood of their institution adding the sport of sand volleyball. Table 7 illustrates the effect of football classification affected the Senior Woman Administrator's response to the likelihood of their school adding sand volleyball. It includes the number of responses in each football classification as well as the mean and standard deviation for each football classification.

Table 7, The Effect of Football Classification on the Likelihood of Adding Sand Volleyball—Senior Woman Administrators

Football Classification	N	Mean	Std. Dev.
FBS	54	2.17	1.437
FCS	28	1.96	1.138
No Football	34	2.15	1.350

The first One-Way Between ANOVA run was in regards to the respondent's football affiliation. There were 54 respondents from Football Bowl Subdivision (FBS) institutions, 28 from Football Championship Subdivision (FCS) institutions and 34 respondents from institutions that do not offer football. The ANOVA revealed a p-value of .803, a very high p-value. In turn, this means that there were no significant differences between any of the means.

Table 8 shows the effect of NCAA Volleyball Region on the Senior Woman Administrator's response to the likelihood of their institution adding sand volleyball. Table 8 includes the number of responses within each region as well as the mean and standard deviation among the responses for each region.

Table 8, The Effect of NCAA Volleyball Region on the Likelihood of Adding Sand Volleyball—Senior Woman Administrators

NCAA Volleyball Region	N	Mean	Std. Dev.
Central	4	1.25	0.500
East	12	1.75	1.055
Mideast	9	1.33	1.000
Midwest	19	1.42	0.692
Northeast	13	1.85	1.519
Pacific	10	2.50	1.179
South	18	3.00	1.495
West	13	3.23	1.536
Don't Know	18	1.94	1.110

The second One-Way Between ANOVA run was comparing the eight NCAA Volleyball Regions. A total of 116 respondents indicated their NCAA Volleyball region. The regions and the number of respondents in each region are as follows: Central (4), East (12), Mideast (9), Midwest (19), Northeast (13), Pacific (10), South (18) and West (13). A category of “Don’t Know” was also added to capture responses from Senior Woman Administrators who may not know to which region their institution belongs; there were 18 respondents who indicated that they did not know what to which region their institution belonged.

The ANOVA yielded a p-value of .000 and a Tukey post-hoc test was run to determine how many significant pairwise comparisons and to identify what were the significant pairs. There were a total of four significant pairwise comparisons: Mideast and South with a p-value of .028, Mideast and West with a p-value of .013, Midwest and South with a p-value of .004 and Midwest and West with a p-value of .002. The pairwise comparison of East and West approached significance with a p-value of .068.

The next variable tested was if the enrollment of the institution had an effect on the Senior Woman Administrator's response on the likelihood of their institution adding sand volleyball. Out of 119 Senior Woman Administrators who responded to this question, the mean of the responses was 19,110.69, the median was 16,000, the mode was 20,000 and the range of the data was 1,200 to 58,000. The ANOVA revealed a p-value of .278 which means there were no significant pairwise comparisons.

Out of 118 Senior Woman Administrators who indicated the number of years experience they have serving as Senior Woman Administrator, the mean for the number of years of experience in college athletics administration was 16.69, the median was 16, the mode was 15 and the range of the responses was from one year to 37 years. When the One-Way Between ANOVA was performed, it yielded an overall p-value of .582. Therefore, no significant pairwise comparisons were present for this set of data.

The last variable looked the number of varsity sports offered at each institution. There were a total of 120 responses to this question; for this set of data, the mean was 19.13, the mean was 18, mode was 16 and the range of the data extended from 14 sports offered to a total of 36 sports. Out of 116 responses, 87 respondents, approximately 75%, fell into the range of 14-20 varsity sports offered at their institution. The p-value for this set of data was .095. Although this p-value approached significance, it did not; therefore, no significant pairwise comparisons existed in this set of data.

Research Question 6

The sixth research question seeks to see if the institutional demographic factors of region, football classification, institutional enrollment, number of varsity sports, and the

number of years of being a head volleyball coach affect the head coaches' responses on the likelihood of their institution adding the sport of sand volleyball or not. In Table 9, the reader finds the results for the effect of football classification affected the head coach's response to the likelihood of their school adding sand volleyball. It includes the number of responses in each football classification as well as the mean and standard deviation for each football classification.

Table 9, The Effect of Football Classification on the Likelihood of Adding Sand Volleyball—Head Coaches

Football Classification	N	Mean	Std. Dev.
FBS	35	2.40	1.397
FCS	41	2.12	1.382
No Football	34	2.18	1.547

The first One-Way Between ANOVA run was in regards to the respondent's football affiliation. There were a total of 110 head coaches who responded to this question: 35 respondents from Football Bowl Subdivision (FBS) institutions, 41 from Football Championship Subdivision (FCS) institutions and 34 respondents from institutions that do not offer football. The ANOVA revealed a very high p-value of .683. In turn, this means that there were no significant differences between any of the means.

Table 10 illustrates the effect of NCAA Volleyball Region on the Senior Woman Administrator's response to the likelihood of their institution adding sand volleyball. Table 8 includes the number of responses within each region as well as the mean and standard deviation among the responses for each region.

Table 10, The Effect of NCAA Volleyball Region on the Likelihood of Adding Sand Volleyball—Head Coaches

NCAA Volleyball Region	N	Mean	Std. Dev.
Central	8	1.75	0.886
East	9	2.11	1.691
Mideast	7	1.86	1.069
Midwest	15	1.60	1.298
Northeast	19	1.63	1.257
Pacific	13	2.38	0.961
South	23	3.04	1.609
West	11	2.45	1.753
Don't Know	3	3.00	0.000

Another, One-Way Between ANOVA run was comparing the eight NCAA Volleyball Regions. There were a total of 108 respondents that indicated their NCAA Volleyball region. The regions and the number of respondents in these regions are as follows: Central (8), East (9), Mideast (7), Midwest (15), Northeast (19), Pacific (13), South (23) and West (11). A category of “Don’t Know” was also added to capture responses from head coaches who may not know to which region their institution belongs; there were three respondents who indicated that they did not know what to which region their institution belonged.

The ANOVA yielded a p-value of .031 and a Tukey post-hoc test was run to determine how many significant pairwise comparisons and to identify what were the significant pairs. There were a total of two significant pairwise comparisons: Midwest and South with a p-value of .050 and Northeast and South with a p-value of .033.

The next variable tested was if the enrollment of the institution had an effect on the head coaches' response to the likelihood of their institution adding sand volleyball. Out of 111 head coaches who responded, the mean of the responses was 16,335 students, the median was 13,500, the mode was 10,000 and the range of the data was 1,600 to 70,000. When the ANOVA was run, it revealed a p-value of .529 which meant there were no significant pairwise comparisons.

Out of 114 head coaches who responded to the question regarding their experience as a head coach; the mean for the number of years of as a head volleyball coach was 9.32, the median was seven, the mode was one and the range of the responses was from one year to 31 years. When the One-Way Between ANOVA was performed, it yielded an overall p-value of .329 which means that there are no significant pairwise comparisons were present for this set of data.

The next variable examined the number of varsity sports offered at each institution. There were a total of 111 head coaches who responded to this question; for this set of data, the mean was 17.65, the median was 16, mode was 14 and the range of the data extended from 10 sports offered to a total of 36 sports. Out of 111 responses, 79 respondents, approximately 71.12%, fell into the range of 14-20 varsity sports offered at their institution. When the ANOVA was run, the p-value for this set of data was .121. Although this p-value approached significance, it did not; therefore, no significant pairwise comparisons existed in this set of data.

The final independent variable surveyed among the head coaches was gender. A total of 69 males and 43 females responded to the survey with overall means of 2.29 and

2.14, respectively. When the ANOVA was performed for this set of data, it revealed a p-value of .588; therefore no significant finding was reached. Furthermore, a Two-Way Between ANOVA was run to see if the independent variables of gender and “promiscuity” would have any effect on the outcome of the head coaches’ response to whether or not it was likely that their institution would add sand volleyball. The main effects for gender and “promiscuity” were .609 and .202, respectively, with an overall interaction effect of .226. The interaction effect’s p-value was lower than other tests but did not approach the significance threshold of .05.

Due to the fact that the p-values for the One-Way Between ANOVAs for the data concerning NCAA Volleyball Region were significant for both Senior Woman Administrators and head coaches, a Two-Way Between ANOVA was run between these two groups to see if the means of the Senior Woman Administrator’s responses and the means of the head coaches’ responses produced a significant p-value. The output gave three relevant p-values: two for the main effects, “position” and “NCAA Region” and the interaction effect, a p-value comparing the means of the independent variables of “position” and “likelihood.” Table 11 provides a comparison...

Table 11 provides a comparison of the means and standard deviations for Senior Woman Administrators and head coaches within each region.

Table 11, A Comparison of NCAA Volleyball Region Means Between Senior Woman Administrators and Head Coaches

NCAA Volleyball Region	Mean (SWA)	Std. Dev. (SWA)	Mean (HC)	Std. Dev. (HC)
Central	1.25	0.500	1.75	0.886
East	1.75	1.055	2.11	1.691
Mideast	1.33	1.000	1.86	1.069
Midwest	1.42	0.692	1.60	1.298
Northeast	1.85	1.519	1.63	1.257
Pacific	2.50	1.179	2.38	0.961
South	3.00	1.495	3.04	1.609
West	3.23	1.536	2.45	1.753
Don't Know	1.94	1.110	3.00	0.000

When the Two-Way Between ANOVA was run, it produced two main effects (Position and NCAA Region) and an interaction effect (between the two main effects). The main effect for position did not signify a significant p-value, .383, but NCAA region did with a p-value of .000. However, there interaction effect yielded a p-value of .685 which is not a significant finding.

CHAPTER V

Legitimacy Theory

Legitimacy Theory states that an organization's management will act in a way to conform with value system of the social system that it is a part of. One of the reasons for selecting this theory was the belief that Title IX would be a very influential factor and become a strong indicator of support for sand volleyball. The data showed in a select few cases that Title IX was the most influential factor, but for the majority of tests run, Title IX was at best the factor with the third highest means and not a significant indicator as it took a back seat to other issues such as "budget" and "competitive region." In some of the qualitative responses, Title IX was influential for two reasons: many respondents replied that their institution was already Title IX compliant so there was no need to add another sport and other replied that sand volleyball did not offer enough participation opportunities. These results were surprising; however, it is important to remember that the factor of "interest expressed" is related to Title IX, although that was not a strong indicator of influence either. As a result, from the aspect of Legitimacy Theory that institutions will abide by the rules in the social system that are they are part of, specifically fulfilling Title IX requirements, this theory was not supported. The notion of adding a sport in order to appear compliant did not come across in the survey data or qualitative data.

Therefore, one must look at other possible values that might appear in the social system that these institutions are a part of. One value might be fiscal responsibility; some may have evaluated the addition of sand volleyball through a cost-benefit analysis. The costs of the sport may have heavily outweighed any benefit due to lack of competitors in their region and it being very expensive to travel to compete, climate, high hard costs to start the program, facility costs or lack of interest. This value could be related to Title IX; although the expenses may be low, the number of participation opportunities offered is not sufficient and another sport (softball or lacrosse) may be a smarter and more efficient way to use the institutions funds. On the other hand, there could be a great deal of interest among administrators, student-athletes and coaches at an institution and providing these participation opportunities may be what an institution values most.

It appears that the following value will only become more important in the next few years as more teams increase; this value is the need to retain a competitive recruiting advantage in indoor volleyball. As institutions see their peer institutions, either like schools or regionally, add the sport, they might feel pressured to add the sport in order to stay legitimate and relevant in indoor volleyball and to remain competitive in recruiting the top talent for indoor sport. In order to remain competitive in the indoor sport, schools especially in the West and South will be forced to add sand volleyball so it appears to other schools and recruits that they are fully committed to the success of their indoor program. However, it is important to consider the type of student-athletes that schools are recruiting; if they are recruiting student-athletes who want to play both sports, the institution would have to change their recruiting philosophy. If the institution will continue to recruit prospects who just want to play indoor volleyball and many of their

competitors continue to do the same, it is likely that there will not be a change in recruiting philosophy. Again, this potential phenomenon will most likely be dictated by the region that the institution belongs to.

Therefore, this raises the true question; is the sport of sand volleyball being added because there truly is an interest in the sport and a desire to expand the number of participation opportunities for women or will institutions add the sport only as a necessity in order to maintain their indoor volleyball program's competitive and recruiting level? The answer to this question will not be answered for a few years after more programs add the sport but it may provide an answer to what kind of value sand volleyball brings to intercollegiate athletics.

Research Question 1

Currently 15 institutions offer sand volleyball for this upcoming season, 25 short of the amount needed to attain NCAA Championship status. Sand volleyball still has eight more years to reach the 40 participating teams level. In the survey, nine Senior Woman Administrators and eight head coaches indicated that they currently offered sand volleyball; however, due to the anonymity of the survey, it is not known how many of the responses come from the same institution.

One of the most interesting findings that is consistent with previous research is that out of 245 responses between the two sample groups, there was only one response that said that sand volleyball was currently offered at the club level. Although it is not surprising, it still is astonishing that more schools do not offer the sport at the club level. Often, one sees a sport moved up from club to varsity level due to the sport's pre-existing

organization, student-athletes and interest. This indicates that there is an assumption that there is an interest in sand volleyball despite the lack of club teams, high school teams or solid participation levels. One possible conclusion is that sand volleyball was likely pushed by a group of head indoor volleyball and administrators who think that it can benefit indoor volleyball and this is also evident through the American Volleyball Coaches Association's support. The apparent high level of support contradicts the finding in the NCAA survey among Division III institutions which found very low interest in adding sand volleyball; perhaps this is because more schools, not all, are more equipped to handle the costs associated with adding the sport (Brown, 2012).

The first research question did not just aim to find the current prevalence of sand volleyball, but what the future holds in terms of institutions adding sand volleyball in order to get to that 40 team threshold. Among the Senior Woman Administrators, 14 indicated that it was "somewhat likely" and nine responded that it was "very likely." For head coaches, 13 responded that it was "somewhat likely" and surprisingly there were 19 that indicated that it was "very likely" that their institution would add sand volleyball. It is important to note that due to the anonymity of the survey, one does not know how many of the respondents from each of the samples come from the same institution. However, the results of "very likely" show that within the sample the number of institutions that currently have sand volleyball may at least double in the next eight years. Additionally, more institutions will possibly add sand volleyball based off the responses of "somewhat likely." Due to the fact that this just a sample, the threshold of 40 was not met in either sample groups, but the data revealed that there appears to be commitment to

the sport as approximately half the teams needed to attain a NCAA Championship comes from institutions with strong interest as they are considering to add the sport.

Perhaps the biggest catalyst for the number of institutions adding sand volleyball will come due to the “bandwagon” effect. As seen in the qualitative results, respondents indicated that if more institutions begin to add the sport, they will feel pressure to add the sport in order to retain a competitive advantage in recruiting for indoor volleyball. This may be important for institutions that are located in the NCAA regions of the South and West as these areas had the highest interest in adding the sport of sand volleyball according to the survey and these are the regions where the vast majority of institutions that already offer the sport are located, according to the NCAA. Here is the best indication of the presence of legitimacy theory as schools may feel forced to add the sport in order to be viewed as legitimate indoor volleyball schools by adding sand volleyball.

Research Question 2

The analysis for research question 2 is twofold. First, looking to see if the Senior Woman Administrator’s response to the likelihood of their institution adding the sport affected their response to six different independent variables. Next, it was tested to see if the if any of the five factors of “Title IX”, “budget”, “competitive region”, “interest expressed” and “promiscuity” influenced the Senior Woman Administrator’s response to adding the sport within each of the five of the “likelihood” groups.

The results of the One-Way Between ANOVA revealed non-significant findings for “promiscuity” and “competitive region” but they were non-significant for two different reasons. “Promiscuity” had a relatively high p-value, .573, meaning that there

was little difference at any “likelihood” level that “promiscuity” influenced the responses. When one looks at the means for each level, these were the lowest means. On the other hand, “competitive region” did not reveal any significant pairwise comparisons mainly because the means for all levels were close. Furthermore, “competitive region” had the highest means, indicating that this was a strong indicator of influence. Similarly, “budget” was a strong indicator of influence as all of the means were very high at all levels. For the dependent variable of “interest expressed” it was interesting to see that the means escalated at each level, with it being the most influential at the “very likely” level. This indicates that this more of an influential factor for schools looking to add the sport. The “head coach’s opinion” had lower means and were all close together, except at the “not at all likely” level. Therefore, this was not a strong indicator of influence at any “likelihood” level. Finally, the results for “Title IX” appeared to be mixed; for the middle three groups, “somewhat unlikely”, “neither likely or unlikely” and “somewhat likely”, all three had higher means and it appeared to be a stronger indicator of influence for these groups. However, it appears to not have been as influential for the more extreme groups as “not at all likely” and “very likely.”

The One-Way Within ANOVAs give one a better idea of what were the stronger indicators of influence with each “likelihood” group. A trend that appeared in all five “likelihood groups” was that “budget” was the strongest indicator of influence on whether or not their institution would add sand volleyball. In all groups except for “somewhat likely” and “neither likely or unlikely”, “competitive region” was the second strongest indicator of influence. The variable “budget” was the second strongest indicator of influence in those two groups. Finally, the variables of “interest expressed” and

“promiscuity” were very weak indicators of influence in just about all levels of “likelihood.”

In the groups of “neither unlikely or likely” and “somewhat likely”, it was surprising to see that “Title IX” virtually tied “budget” as the strongest indicator of influence. Here this suggests that for these groups, a need for participation opportunities was present and sand volleyball exists as a viable option to solve this problem.

With “budget” and “competitive region” showing signs as the strongest indicators of influence in both ANOVAs run, this echoes the sentiment that the costs associated of adding sand volleyball (facilities, coaching, scholarships) are high enough to deter support. This counters the notion that sand volleyball could be an inexpensive alternative to adding participation opportunities. Additionally, “competitive region” was likely a strong indicator of influence due to the fact that for many institutions the likelihood that other institutions in their region would probably not add the sport. These two factors could be related; if institutions believe that not many institutions would add the sport in their region, it would be very costly to compete and send their teams regions, such as the south or west, to compete.

Research Question 3

The analysis for Research Question 3 is twofold, as well. First, looking to see if the head coaches’ response to the likelihood of their institution adding the sport affected their response to five different independent variables. Next, it was tested to see if the if any of the five factors of “Title IX”, “budget”, “competitive region”, “interest expressed”

and “promiscuity” influenced the head coaches’ response to adding the sport within each of the five of the “likelihood” groups.

The data for “budget” and “competitive region” registered p-values of .769 and .177, respectively. This indicated that the responses to these factors did not significantly vary at any level of “likelihood.” For “budget”, it was the only dependent variable that produced means of over 4.00 for all levels of “likelihood.” The p-value for “promiscuity”, .051, narrowly missed out on significance; however, the means of all levels of “likelihood” were the lowest out of all dependent variables. Therefore, “promiscuity” was not a strong indicator of influence. For “Title IX” and “interest expressed”, the means among each group escalated, for the most part, from “not at all likely” to “very likely” meaning that these two factors became increasingly more influential as the likelihood of the institution adding volleyball increased. One can conclude that “budget” and “competitive region” were important factors to all institutions when they were determining whether or to add the sport; these two factors played a greater influence for institutions that were looking to add the sport versus sports who were deciding against the addition.

The One-Way ANOVA is helpful in better understanding which factors influence head coaches within each “likelihood” level. For the “not at all likely” level, there were significant p-values with “budget” and “competitive region” and the three other independent variables of “Title IX”, “interest expressed” and “promiscuity.” It was evident at this level that these were the two strongest indicators of influence and that the others were not as important to head coaches who indicated that it was “not at all likely” that there institution would add sand volleyball. The results of “not at all likely” were

fairly similar to the group of “somewhat unlikely” and “neither likely or unlikely” except that “Title IX” appeared to grow as an indicator of influence. The pairwise comparison of “Title IX” and “budget” was significant but “Title IX” and “competitive region” was not deemed significant. Although the pairwise comparison between “budget” and “competitive region” was not significant, the significant pairwise comparison between “Title IX” and “budget” reinforced the notion that budget was the most important factor at the “somewhat unlikely” and “neither likely or unlikely” levels.

The results of the group “somewhat likely” is a bit more complicated. There was a significant p-value but no significant pairwise comparisons. The likely cause of this is a low sample; there were only nine head coaches who indicated that it was “somewhat likely” that their institution would add sand volleyball. When one looks at the means here, “budget” was still the highest followed by “Title IX” and then “competitive region.” “interest expressed” and “promiscuity” were lower and did appear to be strong indicators.

Finally, the results of respondents who responded that it was “very likely” that their institution would add sand volleyball were a bit more surprising. The pairwise comparisons between “promiscuity” and the other four variables were all significant indicating that “promiscuity” was hardly an influential factor when deciding to add the sport; however, there were no other significant comparisons. “Budget” did have the highest mean followed by “Title IX”, “interest expressed” and then “competitive region.” This could be interpreted as the schools who have decided to add sand volleyball are doing it for Title IX purposes and that even though budget and competitive region concerns are present, it is outweighed by a need to increase a need for participation opportunities.

Research Question 4

Research Question 4 attempted to ascertain if there were any significant differences between the responses of the dependent variables of “Title IX”, “interest expressed”, “budget”, “competitive region” and “promiscuity” between the responses of both Senior Woman Administrators and head coaches to the likelihood” of adding sand volleyball. As detailed in the results section, there were no significant findings for any of the five data sets. An explanation for the lack of significant differences between Senior Woman Administrators and head coaches is that for the most part, each sample indicated that “budget” and “competitive region” were the biggest indicators of influence along with “Title IX” in select cases. When one compares the means for each variable between Senior Woman Administrators and head coaches, one sees that there is not a drastic difference between these means. Another reason that could explain the lack of a significant result is that Senior Woman Administrator and head coaches have previously discussed the possibility of the addition of sand volleyball. In these discussions they could have touched on potential issues and benefits of adding sand volleyball. These discussions would have put both parties “on the same page” which may explain the little variance between each sample’s responses.

Research Questions 5 & 6

The responses for Research Questions 5 & 6 aimed at discovering if certain demographic factors of the institution influenced Senior Woman Administrations and head coaches’ responses to the likelihood of their institution adding the sand volleyball. The results for Senior Woman Administrators and head coaches were very similar;

therefore, the discussion of these results will be analyzed together as what is said about Senior Woman Administrators can be said for head coaches as well.

The One-Way ANOVA revealed an extremely high p-value of .803 among Senior Woman Administrators and a very high p-value of .683 among head coaches for the football affiliation data. This indicates that football affiliation is not a strong indicator of any influence in regards to adding sand volleyball. This was surprising since there seemed to be the notion that the addition of sand volleyball was heavily favored by FBS institutions. In fact, the response rate for the “likelihood” of adding the sport among the three football affiliations was fairly similar.

NCAA volleyball region was the next variable examined among Senior Woman Administrators. For six of the regions, the range of the number of teams in those regions ranged from 42-49 and the Pacific and West regions had 28 and 29 teams, respectively. Therefore, the number of respondents in both samples were representative of the overall eight NCAA volleyball regions. As expected, NCAA volleyball region revealed a significant p-value. However, it was surprising that there were so few significant pairwise comparisons. Even though Central registered the lowest mean, its pairwise comparisons were not significant with any other region most likely because there were only four respondents who indicated they were part of the Central region. It was surprising not to see the mean of the Northeast region not be significant with either that of the South or West. It appeared that it would have a low mean similar to the Mideast and Midwest. Additionally, it was surprising that the Pacific region did not register a significant pairwise comparison with any of the groups; perhaps this is due to the fact that the Pacific region could be better described as the Pacific-Northwest where the weather may not be

as conducive to sand volleyball. Finally, the fact that the mean for the Midwest was so low and was significant with that of the South and West was surprising. The Midwest is filled with very strong indoor programs from the Big 10 conference; the thought of maintaining a competitive and recruiting advantage would seem influential for these schools to add sand volleyball in order to compete with other schools, especially those out West.

When NCAA region was examined among head coaches and their response to the likelihood that their institution will add sand volleyball, it revealed an overall significant p-value. However, it only disclosed two significant pairwise comparisons; the South against the Midwest and Northeast. Here there are fewer significant findings as the West was not involved in a significant pairwise comparison with any other region. This is likely due to the fact that the mean for the West among head coaches was much lower when compared to Senior Woman Administrators. Therefore, it was surprising to see a lower mean among coaches from the West when it seems that there is actually a strong interest in the sport and that many of the schools that have already added sand volleyball come from the West. Since the Midwest is involved in another significant pairwise comparison, it can be concluded that there is very strong sentiment against adding the sand volleyball by both samples. The most reasonable explanation for this is climate; as evidenced by the qualitative data, weather was a major concern among many respondents. Due to harsher weather conditions, indoor facilities would be needed to be built which only further escalates the costs associated with adding the sport. Conversely, it is again surprising that there were not similar results for regions such as Northeast or East as these regions would experience similar climate limitations.

For the most part, the quantitative results did not report major difference between head coaches in different regions; the qualitative results shed a slightly different light. The lack of significant differences between the groups can be attributed to the fact that head coaches are still polarized on the addition of sand volleyball. The statistical analysis using means collapses dominant positive and negative responses to an average of something in-between, thus the polarization was lost. It is critical to remember that one of the main proponents of the addition of sand volleyball is the American Volleyball Coaches Association. However, through the qualitative results it appears there is still not a consensus among head coaches regarding sand volleyball due to the reasons of budgetary concerns, region (which affect interest, available competitors and climate concerns) and volleyball program philosophies of the head coaches.

The enrollment of the respondent's institution, number of years a Senior Woman Administrator has worked in college athletics administration, number of years as a head coach and the number of varsity sports sponsored by the institution were analyzed to see if these factors influenced Senior Woman Administrators and head coaches in their response's to whether or not it was likely that sand volleyball would be added. Again, non-significant findings were found for all six variables.

The p-value for the number of varsity sports offered by the institution did approach a significant finding for both Senior Woman Administrators and head coaches. Perhaps if the data was organized into ranges this would help better organize the data and produce a significant finding; for example, if respondents would make a selection from options such as 0-10, 11-15, 16-20, 21-25, 25-30. Additionally, if the same approach would have been more beneficial for enrollment size; although the p-value was .278 for

Senior Woman Administrators and .329 for head coaches, it would be interesting to see if ranges of 10,000 would have better organized the data and provided any significant findings. On the other hand, it may not be an influential factor because many of the schools different regions vary in enrollment levels. This can also be seen by the schools who presently offer sand volleyball as their enrollments widely vary. Finally, it did appear that the number of years experience for each respective position influenced the respondent's choices. This shows that that older coaches and administrators are not significantly less opposed to a newer sport of sand volleyball as younger head coaches and administrators might be. This might prove that no matter how long a person has been in their role they are at least open to the discussion of adding a new sport and in this case, willing to consider the pros and cons of the addition sand volleyball.

As this research is the first to measure the viability of sand volleyball as an emerging sport, there are several possible future research opportunities to better understand sand volleyball and other emerging sports. If one was to do this study again, it might be beneficial to get the opinion of the athletic director. The survey was not distributed to athletic directors for two reasons: fear of a low response rate and that they would not be as educated on the sport as the Senior Woman Administrator. However, it would be interesting to see if they, as the ultimate decision makers, would respond differently from either Senior Woman Administrators or head coaches. Additionally, it would be beneficial to add another question that delved further into their concern about the pressure to add sand volleyball in order to keep a competitive advantage in indoor volleyball and recruiting to the list of factors of "budget" and "Title IX." It appears that

this was a very influential factor, especially amongst head coaches, and having this in the survey might help better the athletic community about the status of sand volleyball.

Overall Themes Found in the Literature Review

There were some major themes that surfaced in the literature that were also evident in the results of this study. The biggest reason cited by Senior Woman Administrators and head coaches was that the cost of adding the sport was the biggest reason for not adding sand volleyball. George (2010) and Larson (2004) both found that adding women's teams and emerging sports, no matter what the sport, was very costly to institutions to continue to add women's sports. This is complicated when the spending for the budget of football is not cut and in many cases increased as Zimbalist (2003) noted; therefore, it is very difficult to continue this trend of increasing spending in football and simultaneously add female sports.

Larson (2004) also pointed out in his study of rowing that many institutions choose not to add other more popular female sports because they do not offer enough participation opportunities in comparison to rowing. Rowing may not be as popular but adding that sport versus sand volleyball can produce more bang for the institution's buck. This was seen in the qualitative results as some respondents voiced their concerns that sand volleyball was not a viable alternative to other sports due to the fact that there were limited participation opportunities offered with the sport.

Finally, the 1996 OCR Clarification Letter promoted the adoption of regionally popular sports as a means of achieving Title IX compliance. The data revealed the highest interest of sand volleyball is in the south and west regions of the country. These

regions are also where all of the current schools who have announced that they are going to add sand volleyball are located. Therefore, these results support the notion that there may be a particular regional interest in a specific area for the sand volleyball and these institutions are adding the sport as a way to achieve Title IX compliance. Furthermore, a study revealed that an institution being from the South is more likely to have a proportionality gap than other regions such as the West (Anderson, et al., 2006). This could explain why schools are choosing to add a female sport, specifically sand volleyball, however, it is important to remember that Title IX was not a strong indicator of influence for the interest of the addition of sand volleyball.

Recommendations for Future Research

Additional research could also include a case study analysis with Senior Woman Administrators and head coaches in different regions. This would entail four respondents: two Senior Woman Administrators and two head coaches. One head coach would support the addition of sand volleyball and one would not. The same would be true for Senior Woman Administrators. Additionally, the regions represented would be the South, West, Mideast and Midwest. Then one would sit down and do a post-survey follow up interview which expands on their survey responses and qualitative answers. This would help one better understand the pros and cons of sand volleyball and what it may take to add the sport of sand volleyball. These qualitative responses will expand on their position of the sport and give the chance to the interviewer to further explore their responses and gain more feedback from the Senior Woman Administrators and head coaches.

Finally, future research would be beneficial to the other two emerging sports of equestrian and rugby. This would be interesting since these two sports are independent from any other sport unlike sand volleyball being tied so closely with sand volleyball. Obviously, one could not ask coaches of those sports, but it would be beneficial to ask Senior Woman Administrators what influenced them and their institution to add the equestrian and rugby. Also, a survey would be beneficial to see what the likelihood of those sports attaining NCAA championship status.

Works Cited

- 2010-11 high school athletics participation survey. (2011). (No. 2011). Indianapolis: National Federation of State High School Associations.
- Anderson, D. J., Cheslock, J. J., & Ehrenberg, R. G. (2006). Gender equity in intercollegiate athletics: Determinants of Title IX compliance. *The Journal of Higher Education*, 77(2), 225.
- Baker, R., Heinrich, M. D., & Miller, J. L. (2000). A look at Title IX and women's participation in sport. *The Physical Educator*, 57(1), 8.
- Brake, D. L. (2007). Title IX as pragmatic feminism. *Cleveland State Law Review*, 55, 513.
- Brown, G. (2012). Sand volleyball survey reveals little interest in DIII. Retrieved August from:
http://fs.ncaa.org/Docs/NCAANewsArchive/2010/d3/sand_volleyball_survey_reveals_little_interest_in_diii.html.
- Clarification of Intercollegiate Athletics Policy Guidance: The Three-Part Test (11 January, 1996). Retrieved from:
<http://www2.ed.gov/about/offices/list/ocr/docs/clarific.html>.
- Cohen v. Brown University, 101 F.3d 155 (1st Cir. 1996). Collegiate sand volleyball picks up steam. (2012). Retrieved from:
<http://www.avca.org/articles/index.cfm?action=view&articleID=3371>.
- Criteria for emerging sports. (2011). Retrieved from:
<http://www.ncaa.org/wps/wcm/myconnect/067159804e0d61ecbc36fc1ad6fc8b25/Criteria+for+Emerging+Sports.pdf?MOD=AJPERES&CACHEID=067159804e0d61ecbc36fc1ad6fc8b25>.
- Emerging sports for women. (2011). Retrieved from:
http://www.ncaa.org/wps/myportal/ncaahome?WCM_GLOBAL_CONTEXT=/archive/library/inclusion+archive/es+-+legislative+timeline.
- Emerging with a spike: Information related to adding the sport. (2011). Retrieved from:
<https://www.ncaa.org/wps/wcm/connect/ncaa/ncaa/about+the+ncaa/diversity+and+inclusion/gender+equity+and+title+ix/sand+volleyball>.
- Erienne, W. A. (2006). The pursuit of true-legitimacy-division 1-A Title IX compliance after the additional clarification of prong-three. *The SMART Journal*, 3(1), 42.
- Gavora, J. (2002). *Tilting the playing field: Schools, Sports, Sex and Title IX* (1st Ed. ed.). San Francisco: Encounter Books.

- George, G. (2010). Forfeit: Opportunity, choice, and discrimination theory under Title IX. *Yale Journal of Law and Feminism*, 22(1), 1.
- Grove City College v. Bell, 465 U.S. 555 (1984).
- Islam, M. A., & Deegan, C. (2010). Media pressures and corporate disclosure of social responsibility performance information: A study of two global clothing and sports retail companies. *Accounting and Business Research*, 40(2), 131.
- Judge, E. J., Morrison, K., & Ward, J. (2011). Achieving gender equity in tough financial times.
- Larson, J. (2004). All sports are not created equal: College football and proposal to amend The title IX proportionality prong. *Minnesota Law Review*, 88, 1598.
- Murray, B. (2002). How to evaluate the implementation of Title IX at colleges and universities and attitudes and interest of students regarding athletics. *Gender Issues*, (2), 87.
- NCAA emerging sports timeline. (2011). Retrieved from:
<http://www.ncaa.org/wps/wcm/myconnect/ncaa/ncaa/about+the+ncaa/diversity+and+inclusion/gender+equity+and+title+ix/es+-+history>.
- A Policy Interpretation: Title IX and Intercollegiate Athletics (11 December, 1979). Retrieved from:
<http://www2.ed.gov/about/offices/list/ocr/docs/t9interp.html#skipnav2>.
- Potuto, J. R., & O'Hanlon, J. (2005). National study of student-athletes regarding their experiences as college students. *College Student Journal*, 41(4), 947.
- Rosner, S. R. (2001). The growth of NCAA women's rowing: A financial, ethical and legal analysis. *Seton Hall Journal of Sport Law*, 11, 297.
- Sabo, D., & Veliz, P. (2008). *Go out and play: Youth sports in America*. East Meadow, NY: Women's Sports Foundation.
- Siegel, R. (1997). Why equal protection no longer protects: The evolving forms of status-enforcing state action. *Stanford Law Review*, 49, 1111.
- Stevenson, B. (2007). Title IX and the evolution of high school sports. *Contemporary Economic Policy*, 25(4), 486.
- Title IX of the Education Amendments, 20 U.S.C. §1681 et. al (2011).
- Title IX Regulations, 34 C.F.R. 106.41 (2011).

- Yuracko, K. A. (2002). Title IX and the problem of gender equity in athletics. *Gender Issues*, 20(2), 65.
- Zgonc, E. (2010). NCAA sports sponsorship and participation rates report: 1981-82--2008-09. Indianapolis: NCAA.
- Zimbalist, A. (2003). What to do about Title IX. *Gender Issues*, 21(2), 55.