

THE IMPACT OF THE NCAA EMERGING SPORTS PROGRAM FOR WOMEN ON  
TITLE IX COMPLIANCE: A 10 YEAR LONGITUDINAL STUDY

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## **ABSTRACT**

Emilee R. McCollum: The Impact of the NCAA Emerging Sports Program for Women on Title IX Compliance: A 10 Year Longitudinal Study  
(Under the direction of Barbara Osborne)

In 1993, the Emerging Sports Program for Women was created in an effort to combat the discrepancy seen in athletic participation rates of men compared to women in the NCAA. The Emerging Sports Program allows schools to provide additional athletics opportunities to women by lessening the requirements of becoming a full-status NCAA championship sport compared to a non-emerging sport. Until this point in time, no research has been conducted on the overall effectiveness of the Emerging Sports Program. This study provides a ten-year analysis of how the Emerging Sport Program impacted Title IX compliance of participation opportunities for women. Specifically, the substantial proportionality of schools that added an emerging sport between the academic years of 2004-2005 and 2013-2014 was calculated to determine any change in compliance from the addition of an emerging sport. The results show that the Emerging Sports Program has made a positive impact on Title IX compliance.

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## **LIST OF ABBREVIATIONS**

|      |                                          |
|------|------------------------------------------|
| CWA  | Committee on Women's Athletics           |
| DI   | Division I                               |
| DII  | Division II                              |
| DIII | Division III                             |
| EADA | Equity in Athletics Disclosure Act       |
| NCAA | National Collegiate Athletic Association |
| OCR  | Office for Civil Rights                  |
| WBW  | Women's Bowling                          |
| WCR  | Women's Crew/Rowing                      |
| WEQ  | Women's Equestrian                       |
| WIH  | Women's Ice Hockey                       |
| WRU  | Women's Rugby                            |
| WSQ  | Women's Squash                           |
| WSV  | Women's Sand Volleyball/Beach Volleyball |
| WWP  | Women's Water Polo                       |

## **CHAPTER I**

### **INTRODUCTION**

Opportunities for women in intercollegiate sport have grown immensely since the formation of the first organized female intercollegiate athletics team in 1892 – women’s basketball at Smith College. Slight progress was made from the late 1800s to the mid 1900’s, but major change didn’t occur until the enactment of Title IX in 1972. Title IX of the Education Amendments of 1972 was the first piece of legislation to prohibit discrimination based on sex in educational settings. The thirty-nine word statute stimulated the movement towards equity for women in educational entities – including intercollegiate athletics. The National Collegiate Athletic Association (NCAA), largely in response to Title IX litigation, added women’s athletics into the Association in 1981.

Although notable progress was made following the implementation of Title IX, participation numbers plateaued in the early 1990’s. This prompted the NCAA to administer a survey to member institutions in 1991 to measure the expenditures and participation rates of women compared to men. The survey results showed an alarming disparity in both participation rates and expenditures for women as compared to men, which compelled the NCAA to create the Gender Equity Task Force in 1992. The stated goal of the Task Force was to address the gender inequities within the NCAA. One action taken by the Task Force was the creation of the Emerging Sports Program for Women. The purpose of the Emerging Sports Program as stated by the Task Force is to “grow meaningful intercollegiate sport participation opportunities for female

student-athletes in sports that have the potential to reach the required number of varsity teams to be considered for NCAA championship status” (NCAA Process Guide, n.d., ¶1). The Emerging Sports Program allows schools to provide additional athletics opportunities and scholarships to women by lessening the requirements of becoming a full-status NCAA championship sport as compared to a non-emerging sport. If a sport is approved by the NCAA as an emerging sport, the sport may then be sponsored as a varsity program at member institutions and used towards NCAA minimum sports-sponsorship requirements and Title IX compliance calculations.

Participation opportunities for women have increased since the enactment of Title IX and the Emerging Sports Program; however, women are still greatly underrepresented in intercollegiate athletics today. This study investigates if the Emerging Sports Program has made an impact on Title IX compliance in participation opportunities within the NCAA. Specifically, the research examines the impact that the Emerging Sports Program has made on schools that have added an emerging sport between the academic years of 2004-2005 and 2013-2014 (considered “2004” and “2013” throughout the study). The results are analyzed for the NCAA overall as well as for each NCAA Division to assess if the Emerging Sports Program has made significant improvement in creating more participation opportunities for women and achieving Title IX compliance.

## **Statement of Purpose**

The purpose of this research is to examine the impact of the NCAA Emerging Sports Program on participation opportunities for women at member schools that added an emerging sport between the academic years of 2004-2005 and 2013-2014 (considered “2004” and “2013”

respectively throughout the study). Data is collected from the Equity in Athletics Disclosure Act (EADA) Data Analysis Cutting Tool and is analyzed using descriptive statistics and statistical analysis testing. Substantial proportionality is used to measure Title IX compliance in participation opportunities (“equal opportunity”).

### **Research Questions**

RQ1: Describe the landscape of adding an emerging sport between the years of 2004 and 2013.

RQ2: How has substantial proportionality evolved in the NCAA between 2004 and 2013?

RQ3: Did the addition of an emerging sport at NCAA member schools between 2004 and 2013 impact participation opportunities for women based on substantial proportionality from the year before the emerging sport was added (Year 0) to the year that the emerging sport was added (Year 1), the year before the emerging sport was added (Year 0) to the year after the emerging sport was added (Year 2), and the year the emerging sport was added (Year 1) to the year after the emerging sport was added (Year 2):

- a. Overall?
- b. Based on NCAA divisional affiliation?
- c. Based on undergraduate enrollment?
- d. Based on football sponsorship?
- e. Based on emerging sport?

RQ4: Did the addition of an emerging sport at NCAA member schools between 2004 and 2013 make a statistically significant difference in the substantial proportionality gap from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2:

- a. Overall?
- b. Based on NCAA divisional affiliation?
- c. Based on undergraduate enrollment?
- d. Based on football sponsorship?
- e. Based on emerging sport?

### **Definitions of Terms**

Division I-A: Now referred to as the “Football Bowl Subdivision” (FBS). The requirements for meeting this classification of Division I membership include: sponsorship of 8 men’s teams (including football) and 8 women’s teams or 7 men’s teams (including football) and 9 women’s teams or 6 men’s teams (including football) and 10 women’s teams, football must play at least 60% of all games against other DI-A (FBS) members and at least 5 home games against DI-A (FBS) members, there must be an average football attendance of 15,000 for home games during a rolling two-year period, Financially, 50% of the maximum allowable grants in each sport must be distributed or an expenditure of 1.5 million dollars must be spent on all sports (excluding football and men’s basketball) with 750k spent on women’s sports, or a minimum of the equivalent of 50 full grants (with 25 going to women) exclusive of grants in football and men’s and women’s basketball. In addition, at least 90% of the permissible maximum football grants-

in-aid must be provided and there must be a minimum of 200 athletics grants-in-aid or \$ 4 million on athletics grants-in-aid annually. (NCAA Division I Manual, 2016).

Division I-AA: Now referred to as the “Football Championship Subdivision” (FCS). The requirements for meeting this classification of Division I membership include: sponsorship of 7 men’s teams (including football) and 7 women’s teams or 6 men’s teams (including football) and 8 women’s teams, football must play at least 50% of all games against other DI-AA (FCS). Financially, 50% of the maximum allowable grants in each sport must be distributed or an expenditure of 1.5 million dollars must be spent on all sports (excluding football and men’s basketball) with 750k spent on women’s sports, or a minimum of the equivalent of 50 full grants (with 25 going to women) exclusive of grants in football and men’s and women’s basketball. In addition, at least 90% of the permissible maximum football grants-in-aid must be provided and there must be a minimum of 200 athletics grants-in-aid or \$ 4 million on athletics grants-in-aid annually. (NCAA Division I Manual, 2016).

Division I-AAA: Now referred to as “Division I”. The requirements for meeting this classification of Division I membership include: no sponsorship of football, sponsorship of 7 men’s teams and 7 women’s teams or 6 men’s teams and 8 women’s teams, men’s and women’s basketball must play all but four games against Division I-AAA teams and at least 1/3 of the regular-season basketball contests must be played in the home arena. Financially, 50% of the maximum allowable grants in each sport must be distributed or an expenditure of 1.5 million dollars must be spent on all sports (excluding football and men’s basketball) with 750k spent on women’s sports, or a minimum of the equivalent of 50 full grants (with 25 going to women) exclusive of grants in football and men’s and women’s basketball. (NCAA Division I Manual, 2016).

Duplicated Count: When student-athletes who play multiple sports are counted once for each sport in which they participate in the total number of participants in the EADA. The current practice of the Department of Education is to use duplicated figures to calculate substantial proportionality.

Equity in Athletics Disclosure Act of 1994 (EADA) - Statute which requires institutions of postsecondary education that receive federal funding, participate in federal student financial assistance programs, and have an intercollegiate athletic program, to produce and make readily available reports on men's and women's teams' athletic participation, staffing, and revenues and expenses on an annual basis (Equity in Athletics Disclosure Act of 1994, 34 C.F.R. §668.47).

EADA Cutting Tool – “This analysis cutting tool was designed to provide rapid customized reports for public inquiries relating to equity in athletics data. The data are drawn from the OPE Equity in Athletics Disclosure Website database. This database consists of athletics data that are submitted annually as required by the Equity in Athletics Disclosure Act (EADA), via a Web-based data collection, by all co-educational postsecondary institutions that receive Title IV funding (i.e., those that participate in federal student aid programs) and that have an intercollegiate athletics program” (Equity in Athletics Data Analysis Cutting Tool, 2016).

Effective Accommodation of Student Interests and Abilities or “Equal Opportunity” - This section of the 1979 Title IX Policy Interpretation regulates that institutions must “accommodate effectively the interests and abilities of students to the extent necessary to provide equal opportunity in the selection of sports and levels of competition available to members of both sexes” ((45 C.F.R Part 26 §C(1) ¶1). Compliance with this regulation can be achieved in one of the following three ways (typically recognized as the “Three-Part Test”).

Emerging Sport – “An emerging sport is a sport sponsored 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, ¶1).

National Collegiate Athletic Association (NCAA) – The National Collegiate Athletic Association is a non-profit organization that governs intercollegiate athletics in the United States through voluntary membership. Currently there are over 1,200 member institutions.

National Collegiate Championship or NCAA “Full Status” Sport – “A National Collegiate Championship for which any active member in good standing is eligible (per Bylaw 20.8) may be established by action of all three divisions acting through each division’s governance structure, subject to the requirements, standards and conditions regarding the required number of members sponsoring the sport as prescribed in this bylaw” (NCAA Bylaw 18.2.1, 2016, pg. 303). The required number of members sponsoring the sport in order to create a NCAA National Collegiate Championship is fifty for men and forty for women (NCAA Bylaws 18.2.4.1 and 18.2.4.2, 2016).

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 the standardized rules with rating/scoring systems ratified by official regulatory agencies and governing bodies” (Criteria for Emerging Sports, ¶2).

Student-Athlete – An enrolled student who competes on a varsity-level intercollegiate athletics team at an institution.

Substantial Proportionality – One of three ways within Title IX’s equal opportunity 3-part test that an institution can ensure compliance with Title IX of the Educational Amendments of 1972. The institution must provide athletic opportunities to men and women that are substantially proportional to the rates of undergraduate enrollment of the institution (Howe, 2007).

Substantial Proportionality Gap – The difference between the percent of undergraduates who are female and the percent of athletes who are female. The duplicated count of female athletic participants is used by the Department of Education to calculate “the percent of athletes who are female” by dividing the duplicated count of female participants by the total number of athletic participation opportunities. This study examines the proportionality gap using both the duplicated count and the unduplicated count in the calculation of “the percent of athletes who are female” to look for differences in the data.

Title IX – Part of the Education Amendments of 1972, “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).

Title IX 3-Part Test – Member schools must meet at least one of three standards outlined in this test to achieve compliance with the effective accommodation of student interests and abilities (“equal opportunity”) section of Title IX. The three standards include substantial proportionality, continuing practice of program expansion, and/or demonstration that the interests and abilities of

the members of that sex have been fully and effectively accommodated by the present available programs.

Unduplicated Count: When student-athletes who play multiple sports are counted only once in the total number of participants in the EADA.

Varsity Sport – A sport sponsored by the NCAA with either a full status or emerging sport designation.

Year 0 – The year before an emerging sport was added at an NCAA member school.

Year 1 – The year the emerging sport was added at an NCAA member school.

Year 0 – The year after an emerging sport was added at an NCAA member school.

## **Limitations**

1. This study is limited to data gathered from the EADA data archives from the Department of Education's website. Each institution is responsible for submitting annual reports for their institution. Input errors by reporting institutions may limit the reliability of the data.
2. This study is limited to the years of data available on the EADA Cutting Tool, which range from the 2002-2003 academic year to the 2014-2015 academic year.
3. The study is limited to using substantial proportionality to measure compliance with Title IX participation opportunities from elements that could be downloaded from the Equity in Athletics Data Analysis Cutting Tool.

4. The current practice of the Department of Education is to use the duplicated count to calculate substantial proportionality. This calculation method is limited as it only counts the number of roster spots made available to females and does not account for the participation opportunities that are being filled by the existing pool of female student-athletes. Specific to this study, most emerging sports have similar pre-existing varsity sport from which the participants may be drawn from. Although the addition of an emerging sports team does create opportunity, if the spots are being filled by women already participating in a varsity sport then there are not many “new “ opportunities truly being added. To examine and analyze this limitation, the researcher ran each substantial proportionality calculation twice – once using the duplicated count and once using the unduplicated count.
5. Speaking to limitation 4, it may be possible that in the initial years of adding an emerging sport the roster is largely filled by existing female student-athletes, but that as time goes on there are more “new” women competing on the emerging sport teams. This may be a result of phasing-in recruiting and/or financial restrictions. This will be discussed further in Chapter V.
6. Testing for a change in compliance solely based on the addition of an emerging sport presents limitations. Although any identified changes may be a product of the addition of an emerging sport, there may be other explanations for a change in the compliance figures. This study does not account for any changes made to other sponsored teams at each school, nor of the addition or cutting of a men’s team concurrent with the addition of the women’s emerging sport team. There are many other factors specific to an

institution that may also play a role in the level of Title IX participation compliance of a school that are not addressed in this study.

### **Assumptions**

1. The researcher assumes that all NCAA archival evidence was truthfully and accurately recorded.
2. The researcher assumes that all NCAA schools accurately report their enrollment and participation rates for the EADA.

### **Significance of Study**

This study explores the NCAA Emerging Sports Program for Women and seeks to determine if the program has impacted Title IX compliance at member institutions. Women are still greatly underrepresented in collegiate athletics despite efforts put forth throughout the past 45 years. Although the number of female intercollegiate athletes has risen from 30,000 in 1970 to 167,000 today, athletic participation opportunities still favor men (Bryant, 2012; EADA Cutting Tool, 2016). Women currently account for 56% of the total undergraduate enrollment at NCAA institutions, but are only afforded 42% of the (duplicated) athletic participation opportunities (EADA Cutting Tool, 2016). The NCAA's Emerging Sports Program was created with the intent to mitigate these disparities. This study is the first to investigate if the Emerging

Sports Program has made a positive impact toward closing the participation opportunity gap under Title IX at NCAA institutions between the years of 2004 and 2013.

Not only do the results of this research provide useful information, but the dataset created to conduct this research also provides value. The dataset offers a medium for further research to be conducted on the Emerging Sports Program and Title IX compliance. This study is also the first to evaluate the Emerging Sports Program as a whole rather than on a sport-by-sport basis. Looking at emerging sports program overall provides insight as to whether or not women's participation in athletics is effectively being advanced through the program. Furthermore, the statistical analysis of the data provides results that can be used to assess and improve the efficiency of the Emerging Sports Program. The results of the study may also be valuable at the institutional level. Schools looking to add a women's sport or hoping to improve their substantial proportionality ratio may look to this research in making decisions on women's participation opportunities. Another group that may benefit from the results of this study are the governing bodies of the emerging sports (i.e. USA Triathlon – USAT, US Equestrian Federation – USEF, etc.). The governing bodies can use the found data to justify the benefits of adding the emerging sport or to show the historical impact of adding the emerging sport on Title IX compliance at NCAA schools. Lastly, the results of the study could be useful to Title IX consultants that are increasingly working with institutions in dealing with Title IX compliance issues and/or lawsuits.

## **CHAPTER II**

### **LITERATURE REVIEW**

The following review of literature covers the major areas surrounding gender equity in intercollegiate sports. First, a brief history of women's participation in sport and the journey to inclusion in the intercollegiate athletic world is given. The second section provides a comprehensive review of Title IX. Next, a description and discussion of the NCAA Emerging Sports Program is provided. Then a review of previous academic research on the topic is outlined. Finally, the theoretical lens for this research is identified.

#### **History of Women's Participation in Intercollegiate Sport**

Prior to the 1870s, women's participation in sport consisted of recreational "play" activities. These activities had neither structured rules nor competitive goals and sought pleasure without overexertion (Bell, 2008). Common philosophies of the 19<sup>th</sup> century hindered women from participating in intense physical exercise or competition. It was suggested at the time that tasks requiring both physical and intellectual effort could be harmful to the human body as each human only had a fixed amount of energy (Bell, 2008). Furthermore, it was believed that physical exertion could be especially dangerous for women because their menstrual cycle already "periodically weakened" their body (Clarke, 1874, p.100). This belief was repeatedly challenged by women displaying their ability to be physical and intellectual, and at the close of the 19<sup>th</sup> century, women sought more opportunities for physical activity and competition (Bell, 2008). Informal athletic clubs for women arose across the country. Women's enrollment at institutions

of higher education grew, as did intramural competition between female students (Daulton, 2013). The first established women's intercollegiate sport team was basketball at Smith College in 1892, and the first female intercollegiate athletics competition was a basketball tournament that included the University of California Berkeley, Stanford University, University of Washington, and Ellensburg Normal School in 1896 (Bell, 2008)

As women's participation in intercollegiate athletics grew, so did the need for oversight. The Committee on Women's Athletics (CWA) and the American Physical Education Association (APEA) were formed at the onset of the 20<sup>th</sup> century by women's physical educators in an effort to keep women's competitive athletics aligned with education goals (Bell, 2008). Both groups agreed that a governing body for women's athletics was needed, subsequently resulting in the creation of the Women's Division-National Amateur Athletic Federation (NAAF) in the early 1920's (Bell, 2008). The NAAF initially produced a rapid increase in competitive events for women, but these events quickly diminished as the conflicting philosophies of varsity competition and women's physical educators hindered support of women's athletics (Bell, 2008). Despite the progress of the women's rights movements of 1920's , the depression in the 1930's left millions of Americans out of work and stagnated any progression women had made in increasing athletic opportunities (Bell. 2008). War hit home in the 1940's and created another hurdle for women to jump. Millions of men and women joined the military, and some women were forced to enter the workforce to fill the void left by the men who left jobs to serve the country. When the war ended, women realized if they were capable of serving in the military and/or entering the workforce, they were certainly capable of competing in athletics (Bell, 2008).

The 1950's and 60's saw a strong push for civil rights across the United States. In 1967, the Commission on Intercollegiate Athletics for Women (CIAW) was formed to assist in conducting intercollegiate athletic competitions (Bell, 2008). The CIAW made large strides in aligning the status of women's athletics with that of men's. By 1970, national championships were announced in the sports of gymnastics, track & field, swimming, badminton, and volleyball (Bell, 2008). The CIAW was replaced by the Association for Intercollegiate Athletics for Women (AIAW) in 1971 following a push by women athletes for a governing organization similar to that of the men with the National Collegiate Athletic Association (NCAA) (Bell, 2008).

The AIAW became the national governance organization dedicated to the development and promotion of women's intercollegiate athletics in the United States (Plyley, 1997). The organization provided member institutions with a systematic athletic program and national championships dedicated solely to female student-athletes (Plyley, 1997,). Membership steadily increased from 1971 until its peak in 1979-80 at 970 institutional members. By 1981-82 only 758 members remained – a decrease of 12% (Plyley, 1997). This decrease can be attributed to the addition of a women's competitive program by the National Association of Intercollegiate Athletics (NAIA) in 1980, and the addition of a competitive women's program by the NCAA in 1981-82.

After 75 years of solely providing athletic opportunities to men, the NCAA added a women's intercollegiate athletic program in the 1981-82 year (Plyley, 1997). This addition came subsequent to the passing of Title IX of the Education Amendments of 1972 as well as numerous requests from the NCAA membership to add women's athletics. The need to provide equitable programs as mandated by Title IX provided incentives for NCAA member institutions to take

control over women's athletics in order to maintain control over the resources. Title IX exposed weakness within the NCAA, thus prompting the NCAA to seek control of women's athletics to maintain their legal, financial, and political power (Bell, 2008). The NCAA's women's program sparked controversy and resentment from the AIAW and many of its members (Hult, 1999; Plyley, 1997). The NCAA was able to provide institutions with an "integrated option" rather than the "separatist women's programs offered by the AIAW" (Plyley, 1997, p. 41). The NCAA promised improved championships, subsidization of team expenses for national championships, no cost to schools for the additional memberships for the women's program, and consistency in rules for athletes (Hult, 1999). The ultimate demise of the AIAW came when the NCAA announced that it had allocated \$3 million to support women's championships (Bell, 2008). This financial allotment coupled with the other resource allocation commitments forced the AIAW to cease operations on June 30, 1982 (Bell, 2008). The AIAW sued the NCAA in an attempt to remain operational claiming that the NCAA had violated the Sherman Anti-Trust Act by creating a monopoly for college athletics (*Association for Intercollegiate Athletics for Women v. National Collegiate Athletic Association*, 1984). The AIAW was unsuccessful in its case as the courts held that the market for women's athletics was still open for competition (*AIAW v. NCAA*, 1984; Bell, 2008).

## **Title IX**

Amid the push for civil rights in the mid 1900's came the Education Amendments of 1972. Specifically, Title IX of the Education Amendments sought to eliminate sexual discrimination in educational environments. The statute reads:

“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).

This statute sought to ensure equality based on sex at educational entities where federal funds are applied. Title IX of the Education Amendments directly parallels Title VI of the Civil Rights Act in forbidding discrimination among dissimilar individuals, but specifically focuses on discrimination by sex rather than by race, color, or national origin (Anderson, 2012). Upon the implementation of the statute, Congress initiated a six-year period for secondary and post-secondary schools to achieve compliance (Bell 2008). Although athletics is not specifically mentioned in the Title IX statute, the law’s application had direct effects on intercollegiate athletics. Athletic programs classify as a “program or activity receiving Federal financial assistance” (20 U.S.C. §1681). The importance of athletic participation as part of the overall educational experience prompted the Office of Civil Rights (OCR) to include athletics in Title IX’s implementing regulations (34 C.F.R. §106).

### *The 1975 Regulations*

The regulations were officially enacted three years after the Educational Amendments of 1972. Sections 106.37 and 106.41 address athletic financial aid and intercollegiate athletics respectively. In the matter of athletic scholarships, section 106.37(c) states

“To the extent that a recipient awards athletic scholarships or grants-in-aid, it must provide reasonable opportunities for such awards for members of each sex in proportion to the number of students of each sex participating in interscholastic or intercollegiate athletics” (34 C.F.R. §106.37(c)).

‘In proportion’ is an essential phrase in the regulation. Athletic scholarships for intercollegiate athletics need not be equal in dollar amount for men and women (34 C.F.R. §106.37(c)). The scholarship aid awarded to student-athletes must be distributed proportionally

based on the percentage of men and women competing in athletics. Similarly, section 106.41, “Athletics”, states:

“No person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, be treated differently from another person or otherwise be discriminated against in any interscholastic, intercollegiate, club or intramural athletics offered by a recipient, and no recipient shall provide any such athletics separately on such basis” (34 C.F.R. §106.41(a)).

This section mandates that any recipient of federal financial aid that offers intercollegiate, interscholastic, club and/or intramural athletics must provide “equal athletic opportunity for members of both sexes” (34 C.F.R. §106.41(c)).

Within the first four years of the regulations’ existence, it became apparent that schools were unsure about the application of the Title IX Regulations. Over one hundred complaints were filed against more than fifty universities alleging gender discrimination (45 C.F.R. Part 26 §II). Because of the excessive confusion, the Office for Civil Rights issued a policy interpretation in 1979 clarifying the meaning of ‘equal opportunity’ for intercollegiate athletics (45 C.F.R. Part 26 §IV).

#### *The 1979 Policy Interpretation*

The policy interpretation outlines specific requirements that intercollegiate athletic programs must abide by to meet compliance. Three areas are outlined in the policy interpretation: financial assistance (scholarships) based on athletic ability, equivalence in other athletic benefits and opportunities, and effective accommodation of student interests and abilities (45 C.F.R. Part 26 §IV). The third section, ‘effective accommodation of student interests and abilities’ (also known as “equal opportunity”), is further broken into a three-part test where programs must meet at least one part of the test to be compliant.

In the area of financial assistance, the 1979 Policy Interpretation specifies that athletic departments “must provide reasonable opportunities for such award (of financial assistance) for members of each sex in proportion to the number of students of each sex participating in intercollegiate athletics ” (45 C.F.R. Part 26, § 86.37(c)). The second section - equivalence in other athletic benefits and opportunities (also known as “equal treatment”) – regulates that schools receiving federal aid and sponsoring interscholastic, intercollegiate, club or intramural athletics must "provide equal athletic opportunities for members of both sexes" (45 C.F.R Part 26 §B(1) ¶1). To determine whether equal treatment is being achieved, the Office for Civil Rights provides a laundry list of items for athletics departments to consider regarding equal opportunity for both sexes. The list can be seen in Section B(1) of the Regulations. If there is a discrepancy in the treatment, opportunities, or benefits being provided to both sexes, compliance may still be justified “if the differences are the result of nondiscriminatory factors” (45 C.F.R Part 26 §B(2) ¶2). A list of examples that may indicate nondiscriminatory factors can be seen in section B(2) of the Regulations.

Effective accommodation of student abilities and interests (“equal opportunity”) is the final piece in achieving Title IX compliance. This section requires institutions to “accommodate effectively the interests and abilities of students to the extent necessary to provide equal opportunity in the selection of sports and levels of competition available to members of both sexes” ((45 C.F.R Part 26 §C(1) ¶1). Compliance with this regulation can be achieved in one of the following three ways (“Three-Part Test”):

1. Whether participation opportunities for male and female students are provided in numbers substantially proportionate to their respective enrollments; or

2. Where the members of one sex have been and are underrepresented among intercollegiate athletes, whether the institution 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; or
3. Where the members of one sex are underrepresented among intercollegiate athletes and the institution cannot show a continuing practice of program expansion such as that cited above, whether it can be demonstrated that the interests and abilities of the members of that sex have been fully and effectively accommodated by the present program.

*1996 Clarification of Intercollegiate Athletics Policy Guidance: The Three-Part Test*

On January 16, 1996, the Assistant Secretary in the Office for Civil Rights, Norma Cantu, submitted a Dear Colleague letter with a clarification on the Three-Part Test as outlined in the 1979 Policy Interpretation. After recognizing the need for additional clarification on the matter, Cantu sought assistance from over 4,500 interested parties to create the final Clarification. In addition to emphasizing the need to only achieve one part to be compliant, the Clarification addresses each part of the Three-Part test with specific definitions and guidance on how to achieve compliance.

For part one of the Three-Part Test – substantial proportionality – the Clarification first defines an athletic “participant.” The Clarification then goes on to note, “It may be unreasonable to expect an institution to achieve exact proportionality” (Clarification of Intercollegiate Athletics Policy Guidance – The Three-Part Test, 1996, p. 6). Factors such as natural fluctuations in undergraduate enrollment and variabilities in participation rates may prevent schools from reaching exact proportionality. Thus, the Clarification explains that the OCR will make the determination of substantial proportionality on a “case by case basis” rather than through

quantitative measurement (Clarification, 1996, p. 7). In determining such cases, the courts have rejected multiple arguments that state disparities ranging from 3.62 to 10.5 percentage points satisfied the standard (*Biediger v. Quinnipiac University*, 2012; *Roberts v. Colorado State Board of Agriculture*, 1993).

The second part of the Three-Part test looks to an institution's past to determine whether there is a history and continuing practice of program expansion (Clarification, 1996). The institution must be able to show both the history and continuing practice facets to achieve compliance through this part of the Test. The program expansion must provide nondiscriminatory participation opportunities by accommodating the interests and abilities of the underrepresented sex (Clarification, 1996). An institution that has added a women's program and/or an institution that has not cut a women's program in the recent past is likely to meet this part of the Test (Brake, 2010). The OCR looks at the institution's entire program expansion and program cutting history to determine compliance with this part.

Part three of the Three-Part Test has received the most pushback and confusion from member schools. This final part examines if the institution is fully and effectively accommodating the interests and abilities of the underrepresented sex (Clarification, 1996). This examination must include currently enrolled students as well as admitted incoming freshman of the underrepresented sex (Clarification, 1996). In making the determination of compliance, the OCR will consider whether there is "unmet interest in a particular sport, sufficient ability to sustain a team in the sport, and a reasonable expectation of competition for the team" (Clarification, 1996, p. 10). If all characteristics are met, then the OCR will conclude the institution is not fully and effectively accommodating the interests and abilities of the underrepresented sex. To determine compliance through part three of the Three-Part Test,

institutions must provide evidence that the imbalance in participation opportunities does not reflect discrimination, but rather reflects the interests and abilities of the underrepresented sex are already being fully accommodated (Clarification, 1996).

In 2005, another clarification was issued from the OCR regarding part three of the Three-Part Test. The clarification addressed how to gauge levels of interest of the underrepresented sex by including a “User’s Guide to Developing Student Interest Surveys Under Title IX” and a “Model Survey” in the 2005 clarification. It stated that the Model Survey could be administered by e-mail, which meant lack of response could be interpreted as lack of interest in athletics. The methodology of the model survey was widely criticized and the NCAA even recommended that members not utilize it. To address this concern, another clarification on part three of the Three-Part test was issued in 2010. This clarification withdrew the 2005 clarification and accounted for the shortcomings of the 2005 clarification. The 2010 clarification requires more than the survey results, or non-response to surveys, in determining interest and/or ability levels of the underrepresented sex (McMurtrie Bonnette, 2012). The OCR provides a non-exhaustive list in the 2010 clarification for evaluating the interests of the underrepresented sex. That list includes: requests that an intercollegiate sport be added; participation in club and intramural sports; interviews with students and staff; survey results; and participation in high school programs, amateur athletic associations, and community sports leagues (McMurtrie Bonnette, 2012, p. 1-2). In addition to confirming how compliance can be met through this third part of the Test, the 2010 clarification also provides suggestions for development and implementation of surveys as one of many evaluative tools (Gender Equity / Title IX Important Facts, 2016).

For this study, the first part of the Three-Part Test – substantial proportionality – is used to determine changes in “equal opportunity” compliance based on the addition of an emerging

sports team at member schools between the academic years of 2004-2005 and 2013-2014. In addition, the second part of the Test is considered in the discussion section of this research (Chapter V) as potentially having an impact on participation compliance. Part three of the Test is not considered in this research due to research constraints/limitations.

#### *The Equity in Athletics Disclosure Act of 1994*

Each year, institutions that receive federal funding and have an intercollegiate athletics program are mandated to calculate, record, and submit financial reports to the U. S. Department of Education Secretary (Equity in Athletics Disclosure Act, 1994). This process was mandated by the Equity in Athletics Disclosure Act (EADA) enacted on October 20, 1994 as a part of the Improving America's School Act of 1994 (IASA) Public Law 103-382. These annual reports include enrollment figures for the institution, athletics staffing information, participant and operating expenses, revenues and expenses, coaches' salaries, the number of athletes in each sport, as well as the recruiting budgets for each gender (Howe, 2007). The law requires that the EADA report be made available to the public October 15 and submitted to the Department of Education by October 30 (Equity in Athletics Disclosure Act, 1994). The data, reported by sex, is published on the Department of Education's website and the records can be accessed publicly through the Equity in Athletics Data Analysis Cutting Tool. In addition to posting the financials on the Cutting Tool website, the Department of Education also includes the submitted data in its annual report on gender equity in intercollegiate athletics to Congress (Gender Equity / Title IX Important Facts, 2016; Howe, 2007).

#### *Title IX Impact*

Prior to Title IX and the shift of power in women's athletics to the NCAA, there was a dismal average of 2.5 women's teams per institution of higher education (Acosta & Carpenter,

2014) and fewer than 30,000 female intercollegiate student-athletes (Bryant, 2012). By 1977-1978, five years following the enactment of Title IX, the number of women's teams per school had more than doubled to 5.61 (Acosta & Carpenter, 2014). This number grew to over seven women's teams per school by 1986; however, the rapid growth began to plateau in the late 1980's/early 1990's. To help explain this plateau, the NCAA surveyed its member institutions in 1991 to examine participation of and expenditures on women compared to men. The survey results indicated a great discrepancy between institution enrollment and participation opportunities for women as compared to men (NCAA Emerging Sports History, 2016). Despite undergraduate enrollment across member institutions averaging 50 % men and 50% women at the time, men accounted for more than 70% of the athletic opportunities, 77% of operating budgets, and 83% of recruiting funds (NCAA Emerging Sports History, 2016). Following this survey, gender equity became a higher priority for the NCAA, and a 16-member task force was established to help guide member institutions athletic programs towards equality (Elliott & Mason, 2001; Kantor, 2015). This Gender-Equity Task Force came up with new institutional standards and NCAA regulations to help achieve gender equity (NCAA Emerging Sports History, 2016). One new NCAA regulation to come from this task force was the creation of the Emerging Sports Program for Women and criteria for emerging sport designation.

## **Emerging Sports**

An emerging sport, as defined in the NCAA Manual, is:

“...a sport sponsored 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, 2016, ¶1).

There are many requirements for a sport to successfully be added to the emerging sports list. First, the sport in question must meet the NCAA's definition of a "sport". 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 the standardized rules with rating/scoring systems ratified by official regulatory agencies and governing bodies" (Criteria for Emerging Sports, 2016, ¶2).

If the sport meets this definition as per the NCAA, a proposal may be submitted to the Committee on Women's Athletics (CWA) at the NCAA (Criteria for Emerging Sports, 2016). The proposal must include specific information regarding the legitimacy of the sport being considered. The proposal must demonstrate 1) that the sport exists at 20 or more college campuses in the form of a varsity team and/or competitive club team; 2) that there is an understanding that once identified as an emerging sport, all NCAA institutions choosing to sponsor the sport must abide by all NCAA regulations; and 3) include information on general competition rules, suggested NCAA regulations, and format for the sport (Criteria for Emerging Sports, 2016). Lastly, ten commitment letters from institutions that intend to sponsor the sport as an emerging sport, including signatures from the president and athletics director of each institution, must be submitted to CWA for the sport to be added to the emerging sport list (Criteria for Emerging Sports, 2016; Howell, 2011).

Once added to the emerging sport list, there is a ten year window for 40 NCAA programs (across the three NCAA Divisions) to sponsor the sport to achieve championship status (NCAA Emerging Sports History, 2016; Howell, 2011). If this quota is not met, the sport may remain on the emerging sports list as long as "steady progress" is being made toward achieving that goal (Howell, 2011). If the 40-program goal is not met or steady progress is not being made, then the

sport will be removed from the list (Criteria for Emerging Sports, 2016). The sport can seek reinstatement to the list after 12 months post removal by submitting all required information once again, but this time with 15 letters of commitment rather than 10 (Criteria for Emerging Sports, 2016).

Since 1993, thirteen sports have successfully been added to the emerging sports list including: Archery ('93), Badminton ('93), Bowling ('93), Rowing ('93), Ice Hockey ('93), Squash ('93), Synchronized Swimming ('93), Team Handball ('93), Water Polo ('93), Equestrian ('98), Rugby ('02), Sand Volleyball ('10), and Triathlon ('14). Five sports were able to achieve NCAA championship status: Rowing ('97), Ice Hockey ('01), Water Polo ('01), Bowling ('04), and Sand Volleyball ('14). Archery, Badminton, Synchronized Swimming, and Team Handball were each removed from the list in 2009 due to a lack of participation. Squash, equestrian, rugby, and triathlon currently remain on the list as viable championship sport candidates. The research in this study includes all emerging sports added at NCAA member institutions between the academic years of 2004-2005 and 2013-2014. (NCAA Emerging Sports History, 2016).

## **Academic Research**

Since its inception, Title IX has sparked many questions, concerns, and discussions because of the statute's broad scope. This has prompted an innumerable amount of research to be conducted on the statute throughout its 45-year existence. The research, mostly legal in nature, has addressed the plethora of questions and concerns stemming from Title IX. Despite the abundant research on Title IX, limited studies statistically address the issues accompanying the statute. Even fewer have been able to gain a comprehensive understanding of an issue/concern

through statistical analysis. This study adds to the body of research on Title IX of the Education Amendments of 1972 by using statistical analysis to comprehensively measure the impact the emerging sports program has had on Title IX participation opportunity compliance. The substantial proportionality standard is utilized to measure Title IX participation compliance before and after the addition of an emerging sport at member institutions. Limited research has been conducted on this part of the Three-Part Test, especially in a statistical manner; however, there are a handful of studies that prove valuable to this research study.

One study, conducted in 2006, investigates the level of noncompliance with Title IX as measured by substantial proportionality for the academic years of 1995-1996 and 2001-2002 (Anderson, Cheslock, & Ehrenberg, 2006). The research investigates the reasons why some institutions perform better than others in the matter of gender equity by testing multiple variables on representative samples of all three NCAA Divisions for each year in question. Prior to running a regression analysis on the variables in the study, the authors provided a background on the substantial proportionality of NCAA member schools overall and by Division. Anderson et al. define “noncompliance” as a gap of more than 3-5% in proportionality. It was proved that noncompliance with the substantial proportionality prong of the Three-Part Test based on a 5% proportionality gap for the NCAA overall decreased from 93% in the 1995-1996 year to 89% in the 2001-2002 year (Anderson et al., 2006). Furthermore, the research showed a significant difference in the level of noncompliance among the three Divisions. In Division I, the level of noncompliance decreased from 96.2% in 1995-1996 to 82.2% in 2001-2002 (Anderson et al., 2006). Divisions II and III saw much less improvement between the two years. The level of noncompliance in Division II went from 94.1% in 1995-1996 to 93.1% in 2001-2002 (Anderson et al., 2006). The level of noncompliance in Division III increased from 91.7% in 1995-1996 to

92.0% in 2001-2002 (Anderson et al., 2006). The results of the regression run on the variables impacting Title IX compliance also proved significant in this 2006 study. It was proven that, overall, public institutions were more compliant in terms of substantial proportionality than private schools for both years examined (Anderson et al., 2006). In addition, regional location proved to be a significant factor in a schools level of compliance with those schools in the Midwest and South being less compliant than schools in the Northeast (Anderson et al., 2006). Lastly, as predicted by the researchers, the schools with higher female undergraduate enrollment were significantly less compliant than schools with lower female undergraduate enrollment rates.

Another study that examined Title IX and substantial proportionality was conducted in 2010. The researcher sought characteristics of National Association of Intercollegiate Athletics (NAIA) schools that may predict the level of Title IX compliance. One specific variable that was examined was: “What type of sports teams are offered at schools that meet the substantially proportionate criteria?” (Campbell, 2010, p. 51). Other factors that were tested as variables that may predict proportionality include: athletic expenses, recruiting expenses, athletic student aid, and/or coaching staff (Campbell, 2010). The study showed that there was a substantial degree of noncompliance for NAIA schools, which supported earlier research conducted by Anderson et al. (2006) (Campbell, 2010). Of the 258 NAIA schools analyzed, 29 met substantial proportionality. Out of those 29 schools, there were some trends in the specific women’s teams sponsored. The most popular sponsored women’s sports at compliant schools included: Basketball (27/29), Volleyball (24/29), Softball (19/27), and Swimming & Diving (19/27) (Campbell, 2010). In addition, four of the 29 compliant schools sponsored an emerging sport. The emerging sports sponsored at those schools were Equestrian (2/29), Rowing (1/29), and Water Polo (1/29) (Campbell, 2010).

As previously stated, this study gives a comprehensive view of the impact of the emerging sports program on Title IX participation compliance at NCAA member institutions. Up to this point, there has been no published research conducted on the emerging sports program as a whole or on its impact on Title IX compliance. The little research that has been conducted on the emerging sports program has been sport specific and largely qualitative or legal in nature. An example of a qualitative study conducted on an emerging sport is Howell's 2012 research on sand volleyball. This study explored the prevalence and interest in the sport at the NCAA Division I level looking at 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' (Howell, 2012). Another avenue in which emerging sports have been found in research is the debate of whether competitive cheerleading can be counted towards Title IX figures. In 2010, Quinnipiac University claimed that their competitive cheerleading team – distinctly separate at the University from "sideline cheerleading" – should be counted towards Title IX figures. This claim led to the first federal court case to determine whether competitive cheerleading could be counted towards Title IX compliance numbers. In *Biediger v. Quinnipiac University* (2010), it was determined that Quinnipiac's competitive cheer team was not a sport for purposes of Title IX, citing dissimilarities between cheer and other varsity sports that the university supports (Buzuvis, 2011). The court focused on the fact that competitive cheer is not recognized by the National Collegiate Athletic Association (NCAA) or any comparable governing body in their final decision. This led to the discussion of competitive cheerleading being added to the emerging sports list. A professor from the Western New England College School of Law conducted legal research on this issue. She determined that legally, cheerleading should be able

to be added as an NCAA emerging sport as it meets the definition of “sport” outlined in the explanation of the emerging sports program. Thus, if added as an emerging sport, the courts would have to change their determination and competitive cheerleading could count towards Title IX participation opportunities compliance. As of present, this issue is still ongoing and competitive cheerleading has not been officially added to the list of emerging sports.

### **Theoretical Framework**

In practice, the Office for Civil Rights in the U.S. Department of Education has adopted multiple theories of feminism and equality in a pragmatic manner to best understand and address gender equity through Title IX. Deborah Brake, an attorney and Professor of Law at the University of Pittsburgh, describes gender inequality as a multi-dimensional issue that cannot be solved by one global theory of equality (2007). According to Brake, Title IX of the 1972 Education Amendments has taken a pragmatic and pluralistic approach in combating gender inequality (2007).

One theory found in Title IX litigation is liberal feminism. The concept of liberal feminism is based on an equal treatment model that suggests that women are similarly situated to men, thus equality must be on the same terms as men (Brake, 2007). This “sameness” concept of equality places the status of a woman as an athlete before all other identities, including gender. Liberal feminism is apparent in the equal treatment standard, financial aid regulations and tryout rules for intercollegiate athletes. Although the equal treatment model of liberal feminism has value in Title IX and female athletic advancement, it has many limitations. It fails to account for the inherent differences between men and women. Specific to athletics, women have historically

been excluded from participation, thus it cannot be asserted that the interest and abilities of men and women are equal (Koller, 2010).

To account for these inherent differences, Title IX employs the substantive equality/accommodation theoretical framework. The substantive equality theory within Title IX accommodates for the differences between men and women in sport through the equal opportunity three-part test and by offering varying sports by gender at institutions (Brake, 2007; Koller, 2010). The three-part test for compliance within the equal opportunity section of Title IX litigation requires institutions to provide athletic opportunities for women in accordance with their respective enrollment rates and/or their level of interest in participation. Unlike the liberal feminism theory of equal treatment and “sameness,” the substantive theory avoids gender-blind assessments of equality and rather employs a gender-conscious approach to providing opportunities for women in athletics (Brake, 2007; Koller, 2010). The substantive theory is also apparent in that it is not required to provide a mirror image of women’s and men’s athletic programs (Brake, 2007). As previously stated, such an approach would not account for interests of women compared to men. The substantive theoretical framework seeks not equal treatment, but “equal valuing of women’s distinct perspectives” (Brake, 2007, p. 538).

The NCAA Emerging Sports Program for Women demonstrates the substantive equality theory in achieving Title IX compliance in intercollegiate athletics. The program was created with the intent to increase athletic participation opportunities for women by accounting for the inherent differences in interests of women as compared to men. In addition, the Emerging Sports Program accounts for the discrimination women have faced historically in athletic participation opportunities by lessening the requirements to become a full-status NCAA sport. The accommodation to the specific interests of women and the abridged sport-addition process of the

emerging sports program exhibits the substantive equality theory. These equity theories will provide a lens from which to discuss the success of the emerging sports program within the framework of this study.

## **CHAPTER III**

### **METHODOLOGY**

The purpose of this research is to examine the impact the NCAA Emerging Sports Program for Women has had on Title IX compliance in participation opportunities at NCAA member institutions. Necessary data is collected from the Equity in Athletics Data Analysis (EADA) Cutting Tool and is analyzed using multiple statistical analysis techniques. This study measures compliance in participation opportunities under the substantial proportionality rule of the Three-Part Test. Participation figures for schools that added an emerging sport between the academic years of 2004-2005 and 2013-2014 (considered “2004” and “2013” respectively throughout the study) are analyzed and compared for the NCAA overall as well as for each NCAA Division.

This chapter addresses the specific methods used to uncover the impact that the addition of an emerging sport at NCAA institutions has on Title IX compliance. The population is identified. The procedures for data collection are described in detail. The data analysis process is outlined, and the use of descriptive statistics and statistical analysis testing is explained.

#### **Population**

The population of this study is all NCAA member institutions that began sponsoring an emerging sport at the varsity level between the academic years of 2004-2005 and 2013-2014. This research is considered a census study as data is collected on every member of the

population. The number of schools that added an emerging sport between 2004 and 2013 totals 121 with 130 emerging sports added overall.

## **Data Collection**

The data for this study was collected from two sources. First, the list of schools that added an emerging sport between 2004 and 2013 was attained through a contact at the NCAA. The contact, a member of the Research Committee for the Association, compiled a comprehensive list of institutions that added an emerging sport in the ten-year window of the study and included the year the institution began sponsoring the sport. Data was then collected for each school on that list using the Equity in Athletics Data Analysis (EADA) Cutting Tool website. Some of the data submitted by the NCAA did not match up with the EADA data. The data anomalies were documented by the researcher and changed in the data collection process to maintain accuracy in the calculations (the anomalies and subsequent changes in data collection can be seen in Appendix A).

Many steps were taken in collecting the data from the EADA to ensure that all data was accurately gathered and organized in order to properly answer research questions 1-4. First, a “custom data report” was generated for each year between 2004 and 2013 containing data on the NCAA member institutions that added an emerging sport in each year. The “custom data reports” were downloaded directly from the EADA into Microsoft (MS) Excel. The variables collected in those reports can be seen in the “Variables” section below. The ten custom data reports were then compiled into one large data report containing the data on each NCAA school that added an emerging sport between the years of 2004 and 2013 (considered “All EADA

Emerging Sport Data” throughout the study). This large data report was used to answer research question 1.

The next step in the data collection process was to generate more “custom data reports” from the EADA and download the data into MS Excel in order to answer research question 2. A “custom data report” for each year between 2004 and 2013 was generated on all NCAA member institutions to calculate substantial proportionality of the NCAA as a whole for each of the 10 years being examined in this study. This data was also sorted by Division for further analysis. The variables collected in those reports can be seen in the “Variables” section below. These “custom data reports” were then filtered by schools that added an emerging sport between 2004 and 2013 and schools that did not add an emerging sport between 2004 and 2013 to fully develop the answer to research question 2.

One last set of “custom data reports” were generated and downloaded to MS Excel in order to answer research questions 3 and 4. As in the first set of “custom data reports” from the EADA, this set of reports examined NCAA schools that added an emerging sport between 2004 and 2013 and collected data based on the year the emerging sport was added. For these reports however, data was collected for the year before the emerging sport was added at each institution (“Year 0”), the year the emerging sport was added at each institution (“Year 1”), and the year after the emerging sport was added at each institution (“Year 2”). The variables collected in these reports were the same as in the first and second set of reports and can be found in the “Variables” section below. Collecting the data necessary to calculate substantial proportionality for Year 0, Year 1, and Year 2 allowed for research questions 3 and 4 to be comprehensively answered.

## **Variables**

All “custom data reports” generated from the EADA Cutting Tool were collected for the following variables:

- Survey Year
- Institution Name and State
- Classification Name (Division)
- Male Undergraduate Enrollment
- Female Undergraduate Enrollment
- Total Undergraduate Enrollment
- Participation Figures for every NCAA Sport
- Grand Total Men's Participation (Duplicated)
- Grand Total Women's Participation (Duplicated)
- Grand Total Participation for Men and Women Combined (using Duplicated Counts)
- Unduplicated Count Men's Participation
- Unduplicated Count Women's Participation

## **Data Analysis**

### **Research Question 1**

To comprehensively answer research question 1, descriptive statistical analysis techniques were utilized. Research question 1 seeks to describe the population. The “All EADA Emerging Sport Data” report was manipulated in MS Excel through the “filter” and “custom sort” functions to provide a thorough description of the landscape of adding an emerging sport

between the years of 2004 and 2013. The collected data was analyzed using the “SUM” and “AVERAGE” functions of MS Excel to effectively answer the first research question.

### Research Question 2

Research question 2 sought trends in the substantial proportionality gap within the NCAA between 2004 and 2013. The proportionality gap was calculated for the NCAA overall and for each NCAA Division as well as for the NCAA institutions that added an emerging sport and the NCAA institutions that did not add an emerging sport in the ten-year window. The substantial proportionality was calculated for each institution using the information in the custom data reports generated for all NCAA institutions on a year-by-year basis from 2004 to 2013. The “filter” and “custom sort” along with the “SUM” and basic arithmetic functions of MS Excel were used to generate the information pertinent to calculate the substantial proportionality gap for research question 2. The calculation used for the substantial proportionality gap is as follows:

$$(1) \quad \text{Substantial proportionality gap} = [(\% \text{ of undergraduates who are female}) - (\% \text{ of athletes who are female})] * 100$$

To find the percent of undergraduates who are female, the number of female undergraduates was divided by the total number of undergraduates. The duplicated count of female athletic participants is used by the Department of Education to calculate “the percent of athletes who are female” by dividing the duplicated count of female participants by the total number of athletic participation opportunities. For this research, each calculation of the substantial proportionality gap was calculated twice for means of comparison— once using the duplicated count and once using the unduplicated count for the percent of athletes who are female.

A positive substantial proportionality gap proves that women comprise a smaller share of athletes than of undergraduates and the institution is said to be discriminating against female athletes and thus not in compliance. The closer the proportionality gap percentage is to zero, the more compliant the school. A common interpretation of the “substantial proportionality” standard states that a differential of no more than three to five percentage points signifies compliance (Sigelman & Wahlbeck, 1999; Zimbalist, 1997; Anderson et. al 2004). This research adopts a differential of 5%, either negative or positive to determine compliance. Thus, if a school's female enrollment was 50%, the number of female athletes should be between 45% and 55% (Campbell, 2010). The results of each substantial proportionality gap calculation were organized into a table in MS Excel and displayed in graphs for easy visualization of the change in substantial proportionality over time.

### Research Question 3

The substantial proportionality gap equation was also used to answer research question 3. In contrast to research question 2, the third research question examines the change in substantial proportionality at the NCAA institutions that added an emerging sport between 2004 and 2013 by analyzing proportionality in the year before the emerging sport was added (Year 0), the year the emerging sport was added (Year 1), and the year after the emerging sport was added (Year 2). The substantial proportionality gap was calculated for all NCAA member schools that added and emerging sport: overall, for each NCAA Division, for each level of Division I, for schools with undergraduate enrollment greater than 5,000, for schools with undergraduate enrollment less than 5,000, for schools that sponsor football, for schools that do not sponsor football, and for each emerging sport to determine trends in the data and to monitor the change in Title IX compliance from the addition of an emerging sport to an institution. Each category was tested

twice – once for the duplicated count gaps and once for the unduplicated count gaps – to provide a means of comparative analysis.

#### Research Question 4

This research question addressed the significance in the change in the proportionality gap at schools that added an emerging sport between 2004 and 2013 from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2. Paired sample t-tests were conducted on the collected data to yield the results. Thirty-eight total tests were run on the 19 sub-groups of the data identified by the researcher. Again, each category was tested twice – once for the duplicated count gaps and once for the unduplicated count gaps – to provide a means of comparative analysis. Paired-sample t-tests were chosen because the study compares a change over time of samples that are the same size. There were multiple methods of statistical testing discussed during the research; however, paired-sample t-tests were identified as the most effective for analyzing the large amount of data in this study. The tests were conducted using an alpha level of 0.05. The null hypothesis was that the variances would be the same from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2.

## **CHAPTER IV**

### **RESULTS**

The purpose of this study was to measure the change in Title IX compliance of participation opportunities for women at NCAA institutions that added an emerging sport between the academic years of 2004-2005 and 2013-2014 (referred to as “2004” and “2013” respectively throughout the study). The following chapter provides the data analysis results for each guiding research question. Institution self-reported survey data was available for NCAA schools from the Equity in Athletics Data Analysis (EADA) Cutting Tool for secondary data analysis. The study was conducted using information obtained from all 121 NCAA member schools that added an emerging sport between 2004 and 2013.

#### **Research Question 1**

*Describe the landscape of adding an emerging sport between the years of 2004 and 2013.*

There was an average of 1,032 NCAA member institutions within the ten years assessed in this study. There were 121 NCAA institutions identified by the NCAA as having added an emerging sport between the years of 2004 and 2013. This demonstrates that 11.7% of all schools in the NCAA added an emerging sport between 2004 and 2013. Of the mean 1,032 NCAA institutions between 2004 and 2013, there was an average 337 Division I schools, 290 Division II schools, and 405 Division III schools. 68 Division I schools, 18 Division II schools, and 35 Division III

schools added at least one emerging sport, which demonstrates that that 20.2% of all Division I schools, 6.2% of all Division II schools, and 8.6% of all Division III schools added an emerging sport in the ten-year window of the study.

Of the 121 institutions analyzed in this study, 113 schools added only one emerging sport, seven schools added two emerging sports (with two of the seven adding both emerging sports in the same academic year), and one school added three emerging sports. This brings the total number of emerging sports added to 130 across the 121 institutions. Overall, there were 73 emerging sport teams added at Division I institutions, 19 added at Division II institutions, and 38 added at Division III institutions. The breakdown of the number of emerging sports added in each year of the ten-year window of this study can be seen in Figure 1.1 below.

Table 1.1: *Breakdown of the Number of Emerging Sports Added Per Year, 2004-2013*

| Year | Number of Emerging Sports Added | Percent of All Emerging Sports |
|------|---------------------------------|--------------------------------|
| 2004 | 15                              | 11.5%                          |
| 2005 | 11                              | 8.5%                           |
| 2006 | 12                              | 9.2%                           |
| 2007 | 7                               | 5.4%                           |
| 2008 | 8                               | 6.2%                           |
| 2009 | 8                               | 6.2%                           |
| 2010 | 9                               | 6.9%                           |
| 2011 | 24                              | 18.5%                          |
| 2012 | 20                              | 15.4%                          |
| 2013 | 16                              | 12.3%                          |

Eight different emerging sports were added by NCAA institutions between 2004 and 2013 including: Women's Bowling (WBW), Women's Crew/Rowing (WCR), Women's Equestrian (WEQ), Women's Ice Hockey (WIH), Women's Rugby (WRU), Women's

Sand/Beach Volleyball (WSV), Women's Squash (WSQ), and Women's Water Polo (WWP).

The breakdown of the number of teams added for each emerging sport between 2004 and 2013 can be seen below in Figure 1.2.

Table 1.2: *Breakdown of the Number of Each Emerging Sport Added, 2004-2013*

| Emerging Sport          | Abbreviation | Number of Teams Added<br>Between 2004 and 2013 | Percent of All<br>Emerging Sports |
|-------------------------|--------------|------------------------------------------------|-----------------------------------|
| Women's Sand Volleyball | WSV          | 39                                             | 30.0%                             |
| Women's Bowling         | WBW          | 32                                             | 24.6%                             |
| Women's Ice Hockey      | WIH          | 20                                             | 15.4%                             |
| Women's Crew            | WCR          | 14                                             | 10.8%                             |
| Women's Equestrian      | WEQ          | 11                                             | 8.5%                              |
| Women's Rugby           | WRU          | 6                                              | 4.6%                              |
| Women's Water Polo      | WWP          | 6                                              | 4.6%                              |
| Women's Squash          | WSQ          | 2                                              | 1.5%                              |

Lastly, of all 121 NCAA member schools that added an emerging sport between 2004 and 2013, 61 had undergraduate enrollment greater than 5,000, 60 had undergraduate enrollment less than 5,000, and 74 schools sponsored football and 47 schools did not sponsor football. These groups of the data will be examined in research questions 3 and 4.

## Research Question 2

*How has substantial proportionality evolved in the NCAA between 2004 and 2013?* To address this research question, the substantial proportionality gap was calculated for every NCAA institution for each year between 2004 and 2013. Two separate assessments were made in the calculations to fully answer the research question. First, the average proportionality gap for

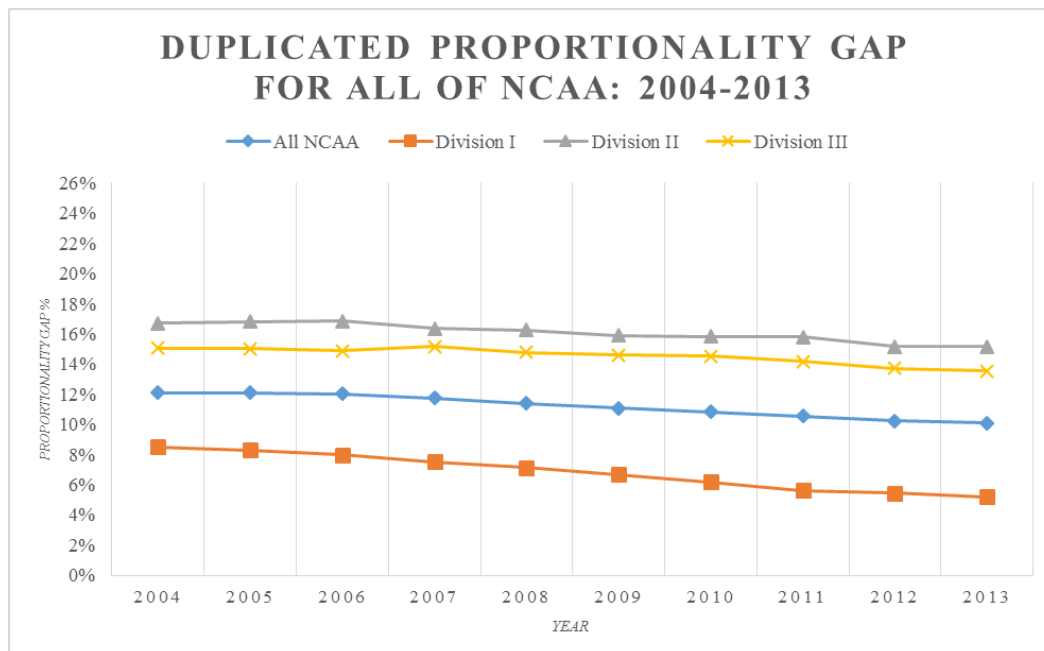
the NCAA overall and for each NCAA Division was calculated and analyzed. Next, the proportionality gap was calculated for NCAA member schools that added an emerging sport between 2004 and 2013 and then calculated again for those member schools that did not add an emerging sport in the time frame. Each calculation was conducted twice – once using the duplicated count for participation and once using the unduplicated count for participation. This allowed the researcher to determine if the addition of an emerging sport provides new participation opportunities for women who are not already student-athletes or if the additional participation opportunities are being filled by women already participating in a sport. A different table and corresponding graph was generated for each duplicated and unduplicated count calculation to be used for comparative analysis. As previously explained in the study, a decrease in the proportionality gap demonstrates a positive move towards Title IX compliance based on substantial proportionality.

The first substantial proportionality gap calculations were conducted for each year between 2004 and 2013 for all NCAA member schools. Separate calculations were also conducted for all Division I, all Division II, all Division III member schools. The results of these calculations show that each group under saw a steady decrease in the substantial proportionality gap from 2004 to 2013. The largest change over the ten years was seen in Division I with a 3.31% decrease in the proportionality gap. Figure 2.1 below displays the change in the duplicated substantial proportionality gap for all NCAA member schools as well as for each Division between 2004 and 2013.

Table 2.1: *Duplicated Substantial Proportionality Gap for All NCAA Institutions, 2004-2013*

|              | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| All NCAA     | 12.10% | 12.10% | 12.04% | 11.73% | 11.39% | 11.09% | 10.84% | 10.56% | 10.24% | 10.10% |
| Division I   | 8.51%  | 8.28%  | 7.97%  | 7.52%  | 7.12%  | 6.68%  | 6.19%  | 5.63%  | 5.43%  | 5.20%  |
| Division II  | 16.71% | 16.81% | 16.87% | 16.36% | 16.25% | 15.92% | 15.83% | 15.81% | 15.17% | 15.15% |
| Division III | 15.07% | 15.01% | 14.88% | 15.16% | 14.77% | 14.59% | 14.53% | 14.16% | 13.72% | 13.55% |

Figure 2.1: *Duplicated Proportionality Gap for All of NCAA, 2004-2013*



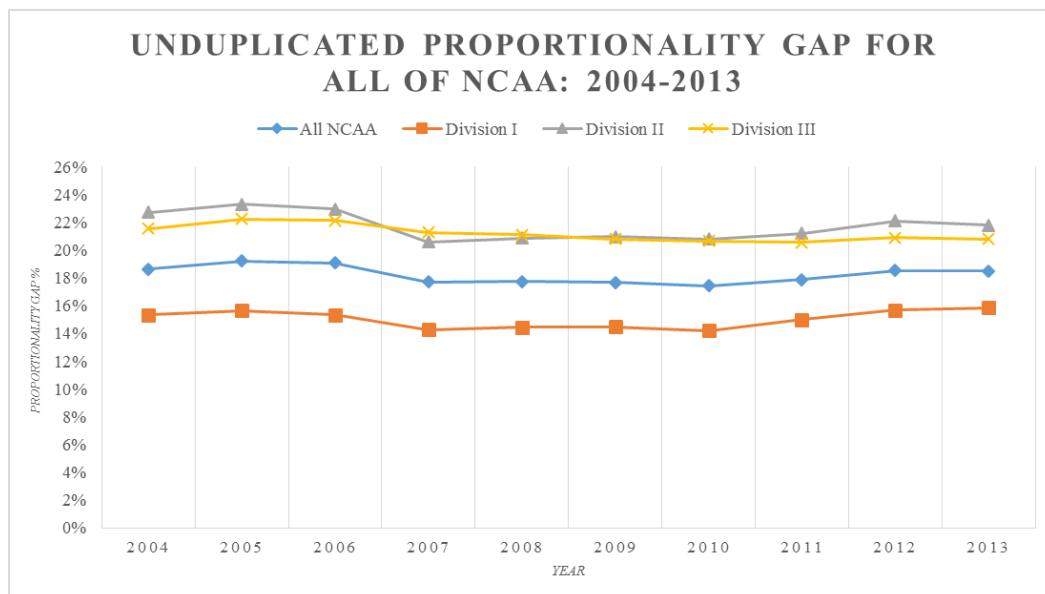
The results of the unduplicated count substantial proportionality gap calculations contradict the calculations conducted using the duplicated count figures. Rather than showing a steady decrease in the proportionality gap across each category over the ten years, the unduplicated proportionality gaps calculated for each year between 2004 and 2013 show a slight decrease from 2004 to 2007, a neutral position from 2007 to 2010, and then an increase from 2011 to 2013. There was a minimal overall decrease in the proportionality gap from 2004 to

2013 for the NCAA as a whole, Division II, and Division III; however, Division I showed an increase in the proportionality gap over the ten years. In the duplicated results, Division I showed the largest decrease in the proportionality gap as compared to the other groups, which demonstrates the conflicting results. Figure 2.2 below provides a visual representation of the change in the unduplicated substantial proportionality gap for all NCAA member schools and each Division between 2004 and 2013.

Table 2.2: *Unduplicated Substantial Proportionality Gap for All NCAA Institutions, 2004-2013*

|              | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| All NCAA     | 18.63% | 19.22% | 19.09% | 17.69% | 17.75% | 17.66% | 17.44% | 17.87% | 18.52% | 18.49% |
| Division I   | 15.35% | 15.64% | 15.35% | 14.27% | 14.45% | 14.49% | 14.19% | 14.99% | 15.67% | 15.86% |
| Division II  | 22.71% | 23.29% | 22.96% | 20.59% | 20.87% | 20.97% | 20.79% | 21.19% | 22.09% | 21.79% |
| Division III | 21.56% | 22.25% | 22.12% | 21.28% | 21.09% | 20.79% | 20.67% | 20.56% | 20.91% | 20.79% |

Figure 2.2: *Unduplicated Proportionality Gap for All of NCAA, 2004-2013*

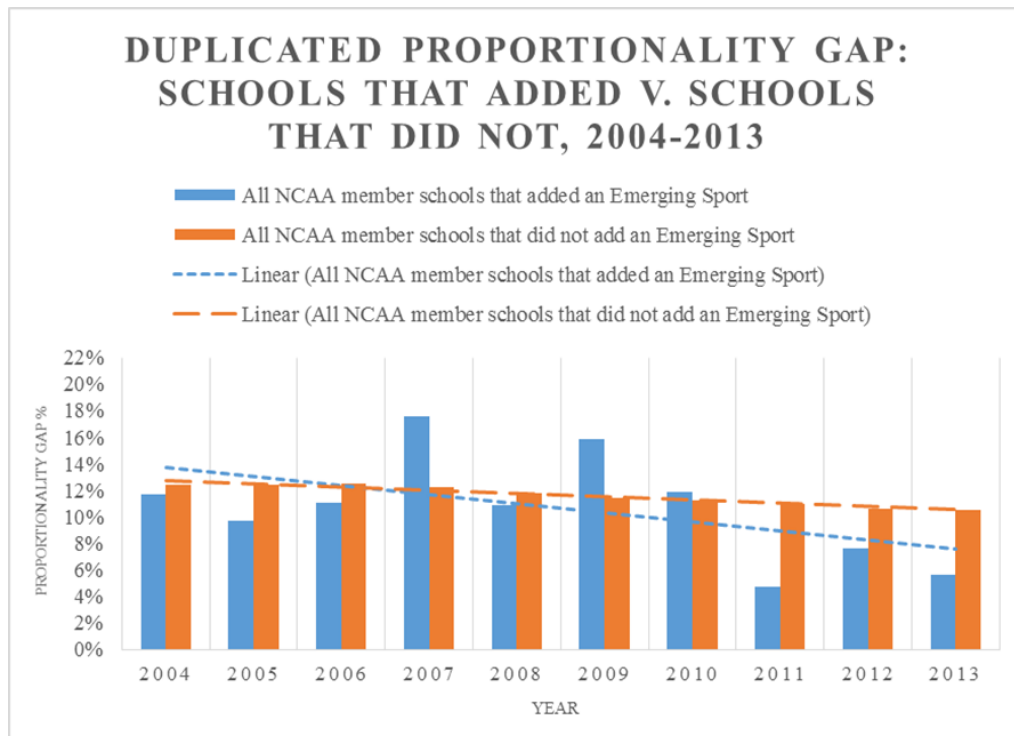


The second assessment necessary to answer research question 2 compared the substantial proportionality of all NCAA institutions that added an emerging sport between 2004 and 2013 to all NCAA institutions that did not add an emerging sport in the same ten-year period. The duplicated and unduplicated proportionality gaps were calculated for each year from 2004 and 2013 and can be found in Figures 2.3 and 2.4 respectively. The duplicated proportionality gap calculated for schools that added an emerging sport shows an overall decrease of 6.06% from 2004 to 2013. In contrast, the duplicated proportionality gap calculated for schools that did not add an emerging sport in the same time span shows a lesser decrease of 1.87%. Figure 2.3 below shows this decrease in the proportionality gap for each category.

Table 2.3: *Duplicated Substantial Proportionality Gap for All NCAA Institutions that Added an Emerging Sport v. All Institutions that Did Not Add an Emerging Sport, 2004-2013*

|                                                            | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |
|------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| All NCAA member schools that added an Emerging Sport       | 11.69% | 9.70%  | 11.09% | 17.54% | 10.84% | 15.88% | 11.92% | 4.76%  | 7.66%  | 5.63%  |
| All NCAA member schools that did not add an Emerging Sport | 12.39% | 12.41% | 12.52% | 12.20% | 11.83% | 11.46% | 11.23% | 11.00% | 10.63% | 10.52% |

Figure 2.3: *Duplicated Proportionality Gap: Schools that Added v. Schools that Did Not, 2004-2013*



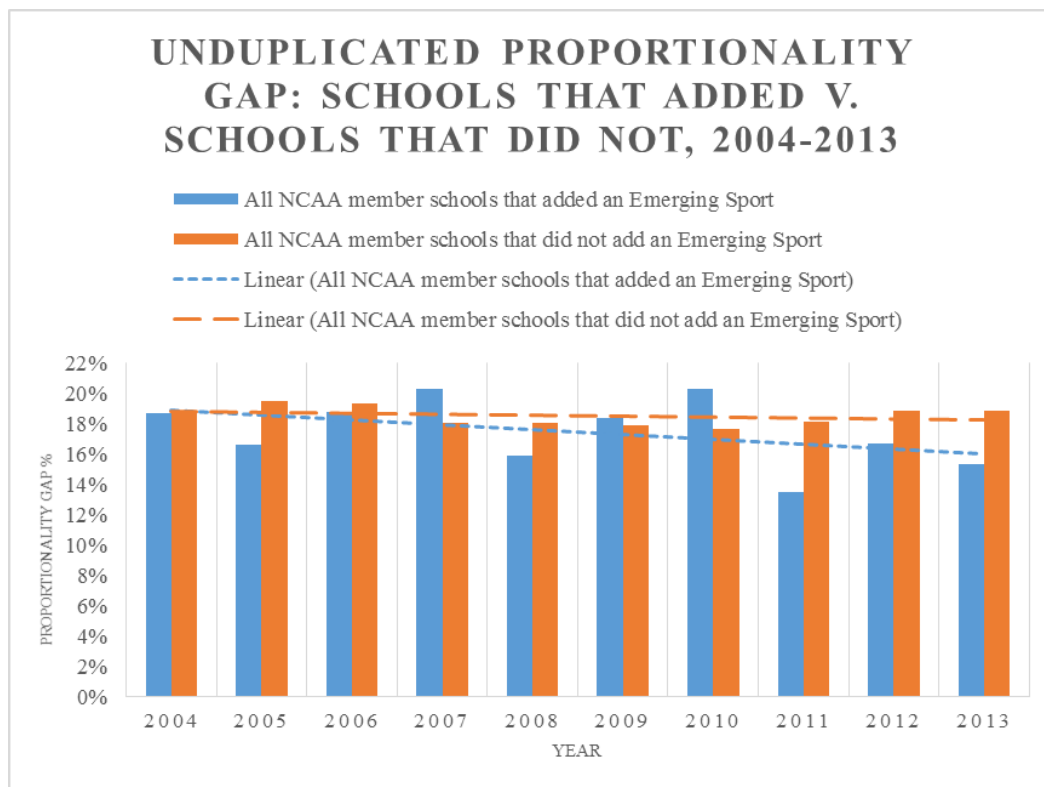
The unduplicated proportionality gap calculated for schools that added an emerging sport and for schools that did not add an emerging sport present a different outcome than the

duplicated count calculations. The unduplicated count proportionality gap for schools that added an emerging sport between 2004 and 2013 shows an overall decrease of 3.36%. In contrast, the unduplicated proportionality gap calculated for schools that did not add an emerging sport in the same time span shows an increase of 0.14%. Figure 2.4 below shows the change in substantial proportionality based on the unduplicated counts from 2004 to 2013.

Table 2.4: *Unduplicated Substantial Proportionality Gap for All NCAA Institutions that Added an Emerging Sport v. All Institutions that Did Not Add an Emerging Sport, 2004-2013*

|                                                            | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |
|------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| All NCAA member schools that added an Emerging Sport       | 18.70% | 16.66% | 18.78% | 20.34% | 15.93% | 18.41% | 20.35% | 13.51% | 16.69% | 15.34% |
| All NCAA member schools that did not add an Emerging Sport | 18.74% | 19.51% | 19.37% | 18.06% | 18.06% | 17.89% | 17.68% | 18.16% | 18.85% | 18.88% |

Table 2.4: *Unduplicated Proportionality Gap: Schools that Added an Emerging Sport v. Schools that Did Not, 2004-2013*



### Research Question 3

*Did the addition of an emerging sport at NCAA member schools between 2004 and 2013 impact participation opportunities for women based on substantial proportionality from: Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2: Overall? Based on NCAA divisional affiliation? Based on undergraduate enrollment? Based on football sponsorship? Based on emerging sport?* For this research question, the substantial proportionality gap was calculated for each of the 121 institutions that added an emerging sport between 2004 and 2013. The proportionality gap at each institution was calculated for the year prior to the addition of the emerging sport (Year 0), the year of the addition of the emerging sport (Year 1), and the year after the addition of the emerging sport (Year 2). Both the duplicated and unduplicated count calculations were conducted to provide a means for comparison. The proportionality gaps were averaged by Year 0, Year 1, and Year 2 for the following subgroups of the data: all 121 institutions overall (“All NCAA”), Division I overall, Division I-A, Division I-AA, Division I-AAA, Division II, Division III, schools with undergraduate enrollment greater than 5,000, schools with undergraduate enrollment less than 5,000, schools that sponsor football, schools that do not sponsor football, and then for each emerging sport.

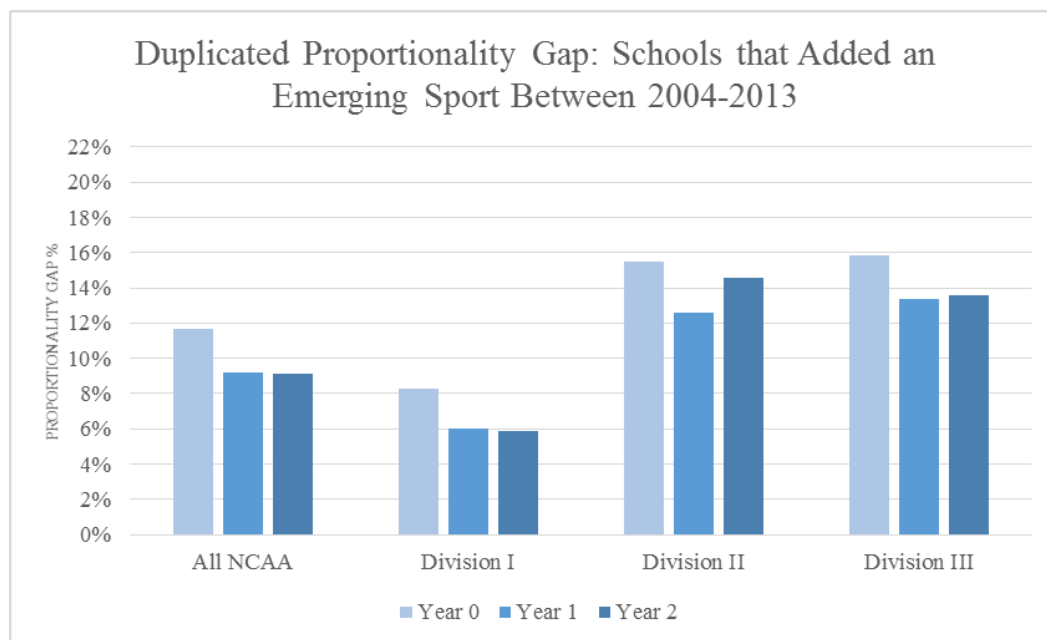
The mean duplicated substantial proportionality gaps calculated for all schools that added an emerging sport for Year 0, Year 1, and Year 2 show a decrease from Year 0 to Year 1 and from Year 0 to Year 2 for the 121 institutions that added overall and for each NCAA division. The change in proportionality from Year 1 to Year 2 differed by Division. The overall results from the 121 institutions that added as well as Division I saw a decrease from Year 1 to Year 2, while Division II and Division III experienced an increase from Year 1 to Year 2. Figure 3.1

below shows the changes in the duplicated proportionality gaps from Year 0 to Year 2 of those schools that added an emerging sport between 2004 and 2013.

Table 3.1: *Duplicated Substantial Proportionality Gap for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|              | Year 0 | Year 1 | Year 2 |
|--------------|--------|--------|--------|
| All NCAA     | 11.66% | 9.18%  | 9.13%  |
| Division I   | 8.30%  | 6.03%  | 5.90%  |
| Division II  | 15.50% | 12.57% | 14.54% |
| Division III | 15.84% | 13.36% | 13.61% |

Figure 3.1: *Duplicated Proportionality Gap: Schools that Added an Emerging Sport between 2004-2013*



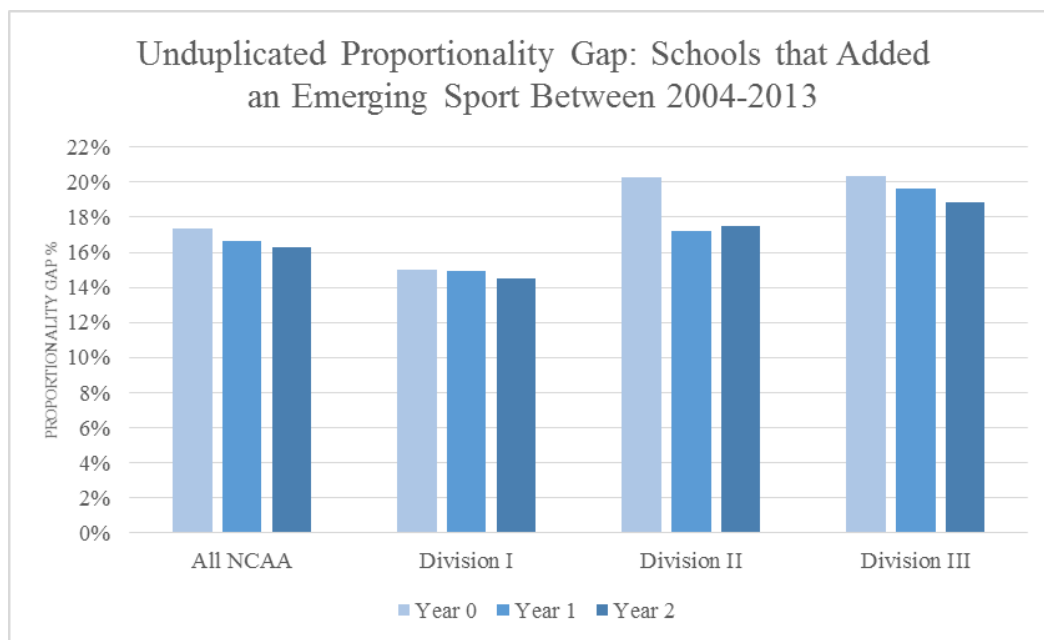
The unduplicated substantial proportionality gaps calculated for Year 0, Year 1, and Year 2 for “All NCAA” for each NCAA Division show a lesser decrease across the board than the

duplicated proportionality calculations. From Year 1 to Year 2, a decrease was observed in “All NCAA”, Division I, and Division III, but an increase was seen in Division II. Figure 3.2 below shows the changes in the unduplicated proportionality gaps from Year 0 to Year 2 of those schools that added an emerging sport between 2004 and 2013.

Table 3.2: *Unduplicated Substantial Proportionality Gap for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|              | Year 0 | Year 1 | Year 2 |
|--------------|--------|--------|--------|
| All NCAA     | 17.38% | 16.67% | 16.26% |
| Division I   | 14.98% | 14.93% | 14.54% |
| Division II  | 20.25% | 17.21% | 17.51% |
| Division III | 20.34% | 19.65% | 18.85% |

Figure 3.2: *Unduplicated Proportionality Gap: Schools that Added an Emerging Sport between 2004-2013*

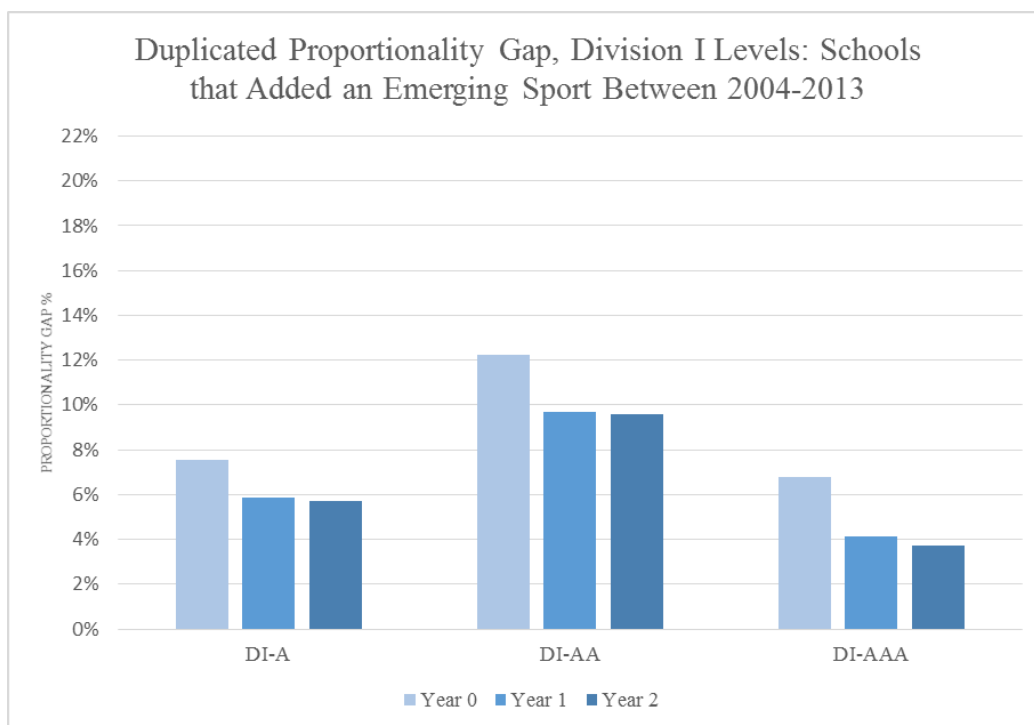


Next, each level of Division I affiliation within the NCAA was examined. The duplicated substantial proportionality gaps calculated show a decrease from Year 0 to Year 1, from Year 0 to Year 2, and from Year 1 to Year 2 for each level of Division I. The decrease from Year 0 to Year 1 was much larger than that seen from Year 1 to Year 2 across the board. Division I-AAA saw the largest overall decrease from Year 0 to Year 2 (3.04%) and was the only group to reach an accepted level of compliance based on substantial proportionality. Division I-A saw the smallest decrease, but also almost reached the 5.00% threshold of compliance defined in this study. Figure 3.3 below displays the duplicated proportionality results based on Division I affiliation.

Table 3.3: *Duplicated Substantial Proportionality Gap by Division I Affiliation for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|        | Year 0 | Year 1 | Year 2 |
|--------|--------|--------|--------|
| DI-A   | 7.55%  | 5.85%  | 5.71%  |
| DI-AA  | 12.24% | 9.70%  | 9.61%  |
| DI-AAA | 6.78%  | 4.15%  | 3.74%  |

Figure 3.3: *Duplicated Proportionality Gap, Division I Levels: Schools that Added an Emerging Sport between 2004-2013*



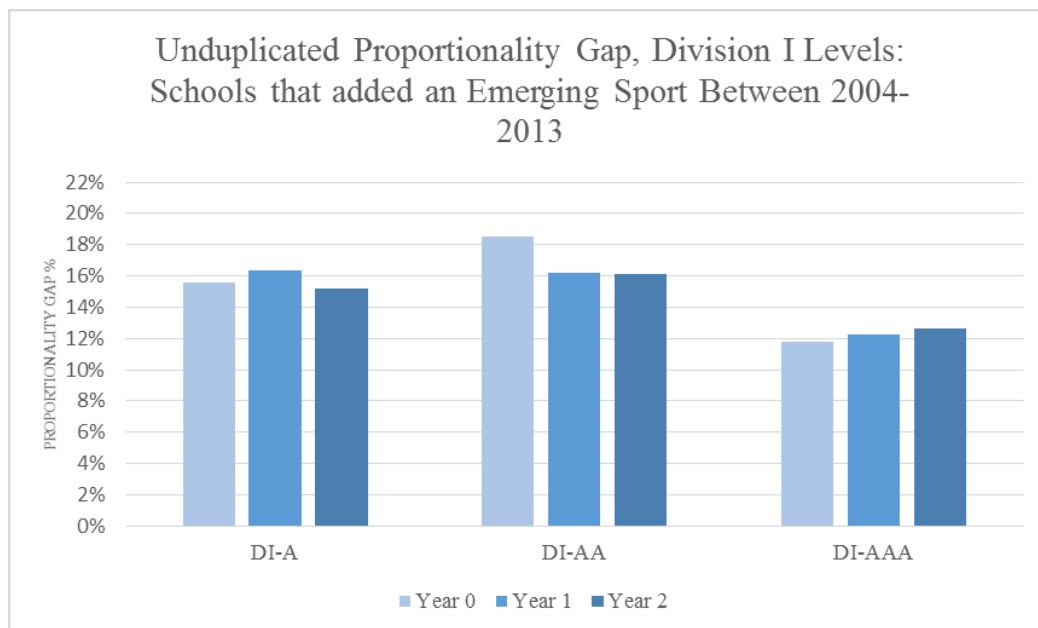
The unduplicated substantial proportionality gaps calculated for each Division I level portray a very different scene than the duplicated calculations. Division I-AA showed comparable results to the duplicated count, but Division I-A and Division I-AAA did not. In Division I-A, a decrease was seen overall from Year 0 to Year 2, but there was an increase from Year 0 to Year 1. Division I-AAA saw inverse results from the unduplicated count as compared

to the duplicated count. Instead of a decrease in the proportionality gap from year to year and an achievement of compliance, the unduplicated count presented a consistent increase from year to year. Figure 3.4 below displays the unduplicated proportionality results based on Division I affiliation.

Table 3.4: *Unduplicated Substantial Proportionality Gap by Division I Affiliation for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|        | Year 0 | Year 1 | Year 2 |
|--------|--------|--------|--------|
| DI-A   | 15.59% | 16.34% | 15.17% |
| DI-AA  | 18.54% | 16.19% | 16.09% |
| DI-AAA | 11.81% | 12.27% | 12.62% |

Figure 3.4: *Unduplicated Proportionality Gap, Division I Levels: Schools that Added an Emerging Sport between 2004-2013*



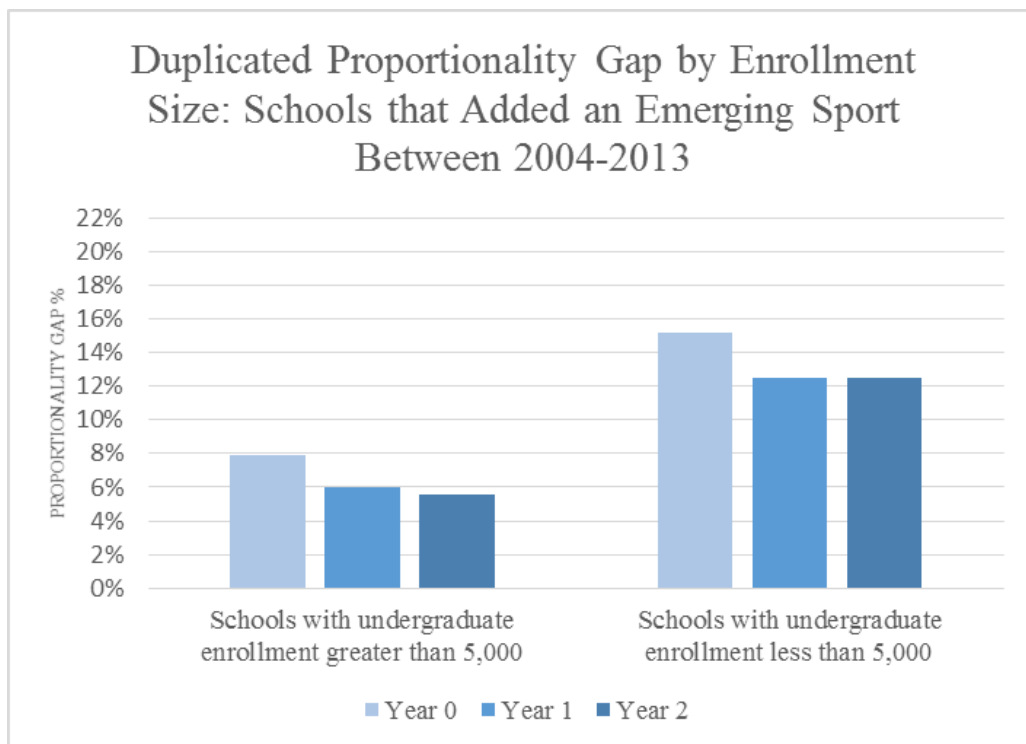
Another variable analyzed in the data was undergraduate enrollment size. The duplicated substantial proportionality gaps calculated for schools with enrollment greater than 5,000 show a

decrease from Year 0 to Year 1, a lesser decrease from Year 1 to Year 2, and an overall decrease from Year 0 to Year 2. Schools with undergraduate enrollment less than 5,000 show a higher level of noncompliance as compared to schools with enrollment greater than 5,000, but also display an overall decrease from Year 0 to Year 2. The duplicated proportionality results based on undergraduate enrollment size can be seen in Figure 3.5 below.

Table 3.5: *Duplicated Substantial Proportionality Gap Based on Undergraduate Enrollment for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|                                                          | Year 0 | Year 1 | Year 2 |
|----------------------------------------------------------|--------|--------|--------|
| Schools with undergraduate enrollment greater than 5,000 | 7.89%  | 5.97%  | 5.52%  |
| Schools with undergraduate enrollment less than 5,000    | 15.21% | 12.46% | 12.52% |

Figure 3.5: *Duplicated Proportionality Gap by Enrollment Size: Schools that Added an Emerging Sport between 2004-2013*

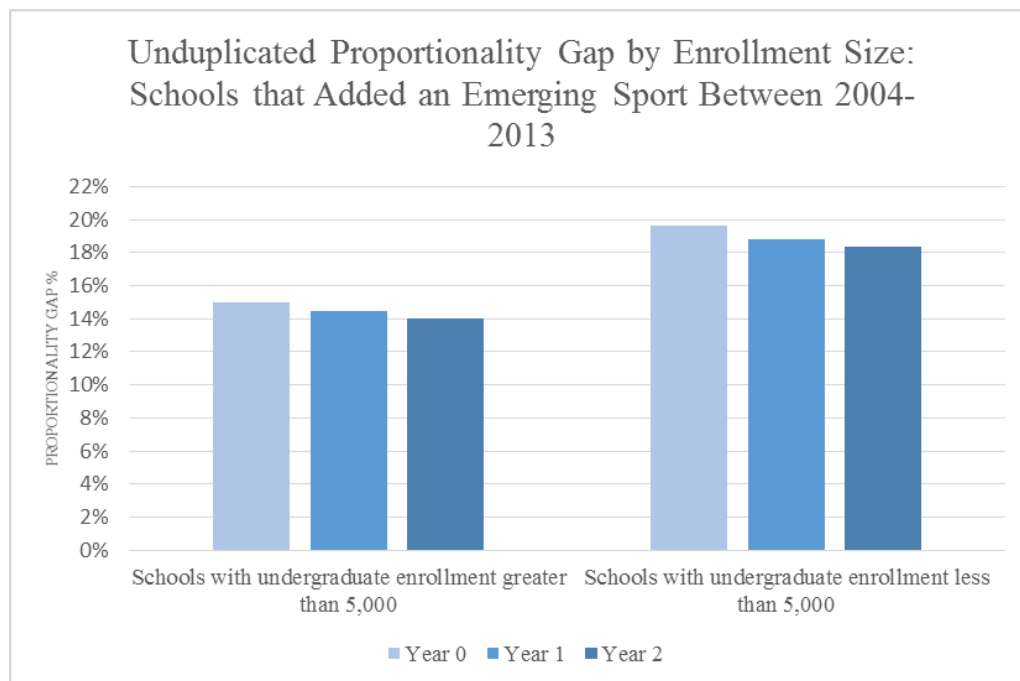


The unduplicated substantial proportionality gaps based on undergraduate enrollment size show less of a disparity between schools with enrollment greater than 5,000 and schools with enrollment less than 5,000 as compared to the duplicated gaps. Also, both enrollment size categories show a consistent decrease from Year 0 to Year 1, Year 0 to Year 2, and from Year 1 to Year 2. Figure 3.6 below displays the unduplicated proportionality results based on undergraduate enrollment size.

Table 3.6: *Unduplicated Substantial Proportionality Gap Based on Undergraduate Enrollment for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|                                                          | Year 0 | Year 1 | Year 2 |
|----------------------------------------------------------|--------|--------|--------|
| Schools with undergraduate enrollment greater than 5,000 | 15.01% | 14.49% | 14.05% |
| Schools with undergraduate enrollment less than 5,000    | 19.61% | 18.79% | 18.33% |

Figure 3.6: *Unduplicated Proportionality Gap by Enrollment Size: Schools that Added an Emerging Sport between 2004-2013*

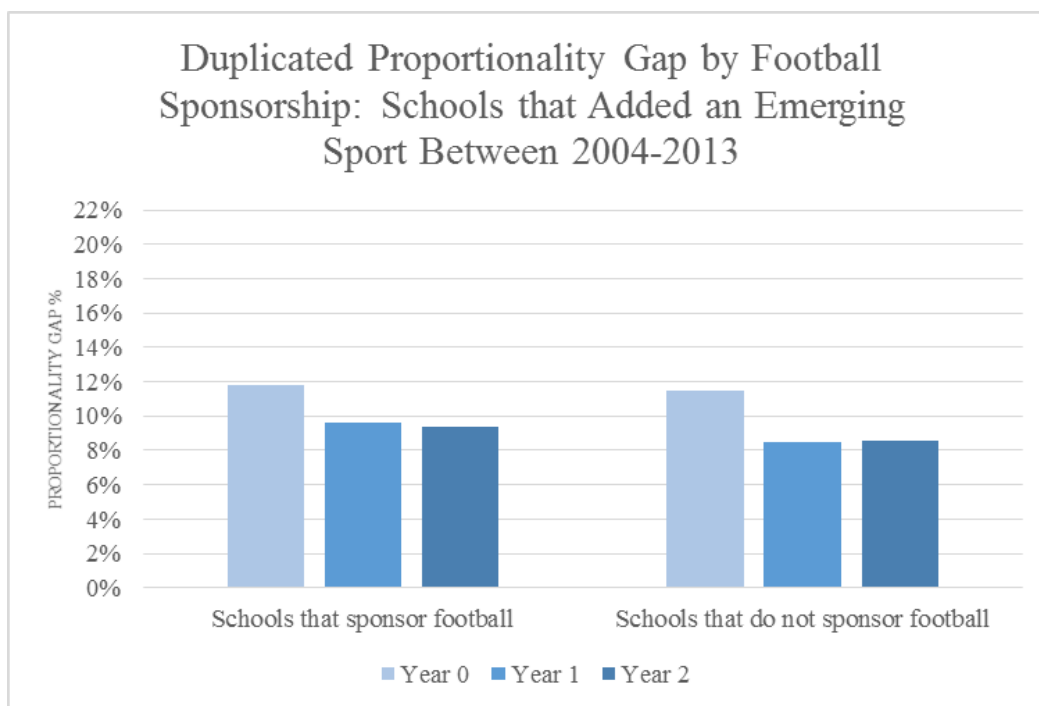


Next, the duplicated substantial proportionality gaps were calculated for schools that sponsor football and for schools that do not sponsor football. The results from the calculations show that there is not much difference in substantial proportionality between schools that added an emerging sport and sponsor football and the schools that added an emerging sport and do not sponsor football. The results show a steady decrease from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2 for both groups. Figure 3.7 below displays the results of the calculations based on football sponsorship.

Table 3.7: *Duplicated Substantial Proportionality Gap Based on Football Sponsorship for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|                                      | Year 0 | Year 1 | Year 2 |
|--------------------------------------|--------|--------|--------|
| Schools that sponsor football        | 11.80% | 9.60%  | 9.41%  |
| Schools that do not sponsor football | 11.46% | 8.52%  | 8.54%  |

Figure 3.7: *Duplicated Proportionality Gap by Football Sponsorship: Schools that Added an Emerging Sport between 2004-2013*

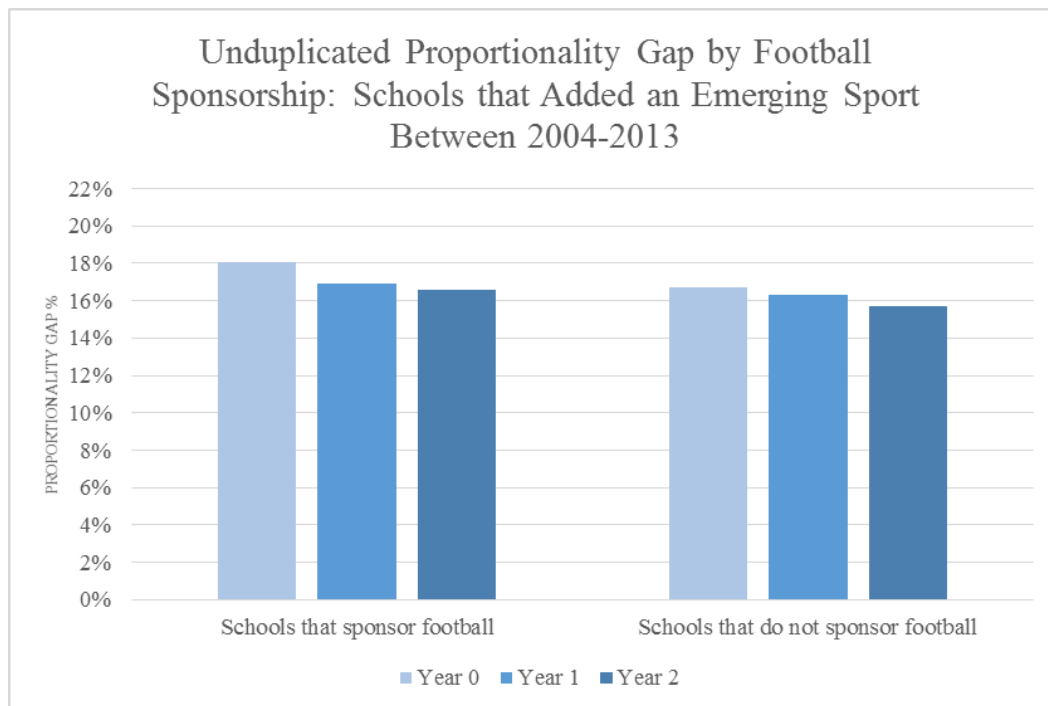


The unduplicated count calculations based on football sponsorship show similar results to the duplicated count calculations. The slope of the decrease seen from year to year closely parallels that seen in the duplicated results, but there is an overall higher level of noncompliance. The unduplicated proportionality results based on football sponsorship can be seen in Figure 3.8 below.

Table 3.8: *Unduplicated Substantial Proportionality Gap Based on Football Sponsorship for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 - Year 2*

|                                      | Year 0 | Year 1 | Year 2 |
|--------------------------------------|--------|--------|--------|
| Schools that sponsor football        | 18.06% | 16.91% | 16.57% |
| Schools that do not sponsor football | 16.70% | 16.29% | 15.70% |

Figure 3.8: *Unduplicated Proportionality Gap by Football Sponsorship: Schools that Added an Emerging Sport between 2004-2013*



Lastly, the changes in proportionality based on emerging sport were analyzed. The duplicated and unduplicated substantial proportionality gaps were calculated and then averaged for Year 0, Year 1, and Year 2 for each emerging sport that was added between 2004 and 2013.

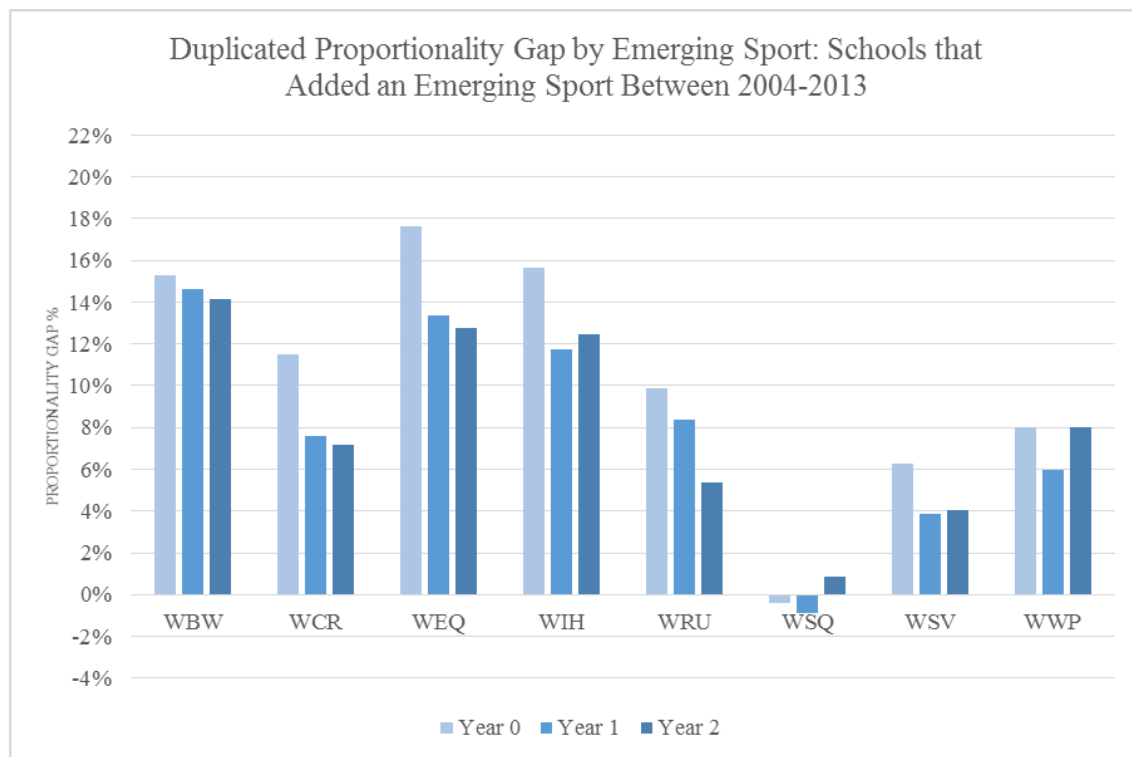
The duplicated count calculations show that all eight emerging sports observed a decrease from Year 0 to Year 1, and six out of eight observed a decrease from Year 0 to Year 2. Women's Squash and Women's Water Polo showed an overall increase in the duplicated proportionality gap from Year 0 to Year 2 despite the decrease from Year 0 to Year 1. Of the six that showed a decrease from Year 0 to Year 2, only four showed a decrease from Year 1 to Year 2 (WBW, WCR, WEQ, and WRU). Women's Ice Hockey and Women's Sand Volleyball showed an overall decrease from Year 0 to Year 2, but observed an increase from Year 1 to Year 2. The largest overall decrease in the duplicated substantial proportionality gap was Women's Equestrian with an overall decrease of 4.87% from Year 0 to Year 2. Other important results to note include: Institutions that added Women's Sand Volleyball on average went from "out of compliance" (>5% gap) to "compliant" (<5%) from Year 0 to Year 2, institutions that added Women's Squash remained in compliance on average each year from Year 0 to Year 2, and institutions that added Women's Rugby almost reached "compliance" by Year 2. The results of the average duplicated substantial proportionality gaps by emerging sport can be found in Figure 3.9 below.

Table 3.9: *Duplicated Substantial Proportionality Gap by Emerging Sport for All NCAA*

*Institutions that Added an Emerging Sport, 2004-2013: Year 0 – Year 2*

|     | Year 0 | Year 1 | Year 2 |
|-----|--------|--------|--------|
| WBW | 15.31% | 14.60% | 14.13% |
| WCR | 11.53% | 7.57%  | 7.17%  |
| WEQ | 17.63% | 13.38% | 12.76% |
| WIH | 15.67% | 11.73% | 12.45% |
| WRU | 9.87%  | 8.40%  | 5.35%  |
| WSQ | -0.42% | -0.89% | 0.86%  |
| WSV | 6.25%  | 3.84%  | 4.05%  |
| WWP | 7.99%  | 5.94%  | 8.02%  |

Figure 3.9: *Duplicated Proportionality Gap by Emerging Sport: Schools that Added an Emerging Sport between 2004-2013*

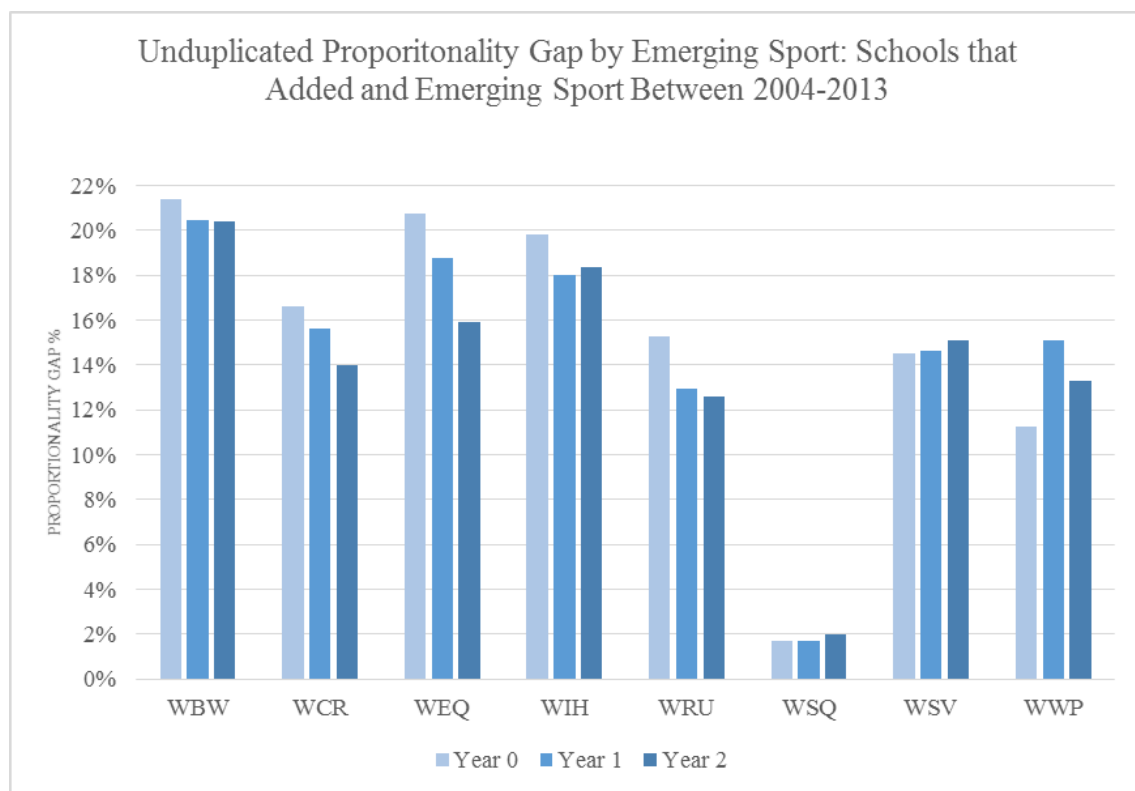


The unduplicated count calculations show that only five of the eight emerging sports observed a decrease from Year 0 to Year 1 and from Year 0 to Year 2. Of the five sports that observed a decrease from Year 0 to Year 1 and an overall decrease from Year 0 to Year 2, only 1 saw an increase from Year 1 to Year 2 (WIH). Three of the eight sports observed an overall increase from Year 0 to Year 2 including WSQ, WSV, and WWP. The largest overall decrease in the unduplicated substantial proportionality gap was Women's Equestrian (which was also the largest decrease in the duplicated count calculations). Women's Equestrian observed an overall decrease of 4.83% from Year 0 to Year 2 in the unduplicated proportionality gap calculations. Figure 3.10 below shows the changes in the unduplicated proportionality gaps of each sport from Year 0 to Year 2.

Table 3.10: *Unduplicated Substantial Proportionality Gap by Emerging Sport for All NCAA Institutions that Added an Emerging Sport, 2004-2013: Year 0 – Year 2*

|     | Year 0 | Year 1 | Year 2 |
|-----|--------|--------|--------|
| WBW | 21.41% | 20.46% | 20.39% |
| WCR | 16.59% | 15.60% | 13.96% |
| WEQ | 20.76% | 18.78% | 15.93% |
| WIH | 19.81% | 18.00% | 18.34% |
| WRU | 15.28% | 12.93% | 12.60% |
| WSQ | 1.67%  | 1.70%  | 1.96%  |
| WSV | 14.51% | 14.60% | 15.09% |
| WWP | 11.24% | 15.09% | 13.30% |

Figure 3.10: *Unduplicated Proportionality Gap by Emerging Sport: Schools that Added an Emerging Sport between 2004-2013*



#### Research Question 4

*Did the addition of an emerging sport at NCAA member schools between 2004 and 2013 make a statistically significant difference in the substantial proportionality gap from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2: Overall? Based on NCAA divisional affiliation? Based on undergraduate enrollment? Based on football sponsorship? Based on emerging sport?*

Paired sample t-tests were conducted on multiple groups of the collected data to yield the results for this question. The collected dataset includes all NCAA member schools that added an emerging sport between 2004 and 2013. Each paired sample t-test was run twice – once using the duplicated count and once using the unduplicated count for the proportionality gap. The only significant difference found when testing the unduplicated count for substantial proportionality was for all schools that added an emerging sport between 2004 and 2013 from Year 0 to Year 2 ( $t = 2.225$ ,  $df = 127$ ,  $p = .028$ ), so only the duplicated substantial proportionality gaps will be discussed in the remainder of this section. In addition, there were no statistically significant findings from Year 1 to Year 2 for any group examined. The significant results are discussed below and can be seen in Figure 4.1 as well.

Statistically significant differences in variances of the substantial proportionality gaps using the duplicated count from Year 0 to Year 1 were found for the following groups within the dataset: All schools combined ( $t = 7.055$ ,  $df = 127$ ,  $p < .001$ ), all Division I ( $t = 5.469$ ,  $df = 70$ ,  $p < .001$ ), Division I-A ( $t = 3.152$ ,  $df = 32$ ,  $p = .004$ ), Division I-AAA ( $t = 5.085$ ,  $df = 22$ ,  $p < .001$ ), Division II ( $t = 2.211$ ,  $df = 18$ ,  $p = .040$ ), Division III ( $t = 3.946$ ,  $df = 37$ ,  $p < .001$ ), schools with undergraduate enrollment greater than 5,000 ( $t = 5.303$ ,  $df = 62$ ,  $p < .001$ ), schools with undergraduate enrollment less than 5,000 ( $t = 4.767$ ,  $df = 64$ ,  $p < .001$ ), schools that sponsor football ( $t = 4.492$ ,  $df = 79$ ,  $p < .001$ ), schools that do not sponsor football ( $t = 6.079$ ,  $df$

= 47,  $p < .001$ ), schools that added WCR ( $t = 3.087$ ,  $df = 13$ ,  $p = .009$ ), schools that added WEQ ( $t = 2.985$ ,  $df = 10$ ,  $p = .014$ ), schools that added WIH ( $t = 4.685$ ,  $df = 19$ ,  $p < .001$ ), and schools that added WSV ( $t = 4.677$ ,  $df = 38$ ,  $p < .001$ ).

There were also statistically significant differences in variances of the substantial proportionality gaps using the duplicated count from Year 0 to Year 2. The following groups within the dataset showed a significant difference from Year 0 to Year 2: All schools combined ( $t = 6.054$ ,  $df = 127$ ,  $p < .001$ ), all Division I ( $t = 5.027$ ,  $df = 70$ ,  $p < .001$ ), Division I-A ( $t = 2.845$ ,  $df = 32$ ,  $p = .008$ ), Division I-AAA ( $t = 4.155$ ,  $df = 22$ ,  $p < .001$ ), Division III ( $t = 2.922$ ,  $df = 37$ ,  $p = .006$ ), schools with undergraduate enrollment greater than 5,000 ( $t = 4.366$ ,  $df = 62$ ,  $p < .001$ ), schools with undergraduate enrollment less than 5,000 ( $t = 4.217$ ,  $df = 64$ ,  $p < .001$ ), schools that sponsor football ( $t = 4.036$ ,  $df = 79$ ,  $p < .001$ ), schools that do not sponsor football ( $t = 4.810$ ,  $df = 47$ ,  $p < .001$ ), schools that added WCR ( $t = 2.759$ ,  $df = 13$ ,  $p = .016$ ), schools that added WEQ ( $t = 3.035$ ,  $df = 10$ ,  $p = .013$ ), schools that added WIH ( $t = 3.432$ ,  $df = 19$ ,  $p = .003$ ), schools that added WRU ( $t = 2.753$ ,  $df = 5$ ,  $p = .040$ ), and schools that added WSV ( $t = 3.589$ ,  $df = 38$ ,  $p = .001$ ).

Table 4: *Summary of Statistical Findings*

|                       |       | SIGNIFICANT? |         |         |
|-----------------------|-------|--------------|---------|---------|
|                       |       | YR0-YR1      | YR0-YR2 | YR1-YR2 |
| ALL                   | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | Y       | N       |
| DI_ALL                | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| DI_A                  | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| DI_AA                 | DUP   | N            | N       | N       |
|                       | UNDUP | N            | N       | N       |
| DI_AAA                | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| DII                   | DUP   | Y            | N       | N       |
|                       | UNDUP | N            | N       | N       |
| DIII                  | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| ENROLLGREATERTHAN5000 | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| ENROLLLESSTHAN5000    | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| FB                    | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| NFB                   | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| WBW                   | DUP   | N            | N       | N       |
|                       | UNDUP | N            | N       | N       |
| WCR                   | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| WEQ                   | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| WIH                   | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| WRU                   | DUP   | N            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| WSQ                   | DUP   | N            | N       | N       |
|                       | UNDUP | N            | N       | N       |
| WSV                   | DUP   | Y            | Y       | N       |
|                       | UNDUP | N            | N       | N       |
| WWP                   | DUP   | N            | N       | N       |
|                       | UNDUP | N            | N       | N       |

## **CHAPTER V**

### **DISCUSSION**

The following discussion gives an analysis of the results from each research question and provides a conclusion of the study. The purpose of this research was to examine the impact the NCAA Emerging Sports Program had on participation opportunities for women at NCAA member schools that added an emerging sport between the academic years of 2004-2005 and 2013-2014. The results from the study demonstrate that the addition of an emerging sport at NCAA member institutions within the ten years examined in this research significantly increased the number of participation opportunities for women. The substantial proportionality gap calculated using the duplicated count of athletes decreased (moved towards compliance) for the majority of the groups of the population that were tested. The U.S. Department of Education uses the duplicated count when calculating the proportionality gap; therefore, for the purposes of measured Title IX compliance, the addition of an emerging sport does help schools move towards accepted compliance in participation opportunities. Although the number of participation opportunities made available to women significantly increased, the number of “new” women (women not already competing on another intercollegiate athletics team) capitalizing on these new opportunities was largely not significant. The only significant result when looking at the substantial proportionality calculated using the unduplicated count of athletes was for all 121 institutions overall from the year before the emerging sport was added (Year 0) to the year after the emerging sport was added (Year 2). The significance seen from

Year 0 to Year 2 using the unduplicated count suggests that other factors may be affecting the numbers by Year 2 and/or that it takes more than one year for new women to begin participating in the emerging sport. This dynamic and the reasons for the difference seen between the duplicated and unduplicated results is discussed further in the Research Question 4 section of this chapter.

### **Research Question 1**

Research question 1 sought to identify the landscape of adding an emerging sport between the years of 2004 and 2013. In the ten-year window of this study, 130 total emerging sports were added at 121 different NCAA member schools. The average number of NCAA member schools between 2004 and 2013 was 1,032. This shows that only 11.7% of all NCAA member schools chose to add an emerging sport in the ten years under review. Of the 121 schools that added an emerging sport between 2004 and 2013, most added only one emerging sport while a handful added 2 or 3 throughout the ten years. There were eight different emerging sports added within the ten-year time frame of this study including: Women's Bowling, Women's Crew, Women's Equestrian, Women's Ice Hockey, Women's Rugby, Women's Sand Volleyball, Women's Squash, and Women's Water Polo.

The year-by-year breakdown of the number of emerging sports added between 2004 and 2013 presents some interesting information. Figure 1.1 presented in Chapter IV, demonstrates that there was a steady addition of emerging sports from 2004 to 2006 followed by a substantial decrease in the number of emerging sports added from 2007-2010 and then a significant increase in the number of emerging sports added from 2011-2014. The decrease in the addition of

emerging sports from 2007-2010 coincides with the financial crisis seen across the country in that same time. As stated in an ESPN article published in 2009, more than 227 teams were dropped between the onset of the economic crisis in the winter of 2007 and summer of 2009 (Watson, 2009). From this statistic, it can be assumed that the economic crisis weighed heavily on all facets of collegiate sports. Such a financial environment is not conducive to the addition of a sport, which may explain the decrease in the addition of emerging sports between 2007 and 2010. The increase in the addition of emerging sports between 2011 and 2013 can be greatly attributed to the addition of Women's Sand Volleyball as an emerging sport in 2010.

Women's Sand Volleyball was the most added emerging sport within the ten-year window of this study with 39 total teams added. All 39 of the Women's Sand Volleyball teams added were added at Division I institutions and were added between 2011 and 2013. Women's Sand Volleyball is the only sport that was added as a new emerging sport within the ten-year window of this research. Women's Sand Volleyball achieved emerging sport status in August of 2010 and eventually reached NCAA Championship status in June 2015 (NCAA Emerging Sports History, 2016; Johnson, 2015). The only other emerging sport in this study that was added in just one NCAA Division between 2004 and 2013 was Women's Squash, which added two teams at Division I institutions. The other six emerging sports added between 2004 and 2013 were added at schools across all three Divisions.

Lastly, of all 121 institutions that chose to add an emerging sport, 73 institutions (60.3%) sponsored football while 48 (39.7%) did not. This is important to note, as schools that sponsor football typically require a significant number of women's teams to balance the large roster size of a football team. Although there were more schools that sponsor football that added an emerging sport compared to schools that do not sponsor football, the difference was minimal.

This demonstrates that all types of schools, regardless of football sponsorship, have been slow in moving towards compliance.

## **Research Question 2**

The results of the second research question describe the evolution of substantial proportionality in the NCAA between 2004 and 2013. Calculations were conducted for each year from 2004 to 2013 for all NCAA member schools overall and for each NCAA Division, as well as for schools that added an emerging sport in the period and schools that did not. Each calculation was completed twice – once using the duplicated count and again using the unduplicated count. This allowed for additional means of comparison and analysis.

The results show that there was a steady decrease in the duplicated substantial proportionality gap (meaning a move toward compliance) for the NCAA overall as well as for each separate Division for each year from 2004 to 2013. The largest duplicated proportionality decrease in the 10 years was seen in Division I with an overall decrease of 3.31%. One reason that may explain why Division I saw the largest move towards compliance as compared to Divisions II and III is the high profile and visibility of Division I institutions. More visibility leads to higher levels of scrutiny, which puts Division I institutions at higher risk for lawsuits and Title IX complaints. The risk of lawsuits may impel Division I schools to make proactive moves towards reaching compliance – such as adding an emerging sport. Proactive responses to Title IX concerns are easier for Division I as Division I schools boast the largest revenue sources and overall budgets as compared to Divisions II and III. Larger budgets also lead to larger athletic departments, which allows for more oversight of Title IX through compliance officers and legal counsel – luxuries most Division II and III institutions do not have.

The smallest duplicated proportionality decrease was seen in Division II with an overall decrease of 1.56%. This may have an economic explanation. Division II does not generate nearly as much revenue nor have as large of a budget as Division I, yet still offers athletic scholarships. The distribution of athletic scholarships must comply with Title IX as well. The combination of small budgets, little revenue, and the compliance requirement may pose many more struggles for Division II. Division III also has significantly less revenue and smaller budgets than Division I, but does not offer athletic scholarships. This allows Division III to put any money in the budget towards athletic opportunities or equal treatment (the laundry list of factors outlined in the Title IX regulations) without the burden of having to allocate money to scholarships as well. These factors may explain why Division II saw the least amount of progress, Division III saw more progress than Division II, and Division I saw the most amount of progress from 2004 to 2013.

These results parallel Anderson, Cheslock, and Ehrenburg's 2006 study examining substantial proportionality (duplicated) of NCAA institutions by Division. They examined the substantial proportionality of each NCAA in 1995-1996 and 2001-2002. Although their study was not longitudinal like this research, the results yielded similar overall results. They proved that Division I saw the biggest move toward compliance from 1995-1996 to 2001-2002 and that Division II and III also saw a move towards compliance, but at a significantly lesser level (Anderson, et al., 2006).

The unduplicated substantial proportionality gap calculations done in this study generated results differing those done with the duplicated count. Rather than the steady decrease seen in the duplicated proportionality gaps, the unduplicated proportionality gaps for the NCAA overall and each Division saw a decrease (move towards compliance), then a plateau, and then an increase (move away from compliance). As discussed in research question 1, the nation-wide financial

crisis in the winter of 2007 almost certainly affected the financial climate of institutions and therefore their ability to add sports and/or put money into women's sports between 2007 and 2010 – hence, the plateau. Following the plateau, the unduplicated count calculations show an increase in proportionality gaps (a move away from compliance) from 2011 to 2013. There are many reasons that the average unduplicated proportionality gap for the NCAA overall and for each Division increased from 2011 to 2013. The move away from compliance may have been spurred by the financial crisis of 2007 and then exacerbated by the escalation in spending and concurrent decline in revenue generation in college athletics, but many other factors could have also impacted this change.

After separating all NCAA member schools into those that added an emerging sport between 2004 and 2013 and those that did not, substantial proportionality was calculated again. The duplicated proportionality was calculated first and showed that the schools that added an emerging sport between 2004 and 2013 saw an overall decrease of 6.06%, whereas the schools that did not add only showed an overall decrease of 1.87%. The duplicated substantial proportionality of the schools that added an emerging sport between 2004 and 2013 directly paralleled the number of emerging sports in each year. The more emerging sports added per year, the smaller the proportionality gap overall. Schools that added an emerging sport not only saw a much larger decrease over the ten years compared to schools that did not, but also the average proportionality gap was only 0.63% away from reaching the accepted level of compliance defined in this study (5.00%). The schools that did not add an emerging sport showed a minor yet steady decrease from year to year totaling 1.87% by 2013. Although the decrease seen in the schools that did not add an emerging sport was much smaller than that seen in schools that did add, this demonstrates that, in general, these schools were still making changes that positively

affected their compliance with participation opportunities. Factors that may account for the slight decrease seen at schools that did not add an emerging sport could be the addition of different women's sports, the cutting of men's programs, and/or better roster management of men's and women's teams.

The unduplicated substantial proportionality gap over the ten years for the schools that added an emerging sport mirrors the duplicated count trend; however, the overall decrease was only 3.36% as compared to 6.06% for the duplicated count. The schools that did not add an emerging sport showed an unduplicated proportionality gap increase of 0.14% from 2004 to 2013 (a move away from compliance). Looking at both the duplicated and unduplicated proportionality gaps of schools that added an emerging sport compared to those that did not add an emerging sport provides valuable information. The results suggest that adding an emerging sport helps a school move towards compliance with substantial proportionality much quicker than schools that do not. In addition, schools that add an emerging sport are also creating more new female participation opportunities for new female students as compared to schools that do not add an emerging sport as evidenced by the increase in the unduplicated proportionality gap at schools that did not add.

### **Research Question 3**

After providing the landscape of adding an emerging sport and outlining the changes in substantial proportionality of the NCAA between 2004 and 2013, the 121 schools that added an emerging sport in the ten-year window were examined. The proportionality gap at each institution was calculated (using the duplicated and then the unduplicated count) for the year

prior to the addition of the emerging sport (Year 0), the year of the addition of the emerging sport (Year 1), and the year after the addition of the emerging sport (Year 2). These proportionality gaps were then averaged for Years 0, 1, and 2 for: all 121 institutions overall, Division I overall, Division I-A, Division I-AA, Division I-AAA, Division II, Division III, schools with undergraduate enrollment greater than 5,000, schools with undergraduate enrollment less than 5,000, schools that sponsor football, schools that do not sponsor football, and then for each of the eight emerging sports added between 2004 and 2013. Again, each calculation was done using the duplicated count and then the unduplicated count.

The results of the duplicated substantial proportionality gap calculations show that the addition of an emerging sport does impact substantial proportionality in a positive way. All schools that added an emerging sport overall (“All NCAA”) and all schools on average in each Division saw a decrease in the proportionality gap (a move towards compliance) from Year 0 to Year 1 and Year 0 to Year 2. All NCAA and Division I also saw a decrease from Year 1 to Year 2, however it was much less of a decrease than the decrease seen from Year 0 to Year 1. This indicates that Division I may have phased in some of the emerging sports and/or was better able to maintain the trend towards compliance in the second year of sponsoring the emerging sport than Division II or III. This may be because Division I has more financial resources in place to continue expanding the roster of the new emerging sport team. Division I also came the closest to reaching the accepted compliance gap as defined in this study (a gap of 5.00% or less), by Year 2 by reaching an average gap of 5.90%. Divisions II and III saw a slight increase in the duplicated proportionality gap (a move away from compliance) from Year 1 to Year 2; however, the increase from Year 1 to Year 2 did not surpass the decrease from Year 0 to Year 1. Therefore, there was still an overall decrease from Year 0 to Year 2.

The unduplicated proportionality gap for schools that added an emerging sport displayed dissimilar results from the duplicated gap. Although each group saw an overall decrease from Year 0 to Year 2 just as in duplicated count, the average unduplicated proportionality gap of schools that added an emerging sport showed differing results for Year 0 to Year 1 and Year 1 to Year 2. The overall gap for All NCAA as well as Division I and Division III showed a lesser decrease from Year 0 to Year 1 and a greater decrease from Year 1 to Year 2 as compared to the duplicated count. Division II saw the opposite effect. A lesser decrease from Year 0 to Year 1 in the unduplicated calculations as compared to the duplicated calculations for All NCAA and Division I and III shows that although there are still new opportunities being presented with the addition of an emerging sport, a significant number of women are competing in multiple sports – most likely including the emerging sport. The fact that the decrease from Year 1 to Year 2 in the unduplicated calculations is greater than the decrease seen in the duplicated calculations proves that there are more “new” women not already competing in intercollegiate athletics coming out for an emerging sport in its second year than what is demonstrated by the duplicated count numbers. There may be additional explanations for this differing dynamic between the duplicated and unduplicated calculations, but the addition of an emerging sport not increasing the unduplicated count proportionality gap is a good sign that there are new opportunities being created for new women. This also indicates that the Emerging Sports Program for Women is achieving its goal. Division II on the other hand saw a greater decrease from Year 0 to Year 1 and a lesser decrease from Year 1 to Year 2 as compared to the duplicated count calculations. This dynamic suggests that the addition of an emerging sport in the sport’s first year of sponsorship may have brought out some new women to compete in intercollegiate athletics but that in the second year of sponsorship fewer new women came out for the team. This could also

mean that in its second year of sponsorship, the emerging sport drew women who were already competing on another sport's team to the new emerging sport team. Another explanation for this effect could be that Division II schools added more men's participation opportunities after adding the emerging sport, which could affect the substantial proportionality gap numbers.

After looking at the schools that added emerging sports based on their NCAA divisional affiliation, the schools in Division I were broken down into the sublevels of Division I. There were conflicting results for the duplicated count compared to the unduplicated count for each Division I sublevel. For Division I-A, the duplicated gap showed a relatively small decrease from Year 0 to Year 1 and an even smaller decrease from Year 1 to Year 2. In contrast, the unduplicated gap for Division I-A showed a slight increase from Year 0 to Year 1 and then a slight decrease from Year 1 to Year 2 resulting in a minimal decrease from Year 0 to Year 2. One reason for the contrast seen in the unduplicated gap compared to the duplicated gap in Division I-A could be the popularity of Women's Sand Volleyball. The emerging sport that was added at almost all of the schools in Division I-A was Women's Sand Volleyball. As seen in Chapter IV, Women's Sand Volleyball overall showed a decrease in the duplicated counts when added at an institution but an increase when examined using the unduplicated counts. The similarity between Women's Volleyball and Women's Sand Volleyball along with the availability to compete on both teams because of the differing seasons may indicate that many of the Sand Volleyball female participants are already participating on the indoor Volleyball team. Division I-AA showed similar trends from Year 0 to Year 2 for the duplicated and unduplicated counts and had the fewest amount of institutions, but also had the highest level of noncompliance between the three sublevels. The addition of an emerging sport at Division I-AA seems to have a positive impact regardless of using the duplicated or unduplicated gap numbers. Lastly, Division

I-AAA showed an inverse relationship between the duplicated gap and the unduplicated gap. The duplicated gap shows a consistent decrease from each year between Year 0 to Year 2 whereas the unduplicated gap shows a consistent increase from each year between Year 0 and Year 2. The reason for this inverse relationship is most likely attributed to the addition of Women's Sand Volleyball at these Division I-AAA institutions. Similar to Division I-A, 14 out of the 23 schools that added an emerging sport between 2004 and 2013 at Division I-AAA institutions added Women's Sand Volleyball. Women's Sand Volleyball has shown a trend in duplicate student-athletes, and most likely is the cause for this inverse relationship seen in Division I-AAA just as in Division I-A.

The next subgroup investigated was undergraduate enrollment size of the schools that added an emerging sport between 2004 and 2013. The results show that there was a steady decrease from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2 for both the duplicated and unduplicated proportionality gaps of schools with enrollment greater than 5,000 and schools with enrollment less than 5,000. One item to note is that the level of noncompliance is much higher in schools with less than 5,000 undergraduates than in schools with more than 5,000 undergraduates. Both groups moved towards compliance at the same rate based on the addition of an emerging sport, but the schools with enrollment less than 5,000 started at a much less compliant level. This disparity could be due to budgetary differences between small schools and bigger schools. NCAA divisional affiliation also aligns with the stated disparity. Division II and Division III proved less compliant as compared to Division I based on substantial proportionality as discussed in research question 2. Divisions II and III tend to have smaller enrollment sizes than Division I, which mimics what is seen in this section of the results. Although the level of compliance is better at bigger schools as compared to smaller schools, both moved towards

compliance at nearly the same rate with the addition of an emerging sport. This is important information to know if you are a small school looking to improve your substantial proportionality gap. Although you are starting at a higher level of noncompliance, the addition of an emerging sport should help you just as much as it would at a larger school, which is not always the case when adding a sport.

Football sponsorship was the next variable examined within the data. There is very little to conclude based on the results of this variable. The duplicated and unduplicated proportionality gaps from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2 for the schools that added an emerging sport and that also sponsor football parallel those seen at schools that do not sponsor football. The slope of the decrease seen in the duplicated count mirrors that seen in the unduplicated count; however, the overall level of compliance is better (more compliant) when looking at the duplicated count figures. This variable was added to the analysis to examine if schools without a football team saw a greater decrease in substantial proportionality from the addition of an emerging sport than the schools that sponsor football due to the large roster size of a football team. From the results generated in this research, there is no indication that football sponsorship had such an effect.

The last step in answering research question 3 was to identify the effect from Year 0 to Year 1, Year 0 to Year 2, and Year 1 to Year 2 for each of the eight emerging sports that were added between 2004 and 2013. The results of the duplicated proportionality gap calculations show that all eight emerging sports saw a decrease in the proportionality gap (a move towards compliance) from Year 0 to Year 1. However, only six sports also saw a decrease from Year 0 to Year 2. Two sports saw an overall increase from Year 0 to Year 2 despite an initial decrease from Year 0 to Year 1. Those sports were Women's Squash and Women's Water Polo. One

potential reason for Women's Water Polo seeing an increase in the duplicated proportionality gap is that one third of the schools that added Women's Water Polo added a Men's Water Polo team the same year as they added the Women's Water Polo team. It is difficult to make definite conclusions about Women's Squash since only two teams were added between 2004 and 2013. The sport that saw the biggest overall decrease in the duplicated proportionality gap was Women's Equestrian. One reason for this could be the large roster size of Women's Equestrian – 30.9 on average (Brown, 2015). Also, since there is no NCAA sport similar to Women's Equestrian, the likelihood of having duplicate athletes is limited. Lastly, there are no Men's Equestrian Teams in the NCAA. This makes Women's Equestrian an attractive sport to add; however, there are downsides to adding Women's Equestrian such as high cost, strenuous upkeep, and limited recruiting avenues. One study conducted in 2010 also suggests that adding Women's Equestrian is an attractive option for a school looking to improve their substantial proportionality ratio. Although the study only investigated schools in the National Association of Intercollegiate Athletics (NAIA), the results still apply to this study because of the focus on Title IX compliance. The 2010 study sought variables that may predict a higher level of compliance with Title IX participation rates based on substantial proportionality. When looking at which sports were sponsored at the NAIA schools that were found to be in compliance, Women's Equestrian was the most popular among the emerging sports (Campbell, 2010). This coincides with the research in this study as Women's Equestrian showed the biggest decrease (move towards compliance) in the duplicated substantial proportionality gap.

The sports that showed differing results in the unduplicated proportionality gaps as compared to the duplicated proportionality gaps were Women's Sand Volleyball and Women's Water Polo. In the duplicated count calculations, Women's Sand Volleyball showed a decrease

of more than 2.5% from Year 0 to Year 1 and a slight increase of less than 0.5% from Year 1 to Year 2. The duplicated count calculations for Women's Sand Volleyball also showed that the sport reached the accepted 5.00% level of compliance as defined for this study by reaching 4.05% in Year 2. Contrarily, the unduplicated count calculations show that Women's Sand Volleyball saw an increase from Year 0 to Year 1 and from Year 1 to Year 2. The unduplicated count for Women's Sand Volleyball also shows that the average proportionality gap is 15.09% in Year 2, which is over 10% higher (less compliant) than the duplicated count in Year 2. This is the most drastic difference between the duplicated and unduplicated calculations out of all the emerging sports under examination. One reason for this may be the undeniable similarity between Women's Volleyball and Women's Sand Volleyball. The two sports fall under two different seasons, thus it is possible and probable that student-athletes would compete in both sports. This crossover of women student athletes would not affect the duplicated count calculations as each open spot on each roster would be counted once regardless of if both spots were filled by the same female student-athlete. The unduplicated count calculations done in this study show that, in some instances, the addition of a women's sport does not provide new opportunities for new women not already competing on another team. Women's Sand Volleyball is one example of this phenomenon. Women's Water Polo also saw opposite results in the unduplicated gap calculations as compared to the duplicated count calculations. In the duplicated calculations, Women's Water Polo saw a decrease in the proportionality gap from Year 0 to Year 1, an increase from Year 1 to Year 2. In the unduplicated calculations, Women's Water Polo saw the opposite – an increase from Year 0 to Year 1, and a decrease from Year 1 to Year 2. Both calculations show an overall increase from Year 0 to Year 2, but the increase in the unduplicated calculations is significantly greater. These opposing trends suggest that the addition of a

Women's Water Polo team most likely begins with women already competing on other teams and then expands to women not already competing on other teams. This would account for the differing results of the duplicated and unduplicated count calculations. Again, this may not be the only potential reason for this dynamic, however it is most likely related.

One final discussion point for research question 3 goes back to the Three-Part Test for compliance as outlined by the OCR's 1979 Policy Interpretation for Title IX. The interpretation states that schools must be able to prove compliance in "equal opportunity" for both sexes by meeting one of three outlined criteria, also known as the Three-Part Test (45 C.F.R Part 26 §C(1) ¶1). This research has only examined part 1 of the Three-Part test – substantial proportionality. However, the addition of an emerging sport could help a school reach compliance by meeting part 2 of the Three-Part Test – history and continuing practice of program expansion. The 1996 Clarification on the Three-Part Test for compliance explains that institutions must be able to show that they have historically added more opportunities for women and have accommodated to the interests and abilities of the underrepresented sex (Clarification, 1996). Adding an emerging sport that accommodates to the interests and abilities of the female student body could potentially help a school achieve compliance through this second part of the Three-Part Test. This study does not delve into this situation; however, it was important to mention and could be a future research opportunity.

#### **Research Question 4**

The results of the paired sample t-tests presented many significant findings when looking at the duplicated count calculations of the proportionality gap but only showed one significant

finding when looking at the unduplicated count calculations of the proportionality gap. The change in the gap from Year 0 to Year 2 for all 121 institutions overall was the only significant unduplicated count result. One explanation as to why the only significant finding using the unduplicated count was seen in the overall category from Year 0 to Year 2 may be a result of financial roster management and recruiting restrictions. Financially, there is a benefit to adding existing female student-athletes to a new sport's roster. If a woman is already competing on another team and receiving a scholarship, she may compete on the new team but cannot be awarded any additional financial aid. Therefore, adding existing (duplicated) female athletes to the initial emerging sport roster lessens the initial costs of adding the emerging sport. In addition to financial concerns in the first two years of sponsoring a sport, there are recruiting challenges. In order to build a full team in the first few years of sponsorship, recruiting may extend into the existing pool of female athletes because the recruiting base for the emerging sport may not be fully developed. As time goes on, recruiting may expand to high school athletes specific to the emerging sport added, which would decrease the number of opportunities for existing female athletes on the roster. This "phasing-in" method of recruiting would show a decrease the unduplicated proportionality gap percent over time. This study, however, only examines up to one year post-sponsorship, which may explain why the Year 0 to Year 2 unduplicated gap was significant and the Year 0 to Year 1 gap was not.

Contrary to the unduplicated count proportionality gap, the duplicated proportionality gap calculations showed significant changes for all 121 institutions overall from Year 0 to Year 1 and from Year 0 to Year 2. Of the nineteen different groups tested from the dataset (including the overall category), thirteen saw a significant change in the duplicated proportionality gap from Year 0 to Year 1 and Year 0 to Year 2 including: All schools that added an emerging sport

overall, Division I overall, Division I-A, Division I-AAA, Division III, undergraduate enrollment greater than 5,000, undergraduate enrollment less than 5,000, schools that sponsor football, schools that don't sponsor football, schools that added WCR, schools that added WEQ, schools that added WIH, and schools that added WSV. This shows that for the overwhelming majority of the schools in examination, the addition of an emerging sport made an immediate impact in participation opportunities for women in the year it was added and continued to make an impact in the second year of sponsorship.

Division II only saw a significant change in the proportionality gap from Year 0 to Year 1. This suggests that the addition of the emerging sport helped create new opportunities for one year, but external circumstances kept the progress from continuing. The addition of a men's team, the cutting of another women's team, or a reduction in roster sizes could have had an impact on the proportionality gaps in Year 2 compared to Year 1 in Division II.

Four groups within the dataset saw no significant differences from Year 0 to Year 1 nor from Year 0 to Year 2 including: Division I-AA (FCS) schools that added an emerging sport, schools that added WBW, schools that added WSQ, and schools that added WWP. The lack of a statistically significant change provides significant information. There are numerous external reasons why Division I-AA did not see significant changes in any year; however, when looking at individual sports added across multiple divisions, school sizes, and sport sponsorship levels, a lack of a significant change indicates that the sport is not providing a significant amount of new participation opportunities. Women's Bowling was the second most added emerging sport behind Women's Sand Volleyball, but did not produce any significant improvement across the NCAA. This may be due to the small roster size of a women's bowling team at an average of 9.5 (Brown, 2015). It may also be due to the popularity of men's bowling in the NCAA. Women's

Squash and Women's Water Polo were added the least amount of times and the second least amount of times respectively. The small population size of these groups may have had an impact on the outcome.

## **Conclusion**

Although the Emerging Sports Program for Women has been around for twenty-three year, this study is the first to examine the overall effectiveness of the Program over time. The data set that was collected and organized for this study is the first of its kind, which makes it an extremely valuable resource for future research. Appendix B outlines numerous ideas for future research based off this study. The results from this study also provide valuable information for multiple parties. The NCAA may be able to use this information to assess if any changes need to be made to the program or to more efficiently promote the addition of an emerging sport to member schools. The governing bodies of the emerging sports may also be able to use the results from this research to promote the addition of their sport. Lastly, schools looking to add a sport and/or to improve their substantial proportionality may use this research to make a more informed decision.

For schools looking to add a new sport and/or to improve their Title IX compliance in participation opportunities, certain results from the study should be noted. Division I schools that added an emerging sport saw more of a positive change in the substantial proportionality gap than Divisions II and III. Furthermore, the schools that added an emerging sport Division I-AAA saw the greatest average decrease in the proportionality gap compared to the other levels of Division I. Another important result to note is that schools that added Women's Equestrian and

Women's Crew saw the most significant changes in substantial proportionality from the addition of the sport. This suggests that adding these sports would help a school improve their Title IX compliance, but school specific factors must be considered as well. Lastly, although this study only examines the impact of the addition of an emerging sport on substantial proportionality (the first part of the Three-Part test), the addition of an emerging sport may also help an institution reach compliance by showing a history and continuing practice of program expansion for women (the second part of the Three-Part test). This is discussed in Appendix B as a part of future research recommendations.

Looking at the study overall, the Emerging Sports Program made a positive impact on participation opportunities for women throughout the NCAA from 2004 to 2013. 11.7% of all NCAA schools added an emerging sport in the ten-year window, and the school's that added an emerging sport in the ten-year window saw twice as large of a decrease in the substantial proportionality gap (a move towards compliance) than schools that did not add an emerging sport. When the decrease in the proportionality gap at schools that added an emerging sport between 2004 and 2013 was tested for significance, a statistically significant increase in the number of participation opportunities made available to women was seen based on the duplicated count calculations of the substantial proportionality gap. Since the Department of Education calculates the proportionality gap using the duplicated count of athletes, it can be concluded that the addition of an emerging sport does help schools move towards an accepted level of compliance in participation opportunities. Contrary to the duplicated count calculations of proportionality, the unduplicated count calculations only proved significant for all 121 schools overall from Year 0 to Year 2. This shows that, despite the significant increase in the number of participation opportunities available to women, the number of "new" women (women not

already competing on another intercollegiate athletics team) capitalizing on these new opportunities was largely not significant. The stated goal of the Emerging Sports Program as identified by the Gender Equity Task force in 1993 was to increase the number of participation opportunities for women in intercollegiate sport. The results from this research show that the number of opportunities made available to women did in fact significantly increase with the addition of an emerging sport. However, the results also show that women already competing in intercollegiate sport filled many of the new opportunities. To make a conclusion on the effectiveness of the Emerging Sports Program, the definition of “effective” must first be defined. According to the Gender Equity Task Force in 1993, the definition of effective was adding more participation opportunities for women, which the Program successfully achieved. On the other hand, if one defines effective as more opportunities for more/”new” women, then the results of this study show that Program has, in general, not been effective.

## **APPENDIX A: DATA ANOMALIES**

### **General:**

- Rugby not listed in EADA at all
- Team Handball listed as a sport in EADA but has no data entered for any year
- Deleted any all-girls school that added an emerging sport from the data set to prevent skewing the data
- Deleted the schools from the data set that the NCAA listed as schools that added an emerging sport in the ten year window but that reported participation figures for the sport in 03/04 (the earliest year listed in the EADA)

### **04/05:**

- Bowdoin College – WRU – kept in data set (may be listed in “other” sport category)
- Bridgewater College – WEQ – reported women’s participation as early as 03/04 so deleted from data set
- Clarkson University – WIH – reported women’s participation as early as 03/04 so deleted from data set
- College of Saint Elizabeth – WEQ – did not start reporting to EADA until 07/08 so deleted from data set
- MIT – WCR – reported women’s participation as early as 03/04 so deleted from data set
- Rutgers Camden – WCR - reported women’s participation as early as 03/04 so deleted from data set
- University of North Dakota – WIH - reported women’s participation as early as 03/04 so deleted from data set
- West Chester PA – WRU – kept in data set (may be listed in “other” sport category)

- Hobart William-Smith College – WCR and WSQ – both reported women’s participation as early as 03/04 so deleted from data set
- D’Youville wrong unduplicated participation numbers reported in 05-06 → CHANGED in data set
- West Chester PA wrong unduplicated participation numbers reported in 04-05 and 05-06 → CHANGED in data set

#### 05/06:

- **Moved** Elmhurst College – WBW – to 04/05 (that’s when data for the emerging sport was first reported to EADA)
- Norwich University – WRU – kept in data set (may be listed in “other” sport category)
- Seton Hill – WEQ – reported women’s participation numbers as early as 03/04 so deleted from data set
- Union College New York – WIH – reported women’s participation numbers as early as 03/04 so deleted from data set

#### 06/07:

- **Moved** Medaille College– WBW – to 05/06 (that’s when data for the emerging sport was first reported to EADA)
- Morrisville State College – WEQ – reported women’s participation as early as 03/04 so deleted from data set
- **Moved** Plymouth State University – WIH – to 05/06 (that’s when data for the emerging sport was first reported to EADA)
- University of Puerto Rico, Bayamon – WBW – no data showing participation in WBW in any year so deleted from data set

**07/08:**

- **Moved Arcadia** – WEQ – to 06/07 (that’s when data for the emerging sport was first reported to EADA)
  - Arcadia wrong unduplicated participation numbers reported in 05-06 and 06-07  
→ CHANGED in data set
- Briarcliffe College – dropped the men’s bowling team in 06-07, which was same year the NCAA reports that they made WBW an “emerging sport”, but there was participation by women as early as 03-04 so deleted from data set
- Rensselaer Polytechnic Institute – WIH – reported women’s participation as early as 03-04 so deleted from data set
- University of California Davis – WCR and WWP – both reported women’s participation as early as 03-04 in both sports so deleted from data set

**08/09:**

- Berry College – WEQ – reported women’s participation as early as 03-04 so deleted from data set
- Chatham University – WWP – all girls school – so deleted from data set
- Grand Canyon University – WBW – added sport in 07/08 but then dropped the next year and never sponsored again – kept in data set to examine the change
- **Moved South Dakota State** – WEQ - to 07/08 (that’s when data for the emerging sport was first reported to EADA)
- **Moved Spalding University** – WBW – to 09/10 (that’s when data for the emerging sport was first reported to EADA)

**09/10:**

- Notre Dame College – WBW – added in 09/10 along with a men’s team, then dropped in 10/11, and 11/12, then brought both men’s and women’s teams back in 12/13 – kept in data to examine changes

**10/11:**

- Columbia University – Barnard College – WSQ – institution not listed anywhere in EADA so not in data set
- California Baptist University – WWP – reported women’s participation as early as 03-04 so deleted from data set
- California State University Bakersfield – WWP – reported women’s participation as early as 03-04 so deleted from data set
- **Moved** Lincoln University PA – WBW- to 07/08 (that’s when data for the emerging sport was first reported to EADA)
- Lindenwood University was NAIA until 12-13 so deleted from data set
- Ursuline – WBW – all girls schools – so deleted from data set

**11/12:**

- Sarah Lawrence College – WCR – reported women’s participation as early as 03-04 so deleted from data set
- Azusa Pacific University – WWP – institution was NAIA until 12-13 so deleted from data set

- California State East Bay – WWP – reported women’s participation as early as 03-04 so deleted from data set
- **Moved** College of Charleston – WSV – to 12/13 (that’s when data for the emerging sport was first reported to EADA)
- Fresno Pacific University – WWP – institution was NAIA until 12-13 so deleted from data set
- NC Central – WBW – reported women’s participation as early as 03-04 so deleted from data set
- University of Pittsburgh-Greensburg – WBW – no sport specific participation figures reported to EADA - only total participation figures – but kept in data set

#### 12/13:

- Sarah Lawrence College – WEQ – reported women’s participation as early as 03-04 so deleted from data set
- **Moved** Grand Canyon University – WSV – to 13/14 (that’s when data for the emerging sport was first reported to EADA)
- **Moved** McKendree University – WSV – to 11/12 (that’s when data for the emerging sport was first reported to EADA)
- **Moved** Cal Berkeley – WSV – to 13/14 (that’s when data for the emerging sport was first reported to EADA)
- SUNY College of Technology at Canton – WIH – not NCAA, USCAA and NCAA provisional in 12 and 13

**13/14:**

- Harvard University – WRU – kept in data set (may be listed in “other” sport category)
- Louisiana State University – WSV – NCAA stated it added in 13/14, but really added in 14/15, so deleted from data set
- Mississippi State University – WSV – no sport specific participation figures reported to EADA - only total participation figures – but kept in data set

## **APPENDIX B: RECOMMENDATIONS FOR FUTURE RESEARCH**

- A qualitative study could be conducted on the decision-making process of the schools that decided to add an emerging sport.
- This study could be replicated but analyze the impact on financial aid Title IX compliance rather than participation opportunities.
- The expenditures of adding each emerging sport could be investigated to provide more information to schools considering adding an emerging sport.
- Different statistical testing could be done on the data collected for this study. An ANCOVA could be run using different variables. In addition, more information could be collected on the identified schools and used for more statistical testing.
- A comparison study could be conducted on schools that added an emerging sport before the sport reached championship status compared to schools that added an emerging sport after the sport reached championship status.
- Rather than looking at the first part of the Three-Part test for Title IX compliance in equal opportunity, the second part of the Three-Part test (a history and continuing practice of program expansion) could be analyzed based on the addition of an emerging sport.
- Research could be done on the schools that added an emerging sport and looking at other factors that were in play the year the school added the emerging sport – Was a men's team added? Was a men's team cut? Was the school switching Divisions? Were multiple Women's sports added in the same year? Etc.
- A future study could investigate the changes in substantial proportionality at schools that added an emerging sport, 3, 4, or 5 years after the emerging sport was added (rather than only looking at the year after the emerging sport was added). Such a study could analyze

whether the unduplicated count gaps make positive improvements or negative changes with each passing year that the sport is sponsored. This could help explain some of the limitations of this study, as well as clarify some results found in this study with the non-significant findings of the unduplicated count calculations.

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