

INTERCOLLEGIATE ATHLETICS:
THE COMMUNITY COLLEGE EXPERIENCE

by

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DEDICATION

To my wife and kids for sacrificing weekends and nights and providing inspiration.

To my parents and siblings for providing an environment that encouraged problem solving and educational attainment.

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ABSTRACT

The arms race, the definition of amateurism, Title IX, commercialism and academic integrity are regularly titles of chapters or catch phrases of texts written about intercollegiate athletics. Community college research focuses on the student population, transfer issues and the role of 2-year colleges within higher education. This study focuses on the intersection. Junior college athletic programs have been operating for nearly a century and currently serve more than 70,000 college students throughout the country without the guidance of appropriate research.

Five research questions are divided into two subgroups; the first focusing on the history of participation through affiliation with the NJCAA and the next four on current trends in the presence, size and specific sport opportunities in community colleges. Data on the history of participation was collected directly from NJCAA national offices and imported into spreadsheets, providing a substantial amount of raw data previously unavailable. The second subset of questions utilized merged data sets from IPEDS and EADA. Descriptive statistics were used to analyze the historic data. Logistic and OLS regression techniques provided results for the presence, size and specific sport analyses.

The decline of men's opportunities in NJCAA institutions provides evidence that women's growth made possible through Title IX, occurred at the expense of men. The economic status of colleges provided a better indicator of growth or decline for either gender in junior college athletic programs after the initial thrust of women's teams ended. Enrollment, the percentage of full time students and the rural variable all proved to be

positively associated with the presence of and size of athletic programs, while the female share of the student population was negatively associated with presence and size.

The results provide information for local administrators of athletic departments, college administration, state governance groups and national associations. Financial constraints and concerns of supporting athletics at the community college level can be expanded. Gender equity issues should be explored in more detail. A foundation has been established, needs to be reinforced and should provide a launching point for future research in junior college athletics.

CHAPTER 1

INTRODUCTION

Intercollegiate athletics is a multifaceted component of higher education. Mirroring the stratification, and ongoing re-stratification of the Carnegie Classification, college and university athletic programs fall into different categories based on national association affiliation and the strictly defined rules governing each association. What does an institute of higher education offer to its students, staff and external stakeholders? How extensive are the offerings? To what degree is offering such programs a positive impact on undergraduate education and student learning? Intercollegiate athletics, research, and undergraduate education are three significant pieces in marketing a college or university. Higher education institutions focus efforts and finances to field competitive programs in all three areas. Depending on an institution's mission, the depth and breadth of its financial support and the population it serves, the emphasis an institution places on research, undergraduate education and/or athletics varies.

Intercollegiate athletics impact on a college campus reaches through the student athletes to encompass faculty, administration, community members and the general student population. Students are attracted to colleges for academic, geographic, and social reasons. Burton Clark and Martin Trow provided four sub-cultures of college students in an essay first published in the early 1960's; collegiate culture, academic culture, vocational culture and the nonconformist (rebel) culture (Sperber, 2000). The three cultures currently most affected by intercollegiate athletics are the collegiate culture, the academic culture and the vocational culture.

According to Murray Sperber, the collegiate culture focuses on partying and supporting intercollegiate athletics and has grown since the 1970's in large public universities. Television's role in influencing college attendance was most publicized in 1984. Doug Flutie's miracle touchdown throw versus Miami put Boston College's admissions office into overdrive. "A surprising result of Flutie's triumph, never previously seen in American higher education, was that applications for admissions to BC spurted upward during 1985-86" (Sperber, 2000). Small selective institutions have athletic related admissions issues as well; however these adversely affect the academic culture. In James L. Shulman and William G. Bowen's *The Game of Life*, student athletes at the academically selective colleges and universities in the study have received a markedly increased admissions advantage (2001). Students with higher high school GPA's and SAT scores are losing out to students with athletic prowess.

Several community colleges which have decided to expand into intercollegiate athletics are supporting the programs with increases in student fees. The Seattle Community College District introduced athletics in the late 1990's to "... attract more students out of high school, create more school spirit..." (Schubert, 1999) and Wake Technical Community College is doubling its student fees to provide a richer college experience by adding athletic programs (WRAL, 2008). In both cases the vocational culture, those working their way through college, is being asked to pay more in an effort to make the campus more appealing to traditional students. The expected impact of adding the athletic programs is an increase in enrollment, a direct source of funding for public community colleges. Intercollegiate athletics presence on college campuses

provides students a reason to attend, an opportunity to bond outside the academic structure, and a chance to stay connected as alumni, but at what cost?

Eligibility, equity and financial concerns are three highly contested issues in intercollegiate athletics. Over the past few decades faculty (Weistart, 1989) and presidents (Knight Foundation, 1992) have been questioned about participation in the accountability of athletic programs. Woeful graduation rates in men's football and basketball are catalysts for faculty and administrative concern for the educational well-being of the institutions and the athletes. The National College Athletic Association (NCAA), with college administration and faculty input, has stepped up the eligibility requirements in an effort to increase academic progress towards a degree. Noticeably in 1996, the NCAA adopted higher minimum standards for all junior college transfers in Division I football and men's basketball (Knight Foundation, 2001).

Participation and financial equity issues have heightened with the presence of Title IX. Title IX continues to evolve as government committees and private organizations contest and promote the implementation of the law and the interpretations handed down by the Office of Civil Rights (OCR). Critics of Title IX claim financial woes in college athletic departments are a result of the law and its implementation, forcing departments to add female teams to gain compliance. Andrew Zimbalist disagrees, citing massive expenditures in football and offering that the problem is not Title IX, "the problem is waste" (Zimbalist, 2005). NCAA Division I athletic programs participate in an "arms race" for athletic supremacy. Universities add new state of the art practice facilities and training areas, increase stadium occupancy and pull out the red carpet for high profile football and basketball recruits all in an effort to keep up with the

Michigan's and the Florida's. To help fund this race, colleges and universities use resources generated from commercial interests.

Commercialization of college athletics has turned booster clubs into “determined fundraisers” (Shulman & Bowen, 2001) often leading to the exclusion of the typical fan. Connecting commercialism with the professionalization of the high profile sports, Shuman and Bowen discover another alarming trend: athletes have become more and more disconnected with the institutions they attend, feeling committed to the sport, not the institution (Shulman & Bowen, 2001). The high profile athletes at Division I schools have become “unpaid professionals”, the booster clubs have followed suit feeling more pressure to raise money for “their sport” (Shulman & Bowen, 2001) and the institutions themselves have fallen into an arms race financed by the brands.

The arms race, the definition of amateurism, Title IX and gender equity, commercialism and academic integrity are regularly titles of chapters or catch phrases in texts written on the subject of intercollegiate athletics in the last two decades. Except for James L. Shulman & William G. Bowen's *The Game of Life* and the follow-up, *Reclaiming the Game* by Bowen and Sarah A Levin, the focus of intercollegiate athletic research has been on Division I universities. The degree to which student athletes are more the latter than the former at this level deserves a thorough investigation and appropriate research has influenced reform. However, just as enrollment trends, retention rates, academic fraud and a myriad of other student related issues permeate all levels of colleges and universities, intercollegiate athletic concerns filter down through the levels of the NCAA and throughout the National Association of Intercollegiate Athletics

(NAIA), National Junior College Athletic Association (NJCAA) and other intercollegiate athletic associations.

Over 70,000 student athletes participated in junior college athletic programs in 2002-03 (NJCAA, 2005) yet little is known about junior college athletic programs. “To our way of thinking, each set of institutions needs to look hard at how its own athletics program is functioning in relation to its mission, and to apply its own standards in evaluating these programs” (Bowen & Levin, 2003). To this sentiment junior college programs require fundamental research to help guide future research, policy and practice.

Problem

Research guides policy and practice. Community college research is prevalent as is intercollegiate athletic research. Both have graduate level centers or institutes of research dedicated to promoting best practices and policy reform. In an effort to promote the positive influence college athletics have had and in an effort to reform negative attributes of the system, college coaches, athletic directors, faculty and administration have relied upon research. Community colleges role in higher education has provided insight into minority college enrollment, non-traditional student needs, transfer issues, vocational training and a plethora of topics essential for higher education systems to succeed; all as a result of qualitative and quantitative research carried out in the last 40 years. The intersection of these two topics receives little to no research; junior college athletic programs have been operating for nearly a century and continue to grow without the guidance of appropriate research. What are the transfer rates of junior college athletes, how do they perform academically, what are their persistence and retention rates? Do the programs represent women equitably as defined by Title IX? What

financial resources pay for athletic programs at a junior college? The problem is we don't even know the presence, size or make-up of these programs on a national scale, yet they service over 70,000 students.

Five hundred ninety-nine Public, Private and Private Not for Profit 2-year institutions reported the Office of Postsecondary Education's (OPE) Equity in Athletics Disclosure Act (EADA) statistics for 2006-07. Another 29 colleges listed as 4-year institutions support athletic programs in the NJCAA. Thirty percent of the intercollegiate athletic programs in the U.S. are located at junior colleges. These programs provided 75,745 freshmen and sophomore student athletes the opportunity to continue their education in 2006-07, offering teams in a variety of sports (retrieved from the EADA website December 12, 2008). Based on the nearly 400,000 student athletes attending 4-year colleges in 2006-07, approximately one in three freshmen student athletes attend a junior college program.

Junior college athletic programs existed as far back as the 1920's at colleges such as Gainesville Junior College (currently North Central Texas College) and Long Beach City College. The programs consisted of men's basketball and football teams. Many junior colleges at the time were either extensions of local high schools or truncated colleges (Cohen & Brawer, 1996). As the number of two-year colleges grew over the next several decades the athletic opportunities increased for student-athletes. In 1949, the NJCAA oversaw the nation's junior college athletics dividing the country into 16 divisions and publishing the inaugural NJCAA Handbook (NJCAA, 2005). It wasn't until 1975 that the NJCAA approved a women's division holding national championships in volleyball, basketball and tennis (NJCAA, 2005). The NJCAA currently has 24

geographic regions covering all of the lower 48 states offering a wide variety of athletic opportunities to student-athletes (NJCAA, 2005).

Two smaller governing bodies oversee the majority of the remaining junior college student athletes. The California Community College Athletic Association (CCCAA) governs all, with a few exceptions, of California's community college athletic programs. The original starting point of the NJCAA, California broke away and created its own organization. A smaller association of community college athletic programs is the Northwest Athletic Association of Community Colleges (NWAACC). The association was established in 1970 when one Oregon community college (Mt. Hood) joined what was formerly known as the Washington Athletic Association of Community Colleges (WAACC). Thirteen years later the rest of Oregon would follow suit merging the Oregon Community College Athletic Association with the NWAACC (NWAACC, 2006). A relatively new association (reorganized in 2001) combines four-year and two-year small college athletic programs primarily on the east coast. The United States Collegiate Athletic Association (USCAA) has 60 members in 24 states and offers programs in 5 sports for men and women (retrieved from the USCAA website, December 10, 2008).

Forty percent of the institutions in higher education in the U.S. are two-year colleges (Mumford, 2005; Carnegie, 2005). These institutions' characteristics are spread across a wide spectrum. Community colleges are public, private not-for profit, and private for profit; exist in rural, urban and suburban neighborhoods. The number of public two-year colleges steadily increased from 19 in 1915 to 1,236 in 1993 outdistancing the private sector junior colleges (Cohen & Brawer, 1996). Recent changes in defining two-year institutions (i.e. the addition of baccalaureate degrees being

granted) and the movement of some institutions to 4-year colleges and universities (i.e. Ricks College to BYU –Idaho, Utah Valley State) the total number has dwindled some since 1993 but remains over 1,000 (AACC, 2008; NCES, 2008). The student populations of community colleges vary drastically. Miami-Dade enrolled over 57,000 students in 2004 versus 79 total students at the Paducah Technical College (Carnegie, 2005).

In 2003-04, 40% of the undergraduates enrolled in the U.S. attended a 2-year institution (NCES, 2008). Community college students attend predominantly at a part-time rate and are more often older, independent and less financially stable (NCES, 2008). Female undergraduates are more likely than men to attend 2-year institutions (NCES, 2008). Minorities are increasingly concentrated in community colleges (Shaw & London, 2001; Nettles & Millett, 1997). Parental education is inversely related to the rate of 2-year attendance. Undergraduates with parents' education of high school diploma or less matriculate 51% of the time at a 2-year institution, but as the parental education grows to a Bachelor's degree and beyond the percentage falls to 33% (NCES, 2008).

The community college is applauded for its open access as a means for baccalaureate attainment. Open access, along with location, short-term vocational programs and cost, make community colleges attractive. Do athletic programs at community colleges mirror the diversity of the institutions that house them? Steven Bennion, a former president of two community colleges, offers "Just as the enrollment numbers vary significantly, the purposes of athletics are also very diversified" (Bennion, 1992) diversified in number of student-athletes, number of teams, scholarship allowance, housing and various other characteristics.

The commonality is the structure student athletes operate within. Coaches recruit, mentor and advise student athletes so the individual, the team and the program can be successful athletically and academically. The priority may differ from program to program and sport to sport but a built-in system exists to assist student athletes with academic and athletic endeavors. An athlete's desire to move on, to make it to the next level, reinforces the academic transfer function of a community college. Student athletes are required to be full-time to participate, maintain a "C" average and work towards a degree or subsequent number of academic units to transfer. Retention and persistence rates naturally are higher with the motivation to reach the next level, even if athletics is the motivation. The student athlete attending a community college can provide important insight into the role these institutions serve in the U.S. higher education system.

Importance of Study & Research Questions

Intercollegiate athletics is over-represented by the media as NCAA Division I institutions. These colleges and universities receive most of the media coverage (contests, scandals, and entertainment shows) and subsequently most of the research coverage. As is true with the academic, social, governance and financial issues of higher education, disaggregating is essential. Unfortunately intercollegiate athletic research has chosen to focus primarily on one subset of the population highlighted by questionable levels of spending, leaving junior college athletics with similar academic, policy and governance concerns backed by little or no research.

RQ #1

An historical overview of junior college athletic programs guides the first set of research questions. The study then investigates the presence, size, performance and sport

demographics of junior college athletic programs. The importance of this research will be to shed light on a sector of higher education that until now has focused on topics such as transfer, cooling out and mission identity crisis. Given the number of students utilizing 2-year institutions to develop academically and athletically, it is time for this group to be represented in research and policy discussions.

Junior colleges and athletic programs have coexisted for nearly a century in the United States. As community colleges have continued to increase throughout the country since the end of World War II, the programs accompanying them have increased as well. Intercollegiate athletics growth at all levels has occurred, new sports have been added and programs for women have developed. The NJCAA governs approximately 75% of the junior college programs and serves as an excellent litmus test for an historical review of junior college intercollegiate athletic expansion.

- Over the last 40 years, how many 2-year colleges have participated in intercollegiate athletics? What is the history of sport sponsorship? How have women's programs developed?

Although women compete in intercollegiate athletics more so now than ever (Acosta & Carpenter, 2005), historically participation opportunities and financial support have been minimal compared to men's (Acosta & Carpenter, 2005). Given the significance of athletics in American society and the developmental connection between education (public or private) and athletics, higher education's responsibility to promote and foster gender equity is equally important on the playing field as it is in the classroom. Research shows that NCAA colleges and universities have made improvements (Anderson & Cheslock, 2005) with respect to gender equity on the playing field in recent

years. However, research in this area does not show improvements at the community college level of higher education simply because the research barely exists.

The research that does exist is disheartening. In Maryland, for example, females participate at half the rate of males in the two-year colleges (Mumford, 2005). In the recent Women Sports Foundation Research Series, *Who's Playing College Sports? Trends in Participation*, the two associations responsible for over 90% of junior college athletic departments averaged a 16.3 and 19.4 proportionality gap in 2004-05 (Cheslock, 2007). This is relevant not only for gender equity but for research in general as this is the first piece of quantitative research to include a comprehensive analysis of junior college athletic programs. With over 600 2-year institutions operating athletic programs and 70,000 plus student-athletes participating annually, junior college athletics requires research for policy and practice purposes.

RQ # 2 & # 3

As Georgia State enters the first year of football development, critics may be asking why GSU would want to enter the financial arms race that is big-time football. The leaders at GSU feel the presence of football will keep more students on campus, help tap alumni donations and make the university “more relevant” (Heckert, 2008). Similarly Adams State College is expanding its athletic program to include five “enrollment-based” sports to the current 14 it offers in an effort to give “...more students a chance at a positive collegiate experience through athletics” (retrieved from ASG website, December 14, 2008). Even with financial restrictions community colleges are following a similar path. Although sporadic, more community colleges in more states are initiating new and expanding current athletic programs (Byrd, 2007).

The state of North Carolina has pushed to increase the number of athletics programs in the state's community college system, although restricting the college's from utilizing state funds for the programs. Guilford Tech started an athletic program in 2006 with 2 sports (men's basketball and women's volleyball) and has continued to add a sport each year (Ashburn, 2007). Wake Technical Community College, another North Carolina college, has chosen to add athletics in an effort to provide the growing population of 18-24 year olds with a richer college experience (WRAL, 2008). GateWay Community College and Paradise Valley Community College, both of the Maricopa County Community College District, initiated athletic programs in the past 15 years, starting small with several teams and expanded each year. As recently as this year, each college has added a new sport to its program. Both colleges existed for over a decade before beginning athletic programs.

The difficult financial times have created junior college casualties as well. Without the assistance of local appropriations in Florida, North Florida Community College cancelled its athletic programs after shortfalls from state funding forced the institution into cost-cutting measures. Calhoun Community College, in Alabama, faced financial cutbacks and was forced to eliminate the athletic programs in 2006. Recent movement in junior college athletic programs ,whether it's new programs, expanded programs or deleted programs, highlight the importance of research focused on junior colleges. The general trends of athletic presence and size is important for future policy and practice.

- What institutional characteristics best predict the presence of an athletic program?
- To what extent are athletic programs' size related to institutional characteristics?

RQ #4

Six sports are chosen for further investigation. These sports do not represent the entire spectrum of intercollegiate athletics in junior colleges, but were chosen as a representative sample because they all have received notable attention, both positive and negative, in the media and research.

- What institutional and program characteristics are associated with junior college athletic programs participating in Football? Softball? Wrestling? Men's and Women's Track & Field? Women's Soccer?

Intercollegiate athletic reform proposals predominantly receive publicity at the NCAA Division I level. The Knight Foundation's *A Call to Action: Reconnecting College Sports and Higher Education* clearly singles out NCAA Division IA colleges and universities and focuses on the sports of men's basketball and football (Knight, 2001). College football's history is littered with reform efforts to make the game safer, maintain the amateur status of participants and control the costs and revenues directly associated with the sport. Ignoring travel considerations (as this varies tremendously across level of play), football at any level requires a dedication of funding. Budget line items for player gear (practice and game), practice equipment (blocking sleds, tackling dummies, etc...), coaching staff and support are far greater than other sports. Football's numbers provide a dilemma in the face of Title IX's proportionality, as well. With football alone, assuming a 50-50 student body gender proportionality, an athletic program would need to offer three of the larger participant sports for women (i.e. soccer, crew and track & field) to be within the proportionality dictated by the law. Given the financial constraints and potential issues with Title IX, football's presence at the junior college level, where there is no BCS Bowl payout, could provide a serious obstacle for college administrators.

Two women's sports, soccer and softball, have seen tremendous growth since Title IX's inception, whereas Track & Field has lost its strangle hold as one of the premier women's sports. Soccer's increase is not unexpected. Decades of youth soccer beginning in the 1970's have bred a competitive influx of female soccer players. Softball only recently completed its maturation to an intense, fast-pitch female version of baseball but already shares the national TV spotlight with other collegiate national championships. Both sports have enjoyed recent Olympic gold medal success and collegiate stars such as Mia Hamm (Soccer) and Jennie Finch (Softball) have been able to utilize collegiate and Olympic success to promote the respective sports. Unfortunately both sports rely heavily on year-round club teams at the youth level, requiring a financial commitment from parents. Parents often see this financial commitment as an investment, hoping a scholarship to college is the payout.

As women's opportunities have increased in number since the 1970's, collegiate wrestling programs have decreased in number. The fact that these trends have occurred simultaneously have lead some to blame Title IX's presence as the demise of wrestling. The National Wrestling Coaches Association (NWCA) filed a lawsuit in 2002 against the Department of Education claiming the 1979 Title IX policy interpretation given by the Department of Health, Education and Welfare (HEW) was invalid (Carpenter & Acosta, 2005). The proportionality prong of Title IX, stated in the 1979 interpretation and revisited in the 1996 clarification was the target of the lawsuit. Essentially the claim was that proportionality was forcing colleges to add women's sports regardless of interest, with the financial fallout being the reduction in men's programs. The case has since been dismissed and has lost each appeal including the Supreme Court.

Track & Field, once the gauge of individual athletic prowess and the signature sport of the Summer Olympics, has declined as a collegiate sport. Since 1988 NCAA colleges have dropped over 2,000 men's teams and 1,400 women's teams with cross country, indoor track & field and outdoor track & field as three of the top five sports dropped for men and/or women (Woods, 2007). The NJCAA has seen a similar trend. Although the number of colleges participating in the NJCAA remained steady throughout the 1990's and the total number of athletes participating increased, the indoor and outdoor track & field men's teams decreased by approximately 15% and 26% respectively. Women's teams hit an all-time high of 78 outdoor and 55 indoor teams in 1991-92, only to see those numbers decrease to 63 and 48 respectively by the end of the century (NJCAA, 2002). Positive press rarely surfaces around the sport of track and field. Collegiate events rarely receive television time and the Summer Olympics have increasingly become a showcase for soccer, tennis and beach volleyball. Marion Jones being stripped of her Olympic medals for admittedly using performance enhancing drugs and subsequently serving jail time is the latest bad publicity tarnishing track and field's already damaged reputation.

RQ #5

Program excellence can be defined utilizing a myriad of variables, but most notably involves reaching the pinnacle of one's sport. With college sport programs, national championships are the measuring stick. Although a system including graduation rates, GPA's, and community involvement would more accurately reflect the missions of colleges and universities, current program excellence is measured in wins, national

championship event wins. In 2004, NATYCAA created a two-year college version of NACDA's Sports Academy Directors' Cup (formerly the Sears Cup), recognizing program excellence in athletics at the junior college level. The cup program is intended to honor institutions maintaining a broad program, achieving success in both men's and women's sports. A college's score is the sum of the programs top five national results for both men's and women's teams.

- What institutional and program characteristics are associated with athletic program performance?

Performance is narrowly defined (including only athletic feats) and favors larger junior college programs (minimum 10 teams required) but the score provides a measurement for success and promotes gender equity by design.

Overview of the Dissertation

The Community College Athletic Experience consists of five chapters. Chapter Two consists of historical information on junior college athletics as well as intercollegiate athletics in general. Amateurism, Commercialism and Title IX are important components of calls for intercollegiate athletic reform. Brief discussions of each are included. Community college transfer, mission, minority enrollment and financial concerns provide background information for the two-year strata of institutions. A thorough review of the theories and concepts used as a guiding lens for discussion and analysis are included. A functionalist approach in conjunction with theoretical assistance from Institutional Theory, Resource Dependency Theory and Gender Equity is developed. Institutional Theory assists the discussion surrounding junior college program isomorphic behavior and the sources of influence over these programs. Junior college athletic programs rely on resources from state and local appropriations and student tuition and fees. Athletic

programs dependence on these resources must be carefully managed. Gender equity has firmly placed a stamp on intercollegiate athletics since Title IX's inception and subsequent strength was reinforced. Lastly, literature on intercollegiate athletics issues provides a synopsis of what has been researched previously in this and related fields.

Data and design are discussed in Chapter Three. First an introduction and description of the data set is presented. Two data sets provide the baseline information for the study. NJCAA historical data on participation by sport and gender from 1968 through 2001 was collected from the NJCAA national office in an effort to answer the first research question. The second data set merges information from IPEDS and EADA creating a list of 1261 institutions meeting the criteria defining two-year institutions. Both data sets are meticulously cleaned to ensure quality baseline data for the quantitative analysis. For each research question multiple quantitative analyses are performed and the details of the varying analyses and significance are explicitly listed. Logistic and Ordinary Least Squared (OLS) linear regression results retrieved in STATA are utilized to interpret the significance and strength of associations between dependent and independent variables. The limitations of the data set conclude the chapter.

Results and analysis of the data are in Chapter Four. Tables displaying the quantitative analysis output of the research questions are followed by analysis. Compelling findings are highlighted regarding specific variable associations. Individual sport conclusions and discussions of the results are summarized at the end of the chapter. Chapter Five includes conclusions to the research, related deficiencies in the research and future endeavors in this and related fields.

CHAPTER 2

LITERATURE REVIEW

The literature review for the study is a comprehensive background of four essential categories; community colleges, intercollegiate athletics, junior college athletics, and related theory. Community colleges are discussed first, concentrating on the history, transfer mission and need for disaggregation. Second, a brief history of intercollegiate athletics is provided. The presence of athletic programs on college campuses has been inspirational and condemning, providing connections for alumni and students and providing headlines for local and national news. Academics, amateurism, commercialization and gender equity are contentious issues in and among colleges and universities, and the role they play in current and future decision making and policy creation concerning student athletes is critical. Student athletes at junior colleges face similar yet less publicized issues. Junior college athletic history and association information provide the necessary background to connect the community college experience with intercollegiate athletics. Finally, the conceptual framework and related theories are described, completing a wealth of information pertinent to the research in this study.

Community Colleges

History

Public and private two-year colleges began to appear in the 1900's as more students began to graduate from high school. Joliet Junior College was founded in Illinois in 1901 and is considered the oldest public community college (Thornton, 1960;

Vaughan, 1995). Known as junior colleges at the time, the institutions were viewed as a relief valve for universities. Junior colleges would provide the first two years of undergraduate studies for students the universities couldn't accommodate. California passed legislature authorizing high schools to offer postgraduate courses and provided state and county support for junior college students (Vaughan, 1995; Cohen & Brawer, 1996). Some viewed the colleges as a weeding out process as well, for those students not fit for higher learning, giving students the chance to end their academic efforts "...naturally and honorably at the end of the sophomore year" (Eells, 1931, quoted in Cohen & Brawer, 1996). Whether it was opportunity or filtering, junior colleges proved to be a commodity for higher education. By 1930 both public and private two-year colleges had increased exponentially, privates outdistancing publics in number of institutions 258 to 178 (Cohen & Brawer, 1996). Private two-year colleges, half of which were religiously affiliated (56%), enrolled a smaller average population of students (60) as compared with the public two-year colleges (150) (Cohen & Brawer, 1996). The following decade proved to be the catalyst for the growth and mission of the community college.

World War II had two immediate impacts on junior colleges. Enrollment in junior colleges dropped dramatically during the day as many potential students were enlisted and serving their country overseas. Thornton (1960) noted that with the nationwide emphasis on defense work, colleges responded by engaging in community activities. The junior colleges were beginning to take on the role of community resource. A second by-product of WWII was the passing of the Servicemen's Readjustment ACT in 1944. The GI Bill as it is commonly known, provided federal funding for education allowing

millions of Americans to attend college including more than 60,000 women and approximately 70,000 blacks (Vaughan, 1995). Following the push to provide more than just the freshmen and sophomore years of college, President Harry S. Truman's Commission on Higher Education provided a report detailing the goals and mission of junior colleges and popularizing the term "community college" causing hundreds of institutions to include the term community in their name (Vaughan, 1995). By the end of this decade 650 two-year colleges would exist (Cohen & Brawer, 1996) and public colleges would not only pass the number of privates but began a trend that would see them dominate the community college sector of higher education.

The population of the community college sector has exploded since the 1960's. What was a population of 500,000 in 1960 had reached the six million mark by the nineties (Cohen & Brawer, 1996). With the increase came a diverse population of students. Nontraditional students, defined by numerous indicators of which they may possess all or one, typically are: older, part-time, lower in ability, predominantly female, predominantly minorities, working full-time, financially independent from parents, and/or single parents (Cain, 1999; NCES, 2002). The growth of this group of students has led them to become the dominant group of students on 2-year campuses (Cain, 1999). Traditional students' enrollment patterns place over three-fourths in either public or not-for-profit private 4-year colleges whereas only 27% of highly non-traditional students attend these same institutions (NCES, 2002). Students who are moderate (characterized by two or three traits) or highly (characterized by four or more traits) nontraditional are accessing higher education via the community college.

Transfer Mission

The mission of the community college is viewed differently by scholars in the profession, from "...high schools with ashtrays" (Cohen, 1969) to increased accessibility and affordability (Ratcliff, 1994) to higher education. In *Renewing the American Community College*, Patricia Cross provides a synopsis of the multitude of missions from which community colleges operate. The comprehensive mission is the most popular incorporating occupational education, developmental education, community education, a transfer stream and general education (Cross, 1991). Critics of the comprehensive mission usually focus on the "spreading yourself to thin" argument while proponents stress the importance of the opportunity of educational access within commuting distance. A vertical mission (Cross, 1991) heavily emphasizes the transfer function. Ideology and culture can drive an institution to promote the transfer function in a variety of settings (Shaw & London, 2001).

Transfer is not often a smooth transition. Although studies indicate the value of educational attainment, suggesting that more education equals more pay (Grubb, 1992; Lin & Vogt, 1996), the transfer process includes barriers for students and student athletes alike. To understand the transfer process three areas need to be discussed: the community college culture, the transfer of courses and the individual, and integration into the new 4-year culture. The culture of a community college has been described as race based (Valadez, 1996) and class based (London, 1978). The culture of the middle-class white (dominant culture) permeates the community college, expecting students to operate within the appropriate framework as determined by the faculty and administration who are predominantly white and middle-class. Since minority and low SES students

overwhelmingly populate the community college, the academic success of these students operating within a different culture is questioned. Academic and social integration within the college are key predictors to transfer (Nora & Rendon, 1990). Some researchers believe the answer lies in a holistic reform of the community college, centered on the culturally diverse students (Rendon & Garza, 1996).

The courses and the student must make the voyage from one institution to the next. Articulation agreements are now in place in most states. The problem of credit transfer can still occur when students transfer out-of-state or within state to a private college or university which are typically not included in articulation agreements (Ignash & Townsend, 2000). Although courses transfer, articulation agreements often allow the 4-year colleges to transfer in courses as elective credits, not credits toward specific requirements, placing the student behind in terms of graduation.

Financial aid creates another barrier for transfer students. Many students relying on Pell grants to cover the cost of tuition and fees at community colleges are hit with the increased cost for attending 4-year colleges and universities. Student athletes are assumed to be impervious to financial concerns as scholarships take care of any financial burdens they may incur. Recent research indicates that NCAA Division I & II (scholarship awarding) student athletes receive less than a “full ride”. Ice hockey, for men and women, provides the highest percent on average at 80%. Men have only two other sports, football and basketball, that provide at least two thirds of a full scholarship; other sports range from 30-40% (Pennington, 2008). With tuition and room and board ranging from \$20,000 - \$50,000 at most NCAA institutions, the cost to attend on a partial scholarship

easily outdistances the cost of attendance at a community college. Transfer students and student athletes face the barrier of increased costs to further one's education.

Lastly, community college students are coming from a diverse student population to one which is historically white (Townsend, 1995). Part of orientations for transfer students should touch on this subject and provide information on clubs and centers to connect students to the campus. The culture of the 4-year institution often differs in two dramatic ways for transfer students. Where they might have been a big fish in a little pond, they are now in an academically and athletically competitive atmosphere. The relationship with professors takes on a new dimension. The accessible, less stringent faculty of 2-year colleges (Grubb, 1999) has been replaced with a "survival of the fittest" meritocratic faculty (Townsend, 1995). The combination of the competitiveness from other students and the bar being raised by faculty can often lead to a decrease in performance known as transfer shock (Diaz, 1992). Student athletes must contend with these academic changes alongside intense pressures to perform athletically.

Understanding this phenomenon and the likelihood of recovery is important for transfer students' self-esteem. The barriers transfer students must overcome provide insight into the existence of a baccalaureate gap (Dougherty, 1992) for all students including student athletes.

Disaggregating

Historically the Carnegie Classification of higher education institutions has focused primarily on disaggregating 4-year colleges and universities. The 1994 classification placed over 40% of higher education institutions, community colleges, in a single category, AA. In calling for a classification scheme for two-year colleges, Stephen

Katsinas (2003) stated “The higher education literature implicitly assumes great homogeneity among community colleges in terms of state-assigned mission and functions, organizational complexity, finances, and students served”. While individual 4-year institutions have applauded or refuted their place within each new classification system presented by the Carnegie Foundation an entire population of institutions have been overlooked. The 2000 classification de-emphasized research and discouraged the idea of ranking institutions with the system (Basinger, 2000). This was not a problem for two-year colleges as once again the 2000 classification placed them within a single group, 42.5% of all institutions sharing one piece of the pie (Basinger, 2000).

Once the 2000 Carnegie classification was published several authors came out in support of a change for two-year institutions. *A Classification System for 2-Year Postsecondary Institutions* described a classification system for 2-year institutions with the intent of helping research and providing policy framework (Phipps, 2001). This system not only disaggregated the two-year colleges by institutional control (public, private not-for profit, private for-profit) but also by enrollment size, creating three intervals of population to disaggregate the public two-year colleges. Katsinas (2003) agreed to institutional control (adding special-use) and size and suggested geography (rural, suburban and urban) and governance (multi-campus and single-campus) variables should be added. Five years removed from the 2000 Classification the most recent installment of the Carnegie Classification of Institutions of Higher Education has atoned for their previous oversight in disaggregating.

Not only has the 2005 Classification adjusted the Basic Classification to include 14 different groupings of Associate Degree granting institutions, it also replaced the

single classification with a set of multiple, parallel classifications (Carnegie Foundation, 2007). As suggested in research from Katsinas (2003) and Phipps (2001), two-year college research now has the ability to analyze representative samples of institutions. Governance, geographic location, and institutional control are all included in the basic classification of associate's degree granting institutions. The Undergraduate Profile provides 4 variations of part-time and full-time analysis with Higher part-time and Higher full-time at the ends of the spectrum (Carnegie, 2007). Size and Setting divide enrollment numbers into 5 intervals ranging from Very small two-year to Very large two-year (Carnegie, 2007). Researchers interested in two-year colleges now have greater flexibility in creating representative samples of institutions.

Minority Participation

Minorities are increasingly concentrated in community colleges (Shaw & London, 2001; Nettles & Millett, 1997). Undergraduate enrollment at 2-year institutions increased 46% from 1976 to 1996 and in that span African American enrollment increased 50%, Hispanic enrollment tripled and Asian enrollment quadrupled, while the White enrollment only increased by 25% (NCES, 2002). These increases reflect the path of choice (albeit not their first) for many minorities. Several reasons for the increase in enrollment of minorities at 2-year colleges include: lower levels of academic preparation, lower average test scores, lack of participation in academic curricular programs, lower levels of parental educational attainment and involvement (specifically Hispanic parents) (Perna, 2000). The community college is applauded for its open access as a means for baccalaureate attainment. Open access, along with location, short-term vocational programs and cost, make community colleges attractive to minority students. Critics,

however, refute that access implies opportunity. Valdez suggests "...although community colleges provide access they have not necessarily provided opportunity for lower socioeconomic groups to achieve social mobility" (Valdez 1996).

Finances

The finances of 4-year institutions vary drastically. Private institutions rely on high tuition and endowments. In a competitive attempt to stay elite, selective elite institutions aggressively seek out all possible resources including tuition increases (Ehrenberg, 1999). To sustain the quality/price ratio, the price increases in order to match a presumed quality increase. Public institutions typically rely on state subsidies, federal government monies and tuition. The variance of the revenue streams for public institutions differs from state to state based on individual factors (economic conditions, population changes) and the economic condition of the nation (Hovey, 1999). Spending by state in actual dollars has not decreased, but as a portion of the state budget state appropriations have decreased as higher education waits in line behind K-12, Medicare and the prison systems (Hovey, 1999).

Looking at the revenue per FTSE it is clear to see the stark difference between public 2 and 4-year educational institutions. Based on 1999 data, 4-year public institutions generate \$26,149 of revenue per full-time-equivalent student, compared to only \$9,228 at the 2-year institutions. The federal government provided approximately 12% of the 4-year revenue, but only 6% of the 2-year revenue. Local governments were responsible for nearly 20% of the 2-year revenue but less than 1% of the 4-year revenue (NCES, 2002). Community colleges rely heavily on state and/or local appropriations. Disaggregating by state illustrates the extreme variations of funding community colleges

report. California, Illinois and Florida all utilize large community college systems to serve the constituents of the state, relying on different funding ratios. California keeps tuition relatively free for state citizens, utilizing state and local appropriations for funding sources. Florida focuses on state appropriations and tuition, collecting little if any from local sources. Illinois counts on all three funding sources to assist in generating revenue. With a variety of funding structures, expenditure patterns are expected to vary as well.

Equally important is the expenditures of 2-year institutions. In 1999 2-year colleges spent close to 47% on instruction, while 4-year colleges spent only 40% and 4-year universities only 34%. Research expenditures for 4-year universities were 22%, 4-year colleges 11% and 2-year colleges less than 1% (NCES, 2002). Student services at both 4-year colleges and universities have maintained a steady percent of the expenditures over the last 25 years, with 6% and nearly 4% respectively. Two-year expenditures on student services have increased from 8% to almost 11%. All three classifications have seen moderate increases in expenditures for administration since the late 1970's (NCES, 2002).

Costs have increased (technology) and subsidies have decreased (as a portion of state budget) so most institutions have turned to increasing tuition at a rate which surpasses inflation to balance the budget. In-state tuition and fees at 4-year institutions averaged \$7,828 in 2001 and 2-year institutions averaged \$1,772 (NCES, 2002). Response to tuition increases varies by institution, by race, and by class (Heller, 1997). For every \$100 increase in tuition, researchers expect a drop of 0.5 to 1% in enrollment (Heller, 1997). Since tuition is low at community colleges and minorities and low SES students are concentrated in community colleges these students are more sensitive to

tuition increases. Room and board costs differ as well. Room at the 4-year institutions averaged \$3,056 compared to \$1,859 for 2-year institutions. As of 1996, 80% of 4-year colleges and universities had campus housing, while only 23% of 2-year colleges provided campus housing (NCES, 2001). Based in communities to serve the communities, it is understandable that community colleges would have little if any housing, with most housing at rural campuses (Moeck, 2007).

As costs have increased, one reaction has been to raise tuition and fees, but a second less talked about reaction is beginning to gain some momentum at the community college level. “What appears to be changing, however, is the sense of urgency with which community colleges are now cultivating private support”, through the creation of developmental officers and foundations (Kubik, 2002). Four-year colleges and universities have been receiving alumni donations, gifts, and contributions and have used these to build endowments. Community colleges are beginning to see the advantage of seeking out gifts by using the strengths of the community ties to business and the bargain of giving to a community college (Kubik, 2002). Although there is not much research on community college development, early signs show the payoff development officers and foundations can have on raising funds for community colleges.

Institutions of higher education rely on different funding structures within and between Carnegie classifications. Two-year public colleges receive less federal support in large part to the lack of research grants received, less state funding as legislatures have higher priorities and less tuition revenues given the low cost model of community colleges. Community college’s mission and namesake reflect the reliance on local funding sources. Efforts outside raising tuition or local tax levies to increase resources

include fundraising and capitalizing on globalization. Fundraising efforts have become commonplace in community colleges and research has shown an increase in global connections, in order to expand marketplaces and increase efficiency (Levin, 2001). With the varying dependencies on resources, higher education has been under scrutiny as to the logic behind operating athletics. “Colleges and universities can either prepare for the changes, placing their academic priorities foremost,...or they can behave foolishly,...and throw more good money at their athletic program deficits” (Sperber, 1990).

Intercollegiate Athletics

History

Crew was the original intercollegiate sporting event in the U.S. Members of Yale and Harvard crew clubs met in 1852 with financial backing provided by a railroad superintendent, James Elkins (Smith, 1988). The commercial interests of Mr. Elkins and other businessmen in this event provide an historic view of the relationship between college sports and financial incentives. Baseball followed in Crew’s footsteps on college campuses. “The position of authority which Harvard commanded educationally was transferred to the intercollegiate athletic scene, giving other colleges the needed precedent to expand their programs, especially in baseball” (Smith, 1988). As crew and baseball laid the foundation of intercollegiate athletics in the mid nineteenth century, the current king of commercialized intercollegiate athletics was beginning to grow in popularity. Football, spawned from rugby, brought Harvard and Yale together in 1875 adding a third sport to the rivalry. By 1883 the game had become big business for both colleges, Harvard spending over \$27,000 to field a football team and recouping those expenditures with gate receipts, over \$15,000 from the Yale game alone (Watterson,

2000). As the popularity of football increased so too did the violence. In 1905 the severity of football violence prompted the President of the U.S., Theodore Roosevelt, to step in and demand changes. The result was the foundation of the Inter Collegiate Athletic Association (ICAA) later renamed the NCAA (Byers, 1995, Watterson, 2000). The fourth major intercollegiate sport of the century, track & field, arrived from Britain in the form of a paper chase or hare and hound event (Smith, 1988). As the twentieth century approached, Olympic success by intercollegiate athletes from the U.S. cemented track & field's status in the country and on campuses.

The politics of intercollegiate athletics continued into the twentieth century even with the creation of the NCAA in 1905. Efforts by faculty, presidents and amazingly one Swarthmore College donor to eliminate football or sports entirely were met with strong resistance. Anna Jeanes promised to donate large sums of land and money, reportedly worth \$1 to \$3 million to Swarthmore College under the stipulation that intercollegiate athletics be terminated, forever, at the college (Smith, 1988). The President of Swarthmore College, Joseph Swain, received numerous pages of feedback from colleagues assisting him with his decision to ask the College's Board of Directors to turn down the generous endowment in the pursuit of academic freedom (Smith, 1988). The struggles over amateurism, professionalism, brutality, eligibility and ethics that were discussed and debated at the turn of the century continued with the formation of the NCAA. Today the topics of debate are eerily similar to those discussed 100 years ago; pay for play, academic integrity, presidential and faculty control, eligibility and commercialism. In the second half of the last century, two new topics of concern have filtered down to intercollegiate athletics from national movements towards equal rights

and racial harmony. Women and minorities, especially blacks, have received substantial interest in recent research into intercollegiate athletics. Gender Equity has forced colleges and universities to re-think and re-tool athletic departments since the passage of Title IX in 1972. Tommie Davis and John Carlos took the stand and made a statement at the 1968 Olympics in Mexico City. The black gloves they clinched into fists on the medal stand were done so in the name of freedom and equality, not just equality for blacks but equality for all (Powell, 2008).

Black Student Athletes

Black athletes struggled in the early part of the twentieth century to find colleges and universities willing and able to allow them to participate on athletic squads. “Put simply and bluntly, from about 1900 to 1930 few black football players competed for flagship state universities, private colleges or large private universities” (Watterson, 2000). Throughout the next 3 decades black football players at predominantly white institutions of higher education in the North and West would be left at home, on the sideline or back at the hotel in an effort “...to honor this gentleman’s agreement” (Watterson, 2000) of not allowing blacks to play in southern or bordering states. Track and field success by Jesse Owens in the 1936 Olympics inspired a generation of young black athletes. Black women had become rulers of the track in the 1940’s, representing strong gold medal possibilities at the 1948 Olympics. Collegiately, however they suffered as their male counterparts did: “Southern black women’s teams, excluded from regional competitions, were limited to black intercollegiate meets and the AAU national championships” (Cahn, 1994). Participation at or against predominantly white colleges and universities continued to be a struggle for black college athletes in the first half of the

century, but the second half's participation increases have left questions about the benefit of participating in intercollegiate athletics.

Scholarships have provided access to a 4-year college education, but a scholarship doesn't guarantee success in obtaining the degree that is imperative to achieve social mobility. Research has suggested that inadequate secondary preparation (Eitzen & Purdy, 1986; Bowen & Bok, 1998) and cultural differences (Hawkins, 1999; Rhoden, 2006) foster low graduation rates among black student-athletes. Only 27% of black male student athletes entering college in 1984-85 went on to graduate within 6 years, compared to 52% of white male student-athletes. Twenty years later and graduation rates have improved for student athletes in general, but black student athletes continue to lag behind their white classmates.

Although the recent celebrity status achieved by Tiger Woods in golf and Venus and Serena Williams in tennis have advanced minority participation in historically white sports, black student athletes flood the stereotypical sports in NCAA Division I programs. In *The 2005 Racial and Gender Report Card: College Sports*, Richard Lapchick and Jenny Brenden report that 24.8% of the total male student-athlete population, at the NCAA Division I level, was African-American. When football and basketball are disaggregated, 45.4% and 57.8% of players respectively were African American. The most high profile, time demanding sports in college are where we find our largest populations of African American male student athletes. Female African American student-athletes in the same study comprise 43.7% of basketball players and 26.0% of Cross Country/Track and Field athletes yet only 4.6% of other sports (Lapchick & Brenden, 2006). Black student athletes are receiving access to higher education through

athletic scholarships, but if the goal is social mobility for a generation of black students, then the focus should be on providing minds for the workforce and graduate programs not providing bodies for the commercialized professional sports.

Female Participation

Near the turn of the twentieth century sport gained popularity as an outlet for working class youth and as means by which to reinvigorate the pampered middle and upper class youth (Cahn, 1994). Youth of course referred to boys. Females attempting to enjoy the benefits of athletic endeavors were often met with resistance. Although early physicians and physical education teachers recognized the benefits of exercise in promoting healthy bodies for women, the active, competitive, manly games were considered dangerous and hazardous to the female body. In 1891, James Naismith provided a sport (basketball) women were immediately drawn to. Cahn noted, "Their spirited play ushered in a new period in women's sport..." which would change the future of college women's sport (Cahn, 1994). Through the first two decades of the century intramural and club sports endeavors for women grew in popularity. Although athletics as an activity grew athletics for competitive reasons did not. In the 1930's and 1940's the most popular sports event for females came in the form of "play days" (Sack & Staurowsky, 1998). Women from several colleges would meet to play games but under mixed teams limiting the competitive nature of the games. As the first half of the century came to a close the dilemma women faced was the perceived dichotomous relationship between feminine qualities and athletic (masculine) qualities.

By the 1950's sports for females had begun to be divided into graceful and ladylike (figure skating and gymnastics) athletics or rugged and masculine (track and

field and basketball). The Olympic governing bodies considered eliminating several track and field events for women in the 1950's because they were not truly feminine (Cahn, 1994). During this time period the U.S. and Russia faced off in many arenas but the athletic arena of the Olympics proved to be a step back for female athletic participation. The Russian women, well trained and medicated, appeared as men and prompted gender testing in the future. The black women in track and field became a political pawn for the U.S. Citing their performance, the U.S. sought to diminish Soviet claims of racism in America, meanwhile the standard middle-class white picture of sports struggled to define or accept the presence of and dominance of the black female in track and field. "The subtle interplay of racial and gender stereotypes surely did the greatest damage to African American athletes, but it also indirectly constricted the athletic possibilities of other women" (Cahn, 1994).

Scared of the corruption prevalent on the men's side of college athletics, leaders on the female side were hesitant to conduct full scale intercollegiate varsity competition for females. The women's movement of the 1960's managed to change the viewpoint of female leaders of physical education and the development of women's intercollegiate sport materialized (Sack & Staurowsky, 1998). A decade later Title IX would appear and change the future of collegiate athletics for women.

Title IX

Title IX is an Amendment to the Higher Education Act of 1972. The law prohibits colleges and universities from excluding students, on the basis of sex, from participation in or benefiting from any educational program or activity that receives federal financial assistance (Suggs, 2005). Schools are required to comply with Title IX in three areas:

participation opportunities, equitable distribution of scholarships, and equivalent resources (coaches, travel, and equipment) according to the Office of Civil Rights. With regards to participation, a three pronged test, created in 1979 by the OCR, is utilized to determine if participation opportunities represent the overall full-time student population. Each institution has the option to comply with any of the three prongs.

The first and most frequently used prong is substantial proportionality. According to the OCR, an institution is in compliance with Title IX if the shortfall of athletes needed to be in compliance is not enough to field a team; otherwise the institution is not in compliance. Substantial proportionality compliance is often assumed by researchers to be within 3-5% (Anderson, Cheslock and Ehrenberg, 2004). For example, a university with females representing 47 % of its athletes and an undergraduate full-time student population of 51% women would be in compliance in research studies. Recent recommendations from the Secretary's Commission on Opportunities in Athletics could change the way substantial proportionality figures are created and interpreted. One recommendation is to not include non-traditional students when figuring the population percentage (Simon, 2005). This could swing the undergraduate population in favor of one gender or the other based on programs offered by the institution. Substantial proportionality as a guide for determining participation compliance requires redefining and retooling as it continues to be the prong of choice.

Prongs two and three are not quantitative approaches to proportionality and thus are infrequently used. Prong two can be used if an institution can show historical progress towards the goal of proportionality by the addition of opportunities (not the deletion of opportunities of the overrepresented sex) and a plan to continue doing so. Unfortunately

this prong requires financial resources to start and maintain new sports, financial resources that aren't available. It is important to note, the financial problems college athletic departments have are not because of Title IX or its guidelines (Zimbalist, 2005), but problems exist and thus make prong two difficult to accomplish.

The third prong affords compliance if an institution can prove that the underrepresented sex (females) is fully and effectively accommodated. To utilize prong three, an institution must provide a team if there is sufficient interest and ability for a viable team and reasonable expectation of competition for that team in the institution's normal region of play (NCAA, 1999). Measuring and comparing interests is a questionable approach. Kimberly Yuracko, Law Professor at Northwestern University Law School, sees the distribution of athletic positions based on interest levels expressed by female and male students as "theoretically unjustifiable and practically problematic" (Simon, 2005). Carpenter and Acosta point to the numbers representing the growth in female collegiate athletes over the past 30 years and emphasize the mantra, "if you build it they will come" (Carpenter & Acosta, 2005). No matter what prong an institution utilizes to comply with Title IX, the female population of the institution becomes a key component in the effort.

Commercialism

Sponsorship of collegiate athletic programs can be linked back to Jerry Tarkanian in 1977 with a deal he signed with Converse. A year later Nike saw an opportunity to outbid Converse for UNLV's men's basketball team and shortly thereafter sponsorships escalated rapidly (Zimbalist, 1999). The funds from sponsorship supplied a relief from deteriorating public funds. What started out as a sneaker deal, has led to a campaign of

commercialism. Teams are fitted with Nike logos, Addidas apparel, or Reebok jerseys. Tostitos, AT&T and Chick-Fil-A sponsor bowl games. Interviews of coaches and athletes both before and after contests contain backdrops littered with logos. NCAA Division I athletics has become an important vehicle by which corporations advertise their brand.

Branding is the current emphasis of all multinational corporations according to Naomi Klein in *No Logo*. The successful corporations are no longer selling products; brand names are the primary production of corporate giants (Klein, 2002). With the corporate sponsorship looking to pass the menial task of manufacturing goods to the “...contractors and subcontractors whose only concern is to fill the order in on time and under budget (... where labor is dirt cheap, laws are lax and tax breaks come by the bushel)” (Klein, 2002), the NCAA, and other college organizations, proved a perfect fit for local marketing. An unpaid workforce, the athletes, then becomes one of the primary marketers of the brand. As the NCAA has shown in its futile attempts at controlling the sanctity of amateur athletics, laws exist but enforcement is lax. Tax break is an understatement. When the IRS attempted to tax sponsorship money through unrelated business income tax (UBIT) in 1991, a strong lobbying campaign forced the IRS to backpeddle to a feeble draft of its original guidelines. The new guidelines would keep sponsorship and advertisement dollars exempt as long as the logos did not contain qualitative or comparative descriptions (Zimbalist, 1999). Colleges could supply the multinational corporations an easy way to peddle their products in return for a desperately needed revenue stream.

Junior colleges have felt similar trends, with less intensity. The COA and NJCAA, seek out and sign deals with equipment manufacturers to be sole providers of

specific equipment. Coaches have deals with equipment manufacturers offering discounted services and benefits in exchange for sole rights to represent the team. The athletes wear uniforms and use equipment littered with logos advertising apparel and equipment companies. Booster clubs exist, representing programs and/or individual teams, with the sole purpose to raise money in an effort to bolster the programs resources. As cable networks continue to diversify (ESPN has launched ESPNU, a station dedicated to intercollegiate athletics) in an effort to capture more athletic competitions, NJCAA and NAIA competitions could potentially become televised events. If this happens, the trickle-down effect will dramatically impact the degree of commercialism to junior colleges.

Amateur Status

Amateurism, as it is loosely defined, has been an ongoing struggle for college athletics. The NJCAA handbook states:

Amateur athletes are those who engage in sports for the physical, mental or social benefits they derive in participation and to whom athletics is an avocation and not a source for personal financial remuneration.

(NJCAA, 2007)

Some critics of the notion of amateurism point to the roots of its existence and claim that it is based on social class status. The wealthy upper class had the ability and presumably the time to play and compete in athletic events without pay whereas the underprivileged lower class viewed participating in sports as an opportunity to put food on the table.

Ronald Smith ,in *Sports & Freedom*, lists 8 categories representing professional behavior intercollegiate athletic programs and teams have portrayed since the 1800's: competition for valuable, non cash prizes; competition for money; competition against professionals; charging money at the gate; costs not borne by the athlete; recruitment and

payment of athletes; payment of professional coaches and payment of athletic tutors (Smith, 1988). Since its inception the NCAA has struggled with defining and abiding by amateur ideals. “A 1929 Carnegie Commission Report on college athletic found that three fourths of all colleges violated the NCAA’s codes and principles of amateurism and that the practice of compensating athletes was widespread”, (Zimbalist, 1999). In 1956, the NCAA, acting on the ideals of amateurism, initiated the athletics grant-in-aid or scholarship. This was an effort to curb the under the table payments alumni or local businessmen were distributing to athletically worthy students. In the words of the Executive Director of the NCAA at the time, Walter Byers, what the grant-in-aid provided was “a nationwide money-laundering scheme” (Byers, 1995). The following decades would see astronomical increases in coaches’ salaries, scandals involving fraudulent jobs for student athletes, bowl game payouts in the millions and a billion dollar network TV deal for the NCAA Championship Basketball Tournament, March Madness. The presence of athletic professionalism as a permanent fixture in intercollegiate athletics has critics (Sack & Staurowsky, 1998) questioning the likelihood that proposals for amateur models will ever be accepted.

Junior College Athletics

Junior college athletics are governed by one large association, the NJCAA, and several smaller associations; the CCCAA formerly the Commission on Athletics (COA) and the NWAACC. Two-year programs also exist in an association with memberships including four-year colleges in the United States Collegiate Athletic Association (USCAA). The national prominence of the NJCAA deserves a detailed look. Over the last decade the NJCAA has annually governed over 42,000 student-athletes participating

in 24 different regions across the country. The NJCAA began in 1938 in California to sponsor track and field events for junior colleges. By 1949 NJCAA memberships were spread across the country and over the next decade would incorporate swimming, baseball and football to its list of sports. In 1968 membership reached 419 colleges, but not a single women's team (Title IX 1972). Women were officially added to the slate of athletic programs in 1975, boosting membership to 563 and within 4 years the women's division consisted of 471 members. A decade later, 1989, the first woman, Lea Plarski, was elected president of the NJCAA. The decade of the 1990's saw continued growth of membership, sports and divisions. Currently the NJCAA represents 14 men's sports with three divisions (not all sports have three divisions) and 11 women's sports with three divisions. The divisions of the NJCAA are by sport and not by institution, allowing colleges to participate in for division for basketball and a different division for tennis. The stipulation on division is based solely on scholarship amount. Division III sports offer no athletic scholarship to participate. Division I is allowed to offer up to the price for tuition and fees, room and board, and the cost of transportation to and from the college once per academic year. Division II can offer athletic financial support for tuition and fees and books (NJCAA, 2003). Other than tournament sponsorship, the NJCAA oversees eligibility, scholarships, recruitment and practice.

The CCCAA governs all, with a few exceptions, of California's community college athletic programs. The original starting point of the NJCAA, California broke away from the NJCAA and created its own organization in 1951. Originally the California Association of Community Colleges - State Athletic Committee (CACC-SAC) the CCCAA now oversees 108 community college athletic programs. Twelve

conferences represent colleges in California administering all sports (13 for men, 12 for women), only football, or all sports other than football (COA/CCCAA, 2008).

The NWAACC has 36 member schools distributed in four regions representing Oregon, Washington and Canada in junior college athletics (NWAACC, 2008).

Washington State established a junior college athletic association consisting of nine members offering six sports in 1946. In 1964, after doubling in size the association was re-named the Washington Athletic Association of Community Colleges (WAACC). In 1970 when Mt. Hood joined the WAACC, a name change was needed and the MWAACC was established. Currently the NWAACC supports teams in the following sports: cross country, volleyball, golf, basketball, baseball, softball, soccer, tennis, track & field, and wrestling. Although colleges in this association do not compete for national championships in most sports, several do belong to the NJCAA on single sport status. For example, multiple colleges offer wrestling through an NJCAA affiliation, and compete for Region and National championships.

Related Theory

Functionalism

Functionalism (functional analysis) is about the workings and structure of a society. The roots of functionalism, or structural-functionalism, in modern sociology can be traced back to the 19th century work of Auguste Comte (Loy & Booth, 2000). Emile Durkheim turned to the concept of function after establishing that society has structure. Talcott Parsons, heavily influenced by Durkheim, and Robert Merton agreed on the principle question functionalism attempts to answer, “how social phenomena can be treated as dynamically interdependent variables” (Isajiw, 1968). Functionalism views

society as made up interdependent variables which together work to fulfill the functions required for societal survival. In mathematics this system of independency, dependency and interdependency of variables allow for dynamic analysis to create concrete solutions. As Parsons writes, “The ideal solution is the possession of a logically complete system of dynamic generalizations which can state all the elements of reciprocal interdependence between all the variables of the system” (Parsons, 1954). This perfect mathematical ideal understandably is unrealizable, but the pursuit can provide detailed information of the flaws or assumptions.

Parsons’ alternative is structural-functional theory and consists of three steps; simplify the problem by treating groups of the interrelated variables as structural categories (constants), link the structural categories to the dynamic variables in the system, and inclusion of a set of dynamic functional categories which describe the processes by which the categories are maintained or upset and the relation of the system to its environment (Isajiw, 1968). Merton took a different approach, attempting to make functional analysis practical to research. Emphasis on middle-range theory allowed Merton to deal with some of the limitations of Parsons grand theory (Merton, 1996). The central orientation of Merton’s functionalism lies in the practice of interpreting data by establishing their consequences for larger structures (Isajiw, 1968).

Structural-functionalism reached its peak in the middle of the 20th century in sociological research. Sport sociology utilized the theory while building itself a niche in the late 60’s and early 70’s just as criticism of functionalism was reaching its peak in broader sociology circles. Functionalism gave early sport sociologists a holistic approach to view sports as a reflection of society as a whole. Sport sociologists utilized functional

theory to defend themselves against charges that they were involved in trivial scholarly work (Loy & Booth, 2000). After an initial reliance on functionalist thought, sport sociologists soon followed the path of sociologists, utilizing conflict, interactionist and feminist theory to research sport in society.

The functionalist approach assumes sport is a valuable secondary social institution benefitting society (Coakley, 1989). The four basic system requirements of a functionalist approach are pattern maintenance, integration, goal attainment and adaptation (Coakley, 1989). Junior college athletic programs are viewed with a functionalist lens; they provide a valuable secondary option for high school and returning students to increase social mobility through higher education attainment providing pattern maintenance. Integration is achieved through recruitment of student athletes across cultural, socioeconomic and racial classes. Goal attainment is achieved by promoting competition. Physical fitness is essential to good health and disease control and as society becomes more robotic and reliant upon machines to do the physical labor, athletics becomes one of the remaining avenues to promote healthy living. As society gradually changes so do the organized systems, junior college programs are expected to change and adapt as the larger system, society, changes. Junior college athletic programs are unique in that they serve multiple systems; national and regional associations, state systems of higher education, higher education in general.

Several shortcomings of functionalism in explaining sport as a sub-system of society are: exaggerated statements of the positive effects of sports, assumption that if it lasts it must be good, needs of individual are the same as the needs of the system, it only benefits those in power or those with wealth (Woods, 2007; Coakley, 1989). I do not

pretend to ignore the weaknesses of functionalist theory and future studies can complement this work by utilizing a critical, conflict or feminist lens. The functionalist lens used to analyze the results of the research will incorporate Institutional Theory, Resource Dependency Theory and Gender Equity.

Institutional Theory

Institutional theory is defined by the development of structures for external legitimacy as opposed to internal efficiency (DiMaggio & Powell, 1983). This theory is characterized by isomorphic behavior caused from an external source. A coercive source is generally a governmental regulation, or law, or political influence which places constraints on an organization. The mimetic change typically occurs in times of uncertainty, drawing the organization to mimic successful organizations in other fields. Normative isomorphism stems from professionalization and pressure to conform within the field (DiMaggio & Powell, 1983). In Steven Lukes' (1978) dimensions of power, institutional theory resides most prominently in the third dimension where the organization is socialized to do what a source of influence wants the organization to do.

Is it the norm for community colleges to operate athletic programs? Currently over 600 community colleges in the U.S. sustain an athletic program and more are on the way. North Carolina's community college system recently formed a task force to investigate the addition of more athletic teams, by adding to existing programs and creating new programs (Ashburn, 2007). In an effort to keep up with the Jones's, community colleges with singular missions have expanded to comprehensive missions, adding athletics to provide a traditional college environment. GateWay Community College, in Phoenix, has slowly built an athletic department as part of a structural change

to provide opportunities in general education and transfer courses. The college began as a business and technical college, but since 2001 the college has added soccer, baseball, softball, and cross country to an urban campus, playing throughout the city at different parks.

The national government's power and authority, although considerably weaker with this population of higher education institutions, extends to the playing fields through Title IX. The organizational change brought about by the governmental mandate of gender equity has provided women with more opportunities, some argue at the cost of opportunities for men. A disconnect between the formal structure of Title IX compliance and the actual practice of gender equity in athletics exists.

State government promotes homogeneity in community college athletics through political influence. Two of the largest community college athletic program states, Florida and California, govern with coalitions and associations. In California "As authorized by the State Legislature, the Education Code provides the COA the opportunity and authority to establish the rules and regulations to administer the athletic activities of the nearly 25,000 men and women student athletes in the state" (COA-CCCAA website, 2008). Florida's community colleges are governed by the Florida Community College Activities Association a "...statewide non-profit corporation regulating, coordinating, and promoting intercollegiate activities in: Athletics ..." (FCCAA website, 2008). In both states, it is clear one unifying body "regulates" intercollegiate athletics, formally applying pressure to conform to the ideals of the governing entity.

Normative pressures stem primarily from professionalization (Dimaggio & Powell, 1983). Within the athletic program the athletic director leads the change efforts

locally (his or her campus), regionally (conference representatives) and nationally (members of associations). The position of athletic director is characterized by strong regional and national networks often formed in the previous occupation of most director's, coaching. In an effort to legitimize their presence in higher education, junior colleges have mimicked their 4-year counterparts. The NJCAA for example utilizes NCAA rulebooks for sports, adopts similar policies (gender equity statement, letter of intent, and eligibility) and actively searches for external funding.

Resource Dependency Theory

Resource Dependency Theory was first formalized by Jeffrey Pfeffer and Gerald R. Salancik in *The External Control of Organizations: A Resource Dependence Perspective* in 1978. The core argument of Resource Dependency Theory is that organizations will respond to demands made by external organizations that provide valuable resources, and organizations will in turn try to minimize the dependence (Pfeffer, 1982). Management of this dependence can be a two-pronged approach; bridging and buffering (Scott, 2003). In an effort to reduce resource shortages, an organization incorporates a "bridging" strategy by strengthening the bond between the two organizations with inclusion techniques. By allowing the organization with resources to be part of the dependent organization's planning and decision making processes, the resource organization is more likely to assist when necessary and less likely to decrease the amount of the resource. Buffering strategies are temporary coping mechanisms, adjustments to operations which soften the blow of temporary shortages in resources (Scott, 2003). When faculty and staff are asked to do more with less, a buffering strategy is likely the cause of the request.

Institutions of higher education are reliant on outside bodies for resources; local, state and federal government appropriations and grants, tuition and fees, and private funding. Community colleges receive resources primarily from state or local appropriations and tuition. Although the federal government provides resources through grants, community colleges rely on the federal government much less so than their four-year counterparts. Public community colleges specifically will rely heavily on either state or local appropriations. For example, Arkansas community colleges overwhelming revenue source is the state, whereas Arizona's source is the county or local government, 2 to 1 over state or tuition. If community colleges are propelled to do what the external revenue contributors desire, then these colleges are heavily influenced by either state or local government.

Local control of revenue sources provides individuals (college administrators) and/or small groups, such as governing boards, with more flexibility to implement an athletic program that suits local expectations. Serving the community with community resources dictates programs that provide opportunities for members of the community. Whether the college is urban, suburban or rural a small group of individuals can dictate the depth and breadth of an athletic program and the best way to fund these programs to meet external stakeholders' needs.

A community college relying on a large portion of revenue from the state is influenced by state mandates or regulations. In North Carolina, community colleges' overwhelming revenue source is state funding. However, North Carolina law does not allow for state funding to be utilized for athletics. According to a recent survey, colleges in the North Carolina Community College System (NCCCS) fund their athletic programs

with student activity fees, booster clubs, fundraising and foundation funds (NCCCS, 2007). A college's reliance on fundraising to operate a program is subject to an inconsistent resource. Florida has a strong association of community colleges participating in intercollegiate athletics. Like North Carolina, Florida community colleges rely heavily on state funding (local funding is currently part of a state amendment colleges are hoping passes to alleviate some of the pressure the current economy has placed on them). North Florida Community College recently dropped all athletic programs to combat a \$500,000 loss in state funding

Conclusion

Historically, junior colleges provided relief for four year institutions, either as a strainer to re-direct those not suitable for higher education or as a detached overspill allowing students to begin their first two years closer to home when universities had reached maximum capacity. The transfer mission of these early two-year colleges soon gave way to a comprehensive mission providing education in vocational areas as well as the standard college curriculum. As missions broadened, the financial support of these community colleges expanded. Government acts like the GI Bill helped open the doors to a segment of society in need of job training and education.

Mirroring the growth and diversity of community colleges, intercollegiate athletics expanded throughout the 1900's. With efforts to maintain an amateur athletic ethos; colleges, conferences and associations acted and reacted to reform suggestions. Academic integrity, amateurism, commercialism and minority and female participation have all taken center stage over the last century, some on more than one occasion and all continue to be topics of conversation in intercollegiate athletic research. The Venn

diagram intersection of these two sets, community colleges and intercollegiate athletics, has existed in relative obscurity. Junior college athletic programs go back as far as the 1920's. Over the last 80 years the presence and size of junior college athletic programs have grown. Multiple external sources have a hand in the operation of a junior college athletic program: state and local politics control revenue, state and local administrative entities control program design and implementation, regional and national associations (CCCAC, NWAACC, NJCAA) govern the rules and regulations, and outside organizations (NCAA, NAIA) control upward mobility. To operate a junior college athletic program, community college constraints and the politics of intercollegiate athletics combine to create a unique atmosphere, an atmosphere with little to no quantitative research providing insight to this sector of intercollegiate athletics. Chapter Three discusses the methodology of the study, preparing to answer the research questions and initiating the discussion surrounding junior college athletic programs.

CHAPTER 3

METHODS

This study seeks to uncover information regarding junior college athletic programs in an effort to include these programs in further research focused on community colleges and intercollegiate athletics. The quantitative analysis of the research questions utilizes two distinct samples. First, the sample, variables and methods for answering the historic participation research question are outlined. Data for this sample was retrieved from archives located at the NJCAA national office. A thorough description of the variables and descriptive measures completes the summary of the data and methods. The remaining four research questions are focused on current junior college athletic programs utilizing a common base sample of data.

Data was collected from multiple sources; Integrated Postsecondary Education Data System (IPEDS), Equity in Athletics Disclosure Act (EADA), National Association of Two-Year College Athletic Administrators (NATYCAA) and NJCAA Handbooks. IPEDS data are made available through the National Center for Education Statistics' website (<http://nces.ed.gov/ipeds/>) and were downloaded from three categories; enrollment, finances, and institutional control. The Higher Education Act of 1992 mandated completion of the IPEDS surveys and in 2000-01 the program was completely redesigned to a fully web-based system (NCES, 2008). The EADA passed in 1994 but it wasn't until 2000-01 that all institutions of higher education with athletic programs were

required to send the information to the Office of Postsecondary Education (OPE) (Cheslock, 2007). Until 2000-01, institutions were only required to supply inquiring parties with the data. EADA and IPEDS data used for this study were retrieved and cleaned utilizing similar methods to Cheslock, (2007).

Since multiple data sets from different agencies and associations were merged together, the data required extensive cleaning in order to create samples for each research question. “Data cleaning, also called data cleansing or scrubbing, deals with detecting and removing errors and inconsistencies from data in order to improve the quality of data” (Rahm & Do, 2000). The data represents a new strand in intercollegiate athletic research, it is imperative for initial efforts to begin with as few inconsistencies as possible. The sample size, dependent and independent variables are presented in Tables 3.1 – 3.4 with descriptive statistics. A detailed review of the computer program, regressions and specific descriptive summaries for each regression is included. Outcome expectations conclude the chapter.

NJCAA History

Sample

The first research question is based on data retrieved from the NJCAA regarding junior college athletic programs affiliated with the association. The NJCAA is and has been the largest association of junior college athletic programs, representing over two thirds of the programs that exist. Starting with 1968, pre-Title IX, and moving through the decades of the 70’s, 80’s and 90’s, college and sport specific participation was collected. Two samples were created; a sport tracking sample and a consistent sample representing those colleges in the association over the 33 year period. Both samples are

disaggregated by gender; with women's data starting in 1976 one year after the Board of Directors approved a Women's Division for the NJCAA (NJCAA, 2007). The data for the most recent year (2001) of the sample was then merged with EADA data from the same year for comparison purposes. A summary of the data sets is provided in Table 3.1.

Table 3.1 Participation History

NJCAA Colleges	
Sample	# of Colleges
<u>Consistent</u>	
Men, 1968-2001	238
Women, 1976-2001	238
<u>EADA - NJCAA</u>	442
<u>Change</u>	
- 1968 to 1976	275
1976 to 1984	377
1984 to 1991	394
1991 to 1996	417
1996 to 2001	453

Copies of NJCAA handbooks dating back to 1968 are housed at the NJCAA's national office in Colorado Springs, CO. The handbooks contained participation listings for each junior college in the association, disaggregated by division and sport. I made copies of all the listings and tables contained in these handbooks and then manually entered the information into excel spreadsheets containing current institutional identification and names. Over a forty year period of time names of institutions changed,

and some 2-year colleges became 4-year institutions or closed their doors altogether. Colleges without current unitid's were provided temporary unitid's. A thorough background check of institutions with temporary unitid's resulted in name change matches and/or a termination of tracking as a 2-year program. Using the sport total tables in the handbooks I was able to cross check the input values with the stated totals to catch any human error. This data set is unique and provides information currently unavailable in any other data set.

Variables

In all of the descriptive tables for the first research question the sport variables describe the total number of teams associated with each specific sport. Only those sports recognized by the NJCAA during the time period are reported. Several sports were initiated or eliminated during the 33 years and thus only partial data is reported. Club sports or sports served by other associations, such as Rodeo and the National Intercollegiate Rodeo Association (NIRA), are not included in the sample. Gender and year are used to disaggregate the information.

Methods

NJCAA participation information from the past 35 years is analyzed. Historical analysis is useful in acquiring knowledge of previously unexamined questions (Marshall & Rossman, 1999). This data's strength is in its breadth, not depth, as it potentially represents the biggest growth and change in junior college athletics history. Historical institutional data for a set of colleges this large over the time period would be difficult to accurately acquire. The absence of technology as a recording tool for institutional information from the 1960's through 1980's limits specific information retrieval

regarding institutional characteristics. Without the ability to merge institutional data, the analysis of historical data is limited to summary statistics. A summary of sport participation simply required totals disaggregated by sport and gender. In order to discuss the trends in sport with a measure of consistency, those institutions reporting data throughout the time period were disaggregated from institutions that joined the association after 1968. Six years were summarized for men ('68, '76, '84, '91, '96, and '01) and five years were summarized for women ('76, '84, '91, '96 and '01). To investigate time period trends, sport changes by gender were totaled for all colleges reporting data in each of the two years.

Presence-Size-Sport-Success

Sample

The quantitative analysis of the remaining research questions focused on the current trends in junior college athletics. The IPEDS data set containing demographic information was the initial data set used to disaggregate 2-year colleges. Values of 33 (Baccalaureate/Associate Colleges) and 40 (Associates Colleges) were selected providing 1616 possible institutions. These colleges were then cross tabulated with the sector variable. Results of the cross tabulation lead to the deletion of all institutions with Carnegie values of 33. This leaves 1561 possible institutions in the sample. One hundred eighty seven colleges with Carnegie values of 40 were also not included in the cross tabulation with the sector variable values of 4, 5 or 6 (public 2-year, private not-for-profit 2-year and private for-profit 2-year) and subsequently those institutions were deleted from the sample, narrowing the total to 1374. A second data set from IPEDS including the finance variables was then merged. Discrepancies in reported financial data or lack of

data altogether reduced the set to a final total of 1261 community colleges. Table 3.2 lists the sample sizes for each regression.

Table 3.2 Regression Sample Sizes

-	Sample Size	
	Full	Public
Regression		
- <u>Athletic Presence</u>	1261	904
<u>Program Size</u>	574	544
<u>Individual Sports</u>	574	544
<u>Program Success</u>		
Scholarship	167	NA
Non-Scholarship	65	NA
State	103	NA

Independent Variables

Each sample includes multiple independent variables. The independent variables are often referred to as regressors (Stock & Watson, 2003), predictor variables or explanatory variables (Triola, 2007) for regression analyses. Within the independent variables, continuous and dummy variables exist. The continuous variables are often reduced to manageable numbers or percents in an effort to make regression results easier to interpret. The descriptive statistics of each independent variable are listed in Table 3.3.

Public, Private Not for Profit or Private for Profit represents the governance structure behind the junior colleges. Public community colleges are disaggregated for

Table 3.3 Independent Variables for Regressions

Outcome	Athletic Presence		Size and Sport	
	No	Yes	No	Yes
Approp & Pell				
Public	0.457 (0.498)	1 (0)	0.967 (0.179)	1 (0)
Not For Profit	0.760 (0.427)		0.028 (0.165)	
For Profit	0.063 (0.242)		0.005 (0.072)	
Rural	0.178 (0.382)	0.347 (0.476)	0.334 (0.472)	0.336 (0.473)
Enrollment	2.973 (3.367)	3.917 (3.498)	4.460 (3.654)	4.592 (3.647)
Full Time %	52.7 (22.7)	43.1 (13.5)	45.5 (15.2)	44.3 (13.5)
Female %	58.8 (15.1)	57.4 (7.9)	56.0 (7.5)	56.1 (6.8)
Black %	15.7 (17.8)	13.6 (16.5)	12.9 (15.5)	12.6 (15.5)
Tuition In	4.445 (4.482)	2.453 (1.396)	2.757 (2.143)	2.476 (1.506)
Tuition Out	6.772 (3.996)	5.605 (2.493)	5.498 (2.406)	5.303 (2.124)
Northeast	0.194 (0.396)	0.142 (0.349)	0.171 (0.377)	0.167 (0.374)
West	0.286 (0.452)	0.331 (0.471)	0.390 (0.488)	0.401 (0.490)
Southeast	0.268 (0.443)	0.277 (0.448)	0.179 (0.384)	0.178 (0.383)
Midwest	0.251 (0.434)	0.251 (0.434)	0.260 (0.439)	0.254 (0.436)
NJCAA			0.721 (0.449)	0.721 (0.449)
CCCAA			0.172 (0.378)	0.175 (0.380)
NWAACC			0.056 (0.230)	0.059 (0.236)
Pell		1.277 (0.607)		1.227 (0.578)
State App		3.781 (1.901)		3.413 (1.749)
Local App		1.603 (2.205)		1.871 (2.015)

each regression to include the state and local appropriation and Pell grant independent variables. Private colleges, for profit or not, at the junior college level reached their peak in the late 1940's. Since then many have either merged with senior institutions or have closed their doors (Cohen & Brawer, 1996). Small enrollments, focused curriculum and mission provide private 2-year institutions a niche in the higher education market, however athletic programs rarely fit in this niche.

Rural community colleges represent a large population of the 2-year sector with residential housing. Ninety three percent, 190 of 206, of public community colleges with housing facilities are considered rural in the 2005 Carnegie classification (Moeck, 2007). Housing options allow coaches to recruit student athletes from outside the local community to these rural areas. Similar to the allure of 4-year scholarships, student athletes can be given the chance to experience college campus living, a difficult task for urban or suburban commuter colleges. A difficult task for rural colleges, however, is to secure the appropriate funding required to operate all programs. Compared to urban or suburban colleges, rural community colleges have higher operating costs per student; an issue states' funding formulas fail to recognize (Katsinas, 2003). Higher operating costs could lead to fewer or smaller in scope auxiliary programs, such as athletics.

The student body population of junior colleges is expected play an interesting role in the presence of, size of, sport offerings and success of athletic programs. Enrollment, full-time percent, female percent, and black percent were chosen as variables to represent the demographic characteristics of the colleges. Enrollment numbers are not an exact science and with part-time students a larger portion of the student population attending community colleges definition variances need to be discussed. Since these numbers are

often used in funding formulas for public community colleges it is important to understand the state definition of Full Time Equivalency (FTE). A 50 state survey from 2000 sponsored by the Center for Community College Policy and the Education Commission of the States lists 37 states with a common definition of 30 annualized credit hours as one FTE. Nine other states utilized credit hours ranging from 24 to 32 to define one FTE. The remaining states calculated contact hours (CCCP, 2000). Enrollment, defined by the number of FTE, was retrieved from IPEDS as the 12 month FTE enrollment.

Full-time status is a larger proportion of the undergraduate population at 4-year colleges, but in two-year colleges the role is reversed. Based on survey data collected for a student aid study, approximately 31% of the students are estimated to attend community colleges exclusively full-time (NCES, 2008). Forty-six percent of those in the study stating “a more committed” intent to transfer to a four year college, attended full-time. A full-time variable can lend reference to the overall mission of the college. Community colleges focusing on transfer programs or providing residential housing services are more likely to promote or mandate full-time enrollment by students. Given the full-time requirement for athletic participation, the full-time percent of junior colleges with athletics is expected to be greater than those without. The full-time percent variable is the result of IPEDS’ estimated full-time enrollment variable divided by the estimated total enrollment, multiplied by 100.

Title IX’s application to athletics has commanded more intense attention throughout governance structures than any other area under its jurisdiction (Carpenter & Acosta, 2005). The proportion requirement of the law compares the opportunities for

each gender with that of the entire undergraduate population. As females make up an increasingly larger proportion of the student population in community colleges, 59% in 2003-04 compared to 55% in four-year colleges (NCES, 2008), equity in athletics participation would appear to be as difficult if not more difficult to accomplish. Females as a percent of the undergraduate student population, was created by dividing the total female variable by the total population variable from IPEDS data.

Given that minority students are increasingly concentrated in community colleges (Shaw & London, 2001; Nettles & Millett, 1997) one could infer transfer education provides these students a route to four year colleges through transfer. However, once attending, white students are more likely than Hispanic or black students to engage in associate degree programs. A recent NCES study of U.S. community colleges based on the 2003-04 academic year lists black students as 15% of the overall population, yet 19% of the “more committed” certificate seeking students and 21% of the “less committed” certificate seeking group (NCES, 2008). Community colleges appear to be “cooling out” the black student population to a larger degree than providing access to a four-year education.

At the NCAA Division I level, black student athletes rank second behind white student athletes for both genders and clearly outdistance other minority groups (Lapchick & Brenden, 2006). Unfortunately these athletes have been pigeon holed into certain sports and even certain positions within sports. For example, black female student athletes make-up 45% of the women’s basketball players, 26% of the cross country and track & field participants, but only represent 5% of the other female sports. The black male student athlete out participates white male student athletes in basketball and is

nearly equal in football, even though they represent only 25% of the male student athletes (Lapchick & Brenden, 2006). The similarity (access... but to what) of the academic community college experience as a student and the intercollegiate athletic experience can provide insight into the significance of race in junior college athletic programs.

As state funding for community colleges continues to decrease as a proportion of the overall disbursement, tuition and fees have become community colleges most malleable resource. Unfortunately this increase in tuition and fees has not been matched by federal and state financial aid (Katsinas, 2003). Tuition and fees for community colleges are listed as local, in-state and out of state in IPEDS. A comparison of local and in-state tuition costs revealed scarce if any differences in these two IPEDS variables for the institutions in this sample so in-state was chosen to represent the common cost of state residents. In an effort to control the size of the data, both variables were divided by 1000. The role of tuition and fees is two-fold. First, as discussed earlier, tuition and fees are the third major revenue source for community colleges. Often this is the source colleges use to assist the athletic programs. Second, tuition and fees become an interesting variable for college coaches if scholarships are provided. Intra- and Interstate partnerships are often created to ease the burden of expensive non-resident charges. The Western Undergraduate Exchange (WUE) is a program of the Western Interstate Commission of Higher Education (WICHE) promising a discounted out of state tuition rate of 150% of the resident rate to students in 15 western states (WICHE, 2007). Programs such as these allow coaches to recruit outside the college's state without the out of state tuition burden on scholarship allotments.

The geographic region variables (West, Northeast, South and Midwest) consist of the 50 U.S. states plus Washington D.C. A region variable, common in regression analysis involving nationwide data, provides insight into the cultural and historical trends of higher education and sports from across the country. IPEDS data separates the group into 10 regions labeled 0 through 9, including US service schools and outlying areas. To condense the variables to 4 regions, the Bureau of Economic Analysis' region definition was utilized; each region contains 12 states with the West as the lone exception with 15 (Bureau website, 2007). IPEDS regions zero (US service schools) and nine (outlying areas) were eliminated; regions one and two were merged to create the Northeast, the Great Lakes and Plains regions were combined to form the Midwest, regions 6, 7 & 8 made up the West and the Southeast remained as is.

An athletic association defines the guidelines an athletic program is willing to operate under. Four extremely different associations exist for junior college athletic programs. The NJCAA, mimicking the NCAA, is nationwide, provides national championship tournaments and disaggregates its members by region and scholarship availability. By far the largest, the NJCAA consists of over 500 colleges nationwide. California public community college athletic programs belong to the state governed CCCAA. Over 100 athletic programs operate in the state participating in as many as 18 sports. The budgets for travel and scholarship are extremely limited and state championships represent the culmination of the season. Junior college programs in the northwest, mainly Oregon and Washington, also keep team championships local but the NWAACC governs without the direct tie to state funding. Colleges in both of these associations have historically participated in the NJCAA for specific sports not supported

within the CCCAA or NWAACC. The fourth association junior college athletic programs belong to is the USCAA, an organization dedicated to small schools, both two and four year. The strong presence of four year colleges in the association eliminated those junior colleges affiliated with the organization from this study. EADA data was categorized by association affiliation, thus with each of the appropriate variables a dummy variable was created.

Federal Pell Grants provide low-income undergraduates grants in an effort to promote access to higher education. The program bases the amount of need on the students expected family contribution (EFC) and the cost of the institution. By definition this assists and hurts community college students. As the college that overwhelmingly is attended by those students from low socio-economic backgrounds, the Pell Grant assists based on the EFC. However, community colleges' attempts to keep tuition low and thus the cost of the institution low can have the opposite effect. Of the major findings of a recent report on the California community college system, one stressed the absence of federal financial aid for community college students in the state. Under similar circumstances, only 15% of California community college students receive Pell Grants, compared to 25% of community college students in other states (Zumeta, 2007). Keeping the cost of tuition low, keeps the Pell Grant low while other costs associated with attending college (textbooks, housing, insurance, day care) have increased at a rate above general inflation. Many community college students rely on the Pell Grant to offset the cost of higher education, student athletes have been used to offset the scholarship costs to the college.

The Pell Grant has played a significant role in recruiting and retaining student athletes. Before it was renamed the Pell Grant, the Basic Educational Opportunity Grant (BEOG) became a tool for coaches in the mid 1970's. When the value of the grant tripled between 1973 and 1975, college officials suggested to coaches that each student athlete should be filling the paperwork out (Byers, 1995). This set off a chain of events that started with colleges promising full ride athletic scholarships minus federal financial aid, essentially using an athlete's Pell Grant to subsidize the athletic scholarship fund. By 1982 athletes were allowed to keep up to half of the Pell Grant and in 1990 student athletes could keep \$1700 of the \$2300 grant. Currently an athlete can receive a full ride scholarship and keep 100% of the Pell Grant awarded. The Pell Grant plays an important role for community colleges and for student athletes. Incorporating the Pell Grant, essentially as federal funding, with the state and local appropriations limited the variable to the public community colleges. The Pell Grant Variable from IPEDS was divided by the enrollment variable for each institution and then again by 1000 to assist in the analysis of the regressions.

State and local appropriations provide a majority of the resources for public community colleges. Community colleges depend on these resources to varying degrees. Community colleges in Arizona and Wisconsin relied on local appropriations for over 50% of operating budgets in 1998-99 whereas Kentucky and Florida received less than half a percent from local funding. State dependence was extreme in North Carolina, Connecticut and Arkansas. All three states' operating budgets were funded over 70% from state appropriations (Romano, 2005). As state and local economies fluctuate, dependence on these resources creates annual struggles as community colleges are in line

behind public elementary and secondary education and healthcare. As an auxiliary program, athletic program elimination or depletion is an easy way to save money for colleges struggling to keep finances in order. A fiscal year 2010 cost cut scenario in response to potential funding cuts has St. Louis Community College raising tuition, eliminating child care and reducing the athletic program by over half a million dollars (SLCC, 2009). For the research both the state and local appropriations variables were divided by the college's FTE variable to provide a per student amount. These figures were then divided by 1000 to create variables to interpret in the regression analysis.

Dependent Variables

The dependent or response variable (Triola, 2007) or regressand (Stock & Watson, 2003) modeled in a regression is not completely determined by a single or even

Table 3.4 Regression Dependent Variables

Variable	App & Pell	# of Obs	Mean	Std. Dev.
Presence	N	1261	0.457	0.498
	Y	904	0.604	0.489
Total Athletes	N	574	129.369	93.393
	Y	544	131.042	94.008
Number of Teams	N	574	7.854	4.659
	Y	544	7.949	4.665
Football	N	574	0.228	0.420
	Y	544	0.235	0.425
Wrestling	N	574	0.096	0.295
	Y	544	0.096	0.294
Men's Track & Field	N	574	0.211	0.408
	Y	544	0.215	0.411
Women's Track & Field	N	574	0.218	0.413
	Y	544	0.221	0.415
Women's Soccer	N	574	0.401	0.490
	Y	544	0.399	0.490
Softball	N	574	0.721	0.449
	Y	544	0.728	0.445
Scholarship	N	167	27.195	27.324
Non-Scholarship	N	65	27.738	35.648
State Association	N	103	40.660	44.926

multiple regressors but by the probability of a regressors influence and the magnitude of the influence that can be inferred. Table 3.4 provides the descriptive statistics of the dependent variables analyzed for the research questions.

The first regression concerns presence of an athletic program. This variable is a dummy variable created by totaling the number of sport offerings in the EADA data. A zero represents institutions with no sport offerings listed and a 1 represents those junior colleges offering at least 1 intercollegiate sport. Approximately 576 institutions in the sample including private institutions operate athletic programs. After reducing the sample to include the Pell and appropriations variables, eliminating private colleges, approximately 546 junior college athletic programs remain. Dropping over 350 private institutions in the sample decreased the athletic program sample by just 30.

Sample two researches size of junior college athletic programs with two different dependent variables, total athletes and number of teams. With the variance of athletes by sport (football with 75-90, golf with 5-10) a program could be seen to provide offerings in depth or breadth. Both variables are simple sums of variables existing in the EADA data set. A subset of the institutions from the first sample of colleges known to have athletic programs provides the sample necessary for the analysis. No new data was merged or deleted for the second sample. The average junior college athletic program in the sample supports on average 130 student athletes, the largest of which had 653 student athletes in 2004-05. Junior college programs operate close to 8 teams on average and are typically run at public institutions (96.7%) Focusing on public institutions requires little change in the sample (decreasing the sample size by 30) thus the minimal changes in the descriptive statistics were expected.

Utilizing the same sample as the size variable, individual sports become the focus of the regressions. Dummy variables were created representing presence of each specific sport (Football, Wrestling, Men's Track & Field, Women's Track & Field, Women's Soccer, Softball). Softball is the predominant sport, of the six listed, offered by junior college programs across the country; almost double that of Women's Soccer. Men's and Women's Track and Field are offered at similar proportions, likely due to the facilities, equipment and resources required and shared by both. Football, an expensive sport and Title IX proportion buster, survives at the junior college level with 130 programs in the sample. Wrestling programs, on the other hand, continue to struggle at the junior college level, with only 55 institutions offering the sport in this sample.

To determine success of a program, a NATYCAA score was merged into the data set. The data from NATYCAA is not representative of the entire population of two-year colleges as colleges must belong to NATYCAA to receive a score. Although most NJCAA and CCCAA colleges are members, the colleges from the NWAACC did not belong to the association at the time the data set was created. Another factor in the diminishing number of observations in the sample is the base data set. Member institutions that had never earned a single point in the NATYCAA scoring system had not been added to the data set, institutions are added if and when they score. Three distinct subsets exist in the sample; scholarship awarding colleges (NJCAA Div I & II), non-scholarship colleges (NJCAA Div. III) and state association colleges (CCCAA colleges). NJCAA junior colleges account for all the institutions in the scholarship and non-scholarship groups and CCCAA junior colleges account for all the institutions in the state association group, therefore the association dummy variables were eliminated from these

samples. For the state association group, the four region variables were also eliminated since all colleges represent the west region.

Methods

Files containing the raw data are originally transferred from spreadsheets to the statistical software package with Stat/Transfer. Stat/Transfer is a software program that provides secure data transfer between software programs. The program understands statistical data allowing for the raw data in Excel spreadsheets to be transferred into the STATA program. STATA was chosen over SPSS or SAS for its support systems, documentation and the breadth and depth of procedures. Merging, cleaning and analyzing the data in STATA are accomplished by writing code. Once the files are in the system, code is written in a Do file document to merge data sets, adjust and create variables, produce the appropriate samples and ultimately run regressions. This data set contains participation variables of junior college athletic programs from 2004-05 and along with institutional variables describing the demographics, finance and governance of the institutions. This data is analyzed with linear and logistic regressions in an effort to describe junior college athletics.

Linear OLS regression is utilized to assist in explaining program size by number of teams and number of student athletes. Each regression includes two steps, one including private institutions but no local or state appropriations and a second without private institutions including state and local appropriations. Program performance also utilizes linear OLS regression for three categories; scholarship, non-scholarship, and state associations. The linear OLS regression is described in the following formula:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_k X_{ki} + \mu_i, \quad i = 1, 2, \dots, n$$

The dependent variable is represented by Y and each independent variable, or regressor, is represented by an X, with the error term u. Slope coefficients (B) on each regressor, indicate the expected change in the dependent variable resulting from a one unit change in the independent variable, holding the other dependent variables constant (Stock & Watson, 2003). The research questions involving presence of programs and presence of specific sports rely on binary independent variables. Although a linear OLS regression could adequately approximate the nonlinear population regression function, logistic (logit) regressions are performed in this study to capture the nonlinear nature of the function (Stock & Watson, 2003). The population logit model is defined in Stock & Watson's *Introduction to Econometrics* as:

$$\Pr(Y = 1|X_1, X_2, \dots, X_k) = F(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k)$$

The variables (Y, X, B) take on the same roles as for the linear model, the difference occurs in the interpretation of the coefficients (B).

Coefficients of logistic regressions require manipulation in order to provide useful information to describe the relationship between independent and dependent variables. Three possible methods for determining the marginal effect of an independent variable include calculating the odds ratio, finding the marginal probability or solving for a change in probability resulting from a change in X. Marginal probabilities have been criticized because they "...do not correspond to a fixed change in the predicted probabilities that will occur if there is a discrete change in one predictor, while the other predictors are realized at a constant" (Peng et al, 2002). This study utilizes the change in probability resulting from a change in X (Delta P) method.

Given that the graph of a logistic function is non-linear, the change in probability resulting from a change in X can be estimated at different locations on the graph. Choosing the average values of X would provide an estimate for the middle of the data. A second option is to utilize the average values of Y, minimizing the effect of values of variables considered outliers. Estimations can also be derived from specific locations on the graph, ones of particular interest to the study or predetermined values of interest. Lastly, an estimate can be calculated by using all the places on the graph. By utilizing the entire graph the slope, which is often highest in the middle, will likely represent low end estimations, however this method will allow for an answer to the question: what would be the change in mean probability of Y =1, if X was increased by a unit for every observation in the sample. The steps for calculating the expected change in Y resulting from a one unit change in X are outlined here.

- First the predicted value of Y (\hat{y}) is computed using the regression coefficients and each observation's values of the regressors:

$$\hat{y}_i = \frac{e^{(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \varepsilon)}}{1 + e^{(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \varepsilon)}}$$

- Second, the marginal effect is computed using:

$$DeltaP = \frac{\exp([\ln \frac{\hat{y}}{1-\hat{y}}] + \beta_j)}{1 + \exp([\ln \frac{\hat{y}}{1-\hat{y}}] + \beta_j)} - \hat{y}$$

- Lastly the average or mean marginal effects for the values of X are calculated

For comparison reasons a linear OLS regression is run to verify similar results. Once the results have been verified, the original logistic regression coefficient, P Value and marginal effect of each independent variable are reported.

Expected Outcomes

Outcomes of the research are expected to enhance the limited views of junior college athletic programs. Specifically with the historical data, I expect to see the individual sports of the NJCAA to change, reflecting the movements towards team sports and female sports mirroring the NCAA. Wrestling, gymnastics and Olympic sports are going to decrease in participants and total teams meanwhile softball, soccer (men and women) and women's basketball are expected to increase. I expect the total number of institutions involved to increase dramatically given the surge of popularity sports have received, with the assistance from media coverage, in the last four decades.

Private colleges, for profit or not, at the junior college level reached their peak in the late 1940's. Since then many have either merged with senior institutions or have closed their doors (Cohen & Brawer, 1996). Small enrollments, focused curriculum and mission provide private 2-year institutions a niche in the higher education market, however athletic programs rarely fit. The few that do participate are expected to be located in areas with extensive junior college athletic participation or are expected to have small, manageable, cost prohibitive programs.

Nearly all rural, public junior colleges are expected to operate athletic programs. Ninety three percent, 190 of 206, of public community colleges with housing facilities are considered rural in the 2005 Carnegie classification (Moeck, 2007). Housing options allow coaches to recruit student athletes from outside the local community to these rural areas. Similar to the allure of 4-year scholarships, student athletes can be given the chance to experience college campus living, a difficult task for urban or suburban commuter colleges. The urban and suburban colleges are expected to operate larger

programs for two reasons; a larger population of student athletes to recruit, and an advantage in human and fiscal resources. City and community parks, year round club sports, diverse populations and cultures participating and celebrating a multitude of sports provide the interest, knowledge and ability to play and coach a wide variety of sports. Without dormitories and with local community incentives to attend (tuition waivers), these colleges can afford to spend less on scholarship spreading available dollars to multiple sports.

Student athletes are required to be full-time students in order to participate and in most cases need to graduate with a transferable degree to continue their pursuits in athletics at the 4-year level. Thus, it is expected that colleges offering athletic programs will see a distinguishable difference in the percent of full-time students on campus. While full-time percent should increase, female percent of the student body should decrease. Research has shown that the male population at rural junior colleges is over 54% (Moeck, 2007) significant given the national breakdown of community college population by gender favors females, nearly 60 to 40. Colleges with athletic programs are expected to have a smaller percent of females in the population. Title IX's presence has not been felt at the junior college level. Individually colleges may be taking strides to accommodate more female participation, however nationally the numbers illustrate a grim fact: in the recent Women Sports Foundation report the two associations with the largest proportionality gaps represent junior colleges, the NJCAA and CCCAA (COA in the report)(Cheslock, 2007). Without pressure to comply the size of programs should not be affected by the female population of the college, nor should the offering of individual male sports such as Football or Track & Field.

Black student population is expected to have a positive influence on the presence of football and track and field and a negative influence on the presence of soccer and wrestling. Football and track and field are two of the largest participant sports offered in junior colleges and black student athletes have historically been steered to these two sports along with basketball. Shaun Powell describes the phenomenon as “funnel vision”, combining the high cost of club sports, lack of parental and community involvement in black communities and the absence of peer pressure, young black women avoid what are perceived as white sports (Powell, 2008). The recent release of The Racial and Gender Report Card: College Sport reported that black student athletes represented 18% of the male and 11% of the female student athletes competing in the NCAA. However black males represented 60% of the basketball players and 46% of the football players, while black females represented 47% of the basketball players and 24% of the track and field participants (Lapchick, 2009). The black portion of the student population should be positively correlated with the presence of both football and track and field.

Size of the program is expected to be slightly negatively influenced reflecting the financial burden of offering athletic programs in rural and urban communities. Tuition and fees, Pell grant and appropriations provide an estimate of financial expectations. Colleges receiving a greater amount of local vs. state appropriations are expected to have local control over spending on programs, predicting larger programs. The value of Pell grant money as added scholarship should help predict an increased presence and size of athletic programs as well as availability of football. Financial information and population and college demographics will provide a basic understanding of junior college athletic presence, size, performance and opportunities, laying the groundwork for future in-depth

analysis for this stratum of intercollegiate athletics. Chapter Four provides the results of the quantitative analysis and the initial efforts to provide important information for future policy and research.

CHAPTER 4

PRESENTATION OF RESULTS

Chapter four contains the results of both historical data analysis of data collected from the NJCAA, and OLS and logistic regression analysis of 2004-05 data collected from EADA, IPEDS and NATYCAA. Historical results from the NJCAA data spanning back to 1968 are broken down by those institutions consistently affiliated with the organization over the entire time period. Trends in sport participation are discussed. Given the major changes associated with the application of Title IX to intercollegiate athletics, the information over this period is disaggregated by gender. Data for smaller time periods within the initial historical time frame provide a closer look at specific sport participation trends during specific moments in history. Potential explanations for participation changes (financial trends in higher education, Title IX's ongoing court cases, sports participation trends) are provided.

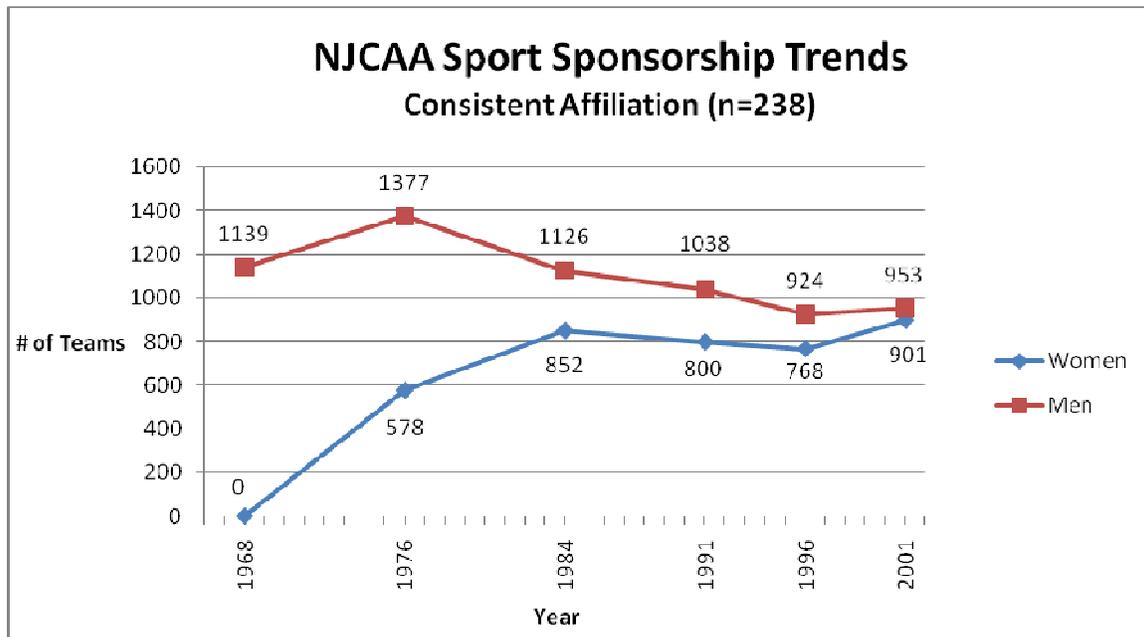
The regressions using 2004 data on community colleges provide insights into what characteristics of community colleges are affiliated with institutional participation in intercollegiate athletics. Once presence of an intercollegiate athletic program is analyzed, the regression analysis turns to size, defined by both the number of athletes and the number of teams. NCAA regulations dictate the minimum number of teams required to participate in each specific division, but the NJCAA has no such stipulation, leaving size of programs completely up to individual institutions. Regressions based on teams and student athletes seek to connect institutional characteristics with the size of the

athletic program. Sport specific regression results are provided for football, wrestling, softball and women's soccer. College football is the leading cause of the intercollegiate athletic arms race of NCAA Division I colleges. Wrestling is wrapped in the Title IX debate, focusing on opportunities for men that have been eliminated. Intercollegiate women's soccer and softball have experienced tremendous growth over the last two decades. Examination of these four sports in junior colleges provides supporting research for the sports within intercollegiate athletics and lays a foundation for future research on sponsored sports in junior college athletics.

33 Year History

In 1968, the NJCAA contained over 300 men's junior college athletic programs, including colleges later affiliated with either the CCCAA or NWAACC. Nineteen regions offered up to eleven different sports ranging from baseball to wrestling. Basketball was the most popular, offered at almost all of the colleges, followed by golf and baseball. Although California colleges continued to retreat to the state's own association, the colleges of the northwest gradually migrated to the NWAACC and others dropped athletics or became four-year colleges, from 1968 until 2001, over 200 institutions remained consistently affiliated with the NJCAA. The 33 year period brought great changes in intercollegiate sport. Specifically in the 1970's, Title IX introduced gender equity. In 1975, the NJCAA Board of Directors approved a Women's Division and a year later 296 colleges were supporting women's athletics through the NJCAA. Fifteen years later, in 1990, the NJCAA would vote in its first female president, Lea Plarski. The following line graph provides an overview of the trends of total sport sponsorship

disaggregated by gender. Community colleges affiliated with the NJCAA throughout the time period are included in the data.



Men

Table 4.1 contains the data from the 238 institutions reporting participation status to the NJCAA for each of the six years of the study. These junior colleges represent the athletic programs with a consistent dedication towards intercollegiate athletics throughout this time period. Several sports are missing data for different years, reflecting non sponsorship of the given sport by any of the 238 colleges.

Soccer and baseball both grew substantially and consistently over the time period. Both sports experienced the largest increase between 1968 and 1976. Soccer increased at the highest rate, expanding from 47 teams in 1968 to 89 teams in 2001. As youth soccer programs in the United States became abundant in the 1970's high schools and colleges stepped up efforts to provide opportunities for adolescents and young adults. Although

the professional version in the U.S. has had difficulties attracting a crowd comparable to football, baseball or basketball, the overwhelming global support for soccer could help

Table 4.1 NJCAA Institutions with Athletic Presence

Institutions Present in All 6 Years Men (n = 238)						
Sport	1968	1976	1984	1991	1996	2001
Baseball	162	186	191	193	201	208
Basketball	233	235	231	232	226	225
Bowling		27	21	13	13	11
X Country	95	97	75	62	52	54
Fencing		3				
Football	57	63	59	55	53	52
Golf	169	183	109	106	93	104
Gymnastics		11				
Hockey		16	11	11	9	9
Judo		5				
Lacrosse		8	11	15	12	17
Marathon			5	4	6	5
Rifle	7	7				
Soccer	47	64	70	83	79	89
Skiing		13	9	1		
Swimming	19	30	24	15	12	13
Tennis	149	176	124	100	69	61
Track & Field Out	123	106	82	61	44	46
Track & Field In		47	56	45	27	30
Volleyball		10				
Wrestling	78	90	48	42	28	29
Totals	1139	1377	1126	1038	924	953

explain the continued increases in collegiate participation. Baseball added the most teams over the 33 year span, jumping from 162 to 208. Comparable to youth soccer, Little League enjoyed expansion throughout these three decades, opening headquarters in California and Canada in 1969 and 1970 respectively, and filming the first live Little League World Series in 1985. Major League Baseball has also experienced growth, adding teams in Arizona, Florida and Colorado. As baseball and soccer enjoyed

expansion, football and basketball kept a level rate of participation but for two different reasons.

Basketball was and is the most popular sport offered in junior college programs. In 1968, 98% of the athletic programs offered men's basketball and 3 decades later 95% of the colleges still chose to support a basketball team. Given the high percentage it is understandable that growth would be difficult to come by, not so for football. Football has remained nearly as consistent in this cohort as basketball. Although the room for growth exists and the popularity of the sport at all levels has continued to increase, the cost associated with supporting a football team creates a financial burden not easily overlooked. Junior colleges do not receive the same level of auxiliary support from boosters and alumni nor do they reap the benefits of playing in front of crowds with 100,000 in attendance while being televised nationally. Supporting 85-100 players with equipment, scholarship and travel expenses is difficult to defend considering the broad spectrum of students and programs a community college supports. Football's ability to stay relatively consistent (24% in 1968 to 22% in 2001) given the costs associated is a tribute to the popularity of the sport.

Track and field, wrestling, tennis, golf and cross country have all seen significant declines in participation. Track and field and cross country are supported by the same group of student athletes as typically the cross country runners double as the distance runners on a track and field team. After reaching a high point in 1976 of 97 teams, cross country had shrunk to 54 by 2001, a 44% decrease. Track and field athletes can run in two different seasons, an indoor season and an outdoor season and although several of the events are different or are run differently, the team's roster is generally the same set of

athletes. New in 1976 to this cohort, indoor track and field increased from 1976 to 1984 as outdoor track and field started to decline. As with cross country, both indoor and outdoor track and field programs continued to decline through the 1980's and 1990's. Beginning the new millennium less than half of the original outdoor teams existed and indoor teams were down over 35%. Similar to soccer, the professional lure of track and field does not exist to the same extent in the U.S. as it does in other developed nations and the global stage of the sport, the Olympics like the World Cup, only occurs every four years. Financially, the equipment required is relatively inexpensive when compared to football or baseball. The trends however, show track and field and soccer on different participation trajectories.

Wrestling programs have hit all time lows in 4-year colleges and critics either blame Title IX or the arms race fueling men's basketball and football at the NCAA FBS level. Recent research has shown Title IX not to be the primary reason (Cheslock, 2008) behind wrestling's continued decline from the early 1980's to the beginning of the new millennium. High school participation may have more to do with it than either Title IX or massive expenditures on football and basketball. In a National Federation of State High School Associations (NFHS) study, wrestling participants dropped by over 100,000 between 1978 and 1982, a loss of approximately 28% of its participants (NFHS, 2002). For the next two decades the number of high school participants in wrestling fluctuated between 222,000 and 256,000.

The NJCAA has felt the decline in sponsorship as well. After an increase from 1968 to 1976, the fall was rapid with nearly half of the colleges, 42, in this cohort discontinuing wrestling programs. In 2001, less than one third the number of programs

from 1976 existed. Since the goal of most junior college athletes is to improve their skills and transfer to a 4-year college, it isn't surprising that the decrease in the number of programs has mirrored that of the 4-year colleges and that of high schools. With the combination of opportunities to transfer diminishing and the lack of high school athletes with experience, sponsorship at the junior college level has decreased.

Tennis and golf have historically been synonymous with country clubs, sports for the wealthy white community. Although several recent successful minority athletes in the professional ranks of tennis and golf have increased the popularity of the sport to a broader viewing audience, the participation rates in junior college programs leading up to these events have decreased. In 1976, these two sports only trailed basketball and baseball as the most prevalent sports on junior college campuses. The era from 1968 to 1976 proved to be one of growth for all sports in the sample, but as previously noted with wrestling, dramatic decreases in sponsorship followed. The sharpest decline in men's tennis sponsorship occurs between 1976 and 1984, a loss of 52 teams. During this same time period high schools peaked in 1978 and then proceeded to lose over 30% of the participants by 1984 (NFHS, 2002). Golf pressed baseball for the number two spot in 1976 with 183 colleges fielding teams. In 2001, neither tennis nor golf was represented by half of the 238 teams and tennis had fallen to only a 26% participation rate among the colleges in the cohort.

The minor sports that have continued to be represented include hockey, bowling, lacrosse, swimming and marathon. Bowling and swimming have dropped below 50% of their respective high water marks of 27 and 30. Hockey, marathon and lacrosse have never been represented by 10% of the colleges but lacrosse has shown recent growth. In a

recent study for the Women's Sports Foundation, Cheslock reports significant increases in lacrosse participation for men and women at both the high school and NCAA levels of play from 1994-95 to 2004-05 (Cheslock, 2008). Fencing, judo, rifle, skiing and volleyball experienced brief representation but four of the five were not reported after 1976 and the fifth, skiing, diminished in the 1980's.

Women

Women's teams were not sanctioned by the NJCAA until 1974 and accordingly there are no participation records from 1968, thus the women's results begin with data collected from 1976. Title IX's promotion of gender equity in college sport filtered to junior college programs and even with different eras of financial and economic strife, individual women's programs continued to increase. Table 4.2 displays the participation by sport of junior college athletic programs with membership in the NJCAA from 1976 to 2001. In 1976, the colleges in this sample fielded a total of 578 women's teams and 25 years later the total was 901. The men's team totals shrank from 1377 to 953 in that same time span. Seventeen different women's sports were offered through the NJCAA between 1976 and 2001, five of which were no longer represented by the sample in 2001. Fencing and skiing disappeared during the same years as the men's teams. Gymnastics and field hockey were minor sports with less than 10% of the colleges participating in any given year. Slow-pitch softball, the fifth and most popular of the group succumbed to the mounting pressure to join the fast-pitch softball colleges in what would be the most rapidly increasing sport for women.

Softball, soccer and volleyball all increased participation each successive year and were the only sports to see increases between 1984 and 1991. Soccer's growth for women

is comparable with the men's growth with a noticeable spike from 1996 to 2001, jumping by 30 teams. High school soccer in the U.S. experienced a similar trend encompassing

Table 4.2 NJCAA Institutions with Athletic Presence

Institutions Present in All 5 Years Women (n = 238)					
Sport	1976	1984	1991	1996	2001
Basketball	152	209	200	196	212
Bowling	12	22	11	7	10
X Country	6	61	57	42	59
Fencing	1				
Field Hockey	21	12	6	4	
Golf	24	6			35
Gymnastics	9	1			
Marathon			5	6	4
Skiing	10	9	5		
Soccer		23	31	42	72
Softball -Fastpitch	68	121	127	149	185
Softball - Slowpitch		23	28	14	
Swimming	22	17	14	12	14
Tennis	113	105	81	70	68
Track & Field Out	37	65	53	45	45
Track & Field In		41	38	29	31
Volleyball	103	137	144	152	166
Totals	578	852	800	768	901

this time period, experiencing some of the highest growth rates at both the high school and collegiate (NCAA) level (Cheslock, 2008). Of the 133 women's teams added to this cohort between 1996 and 2001, nearly one out of four was soccer. Softball's equivalent rise was greater in number, 36, but a portion of this increase is a direct result of slow-pitch teams crossing over to the fast-pitch game. In 2000, the NJCAA discontinued slow pitch softball as a certified sport due to lack of participation (NJCAA, 2006). Softball's national transition from two separate sports, slow-pitch and fast-pitch, to strictly fast-pitch allowed it to become the second sport of choice among the sample supplanting volleyball. This occurred even as volleyball continued to increase in numbers to 166

colleges. Basketball, like most of the women's sports, experienced a dramatic increase from 1976 to 1984, reaching nearly the same number of programs as the men (209 to 231). As the smallest of the team sports, basketball provides a relatively inexpensive option whose fast paced play draws the crowds to games. Colleges in urban areas are not limited by field space and colleges in rural areas are not limited by numbers as team's rosters often run only 10-12 players deep. Women's college basketball and the WNBA have elevated the promotion of the sport to new heights, continuing to interest females of all ages.

All three major sports not noticing consistent increases are individual performance sports; cross country, tennis and track and field. Whereas cross country increased dramatically in 2001 to turn a downward trend around, track and field and tennis have both continued to decrease. Initial increases in cross country and track and field between 1976 and 1984 were met with sharp declines by 1996. The increase in 2001 of cross country and the relatively flat rate of change for both track sports could signify a future change of fortune. Tennis, as with the men, does not show signs of regaining its once prominent status in junior college sports offerings but does still represent opportunities more than seven other sports.

Marathon and golf are both absent from different years of the data, a sign of the lack of interest colleges have had in providing opportunities in these sports. Women's marathon first became a sponsored sport of the NJCAA in 1989 with 2 colleges fielding teams (NJCAA, 1991). The sport would become inactive after the 2001-02 season yielding to a shorter version, the Half Marathon, for both men and women in 2003-04 (NJCAA, 2008). Neither the Marathon nor the Half Marathon is a sponsored sport at the

high school level or 4-year level (NCAA or NAIA). Golf had a hiatus amongst this sample, completely absent in the 1991 and 1996 data, but bounced back in 2001 with 35 teams. In 1989, only one NJCAA college sponsored a women's golf team. The following year high school participation jumped by 33% and reached its highest participation up to that point (NFHS, 2002) but the NJCAA didn't begin to sponsor women's golf teams again until 1997-98, providing 47 women an opportunity to play collegiate golf at 11 different institutions (NJCAA, 2008).

Time Periods

Time period trends utilize samples including all colleges who reported data to the NJCAA for the given two years. One advantage to the shorter time period analysis is the sample increases considerably. When we discuss the data for the 1996-2001 period, for example, the size of the sample will have nearly doubled (453 vs. 238). Within each time period, the results of both men and women will be discussed, with the first (1968-1976) being the exception as women's data was not available.

Sport Sponsorship Trends 1968-1976

New community colleges were opening doors every week, during the 1960's and early 1970's. Concurrently the funding structure of community colleges was shifting. Before World War II community colleges were funded solely on local funds and tuition and fees. As state funding became more prevalent, worries were that states would want more say in operations (Gleazer, 1980). This period experienced a substantial shift in funding percents as federal funding doubled from 4 to 8 percent between 1965 and 1975 and state funding passed local funding as the major source for public two-year colleges (Cohen & Brawer, 1996). The effect this potentially had on intercollegiate athletics

programs was a tightening of the purse strings. A substantial percentage of the whole increase coming from state funding has an inverse relationship with local autonomy. College administrators' hands become tied by state and federal mandates, constricting the allocation of resources to auxiliary units. Intercollegiate athletic programs struggle for resources within their institution is similar to the current struggle of public higher education, fighting for resources from an increasingly smaller percentage of the total available funds, when other entities (K-12, Healthcare) are guaranteed resources through government mandates.

The 275 colleges, represented in Table 4.3, offering athletic programs in both years added a combined 234 teams. Title IX's inception in 1972 required equitable treatment for both genders in school, but the law would need several court cases spread across three decades to verify its role pertaining to intercollegiate athletics. Meanwhile nine new men's sports were offered, all but three other sports experienced growth and only one sport, outdoor track and field, experienced a substantial decrease in the NJCAA. In track and field, the addition of an indoor season added 54 new teams, whether these were outdoor teams picking up a second season or new programs is not clear from the data as teams are reported, not participants. Of the sports with growth, tennis and baseball yielded the most gains in numbers with soccer gaining the largest percentage increase, 24%. This era is the last in which men will experience overall growth to this extent.

The eight year period from 1968 to 1976 represented tremendous growth in opportunities for men to compete in junior college athletics. This is surprising given the troubled financial times towards the end of the time period. Annual totals from 1969 to 1975 would provide a detailed history of the growth and decline. Possibly the growth

came at the beginning of the time period before tumultuous financial times affected

Table 4.3
Sponsorship Time Period 1968-1976

# of NJCAA Institutions w/Sport (n = 275)			
Men			
Sport	1968	1976	Delta
Baseball	186	207	21
Basketball	270	271	1
Bowling	0	29	29
X Country	112	110	-2
Fencing	0	4	4
Football	60	67	7
Golf	195	208	13
Gymnastics	0	11	11
Hockey	0	17	17
Judo	0	5	5
Lacrosse	0	8	8
Rifle	8	7	-1
Skiing	0	14	14
Soccer	55	68	13
Swimming	24	31	7
Tennis	171	204	33
Track & Field Out	139	117	-22
Track & Field In	0	54	54
Volleyball	0	10	10
Wrestling	87	99	12
Totals	1307	1541	234

junior colleges. The 1976 data doesn't necessarily represent the peak before decline, as it could possibly, and most likely given the trends of the next time period, be situated on the down slope of men's sport sponsorship.

Sport Sponsorship Trends 1976-1984

Growth of community colleges led to rapidly changing missions. As missions shifted to include a comprehensive focus, new programs attracted non-traditional students.

Breneman and Nelson (1981) reported that the state funding formulas were outdated

based on this new population of part-time working students. If colleges are faced with offering new programs to a changing population without changes in the formula, then resources could be pooled from other programs on campus. Given the full-time obligation of student athletes, programs and services aimed at this new part-time non-traditional population do not benefit athletic programs but funding for athletics could be reduced to accommodate the need. This era also experienced dramatic changes in tuition. What was once perceived as an extension of free public school, by 1980 had reached over \$300 as the median tuition in the U.S. (Cohen & Brawer, 1996). This could be viewed as helpful to athletic programs if they are funded by revenue sources other than state or local aid. Extra tuition revenue could assist in building or strengthening programs. The potential negative effect associated with increasing tuition is that without comparable increases in scholarship budgets, the student athlete is now asked to pay to play.

In 1978, HEW, provided the final guidelines of interpreting Title IX and followed a year later with a policy interpretation for athletics. The assumption was, participation for female athletes would begin to increase. High school participation for boys and girls, however, experienced a dramatic drop off in participation during this two year period.

Boys participation declined by 19.5% and girls participation dropped by 16.0% between 1977-78 and 1979-80 and by 1983-84 high school sports participation for both boys and girls had hit its 30 year low (NFHS, 2002). Difficult financial times coupled with a decrease in the potential population of student athletes could be substantial roadblocks for growth in junior college athletics. Table 4.4 provides evidence to the contrary, for women's athletics.

# of NJCAA Institutions w/Sport (n = 377)							
Men				Women			
Sport	1976	1984	Delta	Sport	1976	1984	Delta
Baseball	279	286	7	Basketball	216	313	97
Basketball	363	353	-10	Bowling	19	30	11
Bowling	40	30	-10	X Country	9	86	77
X Country	142	104	-38	Fencing	1	0	-1
Fencing	4	0	-4	Field Hockey	23	12	-11
Football	73	73	0	Golf	33	0	-33
Golf	285	178	-107	Gymnastics	12	0	-12
Gymnastics	14	0	-14	Skiing	10	9	-1
Hockey	24	11	-13	Soccer	0	31	31
Judo	5	0	-5	Softball Fastpitch	99	175	76
Lacrosse	9	12	3	Softball Slowpitch	0	38	38
Marathon	0	9	9	Swimming	26	21	-5
Rifle	10	0	-10	Tennis	161	153	-8
Skiing	13	10	-3	Track & Field Out	45	82	37
Soccer	86	98	12	Track & Field In	0	52	52
Swimming	36	29	-7	Volleyball	141	200	59
Tennis	271	177	-94				
Track & Field Out	140	104	-36				
Track & Field In	63	66	3				
Volleyball	11	0	-11				
Wrestling	119	66	-53				
Totals	1987	1606	-381	Totals	795	1202	407

Junior college women's programs increased over 50% from 1976 to 1984. Indoor track and field, slow-pitch softball and soccer provided three new sport opportunities for women accounting for approximately 30% of the new growth. Cross country jumped from obscurity, 9 teams in 1976, to representation in 23% of the 377 colleges. Softball, both slow and fast pitch, volleyball, basketball and track and field all experienced tremendous growth, exceeding the men's growth from the previous time period. Even in the time of growth several sports were dropped as women's programs; fencing, gymnastics and golf. Men's programs in these same institutions dropped almost the

equivalent number of teams women added (381 dropped vs. 407 added). Wrestling programs were dropped at the highest rate among those sports with a minimum of 30 teams, followed by tennis and golf. Fencing, judo, rifle, volleyball and gymnastics disappeared by 1984. Substantial growth was present in soccer, and baseball was able to avoid a decline, adding seven teams.

Clearly this era signifies junior college athletic programs desire to add women's sports, at the expense of men's teams. Given the financial difficulties community colleges experienced, creating opportunities for women by adding new sports and substantially increasing those sports already sponsored forced colleges to cut men's sports. The growth of women's opportunities at the junior college level was tremendous during this time period, but continued budget deficiencies and a rocky path for Title IX enforcement in the near future could subdue this behavior.

Sport Sponsorship Trends 1984-1991

By the mid 1980's, decreases in state and local support, stagnant enrollments and inflation forced community colleges to reexamine the breadth of their programs (Wattenbarger, 1986). To some, broad based cuts would only diminish the quality of the superior programs continuing to attract students, suggesting direct program cuts to underperforming programs (Temple, 1986). The attraction to athletic programs is often based on the success of the various teams. Athletic programs on campuses utilizing this budget strategy would benefit from recent success, whereas those with poor conference and regional records could expect cuts to the program. An alternative approach was to base the funding of programs on how they serve both the internal and external stakeholders. Programs that emphasized enrichment or personal enjoyment would be

funded through tuition and fees with public money funding remedial and transfer education (Romano, 1986). Athletic programs emphasize enrichment and personal enjoyment, and though the goal of most junior college athletes is to transfer, the program itself is not considered an academic unit serving the good of the community.

The Summer Olympic Games were held in Los Angeles in 1984, with Carl Lewis and Jackie-Joyner Kersey providing exhilarating performances resulting in gold medals for the U.S. track and field team. High school athletic participation in track and field didn't show signs of being inspired, with boys and girls participating at decreasing rates each year from 1984 through 1991, with the lowest totals of participation in a 25 year span from 1976 to 2001 (NFHS, 2002). Junior college track and field programs suffered as well, symbolizing athletic programs in general by dropping teams for women and men. In 1984, the U.S. Supreme Court's decision in the *Grove City College v Bell* to apply Title IX jurisdiction only to subunits receiving federal funding might help explain the downward trend in women's programs. Intercollegiate athletic departments did not directly receive funding from the federal government and thus for a four year stretch were not considered under the jurisdiction of the law. "Within weeks of the decision, scholarships for female athletes were cancelled at several colleges across the nation, women's teams were slated for termination at others..." according to Carpenter and Acosta (2005). The second period of overall reduction for men and the first representing a reduction for women is listed in Table 4.5.

In 1988 the decision by the U.S. Supreme Court on Title IX jurisdiction had become null with the passing of the Civil Rights Restoration Act of 1987. The Act

Table 4.5 Sponsorship Time Period 1984 - 1991

# of NJCAA Institutions w/Sport (n = 394)								
Men				Women				
Sport	1984	1991	Delta	Sport	1984	1991	Delta	
Baseball	296	307	11	Basketball	319	302	-17	
Basketball	365	368	3	Bowling	29	17	-12	
Bowling	29	19	-10	X Country	88	80	-8	
X Country	105	85	-20	Field Hockey	14	7	-7	
Football	76	69	-7	Skiing	10	5	-5	
Golf	181	176	-5	Soccer	33	46	13	
Hockey	12	12	0	Softball Fastpitch	182	182	0	
Lacrosse	13	18	5	Softball Slowpitch	42	49	7	
Marathon	9	8	-1	Swimming	21	18	-3	
Skiing	11	2	-9	Tennis	158	132	-26	
Soccer	101	126	25	Track & Field Out	84	70	-14	
Swimming	29	18	-11	Track & Field In	52	52	0	
Tennis	184	150	-34	Volleyball	208	211	3	
Track & Field Out	107	84	-23					
Track & Field In	66	59	-7					
Wrestling	65	53	-12					
Totals	1649	1554	-95	Totals	1240	1171	-69	

defined programs to include the subunits, affectively reinstating intercollegiate athletics under Title IX jurisdiction. With the change in Title IX enforcement occurring within the time period any potential rise in men's programs from 1984 to 1988 could be missed based on behavior after the decision was over ruled. Nevertheless, men's programs decreased over this time period. Eleven of the 16 men's sports report losses in sponsorship, with tennis dropping the most in quantity and skiing the largest percentage decrease. Baseball continued to increase sponsorship even in difficult financial times and soccer continued its meteoric rise for men, as well as women. Overall, women experienced the first decrease in sponsorship. Basketball, bowling, tennis and track and field (outdoor) all lost at least 12 teams, and field hockey and skiing decreased by half. In

the end, the percentage of teams lost was nearly identical for men (5.8%) and women (5.6%). Further detailed research into individual years within this time period could assist in answering questions about any influences on behavior associated with the 1984 and 1988 Title IX changes in enforcement.

Sport Sponsorship Trends 1991-1996

This period includes two significant events related to Title IX; first, the decision to award compensatory and punitive damages in Title IX lawsuits was upheld. In 1992, the unanimous decision by the U.S. Supreme Court in *Franklin v Gwinnett County Public Schools* was a pivotal event with regards to the legal understanding of Title IX (Acosta & Carpenter, 2005). The enforcement of Title IX now had teeth, allowing plaintiffs to sue for monetary damages. Colleges would no longer be limited to threats of federal funding withdrawal in Title IX cases. The second significant event, the EADA of 1994, forced colleges to report their participation and expenditures for intercollegiate athletic programs. Researchers utilizing data from EADA reports have drawn attention to colleges' lack of consistent standards of accounting when reporting expenditures (Cheslock, 2008) and misrepresentations of athletic expenditures (Orszag & Orszag, 2005). Acknowledging the limitations, EADA reporting does require colleges to report a significant amount of information, some of which could be used against them to argue inequity for female athletes. Together, the EADA and the ruling in favor of monetary provided enforcers of Title IX with two essential tools; information and the threat of financial transgressions.

Financially community colleges continued to rely more heavily on resources (tuition and fees, foundations, planned giving) other than state and local appropriations.

Appropriations from the state and local entities had dropped from 70% of total revenues in 1980 to just 50% by 1996 (Merisotis & Wolanin, 2000). In 1991, unemployment rates were up, triggering increases in enrollment in community colleges. For athletics, increases in tuition and fees received via increased enrollment could provide the funding needed for increases in sponsorship. Given the nature of the enrollment increase, unemployment, programs receiving any excess funding most likely would be geared to support services and new certificate programs. Simultaneously, states were struggling through a second budget crisis within the last decade. In January of 1991, Blumenstyk and Cage reported in the *Chronicle of Higher Education* that higher education and state officials predicted "...the budget problems will leave many colleges with appropriations for 1991-92 that barely keep pace with inflation or in the worst case with reductions in state support". Combine the financial struggles colleges were experiencing with the potential monetary damages and athletic growth for men or women would appear unlikely. To satisfy Title IX and avoid potential lawsuits, colleges could be in a position to discontinue men's sports while keeping women's sports stagnant. Although colleges felt some financial relief towards the end of this time period, state spending on higher education grew three straight years, the rate of growth barely kept up with inflation providing little room for program growth (Lively, 1995). Table 4.6 provides the continued down turn in NJCAA sponsorship.

From 1991-1996, the pattern of diminishing programs continued. Men's programs experienced decreases in all sports offered except for baseball and marathon, losing another 7% of the sponsorships. Wrestling hit a low of 38 programs among the 417 colleges in the sample. An NFHS report lists 1993-96 as the leanest years of participation

in high school wrestling for boys (NFHS, 2002). Men's soccer experienced its first drop, losing 7 programs, and hockey, lacrosse and swimming all have become dangerously

Table 4.6 Sponsorship Time Period 1991-1996

# of NJCAA Institutions w/Sport (n = 417)							
Men				Women			
Sport	1991	1996	Delta	Sport	1991	1996	Delta
Baseball	313	333	20	Basketball	310	306	-4
Basketball	381	373	-8	Bowling	17	11	-6
Bowling	19	15	-4	X Country	83	71	-12
X Country	87	85	-2	Field Hockey	7	5	-2
Football	71	70	-1	Field Hockey	7	5	-2
Golf	181	170	-11	Marathon	9	7	-2
Hockey	13	9	-4	Skiing	5	0	-5
Lacrosse	18	14	-4	Soccer	45	67	22
Marathon	8	13	5	Softball Fastpitch	190	225	35
Skiing	1		-1	Softball Slowpitch	52	30	-22
Soccer	129	122	-7	Swimming	17	14	-3
Swimming	17	14	-3	Tennis	132	108	-24
Tennis	151	114	-37	Track & Field Out	72	58	-14
Track & Field Out	86	63	-23	Track & Field In	53	42	-11
Track & Field In	60	41	-19	Volleyball	218	232	14
Wrestling	58	38	-20				
Totals	1593	1474	-119	Totals	1217	1181	-36

close to losing representation as a sponsored sport in the NJCAA. Track and field and tennis continued to decrease in sponsorship for both men and women. This is interesting given the increase shown in high school participation in both sports for both genders over this time period (NFHS, 2002) and the results of a GAO report on NCAA participation trends covering this time period. The GAO report covers a longer time frame, possibly explaining the difference, but nevertheless reports both tennis and track and field increasing in sponsorship from 1991-2004 (GAO, 2007).

Women's programs felt a similar overall trend dropping sponsored teams in 12 of the 15 sports, just not to the same degree as compared to the previous time period. Growth existed in two of the largest participant sports, soccer and softball (fast pitch). Add in volleyball and these three sports combined to add 71 sponsored teams. It is expected that some of the fast pitch softball opportunities are a direct result of colleges transforming from the slow pitch game implying little to no growth in participation opportunities, but even if all 22 slow pitch teams simply switched, 13 new fast pitch teams would have been created. The two time periods covering 1984 to 1996 both experienced NJCAA sport sponsorship declines for men and women, but with new financial hope on the horizon, will the trend continue into the new millennium?

Sport Sponsorship Trends 1996-2001

Harold Hovey (1999) wrote, "The last five years have been about as good as it gets in state funding for higher education." Four year college athletic programs benefitted from this. From 1995-96 to 2001-02, NCAA institutions increased expenditures by nearly 50 % on men's sports and over 50% on women's sports (Cheslock, 2008). In constant dollars state and local support per FTE increased from 1996 to 1999 for both community colleges and public 4-year colleges (Lee & Clery, 2004). Increases in support for programs essential to the mission of community colleges (developmental education, transfer, workforce development and continuing education) could allow for more spending from revenues generated from tuition and fees on athletic programs.

Community college enrollment grew by 14% in the 1990's increasing the share of undergraduate enrollees from 39% to 41% by 1999 (ACE, 2004). Dependent undergraduates in community colleges, those typically participating in intercollegiate

athletics, grew from 26% to 30%. Junior college athletic programs had experienced recent losses in sponsorship and participation, but were able to rebound during this positive economic time. An increase in enrollment, especially traditional aged college students, coupled with high school athletic participation climbing towards 6.5 million (NFHS, 2002) and the means to finance new teams allowed junior colleges to expand and create new programs. The increases are listed in Table 4.7.

The last time period of this study exhibits positive change for junior college athletic program sponsorship and participation. Two women's sports were eliminated; women's field hockey and slow pitch softball. Marathon steadied at 7 but would soon give way to half-marathon. Field hockey was replaced with lacrosse (national

Table 4.7 Sponsorship Time Period 1996-2001

# of NJCAA Institutions w/Sport (n = 453)								
Men				Women				
Sport	1996	2001	Delta	Sport	1996	2001	Delta	
Baseball	355	368	13	Basketball	318	353	35	
Basketball	398	399	1	Bowling	12	17	5	
Bowling	18	18	0	X Country	79	99	20	
X Country	91	96	5	Field Hockey	4	0	-4	
Football	73	70	-3	Marathon	7	7	0	
Golf	180	200	20	Soccer	64	118	54	
Hockey	11	12	1	Softball Fastpitch	234	316	82	
Lacrosse	15	23	8	Softball Slowpitch	33	0	-33	
Marathon	13	8	-5	Swimming	15	20	5	
Soccer	124	155	31	Tennis	113	118	5	
Swimming	16	19	3	Track & Field Out	61	68	7	
Tennis	118	104	-14	Track & Field In	43	44	1	
Track & Field Out	68	73	5	Volleyball	248	276	28	
Track & Field In	42	44	2					
Wrestling	42	41	-1					
Totals	1564	1630	66	Totals	1231	1436	205	

championship began in 2003-04) and slow pitch softball programs gravitated towards the

fast pitch game. All other sports for women experienced gains; soccer nearly doubled, fast pitch softball grew by over a third, cross country increased by 25% and basketball and volleyball added at least 10% more teams. Using conservative estimates, these sponsorships alone would provide a minimum of 3000 more opportunities for women to compete in intercollegiate athletics. Although the choices of sports had diminished, the opportunities for female student athletes in junior colleges increased substantially.

Men for the first time since the 1969-1976 time period experienced a total gain in teams, supported by baseball and soccer's continued rise and from a turnaround in golf, experiencing its first increase since the beginning time period. All three sports exhibited growth at the high school level from 1995 to 2000. Tennis continued to lose double digit sponsorships and marathon would soon be replaced by half-marathon, becoming inactive after the 2001-02 season. Football numbers have seen insignificant increases given the increase in the size of the sample, over 175 more institutions from the first time period to the last. High school participation has grown, reaching over 1 million in 1999-2000 (NFHS, 2002) and NCAA participation data shows a 9% increase from 1991-2004 (Cheslock, 2008). Title IX and the financial commitment to field a football team may have kept junior colleges from bolstering programs with the addition of football. Basketball is similar to football in that it has not made much of an increase or decrease compared to its total in any of the time periods; however the number of teams has climbed as the sample size increased from each time period providing evidence that it is one of the first teams new programs begin with. The 453 colleges in the sample averaged 3.60 men's teams and 3.17 women's teams in 2001. Compared to 1976 when 377

colleges boasted 5.27 men's teams and 2.11 women's teams, the junior college athletic playing field has significantly changed for colleges in the NJCAA in the past 25 years.

Conclusion

Four major themes permeate the discussions of junior college athletic participation since 1968. First, support for women's programs grew tremendously. Within the 5 year consistent sample and comparing the last time period with the first it is evident NJCAA junior college athletic programs strived to provide more participation opportunities for women. However, in times of financial instability and questionable periods of Title IX enforcement, 1984-1996, women lost opportunities just as the men did. Second, individual performance sports for both men and women have declined. Sports historically affiliated with the wealthy country club elite; tennis, golf and fencing have either been cancelled or have lost a significant number of college sponsorship. Individual sports often thought of as Olympic sports decreased in popularity. Summer Olympic standouts, track and field (indoor, outdoor and cross country), swimming and gymnastics experienced trends similar to the aforementioned country club sports.

The rise of soccer for both men and women along with softball's effort to match baseball's popularity were essential components of the third theme; team sports fueled the growth. For women, the percentage of team sport sponsorships climbed from 60% in 1976 to 74% in 2001. Forty four percent of men's teams sponsored in 1968 were team sports and 33 years later the percentage had increased to 63%. Lastly men's sponsorship has decreased substantially in teams per institution. After the initial surge in the late 1960's into the early 1970's when community colleges were experiencing tremendous growth, men's programs decreased from 1976 until 1996 in both the consistent sample

and time period samples. The most dramatic decrease occurred as women were experiencing tremendous increases from 1976 – 1984 as colleges sponsored nearly one and a half less teams. The 275 colleges involved in the growth years from 1968-1976 averaged 5.6 men's teams in 1976. Twenty five years later the institutions in 2001, having just experienced a rare increase in total teams, sponsored 3.6 men's teams a drop of two teams per college.

Men's teams diminished as women's opportunities flourished in junior college athletics following Title IX's enactment. Financial troubles often trumped Title IX, slowing down the growth of women's opportunities, at times even decreasing sponsorships. Team sports like softball and soccer gained in popularity as less team oriented sports struggled and often failed to be recognized by the NJCAA becoming inactive. The result of what NJCAA colleges have historically offered provides insight into junior college athletic programs. As the research heads to the second set of research questions tying institutional characteristics to the willingness to offer, the breadth of offerings and specific sport characteristics, the sample of institutions expands to include community colleges affiliated with other associations.

Determinants of Presence, Size and Sports

Over 1600 institutions of higher education started this sample as Associate or Baccalaureate/Associate granting colleges as defined by Carnegie. After sifting out those without a community college sector variable, 1374 institutions remained. Merging IPEDS and EADA data sets reduced the total to 1261 colleges. These colleges represent the community colleges in the United States which could provide an intercollegiate athletic experience to students. The first research question analyzes 2004-05 data from multiple

sources to describe common characteristics of colleges choosing to offer competitive athletic programs. Once those institutions are captured in the data, the size of programs is analyzed utilizing two dependent variables, total number of athletes and total number of teams. Over 20 sports are offered for women and men at the junior college level, so analyzing all of them would have taken this research away from its initial scope. Instead, six sports (football, softball, wrestling, women's soccer, men's and women's track & field) were chosen for detailed analysis. Presence, size and specific sport analyses were all done with and without state and local appropriations and Pell variables. The analyses with these variables eliminated private colleges due to the varying degrees by which private institutions incorporate Pell money and the absence of appropriations.

Presence

Two samples are utilized in analyzing presence; one containing public and private colleges and a second eliminates private colleges so as to include the independent variables for local and state appropriations. The discussion will refer to the first sample as the "full sample" and the second sample as the "public sample" when discussing them separately. In both samples the rural dummy, enrollment and full-time regressors had positive, significant coefficients in relationship to the presence of an athletic program. Variables with a negative significant correlation to presence included female percent of the student body, out of state tuition and fees and the Midwest and Southeast location variables. A binary dependent variable in a nonlinear model, as is the case with Presence in a logistic model, requires manipulation of the coefficients to provide values to interpret. The marginal effect (ME) of each regressor, is listed in Table 4.8 along with the original logistic regression coefficients and significance.

Table 4.8 Determinants of Presence of Athletic Programs

Independent Variables	Sample					
	ME	Full B	P Value	ME	Public B	P Value
Public	0.234	2.054	0.000			
Private for Profit	-0.446	-3.237	0.000			
Rural	0.080	0.739	0.000	0.122	0.712	0.000
Enrollment	0.033	0.276	0.000	0.031	0.173	0.000
Full Time %	0.206	2.601	0.000	0.381	4.359	0.000
Female %	-0.198	-1.383	0.054	-0.483	-3.057	0.019
Black %	0.081	0.745	0.125	0.268	1.872	0.003
In-State Tuition	0.008	0.066	0.217	-0.005	-0.030	0.720
Out of State Tuition	-0.010	-0.077	0.016	-0.023	-0.124	0.001
Northeast	-0.006	-0.050	0.838	0.013	0.069	0.820
Southeast	-0.238	-1.641	0.000	-0.268	-1.446	0.000
Midwest	-0.048	-0.372	0.073	-0.133	-0.711	0.006
Pell Grant				-0.057	-0.309	0.092
State Appropriations				-0.036	-0.194	0.000
Local Appropriations				0.020	0.113	0.010
psuedo R2		0.316			0.192	
n		1261			904	

Rural colleges make up 28.6 % of the colleges in the full sample and 34.7% of those in the public sample. When compared to suburban and urban colleges the rural colleges increase the probability of presence of an athletic program by 8 percentage points for all community colleges and 12.2 percentage points for public community colleges. An institution's share of students that are full time has a dramatic marginal effect. A ten percentage point increase in the full time share of students increases the probability of an athletic program by 2.1 percentage points for the full sample and 3.8 for those in the public sample. Full time status requirements to participate in intercollegiate athletics could help explain this relationship. Enrollment of a community college is measured in FTE, in an effort to collapse all the part-time and full-time students into a

single value and as stated earlier the formula for doing this is not a consistent science. An increase of 1000 FTE students is associated with a 3 percentage point increase in probability of an athletic program.

Three regressors proved to have significant negative correlations with presence in both samples; female percent of the population, out of state tuition and fees and the geographic regions of the country. The first results suggest that institutions are less likely to add athletic programs when they are heavily dominated by female students. The percent female population of all community colleges and public community colleges in these samples is 58.8 and 57.4 respectively. In the full sample the variable is significant at a 90% confidence level and for the public institutions a 95% confidence level. A ten percentage point increase in female population reduces the probability of an athletic program by 2.0 percentage points, 4.8 percentage points for the public sample. Western colleges include California. California's community college system offers 108 athletic programs at community colleges, influencing the balance of programs in this sample. Expectedly the Southeast, Midwest and Northeast dummy variables generated negative coefficients for both samples with the Southeast significant in both samples. The Southeast decreases the probability of athletic programs by 23.8 percentage points and 26.8 percentage points when compared to the West. What is surprising about the Southeast is that it trails both the Midwest and Northeast. States such as Florida and Mississippi support many 2 and 4-year college athletic programs. Possibly the other states in the region, as discussed earlier with North Carolina, have been slow to recognize the potential advantages of intercollegiate athletic programs at the community college level. Out of state tuition and fees is significant but the extent to which it

potentially affects athletic program existence is minimal. A \$1000 increase in out of state tuition and fees decreases the probability of an athletic program by 1 to 2 percentage points.

Several variables had significant positive correlations to Presence in only one of the two samples. Public institutions were positively correlated and significant with presence in the full sample and Pell, black percentage of the population and local appropriations were positively correlated to presence in the public sample. Public institutions represent 76% of the institutions. Compared with private not for profit colleges, public colleges provide a 23 percentage point increase in the probability of operating an athletic program. For public colleges a ten percentage point increase in the share of students that are black increases the probability of an athletic program by 2.7 percentage point. An increase of \$1000 per student in local appropriations increases the likelihood of athletics by 2 percentage points. State appropriations had an inverse effect on presence. A \$1000 increase per student dropped the probability of an athletic program by 3.6 percentage points. Pell grant money per student has a negative coefficient as well. With less significance, a \$1000 increase in Pell money per student has the marginal effect of a 5.6 percentage point decrease in probability.

Size

A junior college intercollegiate athletic program ranges dramatically in size. The largest program in this sample offers opportunities to 653 student athletes and the smallest to just 3. Without stipulations on program size, such as the NCAA has, a junior college in the NJCAA could simply have one team of 3 half-marathon runners or bowlers. The linear OLS regression analysis on size is performed four times, defining

size as both number of student athletes and teams and once again utilizes samples that include public and privates as well as a sample with only public community colleges. This second sample reduces the total by 30 institutions by eliminating private institutions but allows Pell grant money, state and local appropriations to be included. An association affiliation (NWAACC, NJCAA and CCCAA) variable is added to the list of regressors. Tables 4.9 and 4.10 contain the regressor coefficients and P values for each of the four regressions run. Multiple independent variables are significant at the 95% and 99% level of confidence, with four variables standing out as significant in all four regressions.

Enrollment, full-time attendance and affiliation with the CCCAA are all significant and are positively correlated with the size of the athletic program. An increase of 1000 FTE students is associated with an increase of nearly 12 student athletes and half

Table 4.9 Determinants of Size - Full

Independent Variables	Athletes		Teams	
	B	Sig.	B	Sig.
Public	8.099	0.767	1.033	0.457
Private for Profit	-58.747	0.184	-4.163	0.064
Rural	13.123	0.080	0.544	0.153
Enrollment	11.811	0.000	0.568	0.000
Full Time %	138.462	0.000	4.786	0.000
Female %	-137.012	0.001	-6.611	0.002
Black %	-29.602	0.184	-2.588	0.023
In-State Tuition	-0.028	0.992	0.189	0.188
Out of State Tuition	-3.593	0.026	-0.316	0.000
Northeast	-2.530	0.809	1.806	0.001
Southeast	-23.506	0.033	-0.691	0.217
Midwest	7.531	0.434	0.993	0.043
NJCAA	14.045	0.176	0.175	0.740
CCCAA	114.985	0.000	5.236	0.000
Adjusted R-squared	0.464		0.443	
n	574		574	

a team in both samples. Increasing the full time share of the student population by ten percentage points correlates to nearly 14 more student athletes and almost half a team in the full sample and over 16 student athletes and nearly two thirds of a team in the public sample. California community colleges do not only weight the presence of athletics to the West but also are associated with incredible size differentials when compared with the NWAACC and NJCAA. Community colleges affiliated with the CCCAA offer approximately 115 more opportunities to student athletes on more than 5 more teams in both samples.

The only independent variable negatively associated to size with appropriate confidence levels in all four regressions was the percentage of female undergraduates. The full sample and the public sample both average populations that are 56% female.

Table 4.10 Determinants of Size - Public

Independent Variables	Athletes		Teams	
	B	Sig.	B	Sig.
Rural	17.489	0.025	0.828	0.035
Enrollment	11.331	0.000	0.541	0.000
Full Time %	162.846	0.000	6.583	0.000
Female %	-185.166	0.001	-7.050	0.009
Black %	-22.665	0.366	-2.330	0.066
In-State Tuition	1.393	0.669	0.252	0.125
Out of State Tuition	-2.753	0.104	-0.294	0.001
Northeast	-8.639	0.428	1.660	0.003
Southeast	-18.086	0.117	-0.182	0.754
Midwest	-0.017	0.999	0.573	0.262
NJCAA	7.501	0.490	-0.313	0.567
CCCAA	116.431	0.000	5.022	0.000
Pell Grant	-2.300	0.768	-0.328	0.404
State Appropriations	-4.839	0.024	-0.240	0.027
Local Appropriations	0.841	0.644	0.208	0.023
Adjusted R-squared	0.477		0.462	
n	544		544	

A community college population with 50% females could expect at least two thirds of a team more and 13 more student athletes than that of a community college with 60% female population. In the public sample a 15 percentage point increase in the female share of enrollment is associated with one more team and 24 more student athletes. It appears that a larger full time college enrollment coupled with programs attracting an equal amount of both genders provides an environment more likely to include athletics. Out of state tuition like female percent is negatively correlated with size but is only significant in three of the four regressions, barely missing out in the public team sample. A \$3000 increase in out of state tuition is associated with a decrease of nearly a whole team and 11 opportunities for student athletes. Several other variables provide significant results in one or more of the regressions but not all four.

Rural community colleges represent approximately 33% of the junior colleges in both samples. The coefficients for rural were positive across the board, but significant only in the two public samples. Compared with suburban and urban public community colleges rural community colleges are associated with almost one extra team (0.83) and over 17 more individual opportunities. State appropriations were also significant in the public sample, negatively correlated to both total athletes and teams. A \$1000 increase in state appropriations per FTE student is associated with a loss of nearly five student athlete opportunities. A \$2000 decrease in state appropriations per FTE student accompanied by a \$2000 increase in local appropriations per FTE student relates to the increase of nearly one (0.896) extra team.

The share of the population of students that were black is negatively correlated in all four regressions but significant only in the team regressions, 95% in the full sample

and 90% in the public sample. In each team regression a 10 percentage point increase is associated with one fourth less team, so a 20 percentage point increase would effectively reduce the number of teams by one half. One potential explanation is the clustering of black student athletes into large team sports such as football and track & field and the relatively small population of black student athletes in small team sports such as tennis, golf and bowling. The regression analysis of program size for all four samples provided significant results related to the independent financial variables and population variables.

Sport Specific Presence

Six individual sports with established interest based on popularity and/or controversy were chosen to further investigate the presence of specific opportunities in junior college athletics. Presence of football, wrestling and track and field were the independent variables in the logistic regressions representing the men's sports. Women's sports were represented by softball, soccer and women's track and field. As with overall presence, the marginal effect was calculated to enhance the interpretation of results. The lack of substantial significant results from the logistic regression for men's and women's track and field focused the marginal effect analysis on the remaining four sports. The marginal effect (ME), coefficients and P Values are presented in Tables 4.11 (men) and 4.12 (women).

Twenty three percent of the programs in the sample support football and 9% support wrestling. Football experienced similar results to overall presence with respect to enrollment, full time %, out of state tuition, rural and female share of the population. One noticeable difference is the independent variable representing the share of students that are black. A ten percentage point increase in this population is associated with a four

Table 4.11 Determinants of Men's Sports

Independent Variables	Dependent Variable: Football and Wrestling					
	Football			Wrestling		
	ME	B	P Value	ME	B	P Value
Private for Profit	-0.210	-4.277	0.026	-0.063	-1.20256	0.525
Rural	0.081	0.829	0.043	-0.008	-0.11211	0.795
Enrollment	0.023	0.247	0.000	0.009	0.109332	0.011
Full Time %	0.650	8.316	0.000	0.373	2.573189	0.076
Female %	-0.231	-12.223	0.000	-0.089	-2.81455	0.212
Black %	0.432	3.941	0.000	-0.096	-6.05077	0.024
In-State Tuition	0.018	0.190	0.270	0.010	0.118158	0.446
Out of State Tuition	-0.029	-0.334	0.006	-0.007	-0.09754	0.317
Northeast	-0.161	-2.464	0.001	0.021	0.243362	0.667
Southeast	-0.117	-1.560	0.011	-0.061	-1.14768	0.314
Midwest	-0.025	-0.279	0.544	0.035	0.388919	0.452
NJCAA	0.674	18.569	0.000	-0.010	-0.13674	0.802
CCCAA	0.735	22.482	0.000	0.146	1.272223	0.041
psuedo R2		0.462			0.141	
n		574			574	

percentage point increase in the probability of a football team. A second regressor of note is geographic region. The geographic region variables all have negative coefficients and marginal effects, with the northeast and southeast significant. The west is 16 percentage points more likely to field football teams compared to the northeast and nearly 12 when compared to the southeast. With the state of Florida being the largest single state contributor of community colleges to the southeast region, the lack of football sponsorships in Florida provides a potential explanation in conjunction with the plethora of football opportunities in the state of California.

Both the CCCAA and the NJCAA are significant when compared with the NWAACC. The CCCAA is slightly more likely, 6 percentage points, than the NJCAA to support a football program. In wrestling, the CCCAA continues to be associated with

supporting more programs than either the NJCAA or the NWAACC. The marginal effect of CCCAA association affiliation on wrestling is positive and provides a nearly 15 percentage points increase in probability. Like football, the black share of the student population is significant, just not positive. As the percentage of the student population that is black increases by 10, the probability is associated with decrease of 0.01. Although the magnitude of the decrease is not substantial the significance suggests a trend which requires further research.

Table 4.12 Determinants of Women's Sports

Independent Variables	Dependent Variable: Softball and Soccer					
	Softball			Soccer		
	ME	B	P Value	ME	B	P Value
Private for Profit	-0.046	-0.219	0.875	-0.164	-1.176	0.411
Rural	0.111	0.528	0.041	-0.064	-0.399	0.120
Enrollment	0.040	0.189	0.000	0.024	0.137	0.000
Full Time %	0.092	0.436	0.630	0.333	1.768	0.048
Female %	0.148	0.704	0.616	-0.061	-0.380	0.790
Black %	-0.420	-3.681	0.000	-0.083	-0.532	0.483
In-State Tuition	0.067	0.315	0.002	0.044	0.255	0.013
Out of State Tuition	-0.044	-0.211	0.000	-0.030	-0.182	0.004
Northeast	0.084	0.397	0.257	0.117	0.649	0.054
Southeast	0.347	1.830	0.000	-0.034	-0.208	0.584
Midwest	0.082	0.389	0.235	-0.102	-0.670	0.044
NJCAA	0.084	0.396	0.228	-0.053	-0.331	0.319
CCCAA	0.278	1.395	0.002	0.331	1.755	0.000
psuedo R2		0.122			0.180	
n		574			574	

Enrollment and affiliation with the CCCAA continued to have positive significant correlations with the presence of athletics, with the CCCAA affiliation stronger in magnitude for both soccer and softball. Affiliation with the CCCAA is associated with a 27.8 percentage point increase in the probability of softball and a 33.1 percentage point

increase in soccer. Compared with the NWAACC and different regions of the NJCAA, the percentage of CCCAA institutions enjoying a climate conducive to year round playing could help explain the increase in support of softball. A second regressor that stands out for both is in state tuition, as up to this point it had not produced substantial results. An increase of \$1000 in in-state tuition is associated with a 6.7 percentage point increase in the probability of a softball team and a 4.4 percentage point increase for soccer. In a stratum of higher education which has historically offered low tuition a \$1000 increase is substantial, but nevertheless the implication that higher priced community colleges are more likely to offer these sports garners future research interest.

Softball presence is also associated with the percentage of the student population that is black and the rural regressor. Rural community colleges are associated with an 11 percentage point increase in the probability of offering softball. One obvious advantage to a rural community college is the assumption of space, something an urban college may struggle with. If the share of the student population that is black increases by twenty percentage points the probability of a softball team is associated with a percentage point drop of 8. The percentage of black female student athletes competing in softball at the NCAA level did not increase from 1999-00 to 2005-06, remaining at 6% compared to 29% in basketball and 20% in track and field (Cheslock, 2008). Yet the southeast geographic region is associated with a 34 percentage point advantage to community colleges in the west. Are community colleges with higher shares of the student population that are black not providing the opportunities due to lack of interest or due to years of sport segregation?

Approximately 40% of the community colleges in the sample support a women's soccer team. Soccer's presence is negatively associated with the midwest geographic region and positively associated with the full time and northeast independent variables. Junior colleges in the northeast are associated with a probability of soccer nearly 12 percentage points higher than the west and close to 22 percentage points higher than the Midwest. As the share of the full time student population percentage increases by ten, the probability of soccer is associated with an increase of 0.03.

Soccer and softball have both increased at the junior college level within the last two decades and two possible factors include the increase in community college enrollment and the addition of colleges to the CCCAA. Football and wrestling have positive correlations to enrollment and the CCCAA as well, but the marginal effect of these two regressors is minimal. Football, women's soccer and wrestling are all strongly and positively associated with the full time percentage of the student population, yet softball is not. Softball's apparent relationship with the southeast geographical region represents its strongest positive correlation. Out of state tuition is the only regressor with negative coefficients for all four sports and is significant in three of the four, wrestling wasn't significant.

Conclusion

Enrollment established itself as the independent variable with potentially the most influence on the decision to have athletics, the size of the department and on the presence of four specific sports in community colleges. Rural and full time regressors were positively associated with the presence of an athletic program in both the full and public samples and out of state tuition, the percentage of female undergraduates and the

southeast geographic region were all negatively associated in both samples. Size of a program, in all four samples was positively correlated to full time percentage of undergraduates and affiliation with the CCCAA. Female percent of the undergraduate population, the southeast geographic region and out of state tuition were negatively associated and significant in all four size regressions. These results combined with the historic evidence from the NJCAA provide important groundwork for future research emphasizing junior college athletics. Recommendations for future research and policy implications for junior college athletic programs and community colleges in general are discussed in detail in chapter five.

CHAPTER 5

SUMMARY OF FINDINGS AND SUGGESTIONS FOR FUTURE RESEARCH

Community colleges provide opportunities for students to accomplish a wide range of academic goals; certificates, transfer degrees, professional training, personal awareness, and others. For public community colleges, this is completed locally and typically at a substantially lower rate than could be done at four year institutions or private colleges. Athletically, community colleges provide a similar variety of opportunities. Student athletes, failing to make the NCAA clearinghouse grade, arrive on campus with big athletic dreams and the need to overcome academic deficiencies. Others have been neglected or overlooked by the athletic departments of large state or private universities \and although academically equipped to attend a university are determined to prove their athletic prowess on the fields and courts. Junior colleges provide disgruntled 4-year student athletes with temporary opportunities to play and advance academic records after transferring from 4-year colleges. Students choosing alternative options out of high school (military service, professional leagues, and religious missions) often utilize community colleges to re-enter the higher education domain. So as with the educational mission of community colleges, the athletic opportunities provide an array of avenues for a diverse audience.

According to the EADA website, in 2007, 76,049 student athletes participated in intercollegiate athletics at 611 public or private 2-year institutions (EADA Website retrieved March 2, 2009). The purpose of this study is twofold. First the study provides

extensive analysis of junior college athletics. This stratum of higher education is underrepresented in intercollegiate research as most studies focus on NCAA Division I athletics. The second purpose is to provide research results to guide future policy discussions and assist in creating best practices for junior college athletics. National organizations and state and local administrators can all benefit from the results of this research. In efforts to improve the quality of the athletic environment in community colleges, new policies and practices can be crafted with direct assistance of this research and indirectly from future research stemming from this study.

A new data set composed of NJCAA historic data was compiled and introduced to provide an historic look into junior college athletic participation trends. This data set provides a base to build upon, both back in time (pre 1968) and with an eye on current and future decades. Multiple samples were created from the original data set. Institutions with an affiliation to the NJCAA from 1968 until 2001 created the first longevity sample. Then each time period sample, compiled of those institutions with affiliation in both the beginning and ending time periods, was established. The historic analysis was followed by regression analyses of data recovered from the EADA and IPEDS, merged and cleaned to create a sample of community colleges from across the U.S. To determine the presence, size and success of intercollegiate athletics in community colleges multiple independent variables were included in the linear OLS and logistic regressions.

Although the study is viewed through a functionalist lens, Institutional and Resource Dependency theories provided the impetus for the inclusion of independent variables. For example, Institutional theory directed the use of the association affiliation, female and black share of the student population and the public and private independent

variables. Title IX's prong three, requiring substantial proportionality to the full time student population gender ratio, is a substantial coercive influence on four year colleges. Resource Dependency theory prompted the use of in state and out of state tuition as independent variables. The inclusion of appropriations from state and local entities as well as the amount of Pell grant monies made available to an institution were also incorporated in the samples with public community colleges in an effort to investigate those external entities that provide valuable resources.

Major Findings

Historical Participation

Findings from the historic data reflect an influence from both the financial environment and gender equity. The first research question requests information regarding participation, specific sport sponsorship and the development of women's sports. Participation is described by the number of institutions participating in intercollegiate athletics and by the number of teams these institutions support. The NJCAA affiliation numbers continued to grow throughout the 33 year history in college sponsorships as evident by the continued growth of the sample sizes. In the first men's time period sample 275 institutions reported fielding teams in 1968 and 1976. By the last time period, 1996-2001, the number of colleges affiliated with the NJCAA in both years had risen to 453. In the last quarter of the century intercollegiate athletics had become an important program to add for new or established community colleges. Team totals in junior college athletics, however, mirrored the financial environment of higher education. In both the consistent sample and the time period samples disparate financial times were met with decreases in the number of teams offered and inversely when the economy

avored institutions of higher education, team totals increased for both men and women. It is important to mention that a decrease in team total doesn't necessarily reflect a decrease in individual student athlete opportunities. For example, an institution could decide to eliminate bowling and tennis in favor of soccer. Based on the number of scholarship athletes allowed, the college has actually increased the opportunities for student athletes by two, while lowering the team total by one. While this may be true at the institutional level the aggregate data suggests this was not the norm. The consensus finding of junior college intercollegiate athletic participation is positive. College affiliation with the NJCAA has increased. The number of teams per institution in the NJCAA in 2001 was 6.8, the best mark since the 1984 rate of 7.4. Although team totals have fluctuated with respect to economic swings in or out of favor with higher education, overall team totals were never higher than in 2001. Current figures, including all three associations (NJCAA, CCCAA, NWAACC), provide an estimate of nearly 700 junior college athletic programs.

Women's athletic opportunities in community colleges have been associated with Title IX's presence and financial swings in higher education. The 1968 data couldn't provide information on women's athletic opportunities in the NJCAA because they weren't sponsored at the time. However, the next two years of data gathering, 1976 and 1984, provided important information regarding the progress of women. The consistent sample of 238 NJCAA institutions gained 274 women's teams while simultaneously reporting a loss of 251 men's teams between 1976 and 1984, this in a time period surrounding an extremely difficult financial period of the early 1980's. Deepen the sample to the 377 institutions in the 1976-1984 time period and the magnitude of the

difference in change for men and women increases to 788. Four hundred and seven new women's teams appeared between 1976 and 1984, while men lost over 380 teams. In both instances the average loss was one men's team and the average gain was one women's team per institution in the respective samples. The increases for women, however, would only be temporary as both men and women would lose teams over the next decade. By 2001 teams for women had increased again, but with Title IX celebrating its 29th birthday, women still were under represented by nearly half a team per institution (3.6 vs. 3.2) in the NJCAA. Gender equity has proven to make strides in junior college athletic programs, but can be trumped by financial crisis. With this in mind junior college athletic programs have unfinished work with respect to equity in athletics. As the population of female students attending community colleges continues to outpace the male students, substantial proportionality is not equal opportunities but equitable opportunities.

Specific sport sponsorship appears to follow two trends, less is more and teams are more important than individuals. In 1976, junior college athletic programs had 20 choices of sports to offer to male student athletes. Women are provided with 15 possible sponsored sports in 1984. In 2001 these totals had decreased to 15 and 12 respectively. Essential the women have seven substantial sports offered (basketball, cross country, soccer, softball, tennis, track and field and volleyball) as the numbers in bowling, golf, swimming and marathon don't even substantiate a national tournament with play-in qualifying rounds. The depth has increased as the breadth has decreased. Increases in team totals are thus a reflection of increases in membership as opposed to increases in the size of individual programs. When categorized as a team sport (baseball, basketball, etc.) or an individual sport (those with individual winners and team winners, i.e. track and

field, bowling) it becomes apparent that team sports have become the norm. The most sponsored sport for men and women is basketball, followed closely by baseball/softball. On the men's side soccer has doubled as cross country, golf, track and field, tennis and wrestling have seen dramatic losses in sponsorship. Women have seen tennis drop dramatically as volleyball, softball and soccer have made substantial gains. The pattern of disinterest in the individual sports is not reflected in the high schools over this same time period, but the increases in team sports is reflected (NFHS, 2002). NCAA participation is reported to have drops in several of the same individual sports for men (golf, tennis and wrestling) while seeing its largest increase in a team sport (lacrosse) during a recent overlapping time period (1991 to 2004) (Cheslock, 2008).

Junior college athletic programs in the NJCAA have experienced external pressures to add and eliminate opportunities to compete over the last quarter of the 20th century. Federal government regulations (Title IX), state governments (appropriations and association governance) and local external and internal stakeholders (tax payers and students) all influence the decisions to operate athletic programs. Although in troubling financial times, programs appear to cut back, complete elimination is not the norm.

Presence, Size and Sports

Data from the 2004-05 academic year incorporated information from several sources to establish baseline results regarding the decisions to operate an athletic program and if operating, the determination of size. The institutional characteristics that best predicted the presence of intercollegiate athletic programs in community colleges in both the full and public samples were the location variable (rural), enrollment, full time share of the student population, female share of the student population, out of state tuition and

the southeast region. Rural, enrollment and full time percent were positively associated with presence and the female percentage, out of state tuition and the southeast regions were negatively associated. The black share of students was also positively associated with presence, but only in the public sample. State and local appropriations and Pell monies were added to the public sample and all three were significant, with Pell monies and state appropriations negatively correlated and local appropriations positively correlated.

Community colleges in rural areas are more likely to have residential living facilities and providing students with on campus housing easily allows for and often requires full time enrollment. Full time enrollment increases a college's FTE (full time equivalency), which in turn provides more state support through funding formulas based on enrollments. In addition, if rural colleges provide an environment which mimics that of a traditional 4-year college environment (residential living, student life activities and academic programs) then offering intercollegiate athletics could be seen as a natural fit. Discussing rural community college residential housing Moeck et al. stated "The most common type of specialized or dedicated residential housing is housing designated specifically for athletes" (2007). This does not imply that suburban and urban community colleges can't benefit from athletic programs, as certainly they do. It merely suggests that given the financial difficulties rural community colleges face compared to suburban and urban community colleges, i.e. federal funding differentials (Fluharty & Scaggs, 2007); intercollegiate athletic programs offer more to rural community colleges than to suburban and urban community colleges.

Community colleges provide more opportunities for women than men and do so at a higher rate than 4-year colleges and universities (NCES, 2008). Based on this study, as the enrollment increasingly favors women, the likelihood of an athletic program diminishes. There could be several explanations which lead to this result. Women in community colleges are less likely to enroll in transfer degree programs than men (NCES, 2008), focusing on general and applied associate's degrees and certificates. If community colleges focus on providing workforce development, community service and terminal degrees women will increasingly populate the programs (nursing, early childhood care and dietetics). Providing a transfer oriented program such as intercollegiate athletics would be a contradiction to this mission. On the other hand community colleges historically offering athletics have provided more opportunities for men than women, increasing the proportion of full time male students on campus. Thus colleges in the sample with athletics would naturally have a smaller population of women (although still more than men) than the average. Essentially if athletics is one of only a few male dominated programs offered in community colleges, then the addition of an athletic program to a campus would have the opposite effect of adding a female dominated program, such as nursing.

Enrollment proved to be a positive indicator in each of the regressions for presence and size. As enrollment increases so too does the amount of tuition and fees collected. Tuition and fees is often the revenue stream feeding auxiliary departments, areas considered co- or extra-curricular. Granted some of this money goes for student services, but in an economy of scale the per unit cost of providing services decreases as the total number of students increases. This can provide excess money to support athletic

and performing arts programs. As community colleges expand, the breadth of opportunities is expected to expand as well. With state funding formulas driven by enrollment figures, it is advantageous for community colleges to provide as many opportunities (within financial reason) as possible to attract potential students. Articulation of core classes and the ability to transfer classes to four-year colleges are not selling points, nor is an excellent college algebra professor. A quality athletics program dedicated to providing both academic and athletic options at the next level is one variable many high school students base their college choice on. Enrollment is associated with the presence and size of athletic programs in junior colleges because enrollment is a strong factor in two of the three revenue streams that support auxiliary programs.

State appropriations and Pell grant totals per FTE student were both negatively associated with the presence of athletic programs in public community colleges. If community colleges receive higher amounts of state aid per student then they are less likely to offer an athletic program. This implies two scenarios: public community college systems depending heavily on state funding are more likely to pass on athletics, and/or community colleges dependent on state and local appropriations tend not to operate athletic programs. The second option acknowledges the fact that an increase in dollars per student from the state does not inherently imply a larger percentage of revenue is received from the state. If the increase in state aid per student indicates a heavy reliance on state funding then state government laws and regulations are more likely to coerce the behavior of community colleges. In this scenario a college president or board is handcuffed by decisions handed down from a state legislature. Local appropriation increases are positively associated with the presence of an athletic program. A greater

reliance on local resources provides flexibility in the decision making processes of local college boards and administrative personnel. If a community college receives larger amounts of both state and local funding per student then either it is nearly tuition free or resides in a wealthy area. Colleges, however, often rely on student generated monies (i.e. tuition and fees) to provide for non academic programs such as athletics. In areas where this is the case, the reliance of state vs. local would dictate presence. Community colleges with the flexibility of three revenue streams are better equipped to manage an athletic program by balancing the lows and highs of support. This however is not the case for all community colleges and based on the results of this study if a community college only had two major revenue streams (state and tuition, state and local or local and tuition) local and tuition is more likely to present the ability to provide an athletic program.

An increase in Pell grant dollars per student indicates a decrease in the probability of an athletic program on a public community college campus. Pell grant money is based on the socioeconomic need of a student, the enrollment status and the expected cost of attendance at the college. A student displaying need, attending full time and paying a higher cost to attend is more likely to reach the Pell grant cap. This sample included only public community colleges so it is assumed the average tuition or cost to attend is relatively low compared to four –year colleges. Although technology and has enabled community colleges to attract a more global population the majority of students attend local community colleges, thus paying in state or in district tuition costs. Attending college part-time while working is common for students attending community colleges, in 2003-04 only 31% of students in community colleges attended exclusively full time (NCES, 2008). The variable then with the most impact on the average Pell grant amount

received per FTE student is displayed need. An increase in Pell grant money reflects an increase in serving students with greater financial need. The implication then is that community colleges are less likely to offer an athletic program if they are serving a population with lower socioeconomic status. It could be argued that this is not a bad implication as the focus for social mobility should be academic, not athletic. The counter would be to argue that athletics encourages persistence, providing a program of interest that along the way encourages and mandates academic progress.

The southeast region and Midwest regions were both negatively associated with junior college athletic program presence in the full and public samples. This is a surprise given the propensity for strong athletic programs at the NCAA Division I level in the southeast and Midwest. In the presence sample both regions represented at least a quarter of the institutions, but once the sample was paired down to analyze size the southeast region only represented 18% of the sample institutions. Closer review reveals that several states listed in the southeast region (Kentucky, Virginia and West Virginia) have extensive community college systems but do not offer athletics. For example the Kentucky Community and Technical College System (KCTCS) provides 2-year educational programs to over 90,000 students at 16 different campuses across the state, yet only two colleges from the state are affiliated with the NJCAA and both are four year colleges. Similarly, Virginia's state wide community college system controls 23 colleges across the state with only one offering an athletic program currently sponsored by the NJCAA. The lack of athletic representation in these states reduces the overall percentage of community colleges offering athletics. The West has several states with little junior college athletic representation as well, but small representation such as Nevada's two

junior college athletic programs out of 5 in the state doesn't make the same impact on total numbers especially when Texas and California are in the region. Texas follows only California in total number junior college athletic programs. New York is third, providing the northeast region with a ratio of program presence comparable to the west. Clearly state control of community college systems influence the presence of junior college athletics and the southeast region includes several systems that have chosen not to offer athletics as a community college program. A second potential cause of the west's notable presence in junior college athletics is the lack of alternative opportunities. The west region notably lacks college opportunities at the NCAA Division II and Division III levels. Western states do not have the quantity of four year colleges and universities seen in other regions of the country. Without as many opportunities to attend and participate at the less competitive levels, junior colleges fill the void by providing alternatives for those student athletes not ready, athletically or academically, for big-time intercollegiate athletics.

Size of athletic programs was defined by number of student athletes and by number of teams. Similar to presence, enrollment and full time share of the student population positively correlated to the size in both team and student athlete regressions. Female share of the student population again was significant and negatively associated with total student athletes and team numbers. The explanations of these variables with respect to size are similar to the relationship with presence so the discussion here targets those variables previously not discussed or included. Association affiliation variables were introduced in the size regressions. CCCAA community colleges operate extremely large athletic programs compared to NJCAA and NWAACC community colleges. The

association requires compliance with state and federal guidelines related to equitable opportunities for women. Combine this with the 35 colleges offering football (approximately a third of the colleges in the association), the addition of men's volleyball and water polo as team sports and it is easy to see how the size of athletic programs could easily dwarf those in the other associations.

The black share of the population was significant again, but only with the team total regression and this time the association was negative. Although public community college populations with larger shares of black students predict the presence of athletics, they predict smaller team totals. One potential reason for this occurrence could be the influx of black student athletes in the targeted sports of football, basketball and track and field for men and basketball, bowling and track and field for women. At the NCAA level, these sports are the only three for each respective gender representing at least 10% of the total athletes (Cheslock, 2008). With the exception of bowling for women, these are team sports utilizing higher amounts of student athletes, which could also explain why the regression for total student athletes was not significant. A college with football, both track and field teams and both basketball teams could potentially outdistance the total number of student athletes at a college with twice the number of sports. The critical issue is that if black student athletes continue to be corralled into a few sports at community colleges, this suggests it is more likely to happen at colleges with larger black student populations. If the assumption is made that the student body of a community college accurately reflects the community it serves, then administrators in these community colleges are doing a disservice to the community.

Regression analyses for the men's sports of football and wrestling provided the same predictors as presence and size; enrollment, full time percentage of students, female percentage of students and the black percentage of students. The share of the student population that is black had a positive association with football but a negative association with wrestling. Like size, the CCCAA was positively and significantly associated with both football and wrestling. Rural colleges were also positively associated with football. This adds to the previous conversation about rural community college's need to mimic the four year experience. Living on campus, going to Saturday football games could be the draw rural colleges hope for in offering athletics. Or it could be an effort to continue the original mission of many junior colleges; extended high schools. What would extended high schools be without a football team for the town to cheer for?

Softball and women's soccer provided the first results where female share of the student population was not a significant variable. Once again enrollment and CCCAA affiliation were positively associated. The variable of interest is in state tuition. For the first time it is a significant predictor. Increases in in state tuition are associated with the presence of soccer and softball. A \$1000 increase suggests a potential increase in the probability of soccer by 4 percentage points and softball by nearly 7 percentage points. For a comparison of the extremes, New Hampshire's highest tuition and fees for a public community and technical college was \$3,520 in 1998 and New Mexico's lowest tuition and fees at a comparable institution was \$332 (NCES, 2000). Thus a \$3,000 jump in tuition is realistic. Out of state tuition has a negative correlation to the presence of soccer and softball. Increase out of state tuition by \$1,000 and the probability of softball drops by 4 percentage points and soccer by 3 percentage points. The average cost of out of state

tuition and fees for full time students in the full sample was \$5,498 with in state at \$2,757. The inclusion of private for profit (approximately 3) and private not for profit (approximately 16) institutions in this sample (574) provides outliers with large tuition differences compared to the mean for public institutions. According to an NCES report (2008), private for profit institutions in the 2-year sector averaged a tuition rate that was \$6,000 more than out of state tuition and fees and over \$9,000 more than in state tuition and fees at public 2-year institutions in 2005-06. The public sample, however, was relatively close in tuition figures with out of state averaging \$5,303 and in state \$2,476. As it stands colleges with higher out of state tuitions are less likely to offer softball and soccer, but colleges with higher tuition averages are more likely to offer softball and soccer.

Overall the sport predictors closely mirrored those of both size and presence. Enrollment is a strong predictor of presence, size and the four sports chosen. Full time share, female share and black share of the student population also provide consistent significant results throughout the regressions, although the black share and the female share fluctuated between positive effects and negative effects. The success regressions provided little pertinent information and were subsequently eliminated from the results and discussion. I will address modifications to the success analyses in the future research section.

Contributions to the Literature

The results of this study have provided a foundation for future studies focused on community colleges, intercollegiate athletics and specifically junior college intercollegiate athletics. This is the first junior college intercollegiate athletics

longitudinal study based on data retrieved from historical NJCAA tables. Historic information from the NJCAA provides a new and important data set that can be expanded to include more variables, more institutions with the inclusion of CCCAA and NWAACC data and qualitative summaries of intercollegiate athletic programs. As community college research branches out to include specific academic programs, such as nursing, or extracurricular programs like performing arts this study will provide important resources to draw from. Researchers studying college sport and social issues in sport can broaden the scope of past, current or future studies by including the stratum of education historically overlooked. The greatest contribution to the literature will be decided years from now if community college athletic programs are researched and critiqued similarly to 4-year college athletic programs.

Implications

The results of the historical analysis and the regression analyses provide opportunities for changes and adjustments to current policies and the addition of new policies. Current practices of local, state and national entities involved with junior college athletics can also be advanced based on the results of this study. National associations, state organizations, college presidents and athletic administrators responsible for junior college athletics can all benefit. NJCAA participation and specific sport sponsorship results inspire several opportunities for associations to improve upon existing models. Before the policy and practice implications are suggested, it is important to discuss the connection between the findings and the theories providing the framework for the study; institutional theory, resource dependency theory and gender equity.

The attempts to provide opportunities for female athletes in the NJCAA were exemplary early on. It is not clear that Title IX was the only variable behind the growth of women's sports in the NJCAA, but based on timing it is clear that the law played an instrumental role. The economic troubles of higher education did appear to trump Title IX when it came to continued progress towards the substantial proportionality requirement of Title IX. In an effort to reaffirm the intention of the NJCAA to provide equitable opportunities for both genders a new policy, replacing the position statement in the annual handbook, could be created to encourage progress towards equitable opportunities. Based on the mission and array of non-transferable degrees and certificates, the policy should include guidelines as to how a community college should adequately report the full time undergraduate population by gender. Common accounting reporting procedures would also need to be created to comply with the equitable funding of sports. By coordinating the efforts with what colleges already report for the EADA, the policy could easily become part of an institutions dues process at the beginning of each year.

Junior colleges have been left out of the Title IX discussions, lawsuits and research, so in an attempt to provide evidence that colleges of the association are working towards compliance, the NJCAA has a chance to be proactive. The CCCAA constitution requires colleges to be in compliance with state and federal laws regarding gender equity, listing it as one of several tenets required to be in good standing with the association. Although this is easier given the confinement of the association and the members to a single state, the idea of including it in the determination of a college's place within the association provides a model from which the NJCAA can build.

Administrators should not wait for associations to mandate gender equity as the federal government already does. Athletic Directors need to be proactive in promoting growth in female sports without setbacks to current men's sports:

- The current financial support should be analyzed
- Historic and current opportunities should be reviewed.
- Decide on which prong of Title IX compliance will be utilized.
- Gather data and provide a plan which proposes realistic incremental adjustments
- Offer the plan and interpretations of Title IX to presidents and board members.

Female athletes have grown tremendously in numbers at the elementary, middle and high school levels. Providing the appropriate opportunities for female athletes may not be strictly enforced in community colleges but athletic directors and administrators have the opportunity to practice what college missions preach.

Institutional Theory's focus on isomorphic behavior is present in all three sources; coercive, mimetic and normative. Interestingly Title IX's expected coercive role seems to be weak at best. Although women's programs have grown over time, the constraints placed on community colleges by Title IX appear to be overlooked especially in times of financial stress. Title IX is more suggestive than coercive in community colleges and the associations that govern them. State governments provide the coercive source. State appropriations, based on state laws and funding formulas, negatively influenced the presence and size of public junior college athletic programs. States expecting community colleges to operate financially with larger shares of revenue from the state tend to offer less athletic opportunities are less likely to offer that all. Conversely affiliation with the CCCAA, a state run association, provided significant positive correlations to the number of athletes and number of teams in both the full and public samples.

One example of mimetic behavior resulting from the research is the outcomes related to football. Football is the most expensive sport a community college could sponsor and few if any community colleges generate substantial revenue to offset some of the cost. In addition to the financial concerns the difficulty in establishing substantial proportionality required by Title IX becomes that much greater when a college sponsors a men's team consisting of 80 to 100 male student athletes. Given these two environmental factors, football remained relatively consistent in the NJCAA history data. The more current national data suggests these programs exist in rural western largely populated community colleges; community colleges where the female share of the student population is negatively associated and the black share is positively associated with football's presence. Why would colleges keep football programs around or even start a new one? In an effort to gain external legitimacy at the expense of internal efficiency junior college programs are mimicking four-year institutions.

Both the NJCAA and NATYCAA operate in conjunction with and often mimic the behavior of their influential parental organizations, respectively the NCAA and NACDA. The professionalization of junior college athletic directors occurs through affiliation with these organizations. In both cases junior college athletic directors perform many of the administrative duties required to operate the organizations. The current President of the NJCAA still occupies the Athletic Director's position at Scottsdale Community College. Similarly, the athletic director at San Diego Mesa College is the President of NATYCAA and all three vice presidents, the treasurer and secretary are currently employed as athletic directors at community colleges. These organizations provide professional development, mentoring and networking possibilities to junior

college athletic directors creating a fraternity/sorority atmosphere yielding to conformity. The pressure to conform within the field is evident in the evolution of team sports at the expense of individual sports in the NJCAA.

NATYCCA provides a success score for community college athletic programs across the country regardless of national association. The only requirement is that the college belongs to the organization. Currently the process for determining success is a simple summation of the 5 best national finishes for both genders. This model is a scaled down version of the NCAA model, which is sanctioned by NACDA. The award is divided into three subgroups; scholarship, non-scholarship and state associations (currently just California). One problem is the choice of the number of necessary individual scores. As reported in the discussion on size, the junior college athletic programs in this sample average less than 8 teams. Currently a college with 8 teams then automatically receives zeros for scores nine and ten. Under this model a college supporting 8 teams that wins 6 national championships could easily lose the award to a team with zero national championships.

A second problem is how success is defined. In the future research section below, opportunities for improving how program success is measured are suggested. Statistics have become commonplace in sports, adding a few weighted variables to the current simple sum is an easy upgrade, as long as the integrity of reporting is in place. Lastly there is the problem of separating the award into three categories based loosely on scholarship. In an effort to conform to what the field had already produced for 4-year colleges, NATYCAA's version of the Director's Cup for successful junior college athletic programs does not account for the tremendous variation in junior college

programs based on different affiliations and the loose interpretation of the NJCAA's division regulations.

The process by which sports are sponsored by the NJCAA requires direction. Based on the history of the association eliminating and adding sports it appears that individual colleges have more impact on the success or failure of a new or diminishing sport. An implication for practice is to organize a committee responsible for researching new sports, recruiting potential colleges and supporting the events from the national office. Regional interests could then be cultivated to include a wider audience. Included in the process should be a timeline and evaluation tool providing feedback on current results and future growth possibilities.

Resource Dependency Theory suggests that organizations will respond to the demands of external organizations that provide important resources. Community colleges revenue streams vary but typically the three most influential are tuition and fees, local appropriations and state appropriations. Generally auxiliary programs (athletics, student clubs and performing arts) are budgeted through monies received through tuition and fees, with state and/or local appropriations covering maintenance and operation costs and capital requests.

Enrollment was the single most influential variable in the regression analyses. As enrollment increases the tuition and fees revenue stream increases providing the necessary funds to operate an athletic program. Full time share of the student population was also positively associated with presence and size creating a more substantial pool of revenue for financial administrators to distribute. However, the influential organization is not the students paying the tuition and fees as they are they are rarely organized and

thus do not possess an influential voice on how the revenue stream they provide is utilized. Instead it is the local and state governing bodies that control the appropriations levels whose demands can be influential. Community colleges' dependence on only one of the appropriation streams provides little flexibility if shortages occur. When community colleges are asked to do more with less, tuition and fees revenue is re-routed to cover shortfalls in maintenance and operations leaving auxiliary programs to fund raise or perish.

State appropriations are associated with a negative effect on presence and size. In states where community colleges rely on larger amounts of state funding, athletic programs are less likely to exist and if they do are most likely smaller in size. States like Florida, Alabama and Louisiana which limit the ability of public community colleges to ask local communities for funding, place the colleges in a precarious position. Athletics and other extracurricular activities become expandable in difficult financial times. Providing the ability for colleges to seek out financial opportunities to cover operations would provide the communities the college serves a voice in the direction of the college. Alternatively Arizona, Montana and Wisconsin place substantial pressure on community colleges to secure revenue from local sources, providing less than a quarter of a college's revenue from the state. Community colleges should have multiple revenue streams with a resemblance of balance. This would provide administrators with the flexibility to plan and prepare for difficult times, eliminating the need for program cuts. State boards and legislatures have the ability to provide community colleges with the necessary balance to manipulate difficult financial time periods; taking advantage of the ability is the next step.

Presence and size of NJCAA programs in difficult financial times provide evidence of buffering strategies to cope with shortages in resources. The 1984-1991 and 1991-1996 time periods experienced increases in the sample from the previous time periods suggesting community colleges continued to start athletic programs even with shortages in resources. In an effort to cope with the shortages, junior colleges during these time periods were shrinking in size as the total number of men's and women's teams decreased. Perhaps institutions cut back by dropping a team or two but just as likely, given the trend away from individual sports, a college could save money by dropping three small individual sports and replace them with a relatively inexpensive team sport such as soccer. In the end, the program loses size in team numbers but saves money and could conceivably provide the same number of opportunities to student athletes.

Presidents and athletic administrators of community colleges have opportunities to take a look at current programs and begin to evaluate how well they reflect the mission of the college. In particular two results of the study reflect the need for immediate attention; female participation, and serving a diverse student body. Missions often express the goal of supporting a diverse community. Globalization has added a new dimension to the word community. Student athletes are no longer locked into the local community college often traveling across the country or world to attend a college providing a specific program of interest. With this comes the responsibility of administrators to provide environments respectful of and representative of a diverse population. Sports offered, hiring practices, travel standards, game days or times and team bonding activities all require in depth investigation and possible alterations. Local

administrators have a responsibility to the community but must not lose sight of the student athlete community they lead.

Future Research

When extending this study into future research projects, three strands should be considered: finance of community colleges and athletic departments, gender equity and sport specific research. One path for the finance strand is to quantitatively analyze state systems of support incorporating governance structure of community colleges, community colleges per capita and direct and indirect statutes controlling the revenue received by community colleges and specifically how it effects athletic departments. A second path would take a qualitative approach, analyzing 8 to 10 community colleges across the country. Detailed summaries of revenue streams, costs and the decision making process behind financing intercollegiate athletics would provide valuable insight to the presence, size and scope of junior college athletic programs.

State governments provide varying roles to public community colleges. Florida and California provide powerful oversight to community colleges reliant on state funding for general maintenance and operational budgets. California's vision of low tuition for this sector of higher education likely provides a strong influence on the colleges' inability to offer athletic scholarships. Florida community colleges on the other hand provide full scholarships to the maximum allowable by the NJCAA. Unlike California, however, not a single junior college in the state offers a football program, this in a state known nationwide to have high numbers of top high school football recruits per capita. Then there are those states like Arizona whose community colleges receive a much larger proportion of revenues from local appropriations and currently do not have a state board

or oversight committee governing the public community colleges. The differences provide opportunity; opportunity to explore the advantages and disadvantages of strong state governance and strong local governance. The number of community colleges per capita would control for opportunities provided by the state. A comparable variable for 4 year colleges and universities would provide valuable comparison information in governance and for revenue distribution.

For athletic considerations, scholarship disbursement, coaching status and travel budgets are essential. Are scholarships provided? If so, to what extent? Programs reducing tuition costs for out of state students, such as the WUE program, increase the likelihood of interstate attendance. It is common for bordering states or colleges on state borders to have reciprocity for in state tuition. Statewide programs providing tuition relief to students and specifically student athletes can be used as de facto athletic scholarships. Head coaches were historically faculty members on campus. However trends in the profession towards stricter employment standards with respect to graduate degrees and graduate hours in content areas in combination with the growth of sports offered have made faculty status difficult for new head coaches. The demands of faculty on campus and the relative size of Health, Physical Education and Recreation (HPER) divisions make it difficult for a full time head coach to also be a full time professor.

Community colleges have dealt with this by hiring coaches as full time athletic specialists, not on faculty salary, or simply as part time employees. Given the option, an athletic administrator would much rather have full time head coaches to monitor and manage the student athletes, budget and day to day practice and game activities. The ability to hire full time coaches provides an opportunity to be efficient, effective and

successful. Due to the variety of reimbursement plans for services rendered by head coaches, a dollar amount would require all colleges to adhere to comparable accounting procedures. For this reason full vs. part time would provide more accurate information. Geography and association affiliation can widely effect your travel requirements. In larger land mass states, travel to conference games can often require missing class for early morning bus rides which end early the next morning. Smaller states with dense populations or large metropolitan areas with multiple community colleges and proximity to other densely populated areas require less travel and thus less money for travel. If a community college is associated with the NJCAA travel to regional, district and national championship events requires plane flights, rented vans and multiple nights in hotels. CCCAA and NWAACC end of season tournaments are confined to California and Washington or Oregon respectively. Although recruiting, supplies and uniforms are also an important aspect of an athletic department's budget, scholarship (in total dollars), head coaches' employment status and a travel budget (in total dollars) could more easily contribute without discrepancies in reporting.

Title IX lawsuits aimed at junior college intercollegiate athletics have been rare to nonexistent. Is this a sign that female participation is equitable or meets the needs of the population? Or have junior college programs escaped the law by hiding in obscurity? In depth research could assist in answering this question. One could conjecture that the colleges of the NJCAA do not meet the proportionality requirement of Title IX based on the historical trends provided in this study along with the knowledge that women populate these institutions at a higher rate than men. Conjecture however is not required. In a recent study Cheslock (2007) reported that junior college athletic programs,

specifically those affiliated with the NJCAA and CCCAA, had the highest proportionality gaps in college athletics in the 2004-05 academic year. A detailed study focusing on the institutional characteristics could provide valuable information to association leaders and local administrators. The research would then be extended to include the Title IX requirements of expenditures on teams, although more difficult given the intricacies of reporting financial data.

Six sports were analyzed in the research. Extensive adjustments to the breadth and depth of the specific sports could provide a limitless strand. Each of these six sports can be investigated individually with a focus on funding, detailed participant characteristics, historical evolution and the connection to the sport at varying levels of participation. How is the rise, fall or stagnation of the sport associated with local, national and global trends? How is the participation in this sport correlated to academic progress, transfer and baccalaureate attainment? How are the expenditures explained? The potential questions are only limited by the availability of data. This approach should also be extended to include other sports offered in junior college athletic programs with the appropriate populations to perform quantitative analyses.

Conclusion

Intercollegiate athletics have existed for over a century. A nationwide surge of programs at the junior college level didn't occur until the 1970's. Title IX helped increase opportunities for women. Men's programs experienced growth in the early 1970's but would lose teams towards the end of the decade as women's programs were implemented. The majority of junior college programs are affiliated with three associations; the NJCAA, CCCAA and NWAACC. A variety of sports have been

sponsored, team sports have driven the growth over the last few decades while individual sports such as archery, skiing, tennis and Judo have diminished or were eliminated.

Soccer for both men and women and softball for women have experienced tremendous growth since the early 1980's. With the growth in team sports current research (Cheslock, 2007) still suggests substantial proportionality has not been achieved in a nationwide sample of junior colleges. The end of the century experienced overall growth in opportunities to participate in athletics at the junior college level, growth that has provided opportunities for research.

Junior college intercollegiate athletics overlaps two distinct and heavily researched populations in higher education. Community colleges receive significant attention in higher education literature. Intercollegiate athletics is a popular topic as well. The focus, however, has historically tilted to the Division I level of the NCAA undoubtedly due to factors such as media attention, history and prestige of the institutions and the tremendous amount of money that is invested. Neither of these three are a factor at the local public community college. What is a factor are the 70,000 student athletes utilizing the junior college programs to advance both academic and athletic aspirations. The programs and administrators need research to effect policy and practice. In establishing a baseline history and overarching themes of current junior college programs this study provides a foundation for future work.

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