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THE SCHOLASTIC APTITUDE TEST SCORE OF 700 AS A
PREDICTIVE FACTOR FOR COLLEGE SCHOLASTIC
POTENTIAL AMONG SELECTED ATHLETES

A Thesis

by

CHARLES EDWARD COINER, JR.

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Charles Edward Coiner, Jr.

May 1984

APPROVED BY:

Larry Horine

Chairperson, Thesis Committee

Judy Clarke

Member, Thesis Committee

Mark A. Bonn

Member, Thesis Committee

E Ole Larson

Chairperson, Department of
Health, Physical Education and
Recreation

Joyce V Lawrence

Dean of the Graduate School

ABSTRACT

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POTENTIAL AMONG SELECTED ATHLETES

(May 1984)

Charles E. Coiner, Jr., B. A., Catawba College
M. A., Appalachian State University
Thesis Chairperson: Lawrence Horine

The purpose of this investigation was to demonstrate the effects of the scholastic aptitude test score of 700 as a predictive factor for college scholastic potential among selected athletes at Appalachian State University in Boone, North Carolina. A secondary purpose was to determine if differences existed regarding sex and race when the scholastic aptitude test score of 700 was investigated as a predictive factor for college scholastic potential. The data for the study were acquired by searching the Southern Conference eligibility forms compiled and organized by the Department of Athletics at ASU. Every student-athlete participating as a freshman during the 1976-1977 and 1977-1978 school years was included. A chi-square test of proportions indicated

that the below 700 scorers on the SAT demonstrated a different graduation proportion than the 700 or above scorers when the total group was considered and also when sex and race were considered.

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Chapter 1

INTRODUCTION

The relationship between athletics and academics has been a major concern for professionals in colleges and universities throughout the United States. The interrelationship of the two separate but related fields has seemed to be a logical one. The strong mind, strong body relationship has been endorsed dating back to ancient Greek culture. An equilibrium of the two has since been the desired status endorsed by civilization (Bucher, 1975).

Recently, academic officials have become increasingly concerned that athletics has become the priority of society. One investigation determined that athletics were harmful to the academic pursuits of a young student-athlete (Spady, 1970). Other research findings have reported that athletics were a positive influence on academic performance (Spreitzer & Pugh, 1973). Additional research in this area has shown that athletics may be the primary reason for academic success of inner city high school students (Athletics as Academic Motivation for the Inner City Boy, 1972).

The majority of professionals from both the athletic and academic fields have agreed that athletics should not be the priority in the relationship. Few student-athletes find employment as an athlete after graduation from the collegiate level and the majority must rely on educational achievement to aid in obtaining employment (Edwards, 1973). Based on research of this nature, the colleges and universities in the United States have taken a position supporting academics as a priority. The National Collegiate Athletic Association (NCAA) founded in 1906 has been the primary instrument for setting the academic standards. The NCAA, as the national organization for athletics governing most large colleges and universities, has set eligibility standards for athletes. The standards, however, have been viewed as being too low by a large number of the professionals in the academic field.

Within the standards set by the NCAA, colleges and universities have sponsored competitive athletic programs while simultaneously promoting academic achievement from the student-athletes. The popularity of athletics has grown to such an enormous status that problems have arisen. The ticket sales and media coverage have generated large amounts of revenue for the NCAA and the universities involved in the athletic events. Some institutions have produced enough revenue

to support academic areas within the university. With the opportunity to earn large amounts of money, the athletic programs in the NCAA have become highly competitive. Coaches and athletic directors have gained and lost positions due to win-loss percentages. Positions have also been dictated by the amount of public support created by a particular team and program. Colleges and universities have been forced to admit student-athletes with the minimum NCAA requirements in order to remain competitive. Individual institutions setting standards above that of the NCAA have had a disadvantage when recruiting talented athletes and consequently the athletic program has suffered.

The NCAA's academic eligibility standards have originated from NCAA Bylaws 5-1 and 5-6(b) 2.000 Rule. This rule states that the student, in order to be eligible for athletic participation at a Division One school must have a 2.000 grade point average based on a 4.000 scale coming directly out of high school. (See definition of terms for NCAA Bylaws 5-1 and 5-6(b), NCAA Guide, 1983-84.) This bylaw has been a standard well below what the majority of colleges and universities had accepted in the past. Most universities, however, have lowered the acceptance standards normally required for the purpose of recruitment of talented athletes. Athletes have been admitted to some NCAA

universities who have not met the institution's academic standards, but were above the NCAA's requirements.

This admittance of student-athletes having minimum entrance requirements or in some cases the admittance of those athletes under the minimum requirements has been a concern of some college presidents and chancellors. There was a considerable concern that this standard had allowed students to enroll in college who were unprepared and had a limited chance of graduating. There have been cases of athletes remaining eligible for athletic participation for four or five years, having done so through a curriculum designed at maintaining eligibility, not for obtaining a degree. A few cases have been documented indicating that an athlete had graduated without the ability to read or write (Sanoff, 1983). Roger Valdiserri, assistant athletic director at Notre Dame, has verbalized the opinion of many educational administrators having stated, "schools are turning out academic vagrants" (Sanoff, 1983). The Southwest Conference graduated only 17% of the seniors regularly playing basketball in 1982 (Sanoff, 1983). The problems have been prevalent, however, the general public support for collegiate athletics has allowed these low standards.

It has taken an effort by The American Council on Education, an ad hoc committee of the NCAA, to finally

prompt action by the NCAA to change the academic standards. Joe Paterno, the head football coach at The Pennsylvania State University has been a leading proponent of the reforms and strongly supported a proposal to the NCAA 1983 Convention in San Diego. The proposition, labeled as Number 48, stated that effective August 1, 1986 high school students must have graduated with a 2.000 grade point average in a specific core curriculum. In addition, they would need to score 700 on the Scholastic Aptitude Test (SAT) or a 15 composite score on the American College Test (ACT). (See definition of terms for Proposition #48, NCAA Manual, 1983). This proposition was designed to motivate high school students to be better prepared if collegiate athletics was a goal. The proposal was also designed to separate the acceptable from the unacceptable student, inferring that the student meeting the qualifications had a high expectation for success in college while those not meeting the standards would have below average expectations of collegiate academic success. The proposal was passed by the NCAA voting body in January of 1983 at the Annual Convention in San Diego and has created a great controversy.

While there has been a great deal of general support for the rule, opposition to the rule remains prevalent. The primary opposition has originated among

representatives of Black institutions. The opposition felt the proposal was biased against the Black student-athlete because approximately 56% of Black high school students have scored lower than 700 on the SAT in the past (Creamer, 1983).

The primary issue has been in evaluating the SAT as a predictive factor for college scholastic potential among athletes. This issue has evoked much controversy and has remained unsolved. The majority of colleges and universities have employed the use of the SAT as an indicator of future scholastic performance. The NCAA has also followed the same course of action relying on the SAT as a predictor of academic potential. The NCAA has related with a special cross-section of the youth in the United States and it has been imperative that the Association be strict, yet fair with rulings concerning academics. For this reason, there should be an obligation on the part of the NCAA and all others involved to investigate the 700 SAT as a predictive factor and its effects on the student-athletes before the new rules are adopted.

Statement of the Problem

The purpose of this study was to determine the effects of the scholastic aptitude test score of 700 as a predictive factor for college scholastic potential

among selected athletes at Appalachian State University in Boone, North Carolina.

The secondary purpose of this study was to determine if differences existed regarding sex and race when the scholastic aptitude test score of 700 was investigated as a predictive factor for college scholastic potential among selected athletes at Appalachian State University.

Scope of the Study

Two hundred and six student-athletes competing as freshmen during the 1976-77 and 1977-78 academic school years for Appalachian State University in Boone, North Carolina were the subjects in the study. The subjects participated in the following sports: (a) men's swimming, (b) men's tennis, (c) men's golf, (d) men's soccer, (e) men's wrestling, (f) men's outdoor track, (g) men's football, (h) men's cross country, (i) men's indoor track, (j) men's riflery, (k) men's basketball, (l) men's baseball, (m) women's basketball, (n) women's volleyball, (o) women's softball, (p) women's golf, (q) women's tennis, (r) women's swimming, (s) women's field hockey, and (t) women's gymnastics. The study included both scholarship and nonscholarship athletes. The central computer system for Appalachian State University was used to retrieve the academic records for the subjects. The following information

for each subject was obtained: (a) name of the subject; (b) sex of the subject; (c) race of the subject; (d) SAT Verbal Score; (e) SAT Mathematic Score; (f) SAT Composite Score; (g) cumulative Grade Point Average per school year, 1976-1982; (h) enrollment status; and (i) graduation date.

Definition of Terms

For the purpose of clarification, the following terms employed in this study have been defined.

ACT. The ACT is the American College Test. This test along with the SAT is one of the test normally used to predict academic potential for college bound high school students.

Cumulative GPA. The cumulative GPA is the cumulative grade point average. It is the composite average of all grades received in academic classes at an institution.

Eligibility. Eligibility for incoming freshmen is currently achieved by obtaining a 2.000 grade point average for all secondary education classes while in high school. Eligibility standards are set by the NCAA. This eligibility standard is set for NCAA Division I schools. NCAA Proposition #48 proposes to increase eligibility standards.

Enrollment status. Enrollment status is the current academic status of the student athlete. The

status would be (a) freshman, (b) sophomore, (c) junior, (d) senior, (e) graduate, or (f) withdrawn.

NCAA. The NCAA is the National Collegiate Athletic Association. It is the governing body for the majority of large college athletic programs in the United States.

NCAA Bylaws 5-1 and 5-6(b). Bylaws 5-1 and 5-6(b) state:

In order to be eligible for practice, participation in regular-season competition and athletically related financial aid during the first academic year in residence, a student entering a Division I NCAA member institution which operates under Bylaw 5-6(b) directly out of high school must have graduated from high school with a minimum grade point average of 2.000 (based on a maximum of 4.000) for all work taken through the accumulative six, seven, or eight semesters and certified officially by the student's high school. (NCAA Manual, 1983-84)

NCAA Division I. NCAA Division I is one of three main divisions designated by the NCAA. There are presently 277 institutions in this division. Proposition #48 was passed exclusively for Division I.

NCAA Proposition #48. NCAA Proposition #48 was passed in January of 1983 and stated:

Effective August 1, 1986 a student entering a Division I institution directly out of high school must have graduated from high school with a minimum grade-point average of 2.000 (based on a maximum of 4.000) in a core curriculum of at least 11 academic full-year courses, including at least 3 in English, 2 in mathematics, 2 in social science, and 2 in natural or physical science (including at least 1 laboratory class if offered by the high school) as well as a 700 combined score on the

SAT Verbal and Math sections or a composite score of 15 on the ACT. (NCAA Manual, 1983-84)

Nonscholarship athlete. A nonscholarship athlete is any student not receiving financial assistance directly from the school's athletic department. Financial support for education is derived from either a personal source or some other form of financial aid.

SAT. The SAT is the Scholastic Aptitude Test. It is the most common test for predicting college academic potential. It is a two-part test. One part tests the verbal ability of the subject while the other tests mathematical ability.

SAT Mathematics. The SAT Mathematics is one-half of the total SAT Test. This portion of the SAT tests the subject's mathematical ability.

SAT Verbal. The SAT Verbal is one-half of the SAT. This portion of the SAT tests the verbal ability of the subject.

Scholarship-athlete. A scholarship-athlete is any student-athlete receiving financial assistance directly from the athletic department of the institution.

Student-athlete. A student-athlete is any student enrolled in classes who is actively participating on an NCAA endorsed team.

Limitations

The results of the study were subject to the following limitations:

1. There were no indicators of personal life status for the subjects in this study. The status of the subject's personal life may have affected scholastic performance during the study.

2. The individual's course of study and major were not taken into consideration in this study. The subject's course of study and major could affect academic progress.

3. There was no investigation of individual subject's academic direction after leaving Appalachian State University. Discretion between transfers and those discontinuing education was not made.

Chapter 2

REVIEW OF LITERATURE

NCAA Proposition Number 48 has caused much controversy in both the academic and athletic fields. Many views exist concerning the 700 SAT score as a predictor of academic potential for athletes. There was not, however, an abundance of research oriented literature directly related with Proposition Number 48 and the effects of the proposed NCAA rule. For this reason, the author chose to include two peripheral and relevant sections of related information along with the central section. The review of literature is divided into four parts: (a) effects of athletic participation on high school academic performance, (b) effects of athletic participation on collegiate academic performance, (c) effects of NCAA Proposition Number 48 on collegiate athletics, and (d) summary.

Effects of Athletic Participation on High School Academic Performance

Many studies have investigated the effects of athletic participation on high school academic performance. Most investigations have involved the monitoring of academic progress while participating in athletics.

Schafer and Armer (1968) found that athletics seemed to actually help high school students academically. They surveyed one medium sized and one large senior high school comparing the academic achievement of male athletes with that of male nonathletes. They examined the high schools employing a three-part hypothesis: (a) athletes should not perform as well scholastically as nonathletes; (b) the greater the student's participation in sports the greater the detriment to his studies; and (c) a student's participation in those sports that are given the greatest recognition and attention, generally football and basketball, should harm his academic performance more than the minor sports due to the time spent and social rewards. All three hypotheses were disproven when male athletes were compared to matched nonathletes. Also the male athletes (N = 164) had an average grade point average (GPA) of 2.35 while the male nonathletes (N = 421) had an average 1.83 GPA. Schafer and Armer (1968) also found that athletes had a lower drop-out rate than nonathletes and that more athletes attend college than nonathletes. It was concluded that athletics was not harmful to the academic achievement among athletes and that there was a need for more research in this area.

Rehburg (1969) supported the concept that there was an "incremental rather than a decremental relation

between educational pursuits and athletics" (p. 75). Five conclusions were reported:

1. Athletes are somewhat more likely than non-athletes to receive higher grades and have higher educational expectations because they are more likely to gain membership in the achievement oriented leading crowd.

2. Athletics has an incremental effect on achievement values.

3. Athletics and aspiration/self-esteem are positively related.

4. Athletics, as a pressure situation, are conducive to successful classroom performance.

5. The athlete is conspicuous in school and in the community and is viewed as a representative, thus the quantity and quality of counseling is superior.

Rehburg (1969) also suggested that the sport involved, the number of sports participated in, and the number of seasons the adolescent had participated in interscholastic athletics should be examined in any subsequent empirical study of educational pursuers-athletic participation relationship.

The Journal of Health, Physical Education, and Recreation published material stating that the social environment leads inner city youth to believe there is no chance of ever leaving the ghetto. According to

the article, the inner city youth of Chicago were aided by programs centered around athletes. These programs emphasized the importance of academics to the inner city youth. This article emphasized the fact that athletics were the primary motivator behind the academic pursuits of the Chicago youth involved in the program (Athletics as academic motivation for the inner city boy, 1972, February).

Spreitzer and Pugh (1973) replicated a study by Rehburg and Schaefer concerning the influence of interscholastic sports on the educational plans of high school boys. Five thousand two-hundred and thirty-six high school seniors attending 13 high schools in five Connecticut cities answered questionnaires concerning interscholastic athletics and educational expectations. This research concluded that the relationship between athletic participation and perceived peer status was quite strong. This conclusion was based on facts in this study indicating that the association between athletic participation and higher educational goals is not eliminated when controlling for parental socioeconomic status, parental academic encouragement, student grade average, and measured intelligence. It was also concluded that the influence of sports involvement was particularly strong for boys not otherwise predisposed to attend college.

The American Journal of Sociology published findings in 1973 related to data that were gathered for variables which could theoretically produce a spurious relationship between college expectations and interscholastic athletic participation (Participation in Interscholastics, 1973). This study included three variables. The first was social status which was measured by the Hollingshead two factor index of social position. The second was academic performance which was indicated by the individual's rank in the graduating class. The last variable was the parental educational encouragement. This variable was tested according to the respondent's indication of how frequently each parent encouraged him to continue his education past high school. The results of the study closely paralleled those of Spreitzer and Pugh (1973). The data indicated that a greater proportion of athletes than nonathletes expected to enroll in a four year college, even when the potentially confounding variables of status, academic performance, and parental encouragement were controlled. This relationship was especially marked among boys not otherwise disposed toward college.

Picou and Curry (1974) showed that, "participation in high school athletics certainly does not constrain or hinder the development of high level educational

aspirations" (p. 775). This summation was the result of a study on the value orientations of Louisiana youth. Twenty-four random high schools including 3,245 youths were included in the survey. The variables measured in the survey included: (a) father's education, (b) mother's education, (c) subject's grade point average, (d) parent's educational encouragement, (e) subject's educational aspiration, and (f) subject's athletic participation. The results indicated that participation in high school athletics had a rather moderate, positive effect on the level of educational aspiration.

One limitation of studies conducted in the past was that there was no measure of the number of students with high aspirations who actually go to college. Also, no measure had been taken concerning the graduation rate from college for these students with high aspirations according to Spady (1970). This conclusion was a result of a study investigating three separate issues. The first was the influence of peer-group factors on student aspirations. The second issue stated the influence of peer-group factors on college attainment, and the last issue was the influence of the peer-group factors on goal fulfillment. Spady used questionnaires from 297 male seniors in two neighboring west coast high schools in September of 1963 and then repeated the procedure four years after graduation. Three dependent

variables were measured in the investigation: (a) educational goals of the students while in the senior year of high school, (b) educational attainments of those same students four years later, and (c) the extent to which the original goals stated by the students had been realized. It was concluded that "service and leadership roles appeared to be more important than athletics alone, particularly among those students with marginal family SES and academic resources" (p. 696). Spady also stated:

Participation in athletics in high school is strongly associated with having high status perceptions. The system backfires when activities such as athletics stimulate the students' status perceptions and future goals without providing the skills and orientations requisite for their fulfillment. (p. 700)

Hanks (1979) conducted a study that included a subsample of 13,618 Black and White males and females participating in a base year (1972) and first year follow-up (1973) survey of the National Longitudinal Study (NLS) of the high school senior class of 1972. This survey included: (a) social class background indicated by an index constructed by the NLS staff of five equally weighted items including father's education, mother's education, parent's income, father's occupation, and household items; (b) athletic participation indicated by the student's response to an item on the questionnaire; (c) self-esteem indicated by an

index constructed by the NLS; and (d) educational expectations indicated by the student's response to an item on the questionnaire. Hanks concluded that there was a significant impact of athletic participation on students' educational orientation and actual college attendance behavior. It was also concluded that the experience of participating in sports was more important for males of both races than it was for females. This may not be the case presently due to the expansion of opportunities for females in sports. In summary, Hanks called for more long-term longitudinal studies on the effect of high school athletics on academics.

Paulsen (1983) reported concerning a rule passed by the 1983 school board in Los Angeles. The rule stated that any high school student failing to achieve a "C" average or receiving an "F" in any class for the semester would become ineligible for extracurricular activities until the next grading period. The results of the revisions were that 18.9% of the athletes lost eligibility.

Effects of Athletic Participation on Collegiate Academic Performance

Academic performance while participating in collegiate athletics has been investigated with various techniques and methods. There has also been a great

amount of literature published concerning the issue at this level.

Larsen (1973) completed a study at the University of Tennessee at Knoxville on the academic achievement of athletes at the institution. The investigation compared the academic achievement of athletes with that of male students not engaged in intercollegiate sports. The academic achievement was measured by the cumulative grade point average for the Spring Quarter, 1973. In addition, an analysis of persistence to graduation was undertaken for similar groups of freshman athletes and for a sample of male students for the years 1965 and 1968. The results of the investigation revealed the mean GPA for male athletes was slightly less than the mean GPA for male undergraduates for the entire university. Also, the average ACT composite score for male athletes was slightly less than that for all male entering freshman in 1968 and 1972. Larsen (1973) also suggested that four years may not be enough time to evaluate graduation rate for athletes.

Grant (1979) has appealed for institutional autonomy as related to intercollegiate athletics. Revenue and exposure were credited as factors contributing to the problems with intercollegiate athletics. The author suggested, "national governing organizations must

accept the moral responsibility to create educational rather than commercial athletics programs" (p. 428).

A defense of athletics' intergration into the education process by Davis (1979) explained the views of many collegiate level coaches concerning marginal students. Davis stated:

The coach realizes that not all of the blue chip athletes are Phi Beta Kappa candidates. Skilled student athletes with the high grades will have to be supplemented by gambling on marginal students who can run fast, hit hard, and leap high.... Long before the rest of higher education was interested in opening access for prospects who were lacking in academic preparation, coaches were finding that many--given opportunity, support, and motivation--could achieve adequately in their studies. (p. 427)

Davis (1979) also stated, "ethnic integration and equal opportunity entered the playing fields and gymnasiums of our institutions and often opened doors long closed by other segments of the campus" (p. 428).

Unethical behavior and its effects on college sports were reviewed by Hanford (1979). Altering high school academic transcripts, threatening to bomb the home of a high school principal who refused to alter transcripts, changing admissions test scores, and having assistant coaches take admission tests for prospects were all listed as incidents occurring in the past ten years. A solution was also presented in the article. Hanford stated:

Hope for the future lies in the educational line or development.... If intercollegiate athletics are perceived as an adjunct of the educational process or something separate from it, financial support for all but the television-supported powerhouses will be harder to obtain as the superfluties of education are set aside. (p. 365)

Ness (1980) supported large scale collegiate athletics and concluded that athletes gained in socioeconomic status from involvement in collegiate athletics. The study also stated that the university gains from publicity, cost effectiveness, and visibility due to the athlete. The investigation called for future studies that: (a) measure change in relevant outcomes from precollegiate participation to postcollegiate participation, (b) isolate changes attributable to athletic involvement from those of the natural maturation process, and (c) measure long-term effects. It was concluded that future studies should include: (a) multiinstitutional data, (b) longitudinal data, (c) multiple measures of entering athletes, (d) multiple follow-up measures of student development of athletes including both cognitive and affective, (e) multivariate designs for controlling differences among athletes entering institutions in different competitive levels, and (f) methodological provisions made for separating athletic participation effects from maturational effects.

It was reported by the New York Times that some University of Southern California football players had cited abuses by the previous football staff along with the school's academic administration. It was reported that 32 University of Southern California athletes had been enrolled in a bogus speech class that some of the players involved knew nothing about. Also, over a ten year period, 330 academically unqualified athletes were admitted to the University. The head coach, the academic coach, and members of the academic administration were cited as individuals involved in the scandal (Graduates cite U.S.C. abuses, 1980, October 16).

Several basic questions regarding intercollegiate athletics were suggested by Ness (1981). The suggested questions were: (a) are football and basketball representative prototypes for all male collegiate athletes? (b) are academic problems of athletes greater than non-athletes? (c) does an athlete deserve an education owed to him by the university? (d) should athletes graduate in four or five years? (e) is a baccalaureate degree the only relevant outcome of the collegiate athletic experience? (f) can athletics cure academic deficiencies that exist among athletes upon first matriculation? (g) are athletes who matriculate for the chance to compete predisposed to failure during or after athletic eligibility? and, (h) is whatever befalls a young athlete during the

crucial postadolescent a result of the college athletic experience? The author suggested that the basic questions be investigated with methods endorsed in a previous study by Ness (1981).

Purdy, Eitzen, and Hufnagel (1982) completed an indepth study involving the academic achievements of athletes at Colorado State University from the Fall of 1970 through the Spring of 1980. Research was based on information received from the admissions and records departments and eligibility reports supplied by the athletic department for the conference. The study involved 2,091 athletes. The variables involved were: (a) cumulative university grade point average, (b) ACT or SAT score, (c) high school grade point average, (d) high school class rank, and (e) number of years required to graduate. Two sets of data were investigated. The first set involved the comparison of athletes to the general student population (GSP) on several variables that measure educational ability and achievement. The second was based on an analysis of the same variables within various subcategories of athletes, including sport, letter winner, and participation as a senior. The data revealed that athletes in the aggregate differed from the GSP on every dimension tested. The most significant differences were that athletes were consequently less prepared than the GSP for college as shown

by the lower high school grade point average, high school class rank percentile, SAT and ACT score. Also, there was a similar performance of athletes as compared to the GSP when measured by college grade point average and graduation rate. Similar, though somewhat smaller differences were discovered between female athletes and females from the GSP on most indices of educational success although female athletes had slightly higher GPAs in college than the GSP. The following peripheral results were reported in the study: (a) athletes in football, basketball, and wrestling had relatively lower mean scores for the educational achievement measures used for university admission; (b) only 3% of the athletes admitted with a high school grade point average under 2.50 graduated; and (c) football and basketball accounted for 47% of those athletes admitted to school with a SAT score under 700. The authors summarized the study, stating, "Unethical conduct will continue to embarrass educational institutions until they realize the magnitude of the problem and correct the situation" (p. 440).

Effects of NCAA Proposition #48

on Collegiate Athletics

There has not been a vast amount of scientifically based research completed regarding the NCAA's

Proposition #48. There was, however, an abundance of current literature pertaining directly to the proposition.

The NCAA Proposition #48 was passed at the 1983 Annual NCAA Convention in San Diego. It was reported that as many as 100 university presidents had made plans to personally lobby at the Convention for the proposal. The University of Georgia President, Frederick Davison, commented on the present NCAA academic requirements, "that means nothing except that you stayed out of jail" (Raising the Grade for Athletes, 1983). The proposition which is effective in January of 1986 has created concern on the part of some school officials that the requirement could inspire some athletes to send substitutes to take exams.

Sanoff (1983) reported an account on the 1983 NCAA convention. Edward Fort, the Chancellor of North Carolina A & T State University commented:

Black and rurally isolated white youths would be hurt by this.... This is evidence that students from upper-income families sometimes score 100 points higher on these tests than those from disadvantaged backgrounds. It has nothing to do with academic potential.
(p. 76)

The article also recorded statistics concerning the graduation rate of the 1982 NCAA basketball seniors who played regularly. The NCAA conferences were ranked

according to graduation percentages: (a) Ivy-100%, (b) Big East-77%, (c) Southern-63%, (d) Big Eight-50%, (e) Missouri Valley-44%, (f) Pacific Ten-41%, (g) Southeastern-40%, (h) Atlantic Coast Conference-37%, (i) Big Ten-30%, and (j) Southwest-17%.

A third account of the 1983 NCAA Convention was conveyed by Sports Illustrated in 1973. This article investigated indepth the controversy involved with Proposition #48 (Furor in San Diego: A Testing Program for the NCAA, 1983). Joe Paterno, head football coach at The Pennsylvania State University and a supporter of Proposition #48 commented on the opposition to the proposal:

I'm really surprised to see Black leaders standing here and selling their Black students down the river. Selling them short. They underestimate these young people and what great competitors they are. I have no doubt that if a SAT score of 700 is needed and they have the time to prepare, they will compete and they will succeed.... We've told Black kids who bounce balls, run around tracks and catch touchdown passes that this is an end into itself. We've raped them. We can't afford to do it to another generation. (p. 9)

According to the article there was much opposition to the proposal. Dr. Joseph B. Johnson, Grambling University President, addressed the issue, "I think a message has been sent to Black athletes across this country. There's just too many of you on America's athletic teams" (p. 9). Neale Stoner, athletic director at The University of Illinois, supported Johnson's

views and commented, "As 48 stands now we'll have an all-white football team" (p. 9). Dr. Robert Randolph, President of Alabama State, stated, "These are admission standards for athletes. We don't care what they are for other students. This is discrimination. An awful lot of students are given awards based on skills that are not athletic" (p. 9).

Vance (1983, February 2) reported that the opposition to the proposal received support from the President of the National Testing Service (NTS). The President of the NTS publically opposed the new rules. Gregory R. Anreg, President of the organization that administers the Scholastic Aptitude Test (SAT) praised the NCAA's effort to address this issue of standards for athletes. However, "the use of a fixed cutoff score on national standardized admissions tests will have effects that may not have been fully realized before this decision was reached" (Vance, 1983, February 2, p. 18). Several statistics were revealed concerning the effects Proposition #48 would have had if it were in affect during the 1981 scholastic year. Fifty-one percent of the Black male freshmen would not have qualified for athletic competition at the NCAA Division I institutions because the test scores received were too low. Sixty percent of the Black females would not have qualified. The article also revealed that the proposition would

have eliminated some 90,527 white college freshman from competing. Anreg concluded, "The issue, therefore, cuts across racial lives in addition to affecting minorities disproportionately" (p. 18). The article reported that the testing service president did endorse the minimum grade point average and curriculum requirements involved in the proposition. There were five proposals to the NCAA from Anreg concerning improvement of the proposition: (a) employ either the GPA or the SAT score, (b) do not employ the use of a SAT score, (c) lower the score of the SAT, (d) allow exemptions for Black institutions, or (e) employ a formula with GPA and SAT scores.

Vance (1983, February 16) reported that Proposition #48 would affect Blacks to a greater degree than Whites. Statistics regarding the Big Eight conference indicated that more than 60% of the Black athletes now attending institutions included in the Big Eight conference would have been ineligible for athletic participation in their freshman year if Proposition #48 had been in effect. The conference revealed that at some institutions over 80% of the Black athletes would not have been eligible. James O'Hanlon, faculty representative from The University of Nebraska at Lincoln, commented in favor of the proposition. "It was time to stop kidding ourselves and to realize that we've

been admitting a lot of people who have no business being here. You can only be so hypocritical for so long" (p. 18).

The National Association for Equal Opportunity in Higher Education (NAFEO) considered several proposed alternatives to Proposition #48 according to Farrell and Vance (1983, March 16) in a recent article NAFEO sent the recommendations to the American Council on Education. The same council appointed by the NCAA that created Proposition #48. NAFEO, as reported in the article, was expected to charter an alternative 10-point Bill of Rights proposal that would bar freshmen at Division I institutions from competing in athletics and would guarantee the athletes' scholarships for five years. Other parts of the Bill of Rights included a strong tutoring program, and to also disclose to all recruits the percentage of degrees awarded by the university and the departments in which the athletes obtained degrees.

Representatives of Black institutions continued to call for repeal of the NCAA's Proposition #48 at a press conference at The University of the District of Columbia according to Farrell (1983, March 23). Jesse Jackson, President of Operation Push, stated, "The issue should not be how well someone does on a test, but how well he is prepared to function in society"

(p. 18). Jackson also stated that the standardized tests were "a cultural frame of reference and have nothing to do with intelligence" (p. 18). According to the article, Jackson expressed concern that institutions were not honoring an educational obligation to the athlete even if the athlete did meet the new standards. An associate professor of sociology at The University of California at Berkeley, Harry Edwards, also spoke against the proposal warning that if the proposition was not repealed a lawsuit was likely. The authors also quoted Elias Blake, Jr., President of Clark College in Atlanta, "We want these institutions to recruit Blacks for their athletic ability, educate them and get them in the flow" (p. 18).

Blake continued to dispute the proposition according to Farrell (1983, April 20), "We know, Black institutions know that if you make a commitment you can educate people no matter what they bring to an institution" (p. 15). Blake accused the universities of ignoring the Black athlete after the athlete brings national recognition to the institution. These comments accompanied NAFEO's submittance of recommendations to the NCAA. NAFEO was reported as not being opposed to raising and maintaining high standards of academic performance; however, there was an objection to how the new rules were formulated. NAFEO was particularly

opposed to the fact that the ACE Committee sponsored by the NCAA had no Black members. NAFEO vowed to "challenge in the courts, if necessary, any use of testing that seeks to place upon Blacks the burdens and responsibility of a system of unequal educational opportunity" (p. 15).

The NCAA, in response to the criticism sponsored a nationwide study of athletes' academic performance according to Vance (1983, May 18). A 6-member panel was to be chosen to complete a study that would investigate Proposition #48 for revisions. Eric Zemper, the research coordinator at the NCAA, revealed that the study was designed to discover how accurately an athlete's standardized test scores predicted the ability to perform in college and to graduate.

Ueling (1983) concluded, "Economics is the real force behind major collegiate athletics" (p. 14). In an article published concerning the relationship between athletics and academics, Ueling also stated, "We can go on making up rules, as the NCAA recently did. I am not sure how long that will work..." (p. 14).

Vance (1983, November 9) reported that a possible compromise had been reached between the NCAA's ACE and a special panel of college presidents and representatives of Black colleges. The proposed compromise consisted of two options. The first being Proposition #48

Zingg commented that if schools extend an offer of admission to a student-athlete, then it must be prepared to aid the athlete through to graduation. Methods suggested by Zingg to accomplish this were reduced course loads during the game season, tutors, special advisors, mandatory study halls, and academic monitors.

Proposition #48 was supported by Perkins (1983). It was stated that "while many items on the SAT tests are culturally related, many are not. Many of the items are quantitative--dealing with numbers and computations--and mathematics is neither Black nor White" (p. 88). Perkins suggested that Blacks would perform better on tests if reading were emphasized more. He also supported the institutions endorsing academic improvements, commenting:

Education is the only thing a college can claim authority for. All else it does is ancillary and supportive.... An institution whose primary function is the training of the mind should not be asked to subvert this objective and countenance extraneous purposes.... Black leaders can help by not screaming 'racism' whenever colleges attempt to fulfill the purposes for which they exist. (p. 88)

Vance (1983, August 31) reported the select committee on athlete problems and concerns in higher education had issued a statement that supported the Proposition #48. This endorsement was with the understanding that the NCAA would conduct appropriate research regarding the impact of the proposition. The

committee also supported the use of standardized testing for predicting academic potential.

Frederick S. Humphries, President of Tennessee State University, spoke against the proposition at the college board's recent meeting in Dallas, stating that it "blames the victims" (Vance & Biemiiler, 1983).

Linda S. Greene, Associate Professor of Law at The University of Oregon also stated that although Proposition #48 would have discriminatory impact on Blacks, most judges, particularly a majority of those now on the Supreme Court, would be unlikely to strike it down.

Summary

The review of literature was mixed concerning the effects of athletic participation on academic performance. The majority of the literature endorsed athletics as having an incremental effect on academics in high school. The literature, however, revealed problems with academics and athletics when the college level is considered. There was a demand for further study involving academics and athletics cited by almost every author in the review of literature.

The issues surrounding Proposition #48 were very current and a variety of opinions were expressed in the review of literature. Although there was not much research based literature, there were many issues discussed by experts in the fields of education, athletics,

and politics. At the present, the issue is still controversial and more research is needed before definite conclusions may be assumed.

Chapter 3

PROCEDURES

Chapter 3 outlines the procedures employed in collecting data while measuring the academic progress of 205 student-athletes while attending Appalachian State University in Boone, North Carolina. The scholastic aptitude test scores of the subjects were recorded as a variable in the study. The subjects' race, sex, cumulative grade point average, enrollment status, and graduate date were also recorded at the end of seven spring semesters and one fall semester from 1977 until 1982.

The procedures of this study were divided into four sections including: model study, selection of the subjects, testing procedure and treatment, and statistical treatment.

Model Study

During the summer of 1983 the NCAA sponsored a nationwide study of athletics and academic performance (Vance, 1983, May 18). This study was designed to investigate the freshman eligibility standards of the NCAA with a four-part questionnaire. This questionnaire included sections pertaining to: (a) student characteristics, (b) admissions data, (c) college performance

data, and (d) student socioeconomic data. Selected institutions from the NCAA Division I were involved as participants in this study. Appalachian State University (ASU) was selected as one participating university for this study. The NCAA study conducted at ASU was employed as a model for this study.

The NCAA sponsored study involved the retrieval of names and social security numbers for all freshman student-athletes at ASU during the 1977-1978 and 1982-1983 academic school years. This information was accumulated from the eligibility files for the Southern Conference. The eligibility files were provided by the Department of Athletics. The social security numbers of the student-athletes were used to obtain the information needed for the study. Through the use of a UNIVAC 90/80 computer on the ASU campus, the socioeconomic data were retrieved by manually investigating the files of the institution's financial aid office. All of the information collected was used for the four part survey. The first two parts of the survey were employed for the purposes of this study.

The first part of the survey involved student characteristics. This section of the survey consisted of inquiries concerning the sex of the subject, the race of the subject, sport participated in by the

subject, and amount of grant-in-aid received by the subject.

The second part of the survey consisted of five questions pertaining to admissions data including: (a) SAT or ACT score of the subject, (b) high school GPA of the subject, (c) class rank percentile of the subject while in high school, and (d) admittance status of the subject.

College performance data were provided in the third section of the questionnaire including: (a) the number of credits attempted during the subject's freshman year, (b) the number of credits earned during the subject's freshman year, (c) freshman GPA of the subject, (d) enrollment status of the subject at the end of the freshman year, (e) academic standing of the subject if and when they left the institution, and (f) intentions of the subject after leaving the institution.

The last section of the questionnaire was completed based on information compiled from the student financial aid office records. The information included: (a) dependency status of the subject, (b) adjusted gross income of the subject or the subject's parents, (c) other income and benefits of the subject, (d) subject's family size, (e) the source of the financial aid information, (f) subject's expected family

contribution, and (g) the subject's Peel Grant (BEOG) aid index.

Selection of the Subjects

The subjects included all freshman student-athletes attending ASU in Boone, North Carolina during the 1976-1977 and 1977-1978 academic school years. All of the subjects who were included in the study had taken the scholastic aptitude test required for admittance to the University. A total of 205 subjects were selected for the study. One hundred forty-one males and 64 females were involved in the study. Seventeen Blacks and 186 White students were included in the research. There were also 2 subjects with ethnic backgrounds other than Black or White. There were 86 subjects included as student-athletes from the 1976-1977 academic school year while 119 of the student-athletes were included as freshmen during the 1977-1978 academic school year. The subjects were selected from the 1976-1977 and 1977-1978 academic school years due to the time factor involved with this study. All subjects from the 1976-1977 and 1977-1978 classes had ample time to graduate.

The Southern Conference eligibility files were employed to identify individual student-athletes participating as freshmen during the 1976-1977 and 1977-1978 academic school years at ASU. The names and social

security numbers of the student-athletes were used to obtain the needed information for the study. This information included: sex, race, SAT Verbal score, SAT Mathematic score, SAT Composite score, Cumulative GPA, enrollment status, and graduation date. This information was obtained through the use of a UNIVAC 90/80 computer on the ASU campus. If any portion of this background information was unavailable for a particular student-athlete then that subject was omitted from the study.

Testing Procedure

The data for the study were acquired by searching the Southern Conference eligibility forms compiled and organized by the Department of Athletics at ASU. The name and social security number of every student-athlete attending ASU as a freshman during the 1976-1977 and 1977-1978 school years was included in the study. There were a total of 20 sports considered in the study, including: (a) men's swimming, (b) men's tennis, (c) men's golf, (d) men's soccer, (e) men's wrestling, (f) men's outdoor track, (g) men's football, (h) men's cross country, (i) men's indoor track, (j) men's riflery, (k) men's basketball, (l) men's baseball, (m) women's basketball, (n) women's volleyball, (o) women's softball, (p) women's golf, (q) women's

tennis, (r) women's swimming, (s) women's field hockey, and (t) women's gymnastics.

The social security numbers of the subjects were utilized to elicit information needed to conduct this study by employing the use of a UNIVAC 90/80 computer on the ASU campus. The following information was retrieved for each subject in the study: sex, race, SAT Verbal score, SAT Mathematic score, SAT Composite score, cumulative GPA, enrollment status, and graduation date. This information was collected at eight different times during the study. These intervals included at the end of the Spring Semesters for the years 1977, 1978, 1979, 1980, 1981, 1982, and 1983. The Fall Semester of 1983 was also included as the last interval surveyed in the study.

The frequencies of several variables were compiled from the raw data provided by the UNIVAC 90/80 computer. Frequency totals were accumulated for the total number of subjects in the study, total subjects from 1976-1977, total subjects from 1977-1978, total male subjects, total female subjects, total White subjects, and total Black subjects, frequencies of subjects scoring equal to or above 700 on the SAT, and subjects scoring below 700 on the SAT were also totaled. These frequencies were utilized in a chi-square test of proportions

formula employed for the statistical treatment for this study.

Statistical Treatment

A chi-square test of proportions testing the significance of the difference for independent samples was employed in this study. Seven chi-square of proportions were utilized in this investigation. Criterion related validity was studied by comparing the SAT scores of the subjects with the graduation rate from ASU. According to Kerlinger (1975), "When one predicts success or failure of students from academic aptitude measures, one is concerned with criterion-related validity." Specifically, criterion related validity was studied by investigating the significance of the difference regarding subjects scoring equal to or above 700 on the scholastic aptitude test and subjects scoring below 700 on the test. The independent samples tested in this study included: (a) total number of subjects in the study (N = 205), (b) total number of subjects in the study from 1976-1977 (N = 86), (c) total number of subjects in the study from 1977-1978 (N = 119), (d) total number of male subjects in the study (N = 141), (e) total number of female subjects in the study (N = 64), (f) total number of White subjects in the study (N = 186), and (g) total number of Black subjects in the study (N = 17). The significance of the 700 scholastic

aptitude test score was investigated for each of the seven independent groups.

The .01 level of confidence was employed to determine significance for all statistical analysis. All statistical analysis was conducted on a UNIVAC 90/80 computer at ASU.

Chapter 4

RESULTS AND DISCUSSION

Included in this chapter is a presentation and discussion of the results of the investigation.

Results

The chi-square test of proportions is a statistical treatment designed to indicate if there is a difference between the ratios of the independent samples in this study. As a result of the data collected within this investigation, the following descriptive information is presented.

Table 1 represents the frequency of the subjects scoring exactly or above 700 on the scholastic aptitude test as well as the frequency of those scoring lower than 700 on the test. There were seven groups investigated: (a) total number of subjects, (b) subjects from 1976-1977, (c) subjects from 1977-1978, (d) total number of male subjects, (e) total number of female subjects, (f) total number of White subjects, and (g) total number of Black subjects.

Table 2 represents the frequency distribution of the 20 sports included in the investigation. The frequency distribution of those subjects scoring equal to

Table 1

Frequency Distribution of Subjects Scoring <700 and
>700 on the SAT Within Seven Groups

Groups	Total	SAT Score	
		N <700	N >700
1976-1977	86	13	75
1977-1978	119	12	105
Male	141	23	118
Female	64	2	62
White	186	13	173
Black	17	10	7
Total Subjects	205*	25	180

*Totals do not equal 205 due to the deletion of two student-athletes in the "Other" group.

Table 2

Frequency Distribution of Subjects Scoring <700 and
>700 on the SAT Within 20 Sports

Groups	Total	SAT Score	
		N <700	N <u>></u> 700
Men's Football	48	10	38
Men's Wrestling	10	3	7
Men's Basketball	7	3	4
Riflery	11	3	8
Men's Soccer	12	3	9
Men's Outdoor Track	31	2	29
Women's Basketball	9	1	8
Men's Swimming	9	0	9
Men's Tennis	6	0	6
Men's Golf	6	0	6
Men's Cross Country	7	0	7
Men's Baseball	14	0	14
Women's Gymnastics	8	0	8
Women's Volleyball	5	0	5
Women's Softball	6	0	6
Women's Golf	3	0	3
Women's Tennis	4	0	4
Women's Swimming	8	0	8
Women's Field Hockey	7	0	7

or above 700 on the SAT and those subjects scoring less than 700 is also represented in the table. The discrepancy in the total frequency for Table 2 and the total (N = 205) for the study was due to subjects participating in more than one sport.

Tables 3, 4, and 5 represent raw data concerning those subjects scoring below 700 on the scholastic aptitude test. Frequencies were recorded for: (a) total number of White males, (b) total number of Black males, (c) total number of White females, and (d) total number of Black females. Frequencies were totaled based on the number of subjects graduated and the number of subjects not graduated within each of the four groups.

Table 3 represents the freshman subjects from the 1976-1977 academic school year. Table 4 illustrates the 1977-1978 frequencies, while Table 5 indicates the data for all subjects involved with the study.

Tables 6-12 represent the chi-square test of proportions which was utilized on seven independent groups. The chi-square test of proportions was used for the purpose of this study due to the sparseness of cell sizes in some of the groups. The chi-square test of proportions indicated a significant difference between the graduation progress of those subjects scoring equal to or above 700 on the scholastic aptitude test and

Table 3

Frequencies Regarding Graduation Status of 1976-1977Freshman Scoring <700 on the SAT

Groups	Total	Graduation Status	
		Graduated	Not Graduated
White Males	6	2	4
Black Males	5	2	3
White Females	1	1	0
Black Females	0	0	0
Totals	12	5	7

Table 4

Frequencies Regarding Graduation Status of 1977-1978
Freshman Scoring <700 on the SAT

Groups	Total	Graduation Status	
		Graduated	Not Graduated
White Males	5	1	4
Black Males	5	1	4
White Females	1	0	1
Black Females	0	0	0
Totals	11	2	9

Table 5

Frequencies Regarding Graduation Status of Total
Freshman Scoring <700 on the SAT

Groups	Total	Graduation Status	
		Graduated	Not Graduated
White Males	11	3	8
Black Males	10	3	7
White Females	2	1	1
Black Females	0	0	0
Totals	23	7	16

those subjects scoring below 700 on the SAT. The subjects were tested at the .01 level of significance.

Table 6 was a representation of the chi-square test of proportions for all subjects involved in the study. It appears that the group scoring less than 700 on the SAT demonstrate a different graduation proportion than the group having SAT scores 700 or greater at a criterion level of $\leq .01$.

Tables 7 and 8 represented the two academic years investigated in this study. Table 7, representing the 1976-1977 freshman class of athletes, indicated that the group scoring less than 700 on the SAT do not demonstrate a different graduation proportion than the group having SAT scores 700 or greater at a criteria level of $\leq .01$. There was, however, a difference in graduation proportion between the two groups when a criterion level of $\leq .05$ was used.

The data analysis for the 1977-1978 freshman class is presented in Table 8. It appears that the 1977-1978 group scoring less than 700 on the SAT demonstrate a different graduation proportion than the 1977-1978 group having SAT scores 700 or greater at a criterion level of $\leq .01$.

When race was considered as a variable both Black and White groups indicated a different graduation proportion between groups scoring less than 700 on the SAT

Table 6

Chi-Square Test of Proportions Table for All Subjects(N = 205)

	Graduated	Not Graduated	Totals
N > 700 on SAT	.56	.44	1.00
N < 700 on SAT	.28	.72	1.00
Totals	.84	1.16	2.00

Total chi-square = 16.09

p < .01

Table 7

Chi-Square Test of Proportions Table for Subjects From
1976-1977 Freshman Class (N = 86)

	Graduated	Not Graduated	Totals
N > 700 on SAT	.53	.47	1.00
N < 700 on SAT	.39	.61	1.00
Totals	.92	1.08	2.00

Total chi-square = 3.95

$p < .005$

Table 8

Chi-Square Test of Proportions Table for Subjects From
1977-1978 Freshman Class (N = 119)

	Graduated	Not Graduated	Totals
N > 700 on SAT	.53	.47	1.00
N < 700 on SAT	.17	.83	1.00
Totals	.70	1.30	2.00

Total chi-square = 28.48

$p < .01$

and groups having SAT scores 700 or greater at a criterion level of $\leq .01$. This information is revealed in Tables 9 and 10. Table 9 represents the chi-square test of proportions for the Black subjects.

The graduation proportion of the group scoring less than 700 on the SAT and the group having SAT scores 700 or greater appeared to be different for the White group also. A criterion level of $\leq .01$ was used.

When sex was considered in Tables 11 and 12, the male group scoring less than 700 on the SAT demonstrate a different graduation proportion than the male group having SAT scores 700 or greater at a criterion level of $\leq .01$. The female group scoring less than 700 on the SAT did not demonstrate a different graduation proportion than the female group having SAT scores 700 or greater at a criterion level of $\leq .01$. There was a different graduation proportion between the two female groups when a criterion level of $\leq .05$ was used.

Discussion

The results of the investigation indicated that there was a significant difference in collegiate academic performance between student-athletes scoring equal to or above 700 on the scholastic aptitude test and those student-athletes scoring below 700 on the test. Those student-athletes scoring equal to or above

Table 9

Chi-Square Test of Proportions Table for Black
Subjects (N = 17)

	Graduated	Not Graduated	Total
N > 700 on SAT	.71	.29	1.00
N < 700 on SAT	.30	.70	1.00
Totals	1.01	.99	2.00

Total chi-square = 33.62

$p < .01$

Table 10

Chi-Square Test of Proportions Table for White
Subjects (N = 186)

	Graduated	Not Graduated	Total
N > 700 on SAT	.56	.44	1.00
N < 700 on SAT	.31	.69	1.00
Totals	.87	1.13	2.00

Total chi-square = 12.75

$p < .01$

Table 11

Chi-Square Test of Proportions Table for MaleSubjects (N = 141)

	Graduated	Not Graduated	Total
N > 700 on SAT	.52	.48	1.00
N < 700 on SAT	.26	.74	1.00
Totals	.78	1.22	2.00

Total chi-square = 14.21

 $p < .01$

Table 12

Chi-Square Test of Proportions Table for FemaleSubjects (N = 64)

	Graduated	Not Graduated	Total
N > 700 on SAT	.65	.35	1.00
N < 700 on SAT	.50	.50	1.00
Totals	1.15	.85	2.00

Total chi-square = 4.60

 $p < .05$

700 on the SAT performed significantly better in college with regards to graduation. One exception to this norm was the female student-athlete group that did not show a significant difference based on the 700 SAT score. This may have been due to sparseness of cell sizes within this group. The second exception was the 1976-1977 freshman class group that revealed no significant difference. All groups were tested at the .01 level of significance for the purposes of this study. It should be noted, however, that the female group and the 1976-1977 freshman class group data indicated a significant difference at the .05 level of significance.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter contains a summary of the investigation, conclusions, and recommendations for further study.

Summary

The purpose of this investigation was to determine the utility of the Scholastic Aptitude Test score of 700 as a predictive factor for college scholastic potential among selected athletes at Appalachian State University in Boone, North Carolina.

A secondary purpose of this study was to determine if differences existed regarding sex and race when the Scholastic Aptitude Test (SAT) score of 700 was investigated as a predictive factor for college scholastic potential among selected athletes at ASU.

Data were collected indicating the academic progress of 205 student-athletes while attending ASU in Boone, North Carolina. The scholastic aptitude test scores of the subjects were recorded as a variable in the study. The subjects' race, sex, cumulative grade point average, enrollment status, and graduation date

were also recorded at the end of seven spring semesters from 1977 until 1982 and the fall semester of 1983.

The subjects were selected from freshman student-athletes attending ASU in Boone, North Carolina. During the 1976-1977 and 1977-1978 academic school years, all of the subjects employed in the study had taken the Scholastic Aptitude Test required for admittance to the University. A total of 205 subjects were selected for the study which represented the total population of student-athletes for the two years investigated at ASU. There were 141 male subjects and 64 female subjects involved in the study. Seventeen Black subjects and 186 Caucasian subjects were included within the sample frame of the research study. Two subjects from ethnic backgrounds other than Black or Caucasian were included within the population frame. There were 86 subjects participating as student-athletes from the 1976-1977 academic school year while 119 of the student-athletes participated as freshman during the 1977-1978 academic school year. The subjects were selected from the 1976-1977 and 1977-1978 academic school years due to the time factor involved with this study. All subjects from the 1976-1977 and 1977-1978 classes had ample time to graduate. The 1976-1977 class had six years and a semester to graduate. The 1977-1978 class had five years and a semester to complete the curriculum.

The data were acquired by searching Southern Conference eligibility forms compiled and organized by the Department of Athletics at ASU in Boone, North Carolina. The data were gathered by employing the use of a UNIVAC 70/80 computer on the University campus. The following information was retrieved for each subject in the study: (a) sex, (b) race, (c) SAT Verbal score, (d) SAT Mathematic score, (e) SAT Composite score, (f) cumulative GPA, (g) enrollment status, and (h) graduation date. This information was collected at the end of the spring semesters for the years of 1977, 1978, 1979, 1980, 1981, 1982, and 1983. The fall semester of 1983 was also included in the study.

The frequencies of subjects scoring above or equal to 700 on the Scholastic Aptitude Test and the frequencies of subjects scoring below 700 on the test were totaled for several groups within the study. The groups were: (a) total subjects in the study, (b) male subjects, (c) female subjects, (d) Black subjects, (e) Caucasian subjects, (f) 1976-1977 freshman subjects, and (g) 1977-1978 freshman subjects. These frequencies were utilized in a chi-square test of proportions formula employed for the statistical treatment for this study. The criterion related validity of the study was tested by comparing the SAT scores of the subjects with the graduation rate from ASU.

The statistical analysis indicated that the group scoring less than 700 on the SAT demonstrate a different graduation proportion than the group having SAT scores 700 or greater at a criterion level of $\leq .01$.

When race was considered as a variable, both Black and White groups appeared to have a different graduation proportion between groups scoring less than 700 on the SAT and groups having SAT scores 700 or greater at a criterion level of $\leq .01$.

When sex was considered, the male group scoring less than 700 on the SAT demonstrate a different graduation proportion than the male group having SAT scores 700 or greater at a criterion level of $\leq .01$. The female group scoring less than 700 on the SAT demonstrate a different graduation proportion than the female group having SAT scores 700 or greater at a criterion level of $\leq .05$.

Conclusions

Within the scope and limitations of this investigation, the following conclusions were made:

1. The Scholastic Aptitude Test score of 700 is a valid predictive tool for college scholastic potential among selected athletes at ASU.
2. The Scholastic Aptitude Test score of 700 has utility for predicting college scholastic potential among Black and White athletes at ASU.

3. The Scholastic Aptitude Test score of 700 has utility for predicting college scholastic potential among male and female athletes at ASU.

Recommendations

The following recommendations should be considered for possible future research investigations concerning the Scholastic Aptitude Test score of 700 as a predictive factor for college potential.

1. A reapplication of this study should be employed utilizing a larger sample size increasing the cell sizes of the below than 700 SAT group to an N of 30 or more.

2. A conference-wide study should be conducted employing a more diverse sample population.

3. A longitudinal study should be conducted tracing the educational and occupational careers of student-athletes after they leave the University.

4. A follow-up study should be conducted investigating the individual majors pursued by the student-athletes, with respect to overall grade point average and graduation rates.

5. A study should be conducted indicating the number of students that transfer to other institutions after leaving ASU without graduating.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Athletics as academic motivation for the inner city boy. (1972, February). Journal of Health Physical Education and Recreation, 40-41.
- Bucher, C. A. (1975). Foundations of physical education (rev. ed.). Saint Louis: The C. V. Mosby Company.
- Creamer, R. W. (1983, January 24). Furor in San Diego: A testing problem for the N.C.A.A. Sports Illustrated, pp. 9-10.
- Davis, W. E. (1979). The presidents role in athletics: Leader or figurehead? Educational Record, 60(4), 420-430.
- Edwards, H. (1973). Sociology of sport. Homewood, IL: Dorsey Press.
- Farrell, C. S., & Vance, N. S. (1983, March 16). Black leaders weigh proposals to revise rules for athletes. The Chronicle of Higher Education, p. 1.
- Farrell, C. S. (1983, March 23). Black educators call for repeal of NCAA's academic requirement. The Chronicle of Higher Education, pp. 1, 17.
- Farrell, C. S. (1983, April 20). Black colleges threaten court action to alter NCAA's new academic rules. The Chronicle of Higher Education, pp. 13, 15.
- Graduates cite U.S.C. abuses. (1980, October 16). New York Times, p. B1.
- Grant, C. H. (1979). Institutional autonomy and inter-collegiate athletics. Educational Record, 60, 409-419.
- Hanford, G. H. (1979). Controversies in college sports. Educational Record, 60, 351-366.

- Hanks, M. (1979). Race, sexual status and athletics in the process of educational achievement. Social Science Quarterly, 60, 482-496.
- Kerlinger, F. N. (1975). Foundations of behavioral research. New York: Holt, Rinehart, & Winston.
- Larsen, S. W. (1973). A study of the academic achievement of athletics at The University of Tennessee at Knoxville. (Report No. HE-005-880). Knoxville, TN: Tennessee University. (ERIC Document Reproduction Service No. ED 059 803).
- NCAA Manual. (1983-84). Mission, KS: The National Collegiate Athletic Association.
- Ness, G. R. (1980). In support of large scale collegiate athletics. (Report No. SP 016-171). Detroit, MI: Sociology of Sport Academy Symposium. (ERIC Document Reproduction Service No. ED 187 704).
- Ness, G. R. (1981). Academic problems in inter-collegiate athletics: Questioned assumptions. Journal of Physical Education and Recreation, 32(1), 23-24.
- Participation in interscholastic athletics and college expectations. (1973, May). American Journal of Sociology, 732-740.
- Paulsen, R. L. (1983, August). The coaches side of the battle for upgrading academic standards in Los Angeles. Scholastic Coach, 11-12.
- Perkins, H. D. (1983, September 7). Higher academic standards for athletes do not discriminate against Blacks. The Chronicle of Higher Education, p. 88.
- Picou, J. S., & Curry, E. W. (1974). Residence and the athletic participation: Educational aspiration hypothesis. Social Science Quarterly, 55, 768-776.
- Purdy, D. A., Eitzen, D. S., & Hufnagel, R. (1982, April). Are athletes also students? The educational attainment of college athletes. Social Problems, 29(4), 439-448.
- Raising the grade for athletes. (1983, January 17). Newsweek, p. 64.

- Rehburg, R. A. (1969). Behavioral and attitudinal consequences of high school interscholastics sports: A speculative consideration. Adolescence, 4, 69-88.
- Sanoff, A. P. (1983, January 24). Classroom crackdown on college athletes. U.S. News & World Report, pp. 75-76.
- Schafer, W. E., & Armer, J. M. (1968). Athletes are not inferior students. Transaction, 51, 21-26.
- Spady, W. G. (1970). Lament for the letterman: Efforts of peer status and extracurricular activities on goals and achievement. American Journal of Sociology, 75, 680-702.
- Spreitzer, E., & Pugh, M. (1973). Interscholastic athletics and educational expectations. Sociology of Education, 46(2), 171-182.
- Ueling, B. S. (1983). Athletics and academe: Creative divorce of reconciliation? Educational Record, 64, 13-15.
- Vance, N. S. (1983, February 2). Testing service head hits NCAA's academic rules. The Chronicle of Higher Education, pp. 1, 18.
- Vance, N. S. (1983, February 16). Academic rules would affect Blacks far more than Whites, study finds. The Chronicle of Higher Education, pp. 17-18.
- Vance, N. S. (1983, May 18). NCAA to sponsor nationwide study of athletes' academic performance. The Chronicle of Higher Education, p. 23.
- Vance, N. S. (1983, August 31). University presidents weigh revisions in academic standards for athletes. The Chronicle of Higher Education, pp. 1, 23.
- Vance, N. S. (1983, November 9). Recommendations from the NCAA's special panel on problems. The Chronicle of Higher Education, p. 29.
- Vance, N. S., & Biemiiler, L. (1983, December 7). Academic standards for athletes still controversial. The Chronical of Higher Education, pp. 27, 29.
- Zingg, P. J. (1983). No simple solution: Proposition 48 and the possibilities of reform. Educational Record, 64, 6-10.

VITA

Charles Edward Coiner, Jr. was born in Waynesboro, Virginia on April 24, 1960. He graduated from Riverheads High School in June of 1978. He attended Catawba College in Salisbury, North Carolina and in May of 1982 he received a Bachelor of Arts degree in Physical Education. The next fall he accepted a graduate assistantship with Intramurals at Appalachian State University and began studying toward a master's degree in Physical Education. While working on an athletic administration concentration he accepted a teaching assistantship in his second year while also serving as a graduate assistant coach for the football team. This master's degree was awarded in May, 1984.

Mr. Coiner's address is 128 Oak Street, Boone, North Carolina.

His parents are Mrs. Helen Faye Coiner and Mr. Charles Edward Coiner, Sr., both of Waynesboro, Virginia.