This research report on the academic achievements of student-athletes at the college level opens with an historical overview that provides background information on competitive sports and games. The question of amateurism and professionalism is discussed, and a synopsis is presented of the two major revenue-producing college sports, football and basketball. The evolution of the academic image of the college student-athlete is reflected in the increasing emphasis upon the money-making potential of these sports for institutions of higher education. A sample is offered of the popular literature regarding these sports. This includes written works that may have no scientific foundations or underpinning and are often highly opinionated (e.g., newspapers, magazines, pamphlets, brochures). A review of professional literature contains research studies and dissertations that are relevant to the study of the academic achievements of student-athletes. A brief analysis of the commercialization of college football discusses how this contributes, directly or indirectly, to the health of the larger social system. Over 200 references are included. (JD)
COLLEGE STUDENT-ATHLETES:
WHAT THE POPULAR AND PROFESSIONAL LITERATURE REPORT

by

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FORWARD

"...it is difficult to provide a conclusive answer to the question of whether or not educational processes and educational outcomes are hindered as a result of athletic participation." (Camp & Epps, p. 11.)

Research studies pertinent to the academic achievements of student-athletes have rarely appeared in the literature. In order for a review of the literature to be more meaningful, this paper is divided into five basic sections. Section One is an introduction. Section Two provides background information as a brief history of sports and games is presented. In Section Three a selected sample of the popular literature* is provided. The literature in this section illustrates a particular type of information disseminated to the public which influences and impinges upon the world of the athlete. Section Four is a review of the professional literature* which contains research studies and college dissertations that are relevant to the study of the academic achievements of student-athletes. Section Five is closing remarks.

* Popular literature. Written work that may have no scientific foundations or underpinnings and is often highly opinionated (i.e., newspapers, magazines, pamphlets, brochures).
* Professional literature. Scholarly written work that has a scientific base and/or underpinnings (i.e., textbooks, journals, treatises, dissertations, theses).
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INTRODUCTION

to

COLLEGE STUDENT-ATHLETES:

WHAT THE POPULAR AND PROFESSIONAL LITERATURE REPORT

The intellectual image of college athletes that has been created over the years by popular literature is that athletes are physical education majors who take "basket-weaving" and "clay-molding" courses and never graduate (Creamer, 1983; Kirshenbaum, 1984; Ross, 1983; Sanoff, 1983; Whitner & Myers, 1986; Williams, 1983; Witherspoon, 1983). Zingg (1982) believed that student-athletes have suffered long enough from the "dumb jock" stereotype and they deserve to be considered intelligent human beings. This paper provides new information regarding the "dumb jock" stereotype and how the image "fits" scholarship student-athletes.

Purdy, Eitzen, and Hufnagel (1982) reported the graduation rate of athletes at a major university from the fall of 1970 through the spring of 1980. In general, research reports such as Purdy et al. regarding college
athletes' graduation rates are rare or are not made public. The question, "What are the academic achievements of student-athletes at your university?" elicits a host of prepared responses, according to some authorities. The answers that are given are usually tailored in such a manner as to avoid, or only partially answer, the original question (Brady, 1985a; Holtz, 1986).

Public information regarding student-athletes' academic achievements have been generally extracted from statements that are ill-prepared or nebulous. By providing such vague information, respondents reduce the risk of being embarrassed or having to defend written and unwritten university policies which may have related to student-athletes' academic achievements (Bogan, 1986b; Hayes, 1984b; McCallum, 1984). For example, Dr. Ursula Walsh, Nebraska University's former Athletic Academic Counselor, contended that 92 percent of Nebraska's football players had graduated (Walsh, 1985). However, Nebraska University reported in a survey regarding football redshirts (a term denoting a one year extension of eligibility) that out of 21 seniors in 1983 not one had graduated in four years and only 13 would graduate in five years (Englehart, 1984). Also, the Nebraska University football team had a total of 233 players of which 65 players, or the entire freshman football class, were redshirts. The ambiguity between Walsh's contention and the survey raised two questions that needed to be
answered. These two questions were: 1) What happens to cause the drastic decrease in the number of football players between their freshman and senior year? and 2) Are the dropouts included in the athletes' graduation rates?

Another example of a nebulous statement regarding student-athletes' academic achievement was provided by Georgetown's basketball coach John Thompson. Thompson said that only two of the 44 basketball players that played four years for him at Georgetown had failed to graduate (Leary, 1985). Again, there were two questions that needed to be addressed. The two questions were: 1) What happened to the players who played less than four years? and 2) Are they included in the graduation rate? Both of these universities, Nebraska and Georgetown, had special academic support programs to assist their athletes. Nevertheless, the statements made regarding the academic achievements of their student-athletes lacked explicitness.
HISTORICAL OVERVIEW

Sports and games have existed since ancient times and have been an integral part in the evolution of human societies (Gardiner, 1978). The first games probably arose from hunters' practice with tools they used for hunting, such as the club, the spear, and the bow and arrow. The most significant factor in the history of games was the early appearance of the ball. The Egyptians, Greeks, and Persians were all familiar with it, and the Romans even had a special room set aside for ball play in their public baths (Britannica, 1979).

Modern Development

The great ball-game-playing period began around 1850 and continued until it was disrupted in 1939 by the outbreak of World War II (Brasch, 1970). Prior to 1880, ball games which were considered gentlemen's sports were tennis, golf, bowling, and billiards (Keith, 1969). Football, for example, was not played by gentlemen because it was considered to be disorganized and physically brutal. In spite of its universality and popularity, football developed a negative image which persisted into the 20th century.
In England, the inducement for playing organized team sports came from the observed lack of discipline in the private boarding schools. For Victorian England, these schools were a scandal. Reform was needed. The development of organized team sports provided a solution for the lack of discipline outside the boarding schools' classrooms (Britannica, 1985). The solution rapidly spread throughout Europe and the watchword became *mens sana in corpore sano* (a healthy mind in a healthy body).

In the United States, the rise of organized team sports and games began on the East Coast and became popular about the same time as they did in England. The fashion for athletics swept the country (McCallum & Pearson, 1972). Prior to the 1860s, hardly anyone had been interested in playing organized outdoor games. The concern for health by Americans was also a contributing factor to the widespread acceptability of organized outdoor games. The metamorphosis of sports and games from unorganized and undisciplined amusements into sophisticated occupations for thousands and mass entertainment for millions was relatively swift. As sports and games became more popular throughout the country, they also became organized -- first at the national level and then at the international level (Walker, 1986).
Amateurism and Professionalism

A long-standing distinction in sports is that between the professional and the amateur (Higgs, 1982). By analogy, the status of amateurism and of professionalism can be compared to the distinction between love and money. The word amateur is derived from the Latin word amor, or lover. By simplistic definitions, the amateur athlete competes for the love of the sport alone, while the professional athlete competes for money (Millman, 1979).

The concept of an amateur athlete as a cultivated individual of leisure and the concept of the professional athlete as a money-seeking ruffian were standardized in 19th century England. In the United States, the first amateur athletes were gentlemen learning their skills at New England boarding schools and the Ivy League colleges (Bkasch, 1970). Professional athletes were defined as men who engaged in sports for wages or cash prizes. The first time the question of amateurism was raised in America was in 1872 (Britannica, 1985). About half the oarsmen who entered in a regatta near Philadelphia were banned because they were "not amateurs." At a meeting one year later, the assembly agreed upon definitions for amateur and professional. An amateur was defined as one who competes for pleasure and the professional as one who competes for money.
The International Amateur Athletic Federation (IAAF), a
governing body for athletics throughout the world, allows
each country to define amateurism for its own athletes
(Walker, 1986). The interpretation of the concept amateur
by each country has resulted in divergent guidelines for
athletes. For example, German athletes are aided by an
association; the French government assists its athletes; and
the African and Australian athletes spend almost all of
their time training. While on tour, these athletes receive
salaries comparable to those they earn at their regular
jobs. The Communist nations have recently introduced a new
category of amateur athletes -- the state amateur. The
state amateurs are top amateur athletes who are subsidized
by the government (Riordan, 1981). It may be said that many
American athletes are state amateurs because they are also
subsidized -- they receive scholarships to attend
educational institutions based on their athletic ability in
a certain sport. Despite the interpretations of the rules
defining amateur, most countries have their best athletes
represent them in international competition.

The controversies surrounding the status of the athlete
-- amateur or professional -- will never be totally resolved
(Walker, 1986). It appears, however, that on one level the
serious and talented amateur athlete may be granted greater
flexibility. On another level, the subsidized amateur
athlete of marginal ability may soon be eliminated. And, on
a third level, those amateur athletes of average ability will continue to play sports for fun.

Major Revenue Producing College Sports

The following is a synopsis of two major revenue producing college sports. The two sports are football and basketball. A brief summary of their history will assist in the understanding of the evolution of the academic image of the college student-athlete.

Football.

Worldwide, the term "football" applies to soccer, as well as to the British game of rugby and to the American game of football (Britannica, 1985). The basic principle of all three of these football games is to kick, throw, or carry a leather-covered ball into scoring territories at each end of the field. Investigators who have tried to discover the origin of "football" have enjoyed little success. The American game of football, however, is a direct descendent of the British game rugby (McCallum & Pearson, 1972).

Football came to America with the early colonists and was played on the village greens and school campuses. Football playing fields of the colleges during the early
part of the 19th century. In its early years, the American game of football was purely a test of brawn and strength. The man responsible for many of the changes which have led to the modern day version of football was the "Father of American Football," Walter Camp (Treat, 1979). Camp was responsible for conceiving and designing many rule changes, including some that improved the safety of the game. For example, in 1905 there were 18 deaths and another 159 serious injuries resulting from college football. The protest against such violence prompted President Theodore Roosevelt to summon representatives of Harvard, Yale, and Princeton to the White House and ask them to take steps to save the game (C. Underwood, 1984). Later that year, about 60 colleges and universities organized the Intercollegiate Athletic Association of the United States. In 1910 the association changed its name to the National Collegiate Athletic Association (NCAA), which is the governing body of intercollegiate athletics today.

The growth of football in the United States was phenomenal (Danzig, 1971). Universities were quick to respond to the interest and the needs of the football fan because money could be earned from the sport. Huge stadiums were constructed. By the 1920s, the sport was a large-scale business enterprise (Liss, 1975; C. Underwood, 1984). Winning teams were needed in order to fill the large stadiums. At many universities, football had become
burdened with the responsibility of supporting the entire structure of intercollegiate athletic programs (J. Underwood, 1979). The demand on universities to obtain the best high school talent in order to win led to unscrupulous recruiting practices. Financial inducements in violation of amateur regulations and ethical standards were offered to players by coaches, athletic department officials, and alumni. Educational requirements were lowered or waived so that superior athletes could be admitted to college and, after admission, their athletic eligibility could be maintained. Athletic scholarships were given wholesale, and large pools of money were created by alumni to bring prize athletes to their alma mater (Moore, 1967).

In 1929, the college football world was shocked when a Carnegie Foundation Bulletin exposed the extent of unethical practices and named some of the most prestigious universities as offenders (C. Underwood, 1984). With one exception the same phenomenon that occurred in 1929 appears to be occurring today. Instead of football being the only college sport surrounded by unethical practices and behaviors, it now has an accomplice -- basketball.

Basketball.

Since its beginning in Springfield, Massachusetts, basketball has become a major high school, college, and
professional sport (Webb, 1973). James A. Naismith invented basketball in 1891 while he was a physical education instructor at the International YMCA Training School (now Springfield College in Massachusetts). Naismith was asked by the head of the physical education staff to devise a game that could be played indoors on winter evenings. Naismith responded to the challenge. He anchored two old peach baskets to the gymnasium balcony, divided his students into two 9-men teams, and used a soccer ball to play the first game of basketball. A few years later in 1897, the 5-man basketball team became established (Fox, 1974). The sport caught on nationally and rapidly became extremely popular throughout the United States (Wilkes, 1982).

Basketball's popularity continued throughout the years, and in 1938 the New York City basketball writers organized the first National Invitational Tournament (NIT). The tournament was highly publicized and extremely successful. The NCAA followed with its own tournament, with the winner being acclaimed as the national champion (Hollander, 1979). Today, most college basketball teams experience coast-to-coast scheduling, crowds of over 20,000, and millions of people watching their play on television (McCallum, 1982).

Sports and games have served many functions throughout history. At a global level some of the functions have been recreation and social organization for the masses (Riordan,
At a minute level, individuals participate as a means of skill development and physical outlets (Higgs, 1982). Also, sports and games, over the centuries, have been a source of entertainment (J. Underw., 1984). Common to each function has been the spirit of competition and participation (Walker, 1986).
POPULAR LITERATURE

Related to sports, popular literature reports the activities and the outcomes of athletic events. Pre-game and post-game functions are also reported, along with human interest stories. The human interest stories are generally a collage -- portraying different perspectives of the athlete and the world in which he exists. It is within the context of these human interest stories that personal and private information about the athlete is presented. How this information is disseminated will have a direct influence on the image the public will develop and maintain of the athlete. One perspective of the athlete which popular literature has consistently reinforced is that of "dumb jock." A sample of the current popular literature reveals some of the social forces and pressures that impinge upon the world of the athlete and influence the development of his or her public image.
The World of the Athlete

In 1961 the American Broadcasting Company (ABC) was a financial risk for bankers and an "also ran" as far as television networks were concerned (Rothman, 1986). Roone Arledge, ABC's program director, turned to sports and came up with the concept of an anthology of sport shows. The show won audiences, acceptance, and sponsors. Eventually the show was recognized by the business world as the cornerstone of ABC's success. In addition to being the network's salvation, "Wide World of Sports" demonstrated that the combination of television and sports could generate large viewing audiences which could be translated into large sums of money.

Television's ability to attract large viewing audiences to watch sporting events was demonstrated by the 1986 World Cup soccer tournament. Attendance for the month-long tournament was a record 2,407,000 spectators. However, an estimated 500 million people watched the tournament's final game on television (Walte, 1986). Translating viewing audiences into money is illustrated by the $1.32 billion antitrust lawsuit that involved the two American professional football leagues (Associated Press - [AP]-1986k, 1986o; Middlemas, 1986; Parillo, 1986). The United States Football League (USFL) charged that the National Football League (NFL) monopolized the professional football
television market with a $2.1 billion contract with the three major television networks (AP, 1986t). During the trial the former president of the NFL Players Union testified that the NFL used one game, the Super Bowl, as a tool to negotiate the entire professional football television contract (AP, 1986x; Varner, 1986). The NFL denied the charge and said that some of the USFL owners were trying to parlay a $5 million investment into a $50 million windfall (AP, 1986r). Sports writer Jim Taylor (1986b) said the jury trial did not interest the real football fan. Taylor contends that real football fans are more interested in how certain players, coaches, and teams will perform during the season than the proceedings of a jury trial.

Television and athletics also mean large sums of money for colleges. The revenue earned by colleges for participating in football bowl games has significantly increased over the years with the addition of television contracts. The Big Ten Conference, for example, received over $8.5 million for its teams' participation in the 1984-85 college football bowl games (Moore, 1986a). The revenue received by universities for having their sporting events televised bothers some coaches (Taylor, 1985). These coaches fear losing control of their athletic programs to excessive outside demands if their university, or their athletic department, becomes too dependent on television revenue. The loss of television revenue can also create
problems for universities. Northwestern University, for example, announced that it would have to reduce its athletic budget by 16 percent (AP, 1985d). The announcement to reduce athletic programming stimulated a University-wide fund-raising campaign. The campaign raised $21 million in three months in order to make the University's athletic programs more competitive -- for both championships and money (AP, 1985h). Hannen (1986d) says most sport fans are not aware of the impact that television receipts have on college athletic budgets. He predicted that colleges and universities, for the sake of a dollar, will allow the television networks to manipulate them and their schedules in order to develop a national college football playoff system similar to that of basketball. Many institutions seem to be more concerned about generating money from their athletic programs than they are with the welfare of their athletes and fans. For example, Hannen (1986b) believes that the average college basketball fan does not want to watch games in arenas that seat 30 to 50 thousand spectators, and players do not want to play in them. However, television advocates large arenas and the economic benefits associated with their use. It has been reported by the media that some cities proposed to build large arenas with the major objective of reaping the economic rewards associated with being selected as one of the NCAA basketball tournament playoff sites (AP, 1986g).
Lack of television receipts and small stadiums force some universities to play big-name schools on the road (Bergener, 1986b). These games generally result in a loss for the small-name school, but the reward is a big pay check which makes a significant contribution to the school’s athletic budget. Too many losses, however, create different problems and pressures from inside (Collegian, 1986a; McPhillips, 1985) and outside (Bergener, 1986a; Blade-Editor, 1986) the university.

In the marketplace, college athletics can be viewed as an area of economic potential. As with any area of economic potential, there are two basic methods of conducting business -- legal and illegal. The legal focuses on legitimate activities and the methods of operation are, in general, overtly known.

The illegal methods suggest a paradox. These activities and manner of operation are supposed to be known by some people and unknown to others. Having both known and unknown factors are necessary so that business can be conducted in the marketplace. One illegal activity which is not a new phenomenon is sports gambling. Sports gambling exists today (Blade, 1986e). A problem with sports gambling, as with most illegal activities, is that one illegal activity generally stimulates other illegal activities. A case in point is that illustrated by Tulane University basketball (AP, 1985e).
A Tulane University varsity basketball player, seeking drugs, met another student on the University campus. They quickly became friends. Within two weeks they devised a scheme to fix the outcome of basketball games. Shortly after implementation, the scheme was discovered. The discovery led to a grand jury indictment of three basketball players and five other persons on 20 criminal charges of sports bribery, plus other related criminal charges. During the investigation, it was reported that a high school player had been paid $10,000 to attend the university. Also, the president of Tulane University was informed that the head basketball coach had paid several players. The same day the University president was informed that players had been paid, the head basketball coach and his two assistants resigned. A few days later, Tulane University dropped intercollegiate basketball because the University felt there was no control over the program (AP, 1985f).

Tulane University is not the only college to be involved with illegal sports activity. A federal grand jury has been investigating Memphis State University's athletic program for the past two years (Tkach, 1986a). The allegations were that people connected with Memphis State's athletic programs are involved in racketeering and sports gambling in the Mid-South. The head basketball coach has acknowledged that his financial affairs have been scrutinized, and a congressman has assured the public that he will not interfere with the
federal investigation. Information that surfaced during the investigation, and for which the University was strongly criticized, showed that the graduation rate of Memphis State basketball players was extremely low (Blumenstock & Brady, 1985).

There are many rules governing intercollegiate athletics. The University of Florida became familiar with a number of these rules when its football program was charged with 107 infractions (AP, 1984b). The charges included illegal scouting of opponents' practices, purchase of complimentary tickets, and various recruiting violations, to name a few. The NCAA imposed several sanctions against Florida's football program, including probation for three years (AP, 1984e). One of the sanctions was that Florida could not play in the Sugar Bowl game on New Year's Day (Madrid & Moore, 1984). This sanction, according to team members, was unfair. The University of Florida's football players believed they had earned the privilege to challenge for a national championship even though some of them had been illegally recruited and were involved in other illegal activities (Moore, 1984b). Florida's case was appealed. A few months later, the NCAA reduced the penalty from three years probation with sanctions to two years probation with sanctions (AP, 1985c). The athletic director at the University of Florida recently said he reports all schools to the NCAA that he believes are violating rules (Hood, 1984).
When it comes to violating rules, Florida is not the only institution to do so. The University of Nevada-Las Vegas had four football players ruled ineligible to play in the California Bowl and eventually had to forfeit the game due to rule violations (Woolford, 1984). In another situation, along with illegal booster activities, a substantial number of the 85 rules violated by the University of Illinois were related to illegal recruiting practices. The large number of violations lead to the University being placed on three years probation (AP, 1985b). The NCAA also placed the University of Georgia's football program on one year probation because Georgia's athletic boosters were providing financial assistance to athletes (AP, 1985e). Illegal booster activities have created numerous problems for the NCAA. The NCAA has considered proposing a ban on college athletic boosters, but no action, other than talk, has ever been taken (Wieberg, 1986a). According to some sports writers, more stringent punishment may be the answer if a university has a problem of cheating (Brady, 1984; Edmond, 1985b). Brower (1985) says the name of the game is winning and that recruiting violations are an old NCAA tale. Recruiting abuses also occur at the high school level as schools attempt to gain an advantage so they may have winning athletic programs (AP, 1986s, 1986v, 1986w; Hackenberg, 1986b; Mariotti, 1986).
An institution's athletic department is not totally responsible for all the adverse publicity the university receives regarding its sports programs. Athletes, like all adults, are responsible for their own behavior. The University of Minnesota, for example, had three members of its basketball team arrested and charged with sexual assault after playing a game in an opponent's home town (Woolford, 1986). The following day the three players were suspended from the team, and the head coach resigned. An interim coach was named and he immediately suspended another two players from the team. Because of the nature of the episode and lack of players, the University considered canceling the remainder of its basketball season. One week following the incident, the public was informed that the University of Minnesota basketball team had the worst graduation rate of all the Big Ten Conference schools (AP, 1986a). Shortly thereafter, two Minneapolis activists began writing letters to high school athletes who had made a formal commitment to attend the University of Minnesota. The letters stated that the University was not sensitive to the needs of athletes and suggested that the athletes should ask to be released from their commitment in order to attend another university (AP, 1986a).

Additional behaviors of athletes which have created negative publicity include a Western Michigan University basketball player who was charged with larceny. The player
had also been previously convicted of taking part in an armed robbery (AP, 1986h). Also, a member of the University of Alabama's swimming team was accused of academic cheating (Tkach, 1986b), and the attorney for a University of Tennessee football player charged the police with entrapment of his client on drug charges (AP, 1986q). The drug case stimulated the University of Tennessee to investigate its athletic programs and to share the findings with the school's conference and the NCAA (AP, 1986y).

The use of drugs by college football players concerns professional coaches (AP, 1986e). The professional coaches' concerns are exemplified by an all expense paid special camp for potential professional football players. The camp is a final examination of the top college seniors by the professional teams before the NFL draft. During the camp the players are physically timed and measured. They are also tested for drug use. All players are notified six weeks in advance of the camp's curriculum. From the total of 335 potential professionals who attended the camp, 57 players, or 17%, had drug tests which registered positive. One player from the University of Florida tested positive for marijuana, cocaine, amphetamines, and morphine (Knights, 1986a). The Florida player had been projected to be a first round NFL draft pick along with his two teammates. Because of the drug report, he was selected in the second round (Blade, 1986b). Some research reports state that drug use
among college athletes roughly parallels that of nonathlete students (AP, 1985k). However, the Southwest Conference (Allen, 1986a) and the Sunbelt Conference (Becker, 1986a) have ignored such research reports regarding drug use. These two conferences have approved drug testing programs for their member institutions.

Activities which impair the image of a university's athletic program need to be severely dealt with, according to University of Toledo President James McComas (Schaffer, 1985). Former University President Glen Driscoll believed that to avoid rule violations the athletic program must be sound from top to bottom (McNamara, 1985). These two presidents, McComas and Driscoll, feel that an institution's president must have control over athletic programs just as they have over other university functions. They also felt the money oriented atmosphere of big time athletics has strongly contributed to a win-or-else attitude and a trend toward rule abuse. According to Hannen (1986c), coaches are the key people in efforts to clean up college athletic programs. Rowan (1985) said that when there are pressures to win and big money rewards for winning, someone is going to bend the rules and cut the corners to get an advantage. He suggested that schools ban crooks, not sports.

When scandals occur at a university, proponents for athletes contend that the athlete is exploited. One
argument that such proponents use is that athletes do not receive what the university promised them in exchange for their services - a degree (AP, 1985g; Bogan, 1986a). A survey of the graduation rates of basketball players from 196 colleges showed great disparity among colleges (McConkey, 1985). Responding to this survey, the President of the American Council of Education said, "Fortunately, there are some shining examples that make you realize it doesn't have to be that terrible" (p. 1). The survey also revealed that athletics and academics could go together. For example, the graduation rates of the four 1985 NCAA basketball tournament finalists were Villanova 91%, Georgetown 81.5%, St. John's 72.5%, and Memphis State 10.7%.

Glenn Rivers, a professional basketball player for the NBA's Atlanta Hawks, says, "People look down on athletes as students. If one flunks, it gets more publicity than if 20 graduate" (Blumenstock, 1985, p. 2). Hannen (1986e) reported in his sports column that the University of Virginia's football program had the highest graduation rate of athletes among all major college football programs. The rate of success for Virginia was 92.6%, followed by Notre Dame and Penn State, who both graduated better than 75% of their football players in four years. Graduation is the ultimate goal for most athletes. However, there are conspicuous examples of athletes choosing not to graduate (AP, 1986f, 1986j; Blade, 1986d; Witherspoon, 1983) or choosing not to earn a four year degree (Edmond, 1985a).
Universities' efforts differ when attempting to have a positive influence on the graduation rate of their athletes. One university may implement a strategy (AP, 1984a), while another may develop a program (Brady, 1985b). There also have been suggestions that the NCAA should authorize its member institutions to pay college athletes and minimize academic requirements. Examples of money being involved in the college athletic careers of such athletes as Herschel Walker (Witherspoon, 1983) and Mike Rozier (AP, 1984f; Kirshenbaum, 1984) are usually given. Paying college athletes, according to Loomis (1985a), would only make the present situation worse. Sheehan (1986) said, "...it is the worst idea to hit the college campuses since swallowing goldfish was a fad" (p. 1). Williams believed money hurts the motivation of players (AP, 1986p), while Lytle believed the players physically pay the price for playing sports and should be generously compensated (Bergener, 1984).

Throughout the years, the NCAA has continuously enacted legislation to establish, interpret, and enforce the rules and guidelines that govern its member institutions. For example, prior to 1973, colleges and universities could have as many players receiving football scholarships as the institution could afford. In 1973, the NCAA put a limit on the number of football scholarships an institution could grant at any one time. The effect of the scholarship rule is that parity was brought to college football (Gugger,
Basketball, like football, also has a scholarship limit. Some individuals, however, feel that the scholarship rule is not the major reason for parity in college basketball. The reasons that they give are systematic recruiting (Hannen, 1986a) and the fact that there are more athletes today who are bigger, faster, and stronger (Blade, 1985c). Nevertheless, the scholarship rule is an example of the NCAA's effort to establish equality among its member institutions.

In early 1983 there was serious discussion at the national NCAA convention about making freshman athletes ineligible for intercollegiate athletic competition. What grew out of this discussion was the NCAA's adoption of new academic requirements for college-bound high school athletes. The new academic requirements, known collectively as Proposition 48 or Bylaw 5-1-(j), went into effect in the fall of 1986. In 1984, a survey conducted by four Clemson University faculty members indicated that many high school officials knew little or nothing about the new academic requirements for college-bound high school athletes (Keerdoia, 1984). The implications inferred from the survey were that college-bound high school athletes would not have the opportunity to meet the new academic standards for freshman athletes. A survey by the American College Testing Program, the College Board, and the Educational Testing Service that diluted the earlier Clemson survey was released
in late 1984. The latter survey concluded that freshman athletes perform just as well in the classroom as freshman nonathletes who have comparable academic backgrounds (AP, 1984g; Loomis, 1984). Some football coaches say they would support freshmen being ineligible if the scholarship allotment would be increased (AP, 1984g). However, a newspaper report (Blade, 1984a) stated that freshman athletes would continue to be eligible because the issue of freshmen being ineligible was not among 145 proposed amendments submitted for discussion at the upcoming NCAA national convention.

Failure to reach a consensus on such issues and the lack of harmony has created dissatisfaction among the NCAA's member institutions. The organization seemed to be moving toward fragmentation. A proposal to restructure the NCAA was informally discussed by a group of college presidents (AP, 1984c). The proposal requested that a new governing body be established to oversee intercollegiate athletics at large universities. The proposal, however, never moved beyond the talking stage.

A few weeks after the NCAA's annual convention in early 1985, the NCAA Presidents' Commission announced that a special convention would be held for college presidents (Blade, 1985a). The purpose of the special convention was to sponsor a resolution "...to bring athletic budgets under
college presidents' control and to overhaul the rules for policing athletic violations" (p. 15). The NCAA Presidents' Commission was concerned about the severity of recent rule infractions and about whether college presidents could ensure that their sports programs would be operated honestly. To meet the challenge of these concerns it was announced that the intent of the special convention in New Orleans was "...to give the NCAA Enforcement Division some teeth in its campaign against cheating" (Gugger, 1985, p. 1). The "get tough" policy of the NCAA was not well received by all college presidents (AP, 1985i, 1985j). However, the policies that were proposed were approved (AP, 1985i). Some university officials said the measures that were approved were long overdue and were a positive step toward eliminating rule violations (Blade, 1985d). The special convention left little doubt regarding who governs the NCAA and intercollegiate athletics (AP, 1985m; Hannen, 1985).

At its annual meeting in January, 1986, the NCAA reaffirmed the earlier approval of the new academic standards for incoming freshman athletes. Proposition 48 would go into effect in August of 1986 (Los Angeles Times, 1986). Loomis (1986a, 1986b) said the new academic requirements for freshman athletes are positive and are a giant step for upgrading the intelligence and character of athletes. Some coaches say Proposition 48 will be no
problem for them (Loomis, 1986c), while other coaches are already experiencing the effect of the new eligibility requirements (Gugger, 1986d; Macnow, 1986; Strode, 1986).

Approximately two weeks prior to the NCAA's 1986 annual national meeting, a civil law suit trial related to proposition 48 began in Atlanta's U.S. District Court. During the third week of the five week trial, a brief report describing the nature of the civil suit appeared in a national sports magazine (Neff & Sullivan, 1986). The article was a sample of the type of information that would evolve from the trial which would solidify the need for Proposition 48. The trial involved an English instructor in the University of Georgia's developmental department. The instructor said she was fired from her job because she spoke out against preferential academic treatment of scholarship athletes who were enrolled in the University's remedial education program. The purpose of the trial was to determine if the instructor's freedom of speech had been violated because she was fired for speaking out against students receiving preferential academic treatment. The purpose of the trial, however, was subverted by the testimony that surfaced during the trial which described the special academic handling of athletes. The remedial program in which the athletes were enrolled was characterized "...as a warehouse for the school's academically unqualified athletes" (p. 13).
The trial ended with the federal jury granting the former University of Georgia instructor a $2.57 million award (Hackworth, 1986; Herwig, 1986; Moore, 1986a; Nack, 1986). The reactions to the award ranged from individual "shock" to "hope" that the University would learn from the experience (AP, 1986b; Roberts & Bodle, 1986; Taylor, 1986a). After the trial, members of the jury said they wanted to make sure that university officials throughout the country received the message (AP, 1986c). The question of the state appealing the award was raised (Rice, 1986), and the president of the University of Georgia attempted to shift the burden of responsibility for what occurred by criticizing the NCAA. He said, "...the school could not compromise its ability to compete by making its academic standards for athletes tougher than those at other SEC schools" (Woodward, 1986, p. 2). The state Board of Regents announced plans to conduct its own audit of the remedial education program in order to determine if unfair assistance had been given to athletes. The Board of Regents also announced that the reappointment of the President of the University of Georgia would be delayed (Wagner, 1986). A few weeks later the president resigned (AP, 1986d) and sports writer Gugger (1986b) named the officials at the University of Georgia, including the ex-president, as recipients of the number one "Loser of the Year" award.
The Attorney General for the state of Georgia asked the U.S. District Judge who presided at the trial to review the jury's award. The federal judge reduced the amount of the award. He said the jury tried to send a message in support of free speech but, "...the reach and coverage of the award far outdistance the aim and purpose" (AP, 1986i, p. 21). A settlement was reached between the University and the fired instructor (AP, 1986m), and a few days later the amount and conditions of the settlement were announced (AP, 1986n). One of the conditions of the settlement was that the fired instructor be reinstated to her former position as coordinator of the English section of the University's remedial studies program (Marshall, Mayfield, Myers, & Tyson, 1986).

The personal and private pressures that are associated with athletic competition and experienced by the athlete are generally not reported in the popular literature. The following, however, is a report of an athlete who experienced both personal and private pressure. A 21-year-old promising female distance runner on North Carolina State University's track and field team attempted suicide following what she considered a disappointing performance (AP, 1986z, 1986aa). The media reported that the runner had been favored to win the NCAA outdoor championship in the women's 10,000 meter race. After completing 6,500 meters of the race, the runner left the stadium track during the race.
and jogged out of the stadium toward a 50 foot bridge about two blocks away. The runner's coach pursued the track star and found her lying in a grassy area below the bridge. She told the coach she had jumped. The pre-med major, who was a member of the Dean's list, suffered multiple spinal fractures, a punctured lung, and broken ribs. The neurosurgeon who treated the athlete reported that she had calmly accepted the news she would never walk again. According to the runner's father, the pressure to succeed had led to his daughter's attempt of suicide (AP, 1986bb).

The purpose, method, and strategies that are generally employed by popular literature to report information regarding athletes have a significant influence on how the public perceives this population. The public's perception, or image, is generally based on reports that are brief and perhaps sequential -- highlighting only the most interesting or salient points. Also, the reports usually focus on immediacy, even though the information may be incomplete, inaccurate, or possess insufficient data or facts. The following scenarios serve as illustrations.

Three players selected in the first round of the 1986 National Basketball Association's (NBA) annual players draft (Knights, 1986b) received national news coverage that was unrelated to sports activity. The 22nd pick in the draft had received his nonathletic national notoriety throughout
the basketball season. He was convicted on two separate occasions of drug abuse (Albom, 1986; AP, 1986u; Halls, 1986). The number three player chosen by the professionals in the draft received nonathletic national recognition when he was convicted of assaulting a coed. Later, he was arrested and convicted of theft (AP, 1986f; Gilda, 1986).

Two days following the conclusion of the NBA draft, the number two player selected, Len Bias, mysteriously died (AP, 1986dd; Free Press, 1986a). First reports of the young athlete's death were that he had died of an apparent heart attack (AP, 1986cc). These reports were quickly followed by one that suggested cocaine use was involved in his death (Knights, 1986c). The police announced that a criminal investigation would be conducted because of the suspicious nature surrounding the player's death (AP, 1986ee, 1986ff). Unconfirmed reports of illegal behaviors and drug use (AP, 1986gg), plus the acquisition of attorneys by individuals who had been with Bias the night he died, left many people confused as to the nature of the young athlete's death at a highly emotional funeral which received national attention (Becker, 1986b; Brady, 1986). Shortly after the burial, a grand jury investigation was announced. Besides Len Bias' death, the investigation would also include an examination of the drug use of all students on the campus at the University of Maryland (AP, 1986hh). The following day a
report stated that the death of Len Bias was due to cocaine intoxication (AP, 1986ii; Knights, 1986d; Soda, 1986). Immediately, University officials (Moore, 1986b), and the University's basketball coach (Free Press, 1986b), defended the institution's drug policies, while the attorneys who had been retained publicly stated that their clients would not testify before a grand jury unless they were subpoenaed (Moore, 1986d). The University of Maryland announced that it would cooperate with the grand jury's investigation and that the University would be the leader in dealing with the problems on campus (Becker, 1986d; Pitts, 1986). Reports to educate the public about the dangers of cocaine use began to appear in the media (Angell, 1986; Wieberg, 1986b), along with numerous editorials (Kilpatrick, 1986; Rowan, 1986a, 1986b; Taylor, 1986c) and reports regarding the whole tragic episode (McCallum, 1986).

Eight days following the death of Len Bias, Don Rogers, a 23-year-old professional football player for the Cleveland Browns, died (AP, 1986jj). Cocaine use was suspected (AP, 1986kk) and then confirmed (Detroit News, 1986) as the cause of the young athlete's death. The report said that Don Rogers died from a cocaine overdose which caused him to have a massive heart attack (AP, 1986ll). The autopsies of both Rogers and Bias showed that the cause of their deaths was similar (Moore, 1986e; Sperling, 1986). The news that cocaine had killed two superbly conditioned athletes
(Bergman, 1986; Moore & Wieberg, 1986) shocked many people. The news media carried warnings from health officials in hopes to nationally deter the use of the drug (Loomis, 1986g; Woods, 1986). Almost simultaneously with the reports of the two deaths, proponents spoke out vehemently for mandatory drug testing for all athletes (Allen, 1986b; AP, 1986nn; Becker, 1986c; Forbes, 1986; Gugger, 1986c). In addition to the outcry for drug testing, reports unbecoming to the image of athletes began to appear. One report stated that 12 of the top 18 college basketball players selected in the 1986 NBA draft had not earned diplomas (Moore, 1986c). Another report said that about 20% of the University of Virginia's football team would be indicted on various drug charges (Beaton 1986). Other reports included an all-league Atlantic Coast Conference basketball player being asked by his coach to give up his scholarship and leave the team because he had been convicted of a shoplifting charge (AP, 1986qq); the University of Texas-El Paso's track program being placed on probation because team members had received payments of about $62,150 from a coach (AP, 1986oo); an Indiana University basketball player being academically ineligible and leaving the school (AP, 1986oo, 1986pp); the arrest of a former University of Miami football player, who had been drafted by the pros, for drug and weapons charges (AP, 1986mm); an Olympic archer who was arrested for the use of marijuana (USA Today, 1986).
The seamy side of athletics, or of an athlete, is often reported by popular literature. These sordid articles generally provide only a partial picture or a slanted view of the total story to the public. By providing bits and pieces of a story, interpretations, opinions, and conclusions are permitted to be formed. By providing inadequate and insufficient information, popular literature aids in the creation of myths and stereotypes. However, there is another side of athletics and the athlete. For example, the Mid-American Conference recently celebrated its 40th anniversary with a two-day reunion (Bergener, 1986d; Hackenberg, 1986a; Loomis, 1986d). The reunion was highly publicized and well attended by individuals who have been affiliated in some capacity with the league during its 40-year history. Many of the former coaches and players in attendance have been nationally honored and recognized for their achievements in the sports world. The publicity which flowed from the reunion was totally positive. An example was when the league commissioner announced that no member institution of the league had ever been placed on probation by the NCAA. Several days following the celebration, positive human interest stories appeared in the media (Loomis, 1986e, 1986f).

The academic accomplishments of the college athlete does not go totally unrecognized by the popular literature (Bergener, 1986c; Blade, 1986a, 1986c; Gugger, 1986a).
Scholar-athletes, who are singled out for special academic awards or citations, are often applauded by the news media (Blade, 1985b, 1986b, 1986f, 1986g; Collegian, 1986b), along with a Rhodes Scholar (AP, 1985n) and a Heisman Trophy winner (Hayes, 1984a). Also, when special services or programs to assist student-athletes are developed (Garner, 1985; Guidepost, 1985; Loomis, 1985b), the popular literature generally informs the public.

By providing the public with information such as hereinbefore, popular literature assists in perpetuating the athlete as a "dumb jock." However, what does the professional literature report regarding academics and the athlete?
PROFESSIONAL LITERATURE

Scholarly research relevant to the academic achievements of student-athletes is not plentiful. Professional research that has been conducted and made public can be classified as one of two types. The two types are micro and macro research. Each type of research has distinct advantages. For example, micro is institution specific. Macro involves several institutions. Micro considers the uniqueness and the individuality of the institution. Macro focuses on generalizations that can be made across several institutions or populations. Both types of research, micro and macro, are valuable. Their findings and results, however, need to be examined, interpreted, and applied within the context in which the research was conducted.

Macro Level

In 1981, ACT was commissioned by the NCAA to conduct research regarding the graduation rates of male college athletes. The researchers examined male athletes and male nonathletes that had been enrolled at NCAA member institutions of higher learning for five years (Tow &
Seifert, 1981). A sample of 115 of the NCAA's 784 member institutions were selected for the study. A total of 46 institutions of various size that were sampled responded. The researchers found that after five years of college, male athletes' (across six categories of sports -- football, basketball, wrestling, baseball, track, and "all other sports") graduation rates were higher and their dropout rates lower than male nonathletes. ACT released a report which stated that after five years the overall graduation rate for all male students enrolled at the 46 responding institutions was 42.4 percent. Male athletes at the same institutions were found to be graduating at a rate of 52%, as compared to a rate of 41.5% for male nonathletes. Ervin, Saunders, and Gillis (1984) identify a number of methodological problems with the NCAA/ACT study. Some of these problems, according to the critics, were 1) a small nonrepresentative sample of institutions within the NCAA; 2) the failure to distinguish the 46 responding institutions by their divisional affiliation within the NCAA structure; and, 3) that the respondents were self-selected. In addition, another study (ETS/ACT study, 1984, p. A-12) also supports Ervin et al. by acknowledging that methodological problems do exist within the NCAA/ACT study.

The NCAA contracted with Advanced Technology Incorporated to conduct research regarding the effects of athletic participation on the retention and on the graduation of
college athletes. Also, Advanced Technology was employed to examine and project the effects of the NCAA's new freshman eligibility rule, Proposition 48, along with other freshman eligibility alternatives (Bartell, Keesling, LeBlanc & Tombaugh, 1984). Advanced Technology gathered academic information from over 200 NCAA Division I institutions. The retention and graduation subjects for the study were various groups of athletes who had matriculated to the NCAA member institutions of higher learning in 1977. The findings were:

**Academic Preparation:** In general, the athletes' high school grade point average (HSGPA) and standardized test scores were somewhat below those of all freshmen at the sample institutions. The differences were greater for 1) Black male athletes, and 2) athletes enrolled at Division I-A institutions. Black athletes' median scores were at about the level of the first quartile for all freshmen. The median scores for Whites were below but closer to the median scores for all freshmen. The differences between Black-White were greater for standardized test scores than for HSGPA and more pronounced for males than for females. In the revenue producing sports, the study revealed that approximately 24% of the White male and 55% of the Black male athletes were granted discretionary admissions to Division I-A institutions because
their admission credentials were below the institutions' minimal admission standards.

**Predicting Academic Performance:** The student-athletes' standardized test scores and academic performance in high school were related to their college academic performance and graduation rates. These findings, according to the researchers, were consistent with well established relationships found for college students in general.

**Academic Performance:** Compared to athletes, approximately twice as many nonathletes graduated from college in four years. However, after six years the graduation rate was similar, with about 50% of each group earning four year degrees. About 40% of the athletes who did not graduate left college for academic reasons; the remainder (60%) withdrew in good academic standing. Black male athletes, as a sub-group, graduated at a much lower rate than other athletes. The Black sub-group had a graduation rate of 14% after four years and 31% after six years. Also, when they left college, the non-graduating Black sub-group was twice as likely (80%) to leave in bad academic standing as other non-graduating athletes.
To examine the effects of Proposition 48 and other eligibility alternatives, the researchers collected pre-college academic information from the records of the sample institutions' 1982 entering freshman classes. The researchers compared the effects of Proposition 48 and other eligibility alternatives (using high school core curriculum alone, standardized test scores alone, and the two in various combinations) on freshman athletic participation. The findings were that each alternative would have had some drawbacks and tradeoffs. On the other hand, Proposition 48, according to the researchers, would have some severe effects. For example, the researchers noted that 70% of the Black male athletes who graduated among the class that entered college in 1977 would not have been eligible to participate in athletics according to Proposition 48. The report made no specific recommendations regarding eligibility standards for freshmen but did suggest three alternatives. The alternatives were: 1) to establish a standard that requires a 2.0 HSGPA in a core curriculum; 2) to permit eligibility on the basis of either the 2.0 HSGPA criteria or the requirement of a minimum standardized test score; or 3) to use an index score (predictive formula) that combines the HSGPA criteria and the minimum standardized test score.

Kiltgaard (1984) reanalyzed the freshman eligibility data presented in the NCAA/Advanced Technology study. He
concluded that a predictive formula which would weigh high school grades and standardized test scores in a particular ratio would be the most effective predictor. The ETS/ACT study (1984) says that the NCAA/Advanced Technology study "...has undoubtedly provided the most comprehensive examination to date of the academic preparation and performance of college athletes" (p. A-1).

The American Association of Collegiate Registrars and Admissions Officers (AACRAO) and the American Council on Education (ACE) were interested in the effects of athletic participation on the academic performance of freshman scholarship athletes. Interest was further stimulated by the controversy surrounding the NCAA's new eligibility standards for incoming freshman athletes that was implemented in 1986. AACRAO and ACE requested that the American College Testing Program (ACT), the College Board, and the Educational Testing Service (ETS) collect and evaluate data on the academic performance of college freshman scholarship athletes throughout the United States.

To properly assess the effects of athletic participation on academic performance in the freshman year, data were collected on more than 2,000 freshman scholarship athletes and a matched sample of nonathletes from each of the study's 57 participating institutions. The athletes and nonathletes matriculated to the participating institutions as freshmen.
in 1982-83 and were matched on institution attended, race, sex, HSGPA, and ACT or SAT test scores. Criterion measures to evaluate academic performance were the number of credit hours attempted and earned during the freshman year and the cumulative freshman GPA. Persistence measures were academic standing at the end of the freshman year and status at the beginning of the sophomore year.

The researchers found that entering athletes were not as academically prepared as the total entering student population at their particular institutions. However, the athletes were not unique because no difficulty was encountered in identifying a matched sample of nonathletes for comparison at each institution. The athletes earned slightly more credit hours during their freshman year than nonathletes and their GPAs were approximately the same, with medians close to 2.5. The athletes also had higher persistence rates than their matched sample of nonathletes, when persistence is defined as being in good academic standing at the end of the freshman year and returning for a second year to the same institution. An analysis of the data for various subgroups of athletes and their matched samples (males, females, Whites, minorities, football players, basketball players, and athletes in other sports) produced similar results as stated hereinbefore. The results of the study, according to the authors, clearly indicated that freshman participation in athletics did not have a negative impact on academic performance.
Micro Level

Whitner (1987) described the academic achievements of scholarship student-athletes enrolled at The University of Toledo from the Fall Quarter of 1974 through the Fall Quarter of 1981. A total of 481 scholarship student-athletes (38 females and 443 males) met the stringent parameters for inclusion in his study. An investigator-constructed data-gathering instrument was utilized to collect selected academic achievement variables regarding each student-athlete's academic performance. The data were compiled, tabulated, and analyzed. The selected academic achievement variables were used to academically describe the student-athlete, the female student-athlete, the male student-athlete, female and the male student-athlete and the student-athletes who participated in the revenue producing and the non-revenue producing sports. Some of Whitner's findings regarding the student-athletes' academic achievements during the eight year time period of the study were:

- Forty-two percent (42%) of the total student-athlete population graduated. Male student-athletes had a 44.0% graduation rate.

- Of all the student-athletes who graduated, almost 40% graduated "on-time" or within the traditional concept of a four-year time period.
- In five of the eight male sports, student-athletes' graduation rates were over 50%. In two of these sports, student-athletes graduated at better than a 60% rate.

- More student-athletes were enrolled in the College of Business Administration than any of the other five Colleges.

- Student-athletes' graduation rate from the Colleges of Business Administration, Engineering, and Pharmacy was 50% or greater.

- Over half (50%) of all the student-athletes who graduated earned their degrees from the Colleges of Business Administration or Engineering.

- Among all the major areas of study, marketing (Business Administration) had the second largest number of student-athletes enrolled. This major had close to a 77% graduation rate.

- In the College of Arts and Sciences, the major area of study that had more student-athletes enrolled than any other major within the College was biology and chemistry pre-med.

- The female student-athlete who graduated had a mean GPA of 3.452.
The label "dumb jock," according to Whitner (1987), depicts student-athletes as unintelligent human beings. The academic achievements of the student-athletes that were reported in his investigation, however, provides new information which repudiates the "dumb jock" stereotype. Whitner also presents a unique review of the literature related to the subject area. He first provides a historical perspective that demonstrates how an image can develop. Next, a sample of the popular literature (newspapers, magazines, etc.) is provided in order to demonstrate how isolated incidents can be transformed to the reality of myth, misinformation, and stereotype formulation. In the last part, a thorough examination of the professional literature (investigations which have a scientific base) that focuses on the academic achievements of student-athletes is presented. Whitner's conclusion: student-athletes are academically very similar to the other students on their campus.

Purdy, Eitzen, and Hufnagel (1982) analyzed the academic data of more than 2,000 student-athletes who had completed more than one term of college between 1970 and 1980 at Colorado State University. The authors examined the measures which are most commonly used to assess educational achievement. The measures were HSGPAs, high school class ranks, SAT combined scores, ACT composite scores, college GPAs, and graduation rates. On these measures, student-
athletes were compared to the University's general student population. Also, comparisons were made by the authors among various groups of student-athletes enrolled at the University.

Purdy et al. reported that on variables used to measure high school and college academic performance, athletes: a) had poorer academic backgrounds; b) received lower college grades; and c) after five years of college graduated at a lower rate (34% vs. 47%) than the general student population. The academic performance of male non-revenue sports participants and female athletes, however, was similar to that of the general student population. The authors said that the athletes at the University differ more markedly among themselves than they differ from the average of the general student population. The most salient differences noted by the authors were: a) between Black athletes and White athletes; and b) between athletes who participate in the revenue producing sports of football and basketball and those who participate in the non-revenue producing sports such as tennis, swimming, and golf (see Figure 1).

The differences among the measures, according to Purdy et al., clearly point to the academic heterogeneity (in terms of academic background preparation and college performance)
<table>
<thead>
<tr>
<th>MEASURE (mean)</th>
<th>BLACK</th>
<th>WHITE</th>
<th>FOOTBALL (REVENUE)</th>
<th>GOLF (NON-REVENUE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT Combined Score</td>
<td>753</td>
<td>965</td>
<td>899</td>
<td>1008</td>
</tr>
<tr>
<td>High School GPA</td>
<td>2.48</td>
<td>3.04</td>
<td>2.60</td>
<td>3.08</td>
</tr>
<tr>
<td>College GPA</td>
<td>2.11</td>
<td>2.61</td>
<td>2.30</td>
<td>2.67</td>
</tr>
<tr>
<td>Graduation Rate (%)</td>
<td>21</td>
<td>35</td>
<td>27</td>
<td>52</td>
</tr>
</tbody>
</table>

Figure 1: Comparison of academic achievement measures between Black and White athletes (Data adapted from "Are athletes also students? The educational attainment of college athletes" by D. A. Purdy, D. S. Eitzen, and R. Hufnagel, 1982, Social Problems, 29(4), pp. 439-448. Copyright 1982 by Social Problems. Adapted by permission.)

The authors also reported:

1. that the national mean combined SAT score for 1982-83 was 890.
2. that the mean combined SAT score for the 1982-83 entering freshmen at Colorado State University was 997.
3. that student-athletes who were admitted to the University with:
   a) SAT scores below 700 graduated at an 18% rate.
   b) ACT scores below 15 graduated at a 24% rate.
   c) HSGPAs below 2.50 graduated at a three percent (3%) rate.
4. that almost half of the athletes who were admitted to the University with SAT combined scores below 700 participated in basketball and football.

5. that football players had the lowest academic success rates among all the athletes.

The relationship between the academic entrance credentials and the academic performance of male college athletes at a large southeastern university was examined by Ervin, Saunders, Gillis, and Hogrebe (1985). The subjects of the study were all male freshman football and basketball players. The subjects were enrolled in a developmental studies program designed for underprepared freshman students during the academic years of 1981-82 and 1982-83. After two quarters of developmental course work the 49 subjects' (25 Black and 24 White) GPAs were examined. The subjects were placed in one of two groups for each of three variables. The variables were: 1) race (Black-White); 2) HSGPA (2.50 and greater, or below); and 3) SAT composite score (700 and greater, or below). Analysis of the data revealed that Black athletes had higher HSGPAs than White athletes, but their SAT scores were significantly lower. Also, Black student-athletes did not perform as well academically in the developmental courses as their White counterparts. In general, according to the authors, Black athletes needed more time to complete remedial course requirements. Ervin et al. stated, "Student-athletes who scored below 700 on
the SAT, with few exceptions, were so deficient in academic skills that remediation within one academic year was virtually impossible in an institution where the average SAT score exceeds 1000" (p. 122). The authors conclude that an appropriate combined SAT cutoff score can be a yardstick for determining whether a student's academic skills are adequate for successful performance at an academically competitive university.

The academic preparation, performance, curriculum, and persistence of freshman scholarship football players at a large midwestern state university were assessed by Stuart (1985). The author randomly matched all of the 91 football players who entered the university between 1977 and 1980 on three variables with a group of male nonathletes. The variables were year of entry, race, and major area of study. The study's focus was to evaluate the effects of intercollegiate athletic participation on academic success, or the student-athletes' ability to be a student rather than their motivation to graduate. To meet the challenge of the study's focus, the subjects' first two years of academe were examined.

The results of Stuart's investigation showed a significant difference in academic preparation existed between football players and the nonathletes. The student-athlete had a lower mean HSGPA, fewer high school
mathematics courses, a lower mean ACT composite score, and a higher mean high school rank. After two years of academic performance, no significant differences were found between the two groups' mean college GPA and mean number of semester credit hours earned. Student-athletes and nonathletes also made a similar number of changes in their major areas of study during their first two years of college. The student-athlete, however, was more likely to transfer to the College of Education than the nonathlete. Persistence was determined by academic status and continued enrollment after two years. Stuart reported that no significant difference existed between the two groups as shown in Figure 2.

<table>
<thead>
<tr>
<th>STATUS</th>
<th>ORIGINAL</th>
<th>DISMISSED</th>
<th>WITHDREW</th>
<th>ENROLLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATHLETES</td>
<td>91</td>
<td>6</td>
<td>11</td>
<td>74</td>
</tr>
<tr>
<td>NONATHLETES</td>
<td>91</td>
<td>13</td>
<td>14</td>
<td>64</td>
</tr>
</tbody>
</table>

Figure 2: Persistence of athletes and nonathletes after 2-years of college.
(Data adapted from "Academic preparation and subsequent performance of intercollegiate football players" by D. L. Stuart, 1985, Journal of College Student Personnel, 26(2), pp. 125-129. Copyright 1985 by the American Association for Counseling and Development. Adapted by permission.)

Mayo and Zimmerman (cited in ETS/ACT, 1984) examined the academic achievements of student-athletes enrolled in a Big
Ten Conference institution. The institution was not identified "...because of the sensitivity of the data" (p. A-6). The study revealed, according to the authors, that Black student-athletes who participated in the revenue producing sports of basketball and football constitute a specific problem area within the athletic population. Mayo and Zimmerman also reported that:

1. In the revenue and the non-revenue producing sports, female and White male athletes both earned college GPAs exceeding those predicted for them.

2. Female athletes achieved at a level exceeding the mean GPA for all students at the institution.

3. White male athletes who participate in the revenue producing sports differed very little from White male athletes who participate in the non-revenue producing sports in terms of high school ranks, ACT scores, and college GPAs.

4. Overall GPAs: all university students, 2.57; White males (revenue), 2.51; Black males, 1.99.

5. Core curriculum GPAs: White males (revenue), 2.40; Black males, 1.77.

6. Black athletes constituted 41% of the institution's basketball and football players.

At the University of Tennessee-Knoxville, Larsen (1973) compared the academic achievements of current male
scholarship athletes to the academic achievement of the current general student population of male nonathletes. Academic achievement was measured by the subjects' cumulative GPA for Spring Quarter, 1973. In addition, Larsen analyzed the persistence to graduate by comparing freshman male athletes with a sample of male nonathletes for the years 1965 and 1968. Larsen reported that the 1973 Spring Quarter mean GPA for male athletes (2.38) was slightly less than the mean GPA for male nonathletes (2.58). She also reported that the average ACT composite score for male athletes was slightly less than male nonathletes who had entered the University between 1968 and 1972. In her comparison of the 1965 and 1968 subjects for persistence, Larsen showed that the athletes' graduation rate and persistence to graduate are similar to that of nonathletes. Nonathletes graduated at a higher rate in four years than athletes but, given additional time, both groups graduated at a similar rate. Larsen suggested that a four year time period is not the best predictor of academic success for male undergraduate students seeking a bachelor's degree or its equivalent.

The lack of agreement among scholarly studies was reported by Klitgaard (1983). Klitgaard summarized eleven studies that dealt with the effects of intercollegiate athletic participation on grade point average. The author found both positive and negative results. However, most
results were non-significant. Klitgaard then eliminated the studies that were conducted prior to 1970. Based on the five remaining studies, he concluded that the effects of athletic participation seem to be small and the effects may be more pronounced in a negative direction for athletes in revenue producing sports. Klitgaard hypothesized that the negative effect for athletes who participate in the revenue producing sports may be due to an insufficient amount of academic preparedness and an increase in the demands of intercollegiate athletic competition.

The authors of the ETS/ACT Study (1984) reviewed several research studies regarding the academic preparation and performance of college athletes. The authors said, "Because of differences in methods, purpose, and population, the results do not fall together in clear patterns, but three conclusions seem appropriate" (p. 1-7). These conclusions were: 1) the student-athlete group is diverse both in preparation for college and in academic performance during college, 2) as a group, athletes are less well prepared on the average than other students at the same institution; and 3) high school grades and other measures of academic preparation are related to the academic performance of college athletes just as they are for other college students.
A number of college dissertations have focused on the academic achievements of student-athletes at the micro level -- institution specific. The dissertations which are pertinent to this study are summarized.

The purpose of Mayo's (1982) study was to examine the academic ability, achievement, and progress of various groups of athletes enrolled at Ohio State University in order to determine if differences existed among these groups of athletes. The groups, or categories, of athletes were: a) male-female; b) grant-in-aid vs. non-grant-in-aid; c) revenue producing vs. non-revenue producing; d) individual competitors vs. team competitors; and e) Black-White.

Mayo analyzed the following eight measures: 1) high school class rank; 2) standardized college entrance test scores; 3) predicted GPA; 4) cumulative GPA earned; 5) GPA during season of competition; 6) GPA in basic education courses only; 7) hours attempted during season of competition; and 8) hours attempted during off-season.

The major findings reported by Mayo were that the academic achievements of the Black athletes who participated in the revenue producing sports were significantly lower than the academic achievements of the White athletes who participated in the revenue and the non-revenue producing sports. White athletes who participated in the revenue producing sports closely resemble their White counterparts.
who participate in the non-revenue producing sports. A greater proportion of Black male athletes who participate in the revenue producing sports were reported to have chosen majors in recreation and communications than other athletes. These majors, according to Mayo, may be perceived to be "easier" or "more compatible" with an athlete's athletic goal. Athletes with the lower ACT and SAT scores majored in physical education, recreation, and communications or were undecided about their major areas of study. Although the undecided majors had higher standardized test scores than the physical education, recreation, and communications majors, they achieved at a lower academic level. Mayo also reported that significantly more grant-in-aid athletes (male and female) chose physical education, recreation, or communications majors than non-grant-in-aid athletes. However, there was no significant difference in academic achievement between freshman athletes and upperclass athletes. In addition, when the revenue sports were controlled for, there were no significant differences in academic achievement among athletes competing as individuals and athletes competing as members of teams.

Renwick (1981) compared the academic achievement of current (presently enrolled) student-athletes at Florida State University to a matched sample of nonathletes and former athletes (non-scholarship). He also compared the current athletes at the University by sport and sex.
Renwick analyzed the transcripts of 1,033 subjects and included transfer credits that the subjects had earned at other institutions. Also, when available, HSGPAs and SAT composite scores were utilized. Renwick reported there was no significant difference in the academic achievement of current athletes and the matched sample of nonathletes. Athletes by sport differed significantly in their patterns of coursework from the matched sample of nonathletes, but showed no differences in GPAs. Current female athletes had significantly higher GPAs than current male athletes. Former athletes, according to Renwick, were scholastically superior to the current athletes on most variables studied.

The subjects for Ellis' (1981) research were lettermen and non-lettermen who attended the Air Force Academy from 1959 through 1973. The purpose of the study was to determine which group demonstrated higher achievement in stated academy goals. A total of 25 measures were used to define achievement of the four Academy mission goals of: 1) graduation; 2) academic achievement; 3) leadership qualities; and 4) motivation for an Air Force career. Group comparisons were made between lettermen and non-lettermen and between top athletes and athletes (based on the number of letters won). Ellis reported that lettermen demonstrated higher achievement than non-lettermen in all four Academy goals. Top athletes achieved at a higher level than athletes in three of the four goals, with motivation for an
Air Force career showing no group difference. Based on the results of the research, Ellis concluded that Air Force Academy intercollegiate athletes demonstrate higher achievement in Academy goals than do nonathletes. The implications of Ellis' study are that in an educational environment, like the Air Force Academy, where the athlete and nonathlete are equally qualified and exposed to the same curriculum, athletes tend to show higher achievement in educational goals. Therefore, Ellis contends that intercollegiate athletics seems to contribute to educational goals and should be maintained as a part of American higher education.

Snyder (1978) compared the academic performance of 1,292 male athletes who attended the University of Illinois at Urbana-Champaign between 1967 and 1975 to male nonathletes. The male nonathletes were all entering freshman students for the academic years 1968-69, 1971-72, and 1974-75. Academic performance variables were first semester GPA, cumulative GPA, and graduation rate. Entering ability variables were ACT composite scores and high school class rank. The study revealed that the GPAs of nonathletes were slightly greater than those for athletes, but when entering abilities were controlled for (matched), the actual college GPAs of the majority of athletes were greater than those of nonathletes. Athletes also had a higher rate of graduation than the nonathletes. Snyder noted significant differences in
entering abilities between: a) Black and White athletes; b) players of revenue and non-revenue sports; and c) scholarship and unsupported athletes. Snyder also reported that over 41% of the athletes with ACT composite scores of less than 15 graduated.

The academic achievement of 1,085 male athletes who were enrolled at the University of California, Los Angeles (UCLA) from 1970 through 1975 was assessed by Collins (1978). Collins reported that after five years the graduation percentage for all male athletes at UCLA was 48.8%. For White male athletes the percent was 51.9. For Black male athletes the percent was 30.5. By sport, Collins found that fencing (72.2), crew (68.4), and golf (62.5) had the highest graduation percentages, while gymnastics (44.0), tennis (42.4), and football (31.9) had the lowest. The overall GPA for athletes was 2.515 as compared to 2.852 for nonathletes. Collins recommended that: a) research regarding academics and athletes be performed at the local and national level; b) research needs to focus on the problems of Black athletes; and c) research needs to evaluate the special academic achievement problems of football players.

All freshman male athletes who entered the Fall Semester of 1969 and the Fall Semester of 1970 at Heidelberg College in Ohio were the subjects of Getz’s (1976) study. Getz compared each population's (entering class of 1969 and 1970)
mean GPA during the semester of athletic participation and the semester of non-athletic participation. The researcher found the two populations earned a higher mean GPA during the off-season semester as compared with the semester of athletic participation in intercollegiate sports. Getz also found there was little difference in the credit hour load carried by athletes during the season of participation when compared to the off-season.

The cumulative GPAs of 90 selected male athletes were compared to the cumulative GPAs of 90 selected male nonathletes by McKnight (1972). The subjects attended Howard University for eight consecutive semesters from 1961 through 1967. Ten athletes from each of nine sports were randomly selected for the study from a stratified list of each sport. The nonathletes were randomly selected from a stratified list of male non-athletes. The researcher compared the cumulative GPAs, and from an analysis of the data concluded that the influence of athletic participation on the academic achievement of the selected athletes when contrasted to the selected nonathletes was slight. The investigator also noted that the nature of the sport, the time and energy devoted to it, and the spectator interest were reasons for the results that were obtained in the study.
Castiglione (1982) examined 132 male varsity athletes and 119 nonathletes on GPA and three student development measures. The researcher found that athletes at each of three levels (freshman, sophomore, and junior) had lower GPAs than nonathletes. On the self-report measures, athletes expressed significantly lower needs on personal security, sexual adjustment, and marital/close relationships. But on work values, athletes were higher on adventure/self reliance. On the perception of their college environment, athletes expressed more press on academic achievement and academic organization that nonathletes. Also, more press was expressed by athletes on student dignity and self-esteem. Implications of the research, according to Castiglione, are: a) the assumption that student-athletes should be treated just like other students should be rejected; b) that programs should be directed at meeting the athletes' developmental needs and characteristics; and c) that long term, replicable, cross-institutional research is needed for developmental studies of athletes.

The relationship between academic achievement, attitudes, and attrition of Black athletes at Arizona State University was examined by Parham (1973). Parham utilized data collected regarding the students' academic achievements along with a personal data interview sheet and an adaptation of an attitude scale. After analysis of the data, four conclusions were inferred by the researcher:
1. Black athletes do poorly in academic subjects while in college, and poor achievement results in a high attrition rate -- four out of five Black athletes either drop out or fail to earn a degree.

2. Black athletes who do well academically in high school have favorable attitudes toward both high school and college coaches, teachers, administrators, and counselors.

3. Black athletes who do well academically in college have favorable attitudes toward high school coaches, teachers, administrators, and counselors, but have unfavorable attitudes toward college coaches, teachers, administrators, and counselors.

4. When considering his academic ability, the Black athlete is cognizant of his present limited accomplishments and feels discomfort in that regard.

Several recommendations were suggested by Parham. The major recommendations were: a) provide special academic support programs as needed; b) provide counseling programs to clarify attitudes; c) provide orientation of Black athletes to the findings of his (Parham) study; d) reduce the eligibility hours from 12 to 9 with 3 hours tutorial or independent study; e) award Black athletes a 5 or 6 year scholarship; and f) do additional research.

The purpose of Earl's (1968) study was to determine if there were any significant relationships between the
academic achievement of successful athletes in specific ethnic groups and the academic achievement of nonathletes in the same ethnic groups. Each of the study's 333 subjects was classified according to ethnic background and as to being an athlete or nonathlete. The two main divisions of subjects were 1) athletes and 2) nonathletes. Each of the two divisions contained four ethnic subdivisions. The four ethnic subdivisions were: a) Anglo, b) Indian, c) Negro, and d) Spanish American. Earl concluded from his analysis that in each ethnic group nonathletes achieved at a higher level than athletes, with the exception of the Indian groups, where there was no significant difference. As a group there was no significant difference in academic achievement between athletes and nonathletes. Earl also found that among the four ethnic groups the Anglo and Spanish American group's academic achievements were significantly higher than the Negro and Indian group's achievements.
CONCLUDING REMARKS

For about 100 years, according to Sack (1977), big time college football has encouraged a variety of corrupt practices. Despite the public's awareness and criticism of these corrupt practices, the sport has persisted. Sack says:

Like prostitution and the urban political machine, commercialized college football seems immune to repeated attempts at social reform. To account for the tremendous staying power of this often maligned institution, one must examine the wide variety of functions it performs in the university, surrounding community, and nation. That is, one must ask what needs are satisfied by commercialized college football and how does it contribute, directly or indirectly, to the health of the larger social system? For an institution laden with so much hypocrisy to have thrived and prospered, someone must be benefiting. (p. 88)

Sack continued with a discussion of the positive economic functions that have been credited to college football. The most obvious benefit is that the monies earned from gate receipts, television rebates, and bowl games have financed
other university sports, intramural programs, and educational services. The less obvious benefit is that universities develop a national recognition on the basis of their athletic teams. The publicity that universities receive because of their athletic accomplishments serves an important advertising function. The advertising function attracts a) prospective students, b) the attention of state legislatures, and c) alumni support and contributions. Also, individuals and groups, inside and outside the university, benefit economically from commercialized college football. For example, employment is increased. Motels, restaurants, and other small businesses flourish during football weekends. According to Sack, it is evident that many people benefit from commercialized football. He states:

College football, like the heart of a living organism, may well have become functionally indispensable. That is, it satisfies so many vital needs that its removal or alteration could entail tremendous costs for the larger social system. This is why commercialized college football persists and serious criticisms of the game are met with such intolerance. An attack on the sport establishment threatens the interests of a wide variety of groups within and outside of universities. The question that must be posed at
this point, however, is whether college football benefits society as a whole or whether it benefits some groups or classes at the expense of others.

(pp. 89-90)

To make his point, Sack used the work of Herbert Gans (1971), an urban sociologist, as an analogy. Sack posed the same question about college football as Gans did in regard to poverty. Gans concluded his investigation of poverty by stating that without poverty many vital social, economic, and political needs would go unsatisfied. Gans said that it is not the needs of the entire social system that are satisfied by poverty, but rather the needs of those who control the system -- the rich and powerful.

Sack (1977) believed that college football players, just as the poor, have been exploited by the people who control the system -- the rich and the powerful. He discussed the college football players exploitation and some of the possible alternatives for reform. Sack concluded, however, by saying that nothing seriously will be done to change the present system until the proletariats of the gridiron rise to protest their own exploitation.

On the other hand, Shriberg and Brodzinski (1984) contended that student-athletes deserve special services more than any other distinct university population. The reason, according to the authors, is that many of the
obstacles and challenges student-athletes face on the path to graduation are placed there by the institutions that benefit from their services. These authors also pointed out that student-athletes are simultaneously loved and hated, admired and despised. One day they are heroes, the next they are villains. Student-athletes are seen as saviors of the institution for the revenue they create, or as pampered, spoiled brats for the benefits they receive. Student-athletes are perceived as strong, mature, and confident individuals. Yet, they are often thought of as "dumb jocks," unable to perform in the classroom. Somewhere, among all the radical images, lies the real student-athlete.

The authors stated:

It is extremely important for all of us to remember that the individual is at the base of the enterprise of intercollegiate athletics, and how we organize, structure, and operate collegiate sports has a direct impact on that individual. The character of our institution is manifested more in how we treat that individual than in how we perform in the national championship. (p. 1)

Shriberg and Brodzinski (1984) concluded by making the point that student-athletes are an important constituency to be served by university professionals. They said that there is really only one problem with college sports today. The problem is that too many university professionals have
chosen to be spectators rather than participate in its operation.

The literature that has been reviewed provides a glimpse at the origins of an image of the athlete. The popular literature solidifies the stereotype of the student-athlete as a "dumb jock" and demonstrates how an image can be perpetuated. The professional literature examines research studies which have been conducted at both the national (macro) and an institution specific (micro) level. Both levels or types of research are valuable and produce their own unique findings. Academically speaking, however, student-athletes seem to be similar to the other students on their campuses.
REFERENCES


Allen, K. (1986b, July 1). Random test key to college programs. USA Today, Sec. C, p. 3.


Associated Press (1984f, November 14). Ban frosh, midwest coaches say. The Blade, Toledo, Ohio, p. 34.

Associated Press (1984g, November 14). No academic deficiency seen in college freshmen athletes. The Blade, Toledo, Ohio, p. 34.


Associated Press (1985b, January 5). Documents released by the University of Illinois reveal seamy, sad sides of football recruiting. The Blade, Toledo, Ohio.


Associated Press (1985k, June 22). College athletes' use of drugs called similar to nonathletes. The Blade, Toledo, Ohio, p. 19.

Associated Press (1985l, June 22). New tough penalties are ok'd by NCAA. The Blade, Toledo, Ohio, pp. 1, 4.


Associated Press (1986e, April 16). NFC central division coaches wary of drafting drug users. The Blade, Toledo, Ohio, p. 34.


Associated Press (1986g, April 20). Proposed Columbus facility said possible site for NCAA. The Blade, Toledo, Ohio, Sec. D, p. 5.

Associated Press (1986h, April 20). Western's Peties faces theft charge. The Blade, Toledo, Ohio, Sec. D, p. 3.


Associated Press (1986j, April 23). Williams goes pro. The Blade, Toledo, Ohio, p. 35.


Associated Press (1986s, May 16). Massillon is investigated. The Blade, Toledo, Ohio, p. 22.


Associated Press (1986z, June 6). Track star jumps off a bridge. The Blade, Toledo, Ohio, p. 17.


Associated Press (1986bb, June 8). Ormsby listed as stable. The Blade, Toledo, Ohio, Sec. D, p. 3.


Bogan, C. (1986b, February 2). Study shows 6 of 10 NFL players have no college degree. The Blade, Toledo, Ohio, Sec. D, pp. 1, 11.


Gugger, J. (1986b, May 15). University of Georgia officials head list of losers in sports. The Blade, Toledo, Ohio, p. 36.

Gugger, J. (1986c, June 26). It's time for mandatory drug testing for all athletes. The Blade, Toledo, Ohio, p. 29.


Hannen, J. (1986a, February 23). College basketball success now depends on recruiting. The Blade, Toledo, Ohio, Sec. D, p. 3.


Knights News Service (1986b, June 18). Cavs' talks for top pick began on quiet note. The Blade, Toledo, Ohio, p. 27.

Knights News Service (1986c, June 20). Reports indicate Bias may have tried cocaine. The Blade, Toledo, Ohio, pp. 18, 20.

Knights News Service (1986d, June 25). Death of Bias due to cocaine. The Blade, Toledo, Ohio, p. 28.


Loomis, T. (1986b, February 13). Proposition 48 will have positive effect. The Blade, Toledo, Ohio, p. 38.


McCallum J. (1986, June 30). 'The cr l est thi g ever.' Sports Illustrated, 64, New Y k, pp. 20-27.


Moore, D. L. (1986e, July 1). Autopsy shows deaths of Rogers, Bias similar. USA Today, Sec. C, p. 3.


Nack, W. (1986, February 24). This case was one for the books. Sports Illustrated, 64, New York, pp. 34-42.


Sperling, D. (1986, July 1). Drug levels not high in 2 athletes' deaths. USA Today, Sec. C, p. 3.


Taylor, J. (1986a, February 16). $2.5 million Kemp award should wake up colleges. The Blade, Toledo, Ohio, Sec. D, p. 3.


