SOCIAL BACKGROUNDS OF ATHLETES AWARDED GRANTS - IN - AID AT BIG TEN UNIVERSITIES FROM 1960 - 1963

> Thesis for the Degree of M. A. MICHIGAN STATE UNIVERSITY BRIAN MALCOLM PETRIE 1968

THESIS



ABSTRACT

SOCIAL BACKGROUNDS OF ATHLETES AWARDED GRANTS-IN-AID AT BIG TEN UNIVERSITIES FROM 1960-1963

by Brian Malcolm Petrie

A regular interval sample of 832 subjects was selected from a list of university athletes whose grants-in-aid were not renewed at the colleges of the Big Ten Conference during 1960 to 1963 in order to investigate the social backgrounds of college athletes.

It was determined that:

1. The athletes, whether represented in team or individual sports, tended to come from middle income families. The athletes were under-represented in the lowest and highest income categories, and were overrepresented in the middle-income categories.

2. The athletes did not tend to come from lower occupational status families, but when the data was analyzed separately, it was found that the individual sport athletes came mainly from the middle to upper occupational status families, while the team athletes tended to come from the middle to lower occupational strata.

3. Even when need was controlled, team athletes, and in particular, football team athletes, received more financial assistance than the individual sport athletes. When the special status of the team athletes was not considered, financial assistance was related to need.

4. The individual sport athletes were found to be from higher occupational status families, but there was no difference in terms of gross family income between the individual and team sport athletes.

5. There was no support for the hypothesis that team sport athletes come from large families.

6. No comparison was possible between athletes and non-athletes, but it was found that there was no difference between team and individual athletes on high school graduation rank.

7. There was some support in the data for the hypothesis that team athletes come from smaller towns and cities, but when the data on the two groups was combined, it was found that the athletes, regardless of sport type, tended to come from small to medium sized cities.

SOCIAL BACKGROUNDS OF ATHLETES AWARDED GRANTS-IN-AID AT BIG TEN UNIVERSITIES FROM 1960-1963

Ву

Brian Malcolm Petrie

A THESIS

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CHAPTER I

INTRODUCTION

In the modern history of sports in the United States, various beliefs and practices were initiated that have passed into athletic folklore. One area where this development has been extensive has been in connection with intercollegiate competition. Athletics has been regarded as a means of developing the sense of identification of the students for the college, and it is not surprising that in athletics there has developed a rich tradition of legend around the prowess of particular athletes and colleges. There has also developed a concept of an ideal type with regard to the sociological description of the typical university athlete.

One generalization that has been stated quite clearly and frequently, is that the athlete is most likely to have been born into the lower socio-economic class of relatively poor parents. The father is believed to be a member of one of the lower occupational status groups. This generalization is usually applied to the team athletes in particular, as some difference in ideal type is acknowledged in athletes competing in some of the individual sports.

Because of the background that the athlete is presumed to come from, the system of giving financial assistance to cover educational costs is believed to enable the athlete to gain a college degree that he would not otherwise be able to afford, and is therefore getting a chance to gain social mobility through the exploitation of his gift at sports. From the ghetto to respectable middle class society is the claim, particularly when the Negro athlete is the topic of discussion.¹

Various other conceptions about the social backgrounds of university athletes have developed, many of them concerning the athletes playing in the team sports, especially football.

Most people are aware of the image projected by dozens of college movies, in which an indescribably dumb football lineman of almost legendary prowess is assisted, through cheating or the collusion of a sympathetic professor, to pass his crucial examination so that he can retain his eligibility, play against the top team in the nation, and win the game through individual effort. If the movies reflect the generalizations and stereotypes held by society, then the prevailing image of the college athlete does not flatter his academic potential.

¹Jack Olsen, "The Black Athlete--A Shameful Story, Part 1: The Cruel Deception," <u>Sports Illustrated</u>, July 1, 1968, pp. 12-27.

Athletes in the team sports are also believed to come from large families. This may be associated with the belief that team players come from lower class backgrounds where high birth rates are common, or may be associated with the belief that large families foster the attitudes of co-operation, mutual assistance and loyalty that are regarded as essential personality attributes of team sportsmen.

It was the purpose of this study to investigate these conceptions of the typical college athlete to determine their veracity. The group studied comprised a sample of college athletes whose eligibility ceased at the universities of the Big Ten Conference during the period from 1960 to 1963. This was the most recent information available from the Office of the Big Ten Conference, although information concerning athletes whose tenders were not renewed during 1963-64 has since become available.

A previous study of the athletes of Michigan State University was made by Webb,² and he indicated that the sportsmen came from middle income ranks of the population, and, even where need was held constant, the team athletes received higher grants of financial assistance. He also found that the team athletes tended to come from lower socio-economic backgrounds, from smaller cities and towns,

²Harry Webb, "Social Backgrounds of College Athletes" (paper presented at the 83rd Anniversary National Convention of the A.A.H.P.E.R., St. Louis, Mo., March 30, 1968).

and from smaller families than the individual sport athletes. This study is a replication of his work, though performed with a larger sample drawn from all the Big Ten Universities.

The Big Ten Intercollegiate Conference

In January, 1895, President Smart of Purdue University called a meeting of the presidents of seven midwestern universities for the purpose of discussing the regulation and control of intercollegiate athletics. The University of Chicago, the University of Illinois, the University of Michigan, the University of Minnesota, Northwestern University, Purdue University and the University of Wisconsin were the original members of the Conference. In 1899, Indiana University and the State University of Iowa were admitted, while Ohio State University was granted membership in 1912. The University of Chicago withdrew from the Conference in 1946, and Michigan State University (then Michigan State College) was admitted in 1949.³

The Conference is under faculty control, with each university having one representative. The Faculty Representatives, as they are known, may not receive any salary for services connected with athletics or the Departments of Physical Education at the universities they represent. The Faculty Representatives provide the legislative

³The Big Ten Intercollegiate Conference, <u>Handbook of</u> <u>the Intercollegiate Conference</u> (Chicago: By The Conference, 1967), p. 1.

function of the Conference, while the Directors of Athletics of the member universities perform delegated tasks and implement the administrative and executive functions of directing the athletics' programs under their jurisdiction.⁴

A Commissioner of Athletics is elected by the Council of Ten, a body comprising the presidents of the member universities. He serves as the chief administrative officer of the Conference and is the chief enforcement officer of the rules and regulations of that body.⁵

Regulations Governing Financial Assistance to Athletes

Financial assistance is defined by the Conference as "any form of unearned aid and any earnings from employment during term time, exclusive of vacation periods."⁶

Aid was restricted to students who graduated in the upper two-thirds of their high school classes and who demonstrated the need for such assistance. The need was determined by analysis of the Parent's Confidential Statement which listed the assets, liabilities, income and expenditures of the athlete's family.

When a student graduated from high school in the top quarter of his class, he was eligible to receive all of

> ⁴<u>Ibid</u>., p. 4. ⁵<u>Ibid</u>., pp. 11-12. 6_{Ibid., p. 25.}

the basic costs of his education, or as much of such costs as his need indicated.

The basic educational costs covered by full assistance were: tuition, fees, necessary books and supplies, board and room (or commuting costs if the athlete lived at home).

Students who were already enrolled at the university were considered eligible for assistance based on need, if their academic qualifications were satisfactory.

Married students who were receiving no financial support from their parents were generally considered eligible for full assistance.

Enfranchised minors, orphans, or students whose parents had signed affidavits of non-support were generally considered to be eligible for full assistance.

Statement of the Problem

The central concern of this thesis is the investigation of the social backgrounds of college athletes in order to determine; (1) the relationship between high sporting ability and the status and income earning capacity of the parents; (2) the relationship between family income and status to financial assistance for university athletes; and (3) the relationship between sport type and status, gross family income, size of family, academic achievement and residence.

Operational Definitions

Big Ten Intercollegiate Conference (also called the Conference), the association of the University of Illinois, Indiana University, the State University of Iowa, the University of Michigan, Michigan State University, the University of Minnesota, Northwestern University, Ohio State University, Purdue University and the University of Wisconsin for the regulation of athletic competitions between its members.

"<u>Full boat</u>" (also called "full ride"), a tender of financial assistance that pays all the basic educational costs of university education for the athlete to whom it is awarded.

<u>Grant-in-aid</u> (also called a Tender), an award of financial assistance for basic educational costs that is related to the academic achievements and financial needs of the athlete.

Effective Family Contribution (EFC), the amount of money that the athlete's family is expected to contribute to their son's educational costs per year.

<u>Major Team Sports</u>, the team sports which receive the most spectator attention and support, and which have traditionally been regarded as the more important competitions of this type. The sports so described are football, basketball and baseball.

<u>Major Individual Sports</u>, the individual sports which have traditionally been the most important of such competitions in the Big Ten Conference. The sports so described are track and field, swimming and wrestling.

Hypotheses

 Athletes from lower income families are predominant in the sporting teams of the Big Ten Conference.

2. Athletes from lower occupational status families are predominant in the sporting teams of the Big Ten Conference.

3. Athletes from lower income and lower occupational status families receive the majority of the maximal assistance grants-in-aid made available in the Big Ten Conference.

4. Athletes from lower income and occupational status families are predominant in team sports.

5. Athletes from large families are predominant in the team sports.

6. Team sport athletes have a lower academic achievement, as evidenced in high school graduation rank, than individual sport athletes.

7. Team sport athletes are recruited mainly from the smaller towns and cities.

CHAPTER II

SOURCE OF DATA

The data for this study were obtained from primary sources made available by the Office of the Big Ten Conference Financial Aid Service. These data were originally collected from the parents or guardians of the athletes who were being recruited by the coaches of the various sports and colleges of the Conference. The sources included:

1. The Parent's Confidential Statement (P.C.S.). This comprehensive document contained background information concerning the athlete's name; sport; parents' or guardian's names; the names of dependent siblings; the names of others dependent upon the family; home address; high school attended; high school graduation date; the date of expected enrollment in college; marital status; marital status of his parents; the occupations of the parents; parental income, expenses and capital; parental assets and liabilities; and the assets of the student himself. This information was used in the determination of the minimum expected financial contribution that the parents should provide for their son's education.

2. Tender of Financial Assistance. This document included information about the athlete's scholastic standing in his high school graduation class (if in the upper 25%); whether the tender was awarded on this basis or on the basis of financial need while attending college; the amount of money to be contributed annually by the parents; the expenses covered by the tender; any work requirements expected of the student; and the signature of the athlete showing his acceptance of the grant. This form is completed each year of the athlete's eligibility, but for the purposes of this study, only the initial tender for financial assistance was considered.

3. Computation of Minimum Expected Family Contribution. This form indicated the calculations made in determining the amount of financial assistance that would be paid by the parents for their son's education. Various allowances were made for dependent children and their educational costs, costs of other dependents, medical expenses and state income tax, as well as for home or farm equity.

4. School Principal's Statement. This document showed the athlete's academic rank in his high school graduation class.

5. Record Card. This card showed the colleges interested in tendering the athlete, and the school finally selected by him. It also showed his high school graduation

rank, the amount of the expected family contribution, and the date that this computation was made.

The Sample

From a total of approximately 3,000 sets of data concerning athletes whose tenders had not been renewed during the period of 1960-1963, a regular interval sample was selected. These data were arranged by college and by year, and the sample was drawn from each group, choosing every third set of information. In each of the groups, the data were arranged alphabetically by the name of the athlete, and to eliminate possible bias, the entry point into the group was determined randomly.

Using this procedure, a total of 832 athletes were selected as the sample to be studied. This number was not as great as expected as many of the files were incomplete. In some of these cases, it was not possible to determine the type of sport that the athlete played, but in the majority of the cases, the Parent's Confidential Statement was missing and without this document it was not possible to determine any of the details of the social background of the athletes. Table 1 shows the number of athletes selected for the sample from each college.

The lower totals for Northwestern and Purdue reflect the fact that these colleges did not participate in the full range cf competitive sports available within the Conference. Also, these colleges have smaller enrollments than the other

College	Year Tender Not Renewed						
	1960 - 61	1961 - 62	1962 - 63	Total			
Illinois	31	22	31	84			
Indiana	29	34	30	93			
Iowa	33	29	28	90			
Michigan	30	32	29	91			
Michigan State	56	22	21	99			
Minnesota	35	27	22	84			
Northwestern	20	17	16	53			
Ohio	24	29	30	83			
Purdue	22	22	20	64			
Wisconsin	37	27	27	91			

TABLE 1.--The composition of the sample, by college and year of termination of eligibility (N=832).

eight. The distribution of tenders by year at Michigan State University is noticeably skewed as the sample for this college was drawn from a set of computer cards that were prepared by Webb,⁷ and which were not divided into three separate groups by year. A one-in-three sample was still selected here, so the distortion was due to the operation of chance factors. As no comparisons were made between groups from year to year, this deviation from the procedure used for drawing the samples from the other colleges was not thought to affect the results.

Among the sample, some of the data were missing or not available. Fifty-one cases were "lost" on gross family

Webb, "Social Backgrounds of College Athletes."

income, and of these, 38 (74.5%) were self-supporting to varying degrees of effectiveness, 9 (17.6%) had incomplete background records and the remainder were supported by relatives. It could be reasonably expected that these "lost" data could have depressed the income results had they been available. However, 11 of these (21.6%) graduated in the top quarter of their high school graduation class. and, as will be shown in the results, this achievement is strongly related to moderate to high family income and middle to high occupational status. Only three of the above athletes received "full boat" assistance. A total of 33 of the athletes (64.7%) concerned here, received full assistance, of whom 14 were married and received such assistance when their parents signed affidavits of nonsupport. The family backgrounds of seven of these students showed that they were from middle to high occupational status families. A further 19 athletes (37%) received tenders that required financial contributions ranging from \$253 to over \$999 per year. As six of those whose families were expected to make financial contributions had to pay \$999 or more, it is reasonable to expect that they came from upper income families, while the others could be expected to come from middle income families. Thus, as 34 of the 51 athletes (67%), whose income figures were not available, may reasonably be assumed to come from middle and upper income group families, it was not expected that

full availability of such data would depress the income figures utilized in this study.

CHAPTER III

ANALYSIS OF THE DATA

The results and discussion are presented in two parts. First, the distribution of grants-in-aid by sport as well as by the amount of financial aid given to the athletes; especially in terms of such background variables as father's occupational status, gross family income per year, and graduation in the top quarter in the senior high school class. Second, the relationship between sport types and the background factors of father's occupation, gross income, high school graduation rank, size of family, and home town size is discussed.

The Distribution of Grants-in-Aid

During the period of time covered by the data, the Big Ten Conference Financial Aid Service attempted to relate the degree of financial support to the ability of the family to pay, and as a result tenders were only awarded if the families presented complete information concerning their financial status. In some cases, investigations were made to verify the information presented by the parents. As a result, full information was available not only of the assets and liabilities of each athlete's family,

but also of such related factors as size of family, number of dependents, amount of rent paid or the value of the home. It was the amount and quality of this data that made a full investigation of the social backgrounds of college athletes possible.

When the numerical distribution of grants-in-aid among the various sports was determined, it was obvious that the distribution was skewed in favor of the major campus sports.

It would appear from the data presented in Table 2, that the distribution of tenders was related to the spectator drawing power of the sport. Football was the biggest spectator sport in terms of attendance and income, and received more than half of the tenders available. The criticism that the football team involved the most players is not a valid one, as approximately 30 athletes may constitute touring squads in many sports. Certainly, the football team does not enjoy the proportional advantage in numbers of players needed, in comparison to the other sports, as it does in terms of the numbers of grants-inaid awarded. It was assumed that the skill level of the athletes in the various sports was equivalent, and that this was not a factor in accounting for the large proportion of the available tenders that was awarded to the football team athletes.

Sport	Number of Tende	ers Percentage
Football	459	55.2
Basketball	59	7.1
Baseball	66	7.9
Hockey	17	2.0
Soccer	3	0.4
Track and Cross Country	85	10.2
Swimming	50	6.0
Gymnastics	24	2.9
Wrestling	41	4.9
Tennis	10	1.2
Golf	12	1.4
Boxing*	6	0.7

TABLE 2.--Distribution of tenders by sport (N=832).

Boxing was a varsity sport at Wisconsin until 1960, and was then rejected. Fencing is an intercollegiate sport with a long tradition but no athletes from this sport were selected in the sample through the operation of factors of chance.

¥

When tenders were awarded, they were, except in most cases where high scholastic ability was demonstrated, related to the gross income of the athlete's family and their ability to assist their son through college. At the time of the study, the cost of a college education per year, including tuition, fees, necessary books and supplies, board and room was assessed at \$1,400, with slight variations from college to college. In the tables to follow, maximal financial assistance is denoted as EFC-000, commonly referred to as a "full boat." Where the parents were able to assist in paying for the educational costs of their son, the amount of their contribution is listed in one of three categories, ranging from \$1-500, \$501-998 to over \$999 expected annual contribution.

Most universities place a high regard on the athlete who also gives evidence of top scholastic ability. It is to their obvious advantage to provide as much support as possible to an athlete who will remain academically eligible for competition throughout the duration of his college athletic career. The 1964 President of the National Collegiate Athletic Association. Robert Rav⁸ stated that the rising costs of college education have forced the academic entrance standards for athletes higher so that in the Big Ten in 1963, more than 50% of the athletes receiving grants-in-aid were in the top quarter of their high school graduation classes, while approximately 90% were in the upper half. Ray's statement that the level of scholastic achievement of athletes entering universities was a result of tighter standards of admission overlooks the fact that the prime consideration in granting tenders is ability. The increased academic achievement levels may be due to a

⁸Robert F. Ray, "Trends in Intercollegiate Athletics," J.O.H.P.E.R., vol. 36, no. 1 (January, 1965), 21.

greater stress being placed on performance in academic subjects by athletes in high school and the greater status that is given to athletes who are also top scholars.⁹ This last factor could raise the level of academic aspiration among the athletes and lead to an increase in scholastic performance.

Athletes who graduated in the top quarter of their high school classes could be given maximal financial assistance automatically, and for this reason the association between graduation rank and the value of the grant-inaid was determined before other factors were considered.

TABLE 3.--High school graduation rank and EFC (N=832).

	EFC	Category	, in doll	ars	
Graduation Rank	000	1-500	501-998	999+	
Top Quarter (N=199)	73.4	11.1	9.0	6.5	100.
Below Top ½ (N=633)	37.9	37.8	21.0	3.3	100.

 $X^2 = 91.20$, p less than .001.

High school scholastic success is highly related to the occupational status and gross income of the parents, a

⁹James S. Coleman, <u>The Adolescent Society</u> (New York: Free Press, 1961), p. 148.

fact that is well known to educationalists,¹⁰ and was demonstrated in this sample.¹¹

Because of the preferential treatment given to the scholar-athlete, and the finding that such students are likely to be representative of higher status and income earning families, the investigation of the distribution

TABLE 4.--Gross family income, in Census fifths* and EFC (N=781).

Gross Income, in			EFC Ca	tegory, i	n dollar	S
hundreds	of dollars	000	1-500	501-998	999+	
00-27.9	(N= 66)	78.8	7.6	10.6	3.0	100.
28-47.9	(N=194)	65.5	27.3	6.2	1.0	100.
48-64.9	(N=231)	38.1	49.8	11.7	0.4	100.
65 - 89.9	(N=198)	28.3	35.4	32.8	3.5	100.
90+	(N= 92)	32.6	13.0	37.0	17.4	100.

 X^2 = 220.394, p less than .001. (Gross Income and EFC: Spearman rho correlation coefficient, r_s = 0.3986, p. less than .0001.)

*U.S. Department of Commerce, Bureau of the Census, <u>U.S. Census of Population: 1960</u>, Final Report PC(1)-1C, <u>General Social and Economic Characteristics</u> (Washington, D.C.: Government Printing Office, 1961), Table 95.

¹⁰Peter H. Rossi, "Social Factors in Academic Achievement: A Brief Review," in <u>Education, Economy and Society,</u> edited by A. H. Halsey, <u>et al.</u> (New York: Free Press, 1961), pp. 269-270.

¹¹Graduation in Top Quarter and Status: Mann-Whitney U = 48158.5, n_1 =630, n_2 =190, rank sum=66303.5, p less than .0001. Graduation in Top Quarter and Gross Income: Mann-Whitney U = 45418.5, n_1 =188, n_2 =593, rank sum=221539.5, p less than .0001. and amounts of grants-in-aid was found to be more complex than a simple relationship based on need. Table 4 shows that there is an association between gross family income and the Expected Family Contribution in the expected direction.

A similar relationship was discerned when the association between father's occupational status and EFC was determined. This relationship is illustrated in Table 5 and shows that, although there were still many upper status athletes receiving maximal financial assistance tenders from the universities, a greater proportion of the athletes received "full boats" as the status ladder was descended.¹²

The aim of the Big Ten Conference then, was carried out, as assistance was generally given on the basis of need. However, even taking into account the effect of the scholarship clause, discrepancies remained between sports, and a further comparison was made on the basis of the type of sport that the athlete competed in and the distribution of financial aid.

This comparison involved classifying the various competitions into the categories of "team" and "individual" sports. Team sports were characterized as those events which require the integrated functioning of a collective

 $^{^{12}}$ Father's Occupational Status and EFC: Spearman rho correlation coefficient, $r_{\rm S}$ = 0.2937, p less than .0001.

				•	
Father's	EFC	Category	, in dol:	lars	
Occupational Status	000	1-500	501-998	999+	
Professional-Technical $(N = 64)$	21.9	26.6	34.4	17.2	100.
Clerical-Sales (N = 191)	37.7	33.0	22.5	6.8	100.
Trades-Foremen (N = 230)	41.7	36.5	20.0	1.7	100.
Labor (N = 218)	54.1	32.6	13.3	0.0	100.
Not Home, Dead, Unemployed (N = 117)	70.9	20.5	6.8	1.7	100.

TABLE 5.--Father's occupational status and EFC (N=820).

 $x^2 = 108.89$, p less than .001.

of various numbers of players striving to fulfill a certain objective. The success of such a collective is conditional on all the component parts (the players), though performing specialized skills and differentiated tasks, operating as an integrated whole. Individual sports were characterized as those activities that involve an athlete in competition against time, distance or height, as well as against other persons. Some degree of task integration may be present, as in tennis doubles play or relays, or even competition against an opposing "team," but the degree of integration required of athletes in such activities is at a low level when compared to that required for a football or hockey team.¹³

¹³Webb, "Social Backgrounds of College Athletes."

Sports such as football, basketball, baseball, hockey and soccer were classified as team sports, while track, swimming, gymnastics, wrestling, tennis, golf and boxing were classified as individual sports. One further sport, fencing, is played in the Big Ten Conference, but no athletes representing in this sport were selected in the sample. It was expected that as this sport is commonly associated with higher status groups in the United States, the social backgrounds of these athletes would fall into these categories.

Athletes competing in the individual sports were found to have to pay a much higher proportion of their college expenses than the team athletes. Over 54% of all the team athletes were given maximal assistance, and 85.2% of all such tenders were awarded to team athletes.

Table 6 shows the advantage that the team athletes enjoy in competing for the available financial aid.

TABLE 6Spc	rt type and	EFC (N	=832)	. *
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Snemt Mune			I	EFC Cate	gory, in de	ollars	
Sport Type -			000	1-500	501-998	999+	
Team	(N =	605)	54.4	29.6	14.4	1.7	100.
Individual	(N =	227)	25.1	36.1	28.2	10.6	100.

 $X^2 = 82.222$, p less than .001.

^{*}Sport Type and EFC: Mann-Whitney U = 42900.0, n₁ = 227, n₂ = 605, rank sum = 226215.0, p less than .0001.

In a further analysis of the discrepancy between team and individual sports on EFC, it was found that football players received 70.7% of all "full boats" awarded. It is admitted that football may award up to 30 out of the 74 tenders initially awarded each year, ¹⁴ but the rules do not specify that such a large proportion of the maximal assistance grants-in-aid should also go to football players.

In order to determine if such relationships could have occurred because team athletes come from lower socio-economic backgrounds, the data were analyzed with occupational status and gross family income controlled. Taking only those athletes whose fathers were laborers, and those whose gross family income was in the lowest Census fifth, the differences between team and individual sport athletes remained. Tables 7 and 8 show the results of these three-way cross-classifications.

When the financial need of the athlete was held constant, the results were even more dramatic. The team athletes gained 88.5% of all the "full boat" tenders awarded to athletes in the lowest income category; and 88.5% of the team athletes received such grants-in-aid compared to 42.9% of the individual sport athletes.

¹⁴The Big Ten Intercollegiate Conference, <u>Handbook</u> of the Intercollegiate Conference.

Snort Tune		EI	FC Catego	ry, in dolla:	rs
sport rype		000	1-500	501-999+	
Team	(N = 180)	58.9	31.7	9.4	100.
Individual	(N = 38)	31.6	36.8	31.6	100.
		·····	0.0.7		

TABLE 7.--Team and individual athletes from labor background by EFC (N = 218).

 $X^{2} = 15.93$, p less than .001.

TABLE 8.--Team and individual athletes from lowest income background* by EFC (N=66).

Sport Twpo		EFC Ca	ategory, in dol	lars
sport type		000	1-999+	
Team	(N = 52)	88.5	11.5	100.
Individual	(N = 14)	42.9	57.1	100.

 $X^2 = 13.48$, p less than .001.

\$0-2,790 Gross Income.

The differences also occurred when high school graduation in the top quarter was held constant. As was stated above, proven scholastic ability to this standard made a scholar-athlete eligible for a "full boat." Table 3 showed that 73.4% of such athletes did in fact receive maximal financial assistance but, as Table 9 shows, the team athlete had a much greater chance of receiving a "full boat."

Sport Turo				EFC Cat	egory, ir	ı dollar	'S
sport type			000	1-500	501-998	999+	
Team	(N = 2	147)	87.8	6.1	4.8	1.4	100.
Individual	(N = 5	52)	32.7	25.0	21.2	21.2	100.

TABLE 9.--Team and individual sport on graduation in the top quarter by EFC (N = 199).

 $x^2 = 62.703$, p less than .001.

When ranked in terms of Expected Family Contribution category, the following order, with those sports that had the greatest probability of receiving tenders giving maximal aid at the top, was apparent (Table 10).

From these analyses, it was clear that, although there was a relationship between scholarship, and need, with the amount of financial assistance given, the more important relationship, and one which was not stated in the objectives of the Conference, was that which related aid to the income producing capacity of the sport. Thus, football, a sport that draws many thousands of spectators, and which provides the bulk of the finance that sustains the athletic program, received the predominant share of the largesse. Basketball, another high spectator-appeal sport, also received a much higher proportion of "full boat" tenders than any of the minor team, or all of the individual sports.

Rank	Sport
1	Football
2	Basketball
3	Hockey
4	Track
5	Wrestling
6	Gymnastics
7	Baseball
8	Golf
9	Swimming
10	Boxing
11	Tennis
12	Soccer

TABLE 10.--Sport rank on EFC (N = 832).*

Kruskal-Wallis H = 142.1011, p less than .0001.

*"Rank sums for each value are divided by n for that value and the results are then ranked. This seems to be an effective method: when employed on gross income and then compared with the ranking by means on gross income, Spearman Rho = .94 (p less than .01). The mean, of course, may only be used with data of at least 'interval' measurement . . .", but was used here for illustrative purposes. Harry Webb, "Social Backgrounds of College Athletes."

In order to eliminate any possibility that the individual sports with low spectator appeal biased the relationships between sport type and assistance, the minor sports of both types were eliminated, and the relationship between major sport type and EFC was tested.

Using this classification, football, basketball and baseball were selected as the major team sports, while track, swimming and wrestling were chosen as the major individual sports. Once again, the relationship demonstrated above remained; the amount of financial aid given was strongly related to major sport type, with the major team sports being favored.¹⁵

The analyses showed that if an athlete graduated in the top quarter of his high school class, or if he was in need of financial assistance to enable him to attend college, he had a strong chance of receiving the maximal permitted financial assistance from the university. However, there were many exceptions to this rule, with upper income and upper occupational status athletes receiving "full boats," and lower income and lower status athletes failing to get them, even if also qualified under the scholarship clause. Obviously, a third qualification was present; one which was unwritten. This qualification related aid to the earning capacity of the sport in which the athlete was competing. Those sports which had the greatest capacity to draw spectator interest and enthusism, and which were the sports that were capable of bringing the most prestige to the university, received by far the greatest proportion of "full boat" grants-in-aid.

This pattern of distribution of aid could be used to insure that winning teams kept spectator interest high by flooding the major sports with talent. If the income producing sports failed to draw large crowds, then the budget

¹⁵Team and Individual Athletes by Major Sport on EFC: Chi Square = 55.094, p less than .001.

for the entire athletic program would suffer. This desire to have winning teams, especially in football and basketball, goes beyond college pride and was reflected in the amount of assistance given to these sports in terms of the numbers and amounts of the grants-in-aid awarded to players in comparison to those granted to athletes competing in sports of less spectator drawing power.

The Relationships Between Sport Types and Social Background Factors

Sport and Status

When the differences between sports were ignored, there was a definite tendency for the most financial assistance to be given to athletes from families in the lower occupational and income levels of society. This being the case, it was decided to investigate the backgrounds of the athletes to determine whether the lower socio-economic strata were over-represented among the athletes. In order to make this analysis, the distribution of gross family income among U.S. families, as determined by the Bureau of the Census in splitting the population into fifths on gross income, was compared to the data available for the athletes in a chi square "one sample, goodness of fit" test.¹⁶

¹⁶Sidney Siegel, <u>Nonparametric Statistics for the</u> <u>Behavioral Sciences</u> (New York: McGraw-Hill Book Company, Inc., 1956), p. 42.

From the analysis of the data it was apparent that most of the athletes were over-represented in the middle income categories and this relationship is presented in Table 11.

0	Gross	s Family	Income,	in 00's	of dolla	ars
	00-27.9	28-47.9	48-64.9	65 - 89.9	90+	
U.S. Families	20	20	20	20	20	100.
Athletes' Families	8,45	24.84	29.58	25.35	11.78	100.
$x^2 = 134$.81. p le	ess than	.001.			

TABLE 11.--Athletes' families and U.S. families compared on gross income (N = 781).

From this data it was obvious that the athletes on tender at the Big Ten Universities were under-represented in the lower and upper income categories and overrepresented in the middle income groups. Thus, the assumption that athletes are predominantly from the lower socio-economic levels received no support in the sample studied. It may be asserted that, as the team athletes received the most financial support, they would come from lower class backgrounds, and that the individual sport athletes distorted the relationship shown in Table 11. This question was tested and the results, as presented in Table 12, did not alter the previous findings.

Group	Gross Family		Income, in OO's of dollar			ars
	00-27.9	28-47.9	48-64.9	65-89.9	90+	
U.S. Families	20	20	20	20	20	100.
Team Athletes' Families	9.1	25.7	29.7	25.8	9.8	100.
						

TABLE 12.--Team athletes' families and U.S. families compared on gross income (N = 573).

 $X^{2} = 110.43$, p less than .001.

In order to carry this line of reasoning through to a conclusion, the football athletes' data were compared to the available figures on the U.S. population to determine if there was a tendency for them to have come from low income families. Once more, the findings were unchanged, and the results shown in Table 13 indicate that there was a significant difference between the two populations, with the football athletes' families being predominantly represented in the middle income groups, and under-represented in the lowest and highest income categories.

Taking these results into consideration, it appeared that, except perhaps in a small proportion (33%) of cases, university athletics may not operate as a means used to gain social mobility to the middle classes. Even in football, which is most frequently asserted to be the path to the middle classes for the "predominantly lower strata"

00-27.9 28-47.9 48-64.9 65-89.9 90+ U.S. Families 20 20 20 100. Football Athletes' Families 8.3 26.0 30.3 25.1 10.3 100.	Group -	Gros	s Family	Income, i	n 00's of	dollar	S
U.S. Families 20 20 20 20 20 100. Football Athletes' Families 8.3 26.0 30.3 25.1 10.3 100.		00-27.9	28-47.9	48-64.9	65-89.9	90+	
Football Athletes' Families 8.3 26.0 30.3 25.1 10.3 100.	U.S. Families	20	20	20	20	20	100.
	Football Athletes' Families	8.3	26.0	30.3	25.1	10.3	100.

TABLE 13.--Football athletes' families and U.S. families compared on gross income (N = 435).

 $x^2 = 86.79$, p less than .001.

athlete, the greater proportion of the athletes were from the middle socio-economic class families. Some differences were evident between the team and individual sports in relation to gross income and father's occupational status, but the association between sport type and gross family income was not significant at the p.05 level of confidence.¹⁷ This relationship is shown in Table 14.

Despite the fact that statistical significance was not present in comparisons between these data, the slight differences seen to be evident at the extremes motivated an analysis to determine the rankings of the various sports on gross income (Table 15).

Soccer was not ranked in Table 15, as no gross family income figures were available for any of the team members.

 $^{^{17}}$ An arbitrary significance level was chosen as a cutting point to use in the discrimination between data that was accepted as being statistically significant, and that which could have been related by chance. The significance level that was selected was $\alpha = 0.05$.

Spont	Gro	ss Family	Income,	in 00's d	of dollar	?S
Туре	00-27.9	28-47.9	48-64.9	65 - 89.9	90+	
Team (N=573)	9.1	25.7	29.7	25.8	9.8	100.
Individual (N=208)	6.7	22.6	29.3	24.0	17.3	100.

TABLE 14.--Sport type and gross family income (N = 781).

 $X^2 = 9.12$, not significant at p. 05.

TABLE 15.--Sport rank on gross income (N = 781).*

Rank	Sport	
1 2 3 4 5 6 7 8 9 10 11	Swimming Golf Tennis Wrestling Gymnastics Baseball Football Boxing Track Basketball Hockey	

Kruskal-Wallis H = 15.0289, not significant at p.05.
 *For an explanation of this procedure, refer to Footnote to Table 10.

It was unfortunate that there were no representatives of the sport of fencing in the sample, as this group was found by Webb¹⁸ to occupy the highest rank in the Michigan State University population.

The differences between team and individual sportsmen on economic background were more significant when they were compared on father's occupational status, and the results are presented in Table 16.

TABLE 16.--Sport type and father's occupational status (N = 820).

	Father's Occupational Status							
Sport Type	Profes- sional Technical	Clerical Sales	Trades Foremen	Labor	Not Home			
Team (N=603)	5.6	21.1	30.2	29.9	13.3	100.		
Individual (N=217)	13.8	29.5	22.1	17.5	17.1	100.		
2			·					

 $X^{2} = 33.011$, p less than .001.

These data reveal that the team sports' athletes generally come from families of lower occupational status, thus providing some support for the belief that such sports provide a vehicle for upward mobility. This belief cannot be completely discarded or accepted without an analysis of the numbers of athletes who graduate from college who would not otherwise have had the chance.

¹⁸Webb, "Social Backgrounds of College Athletes."

Previous analysis showed, however, that most athletes come from middle income category families who presumably would be able to afford a college education for their sons.

The Kruskal-Wallis analysis of variance was used to rank the sports on father's occupational status with the results being presented in Table 17.

TABLE 17.--Sport rank on father's occupational status (N = 820).*

Rank	Sport
1	Golf
2	Tennis
3	Swimming
4	Hockey
5	Gymnastics
6	Baseball
7	Wrestling
8	Boxing
9	Track
10	Basketball
11	Football
12	Soccer

Kruskal-Wallis H = 37.4306, p less than .0001.

*For an explanation of this procedure, refer to Footnote to Table 10.

The same differences between team and individual sportsmen on father's occupational status were still evident when the minor sports were discarded from the analysis.

		Father's Occupational Status							
Major Sport Type		Profes- sional Technical	Clerical Sales	Trades Foremen	Labor	Not Home			
Team (N = 5	582)	5.8	20.6	30.2	30.2	13.1	100.		
Individ (N = 1	lual .70)	13.5	26.5	22.4	21.2	16.5	100.		

TABLE 18.--Team and individual athletes by major sport on father's occupational status (N = 752).

 $X^2 = 20.13$, p less than .001.

The relationship between sport type and gross family income was, as shown in Table 14, not found to be statistically significant at the p .05 level of confidence. When the minor sports were discarded from this analysis, this situation did not change. The discrepancy between the results on father's occupational status and gross family income could be indicative of the fact that while there are differences on parental status, many of the fathers of the major team athletes occupied skilled trades positions and were thus able to earn incomes similar to those of "white collar" workers.¹⁹

Such differences between the major sports on father's occupational status, which were not evident on gross family

¹⁹Gross Family Income and Father's Occupational Status: Spearman rho correlation coefficient, $r_s = 0.4885$, p less than .0001.

Major	Gross	Family I	ncome, in	00's of	dollars	5.
Sport Type	00-27.9	28 - 47.9	48-64.9	65-89.9	90+	
Team (N = 555)	8.8	25.4	29.9	25.8	10.1	100.
Individual (N = 164)	6.1	22.6	32.9	22.6	15.8	100.

TABLE 19.--Team and individual athletes by major sport on gross family income (N = 719).

 $X^2 = 6.19$, not significant at p .05.

income, could also account for the variable positions of the sports when they were ranked on these two variables. The availability of high income for highly skilled tradesmen and supervisory personnel, as well as the possibility of receiving over-time additions to wages, would appear to confuse the rank orders of the sports on income and occupational status, as well as the measures of association, and allow lower occupational status families to secure middle level incomes.

Sport and Education

The general public, and even educators have held fast to the belief that athletes are generally lower academic achievers than their high school classmates. Eidsmoe,²⁰ in a study of high school athletes in Iowa,

²⁰Russel M. Eidsmoe, "High School Athletes are Brighter," <u>J.O.H.P.E.R</u>, vol. 35, no. 5 (May, 1964), 53-54.

showed that football players who were regular squad members attained higher grade point averages in the academic subjects than the over-all averages for their classes. A similar result was found among the basketball team members.

In the present study, it was found that 23.92% of all the athletes graduated in the top quarter of their high school classes. This figure does not agree with the data cited by Ray²¹ when he found that more than 50% of the athletes granted tenders in the Big Ten Conference in 1963 were in the top quartile of their high school graduation classes. Further comparisons with Ray's study were not possible as additional information concerning other graduation ranks was available for only 39.6% of the sample. Thus the following analyses compare athletes who were top quarter graduates with those who graduated between the 33rd and 74th percentiles. All athletes were expected to graduate in the upper two-thirds of their high school classes in order to be considered for tenders.

When the data were analyzed to determine differences between team and individual athletes on high school graduation rank, no statistically significant differences were found.

When the possibly distorting effects of the minor sports were controlled by analyzing the differences between

²¹Ray, "Trends in Intercollegiate Athletics."

major team and individual sport athletes on high school achievement, there was no change from the previous result (Table 21).

Sport Type		High Sc	chool Graduation 1	Rank
		Top ¼	Below Top ¼	
Team	(N = 605)	24.3	75.7	100.
Individual	(N = 227)	22.9	77.1	100.
				<u> </u>

TABLE 20.--Sport type and graduation rank (N = 832).

 $X^2 = 0.175$, not significant at p .05.

TABLE 21.--Sport type by major sport and graduation in the top quarter at high school (N = 760).

Major Sport Type		High School Graduation Rank				
		Top ¼	Below Top ¼			
Team	(N = 584)	24.7	75.3	100.		
Individual	(N = 176)	22.7	77.3	100.		

 $X^2 = 0.275$, not significant at p .05.

Analysis of the differences between the sports on graduation rank was not possible due to the fact that more than 20% of the cell frequencies on the chi square analysis were below 5. It was possible to rank the various sports in terms of the proportions of their athletes who graduated in the top quartile. Tennis, golf, basketball and boxing had over 30% of their athletes in the top category.

These findings do not agree with those of Webb²², who found that there was a significant relationship between competition in individual sports and academic achievement (at the high school level) among athletes at Michigan State University. This relationship, however, did not hold when major sports were analyzed on this variable.

Although statistical significance was not found in the association between these variables in this study, there appeared to be a slight advantage to the team athletes in terms of high school graduation rank. No comparisons between athletes and non-athletes was possible with the available data.

Sport and Family Size

The habits of co-operation, companionship and joint effort to attain a goal are generally believed to be associated with children of large families, and it could be expected that such children would gravitate toward team sports where expression of these types of behavior is essential for success.

Although this is the most common reasoning behind the idea that sport selection and family size are related,

²²Webb, "Social Backgrounds of College Athletes."

it is also possible to accept the reasoning that children of larger families receive fulfillment of their needs for collective competition from interaction with outsiders as a unit, while engaging in individual competition within the family group. If this reasoning is accepted, then children from large families, socialized into individual competition preferences within the group, would choose individual sports. The case of the "only child" would, however, be confused. He may choose team sports as a means of making up for a perceived lack of group competition at home, or, he may select individual sports because he has always competed as an individual and has been socialized to accept this type of play.²³

Investigation of the association between family size and sport selection was inconclusive, and determination of the motivation factors behind choice of sport and sport type must await further study (Table 22).

The association between sport type and family size was not statistically significant, and the distribution was so similar for team and individual sports that no trend could be discerned.

²³<u>Ibid</u>., 18-19.

Second ⁽ Marco)		Number of Siblings					
sport Type		0	1	2	3+		
Team	(N = 593)	17.9	35.6	22.7	23.8	100.	
Individual	(N = 214)	19.1	34.1	22.0	24.8	100.	

TABLE 22.--Sport type and number of siblings (N = 807).

 $x^2 = 0.343$, not significant at p .05.

Sport and Residence

Athletes in the individual sports have little difficulty in proving their claims of superior ability in their events. They are measured and timed by uniform standards, and all that recruiters have to do to decide between prospects, is to compare their performances. The situation is much different in the team sports. A mediocre athlete can look to be a potential champion against weak or ineffective opposition, while the athlete who competes in a strong league and performs creditably, but does not overwhelm the opposition, may not get the same sort of attention from coaches and recruiters.

The difference between the two types of sport with regard to recruitment possibilities may be analyzed by taking into consideration the effects of the mass media. Newspapers present the performances of the track athletes, the swimmers and the tennis players by showing who was the winner in a match between two or more players. It is not possible to build up an athlete as being invincible in these sports because eventually, in some State or National championship, he has to prove his capacity by beating allcomers. The situation in regard to the team athletes is different. High schools compete according to the size of the school population and do not compete outside their divisions at the State level. The quarterback of a Class C High School football team that wins the State Championship may not be comparable to those of larger schools, but his loyal home town newspaper can present such a flood of publicity about the boy that he appears ready to play in the professional ranks.

The newspapers of small towns and cities devote large sections of their papers to high school athletic competition, partly as a means of attracting advertising revenue from alumni now in the business world, but mainly as a means of developing the regional pride in the sporting stars that were bred in the locality.

Sports in the schools helps to "create a feeling of esprit among the students; they do much, especially in the smaller communities, to stimulate community solidarity."²⁴ Representation of a local team in State play-offs will motivate many adults of such small towns and cities to travel many miles to attend, and see how the local

²⁴David Gottlieb and Charles E. Ramsey, <u>The American</u> <u>Adolescent</u> (Homewood, Illinois: Dorsey Press, <u>Inc.</u>, <u>1964</u>), p. 39.

athletes perform: the media, whether radio, television of press, all play the occasion to the maximal news value, and to the town, the winning team is a world-beater.

The recruiter, seeing the attention given to the top players of the teams, remembers names, increases his interest, and makes approaches to the boys, not so much on the basis of his critical judgment of the athlete's ability against all others, but in terms of the amount of publicity given him through the media.

To the recruiter, all papers, no matter how large the circulation, present news about star athletes, and it is possible for the small town athlete to be given more attention than the big city athlete who is one of many stars, from many high schools.

If recruitment is related to publicity, and publicity is most effective in smaller towns and cities, then there was expected to be a difference in the distribution of tenders by sport type and home town size.²⁵

This relationship is presented in Table 23 which shows that there is a statistically significant relationship between the variables.

From this analysis it can be seen that team athletes tend to be recruited from the smaller towns and cities. The individual sport athletes also tended to be from cities below 100,000 in population, but the team sportsmen

²⁵Webb, "Social Backgrounds of College Athletes."

were drawn mostly from the towns and cities with less than 25,000 inhabitants. In such small communities, there may be only one high school, so many more boys can be given advantageous publicity and therefore attract the attention of the recruiters.

When only the major sports, however, were considered, the relationship disappeared, and this result is shown in Table 24.

Sport Twp	Home Town Size, in thousands							
	00 - 25	26-100	101-500	0ver 500				
Team (N = 605)	43.1	25.3	17.0	14.5	100.			
Individual (N = 226)	33.2	29.2	24.3	13.3	100.			
<pre>X⁻ =.9.802, p less than .05. * Sport Type and Home Town Size: Mann-Whitney U = 61596.5, n₁ = 226, n₂ = 605, rank sum = 244911.5, p less than .0129. TABLE 24Sport type by major sport and home town size</pre>								
Maion Spont Tupe	Но	me Town	Size, in	thousands				
	00-25	26-100	101-500	0ver 500				
Team $(N = 584)$	42.6	25.9	16.8	14.7	100.			
Individual (N = 175)	36.6	28.6	22.9	12.0	100.			
$x^2 = 5.020$, not	signi	ficant a	t p .05.					

TABLE 23.--Sport type and home town size (N = 831).*

It would appear that the presence of the data of minor individual sports' athletes in the analysis was responsible for the significant relationship to occur when all groups were included. When only the major sports were analyzed, the proportion of individual sportsmen from the smaller towns and cities increased, but the data still showed that the small town team athlete had a definite advantage over such athletes from larger cities in attracting financial assistance.

There was no significant relationship between graduation in the top academic quarter in high school and hometown size, so this factor was not complicating the initial relationship by making small town athletes more likely to receive tenders on this basis.

		(N = 0.3]	L).		
High School Graduation Rank	Home	Town Siz	ze, in thou	isands	
	00-25	26-100	101-500	Over 500	

25.3

26.7

14.6

20.4

17.7

13.1

100.

100.

TABLE 25.--High school graduation rank and home town size (N = 831).

 $X^2 = 5.194$, not significant at p .05.

42.4

39.8

Top ¼

Below Top $\frac{1}{4}$ (N=633)

(N=198)

From the analysis of this data it would appear that team athletes do tend to come from smaller towns and cities when compared to the individual sport athletes, but when only major sports were considered, there was no statistically significant difference between sport types on home town size. It was evident though, that the majority of athletes, regardless of sport type, were recruited from the smaller towns and cities.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This study was initiated as an attempt to evaluate many generally held views about university athletes. These views hold that athletes, and in particular, athletes representing in team sports, are generally from the lower socio-economic levels of society. Because of his background, the athlete is believed to be given an opportunity to secure social mobility by exploiting his sporting ability so as to gain a college education that he would otherwise be unable to afford.

Also, the team athlete is believed to be a low scholastic achiever, and this view is particularly applied to football players. Team players are assumed to come from large families and to have their homes in the smaller towns and cities.

The data on the Big Ten Conference athletes whose tenders were not renewed in the period from 1960-1963 provided empirical evidence to determine the validity of some of these beliefs. Unfortunately, it did not permit drawing a comparison between the athletes and a sample of non-athletes who were students at the various universities at the same time, so some of the beliefs, particularly in connection with scholastic ability, need further investigation.

Taking the hypotheses used to guide the course of the study, and relating them to the results, the following empirically supported conclusions may be made concerning the social backgrounds of the college athletes studied.

1. Athletes, whether they represent in team or individual sports, tend to come from middle income families. In comparing the distribution of the athletes' families in the U.S. Census income categories against the distribution in such categories in the general population, it was found that athletes were under-represented in the upper and lower categories, and over-represented in the middle categories. The largest cluster of athletes' families was in the middle Census fifth, with earnings between \$4,800 and \$6, 490.

2. There was no basis for the belief that athletes as a group, come from families of low status, as determined by the occupation of the father. Between team and individual athletes, however, there was such a difference; with the sport athletes coming from higher status groups than was the case for the team athletes. The individual sport athletes were much more likely to come from the middle and upper status groups, while the team athletes were overrepresented in the trades and laboring groups.

3. The question of distribution of financial aid to athletes was distorted by the amount of support, in terms of numbers of grants and the amounts of assistance, given

to the team athletes, and in particular to the football athletes, even where need was held constant. If the special status granted to team athletes was ignored, then financial aid was related to need.

The greater proportion of maximal assistance grantsin-aid, went to the team athletes, who received 85.2% of all "full boat" tenders. When need was held constant by analyzing the data of the athletes from the lowest income families, the team athletes received 88.5% of the maximal assistance grants that were awarded.

4. In comparing team and individual sport athletes on gross family income and father's occupational status, it was found that there was no difference between the groups on family income. When compared on father's occupational status, however, the individual sport athletes were found to come from middle to upper status families, while the team sportsmen came generally from the trades and labor occupational status groups.

5. There was no support for the hypothesis that athletes from large families are predominant in team sports.

6. No comparison was possible between athletes and non-athletes on academic achievement. When scholastic ability in terms of each athlete's high school graduation rank was analyzed, it was found that there were no differences between the athletes in the team and individual sports. 7. There was some support in the data for the contention that team athletes tend to come from small towns and cities, and it was hypothesized that this was due to the better publicity that team athletes receive from the media when they live in such areas. When only the major sports were considered, the difference between the sport types was not statistically significant, although it appeared that athletes, regardless of sport type, tend to come from smaller towns and cities.

Some questions concerning the social backgrounds of athletes are still unanswered. It was not possible to compare athletes with non-athletes in terms of academic achievement at college, nor was it possible to compare these groups on father's occupational status. In order to evaluate the claim that athletes are able to gain social mobility through sport, such a comparison is necessary and must also be related to data showing the proportion of athletes from the various socio-economic strata who complete their degrees. Only when such data are available can the answer to this question be empirically determined.

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