

The Influence of High School Extracurricular Participation

A Honors Thesis (Honors 499)

by

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A handwritten signature in cursive script, reading "Melinda Messineo", is written over a horizontal line.

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Abstract:

Many factors contribute to the development and socialization of America's youth including family, community, church, peers, and schools. This paper examines the relationship between high school extracurricular participation and college grade point average. In order to determine whether selected high school extracurricular activities contribute to current academic success in college, 221 students at a medium-sized Midwestern university participated in this study. The degree of extracurricular participation during high school was measured using an anonymous, voluntary, self-administered questionnaire. Extracurricular participation was broken down into separate areas of athletic and non-athletic. Data were collected on sex, race, age, class, athletic and non-athletic participation, and college grade point average. Analyzed data compared current grade point average with previous high school extracurricular participation. The findings suggest that involvement in non-athletic related extracurricular activities has a positive effect on GPA while athletic involvement does not. Additionally, based on information gathered and analyzed, recommendations are offered for future research, as well as a discussion of benefits and limitations to this study.

Introduction:

Over the past 20 years high schools, especially public high schools, have suffered through large budget cuts. The administrators of these schools have been left with meager resources and forced to divide the money in the most efficient ways possible. As a result, funding for many extracurricular activities has been cut or faces potential reduction. While the cuts are justified by the need to protect academic programs, one can not help but wonder what is being lost in the process. The purpose of this research is to examine the relationship between high school extracurricular participation and future success in order to better understand the potential ramifications of reduced extracurricular funding.

Literature Review

Every day high school students across the country are participating in a wide variety of extracurricular activities: interscholastic and intramural programs; service and school government clubs; art, science, and drama clubs; and academic and vocational clubs. Usually conducted outside the normal school day, the activities are voluntary, and students do not receive grades for their participation. Considering all the activities in which high school students take part, it is surprising how relatively little research has been done to understand the potential costs and benefits that may accompany a student's high school participation.

The first major sociological studies that examined the relationship between student extracurricular activities and academic performance were not begun until the late 1950's when James S. Coleman first criticized the value of interscholastic athletic programs (Yiannakis, McIntyre, Melnick, and Hart, 1976). Coleman's study of interscholastic athletic programs

became critical as a result of the perceived effects on funding for academics. He saw the money being taken from the academic sector and being used to fund the athletic functions of the school. Coleman's research found no relationship between student athletic participation and their academic success suggesting that athletes do not receive better grades than the non-athletes. Fueled by Coleman's first study in the late 1950's, many scholars began to show an interest in the social dimensions of interscholastic athletics (Yiannakis, et al. 1976). However, the majority of these studies were limited in that they strictly examined the relationship between athletic participation and future development; leaving out other extracurricular activities such as student government or honor societies. Perhaps this phenomena of studying just athletics has some relationship to the explosion that occurred in professional athletics at about this time. Professional athletics became universally recognized, for the first time in American history, as a business first and a game second.

The relationship between athletic involvement and academics has continued to be the topic of considerable debate (Braddock, 1981). Those who are opposed to interscholastic athletics claim that a student's participation exerts a detrimental impact on academics because it diverts an excessive amount of both human and financial resources away from the primary objective of the schools (Gordon, 1957). On the other hand, supporters of athletic participation assert the involvement by students has a beneficial impact on academic achievement (Otto, 1975; Picou, 1978). For example, Otto and Alwin (1977) found that participation in sports by males during their senior year in high school had a positive relationship concerning educational and occupational ambitions after socioeconomic status,

IQ, and school grades were controlled for. Also, according to Fejgin (1994), students who are involved in competitive sports in high school obtain higher grades, have higher self-esteem, and have higher educational aspirations compared to their non-athlete counterparts.

Two major theories that have been applied to the study of extracurricular participation and academics are the Developmental Theory and the Zero-Sum Theory. The Developmental Theory, when applied to extracurricular participation, is based in the notion that participation in extracurricular activities is central to the “character building” and “socializing” of young men and women (Rees, Howell, & Miracle, 1990). This theory is central to the idea that education may be achieved by the schools outside the classroom in forums such as the soccer field or the debate tournament. The Zero-sum theory views athletic participation by students as a diverting factor from academics that in fact is responsible for a negative influence (Coleman, 1961). According to Coleman’s 1961, study titled The Adolescent Society, the adolescent culture is a fragile unit in which a commitment to academic, athletic, or social values represents a loss in the other two. This theory implies that a commitment to athletics is a factor which is subtracting from a commitment to academics and thus is subtracting from future success.

According to a 1995 study by Ralph McNeal, different kinds of extracurricular activities have varying abilities to control school dropout rates. McNeal concluded that participants in athletics, fine-arts activities, and academic organizations were an estimated 1.7, 1.2, and 1.15 times, respectively, less likely to drop out of school than those who did not participate (McNeal 1995). For example, “the probability of an individual who participates in

school-sponsored athletics of dropping out of school is reduced by 40 percent compared with an individual who does not participate” (McNeal 1995).

In 1996, Susan Gerber’s study Extracurricular activities and academic achievement, found that participation in athletics is not damaging to a student’s academic performance. Additionally, she discovered that participation in school related activities was more closely correlated with academic achievement than was participation in non-school sponsored activities, such as a part-time job.

Finally, *The Role of Sports in Youth Development*, an organization which encourages funding for extracurricular activities that support the academic mission of schools, has found that the involvement in sports by young people produces multiple benefits for the student athlete. When sports are at their best, they promote greater academic success, promote responsible social behaviors, confidence in one’s physical abilities, an appreciation of personal health and fitness, and strong social bonds with the individuals who take part in the sports with them. Generally, the work ethic developed on the field carries over to the classroom as the student athlete learns “lifelong lessons as important as those taught in the classroom.” (NFHS, 2002).

The most serious flaw in the study of extracurricular participation and its relationship in connection with high school students future achievement is the omission of research concerned with the effects of non-athletic activities (Otto & Alwin, 1977). Other common omissions in the study of extracurricular participation include the absence of information concerning factors such as race, age, type of activity involved in, length of involvement, and

the social and political context of the involvement (Taylor & Chiogioji, 1988). This study attempts to address some of these concerns while adding additional empirical data to the debate over the relationship between extracurricular participation and academic success.

Hypotheses:

This research was conducted with the goal of adding to the existing literature in regards to the following four hypotheses: The first hypothesis (H_1) asserts that there is a positive relationship between extracurricular participation and academic success. H_1 is supported by the majority of the existing literature on this subject. The second hypothesis (H_2) states that there will not be a significant difference in the level of success that can be expected based upon the specific extracurricular activity an individual was involved in. Essentially H_2 is going to examine whether there is a difference between athletic participation and non-athletic participation. The goal of the third hypothesis (H_3) is to determine if there is any difference between sports that are categorized as “team” and sports that are categorized as “individual.” The existing literature does not support nor deny a relationship in these terms and H_3 states that individuals who participate in “team” sports are more likely to succeed than individuals who participate in “individual” sports. The reason for this hypothesis centered around the idea that “team” sports participation would be more likely to develop the teamwork skills which are useful in college. The fourth hypothesis (H_4) is concerned with any discrepancies there may be between extracurricular involvement of males and extracurricular involvement of females. H_4 states that females will be more likely to participate and thus will be more likely to gain the rewards of extracurricular participation. H_4 is supported in part by

Braddock's 1981 study which concluded that males are more likely to participate in athletics, but that females are more likely to participate in non-athletic activities. This hypothesis is important to study because Braddock's research was completed in 1981, only nine years after the implementation of Title IX. Today we have the benefit of studying the affects of Title IX some 30 years after its inception.

Demographics of Study:

The degree of extracurricular participation while in high school was measured using an anonymous, voluntary, self-administered questionnaire. The questionnaire contains a wide variety of questions designed to provide responses about the students current academic standing and their extracurricular experience during their high school years (see Appendix A). Extracurricular participation was broken down into two separate areas; athletic and non-athletic.

The present responses from the questionnaire were obtained with permission of the Ball State University Institutional Review Board (see Appendix B). The study includes 221 participants, of which 147 were females (67%) and 74 were males (37%). The sample population is mostly Caucasian/white with 203 respondents (92%) while all other races combined account for 18 of the respondents (8%). The age of the respondents ranged from 17 through 35 years of age with the most common age being 18 and accounting for just over 41 percent of the responses.

Table 1
Respondent's Sex

	Frequency	Percent
Male	74	33.5
Female	147	66.5
Total	221	100.0%

Table 2
Respondent's Race/Ethnicity

	Frequency	Percent
White/Caucasian	203	91.9
Other	18	8.1
Total	221	100.0%

Table 3
Respondent's Age

Age	Frequency	Percent
17	1	0.5
18	91	41.2
19	44	19.9
20	24	10.9
21	34	15.4
22	16	7.0
23	6	2.7
24	1	0.5
25	2	0.9
26	1	0.5
35	1	0.5
Total	221	100.0%

In order to better gain an understanding of the type of student that was responding to the survey, it was important to have questions pertaining to each student's year in college and also their grade point average (GPA). The majority of the students represented in the present study were Freshman and accounted for 118 of the 221 responses (53%). The remaining respondents were mostly Sophomores, Juniors, and Seniors which accounted for 14, 10, and

22 percent, respectively, of the remaining students. There was one graduate student who also took part in the survey.

The respondents were asked to distinguish their GPA by responding to one of four categories. The categories for respondent's GPA were listed as follows: 3.5-4.0, 3.0-3.4, 2.5-2.9, and 2.0-2.4. Additionally the survey asked the respondents, if necessary, to round up to the category nearest their GPA. For example, if an individual's GPA is 2.95, then it was request that they mark the box for 3.0-3.4. The survey also asked that first-semester Freshman use their high school GPA because they have yet to establish a GPA at Ball State University. The majority of students fell in the GPA category of 3.0-3.4 (49%), while only six students (3%) responded that their GPA was 2.0-2.4.

Table 4
Respondent's Year in College

	Frequency	Percent
Freshman	118	53.4
Sophomore	31	14.1
Junior	22	10.0
Senior	49	22.0
Grad. Student	1	0.5
Total	221	100.0%

Table 5
Respondent's Grade Point Average (GPA)

	Frequency	Percent
3.5- 4.0	62	28.1
3.0-3.4	99	44.8
2.5-2.9	54	24.4
2.0-2.4	6	2.7
Total	221	100.0%

The focus of this study, as stated earlier in the hypothesis section, is to determine if

there is a relationship between extracurricular participation in high school and success as a college student. To achieve this goal, the study was developed in a way to gain as much understanding of each student's extracurricular participation as possible. To meet this end, questions were asked of each student pertaining to what type of extracurricular involvement they had and to what degree that involvement was.

The following two tables reflect collapsed data which demonstrates each respondent's participation in both athletic and non-athletic activities. Table 6 shows that the majority of respondents, 122 (55%), participated in a combined 1-7 years of athletics while in high school. Further, 52 students (nearly 24%) participated in a combined 8-14 years of athletics at the high school level. An individual who participates in 8-14 sports in their high school career averages two to three and a half sports per year, a busy load for the average student. It is important to note that the sports listed on the survey (see Appendix A) are the sports that are officially recognized by the Indiana High School Athletic Association (IHSAA). The exception to this is cheerleading which was placed under the category of "sports" for many reasons including; the teamwork involved, the competition that exists to first make the team and then to compete against other schools, and the athletic nature of the activity. It is also important to note that the term "year" as used in the context of this research is used to indicate a full season of participation. For example, if an individual participated in a full season of football, basketball, baseball, and choir that would be considered four years of participation. That is why it is possible for some students to have accumulate more than 20 "years" of participation while in high school.

Table 7 is designed to show the total involvement of all “non-athletic” activities that a student may participate in while in high school. This category includes any school sponsored activities that are not officially recognized as sport by the IHSAA. The type of activities included here are too numerous to list, but some examples may include things such as; Student Government, National Honor Society, Science Club, Drama Club, Marching Band, Choir, or Yearbook staff. As Table 7 demonstrates, 137 respondents (62%) were involved with at least one non-athletic organization during their high school careers.

Table 6
Total Years of Sports Participation

	Frequency	Percent
no sports	39	17.6
1-7 years	122	55.3
8-14 years	52	23.5
15-21 years	8	3.6
Total	221	100.0%

Table 7
Total Years of Non-Athletic Participation

	Frequency	Percent
no clubs	29	13.1
1-8 clubs	137	62.0
9-16 clubs	51	23.1
17-24 clubs	4	1.8
Total	221	100.0%

Results:

The findings of this study are supported by the majority of the contemporary research in this subject matter. I ran an analysis comparing those individuals with no extracurricular participation versus individuals with at least one year of extracurricular participation. These results yielded only two respondents who had zero extracurricular participation. This result is

not unexpected in that the respondents were all college students and as such it is highly likely for each respondent to have participated in at least one extracurricular activity during their high school career in anticipation of the application process required for college admission. This fact becomes especially clear when considering the emphasis college admissions officers place on having a “well rounded” student who excels in not only the classroom, but also some other activity in which he/she may be interested. With these facts in place, it became clear that the degree of participation, not simply participated or did not participate, would be the key in determining the influence of extracurricular participation.

Table 8 presents the respondent’s total participation in extracurricular activities; both athletic and non-athletic. The most common category for this variable is 0-10 years of total participation representing nearly 53 percent of those students in the survey. However, a large portion of the sample, 85 students, participated in a total of 11-20 years of extracurricular activities. Finally, there were 19 students (nearly 9%) who participated in 21 or more years of extracurricular activities while in high school.

Table 8
Total Years of Both Athletic and Non-Athletic Participation

	Frequency	Percent
0-10 years of participation	117	52.9
11-20 years of participation	85	38.5
21 or more years of participation	19	8.6
Total	221	100.0%

After looking at the data in Table 8, the next step is to see if there is a relationship between the total number of years of extracurricular participation and college GPA. The

results are presented in Table 9.

Table 9
Total Years of Both Athletic and Non-Athletic Participation and GPA
GPA

	0-10 years of involvement	11-20 years of involvement	21 or more years of involvement	Total
GPA 3.0 or higher	79 49.1%	65 40.4%	17 10.6%	161 100.0%
GPA 2.0-2.9	38 63.8%	20 33.3%	2 3.3%	60 100.0%
Total	117 52.9%	85 38.5%	19 8.6%	221 100.0%

P < .086

The data illustrated in Table 9 indicates that there is a relationship between extracurricular participation and success in college. The category of 0-10 years of involvement indicates that 67.5% of those students are in the GPA category of 3.0 or higher. The next row down, 11-20 years of involvement, demonstrates a nine percent increase in the same GPA category. Finally, the third row, 21 or more years of involvement, indicates that nearly 90 percent of these students are in the highest GPA category. Additionally, almost one third of all respondents for this survey who have a GPA of 2.9 or less, participated in less than 10 years of extracurricular activities. This data is significant at the .08 level and indicates that participation in extracurricular activities to some degree has a positive influence on academic success. Based on these factors it is concluded that H₁ is supported.

Now that it is decided that extracurricular participation does have some affect, and that affect is positive, the research leads us to H₂. The objective of H₂ is to consider which activities lead to the best desired outcome; success in college. The hypothesis for this

question was that there would not be a significant difference in the success of the students represented in the survey based upon their preference for extracurricular activities. That is, the respondent's GPA would not be related to the respondent's choice of athletic or non-athletic participation. Tables 10 and 11 illustrated the findings.

Table 10
GPA Recoded and Sports Participation Reduced to Four Categories

Total Years of Sport Participation					
	No sports part.	1-7 years of sport part.	8-14 years of sport part.	15-21 years of sport part.	Total
GPA 3.0 or higher	30 18.6%	86 53.4%	38 23.7%	7 4.3%	161 100.0%
GPA 2.0-2.9	9 15.0%	36 60.0%	14 23.3%	1 1.7%	60 100.0%
Total	39 17.7%	122 55.2%	52 23.5%	8 3.6%	221 100.0%

P < .673

Table 11
GPA Recoded and Total Non-Athletic Participation Reduced to Four Categories

Total Amount of Non-Athletic Participation					
	No Clubs	1-8 clubs	9-16 clubs	17-24 clubs	Total
GPA 3.0 or higher	14 8.7%	100 62.1%	43 26.7%	4 2.5%	161 100.0%
GPA 2.0-2.9	15 25.0%	37 61.7%	8 13.3%	0 0.0%	60 100.0%
Total	29 13.1%	137 62.0%	51 23.1%	4 1.8%	221 100.0%

P < .003

After finding some support for H₁ and after reviewing the data presented in Tables 10 and 11, it becomes clear that H₂ is not supported. H₂ expected there to not be a significant

difference in the GPA of respondents based upon each respondents choice for extracurricular participation. Table 10 illustrates the GPA for respondents based upon their level of participation in athletic activities. The data in Table 10, when examining each column, indicates there is little change in GPA depending on the degree of participation in athletic activities. For example column one, which includes all individuals who did not have any athletic participation, of all the respondents in the GPA category of 3.0 or higher, 18.6 percent of those individuals had no involvement in sports participation while a comparable percentage, 15 percent, of all respondents in the GPA category of 2.0-2.9 also had no involvement in athletics while in high school.

The results presented in column three of Table 10 show further evidence that dismisses H_2 . Of all respondents in the GPA category of 3.0 or higher, 23.7 percent of these individuals had a degree of participation that measured 8-14 years. A very comparable percentage, 23.3 percent, of all respondents with a GPA of 2.0-2.9 were involved in the same number of athletic activities. The validity of H_2 is called further into question after learning that the comparison in Table 10 is only significant at the $p < .67$ level, which essentially means that these results could be expected two out of three times based solely on randomness.

The further lack of support for H_2 comes to light after reviewing the data presented in Table 11. Keeping in mind that H_1 was supported, the data illustrated in Table 11 basically show the opposite of what H_2 expected; a difference in the GPA of respondents based upon their particular choice of extracurricular participation. The null H_2 is most strongly supported by the data in both column three and column four of Table 11. In column three the data

indicates that of all respondents in the GPA category of 3.0 or higher, 26.7 percent of these individuals were involved in non-athletic activities for 9-16 years. At the same time only 13.3 percent of all respondents with the same degree of club participation fell in the GPA category of 2.0-2.9. Column four in Table 11 illustrates that all of the respondents who had the highest degree of club involvement were in the GPA category of 3.0 or higher. The relationships illustrated in Table 11 is given further weight because it is significant at the $p < .003$ level.

Tables 10 and 11 clearly indicate that there is in fact some relationship between the respondent's GPA and the choice they made concerning which type of extracurricular participation to be involved in. This raises an interesting question concerning whether students who are more academically inclined choose certain activities to be involved in or whether it works the other way around and the activities that certain students become involved in help them obtain a higher GPA.

The next hypothesis to evaluate is H_3 . The goal of this hypothesis is to determine whether certain athletic activities result in a higher GPA. H_3 states that respondents who participate in "individual" sports will receive a higher GPA than those respondents who participated in "team" sports. While all high school sports are essentially team sports, for the purpose of this study each sport was evaluated on the amount of teamwork that is necessary to excel in each sport.

The sports which are categorized as "team" for the purposes of this research includes all sports in which team work is essential for that team to perform at the highest level. The list

of team sports used for the purpose of this study is as follows: basketball, baseball, football, soccer, volleyball, softball, and cheerleading. The common thread connecting all of these sports together is that there is a basic level of teamwork which is needed for even the best player on each team to succeed.

The remaining sports: wrestling, track and field, cross country, golf, gymnastics, swimming and diving, and tennis, are all categorized as “individual” sports. The logic for categorizing these particular sports as individual is based in the amount of teamwork which is necessary to excel. While obviously these sports require some degree of teamwork, they also promote individual performance. For example, each year the Indiana High School Athletic Association hosts state championships for both wrestling teams and for individual wrestlers. The concept of having both a team championship and an individual championship is the common thread that ties these “individual” sports together.

In order to better visualize the degree of participation in team and individual athletics, team participation was recoded into two variables as shown in Table 12. The first category includes individuals whose total participation in team sports is 0-7 years. The second category includes all individuals with 8-16 years of team involvement.

Table 12
Total Involvement in Team Athletics

Total Participation in Team Sports recoded into two Categories

	0-7 years of team sport participation	8-16 years of team sport participation	Total
GPA 3.0 or higher	140 87.0%	21 13.0%	161 100.0%
GPA 2.0-2.9	54 90.0%	6 10.0%	60 100.0%
Total	194 87.8%	27 12.2%	221 100.0%

P< .539

Table 13
Total Involvement in Individual Sports

Total Involvement in Individual Sports recoded into two Categories

	0-4 years individual sport participation	5-10 years individual sport participation	Total
GPA 3.0 or higher	143 88.8%	18 11.2%	161 100.0%
GPA 2.0-2.9	52 86.7%	8 13.3%	60 100.0%
Total	195 88.2%	26 11.8%	221 100.0%

P< .659

The data presented in Tables 12 and 13 lead to the conclusion that sports classified as either team or individual do not have an exceptional impact upon the performance of respondent's GPA. As table 12 indicates, 13 percent of respondents who participated in 8-16 years of team sports have a GPA of 3.0 or higher. A relatively close percentage, 10 percent, of respondents with the same level of team sport participation have a low GPA of 2.0-2.9. This data indicates that team sports have either no impact or very little impact upon the academic

performance of respondents.

The data presented in Table 13 tells a very similar story. Of the respondents with 5-10 years of involvement in individual sports 11.2% of these individuals have a GPA of 3.0 or above while a similar total, 13.3 percent, have a GPA of 2.0-2.9. The results of this data communicates that the type of athletic activity the respondent was involved in does not make much, if any, difference in their college GPA's. These results are not unexpected after concluding earlier that H_2 was not supported. According to the findings in Table 11, it is the involvement in non-athletic activities that makes the most prominent difference in college GPA's.

The final hypothesis to be tested for the purposes of this research is H_4 . This hypothesis is interested in determining whether there is a difference in the levels of participation among male and female high school students in regards to their overall extracurricular participation. The existing literature on this subject indicates that females may be slightly more likely to join extracurricular activities while in high school placing a somewhat stronger importance on the non-athletic participation (Gerber 1996).

Researching any discrepancies in participation habits of males and females is valuable for policymaking decisions. If the data can show that, for example, females are more likely to join non-athletic activities then this information could prove valuable to school corporations when they are developing their extracurricular opportunities. First schools will want to consider issues of equality and equal access. Second, if there is a relationship between GPA and non-athletic participation then schools may be more inclined to promote and develop non-

athletic activities that perhaps are more appealing to male students.

As H_1 stated and Table 11 helped illustrate, non-athletic extracurricular participation has a positive relationship when concerning college GPA's. There are many factors that may be at work here, but for the simplicity of this section it will be assumed that non-athletic extracurricular participation directly results in a higher GPA. Table 14 will illustrate the relationship between male and female overall extracurricular participation.

Table 14
Relationship Between Male and Female Extracurricular Participation

	Total Years of Involvement			
	0-10 years of involvement	11-20 years of involvement	21 or more years of involvement	Total
Males	40 54.1%	30 40.5%	4 5.4%	74 100.0%
Females	77 52.4%	55 37.4%	15 10.2%	147 100.0%
Total	117 52.9%	85 38.5%	19 8.6%	221 100.0%

$P < .480$

As the data in Table 14 indicates, there is perhaps only a slight difference in the degree of participation between male and female students. If looking at column one of Table 14, it is clear that about 50 percent of both males and females participated in 0-10 years of extracurricular activities. For involvement consisting of 11-20 years, males are slightly more likely to participate, but not by very much. The most compelling data in Table 14 may be found in row three which displays respondents who participated in 21 or more years of extracurricular activities. This data indicates that females are nearly twice as likely to

participate in what would be considered by most as an extreme degree of participation; 21 or more years. However, the conclusions that may be drawn from this apparent discrepancy are limited in that the sample size is small, consisting of a total of only 19 respondents.

After reviewing the data presented in Table 14, the conclusion has been reached that we failed to reject the null. That is, there does not appear to be a significant difference in the degree of participation that exists between males and females concerning their extracurricular participation while in high school. However, for a definitive answer, a larger population would need to be studied.

Discussion:

The focus of this research has been to contribute to the existing literature in regards to four main issues. The first issue addresses the relationship between extracurricular participation and academic success. The two major theories, as discussed in the literature review, concerning academics and extracurricular activities are the Developmental Theory and Zero-Sum Theory. The results of this research in regards to the H_1 are most closely tied to the Developmental Theory. The Developmental Theory believes in the “character building” and “socializing” of young men and women (Rees, et. al.). This character building and socializing ability is an essential part of an individual’s academic success in college. A college student needs more than an aptitude to do well on tests. He/she must also be able to work well with others, show leadership, and take on responsibilities that at times may seem overwhelming. The Developmental Theory would agree that high school extracurricular participation helps many students develop these traits before entering college; traits that a high school can not

teach based solely on academics.

The second issue this research addressed built upon the first and centered on whether a particular type of extracurricular participation plays a significant factor in helping high school students achieve academic success in college. The results from this study support a positive relationship concerning participation in non-athletic activities and college GPA, however, this research failed to show a significant relationship between athletic participation and college GPA. Some researchers may conclude from this finding that athletics play a negative roll in high schools because they fail to promote academic achievement and are taking money away from the school corporation which could be used to develop better academic programs. The same researchers who fail to acknowledge the importance of athletics in high school would also probably relate athletics to the Zero-Sum Theory. The Zero-Sum Theory supports the idea that participation in athletics is detrimental to the development of the student academically and socially (Gordon 1957).

This application of the Zero-Sum Theory may be flawed, however, if based solely on the same type of empirical data presented in this study. By the time many students reach high school, their academic ability is already well established. Many marginal students are attending class only under the threat of juvenile detention reported by either their guardians or the school administration. The opportunity to participate in school sponsored athletics maybe the only thing many of these young students identify as positive. Future research could test this idea and determine how many students stay enrolled because of these extracurricular activities. Without the promise of the opportunity to showcase their athletic ability, many

young students may not stay in school long enough to develop the academic and social skills which the Zero-Sum Theory holds so important. While the data from this research does not support a relationship between athletic participation and college GPA, the research does not show a negative relationship. The results may be skewed by the fact that all of the sample has demonstrated some degree of success by going to college. While not known, it would be valuable to study whether sports involvement encouraged these students to attend college.

The third purpose of this research was to add to the literature in regards to studying the relationship between college GPA and high school involvement in team and individual sports. Most previous studies have either been wide sweeping and looked only at the impact of all sports or have been focused on a particular sport, usually football or basketball. This research aimed at separating the sports and categorizing them as team or individual.

This categorization would help to determine whether certain sports are more advantageous to the promotion of a higher college GPA. The underlying idea for this study was that students who participate in team sports would be more likely to succeed than students who participate in individual sports. The reason for this centered around the idea that team sports participants would be more likely to develop the teamwork skills which are useful for college success. However, the data presented in this study failed to show a difference in the likely of college success when concerning respondent's choice for particular types of athletic involvement. Again, the characteristics of the sample may be obscuring some of the findings.

While this data does not support the expected findings that team sports participants are more likely to succeed than individual sports participants, perhaps there is more to study here.

An interesting research project, with enough time and funding, may be to look at each sport individually and make evaluations about success in college. Is there one sport that produces more or less achievement by its participants than all others? Perhaps some sports are much more demanding both physically and mentally and the student athlete is so worn out from practice that they can not concentrate in school. When high school athletics reach this point, they have crossed a dangerous path in which it may be hard to step back across. For instance, consider the De La Salle high school football team in California which has not lost a game in over ten years. A very considerable feat, but it would be interesting for future research to study such schools in order to better determine if these schools are promoting sports to such an extreme extent that they are sacrificing their academic integrity.

The final issue discussed in this research concerned the participation habits of males and females in extracurricular activities. In 1981 Braddock concluded that females are more likely to participate in non-athletic activities and that males were more likely to participate in athletic activities. If Braddock's conclusion holds true for this research, then it may be deduced that females are more likely to benefit from extracurricular participation than males are, based on females involvement in non-athletic activities. However, a lot has changed since Braddock's 1981 study; namely Title IX and women's involvement in athletics.

Title IX was the landmark legislation passed in 1972 which gave women equal access to participate in any program that receives federal financial aid. A main objective of Title IX was to require all public schools and universities to give women the same access to sports programs that had historically only been given to men. At the time of Braddock's 1981

research, Title IX had only been in existence for nine years. By 2002, some 30 years after its inception, an entire generation has had increased access.

In an effort to build upon Braddock's study, the present study was concerned with determining whether the relatively new availability of high school athletics has prompted some young women to become even more involved in extracurricular activities. While the data presented in Table 14 does not strongly support the notion that females are more likely than males to participate in extracurricular activities, this would be a very interesting subject to follow. Today there is an entire generation of women who have grown up without the structured discrimination that existed prior to Title IX. As these women continue to have children it will be interesting to study how the daughters of these women take advantage of the equal rights they have been given.

Conclusion:

This research has centered around four hypotheses and it has been concluded that the first hypothesis is supported while the remaining three hypotheses were not. H_1 stated that there is a positive relationship between extracurricular participation and academic success in college. These results were supported by the data presented in Table 9. H_2 stated that there would not be a significant difference in the level of success that can be expected based upon the specific extracurricular activity an individual was involved in. H_2 was not supported and the research indicated that there is a significant difference in college GPA based upon the particular type of extracurricular involvement the individual participated in. This result was most strongly supported by the results presented in Tables 10 and 11. Table 11 showed a

positive relationship between non-athletic participation and college GPA, while Table 10 showed no relationship between athletic participation and college GPA.

For both H_3 and H_4 I failed to reject the null for the purposes of this research. H_3 was concerned with discovering empirical data concerning whether participation in sports categorized as team and sports categorized as individual make a difference in GPA. H_3 was not supported. The data illustrated in Tables 12 and 13 show little significant difference in the college GPA of respondents based upon what type of sport they participated in while in high school.

H_4 , like H_3 and H_2 , was not supported. H_4 was concerned with any differences that may exist between the degree of participation by males and females. Although the data illustrated in Table 14 showed some difference in the degree of participation, that difference was very little and nearly insignificant all together; $p < .480$. However, this may be a very interesting field to study in the future and the research that is being conducted presently on this subject will serve as a good starting point for tracking participation differences between males and females in the future.

As the budgets for school administrators becomes increasingly tighter, it is paramount that these administrators have full access to documented research that shows any relationship, either positive or negative, concerning which school sponsored activities help the school achieve its goal of providing a complete. The goal of this research has been to contribute to the existing literature that is at each school administrator's disposal when making budget cuts. This type of research is increasingly important at a time when art, music, wrestling, football,

and many other programs around the country are being cut at the expense of the academic mission of the schools. Further research on this topic is needed before school administrators inadvertently are forced to cut programs that may be supporting the underlying foundation of the academic missions of every school. Is there enough evidence to say that, for example, students who participate in music programs are more likely to succeed in other subjects because of a predisposition to succeed or is it more likely that a student's participation in a music program enhances their education and helps them succeed in other subject matters? I would conclude that at the present time there is not enough evidence to strongly support either conclusion, however, I feel that the evidence tips in favor of the latter; that extracurricular participation helps enhance the student's education and hence the goals of the school.

Perhaps the most accurate assessment of the importance of extracurricular activities, particularly athletics, was stated in Ann Hall and Dorothy Richardson's 1982 book titled *Fair Ball*. "Many of the values we admire in our sportswomen and sportsmen: honesty, fair play, hard work, discipline, and dedication are the very social values we wish to see inculcated on everyone. Sport, therefore, is highly significant in the socialization of our young people" (Hall and Richardson, 1982).

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Frequencies

Frequency Table

How many times a week do you workout?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7 or more times a week	7	3.2	3.2	3.2
	4 to 6 times per week	55	24.9	24.9	28.1
	1 to 3 times per week	88	39.8	39.8	67.9
	less than once a week	45	20.4	20.4	88.2
	less than once a month	26	11.8	11.8	100.0
	Total	221	100.0	100.0	

Did you participate in basketball?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	160	72.4	72.4	72.4
	selected	61	27.6	27.6	100.0
	Total	221	100.0	100.0	

How many years participate in basketball?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	160	72.4	72.4	72.4
	1.00	20	9.0	9.0	81.4
	2.00	17	7.7	7.7	89.1
	3.00	3	1.4	1.4	90.5
	4.00	21	9.5	9.5	100.0
	Total	221	100.0	100.0	

Did you participate in baseball?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	203	91.9	91.9	91.9
	selected	18	8.1	8.1	100.0
	Total	221	100.0	100.0	

How many years participate in baseball?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	203	91.9	91.9	91.9
	1.00	6	2.7	2.7	94.6
	3.00	2	.9	.9	95.5
	4.00	10	4.5	4.5	100.0
	Total	221	100.0	100.0	

"The Influence of High School Athletic Participation"

The Department of Sociology would like to learn more about your high school athletic participation. The information you provide will be kept **confidential** and your participation is **voluntary**. There is **no risk** involved with your participation in this study. The answers you provide will not be linked to you in any way. If you feel uncomfortable with any question, you are **not required** to answer it. Your participation **will not have any impact**, positive or negative, on your standing with Ball State University. It will take approximately ten minutes for you to complete this survey. Do **Not** put your name on the survey. If you have any questions or comments, please contact Brian Walls or Dr. Melinda Messinco, Assistant Professor of Sociology in the Department of Sociology, North Quad 205, (765) 285-5530.

Please take a few minutes to respond to the following questions.

1. How many times a week do you workout for at least twenty minutes?

- 1.) 7 or more times a week
- 2.) 4 to 6 times per week
- 3.) 1 to 3 times per week
- 4.) Less than once a week
- 5.) Less than once a month

2. Which sports activities did you participate in, and for how many years, while in high school?

(Leave answer space blank if you did not participate in that particular sport)

- 1.) Basketball _____ years
- 2.) Baseball _____ years
- 3.) Football _____ years
- 4.) Wrestling _____ years
- 5.) Track and Field _____ years
- 6.) Soccer _____ years
- 7.) Volleyball _____ years
- 8.) Cross Country _____ years
- 9.) Golf _____ years
- 10.) Gymnastics _____ years
- 11.) Swimming/Diving _____ years
- 13.) Tennis _____ years
- 14.) Softball _____ years
- 15.) Cheerleading _____ years
- 16.) Other (please list) _____ number of years _____
_____ number of years _____
_____ number of years _____

3. Do you feel that your high school athletic participation had a positive, negative, or no influence on your academic success while in high school and college?

- 1.) Positive influence
- 2.) Negative Influence
- 3.) No influence

4. Which non-athletic organizations were you a member of while in high school and for how many years?

- 1.) Student Government _____ years
- 2.) National Honor Society _____ years
- 3.) Clubs (i.e. science club, drama club, ...) _____ years
- 4.) Other (please list) _____ number of years _____
_____ number of years _____
_____ number of years _____

5. Do you feel that your participation in non-athletic organizations while in high school made a positive, negative, or had no influence on your academic success while in high school and college?

- 1.) Positive influence 2.) Negative Influence 3.) No influence

6. What is your current involvement in sports participation?

- 1.) I do not play sports
 2.) I rarely play sports
 3.) I often play sports

7. What is your sex?

- 1.) Male 2.) Female

8. Which racial or ethnic category do you most closely identify yourself with?

- 1.) Black/African American 5.) Native/Indigenous American
 2.) White/Caucasian 6.) Multiracial
 3.) Hispanic/Latino 7.) Other (Please Specify) _____
 4.) Asian/Pacific Islander

9. What is your age? _____ years old

10. What year in college are you?

- 1.) Freshman 4.) Senior
 2.) Sophomore 5.) Graduate Student
 3.) Junior

11. Please list your majors and minors below: (if a graduate student, please list your undergraduate major(s) and minor(s) and then your graduate area of study.

Major(s) _____

Minor(s) _____

Graduate Area of Study (leave blank if not a grad student) _____

12. What is your overall G.P.A. (Round up to the nearest category if necessary) (Use your high school G.P.A. if you are a first semester freshmen)

- 1.) 3.5 - 4.0 4.) 2.0 - 2.4
 2.) 3.0 - 3.4 5.) less than 2.0
 3.) 2.5 - 2.9

Thank you for your time

ACADEMIC AFFAIRS
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INSTITUTIONAL REVIEW BOARD

TO: Brian Walls
910 West Riverside Ave. Apt 6 B
Muncie, IN 47303

FROM: Bryan Byers^{BB}, Chair
Institutional Review Board

DATE: October 9, 2002

RE: Human Subjects Protocol I.D. – IRB #03-87

The Institutional Review Board has recently approved your project titled "The Influence of High School athletic Participation" as submitted as an exempt study. Such approval is in force from October 9, 2002 to October 8, 2003.

It is the responsibility of the P.I. and/or faculty supervisor to inform the IRB:

- when the project is completed, or
- if the project is to be extended beyond the approved end date,
- if the project is modified,
- if the project encounters problems,
- if the project is discontinued.

Any of the above notifications should be addressed in writing to the Institutional Review Board, c/o the Office of Academic Research & Sponsored Programs (2100 Riverside Avenue). Please reference the above identification number in any communication to the IRB regarding this project. Be sure to allow sufficient time for extended approvals.

pc: Melinda Messineo

rlb

Did you participate in football?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	184	83.3	83.3	83.3
	selected	37	16.7	16.7	100.0
	Total	221	100.0	100.0	

How many years participate in football?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	184	83.3	83.3	83.3
	1.00	5	2.3	2.3	85.5
	2.00	8	3.6	3.6	89.1
	3.00	3	1.4	1.4	90.5
	4.00	21	9.5	9.5	100.0
	Total	221	100.0	100.0	

Did you participate in wrestling?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	205	92.8	92.8	92.8
	selected	16	7.2	7.2	100.0
	Total	221	100.0	100.0	

How many years participate in wrestling?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	205	92.8	92.8	92.8
	1.00	3	1.4	1.4	94.1
	2.00	2	.9	.9	95.0
	3.00	3	1.4	1.4	96.4
	4.00	8	3.6	3.6	100.0
	Total	221	100.0	100.0	

Did you participate in track and field?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	165	74.7	74.7	74.7
	selected	56	25.3	25.3	100.0
	Total	221	100.0	100.0	

How many years participate in track and field?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	166	75.1	75.1	75.1
1.00	14	6.3	6.3	81.4
2.00	9	4.1	4.1	85.5
3.00	14	6.3	6.3	91.9
4.00	18	8.1	8.1	100.0
Total	221	100.0	100.0	

Did you participate in soccer?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	199	90.0	90.0	90.0
selected	22	10.0	10.0	100.0
Total	221	100.0	100.0	

How many years participate in soccer?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	199	90.0	90.0	90.0
1.00	5	2.3	2.3	92.3
2.00	7	3.2	3.2	95.5
3.00	1	.5	.5	95.9
4.00	9	4.1	4.1	100.0
Total	221	100.0	100.0	

Did you participate in volleyball?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	175	79.2	79.2	79.2
selected	46	20.8	20.8	100.0
Total	221	100.0	100.0	

How many years participate in volleyball?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	174	78.7	78.7	78.7
1.00	7	3.2	3.2	81.9
2.00	12	5.4	5.4	87.3
3.00	8	3.6	3.6	91.0
4.00	20	9.0	9.0	100.0
Total	221	100.0	100.0	

Did you participate in crosscountry?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	204	92.3	92.3	92.3
	selected	16	7.2	7.2	99.5
	4	1	.5	.5	100.0
	Total	221	100.0	100.0	

How many years participate in crosscountry?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	205	92.8	92.8	92.8
	1.00	8	3.6	3.6	96.4
	2.00	3	1.4	1.4	97.7
	3.00	4	1.8	1.8	99.5
	4.00	1	.5	.5	100.0
	Total	221	100.0	100.0	

Did you participate in golf?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	210	95.0	95.0	95.0
	selected	11	5.0	5.0	100.0
	Total	221	100.0	100.0	

How many years participate in golf?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	210	95.0	95.0	95.0
	1.00	2	.9	.9	95.9
	2.00	3	1.4	1.4	97.3
	3.00	2	.9	.9	98.2
	4.00	4	1.8	1.8	100.0
	Total	221	100.0	100.0	

Did you participate in gymnastics?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	208	94.1	94.1	94.1
	selected	13	5.9	5.9	100.0
	Total	221	100.0	100.0	

How many years participate in gymnastics?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	208	94.1	94.1	94.1
1.00	3	1.4	1.4	95.5
2.00	3	1.4	1.4	96.8
3.00	1	.5	.5	97.3
4.00	6	2.7	2.7	100.0
Total	221	100.0	100.0	

Did you participate in swim/dive?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	199	90.0	90.0	90.0
selected	22	10.0	10.0	100.0
Total	221	100.0	100.0	

How many years participate in swim/dive?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	199	90.0	90.0	90.0
1.00	7	3.2	3.2	93.2
2.00	4	1.8	1.8	95.0
3.00	5	2.3	2.3	97.3
4.00	6	2.7	2.7	100.0
Total	221	100.0	100.0	

Did you participate in tennis?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	201	91.0	91.0	91.0
selected	20	9.0	9.0	100.0
Total	221	100.0	100.0	

How many years participate in tennis?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	201	91.0	91.0	91.0
1.00	9	4.1	4.1	95.0
2.00	5	2.3	2.3	97.3
3.00	3	1.4	1.4	98.6
4.00	3	1.4	1.4	100.0
Total	221	100.0	100.0	

Did you participate in softball?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	181	81.9	81.9	81.9
	selected	40	18.1	18.1	100.0
	Total	221	100.0	100.0	

How many years participate in softball?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	181	81.9	81.9	81.9
	1.00	8	3.6	3.6	85.5
	2.00	8	3.6	3.6	89.1
	3.00	5	2.3	2.3	91.4
	4.00	19	8.6	8.6	100.0
	Total	221	100.0	100.0	

Did you participate in cheerleading?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	197	89.1	89.1	89.1
	selected	24	10.9	10.9	100.0
	Total	221	100.0	100.0	

How many years participate in cheerleading?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	197	89.1	89.1	89.1
	1.00	9	4.1	4.1	93.2
	2.00	4	1.8	1.8	95.0
	3.00	3	1.4	1.4	96.4
	4.00	8	3.6	3.6	100.0
	Total	221	100.0	100.0	

Did you participate in other 1?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	188	85.1	85.1	85.1
	selected	33	14.9	14.9	100.0
	Total	221	100.0	100.0	

How many years participate in other 1?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	188	85.1	85.1	85.1
1.00	9	4.1	4.1	89.1
2.00	8	3.6	3.6	92.8
3.00	3	1.4	1.4	94.1
4.00	13	5.9	5.9	100.0
Total	221	100.0	100.0	

Did you participate in other 2?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	218	98.6	98.6	98.6
selected	3	1.4	1.4	100.0
Total	221	100.0	100.0	

How many years participate in other 2?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	218	98.6	98.6	98.6
1.00	1	.5	.5	99.1
4.00	2	.9	.9	100.0
Total	221	100.0	100.0	

Did you participate in other 3?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	221	100.0	100.0	100.0

How many years participate in other 3?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	221	100.0	100.0	100.0

What influence of athletic participation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	1	.5	.5	.5
positive	120	54.3	54.3	54.8
negative	7	3.2	3.2	57.9
no influence	56	25.3	25.3	83.3
did not play sports	37	16.7	16.7	100.0
Total	221	100.0	100.0	

Did you participate in student government?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	171	77.4	77.4	77.4
	selected	50	22.6	22.6	100.0
	Total	221	100.0	100.0	

How many years student government?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	171	77.4	77.4	77.4
	1.00	17	7.7	7.7	85.1
	2.00	12	5.4	5.4	90.5
	3.00	8	3.6	3.6	94.1
	4.00	13	5.9	5.9	100.0
	Total	221	100.0	100.0	

Did you participate in Honor Society?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	154	69.7	69.7	69.7
	selected	67	30.3	30.3	100.0
	Total	221	100.0	100.0	

How many years in Honor Society?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	154	69.7	69.7	69.7
	1.00	15	6.8	6.8	76.5
	2.00	29	13.1	13.1	89.6
	3.00	15	6.8	6.8	96.4
	4.00	8	3.6	3.6	100.0
	Total	221	100.0	100.0	

Did you participate in clubs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	76	34.4	34.4	34.4
	selected	145	65.6	65.6	100.0
	Total	221	100.0	100.0	

How many years in clubs?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	76	34.4	34.4	34.4
1.00	8	3.6	3.6	38.0
2.00	32	14.5	14.5	52.5
3.00	20	9.0	9.0	61.5
4.00	85	38.5	38.5	100.0
Total	221	100.0	100.0	

Did you participate in cother 1?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	121	54.8	54.8	54.8
selected	100	45.2	45.2	100.0
Total	221	100.0	100.0	

How many years in cother 1?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	121	54.8	54.8	54.8
1.00	15	6.8	6.8	61.5
2.00	16	7.2	7.2	68.8
3.00	19	8.6	8.6	77.4
4.00	50	22.6	22.6	100.0
Total	221	100.0	100.0	

Did you participate in cother 2?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid not selected	178	80.5	80.5	80.5
selected	43	19.5	19.5	100.0
Total	221	100.0	100.0	

How many years in cother 2?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	178	80.5	80.5	80.5
1.00	5	2.3	2.3	82.8
2.00	10	4.5	4.5	87.3
3.00	9	4.1	4.1	91.4
4.00	19	8.6	8.6	100.0
Total	221	100.0	100.0	

Did you participate in cothor 3?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not selected	197	89.1	89.1	89.1
	selected	24	10.9	10.9	100.0
	Total	221	100.0	100.0	

How many years in cothor 3?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	197	89.1	89.1	89.1
	1.00	3	1.4	1.4	90.5
	2.00	7	3.2	3.2	93.7
	3.00	4	1.8	1.8	95.5
	4.00	10	4.5	4.5	100.0
	Total	221	100.0	100.0	

What influence of clubs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	positive	132	59.7	59.7	59.7
	negative	1	.5	.5	60.2
	no influence	74	33.5	33.5	93.7
	4	14	6.3	6.3	100.0
	Total	221	100.0	100.0	

What is current involvement in sports?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not play sports	78	35.3	35.3	35.3
	I rarely play sports	89	40.3	40.3	75.6
	I often play sports	54	24.4	24.4	100.0
	Total	221	100.0	100.0	

What is sex?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	74	33.5	33.5	33.5
	female	147	66.5	66.5	100.0
	Total	221	100.0	100.0	

What is your race?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Black/African American	14	6.3	6.3	6.3
	white/Caucasian	203	91.9	91.9	98.2
	Hispanic/Latino	1	.5	.5	98.6
	Asian/Pacific Islander	1	.5	.5	99.1
	Multiracial	2	.9	.9	100.0
	Total	221	100.0	100.0	

What is otherace?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	221	100.0	100.0	100.0

What is your age?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	1	.5	.5	.5
	18	91	41.2	41.2	41.6
	19	44	19.9	19.9	61.5
	20	24	10.9	10.9	72.4
	21	34	15.4	15.4	87.8
	22	16	7.2	7.2	95.0
	23	6	2.7	2.7	97.7
	24	1	.5	.5	98.2
	25	2	.9	.9	99.1
	26	1	.5	.5	99.5
	35	1	.5	.5	100.0
	Total	221	100.0	100.0	

What year in college?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	freshman	118	53.4	53.4	53.4
	sophomore	31	14.0	14.0	67.4
	junior	22	10.0	10.0	77.4
	senior	49	22.2	22.2	99.5
	graduate student	1	.5	.5	100.0
	Total	221	100.0	100.0	

What is major 1?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Science and Humanities	81	36.7	36.7	36.7
	Business	21	9.5	9.5	46.2
	Education	39	17.6	17.6	63.8
	Communication Arts	24	10.9	10.9	74.7
	Applied Technology	29	13.1	13.1	87.8
	Undecided	27	12.2	12.2	100.0
	Total	221	100.0	100.0	

What is major 2?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	199	90.0	90.0	90.0
	Science and Humanities	18	8.1	8.1	98.2
	Business	3	1.4	1.4	99.5
	Education	1	.5	.5	100.0
	Total	221	100.0	100.0	

Do you have a minor 1?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	131	59.3	59.3	59.3
	yes	90	40.7	40.7	100.0
	Total	221	100.0	100.0	

Do you have a minor 2?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	210	95.0	95.0	95.0
	yes	11	5.0	5.0	100.0
	Total	221	100.0	100.0	

What is grad area of study?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	221	100.0	100.0	100.0

What is GPA?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.5 - 4.0	62	28.1	28.1	28.1
3.0 - 3.4	99	44.8	44.8	72.9
2.5 - 2.9	54	24.4	24.4	97.3
2.0 - 2.4	6	2.7	2.7	100.0
Total	221	100.0	100.0	

What is your race?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid other	18	8.1	8.1	8.1
white	203	91.9	91.9	100.0
Total	221	100.0	100.0	

What is your age range?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	92	41.6	41.6	41.6
2.00	68	30.8	30.8	72.4
3.00	50	22.6	22.6	95.0
4.00	11	5.0	5.0	100.0
Total	221	100.0	100.0	

All sports added together

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	39	17.6	17.6	17.6
1.00	16	7.2	7.2	24.9
2.00	10	4.5	4.5	29.4
3.00	17	7.7	7.7	37.1
4.00	35	15.8	15.8	52.9
5.00	18	8.1	8.1	61.1
6.00	12	5.4	5.4	66.5
7.00	14	6.3	6.3	72.9
8.00	7	3.2	3.2	76.0
9.00	14	6.3	6.3	82.4
10.00	8	3.6	3.6	86.0
11.00	6	2.7	2.7	88.7
12.00	14	6.3	6.3	95.0
13.00	2	.9	.9	95.9
14.00	1	.5	.5	96.4
15.00	4	1.8	1.8	98.2
16.00	1	.5	.5	98.6
19.00	1	.5	.5	99.1
20.00	2	.9	.9	100.0
Total	221	100.0	100.0	

All nonsports added together

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	29	13.1	13.1	13.1
1.00	9	4.1	4.1	17.2
2.00	31	14.0	14.0	31.2
3.00	21	9.5	9.5	40.7
4.00	30	13.6	13.6	54.3
5.00	12	5.4	5.4	59.7
6.00	11	5.0	5.0	64.7
7.00	9	4.1	4.1	68.8
8.00	14	6.3	6.3	75.1
9.00	9	4.1	4.1	79.2
10.00	10	4.5	4.5	83.7
11.00	4	1.8	1.8	85.5
12.00	12	5.4	5.4	91.0
13.00	5	2.3	2.3	93.2
14.00	4	1.8	1.8	95.0
15.00	1	.5	.5	95.5
16.00	6	2.7	2.7	98.2
18.00	1	.5	.5	98.6
19.00	1	.5	.5	99.1
21.00	1	.5	.5	99.5
24.00	1	.5	.5	100.0
Total	221	100.0	100.0	

sports category reduced to 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no sports	39	17.6	17.6	17.6
1-7	122	55.2	55.2	72.9
8-14	52	23.5	23.5	96.4
15-21	8	3.6	3.6	100.0
Total	221	100.0	100.0	

nonsport recoded

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no clubs	29	13.1	13.1	13.1
1-8	137	62.0	62.0	75.1
9-16	51	23.1	23.1	98.2
17-24	4	1.8	1.8	100.0
Total	221	100.0	100.0	

Did you participate in sports yes/no

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no	39	17.6	17.6	17.6
yes	182	82.4	82.4	100.0
Total	221	100.0	100.0	

Did participate in nonsports--yes/no?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no	29	13.1	13.1	13.1
yes	192	86.9	86.9	100.0
Total	221	100.0	100.0	

GPA recoded

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.0 or higher	161	72.9	72.9	72.9
2.0-2.9	60	27.1	27.1	100.0
Total	221	100.0	100.0	

Total years of all extra part

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	2	.9	.9	.9
1.00	2	.9	.9	1.8
2.00	8	3.6	3.6	5.4
3.00	13	5.9	5.9	11.3
4.00	13	5.9	5.9	17.2
5.00	11	5.0	5.0	22.2
6.00	20	9.0	9.0	31.2
7.00	13	5.9	5.9	37.1
8.00	12	5.4	5.4	42.5
9.00	13	5.9	5.9	48.4
10.00	10	4.5	4.5	52.9
11.00	12	5.4	5.4	58.4
12.00	14	6.3	6.3	64.7
13.00	13	5.9	5.9	70.6
14.00	12	5.4	5.4	76.0
15.00	9	4.1	4.1	80.1
16.00	3	1.4	1.4	81.4
17.00	8	3.6	3.6	85.1
18.00	4	1.8	1.8	86.9
19.00	5	2.3	2.3	89.1
20.00	5	2.3	2.3	91.4
21.00	1	.5	.5	91.9
22.00	6	2.7	2.7	94.6
23.00	1	.5	.5	95.0
24.00	2	.9	.9	95.9
25.00	1	.5	.5	96.4
27.00	3	1.4	1.4	97.7
28.00	2	.9	.9	98.6
29.00	1	.5	.5	99.1
31.00	1	.5	.5	99.5
41.00	1	.5	.5	100.0
Total	221	100.0	100.0	

total involvement recoded into 3 categories

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-10 years of involvement	117	52.9	52.9	52.9
11-20 years of involvement	85	38.5	38.5	91.4
21 or more years of involvement	19	8.6	8.6	100.0
Total	221	100.0	100.0	

total involv. in team sport

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	70	31.7	31.7	31.7
1.00	23	10.4	10.4	42.1
2.00	20	9.0	9.0	51.1
3.00	18	8.1	8.1	59.3
4.00	38	17.2	17.2	76.5
5.00	8	3.6	3.6	80.1
6.00	11	5.0	5.0	85.1
7.00	6	2.7	2.7	87.8
8.00	12	5.4	5.4	93.2
9.00	6	2.7	2.7	95.9
10.00	1	.5	.5	96.4
11.00	1	.5	.5	96.8
12.00	4	1.8	1.8	98.6
13.00	1	.5	.5	99.1
14.00	1	.5	.5	99.5
16.00	1	.5	.5	100.0
Total	221	100.0	100.0	

total involv in indiv. sport

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid .00	112	50.7	50.7	50.7
1.00	24	10.9	10.9	61.5
2.00	19	8.6	8.6	70.1
3.00	13	5.9	5.9	76.0
4.00	27	12.2	12.2	88.2
5.00	5	2.3	2.3	90.5
6.00	7	3.2	3.2	93.7
7.00	7	3.2	3.2	96.8
8.00	5	2.3	2.3	99.1
9.00	1	.5	.5	99.5
10.00	1	.5	.5	100.0
Total	221	100.0	100.0	

total participation in team sports recoded into 2 variables

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-7 years involvement	194	87.8	87.8	87.8
8-16 years of involvement	27	12.2	12.2	100.0
Total	221	100.0	100.0	

individual sports participation rounded into 2 categories

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	195	88.2	88.2	88.2
	2.00	26	11.8	11.8	100.0
	Total	221	100.0	100.0	