

## **School Predictors of Athletic and Academic Success**

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**Abstract**

*The purpose of this study was to determine how well specific school-level variables predict a high school's academic and athletic performance. A non-experimental multivariate ex post facto design with correlational methods and group comparisons was employed using Georgia public schools competing in the top three GHSA classifications. Using school-level variables logistic regression accurately predicted academic performance for over 82% of schools. The percentage of minority students, graduation rate, and GHSGT scores were significant predictors in two of three classifications, while the percentage of economically disadvantaged students was not a significant predictor. Significant differences were found between academically high-performing and low-performing schools on athletic department performance in classifications AAA and AAAA using the Mann-Whitney U test. Negative binomial and Poisson regression models significantly predicted athletic department performance. Academic predictors such as GHSGT scores and graduation rate predicted athletic achievement, whereas demographic variables (percentage of economically disadvantaged students and minority students) were significant only in classification AAA.*

**Keywords:** accountability, academic performance, athletic performance

**1. Introduction**

For decades, a debate over the appropriate role of athletics in the school environment was waged between supporters and critics. Supporters of interscholastic athletics argued the health and discipline benefits of athletics made it beneficial for students to participate in order to develop the whole person (Gullick, 1910; Hawes, 1924; Holmes, 1909; Howe, 1923; Pickell, 1920; Robertson, 1937; Wiley, 1925). On the other hand, critics argued athletics brought out the worst in students and the community, siphoned much needed resources away from academics, and negatively impacted the non-athlete (Atkinson, 1939; Booth, 1928; Gould, 1920; Hall, 1905; Pangle, 1956; Parlin, 1903; Prettyman, 1905; Tawney, 1904; Wade, 1909; Waldo, 1903).

As interscholastic athletics became more acceptable, the debate turned to the effects of athletics on academic success. Studies began to focus on whether athletic participation positively or negatively affected the academic performance of a student-athlete (Broh, 2002; Coleman, 1961; Eitle & Eitle, 2002; Hanks & Eckland, 1976; Hauser & Lueptow, 1978; Linnenbrink & Pintrich, 2002; Lipscomb, 2006; Maloney & McCormick, 1993; Picou, 1978; Purdy, Eitzen, & Hufnagle, 1982; Spady, 1970; Spreitzer & Pugh 1973). In a majority of studies, athletic participation was found to have at least some level of positive affect on academic performance of student-athletes.

Many studies have profiled the effect of socioeconomic resources on academic performance (Bond; 1981, Chudgar & Luschei, 2009; Duncan & Magnuson, 2005; Epps, 1995; Ream & Palardy, 2008; Sirin; 2005). A majority of studies found socioeconomic status of the student body to be an important predictor of academic performance. This is true at the school level and individual student level. A positive correlation was also found between SES and athletic performance (Brady & Sylwester, 2004; Heeter, 2011; Monaghan, 2012; Rosen, 2011).

Several studies have found the size of a school's enrollment often predicts academic and athletic performance (Fowler & Walberg, 1991; Kershaw and Blank, 1993; Kuziemko, 2003; Robinson-Lewis, 1991; Sander, 1993; Walberg, 1992; Walberg & Walberg, 1994). Academically, the target enrollment size found to produce the best academic achievement was between 600-900 students (Lee & Smtih, 1997). However, in this study, schools compete athletically within GHSA classifications which are based on enrollment size.

The effects of racial demographic characteristics on a school's academic performance have been studied primarily in relation to achievement gaps (Harris, 2007; Kim & Sunderman, 2007; Strutchens, Lubienski, McGraw, & Westbrook, 2004). Studies generally find gaps between White and minority students in many facets of academic performance including standardized testing and graduation rates. Athletically, participation gaps exist between White and minority students as well (Comeaux & Harrison, 2004; Eitle & Eitle, 2002; Lapchick & Mathews, 1999; Price, 1997). Schools lacking racial diversity often find it difficult to field competitive teams in all sports.

The number of students with disabilities enrolled at a school was found to affect a school's overall academic performance (Cawthon, 2007; Eckes & Swando, 2009). The requirements of accountability measures place very high standards of achievement on students with disabilities that schools often struggle to meet. However, students with disabilities who are physically capable often participate in interscholastic athletics (Fetter-Harrott & Steketee, 2008; Simeonsson, Carlson, Huntington, McMillen, & Brent, 2001). Indeed, it is not uncommon for students with disabilities to excel in athletics.

## **2. Statement of the Problem**

The vast majority of high schools in the country participate to some extent in interscholastic athletic competitions (National Federation of State High School Associations, 2011). Beginning in the 1980s, school districts began to place academic prerequisites on athletic participation (Bukowski, 2001). Theoretically, the implementation of these "no pass-no play" rules linked athletic achievement to academic achievement. Many studies that have investigated the intersection of academics and athletics focused on how athletic participation affects or predicts the academic achievement of individual student-athletes (Broh, 2002; Coleman, 1961; Eitle & Eitle, 2002; Hanks & Eckland, 1976; Hauser & Lueptow, 1978; Linnenbrink & Pintrich, 2002; Lipscomb, 2006; Maloney & McCormick, 1993; Picou, 1978; Purdy, Eitzen, & Hufnagle, 1982; Spady, 1970; Spreitzer & Pugh 1973). Other studies have been conducted comparing athletic participation at the high school or college level with various other academic-related outcomes such as social determination (Chase & Dummer, 1992; Guest & Schneider 2003), dropout rates (McNeal, 1995), college graduation rates (Long & Caudill, 1991; Mangold, Bean, & Adams, 2003), and expectations for going to college (Otto & Alwin, 1977; Schafer & Rehberg, 1970). Most studies found athletic participation is often correlated with positive academic outcomes for a wide variety of reasons. However, no studies comparing school-level variables that affect the academic and athletic achievement of a high school have been identified.

## **3. Purpose of the Study**

The purpose of this study was three-fold. First, we investigated whether selected school-level variables could predict the overall academic performance of Georgia public high schools (GHSAs classifications AAA, AAAA, and AAAAA). Second, we examined whether there was a significant difference between academically high-performing schools and academically low-performing schools in athletic achievement. Finally, we investigated whether selected school-level variables could predict athletic department performance.

## **4. Research Questions**

The following questions guided this study:

1. Are selected school level variables (percentage of minority students; percentage of students with disabilities; percentage of economically disadvantaged students; math and English/Language Arts GHSAT scores; graduation rate) significant predictors of a school's academic performance?

2. Is there a significant difference between high performing and low performing schools on the total number of Directors Cup points earned in boys football, basketball, baseball, and track and in girls basketball, track, softball, and soccer?
3. Are selected school-level variables (percentage of minority students; percentage of students with disabilities; percentage of economically disadvantaged students; math and English/Language Arts GHSGT scores; graduation rate) significant predictors of a school's total Directors Cup points earned in boys football, basketball, baseball, and track and in girls basketball, track, softball, and soccer?

## **5. Methodology**

### **5.1 Research Design**

A nonexperimental, ex post facto design with correlational methods and group comparisons was used to answer the research questions in this study. These methods allowed the researcher to explore the differences between high and low performing schools and to identify the variables most likely to predict group membership. This design was employed since variables could not be manipulated, samples could not be randomized, and the events happened in the past.

The independent variables (i.e., predictor variables) were the percentage of minority students, percentage of students with disabilities, percentage of economically disadvantaged students, combined math and English/Language Arts GHSGT scores, and the graduation rate. GHSGT scores were reported as the sum of the percentage of students who met or exceeded standards on the Math and Language Arts tests. The dependent variables were academic performance, Directors Cup points, and playoff performance. As nominal-level data, academic performance was coded 1 for high-performing schools and 0 for low-performing schools. The Directors Cup points are ratio-level data and were reported as the total number of points earned by each school.

Eight individual sports were chosen for analysis (football, baseball, boys and girls basketball, boys and girls track, girls soccer, and softball). These eight sports are the top four boys and girls sports as measured by participation. The points awarded to each school in six of the individual sports included in this study were based upon how far a team advanced in the playoffs for that particular sport. Points were awarded at intervals of 25 points for round 1, 53 points for round 2, 70 points for the quarter finals, 83 points for the semifinals, 90 points for the runner up, and 100 points for winning the state championship. The Directors Cup points for six of those sports were converted to counts of the number of playoff games the teams appeared in. Boys and girls track points were earned at the state track finals based upon how well the teams performed in the different events. Count data based upon the number of events each school placed at the state finals were collected.

### **5.2 Participants**

The population included all Georgia public high schools competing in the GHSA classifications AAAAA, AAAA, and AAA during three academic years. The GHSA bases these divisions on student population numbers. Schools in AAAAA had a student population greater than 1,850 students. Small schools with fewer than 525 students competed in Class A. The GHSA evenly distributed the rest of the schools between AA, AAA, and AAAA. The mean population during the years covered by this study was 2,201 students for schools in AAAAA, 1,593 students for AAAA, and 1,192 students for AAA. Classifications AA and A were excluded from the study due to the large numbers of private schools in those divisions. Private schools were not bound by the same accountability restrictions and therefore did not fit in the study.

### 5.3 Data Collection

Data were collected from three main sources: the Accountability Report Cards for each school as reported by the Georgia Department of Education (GaDOE), National Center for Education Statistics (NCES), and the Directors Cup rankings as reported by the GADA. Each school's accountability report card provided a detailed view of the school's GHSGT results by subgroup, graduation rate by subgroup, and GHSGT participation rate. Accountability reports for all schools in Georgia were published on the GaDOE website.

### 5.4 Data Analysis

Three different statistical procedures were employed to answer the research questions. First, logistic regression was used to determine whether school-level variables could predict academic performance. Second, the Mann-Whitney U test was used to determine whether there was a significant difference between high-performing schools and low-performing schools on the number of Directors Cup points earned. This statistical procedure was used rather than the *t* test of independent means due to the nonnormality of the Director Cup points. Finally, two types of regression (i.e., negative binomial regression and Poisson regression) were used to identify whether school-level variables could predict total Directors Cup points and playoff performance in each of the selected sports. Ordinary Least Squares Regression was first considered, however the data are nonnegative integer count data. As is often an issue with counts, the data violated the assumptions of normal distribution and homoscedasticity.

The choice between which type of regression analysis to employ was based on model fit estimates. Model fit estimates were calculated by dividing the Pearson's chi-square value by the degrees of freedom. In most cases, the negative binomial model was a better fit due to over dispersion. When data is over dispersed, negative binomial regression is the better choice (Zawacki, Marsinko, & Bowker, 2000). Poisson regression was used in the instances where the data were not over dispersed or when the validity of the model fit values for the negative binomial model was uncertain.

## 6. Results

Logistic regression was used to determine whether selected school-level variables (i.e., percentage of minority students, percentage of students with disabilities, percentage of economically disadvantaged students, math and English/Language Arts GHSGT scores, and graduation rate) predicted the academic performance of schools that competed in GHSA classifications AAA, AAAA, and AAAAA. The logistic regression model was significant for each classification. The model correctly predicted more than 82% of cases in each classification (see Table 1). The percentage of minority students and graduation rate were significant predictors for schools in AAA and AAAAA, while GHSGT scores were a significant predictor for schools in AAA and AAAA. In addition, the percentage of students with disabilities was a significant predictor for schools in AAAAA. The percentage of economically disadvantaged students was not a significant predictor for schools in any classification.

**Table 1**

*Summary of Logistic Regression Analysis for Variables Predicting a School's Academic Performance for Schools Competing in Classifications AAA, AAAA, and AAAAA*

Variable	B	SE	Sig.	OR	95% Confidence Interval	
					LL	UL
<b>Minority Students</b>						
AAA	0.05	0.02	.008	1.06	1.01	1.10
AAAA	0.01	0.02	.366	1.02	0.98	1.05
AAAAA	0.13	0.06	.023	1.14	1.02	1.27
<b>SWD</b>						
AAA	-0.03	0.15	.840	0.97	0.73	1.29
AAAA	-0.26	0.19	.158	0.77	0.54	1.11
AAAAA	-1.82	0.90	.043	0.16	0.03	0.94
<b>EconDis Students</b>						
AAA	-0.03	0.04	.380	0.97	0.90	1.04
AAAA	-0.01	0.04	.801	0.99	0.91	1.07
AAAAA	-0.05	0.06	.390	0.95	0.84	1.07
<b>GHS GT Scores</b>						
AAA	0.21	0.07	.003	1.24	1.08	1.43
AAAA	0.11	0.06	.047	1.12	1.00	1.25
AAAAA	0.18	0.11	.101	1.20	0.97	1.49
<b>Graduation Rate</b>						
AAA	0.13	0.05	.012	1.14	1.03	1.27
AAAA	0.06	0.05	.195	1.06	0.97	1.17
AAAAA	0.37	0.14	.007	1.44	1.10	1.89

*Note.* LL = lower limit; UL = upper limit; Minority Students = percentage of students identified as minority; SWD = percentage of students with disabilities; EconDis Students = percentage of economically disadvantaged students as identified by eligibility for free/reduced lunch; GHS GT Scores = sum of the percentages of students who met or exceeded state standards on the Math and English/Language Arts portions of the GHS GT.

Table 2 presents the results of the Mann-Whitney U test which was used to determine whether there was a significant difference between academically high-performing and low-performing schools on athletic performance (i.e., Directors Cup points). The Mann-Whitney U test was conducted with the four most popular boys and girls sports (football, boys and girls basketball, boys and girls track, baseball, softball, and girls soccer) in GHSA classifications AAA, AAAA, and AAAAA. Mann-Whitney U test revealed that there was a significant difference between high-performing and low-performing schools in classification AAA and AAAA on Directors Cup points for baseball and girls soccer. There was also a significant difference between high-performing and low-performing schools in AAAA for girls track and softball.

**Table 2**

Summary of Mann-Whitney U Results for Athletic Performance in High-Performing and Low-Performing Schools Competing in Classifications AAA, AAAA, and AAAAA

	High-Performing Schools		Low-Performing Schools		U	z	Sig.	r
	Median	Mean Rank	Median	Mean Rank				
Directors Cup								
AAA	345.75	47.99	183.00	32.23	1062.00	3.06	.002	.35
AAAA	332.50	57.88	171.50	32.96	1543.00	4.55	.000	.48
AAAAA	501.50	33.88	333.15	26.64	556.00	1.60	.110	.21
Football								
AAA	0.00	40.83	0.00	38.36	804.00	0.56	.577	.06
AAAA	0.00	46.28	0.00	43.80	1044.00	0.53	.594	.06
AAAAA	0.00	27.80	25.00	33.59	361.50	-1.36	.175	-.18
Boys Basketball								
AAA	0.00	38.00	0.00	40.79	702.00	-0.62	.534	-.07
AAAA	0.00	44.63	0.00	45.35	973.00	-0.15	.878	-.02
AAAAA	25.00	30.69	0.00	29.23	455.50	0.35	.725	.05
Baseball								
AAA	25.00	45.24	0.00	34.58	963.00	2.33	.020	.26
AAAA	0.00	49.93	0.00	40.39	1201.00	2.06	.040	.25
AAAAA	12.50	29.81	12.50	31.29	426.00	-0.35	.725	-.05
Boys Track								
AAA	0.00	43.57	0.00	36.01	903.00	1.75	.080	.20
AAAA	0.00	46.64	0.00	43.47	1059.50	0.68	.496	.07
AAAAA	19.00	32.77	0.00	27.91	520.50	1.13	.257	.15
Girls Basketball								
AAA	0.00	40.99	0.00	38.23	810.00	0.62	.534	.07
AAAA	0.00	45.57	0.00	44.47	1013.50	.237	.812	.03
AAAAA	25.00	30.69	25.00	30.29	454.00	0.10	.924	.10
Girls Track								
AAA	7.00	43.64	0.00	35.95	905.00	1.71	.088	.19
AAAA	0.00	52.72	7.33	37.78	1321.00	3.18	.001	.34
AAAAA	15.00	30.48	11.00	30.52	447.50	-0.01	.994	-.00
Softball								
AAA	0.00	41.58	0.00	37.71	831.00	0.87	.384	.10
AAAA	0.00	50.21	0.00	40.13	1213.00	2.19	.028	.23
AAAAA	25.00	30.06	25.00	31.00	434.00	-0.22	.826	-.03
Girls Soccer								
AAA	25.00	47.83	0.00	32.36	1056.00	3.46	.001	.39
AAAA	0.00	52.42	0.00	38.07	1308.00	3.09	.002	.33
AAAAA	25.00	33.81	0.00	26.71	554.00	1.68	.093	.22

Note: U = Mann-Whitney U; z = standardized test statistic; Sig. = asymptotic significance; r = effect size.

Table 3 presents the results of the count model regression analyses (i.e., negative binomial and Poisson regression models) which were generated to determine whether the selected school-level variables (i.e., percentage of minority students, percentage of students with disabilities, percentage of economically disadvantaged students, math and English/Language Arts GHSAT scores, and graduation rate) predicted the athletic performance (i.e., Directors Cup points) for schools that competed in GHSA classifications AAA,



AAAA, and AAAAA. The regression analyses were conducted with the most popular boys and girls sports (football, boys and girls basketball, boys and girls track, baseball, softball, and girls soccer). Although not presented here, the regression models were significant for baseball, boys and girls track, softball, and girls soccer in each classification. Boys basketball was significantly predicted in classifications AAA and AAAA. The regression models were not significant for football or girls basketball.

In order to cross-validate the regression models, models were generated from the two previous school years. The models were significant for total Directors Cup points (see Table 3). Although not presented here, the models were significant for softball and girls soccer in all three classifications each year. The models were significant for baseball for classifications AAA and AAAA all three years. The models were also significant for baseball during 2 of 3 years for classification AAAAA. The models were significant for boys and girls track during all 3 years in classifications AAA and AAAAA and for 2 of 3 years in classification AAAA. The models were significant for boys basketball in a few instances, but the findings were inconsistent. The models were not significant for football or girls basketball in any classification during any year.

**Table 3**

*Comparisons of Negative Binomial Regression Models on Total Directors Cup Points across School Years*

	Current Year			Validation Year 1			Validation Year 2		
	B	<i>p</i>	OR	B	<i>p</i>	OR	B	<i>p</i>	OR
<b>AAA</b>									
Overall Model		.000			.000			.000	
Minority Students	.01	.024	1.01	.01	.001	1.01	.01	.071	1.01
SWD	-.01	.835	1.00	-.03	.056	0.97	-.02	.307	0.98
EconDis Students	-.01	.049	0.99	-.02	.000	0.98	-.02	.001	0.98
GHS GT Scores	.03	.000	1.03	.04	.000	1.05	.04	.000	1.04
Graduation Rate	.02	.040	1.02	-.02	.067	0.98	-.00	.691	1.00
<b>AAAA</b>									
Overall Model		.000			.000			.000	
Minority Students	.01	.031	1.01	-.01	.134	0.99	-.00	.485	1.00
SWD	.03	.522	1.03	-.05	.153	0.96	-.01	.781	0.99
EconDis Students	-.02	.011	0.98	.00	.963	1.00	-.01	.146	0.99
GHS GT Scores	.03	.000	1.03	.03	.000	1.03	.03	.000	1.03
Graduation Rate	.01	.336	1.01	.02	.131	1.02	.01	.466	1.01
<b>AAAAA</b>									
Overall Model		.000			.000			.000	
Minority Students	-.01	.326	0.99	.00	.980	1.00	-.01	.051	0.99
SWD	-.03	.559	0.97	.04	.246	1.04	.07	.039	1.07
EconDis Students	.00	.683	1.00	-.01	.117	0.99	.00	.658	1.00
GHS GT Scores	.02	.000	1.03	.02	.121	1.02	.00	.561	1.00
Graduation Rate	.03	.017	1.03	.03	.314	1.03	.06	.000	1.07

*Note:* Minority Students = % of students identified as minority; SWD = % of students with disabilities; EconDis Students = % of economically disadvantaged students as identified by eligibility for free/reduced lunch; GHS GT Scores = sum of the % of students who met or exceeded state standards on the Math and English/Language Arts portions of the GHS GT; Graduation Rate = % of students who graduated with their cohort.



## **7. Discussion of Findings**

The percentage of minority students, percentage of students with disabilities, percentage of economically disadvantaged students, math and English/Language Arts GHS GT scores, and graduation rate were examined in the context of academic and athletic performance at the school-level. The study focused on three points. The study sought to determine the predictive value of the predictor variables in relation to a school's academic performance. It also sought to determine if a significant difference existed between academically high-performing and low-performing schools in terms of athletic performance. The study also determined the predictive value of the variables on athletic performance.

The results of this study found the predictor variables were able to accurately predict academic performance for over 82% of schools and also explained much of the variance. The percentage of minority students, graduation rate, and GHS GT scores were significant predictors in two out of the three classifications included in this study. These results support the findings of Balfanz, Legters, West, and Weber (2007), Harris (2007), and Kim and Sunderman (2005) on the role of racial demographics on a school's academic performance.

Surprisingly, the percentage of economically disadvantaged students was not a significant predictor. This result supports the findings of Kober, McMurrer, Silva, and Rentner (2011) and Mayer and Jencks (1989) on schools with higher percentages of economically disadvantaged students. A survey of accountability report cards on per pupil spending in Georgia revealed that schools with higher percentages of economically disadvantaged students also spent the most money per student (GaDOE, 2011). The findings support the assertion that made by Kober, McMurrer, Silva, and Rentner (2011) that the additional resources brought in from federal and state agencies help offset the deficiencies inherent in poorer communities in terms of academic performance.

The results of this study found significant differences between high-performing and low-performing schools in terms of overall athletic performance in GHSA classifications AAA and AAAA. Academically high-performing schools were generally more successful athletically when all sports were taken into account in the smaller classifications. There were no significant differences detected in the most popular boys sports (football and basketball) or in the most popular girls sport (basketball). In the boys sports, a significant difference was only found in baseball (the third most popular boys sport). Soccer (the fourth most popular girls sport) was the only sport where significant differences were found in both classifications.

There were no significant differences between high-performing and low-performing schools in the classification with the largest schools, AAAAA. This finding suggests the enrollment sizes of those schools may weaken the impact of the factors causing the differences.

This study found the negative binomial and Poisson regression models containing the school-level predictor variables were significant for overall athletic performance as measured by total Directors Cup points. For the schools in classification AAA, the percentage of economically disadvantaged students and the combined math and English/Language Arts GHS GT scores were significant predictors of athletic performance during each school year. For schools in classification AAAA, the combined math and English/Language Arts GHS GT scores were also significant predictors during that time period. For classification AAAAA, graduation rate was a significant predictor of athletic achievement during 2 of 3 school years. These findings suggest that academically-related predictors (GHS GT scores and graduation rate) and athletic achievement at the school-level are indeed linked.

While the socioeconomic component (percentage of economically disadvantaged students) was a significant predictor of athletic performance for schools in classification AAA, it was not significant for schools in classifications AAAA and AAAAA. This was true in the several of the popular sports as well. The socioeconomic component was usually a significant predictor of success for those sports in

classification AAA, but rarely in the upper classifications. Since the lower classifications A and AA were excluded from this study, it does not definitively contradict Brady and Sylwester (2004) or Powell, Slater, Chaloupka, and Harper (2006). It is possible that the effects of the percentage of economically disadvantaged students on athletic achievement were mitigated in some way by the higher enrollment numbers at schools that compete in those higher classifications.

Similarly, the percentage of minority students was only a significant predictor of athletic achievement for the smaller schools competing in classification AAA. Again, it is possible the effects of the percentage of minority students are mitigated by the higher enrollments found at the upper classification levels. The percentage of minority students was also not a consistently significant predictor for the selected sports. The percentage of minority students was significant in some cases but not in others. As such, no clear pattern across years or classifications could be established. However, in instances where the percentage of minority students was significant for baseball and softball, a higher percentage of minority students was associated with lower levels of performance in those sports. In all other instances, the percentage of minority students was associated with higher levels of achievement in those sports. These findings support the findings of Comeaux and Harrison (2004), Lapchick and Mathews (1999), and Price (1997).

## **8. Conclusion**

Athletics has been analogized as a school's front porch (Duncan, 2010; Longman, 2009). While a clean and beautiful front porch does not necessarily guarantee the interior of a house is also clean and beautiful, it leaves that impression on passersby. One also would not want to have a dilapidated porch on the front of a mansion (McCullum, 2009). Similarly, athletic performance is often the most visible aspect of a school. Press coverage of athletics is increasing, accounting for a large amount of exposure for schools (Popke, 2001). While having winning sports teams does not necessarily mean the school's academic performance is also high, it gives the impression that the school is a winner. It makes sense from a public relations standpoint not only to be perceived as academically high-performing, but athletically competitive as well.

Academics and athletics should not be mutually exclusive (Mull, 2015). The results of this study show they are intertwined. This study discovered significant differences between high-performing schools and low-performing schools that competed in GHSA classifications AAA and AAAA in the performance of their athletic departments. Academically high-performing schools generally had more successful athletic departments. Academically low-performing schools tended to struggle to compete athletically. While there was little difference in the most popular sports between high and low-performing schools, the differences were more pronounced in sports with lower participation rates such as baseball, softball, and girls soccer. No significant differences were discovered in the highest classification. It is possible that the larger enrollment sizes of the schools in that classification could be a mitigating factor.

The selected school-level variables were found to predict overall academic and athletic performance. These variables should be thoroughly understood by building-level leaders and athletic directors. When variables that are associated with low-performance in the classroom or on the athletic field are present in a school, leadership must take steps to circumvent the negative effects of that variable in order to improve performance (Fornaciari, 2015). Understanding those variables and finding ways to minimize their effects is crucial in moving forward.

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