

Middle School Athletics

A Summary of Academic Outcomes in 2014—2015

Austin Independent School District

Purpose

The vision of Austin Independent School District's (AISD's) Athletics Department is to instill a passion for lifelong learning in all student-athletes through the development of athletic programs at the elementary, middle, and high school levels. To monitor progress toward this goal, academic outcomes for middle school student athletes and non-athletes in the 2014—2015 school year were analyzed. Two major evaluation questions were explored:

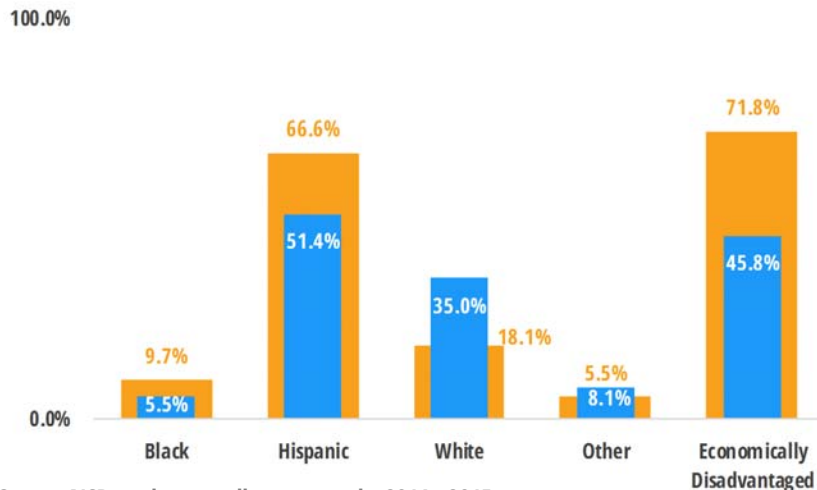
Were there differences in attendance, disciplinary, and State of Texas Assessments of Academic Readiness (STAAR) testing outcomes between middle schools with and without a scheduled athletics period?

Were there differences in attendance, disciplinary, and STAAR testing outcomes between athletes and non-athletes?

Demographics

Significant demographic differences were found between middle schools offering athletics periods and those that did not. Middle schools offering an athletics period had a significantly lower percentage of students who were categorized as economically disadvantaged (46%) compared with those not offering an athletics period (72%).

Figure 1
Middle schools offering an athletics period during the school day had a significantly lower percentage of students who were categorized as economically disadvantaged than **middle schools that did not offer an athletics period** during the school day.



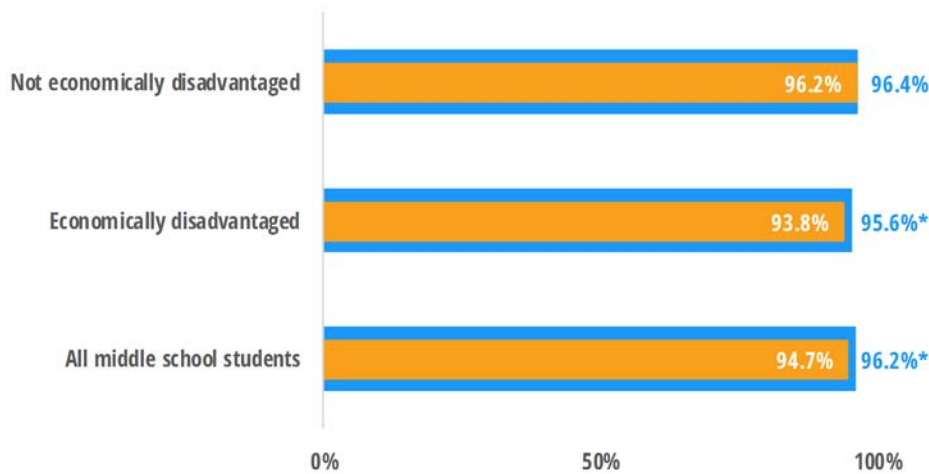
Source. AISD student enrollment records, 2014—2015

* $p < .05$

Attendance

Middle schools that offered a scheduled athletics period during the day and students who enrolled in athletics periods experienced positive student attendance outcomes. The overall student attendance rate of schools offering a scheduled athletics period was significantly higher (95.6%) than the overall student attendance rate of schools that did not offer a scheduled athletics period (94.2%). Within schools offering athletic periods, the attendance rate for student athletes was significantly greater than for students not enrolled in an athletics period, and student enrollment in athletics periods appeared to moderate the significant influence of student economic disadvantage status on attendance (Figure2).

Figure 2
Overall, **student athletes** had a significantly greater attendance rates than did **non-athletes**, and participation in athletics had a significant positive influence on the attendance rates of students who were categorized as economically disadvantaged.



Source. AISD student attendance records, 2014—2015

* $p < .05$

Discipline

Middle schools with scheduled athletics periods during the day and student athletes experienced positive disciplinary outcomes. The percentage of students with disciplinary infractions in schools with scheduled athletics periods was significantly lower (19.3%) than the percentage of students in schools without schedule athletics periods (30.5%). The percentage of athletes who had one or more disciplinary infractions was significantly lower than the percentage of non-athletes with one or more disciplinary infractions. Enrollment in an athletics period appeared to influence disciplinary outcomes for students categorized as economically disadvantaged; these athletes were significantly less likely to have disciplinary infractions than were non-athletes (Figure3).

Understanding the Data

Ten AISD middle schools, serving 6,075 students, offered an athletics period during the school day, and seven middle schools, serving 4,260 students, did not offer a scheduled athletics period in 2014—2015. In this report, the term *athlete* (n=2,557) refers to a student who was in 7th or 8th grade and enrolled in an athletics period during the school day. The term *non-athlete* (n=3,517) refers to a student who was not enrolled in an athletics period during the school day.

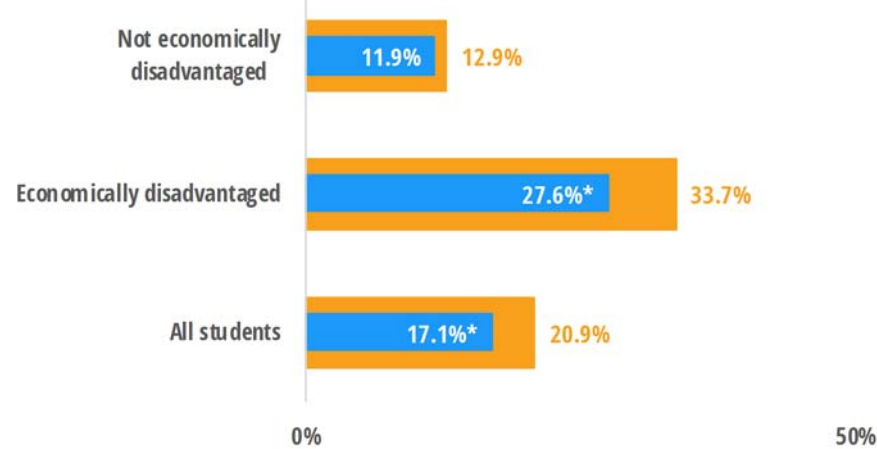
This report describes the academic outcomes of those who participated in athletics compared with the outcomes of those who did not participate. Department of Research and Evaluation (DRE) staff analyzed students' attendance, discipline, and STAAR test data using descriptive statistics and regression analyses.

Results from this study should be interpreted with caution. Student participation in athletics scheduled outside the school day may not be captured in this study. Additionally, variables used in the regression analyses were not all inclusive. Factors not included in the analyses may have influenced students' academic outcomes.



Figure 3

Overall, the percentage of **athletes** who had one or more disciplinary infractions was significantly lower than for **non-athletes**, and economically disadvantaged athletes were significantly less likely to have disciplinary infractions than were **non-athletes** who also were economically disadvantaged.



Source. AISD student attendance records, 2014—2015

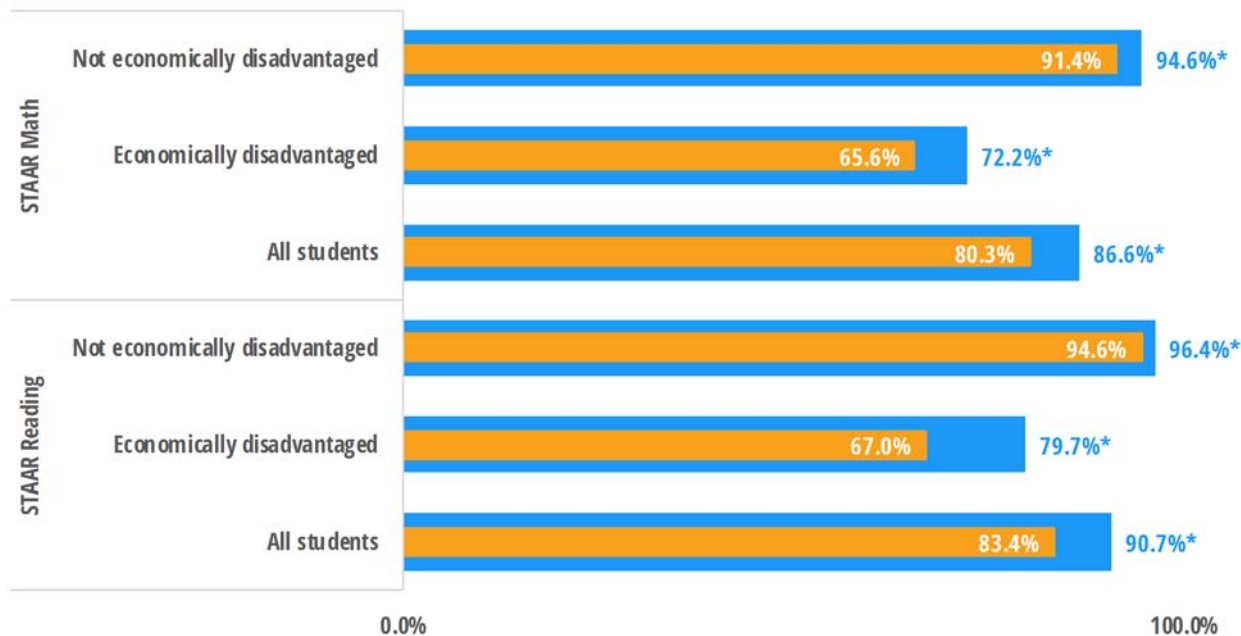
* $p < .05$

STAAR Reading and Math Assessments

Athletics participation positively influenced student outcomes on the STAAR reading and math tests (Figure 4). The overall percentages of students meeting the state standard on the STAAR reading and math tests were significantly greater for middle schools that offered scheduled athletics periods (83.1%) than for schools that did not provide scheduled athletics periods (70.0%). Within schools offering athletic periods, significantly greater percentages of student athletes than non-athletes met the state standard on the STAAR reading and math tests.

Figure 4

Student athletes had significantly greater passing rates on the STAAR reading and math tests than did **non-athletes**.



Source. AISD STAAR reading and math records, 2014—2015

* $p < .05$

Research Literature

Many research studies consistently report positive academic outcomes for students who participate in athletics. Lumpkin and Achen (2014) found athletes had higher school attendance rates, graduation rates, state assessment scores, and lower dropout rates than did non-athletes. Additional researchers also asserted academic success (evidenced by grades, time on homework, and educational aspirations) was related to both physical activity and participation on sports teams (Fox, Barr-Anderson, Neumark-Sztainer, & Wall, 2010). Trudeau and Shephard (2008) indicated that sports are “more likely to benefit academic performance if offered in school rather than in other sport contexts” (p.7). Additionally, Bowen and Green (2014) found sports participation included cognitively and organizationally demanding activities that developed students’ self-discipline and leadership skills and was especially helpful for students from disadvantaged backgrounds. However, the relationship between athletics participation and academic performance has not been fully explained (Gould & Shields, 2014). This relationship may include other variables in the sports environment (e.g., self-selection and the emphasis on school values, sense of connectedness, development of life skills, and student sponsorship).

Conclusion

While this study was not structured to determine causality and not all influences on student learning were identified, positive relationships between athletics participation and student academic success were found and were consistent with findings from previous research studies. Based on these findings, as well as other research in this area showing the benefits of athletics participation, increased opportunity to participate in athletics should be created at all schools. Student participation in athletics should be encouraged, especially for those who are economically disadvantaged.

References

- Bowen, D. & Green, J. (2014). *Does athletic success come at the expense of academic success?* Retrieved from <http://www.uaedreform.org/wp-content/uploads/2000/01/Bowen-and-Greene-Athletic-Success-at-the-Expense-of-Academic-Success.pdf>
- Fox, C., Barr-Anderson, D., Neumark-Sztainer, D., & Wall, M. (2010). Physical activity and sports team participation: Associations with academic outcomes in middle school and high school students. *Journal of School Health*, 80 (1), 31–37
- Gould, D. & Shields, A. (2014, September). “Sports for All”—Summary of the evidence of psychological and social outcomes of participation. *Elevate Health*, 15 (3), 3–11
- Lumpkin, A. & Achen, R. (2014). *Participation in interscholastic sports: Do the academic performances of athletes and non-athletes differ?* Lawrence, KS: Department of Health, Sport, and Exercise Sciences, University of Kansas.
- Trudeau, F. and Shephard, R. (2008). Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity*, 5(10). Retrieved from <http://ijbnpa.biomedcentral.com/articles/10.1186/1479-5868-5-10>

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