# Does Athletic Success Come at the Expense of Academic Success?

*By Jay P. Greene* 02/06/2013

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The path-breaking sociologist, James Coleman, was not a fan of high school sports. He thought the culture of athletic prowess swamped the culture of academic success. Schools should get rid of sports and channel that competitive spirit into inter-scholastic academic contests, like Quiz Bowl.

But James Coleman also believed that the enhanced social capital produced by church attendance was key to the success of Catholic schools. The adults would get together at church, share information about their kids and school, and thus be better positioned to work together to improve their school academically. The adult culture of academic success could prevail more easily if the adults were better connected with each other by seeing each other on a regular basis at church.

But maybe high school sports are the secular equivalent of church. Perhaps Friday night football is an event, like church, that gathers parents, allows them to share information about their kids and school, and more effectively work together to improve their school.

So which James Coleman is right? Is it the one who fears athletic success subordinating academic success or the one who thinks social capital is the key to school improvement?

Dan Bowen and I decided to examine this issue with an analysis of Ohio high schools. We look at whether high schools that give greater priority to athletic success do so at the expense of academic success. The results of our analysis are in the current issue of the *Journal of Research in Education*.

We found that high schools that devote more energy to athletic success also tend to produce more academic success. In particular, we looked at whether high schools with a higher winning percentage in sports also had higher test scores as well as higher rates of educational attainment. We also looked at whether high schools that offered more sports and had a larger share of their student body participating in sports also tended to have higher test scores and higher attainment.

Using several different specifications, we find that higher rates of athletic success and participation were associated with schools having higher overall test scores and higher educational attainment, controlling for observed school inputs. For example, we found:

> With regard to attainment, a 10 percentage point increase in a school's overall winning percentages associated with a 1.3 percentage point improvement in its CPI, which is an estimate of its high school graduation rate.

We also looked at whether schools that offered more opportunities to participate in sports had different rates of attainment:

> When we only examine winter sports, an increase of one sport improves CPI by 0.01, which would be a 1 percentage point increase in the high school graduation rate. For the winter, the addition of 10 students directly participating in sports is associated with a 0.015 improvement in CPI, or a 1.5% increase in high school graduation rate.

In addition to attainment, we also looked at achievement on state tests:

> We observe similar positive and statistically significant relationships between the success and participation in high school sports and student achievement as measured by the Ohio standardized test results. A 10 percentage point increase in overall winning percentage is associated with a 0.25 percentage point increase in the number of students at or above academic proficiency. (See Table 4) When we examine the effect of winning percentage in each sport separately, once again winning in football has the largest effect. Girls' basketball also remains positive and statistically significant (at $p < 0.10$), but boys' basketball is not statistically distinguishable from a null effect.

Lastly, we looked at the effect of participation rates in Ohio high schools on overall student achievement:

> As for participation and achievement, the addition of one sport increases the number of students at or above academic proficiency by 0.2 of a percentage point. The addition of 10 students directly participating in a sports team improves the proportion of students at or above proficient by 0.4 of a percentage point. Both of these results are statistically significant at $p < 0.01$. (See Table 5) When examining just the winter season, adding one winter sport increases the percentage of students performing proficiently by 0.4 of a percentage point, while an additional 10 student able to directly participate in sports during the winter season relates to a 0.6 percentage point increase in students at or above proficiency (see Table 5)

It is a common refrain among advocates for education reform that athletics "have assumed an unhealthy priority in our high schools." But these advocates rarely offer data to support their view. Instead, they rely on stereotypes about dumb jocks, anecdotes, and painful personal memories as their proof.

Our data suggest that this claim that high school athletic success comes at the expense of academic success is mistaken. Of course, we cannot make causal claims based on our analyses about the relationship between sports and achievement. It's possible that schools that are more effective at winning in sports and expanding participation are also the kinds of schools that can produce academic success. But the evidence we have gathered at least suggests that any trade-offs between sports and achievement would have to be subtle and small, if they exist at all. Descriptively, it is clear that high schools that devote more energy to sports also produce higher test scores and higher graduation rates.

I guess James Coleman was right — er, I mean, the James Coleman who focused on social capital, not the other one who feared the culture of athletic competition.

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