McCormick and Tinsley explore the relationship between big time athletics and academic achievement, by looking at how athletics programs affect average SAT scores. They cite several instances in which winning athletics programs acted as advertisement campaigns for institutions—and applicant pools increased for schools following a season of high-profile athletic achievement. They utilize a regression model which takes average SAT scores as a function of big time athletic status (measured as a dummy variable taking on a value of one if the school is a member of one of the big-time conferences), while controlling for various measures of university quality. The data used is 1971 data for 150 different programs. The model is defined as follows:

\[
\text{Average ACT scores of entering freshmen} = f(\text{Sports dummy, Tuition, Volumes in Library, Salary of full professors, Age of the University, Private school dummy, Student/Faculty ratio, Total enrollment, Endowment per-capita, Number of Ph.D.'s awarded per faculty, male proportion of undergraduate enrollment})
\]

The authors use a second model which explains average SAT scores as a function of school quality-measuring variables and football win percentage over the years 1971-1984—for athletic conference members only. The model is defined as follows:

\[
\text{Change in SAT scores of incoming freshmen} = f(\text{football winning percentage, change in student/faculty ratio, private school dummy, change in in-state tuition, change in out-of-state tuition, change in library volumes, change in enrollment})
\]

They find that both big time status and win percentage have a positive and significant effect on average SAT scores; these results suggest that athletics do have a positive impact on academics, and indeed, the two go hand and hand.

The data on test scores is obtained from Peterson’s Annual Guide to Undergraduate Study, and Peterson’s Annual Guide to Undergraduate Study: Four Year Colleges. Where data on ACT rather than SAT scores is available, they use an ACT-SAT conversion equation developed by Langston and Watkins (1980).