Investigating Trends in Division I Sports and Academics

Summary:

Studies have demonstrated that physically active people are not only healthier but also perform better on tests of cerebral or intellectual ability. Thus, our investigation focused on assessing the correlation between sports involvement and academic performance.

How does academic performance vary between different sports?

As determined by the construction of a bar chart of 2019 Average Academic Performance Rate by Sport, the average APR scores were consistently high with all averages above 960. In addition, for 2019, Women's Skiing and Women's Lacrosse had the highest APR averages while Football and Men's Basketball had the lowest averages. A parallel analysis of average APR scores for 2009 showed that average scores were generally similar with slightly lower scores for many sports. Women's Sand Volleyball was not included in analysis in 2009 while Football and still Men's Basketball had the lowest averages and Women's Skiing, Women's Lacrosse, and Women's Field Hockey had the highest APR averages. This shows that academic performance among sports remained relatively consistent from 2009 to 2019.

Are there any significant differences between academic performance based on gender?

A comparison of average academic performance rates among Division 1 sports for 2019 suggests that women scored higher than men for every single sport included in the analysis suggesting that women achieved better academic performance in terms of APR score. A 2009 gender comparison among sports (Hockey was also included in 2009 but not included in 2019) showed that women achieved better academic performance in terms of APR score in all sports except for fencing in which men had a higher average score.

How does the academic performance of student athletes compare with student bodies as a whole?

For this analysis, we did not have academic performance rate data available for the general student body as APR is a NCAA metric that is solely used for athletes. Thus, we used graduation rate as our metric for comparison. This analysis revealed that compared to the general student body, student athletes showed higher average graduation rates compared to the student body. In particular, we conducted a 2 sample t-test to test whether there was a significant difference between average graduation rates of student athletes and the student body. Since our p-value was less than 0.05, we rejected our null hypothesis and concluded that, in terms of federal academic success rate, there is generally more graduation success amongst student athletes compared to the general student body.