

## **APR and March Madness**

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### **Abstract**

Academic Progress Rates (APR) were examined over a seven year period to determine if teams scores differed between teams that made postseason tournament play and schools that did not make the tournament. An additional examination of team scores sought to determine if scores differed based on the number of tournament appearances by a team. The findings indicated the APR for teams (n=172) that made at least one tournament appearance over the seven year period were significantly higher ( $p < .05$ ) than teams (n=175) that had not made a tournament appearance. In addition, teams with seven appearances (n=8) had a significantly higher APR ( $p < .05$ ) than teams with zero (n=175), one (n=63), or two (n=38) post season appearances. These findings indicated academic success and athletic success were related.

## APR and March Madness

### Introduction

During college basketball's 2013 March Madness, one team was absent from the field of 68 – the University of Connecticut. The Huskies were sanctioned with a post-season ban for the 2012-13 men's basketball season due to a four-year Academic Progress Rates (APR) below the set standard. Connecticut was the first team from a Bowl Championship Series (BCS) conference that received an APR related post-season ban on competition (Himmelsbach, 2012).

The purpose of this study was to explore the relationship between academic and athletic performance amongst men's college basketball teams over the first seven academic years of the APR. The specific research questions were: 1) Did APR scores differ between teams that made the postseason tournament play and teams that did not make the tournament; and 2) Did APR scores differ based on the number of tournament appearances a team had over the seven year period?

### Review of the Literature

#### Graduation Success Rates

The National Collegiate Athletic Association (NCAA) indicated, according to their data, academic success of student-athletes continued to increase year over year and was at an all-time high. The Association proclaimed students who started in 2004 had a Graduation Success Rating (GSR) of 82%. The NCAA also indicated that, of the 105,000 student athletes that entered college between 2001-2002 and 2004-2005, had a GSR each year of at least 80% (NCAA, 2012).

Since, GSR only accounted for full-time scholarship receiving student-athletes, the NCAA's data would have only accounted for slightly more than half of the total number of athletes. Ferris (2004) found that, over a ten-year span of GSR stats, athletes graduated at nearly the same rate as their non-athlete peers. Ferris' findings contradicted those by Purdy (1985) at Colorado State. Purdy concluded academic success of student athletes was less than that of non-athletes. Academic success was even lower among participants in both football and men's basketball, which were generally considered the sports that produced the most revenue in athletic departments.

#### Predicting Academic Success

In addition to examining data about student-athletes, researchers attempted to explore precollege conditions, physical, situational and mental, that could predict academic success in college for student-athletes (Gaston-Gayles, 2004; Sedlacek, 1992; Simon, 1999). Gaston-Gayles (2004) used the Student Athletes Motivation toward Sports and Academics Questionnaire (SAMSAQ) to analyze student-athletes. The findings revealed the best predictors of academic success were ACT scores, ethnicity, and academic motivation. Sedlacek (1992) used the Non-Cognitive Questionnaire (NCQ) with student-athletes and determined a stronger relationship existed between the NCQ and first-semester grades than first-semester grades and SAT scores. The findings led Sedlacek to conclude student-athletes were a unique group of people and should be viewed as nontraditional-students. Student-athletes were similar to a cultural group that shared its own

identity, had a unique upbringing, and underwent similar forms of prejudice and discrimination. In Simon's (1999) attempt to predict academic success using an instrument centered on 'Self-Worth' theory, students were classified as being either success-oriented or failure-avoiders. The conclusion was that success-oriented student-athletes achieved in the classroom and in competition at both the high school and university level, while failure-avoiders did not share that same level of success.

### **Athletics and Academics Correlation**

Another cluster of studies explored the relationship between athletics and academics (Comeaux, 2011; Ferris, 2004; Gaston-Gayles, 2004; Gayles & Hu, 2009; Simon, 1999). The goal of those studies was to establish whether or not it was logical to propose a student-athlete should experience athletic and academic success together. Simons (1999) concluded participants in athletics were either athletically committed or academically committed based on a negative correlation between athletic commitment and GPA. Comeaux (2011) corroborated the work of others and determined student-athletes who were extremely committed to their sport sacrificed academics to maximize athletic success. Again, there was a negative correlation between athletic success and academic success.

Other findings contradicted the work noted above. Ferris (2004) also examined the Sears Directors' Cup standings and those schools' graduation rates. The determination was that good athletic performance and graduation rates did not detract from each other. Gaston-Gayles (2004) echoed those same sentiments having found there was an insignificant relationship between career athletic motivation and academic performance. In addition, there was an insignificant relationship between student athletic motivation and academic performance. Gaston-Gayles (2004) inferred there was no evidence to corroborate previously believed ideas that athletic motivation or the desire to pursue a professional athletic career detracted from academic success. Gayles and Hu (2009) suggested student-athletes who were engaged in academic activities, and doing well with them, were also furthering their successes in competition.

### **Academic Progress Rating**

The APR was a metric designed to track academic achievement for student athletes. First used in 2004, the APR was calculated by a 2-point per athlete assessment. A student-athlete received one retention point for staying in school and one additional eligibility point for being academically eligible. The sum of all points earned for a team's members were then divided by the total possible number of points for a team and then multiplied by 1,000 (NCAA, 2010). If a team scored below 925 and had a student-athlete fail both point criteria, then that team was at risk of losing scholarships (up to a 10% reduction). Teams that scored below 900 faced additional sanctions that increased in severity every year the rating was below 900. The penalties were:

- 1<sup>st</sup> year - A public warning letter for poor performance
- 2<sup>nd</sup> year - Restrictions on scholarships and practice time
- 3<sup>rd</sup> year - Loss of postseason competition for the team
- 4<sup>th</sup> year - Restricted membership status for an institution. The entire institution will not be considered part of Division-1.

Mitigating circumstances allowed for penalties to be delayed, if for example, a school showed a significant improvement from one year to the next but was still be below the minimum standard threshold.

Based on the NCAA's (2012) own data, the APR led to a significant improvement in academic success for teams across the NCAA. The 2012 overall APR (4-year running average) was 973. If a student-athlete returned to school to get a degree, the team received an extra point added to its APR. The NCAA (2012) reported over 9,822 former student-athletes had returned to school to earn their degree. In addition, only 54 of over 8,000 teams had an APR below 900 in the 2012 ratings. The purpose of this study was to explore the relationship between academic and athletic performance amongst men's college basketball teams over the first seven academic years since the APR had been established. The specific research questions were:

- 1) Did APR scores differ between teams that made the postseason tournament play and teams that did not make the tournament?
- 2) Did APR scores differ based on the number of tournament appearances a team had over the seven year period?

### Methods

All data used in this study were retrieved from the NCAA's APR database and the NCAA tournament history database in the Washington Post. The NCAA's website listed each APR score of each school's men's basketball team from the 2004-05 season thru the 2010-11 season. The number of times each team appeared in post-season tournament play during the same timeframe was also recorded. An independent samples t-test was used to determine if APR scores differed between teams that made the postseason tournament play and teams that did not make the tournament at least once over the timeframe used for the study. An ANOVA was used to determine if APR scores differed based on the number of tournament appearances a team had over the seven year period. An Alpha level of .05 was used for all analyses.

### Results

In response to the first question, to determine if APR scores differed between teams ( $n=172$ ) that made the postseason tournament play and teams ( $n=175$ ) that did not make the tournament, teams that did make the tournament had higher APRs ( $M=940$ ,  $SD=27.08$ ) than teams that did not make the postseason tournament ( $M=930$ ,  $SD=32.2$ ). The t-test revealed the difference was significant,  $t(345)=3.23$ ,  $p=.001$ . The results of the second question, to determine if APR scores differed based on the number of tournament appearances a team had over the seven year period, also indicated that differences did exist. The ANOVA revealed the difference was significant,  $F(7,340)=3.708$ ,  $p=.001$ . The results were significant in the APR comparisons of teams with seven appearances and teams with zero, one, and two appearances (see Table 1).

### **Discussion**

For this study, success was defined very carefully for the data to yield credible and reliable results. Thus, it was important to utilize the criterion set by the NCAA (i.e., APR) and men's basketball tournament appearances to define success. APR was selected because it is the most basic metric that each membership institution is evaluated on to determine the progress of student-athletes that compete in NCAA sponsored competition. No other metric was used, as the APR provided the most control in the study to determine if there were any correlations between the examined factors.

Furthermore, there were a couple of reasons tournament appearances was included as a unit of analysis to define athletic success. Previous research (Bremmer & Kesselring, 1993) and men's college basketball coaches have identified success as the number of times a team consistently reaches the NCAA basketball tournament. Comparing wins could have been misleading and very arbitrary because of the vast difference in teams' schedules. As an example, Stony Brook University's schedule is much different than that of Texas A&M's. Thus, it is extremely difficult to control for a team's strength of schedule, as a 20-win season may not represent the same value from school-to-school because of the differences in the level of competition. Wins in the tournament was another possible unit of analysis, but is rather unreliable considering half of the schools are winless each year, and the other half will win between one and six games. Therefore, a comparison that defined success by tournament wins would have potential to produce confounding results.

After establishing APR and tournament appearances as the unit of analyses, the results of the study suggested student-athletes could achieve success on the basketball court as well as in the classroom simultaneously. This was contrary to other studies that indicated a student-athlete could only commit to one or the other (Comeaux, 2011; Purdy, 1985; Simons, 1999).

The current study uncovered several findings. First, men's basketball teams that experienced success on the court academically outperformed teams that were less successful in athletic competition. The finding suggests athletic accomplishments can have a favorable effect on student-athletes and their performance in the class. (Gayles & Hu, 2009). In addition, not only did the teams that made the tournament perform better academically than the teams that failed to appear in the tournament, the results also revealed that, as the frequency of tournament appearances increased, so did the average APR for those teams. The findings of this study support the current literature on sport (Coakley, 2009) and its ability to positively influence the overall development of sport participants. Thus, it is reasonable to suggest that participation in team competition at the highest level of collegiate athletics can play a critical role in student-athletes' understanding of success on and off the court. Furthermore, the positive attributes associated with team sports such as preparation, sacrifice, discipline, hard work, and goal-orientation are also being realized in the class. Success has bred success, as teams that appeared and reappeared in the tournament during the timeframe of this study have improved their academic prowess based on the NCAA's APR metric. Moreover, the findings of the present study suggest there is tremendous value in the participation in college basketball in the NCAA that extends beyond the hardwood. It appears the lessons learned through sport, high profile student-athletes are applying them to other critical areas of their lives.

While the present scholarly examination was designed to spawn further research interest that investigates the correlation between athletic and academic success, there were several limitations presented in this project. One limitation was that the study does not account for coaching changes. A number of colleges and universities have changed coaches at least one time since 2004, when the first APR scores were released. An interesting follow-up study could compare the coaches' APR rates at the old and new schools. Another limitation was the APR metric. A future study could examine graduation and APR rates to determine if athletic success is impacted by either of the two metrics. More research is needed to help strengthen the results of the current study.

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Table 1  
*Academic Progress Rates Based Upon the Number of  
Tournament Appearances*

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Number of Appearances	N	M	SD
0	175	931	32.2
1	63	935	30.4
2	38	936	25.2
3	30	943	26.6
4	13	950	27.9
5	12	947	23.0
6	9	954	17.7
7	8	970	17.9

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