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# Exploring Relationships Between Academic Progress Rates and Team Success

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## Abstract

Academic Progress Rate (APR) was instituted by the NCAA in 2005 to get a real time measure of student's academic progress. The APR is used to measure athlete's academic progress at their institution in and out of season. Since the APR was instituted recently, literature and research involving the APR is scarce. Team success (as measured by win/loss record and postseason accomplishments) was correlated with a team's Academic Progress Rate. Men's Division I college basketball did not show any significant findings between Academic Progress Rates and team success. Men's Division I college football showed that as teams have more success in the classroom they will have more success on the playing field.

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Exploring Relationships Between Academic Progress Rates and Team Success

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**Abstract**

Academic Progress Rate (APR) was instituted by the NCAA in 2005 to get a real time measure of student's academic progress. The APR is used to measure athlete's academic progress at their institution in and out of season. Since the APR was instituted recently, literature and research involving the APR is scarce. Team success (as measured by win/loss record and postseason accomplishments) was correlated with a team's Academic Progress Rate. Men's Division I college basketball did not show any significant findings between Academic Progress Rates and team success. Men's Division I college football showed that as teams have more success in the classroom they will have more success on the playing field.

**Exploring Relationships Between Academic Progress Rates and Team Success**

There has always been the perception that the best athletic college teams are full of jocks. A jock is a stereotype given to athletes where people assume that since they are very good at sports they must lack intelligence in the classroom. Contrary to popular belief there are a lot of college athletes who excel in the classroom as well as on the playing field! Whether or not, this is the case for the majority of college athletic teams is debatable. This study will aim to show the relationship between Division I college football and basketball Academic Progress Rates, comparing them to their overall team success. This will show us if the "jock" tag really fits the college athletes of today.

In 2004 the NCAA decided they needed a way to measure a college athletics academic progress in real time (NCAA, n.d.). They previously relied on a rate called Graduation Success Rate (GSR). This rate simply tells you what percentage of students enrolled in the college have graduated. It does not tell you when students who do not graduate run into trouble in their academic career. Realizing this, the NCAA decided to develop a rate to track progress towards degree completion. They came up with a way to measure academic progress using Academic Progress Rate (APR). APR is calculated by giving each member of team one point for returning to the college and one point for remaining academically eligible. Then the rate is divided by the total number of possible points to give you a percentage. Then that percentage is multiplied by 1000 (NCAA, n.d.). This means that a perfect APR score for a team is 1000. Teams that have APR scores of 925 or higher receive no penalties. Teams that have a score lower than 925 can receive warning and if their APR score doesn't go up the next term they may receive penalties resulting in loss of scholarships. If a team's score is lower than 900 they will get an immediate

penalty resulting in the loss of scholarships (NCAA, n.d.) Since the APR rate is relatively new there hasn't been much research done on its effect on team's success. The APR includes whether athletes return to the college and whether they are eligible.

The two concepts that make up the APR can affect how your team performs. If a lot of your players return and your players are eligible that would lead to on field success. It seems that the higher your APR is the more success a team should enjoy. It's no secret that men's basketball and football are the two money generating sports in college. Dan Wetzel a coauthor of *Death to the BCS* and Austin Murphy wrote an article in Sports Illustrated magazine showing how much money a NCAA bowl game can generate. In 2007 the Sugar bowl made a profit of 11.6 million dollars (Murphy, 2010). They also show how in 2007 the Chik-Fil-A bowl game generated a cool 12.3 million in revenue (Murphy, 2010). While their article mainly focuses on why college football should institute a playoff system, it does show the immense amounts of money that one Division 1-A NCAA bowl games can generate. Mr. Lemire a frequent columnist in Sports Illustrated magazine, explored the economic effects of the Men's NCAA basketball tournament. He talked about sponsorship in his article and pointed out that the last four final four sites St. Louis, Indianapolis, Atlanta and San Antonio have all profited between $40-$47 million dollars (Lemire, 2009). This goes to show that Division I Men's basketball can be extremely profitable. This study is aimed to see if there is any relationship between Division I men's college basketball and Division 1-A football team's success and their APR score. These sports have been extremely profitable for their universities. Success on the football field and on the basketball court results in the universities reaping financial benefits. If there is a relationship between on the field success and classroom success universities could stand to lose large amounts of profit, and prestige if they do not realize this relationship. Establishing a university as a powerhouse on the

playing field and in classroom only stands to benefit a college. Naturally, when large sums of money are on the line people become focused on the money. Colleges with major sports teams do not make money for having teams with good Academic Progress Rates. This study will show whether or not teams in the "big money" sports sacrifice grades for success.

<div align="center">

**Literature Review**

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**Graduation Success Rate (GSR) Not a Good Measure**

The NCAA has had to use APR and GSR to make sure universities are not allowing their athletes to lag behind in the classroom. Kimberly Martin and Keith Christy had their article published in the *Journal of Issues in Intercollegiate Athletics* that talked about all the different ways schools try to get ahead athletically. Their research showed that 62% of athletes thought their athletic programs were structurally different from the academic programs (Martin, 2010). This is an example of why GSR and APR are needed. It makes sure that athlete's academic needs are not being over looked. The NCAA uses two main ways to measure academic standing in colleges. They use APR and Graduation Success Rate (GSR). GSR was around long before the APR. The GSR shows how many athletes that have entered the program as a freshman or via transfer graduate with a degree (NCAA, n.d.). Many problems have been found with GSR. One problem studied by Eckard (2010) from the University of Colorado is that when you make comparisons between normal students and student athletes you include part time students. Part time students take a longer time to graduate than normal students. He also points out that some part time students may not even be going to school to graduate. They may be going to school part time because they need a class for their job. Eckard's research shows that every study where they compare student athlete's graduation rates to normal students they include people who may take twice as long to graduate; if they even plan on graduating. This inclusion of part time

students drags the graduation rate of non-student athletes down. The inclusion of part time students then makes athletes graduation rates look much higher in comparison. This would not be a problem but all NCAA athletes are required to be full time athletes. When you compare student athlete's graduation rates to non-athlete student's graduation rates the gap between the two groups is closer than it really should be (Eckard, 2010). Eckard shows that when you compare student athlete's graduation rates to full time students the gap between GSR scores is greatly increased. He found that when you compare men's basketball GSR rates to full time students the gap between the scores widened by over 50% (Eckard, 2010). This makes GSR not a good measure of athlete's academic success. The GSR is a deceiving statistic as it makes the comparison of athlete's graduation rates to non-athletes graduation rates seem closer than they are in reality.

When using GSR it is an all or nothing statistic. Either you graduate or you fail to graduate. There is no reward for a player who completes three years of school then decides to turn professional his senior year. This makes the Academic Progress Rate a more accurate report of a team's academic standing. If a player turns professional, and doesn't graduate, using GSR there is a zero for that athlete. Under the APR system if a player turns pro and is eligible, the school will receive 1 out of 2 possible points for that athlete (1-2 scoring). One point is awarded to each member of a team that is eligible and another point is awarded for each member of the team that remains at their current school. An athlete that is eligible and returns to that school next term receives a score of 2 (2-2 scoring). A 0-2 athlete is an athlete that left a college and would not have been eligible to play the next term.  This is important because if a school has a 0-2 athlete and their APR score falls below 925 they can accrue penalties. The APR system is fair because if you have multiple players turning professional as long as they would have been

eligible the school cannot be penalized. (NCAA, n.d.) The APR ensures that even if a college athlete is definitely going to play professionally, that he will have some progress towards his degree. This makes it easier for the athlete to complete his degree after his professional career is over (Brown, 2005). If a player turns professional after his junior year, and was eligible at the same school for three years, the school would receive 1 out of 2 points for that player's last semester at the school. Over the three year career of the player, his school would have acquired 11 out of 12 possible points over a three year span. This makes APR a more fair measurement than getting a zero for that player, which would be the score using GSR.

**Player retention effects on team success**

The two main parts of the APR are athlete retention and staying academically eligible. *The Journal of Issues in Intercollegiate Athletics* published a study which focused on the factors that influenced athlete retention rates (Crom, 2009). The study looked at eight different schools within the same conference and looked at the retention rates of all sports. Their research took place from 2001-2002 seasons to the 2004-2005 seasons. This study analyzed the first year that APR was used (2004). Their study found that males have lower retention rates than females. They attributed this to the fact that there are more professional opportunities for male athletes than female athletes. This would influence male athletes to leave school before they complete their degree. Their study also found that team sports had lower retention rates than individual sports teams (Crom, 2009). These findings show that there may be a relationship between APR and athletic success. Since Crom's study has shown that male team sports have the lowest retention rates, it is feasible that teams that are able to return their payers more often will be more successful. Since one half of the calculation of APR is if your players return to the team

you can make the case that the higher a team's APR score the more likely they will to be successful.

The Group Environment Questionnaire (GEC) can be applied to measure a team's cohesion (Carron, 1985). This questionnaire targets four main areas of coehesion. The first category is the Group-Task dimension. This measures an individual's feelings about their personal involvement with the team's goals, productivity and tasks. This dimension determines what the athletes feelings are on the direction of the team. Do they think highly of the team, or are they left feeling negatively. The next dimension is the Group-Social dimension. The Group-Social dimension measures an individual's acceptance within the team, and their social interactions with teammates. This part of the questionnaire looks at whether teammates are friends on and off the playing field. The next dimension GEC assesses is Group Integration-Task dimension. This measures how close and similar teammate's goals are. The point of this is to see if the team is unified over a similar task. For example, one player may want to win no matter what they have to do. Another player may be more interested in scoring a lot of points. The last dimension the GEC assesses is Group Integration-Task Dimension. It looks at how similar and close a team is when it comes to social matters. It shows whether or not a team will hang out when they are not in season. These four dimensions are then measured on a scale of one through nine. One being strongly disagree and nine being strongly agree (Carron, 1985). With half of the dimensions of the GEC focusing on social interactions, it is feasible to expect a team with low athlete retention rates to score low in these areas. Teams with players constantly moving in and out will not have deep bonds established. This would cause a team's cohesion score to be lower. Since APR uses athlete retention as one half of the scoring process, it is feasible to believe that a low APR score would lead to a team being less successful in the field of play.

*Eligibility effects on team success.*

One study "Making the Grade: Academic Success in Today's Athlete" focused on the differences in academic success of male and female sports. Their study looked at players GPA in sports such as, men's and women's basketball, baseball, football, softball, track, golf, volleyball and wrestling. They took samples of no less than 20 participants from each sport included in the survey and compared their GPA's to see if they were successful. They defined success by having a GPA of 3.0 or higher. Their study found that across the board, women's GPA's were higher than men's scores. The study attributes this to the type of academic support that is provided to athletes. The kind of athletic support hasn't changed since the mid 1980's (Dilley, 2010). Their study challenges this and calls for reform to the academic support provided to athletes. Their research showed them that men and women need different types of support. They say the data that female student athletes succeed academically more often the male athletes shows that the current model of support offered to athletes benefits females. They say the "one size fits all" approach which the schools use to try and fix problems related to academics will not work here (Dilley, 2010.) The study doesn't solely blame the support programs provided to athletes but blames the colleges. They put so much emphasis into promoting winning and good players that good academics do not get recognized enough. This has made it so male athletes put their athletic careers before their academic careers (Dilley, 2010).

This study can be used to show there is potential for a relationship between team success and APR scores. The men had lower GPA's than the women. This means that the men are more likely to have players that are ruled ineligible because of their grades. When a team is missing players they usually do not do as well as they should. The players are on the team for a reason, because they are good enough to be there. No one makes a team with players planning on the

fact that they will miss some games. This means that it wouldn't be a stretch of the imagination

to say that if a team's APR is higher that means they have kids that are eligible. These eligible

players are able to contribute to their team and help them succeed. Football players have been

notorious for playing their seasons, and then being ruled ineligible for their bowl games. David

McDonald who over sees the athletic department at the University of Wisconsin simply says

grades come out before the bowl games happen. One year the Florida Seminoles had twenty five

players ruled ineligible for the Music City Bowl (Greenberg, 2008). This means that for the most

important game of the year teams are losing players. The bowl games are every team's goal at

the beginning of the year. These players have been contributing to their teams all year, and when

it counts most they are unable to compete. In most football circles it is considered a failure if

their team does not make it to a bowl.

Research about the Academic Progress Rate is scarce. It was instituted in 2004 and has

been the subject of few research projects. There has never been a study that can prove or

disprove any type of relationship between the APR and team success. There has never been a

study that has shown that performance on the field has positively related to performance in the

class room. This study is aimed to see if there is any relationship between APR and team

success. The following questions will be answered by this research:

1. If there is any relationship between team success and Academic Progress rates?

2. What Division I men's college basketball and football teams are the most
   successful on the playing field?

3. What Division I men's college basketball and football teams do the best in the
   classroom?

**Method**

**What Is Success?**

Success is a very broad term and needs to be defined exactly to understand what success

entails for the purpose for this study. Success for many teams can be defined differently. For one

college basketball team making the NIT basketball tournament may be a successful season as for

other teams making the NIT tournament is a failure. A different equation will be used to

determine how successful men's football and basketball teams were. Each equation was also

designed specifically for this research. This equation rewards teams for regular season and post

season success. This equation can be used on multiple seasons Success for men's college

basketball is determined by this equation.

$$\textbf{Success=RCW-RCL+T+TW(1.5)}$$

Every regular season win and conference tournament win (RCW) will award each team one

point. Every regular season and conference loss (RCL) will subtract a point from a team's total.

If a team makes the NCAA tournament (T) they will be awarded 2 points towards their success

total and 0 points if they do not make it. Once a team makes the tournament every game they win

(TW) will be multiplied by 1.5 and added to their success total. Teams will not be punished for

tournament losses because in the end only one team does not run into a tournament loss. The

higher the success score the more successful the team is. A good example of how this formula

works can be seen by looking at Virginia Commonwealth University (VCU). In the 2010 – 2011

season they had a decent year and were one of the last teams to make the NCAA tournament.

VCU finished the regular season with record of 23 wins and 11 losses. Then they made a deep

run in the NCAA basketball tournament winning five games (VCU, 2010). When you plug these

numbers into the above formula VCU's success rating is a 21.5. This is an example of how your

post season success is rewarded in the basketball success formula. If VCU had not made the

tournament their success score would have been a 12. When you compare VCU's 2010-2011

basketball season to Syracuse's 2010-2011 basketball season you see very different seasons.

Syracuse had a very successful regular season which earned them 26 wins and 7 losses. They

were ranked in the top 25 throughout the whole basketball season (VCU was never ranked in the

top 25 during the regular season). Syracuse made the NCAA tournament won one game and then

lost in the next round (Syracuse, 2010) When you put Syracuse's 2010-2011 season numbers

into the basketball success equation they earn a 22.5 success rating. Syracuse basketball had a

much better regular season record than the VCU basketball team. Yet, after the NCAA

tournament there scores are only one whole success point away from each other. VCU's

extremely successful post season made them comparable to a team that remained in the top 25

basketball teams all season. This is a good example of how the basketball success equation

works. It fairly rewards teams for their regular season and post season efforts.

A different formula for football is needed to define success because their sport is set up

differently. In football there are bowl games at the end of seasons instead of tournament games.

In football not all conferences have games at the end of season to figure out who the conference

champion is. This formula will be used to determine how successful a football teams were.

$$\textbf{Success=W-L+B+BW(1)}$$

Every win in the regular season (W) will add one point towards the success total. Any

conference championship games will be included with regular season wins (W) as one point.

Every loss in the regular season (L) will subtract one point from the success total (losses in

conference championship games will not count against teams in the football success equation). If

a team makes a bowl game (B) they will be awarded 1 point for making the bowl game. If a team

wins a bowl game (BW) they will get an additional 1 points towards their success score. The higher the score a team has the more successful a team is.

College football is set up differently than college basketball. Every game in college football carries more significance than the games in college basketball. This makes it important for the college football success equation to not over reward teams for a single game. For example, in the 2010-2011 football season the Alabama University football team had a regular season record of 8 wins and 2 losses. They qualified for their conferences championship game and lost. They made a bowl game at the end of the season and won that game (Alabama, 2010) When you plug these numbers into the football success equation you get a success rating of 9. The success rating of 9 is a good rating. The best possible success rating a team earned in the 2010-2011 season is 15, which was earned by Auburn University. Auburn went undefeated and won the national championship game (Auburn, 2010). This shows that the equation rates team's success fairly as Alabama was ranked in the top 25 football teams all of the 2010-2011. Auburn was ranked in the top 25 the whole 2010-2011 season as well. The difference being Auburn had a remarkable season going undefeated and winning the national championship game. This is rarely done and explains why Auburn's success rating of 15 is so much higher than Alabama's success rating of 9.

**Data collection**

This research required the APR scores for every Division I college basketball and football team from the 2004-2010 seasons. It also required the win and loss records for every single Division I college football and basketball team that competed in the 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, and 2009-2010 seasons (2009-2010 season for men's Division I basketball was not used). The 2009-2010 season was omitted because *ESPN's*

*Encyclopedia of College Basketball* (Source used for college basketball records) did not contain

this season. It was important to use every single team that competed in each season. This was so

important because using every available team means that your findings reflect every possible

team. It does not just reflect a certain group, for this research the findings represent all Division I

football and basketball teams.

The data for APR scores were collected from NCAA.org. There is a complete online

database that has all of the APR scores for the Division I college basketball and football teams.

The Division I college basketball records come from the *ESPN College Basketball Encyclopedia*.

This book has the complete records for each college basketball team dating all the way back to

the early 1900's and up through 2010. The football records come from the jhowell.net. This is an

online database that has complete season records for all seasons dating back to the early 1900's

through 2010.

**Analytics**

After all of the data was collected it was put into SPSS Statistics 18 Software to be

analyzed. The SPSS software was used to determine whether or not there was a correlation

between team success and academic success. Team's success and APR scores were then

averaged over the years analyze. An average APR score and team success score were compiled

for each school. Then each school's average APR score and average success score were tested to

see if a correlation existed in Men's division I Basketball and Football.

<p align="center">**Results**</p>

The main purpose of this research was to see if there was a significant relationship

between team success and academic progress rates. It also allows for us to see which universities

have the most success in the classroom and on the playing field. Men's Divison I college football

was analyzed over six seasons from 2004-2010 and looked at 119 Division I Men's college

football teams. Men's Division I college football yielded a correlation of .372 with p<.001. This

means that the findings were significant. It also shows that there is a moderate correlation

between Men's Division I college football team success and academic success. Men's Division I

college Basketball was analyzed over five seasons from 2004-2009. It looked at 321 Men's

Division I Men's college basketball teams that had full records for the five year span. Men's

Division I college basketball yielded a correlation of .039 and a p<.119. This means that the

correlation and its results were not significant

All Division I colleges were ranked for basketball and football too see which schools

succeeded the best on the field and the best in the classroom. Upon further analysis of these

rankings Boise State, Georgia, Texas Christian University and Penn State all had Division I

football teams all ranked in the top 20 Division I football teams for their on field success and

APR scores. Men's Division I basketball had Duke, Davidson, Villanova and Connecticut all

finishing within the top 20 teams APR scores and on field success. Duke University was the only

college which had both their Men's Division I football and basketball teams in the top 20 for

APR scores.

**Discussion**

With Men's Division I college football having a significant correlation of .372 that means

that as APR goes up so will a team's success. This means that APR and team success have a

moderate positive correlation. The reason that there is only a moderate correlation could be

because on field success can be affected by many other things than just APR. For example, one

factor that could have a great effect on team success could be injuries to players. If APR was the

sole factor that determined success it would have had a strong correlation. This tells me that APR does affect success, but it is one of many different variables that have an effect on success.

Men's Division I College Basketball had a non-significant correlation of .039. The correlation was not deemed significant. It did not pass the significance standard of p<.05. This means that the chances of this correlation's results being based on luck were to high.  The reason College Basketball's correlation was not significant is because in College Basketball you have well over 300 teams fighting for 64 slots in the NCAA tournament. My success formula used post season success as a key part of the success formula. This means that each season only 64 teams out of 300 plus teams get post season success. There are a lot more teams fighting for fewer post season spots than in college football. This is why college football yielded a significant correlation and college basketball did not.

**Limitations and future research**

This research project only focused on whether or not a relationship existed between APR and team success. It did not figure out which one causes the other. This research also only focused on two Division I male team sports. The results for this study could vary over different genders, sports, type of sport (individual or team) and collegiate level (Division I, II or III). This study was also limited because there were only six seasons available to study since APR was not used until 2004.

There are many different ways people could expand on this research. After ten years of the APR being around redo the same study and see if the results are the same. The study could also be duplicated for other sports. Taking this study and duplicating it using female sports would be a very interesting study. You would be able to compare across universities and sports. You would be able to say what school is the most successful in the classroom and on the field.

Another interesting study would be to compare the results from this Division I study and compare them to Division II or III. There are many different ways you could alter the original study and analyze different aspects of the collegiate sports world.

Trying to balance college athlete's success on and off the field is an ongoing struggle for universities across the nation. This study helps shine light on the fact that there are ways that academic success can coexist with team success. It is every colleges aim to be successful in both of these areas. This study shows that the college football teams that excel in the classroom excel on the football field. This information can be used by every Division I men's college football team to foster an environment where academic success and team success coexist.

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