University of Kentucky

UKnowledge

MPA/MPP Capstone Projects

Martin School of Public Policy and Administration

2014

Measuring Academic Achievement of University of Kentucky Student Athletes: Helping the Center for Academic and Tutorial Services Better Allocate Resources

Chatham Penrod
University of Kentucky

Follow this and additional works at: https://uknowledge.uky.edu/mpampp_etds

Part of the Education Policy Commons, and the Policy Design, Analysis, and Evaluation Commons
Right click to open a feedback form in a new tab to let us know how this document benefits you.

Measuring Academic Achievement of University of Kentucky Student Athletes:

Helping the Center for Academic and Tutorial Services Better Allocate Resources

Chatham Penrod

Capstone Project
Martin School of Public Policy and Administration
University of Kentucky
April 2014

Table of Contents

Executive Summary

The NCAA requires its member institutions and student athletes to maintain certain academic requirements to remain eligible for competition. To ensure academic success, many institutions establish academic centers for their student athletes. The University of Kentucky was the first institution to develop a facility of this type. The Center for Academic and Tutorial Services (CATS) provides academic enhancement for its student athletes.

After a brief overview on current NCAA academic eligibility requirements, this paper looks at the organization of CATS and at the current literature on student athlete academic achievement. Then a few analyses were conducted on the academic achievement of the 2008 freshman student athletes by sport and the effects of the student athlete to counselor ratio on academic performance controlling for gender, incoming test scores, athletic aide, and season of sport. It found significant differences of academic achievement for certain sports at UK and a negative relationship between the student athlete to counselor ratio and academic achievement.

Finally, the paper recommends a few ways to improve services for student athletes at CATS. These recommendations include reducing student athlete/counselor ratio, redistributing additional job responsibilities for counselors, and collecting measurable data to improve services in the future.

Background

One of the NCAA's favorite mantras is that many of its student athletes "go pro in something other than sports." Earning a position on the roster at an NCAA University is only the beginning for many student athletes. All student athletes must also meet the academic qualifications of not only NCAA, but also the university they are attending. Then, to continue to remain eligible for an athletic scholarship and competition, they must maintain a certain GPA, pass a certain number of credit hours each semester, and reach a certain percentage of credit hours towards a degree[1]. In order to meet these requirements, many NCAA institutions have created special departments aimed at monitoring the academic progress of their student athletes.

NCAA INSTITUTIONAL ACADEMIC PROGRESS RATE

To understand the impact of these special departments, it helps to have a general understanding of the academic requirements for NCAA institutions. Currently the NCAA requires academic eligibility standards for individual student athletes as well as the institutions for which they compete. To measure the institutional success of NCAA schools, the NCAA uses the Academic Progress Rate (APR)[2]. The APR is designed to evaluate the academic success of student athletes on scholarship at their respective

---

[1] Student athletes remain eligible by meeting three standards. The first is a GPA requirement; student athletes have to earn a 1.800 in their first year of competition and a 2.00 their remaining years of eligibility. Student athletes also have to earn a certain number of credit hours towards their degree each semester, 9 hours for football student athletes, and 6 hours for all other sports. The third requirement is a percentage toward a degree; 40% after their sophomore year, 60% after their junior year, and 80% after their senior year (National Collegiate Athletic Association, 2013).
[2] Each student athlete on athletic scholarship at a school has the potential to earn two APR points a year: one for staying in school and the other for remaining eligible. Then total points possible are divided by teams' points and the solution is multiplied by 1,000 (National Collegiate Athletic Association, 2013).

institutions. If an institution fails to reach its APR, then it is subject to fines and sanctions from the NCAA.

Experts like Gerald S. Gurney, the President of the National Academic Athletic Advisors Association (N4A), openly question the success of the APR. Gurney has pointed out potential ways the APR can be manipulated. For example, summer school has become a popular way for student athletes to fix GPAs that are below the NCAA requirement. There are a few ways to do this depending on the situation, student athletes may retake classes for a better grade or they may take easier electives.   NCAA waivers can be filed for students with documented learning disabilities to bypass eligibility standards. Another way to manipulate the system includes switching of academic majors to those with less stringent requirements (Gurney and Southall, 2012).

Gurney also pointed out that many of the ways to boost APR scores can only be done by schools with enough funds to support each of those approaches (Gurney and Southall, 2012). Schools have to be able to afford paying for summer school. They need the money to hire people who are knowledgeable in NCAA eligibility standards to write waivers and work with the NCAA's eligibility office. Finally, they must be able to fund a separate fully operational advising center for student athletes.

Because the NCAA's current academic eligibility standards are flawed, the topic spawns multiple questions about how to monitor student athlete academic eligibility. Is there a better way to measure student athlete academic progress? How much does the sport affect the success of student athletes? Do academic enhancement facilities actually enhance a student athlete's college experience, or do student athletes' background factors influence their academic achievement more?

UNIVERSITY OF KENTUCKY'S CENTER FOR ACADEMIC AND TUTORIAL SERVICES

The Center for Academic and Tutorial Services (CATS) at the University of Kentucky (UK) was the first department in the country established to assist student athletes academically. The mission of CATS is "to create an environment where all student-athletes have the opportunity to maximize their academic, personal, and social growth and improve their post-college quality of life (CATSacademics.com, 2014)." This paper will attempt to determine if CATS is successful with its mission and ways it can improve its services by measuring if student athletes at UK are performing to their academic potential.

CATS is a twenty thousand square foot facility located near main campus and it includes a computer lab with thirty-five workstations, a quiet study area, and twenty-five private tutoring rooms. The center employs eight full time academic counselors, a learning specialist, a tutor coordinator, a life skills specialist, and twelve graduate assistants (GAs) for administrative duties. They also employ over one hundred tutors each semester who work individually with student athletes in specific subjects (UKAthletics.com, 2014).

Table 1 below illustrates how personnel are assigned among the twenty-two varsity teams. The student to counselor ratio in Table 1 shows which counselors are responsible for the most student athletes. Most counselors are responsible for multiple sports with the exception of football, which has one counselor for the sport alone then another that helps with football and swimming and diving student athletes.

TABLE 1. ORGANIZATIONAL CHART OF CATS

Full-Time Counselor	Graduate Assistant(s)	Sports Monitored	Student/Counselor Ratio[3]
1	4	Football	84
2	0.5	M. Swim & Dive, Football	75
3	2	M. & W. Track & Field	75
4	1	M. Soccer, W. Soccer, & Gymnastics	70
5	1.5	M. Basketball, Baseball	51
6	0.5	Softball, Volleyball, M. Golf	46
7	0.5	M. Tennis, W. Golf, & W. Swim & Dive	42
8	1	W. Basketball, Rifle, & W. Tennis	37

The counselors assist student athletes with academic advising and career counseling as well as reporting grades and academic concerns to coaches and administrative staff. They also maintain contact with parents and guardians, and aide coaches in recruiting potential student athletes. The counselors are vital to monitoring the academic progress of each student athlete to ensure they meet NCAA academic eligibility standards. In addition to working with student athletes academically, each counselor has additional administrative responsibilities. For example, one counselor is in charge of scholarship student athletes' textbooks, another supervises all GAs. One tutors academically at risk student athletes, one is in charge of hiring quiet study monitors, and another supervises the computer lab.

At CATS, the GAs also play an important role in monitoring the academic progress of student athletes and are assigned to specific sports to help the full-time counselors. Their job responsibilities include: contacting professors to collect grades, creating grade reports, scheduling tutors, checking classes for attendance, and operating

---

[3] The student/counselor ratio was calculated by adding the 2013-2014 rosters for each sport to determine the number of student athletes for which each counselor is responsible (UKAthletics, 2014).

CATS during the evening hours. In addition to the counselors and GAs, the remaining support staff also plays important roles in assisting student athletes at UK. The tutoring coordinator is in charge of hiring and supervising tutors, the learning specialist works with the disability resource center to help student athletes with learning disabilities, and the life skills coordinator assists student athletes with career counseling and community service opportunities.

CATS is different from many other academic centers for three reasons. The first reason is that all student athletes can use the center. Many other schools around the country place a preference on scholarship student athletes, but the University of Kentucky Athletic Department (UKAD) has the resources to support all of its student athletes and the administration places a priority on serving the entirety of its student athletes.

The second reason CATS is different is that it uses a proactive approach to monitor the academic progress of its student athletes. This means that all incoming freshman are monitored closely and assigned tutors. If they perform well academically, they can continue to use the resources at CATS, but they are not as closely monitored.

The last reason CATS is different is that the staff assigns weekly sessions with tutors at the beginning of the semester. Throughout the semester, student athletes have a weekly appointment with a tutor for a class. Many other academic centers have open tutoring hours. The director of academic services at CATS believes weekly tutoring sessions work better because the student athlete and the tutor can build a working relationship and the tutor can utilize learning strategies personalized for each student athlete.

Because NCAA institutions have to be concerned about meeting APR requirements, the problem these institutions face is keeping a balance between creating a winning program while ensuring the academic success of the student athletes that compete for them. A major problem for these academic departments is that academic entry standards into the school are often lowered for exceptional athletes who are not necessarily prepared for the challenge of college coursework. While athletic academic departments are established to monitor the progress of an institution's academic success, their main purpose is to help each student athlete academically achieve regardless.

The original purpose of this project was aimed at measuring the success of the CATS program. However, data is not kept after each semester on how much time each student athlete spends at CATS. The center also upgraded its monitoring systems in the summer of 2012 and all data before that time was not kept. Since there was not sufficient data available about the use of CATS by individual student athletes, the aim of the project was changed to measure the academic achievement of sports at UK. By evaluating which sports underperform academically, UKAD has the opportunity to adjust or increase the resources at CATS to help the student athletes that need it most.

Literature Review

To begin to understand collegiate athletics and academic achievement of student athletes, the demands on student athletes need to be considered. While the NCAA limits practice and meetings to twenty hours per week, many student athletes report devoting twenty-five hours or more a week when they are competing (Simmons et al., 1999).

Entry standards for student athletes have also been lowered so that lower-performing

student athletes can be admitted into school because of their athletic ability (Gurney,

2011). Student athletes also face the issue of being negatively labeled within their

university. These problems not only make it more difficult for athletic academic facilities

to keep student athletes eligible, but also to make sure they graduate with a degree they

will use.

In addition to the demand on student athletes, research has shown that there are

some background factors that help predict student athletes' academic ability. Research

has consistently shown that female student athletes perform better academically (Simons

et al., 1999, Purdy et al., 1982). Many experts attribute this to the fact that there are fewer

professional athletic opportunities for women, so they are more determined to receive an

education they can use in the future (Gurney, 2012, Simmons et al., 1999). Other research

shows that student athletes in revenue sports (football and basketball) are less likely to be

successful academically (Purdy et al., 1982). There has been a lot of research to

determine if financial aid helps student athletes achieve academically. Some research has

shown that scholarships have little to no effect (Le Crom, Carrie, et al. 2009), while

others show that student athletes receiving athletic aid actually perform worse than

student athletes that are on partial or no athletic aid (Purdy et al., 1982).

After considering the demands on student athletes, researchers have tried to

identify other factors that contribute to the academic achievement of student athletes.

Some research argues that noncognitive variables are better predictors of student athletes'

academic success (Sedlacek et al. 1992). The noncognitive variables discussed include

location of high school, number of community service hours during the year, whether

student athletes were involved in any other activities, or if they were nominated for any athletic awards. The data showed that noncognitive variables were better at predicting academic success for student athletes than the SAT (Sedlacek et al. 1992). Ideally it would help if coaches considered these variables when recruiting potential student athletes, but many times they are more concerned with winning, which is why they are more likely to choose a better athlete over a student that exemplifies positive noncognitive characteristics.

Black student athletes also face more challenges than their white counterparts. Data has shown that black student athletes, on average, are significantly less prepared for college when considering educational achievement measurements like the ACT, SAT, high school GPA, and high school class standing (Purdy et al., 1982). Black student athletes have lower college GPAs and are also less likely to graduate from college (Purdy et al., 1982). A larger percentage of black student athletes participate in the revenue sports. Competing in revenue sports means that student athletes face additional pressure to perform athletically (LeCrom el al., 2009). Because of the additional pressure and tendency to perform lower academically, revenue sports may need more academic support than their counterparts (LeCrom et al., 2009).

Because of the NCAA's regulations to keep students academically eligible and of schools' concerns over APR points, there is an increasing pressure on academic centers to funnel players into certain majors that are not as academically challenging as other majors. A study conducted of football student athletes' majors in the Atlantic Coast Conference (ACC) found that every school in the conference had significant clustering of majors (Fountain and Finley, 2009).

There are additional reasons that student athletes are clustered into specific majors. Beyond being less challenging, certain majors may be more flexible with class times. This is important because student athletes have to schedule classes around their practice and competition times. Another reason may be because of the credit hours required by more challenging majors. An engineering degree at UK requires one hundred twenty-eight credit hours while other majors only require one hundred twenty credit hours. This is significant because one of the eligibility requirements for student athletes is to earn a specific percentage of hours towards a degree. If a major requires more hours, it makes it more difficult to meet that percentage requirement.

The issue of clustering is a concern because the student athletes may not be getting an education they can use in the future; they may just be in a major to help them remain eligible for athletic competition. It is the responsibility of the academic athletic advisors to make sure that every student athlete has the chance to earn the degree they wish. At UK, anytime there is a ratio with 50% or more student athletes versus other students in a class the student athlete Faculty Athletic Representative investigates to determine if there is unethical advising.

UK also closely monitors the composition of majors for its student athletes. Figure 1 on the next page illustrates the similar composition of majors for student athletes and other undergraduate students at UK in 2013. The largest difference for student athletes by college is undergraduate studies. The reason for that is because CATS encourages student athletes to declare themselves as undergraduate studies when they enter college until they determine what major they wish to pursue (McAtee, 2013).
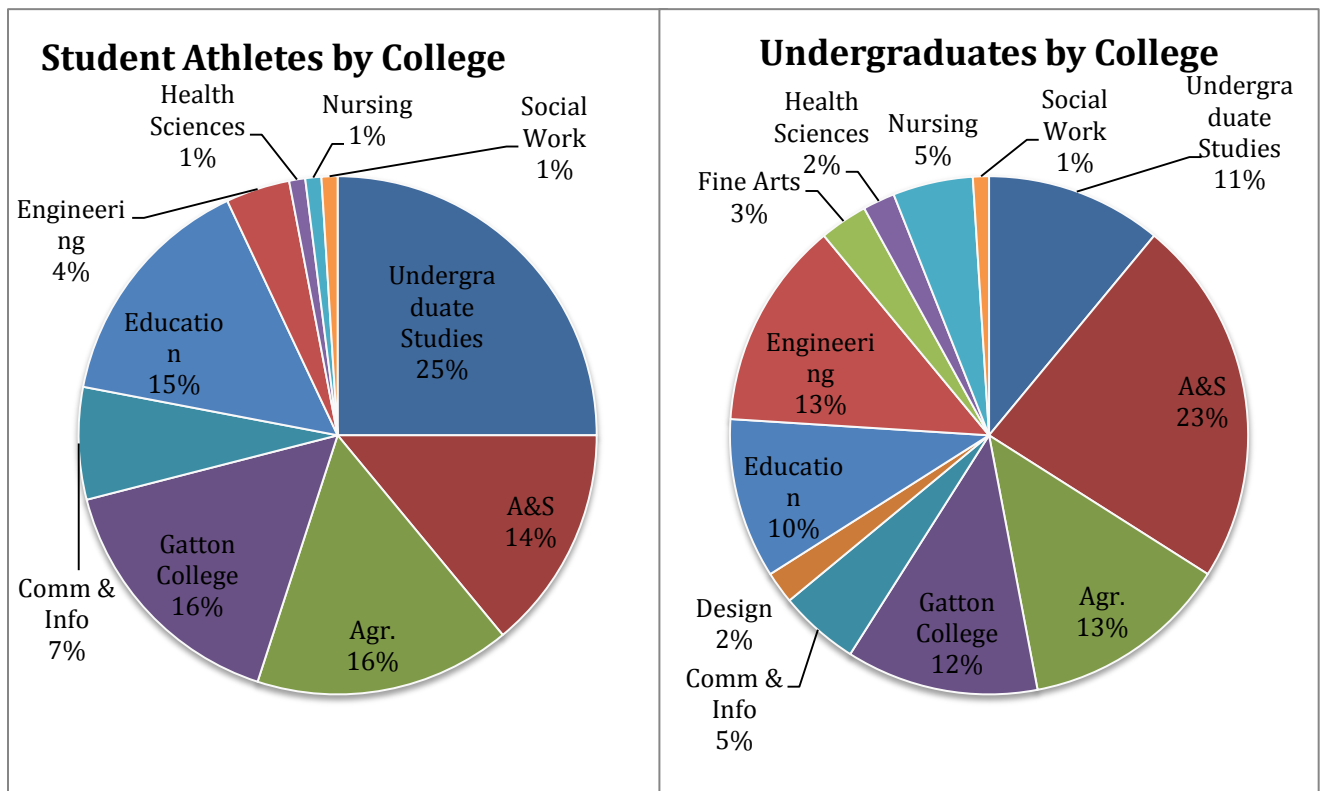
Overall, academic enhancement facilities need to ensure they are providing the best support system for student athletes. This is why it is so important to allocate available resources to the sports and student athletes that need it most.

Research Design

DATA

For this project, academic information was collected for all UK student athletes entering their first semester of college in the fall of 2008. The entering fall 2008 cohort was chosen because they are the most recent class to have the opportunity to graduate, and data throughout their entire academic career was collected. The data were collected

---

4 McAtee, 2013.

with the cooperation from the UKAD. All student athletes signed a Family Educational

Rights and Privacy Act (FERPA) release allowing the UKAD access to their academic

information. The data were collected from their academic records as well as official

rosters and scholarship information provided by UKAD. Using the 2008 cohort also

makes the data the most relevant for the UKAD because it is the most recent data.

To measure the academic achievement of these student athletes by sport, two

separate cross-sectional time series analyses were conducted where each student athlete's

data were collected each semester over his or her careers at UK. The first analysis

analyzed the GPA each semester and the second analyzed the cumulative GPA each

semester. To attempt to measure the effect of CATS' counselors on student athletes,

another cross-sectional time series analysis was conducted to determine the effect of the

student/counselor ratio on the academic performance of student athletes. This will help

CATS determine if its current allocation of counselors by sport is helping its student

athletes perform better academically.

Table 2, shows a breakdown of the student athletes by sport. Of the one hundred

twenty-eight student athletes in the data set, eighty-five were male and forty-three were

female. It should be noted that all sports were represented except women's basketball,

which did not have any freshmen enter in the fall of 2008. While the results of this

research did show significant results, it could be improved by including additional years

of cohorts because the 2008 cohort could be different than other years, and it would

increase the sample size of student athletes to help increase the validity of the results.

TABLE 2. 2008 UK FRESHMAN STUDENT ATHLETES BY SPORT

Sport	Number of Athletes	Male	Female
Football	34	34	0
Basketball	5	5	0
Baseball	7	7	0
Softball	10	0	10
Volleyball	3	0	3
Soccer	20	11	9
Track & Field	10	8	2
Cross Country	5	3	2
Swim & Dive	18	9	9
Golf	6	3	3
Gymnastics	2	0	2
Tennis	6	4	2
Rifle	2	1	1
Total	128	85	43

On Table 3, the championship variable shows the number of student athletes that participated in fall and spring sports. Fifty-one percent of the 2008 freshmen student athletes at UK participated in fall sports and forty-nine percent of the 2008 freshmen student athletes at UK participated in spring sports. The second variable in the table shows the number of student athletes that received any athletic scholarship. Only thirty-nine percent of the incoming 2008 freshmen student athletes were not on any amount of athletic scholarship.

TABLE 3. SUMMARY OF DUMMY VARIABLES

Variable	Observations	Number of Observations
Championship		
	Fall	1,501
	Spring	1,443
Scholarship		
	Athletic Aid	1,796
	No Athletic Aide	1,148
		N = 2,944

Table 4 shows a summary of the rest of the data set. There were 1,135 observations, or semesters, for the one hundred twenty-eight student athletes. The minimum time a student athlete spent at UK was one semester and the longest time was nineteen semesters, including summer school, which would count four semesters per school year. It is important to understand that only some student athletes attended summer school. UK has two summer school sessions so both are accounted for in the data set. The analysis includes robust standard errors to control for heteroskedasticity, higher variability.

TABLE 4. SUMMARY OF DATA

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
ACT	2116	22.23	4.14	15	33
SAT Verbal	1357	505.42	81.77	290	680
SAT Math	1357	529.66	86.87	350	720
Semester	2944	12.00	6.63	1	23
GPA	1135	2.79	0.95	0	4
Cum GPA	1135	2.89	0.60	0	4

The model for the analysis was:

$$GPA = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \dots + \beta_8 X_{8t} + \gamma X_{9t} + \varepsilon$$

The dependent variables in the model were either the cumulative GPA or the GPA each semester. The explanatory variables start with a constant which was the adjusted mean, X_{1t}, which was a dummy variable for gender where 0 = male and 1 = female. X_{2t} was another dummy variable for the season of each sports' NCAA championship where 0 = a fall sport and 1= a spring sport. This variable was used to see if whether or not the sport was in season and if it affected student athletes academically. X_{3t}, another dummy variable, represents whether or not the student athlete was on financial aid for athletics.

X_{4t}, X_{5t}, and X_{6t}, represent the student athlete's incoming ACT score, SAT verbal score, or SAT math score, whichever test they used to enroll at UK. These variables were used to control for their incoming academic ability. In addition, there are dummy variables, X_{7t} and X_{8t}, to control for not taking a particular exam, the ACT or the SAT. Some students take one or the other exam, while other students take both. Finally, the last explanatory variable, X_{9t}, either represents the fixed effect to denote each sport or the student athlete to counselor ratio. The first two analyses were done to see if specific sports are achieving more or less academically compared to the other sports at UK, controlling for the incoming scores, financial aide, and the sports championship season. The second analyses were done to determine how the student athlete to counselor ratio affected student athletes' academic performance.

RESULTS

Table 5 shows the results of UK student athlete academic performance by sport. The first two columns of results illustrate the relationship for GPA each semester and the last two columns of results illustrate the relationship for cumulative GPA each semester. Rifle was omitted because there were only two student athletes, one male and one female, and the fixed effects cannot be estimated with only two observations explained by the other explanatory variables. For the analysis, football was used as the control variable to compared to the other sports. That is, football's effect is normalized to 0.0.

Similar to previous research, perhaps because female student athletes have significantly lower chances to become professional athletes, women perform better academically. However, female college students generally perform better anyway. The female student athletes in this data set strengthen this conclusion. For this analysis on

average their GPA is 0.231 points higher each semester and 0.201 points higher cumulatively.

TABLE 5. ACADEMIC PERFORMANCE OF UK STUDENT ATHLETES BY SPORT

GPA Each Semester			Cumulative GPA	
Coefficient	Standard Error	Variables	Coefficient	Standard Error
0.231**	0.113	Female	0.202**	0.096
-0.202	0.242	Championship	-0.159	0.342
-0.084	0.094	Scholarship	0.082	0.099
0.030***	0.009	ACT	0.041***	0.010
0.724***	0.233	No ACT	1.034***	0.273
0.313***	0.085	SAT Verbal (100s)	0.348***	0.091
0.005	0.112	SAT Math (100s)	-0.033	0.104
1.698***	0.520	No SAT	1.647***	0.468
0.388	0.279	Basketball	0.391	0.350
0.843***	0.259	Baseball	0.964**	0.353
0.912***	0.257	Softball	0.738*	0.354
0.014	0.166	Volleyball	0.144	0.154
0.148	0.163	Soccer	0.236	0.146
0.052	0.318	Track & Field	-0.156	0.412
0.503*	0.266	Cross Country	0.443*	0.250
0.511***	0.249	Swim & Dive	0.453	0.344
0.905***	0.248	Golf	0.987**	0.345
0.875***	0.324	Gymnastics	0.796*	0.360
0.469	0.289	Tennis	0.388	0.355
Significance level: * $p<0.10$; ** $p<0.05$; *** $p<0.01$				

The next significant results include the SAT and ACT scores. Student athletes that focus on taking the ACT have on average a 0.30 higher GPA each semester and 0.042 higher cumulative GPA. The results also show that students who did not take the ACT, but scored better on the SAT verbal had a higher semester GPA and cumulative GPA by 0.003 points. This is difficult to explain fully but might result from doing well enough on

15

the first exam taken not to have to take both exams. Test preparation for a certain exam may also be a factor. In conclusion the better a student athlete performs on entry exams, the higher his or her GPA will be in college, however, it is unclear why there is a relationship between a student athlete's exam score and his or her sport.

Next the analysis considered the achievement of student athletes at UK by sport. The most significant results show that, controlling for other factors, softball, golf, baseball, and gymnastics are the highest academically achieving sports at the University of Kentucky. Softball and golf perform better than football by at least 0.900 GPA each semester. Golf performs 0.988 GPA cumulatively better than football, and softball 0.738 GPA cumulatively better than football. Baseball and gymnastics were close to accomplishing similar results, by maintaining at least 0.840 GPA better than football each semester and 0.964 cumulative GPA and 0.797 cumulative GPA better than football respectively. Considering NCAA regulations that require student athletes to maintain a 2.000 cumulative GPA to remain eligible for competition after their sophomore year, making the functional GPA scales 2.0 to 4.0 for continuing student athletes, these are large differences in average GPA.

Golfers have the opportunity to become professionals at any time, so it can be assumed that if they are competing for the NCAA it is because they want to earn a college degree. Although baseball has the best chance of any NCAA sport at becoming professional out of college at 9.4%, the best baseball players can become professional out of high school, which means that those who enter college are interested in earning a degree while improving their skills ("Probability," 2013). Another possible reason these sports perform better may be because of background factors, such as family situation,

parent income, or region of high school, that were not able to be collected for this analysis. These factors could be correlated to sport because of the cost, time, availability, and family support certain sports require.

The other sports that had significant results, controlling for other factors, include cross-country and swimming and diving. Cross-country student athletes maintain a 0.503 better GPA each semester and 0.443 better GPA cumulatively. Swimming and diving had similar results with its student athletes earning a 0.511 better GPA each semester and a 0.454 better cumulative GPA. Both of these sports are considered individual sports that have the lowest chances of becoming professional athletes.

TABLE 6 ACADEMIC PERFORMANCE OF UK STUDENT ATHLETES BY STUDENT ATHLETE TO COUNSELOR RATIO

GPA Each Semester			Cumulative GPA	
Coefficient	Standard Error	Variables	Coefficient	Standard Error
0.312	0.178	Female	0.216	0.154
0.032	0.178	Championship	0.063	0.170
0.106	0.178	Scholarship	0.170	0.148
-0.033	0.024	ACT (100s)	0.024	0.022
0.092	0.524	No ACT	0.652	0.544
0.132	0.118	SAT Verbal (100s)	0.290	0.123
0.136	0.123	SAT Math (100s)	0.022	0.011
-0.007*	0.006	Counselor Ratio	-0.102*	0.003
Significance level: * p<0.10; ** p<0.05; *** p<0.01				

Table 6 shows the results of UK student athlete academic performance when the fixed effect is the student athlete to counselor ratio instead of sport. The results show that for every additional student a CATS' counselor advises his or her student athletes' average GPA will decrease by 0.007 each semester. For cumulative GPA, the average

student athlete GPA for a counselor will decrease by 0.010, for every additional student they advise. The difference between the average GPAs for the counselor with the fewest student athletes and the counselor with the most student athletes will be 0.102 each semester and 0.470 cumulatively[5]. This result shows the importance of reducing the student athlete to counselor ratio.

While this analysis emphasizes the possibility of professional sports motivating student athletes to focus on their sport more than academics, other factors might be involved. Culture within teams could emphasize academics more, coaches may differ on their emphasis on academics, and some sports could be more demanding in time or stress. The conclusion in this data however, is at UK sports differ significantly in academic achievement among other sports.

RECOMMENDATIONS

Now that UKAD and CATS have the information about which sports are performing better academically and how the student athlete to counselor ratio affects academic performance, they can use the results to better allocate academic support resources. One of the most important philosophies of CATS is that it is available to all of its 480 student athletes, and that should not change. However, UKAD should focus more resources on sports that do not achieve as much academically, specifically football student athletes. CATS should consider implementing the following recommendations.

First, CATS should consider hiring one or two additional full-time counselors to help lower the counselor to student athlete ratio for all student athletes. Not only will

---

[5] The difference between GPAs is calculated by taking the difference of ratios of the counselors with the most and least student athletes, 84 and 37, and multiplying by 0.003 for each semester and 0.011. Therefore, (84-37)*0.003 = 0.329 and (84-37)*0.010= 0.470.

there be the possibility of fewer mistakes or oversights that could jeopardize a student athlete's eligibility, but more importantly the counselors would be more available to meet with their student athletes. The new counselor needs to be assigned to football and track and field because they have the highest student athlete to counselor ratio. Football was the lowest academic achieving sport at UK, and some of the possible reasons are outlined.

First, football players have the one of the highest chances of becoming professional athletes, although that number remains small at 1.6% ("Probability," 2013). Next, while football has two counselors working with student athletes, both of those counselors are working with the largest number of student athletes, which is shown to lead to students performing lower academically. Finally, because football is available to more children, football players come from more diverse backgrounds than other sports. Some of football student athletes do not have the necessary support from home to achieve academically. While the results of the analysis were not significant for track and field, the counselor responsible for the sport works with the next highest number of student athletes. When considering the effect the student athlete to counselor ratio has on student athletes' GPAs, additional support will help track and field student athletes achieve more academically.

The second recommendation is to adjust the current organizational structure CATS. Many of the counselors who are responsible for the most student athletes also have additional job duties that take a significant amount of time. These duties include being the coordinator for all scholarship textbooks, being in charge of the GAs, and being the coordinator for students with learning disabilities. There are two options to alleviate this issue.

First CATS should adjust how the sports are divided among the counselors. There is a clear split among the counselors. Four counselors work with at least twenty or more student athletes. However, it may be difficult to equalize how many student athletes the counselors work with each year because the number on the rosters varies slightly each year. The second option would be to adjust the additional job responsibilities of each counselor. While all of the counselors have some sort of additional job responsibilities, some require more time than others. A survey of the hours spent on these duties and then a reallocation of the duties may alleviate some the pressure of the counselors who work with more student athletes.

The final recommendation for CATS is to gather and compile the data from its monitoring system at the end of each semester. The compilation of the data can be used to determine that each student athlete is getting the support they need. When each student athlete enters they need to collect initial background information to use as a control. Next, they need to retain the information of the amount of time each student spends in CATS. By not only knowing exactly how much time each student athlete spends at CATS, but also where the individual's time is spent among tutoring, quiet study, and the computer lab, the staff can use the information to determine if the student athlete is performing to his or her ability level. It will also help the staff members measure the overall effect CATS has on student athletes. By considering these recommendations the UKAD and CATS staff can continue to maintain and improve the academic support services for its student athletes.

Conclusion

This paper had limitations on the data that was collected due to resources and time; however, it did provide significant results. Additional research for student athletes at UK that includes background factors and the time spent using the facilities at CATS needs to be done. Collecting and analyzing that information will help the staff at CATS effectively allocate its resources. While the data used in this paper is most relevant to UKAD and CATS, other NCAA universities can use this information when considering how to allocate its resources to their academic enhancement facilities.

Bibliography

Fountain, Jeffrey J., and Peter S. Finley. "Academic Majors of Upperclassmen Football
    Players in the Atlantic Coast Conference: An Analysis of Academic Clustering
    Comparing White and Minority Players." *Journal of Issues in Intercollegiate
    Athletics* 2 (2009): 1-13.

"Front Page." *CATS Center for Academic and Tutorial Services*. University of Kentucky
    Athletic Association, 2013. Web. 10 Mar. 2014. <http://catsacademics.com/>.

Gurney, Gerald S., and Richard M. Southall. "College Sports' Bait and Switch." Editorial.
    ESPN. ESPN Internet Ventures, 9 Aug. 2012. Web. 10 Dec. 2013.
    <http://espn.go.com/college- sports/story/_/id/8248046/college-sports-programs-
    find-multitude-ways-game-ncaa-apr>.

Gurney, Gerald S. "Stop Lowering the Bar for College Athletes." *The Chronicle of
    Higher Education* (2011).

Le Crom, Carrie L., et al. "Factors contributing to student athlete retention." *Journal of
    issues in Intercollegiate Athletics* 14.24 (2009): 14.

McAtee, Heather. "Academic Success of UK Student Athletes." Athletics Comittee
    Meeting. KY, Lexington. 29 Jan. 2013. Lecture.

"National Collegiate Athletic Association." *Division I*. N.p, n.d. Web. 19 Oct. 2013.

"Official Roster." *Kentucky Wildcats Official Athletic Site*. University of Kentucky
    Athletic Association, n.d. Web. 20 Mar. 2014. <http://www.ukathletics.com/>.

"Probability of Competing beyond High School." *NCAA.org*. NCAA, Sept. 2013. Web.
    15 Mar. 2014. <http://www.ncaa.org/about/resources/research/probability-
    competing-beyond-high-school>.

Purdy, Dean A., D. Stanley Eitzen, and Rick Hufnagel. "Are athletes also students? The
    educational attainment of college athletes." *Social Problems* (1982): 439-448.

Sedlacek, William E., and J.A.V.A.U.N.E. ADAMS-GASTON. "Predicting the
    Academic Success of Student-Athletes Using SAT and Noncognitive Variables."
    Journal of Counseling & Development 70.6 (1992): 724-727.

Simons, Herbert D., Derek Van Rheenen, and Martin V. Covington. "Academic
    motivation and the student athlete." *Journal of College Student Development* 40
    (1999): 151-162.