Analyzing the Effect of Collegiate Athletic Success on Admissions and Perceived Institutional Quality

Adam Hearn

April 20, 2019

Abstract

Beginning each year around August, prospective college-goers begin filling out their applications to send off to institutions where they may end up for the next four years. The elements that go into this decision include the academic quality of the institution, the campus climate, and for some, the athletic successes the school has achieved in previous years. My research focuses on the last of these elements, as I assessed how collegiate athletics at the highest level impact postsecondary institutional metrics. In doing so, I found significant evidence that football success leads to increased applications, first-year enrollment, and reported SAT scores.

1 Introduction

While college athletic successes or failures in theory should play a minor role in a student's academic career, anecdotal evidence from my colleagues suggests otherwise. Growing up in a major college town, I often overheard prospective students planning to apply to that university solely due to that institution's winning culture on the football field. Additionally, after relatively smaller institutions begin to

realize athletic success, I have heard of students plan to attend that university to be a part of supporting that school's winning culture. My research topic proposes the question: does college athletic success at the NCAA's highest level impact non-athletic factors?

To explore this topic, I analyzed two ends of the equation: both the athletic side and the academic side of NCAA Division I institutions. By utilizing panel data collected from multiple data sources including Sports-Reference.com and the Integrated Postsecondary Education Data System between 2004 to 2017, I created a robust, representative sample of institutions to obtain estimates on the effect of various athletic features on academic metrics such as applications, first-year enrollment, reported SAT scores, and acceptance rates.

This longitudinal panel data allow me to employ a fixed-effects transformation on my model. Therefore, I am allowed to account for school-specific heterogeneity bias that an OLS estimation fails to do. There are several school-specific unobserved variables: factors that are the same within schools, but differ across schools. These variables include factors such as attitudes towards sports which can bias OLS estimates.[1] For example, some of the most academically selective institutions such as Duke University and the University of Notre Dame place a big emphasis on their basketball and football programs respectively. However, similar academically prestigious institutions such as Vanderbilt University and Georgetown University place less of a priority on athletics. A fixed-effects transformation will take this into account in its model. Additionally, I will be accounting for year fixed-effects, which will account for differences in sports attitudes across years. For example, a high-school cohort graduating in 2015 may be more likely to follow collegiate athletics and thus respond to these changes in athletic successes than the cohort graduating in 2005.

There are several advantages for institutions of higher education to empha-

[1] This change in coefficients is displayed in Table 14.

size the role of athletics on their respective campuses. McCormick and Tinsley (1987) found evidence that increased football success can increase the number of admissions, thus leading to an increase in the average quality of incoming students. Additionally, Mixon and Ressler (1995) determined that for each additional round played in the NCAA basketball tournament, there is roughly a 6% increase in out-of-state enrollment. For public colleges and universities, this leads to more students paying higher out-of-state tuition rates. These increased revenues found in both application fees and tuition can allow institutions to allocate their funds towards towards new academic resources.

In undertaking this research, I was able to contribute to the literature on this topic in an effort to provide policy recommendations to institutional administrators on the wide-ranging effects of collegiate athletic success. The findings of my research suggest that college basketball success plays no role in affecting the number of students who choose to apply to or attend an institution. However, there are significant effects for success in college football impacting these metrics. Furthermore, there is evidence that suggests that increasing college football win percentage can lead to higher reported SAT scores and lower acceptance rates: two metrics commonly used in college selectivity indexes.

2 Previous literature

In addition to the aforementioned McCormick and Tinsley (1987) and Mixon and Ressler (1995), there have been several studies on the various effects of collegiate athletic success. In these reports, however, there have been mixed findings on the impacts athletics have on other metrics. For example, there have been numerous papers finding evidence of positive effects of athletic success on academic variables. Tucker and Amato (1993) determined football success results in an estimated 3% increase in institution's reported SAT scores, holding other variables constant.

Murphy and Trandel (1994) used fixed-effects OLS, resulting in finding evidence of increasing conference winning percentage by 25% increasing the total number of applications by 1.3%. Lastly, Pope and Pope (2009) determined that winning the NCAA Basketball National Championship leads to a 7-8% increase in applications the following year.

However, other studies conducted using slightly different methods of measuring sporting success have suggested the opposite. This includes Bremmer and Kesselring (1993), Mangold, Bean and Adams (2003), and Tucker (1992). Bremmer and Kesselring (1993) found no evidence that football or basketball success impacts average SAT scores, while Mangold, Bean and Adams (2003) reported no relationship between athletic success and academic metrics. Tucker (1992) even found a negative relation between the two, suggesting football success leads to worse graduation rates.

These differences among papers are concerning. As mentioned in Pope and Pope (2009), this is primarily the result of using different indicators of athletic success. For example, Murphy and Trandel (1994) used within-conference winning percentage for football while Bremmer and Kesselring (1993) used football post-season bowl game appearances. I tackled this issue by conducting an F-test on a vector of success variables to determine joint significance of athletic success rather than using just one indicator (a method used in much of the previous literature). Additionally, academic data was collected from different sources across these studies. Mixon and Ressler (1995) used academic data from *Peterson's Guide to America's Colleges and Universities*, while McCormick and Tinsley (1987) used data from American Universities and Colleges. Lastly, many of the studies have had a limited number of observations across schools and years, thus leading to biased estimators. This shortage of data has led researchers to resort to using different econometric specifications, which can impact results.

Much of the research conducted in this field thus far has employed cross-sectional

methods. However, this leads to unobserved school-specific heterogeneity bias. For example, Mixon and Ressler (1995) conducted a cross-sectional OLS model with percentage of out-of-state students on the left-hand-side, and total number of rounds a school participated in the NCAA basketball tournament plus controls as explanatory variables. However, the lack of temporal variation in this study is troubling, as it did not account for school-specific unobserved variables (such as attitudes towards sports) which are correlated with sports success and can thus bias estimates. Following in the footsteps of Pope and Pope (2009), I employed a fixed-effects model using similar explanatory variables which will control for these unobserved school-level variables.

There has been literature suggesting that these effects are greater for private institutions than public institutions, such as in Pope and Pope (2009). However, no interactions were used in the analysis. Without interactions, the authors cannot estimate the partial effect of win percentage for a private institution as opposed to a public institution. I investigate this interaction in my model, in an attempt to estimate this partial effect.

The research previously conducted in this field has also not accounted for regional differences in sports culture. While this variable would "drop out" in a fixed-effects model, it is still possible to test the interaction. Traditionally, the south views football as a more popular sport, whereas basketball generally takes priority elsewhere. I exploited this discrepancy in regions by using US Census data and testing for these differences. It was my hypothesis that football plays a bigger role in impacting admissions and enrollments in the south, while basketball has a greater effect in the northern and western states.

Similarly, many of the publications have focused their success on big-school athletic success: programs who likely find themselves in the most powerful athletic conferences and those that are constantly in contention to win national championships. This was evident in McCormick and Tinsley (1987), as their research was

conducted only with only 44 schools: those in "major" athletic conferences. An avenue I will be exploring in my data is the effect on smaller-school athletic success. This includes the programs that typically do not appear in the NCAA tournament and thus receive a lower year-round "advertising effect," as described by Bremmer and Kesselring (1993). Instead, relatively small institutions such as Davidson University, George Mason University, University of Maryland-Baltimore County, and the University of Loyola-Chicago became household names following surprise wins in the NCAA Basketball Tournament. These smaller institutions, void of the year-round athletic spotlight, are the programs that I investigated most closely.

I exploited these differences by looking at the dichotomy between Power-5 and non-Power-5 affiliated schools. The Power-5 conferences refer the five most competitive conferences in collegiate sports: the ACC, Big Ten, Big 12, Pac-12, and SEC. These conferences traditionally include the "big-time" programs with historically the highest level of athletic success. Tucker and Amato (2006) found evidence that simply being in a big-time athletic conference, such as the ones mentioned before, create a positive impact on applications and incoming test scores. However, no interaction effects were employed to test if there was a significant difference. I employed these interaction effects with Power-5 conference affiliation, public/private sectors, and US region to test for significant differences across groups.

Furthermore, differences between male and female applications have yet to be explored. Typically, men follow athletic news and records more closely than women. In theory, variation in male applications and enrollment should therefore respond more to athletic variables than female applications and enrollment. I contributed to the previously conducted literature on this subject by exploring these gender differences in my study.

In undertaking this research, it was my goal to utilize elements from each of these studies to consolidate the research using consistent data sources with recent years, while incorporating some of my own analysis that has yet to be undertaken,

such as differences by gender and region.

3 Data

The data used in my analysis stems from two primary data sources. The athletic metrics were mined from Sports-Reference.com, which includes information on wins, losses, and post-season success for institutions competing at the highest level in both football and basketball. For each year, there are roughly 130 football programs and 330 basketball programs.[2] There are several athletic success indicators that can be used in my model. These include post-season NCAA basketball tournament appearances and wins,[3] football bowl appearances,[4] football win percentage, basketball win percentage, and final season Associated Press rankings for both sports.

Variables on academics come from the Integrated Postsecondary Education Data System (IPEDS). IPEDS is a higher education data survey mandated by the National Center for Education Statistics to gather data from all providers of post-secondary education. It collects institution-level data in several areas, including enrollments, completions, admissions, and finances. The dependent variables of interest in my study include applications received, students enrolled, reported SAT scores, and acceptance rates. Some control variables are also incorporated, which include standardized test scores, full-time-equivalent enrollment, percent of the student population who is minority, the cost-of-attendance, and the average full-professor salary.

[2]Football data is only included for schools competing in the Football Bowl Subdivision (FBS). This is the highest level offered for collegiate football, where teams are given the chance to compete for the NCAA Division-I National Title. All institutions that have data on football also have data on basketball, however there are several schools where basketball data is the only measurement of athletic success.

[3]The NCAA Basketball tournament invites 68 teams to compete for the championship. Conference champions get automatic bids, while the rest are given on an at-large status.

[4]Any team with 6 or more wins qualifies to play in a post-season bowl game. Otherwise, their season ends at the conclusion of their last regular season game.

These control variables are included in the estimate to provide a proxy for overall type of school and academic caliber of the institution. For example, a school with a greater enrollment or higher minority ratio is likely to take in more applications and enroll more students than a smaller, more selective institution. Without these controls, a positive bias would be estimated. However, by accounting for these school-specific demographic differences that change over time, a more accurate estimation is expected. Other variables such as US Census region and dummies denoting a private institution and "Power-5" conference affiliation are also included.

Table 1 presents summary statistics on this data. The observations in my dataset include institutions for each year from 2004-2017. All of these observations are pooled in these summary statistics. Table 2 is included to display changes over time in my data. While win percentage in football and basketball remain relatively constant over time, there is a large average increase in all academic institutional variables between 2004 and 2017. On average, schools have increased the size and caliber of their incoming students. However, we do not know if athletic success plays a role in this until the regressions are run.

4 Econometric Model

By relying on a fixed-effects transformation to estimate the effect of athletic success on academics, I am controlling for all school-specific characteristics: factors that are similar within schools but vary across schools. While OLS regression estimates rely on variation across observations, I will be estimating the effects based on variation within schools. By estimating the effects in this manner, there will be no endogeneity problem caused by correlation between athletic success and other school-specific factors. The first econometric specification I used consists of the following equation:

$$Y_{it+1,2} = \alpha + X_{it}\beta + \gamma S_{it} + \lambda_i + \lambda_t + \epsilon_{it}, \quad (1)$$

where the dependent variable Y_{it} denotes measures of academic quality such as log-transformed applications or first-year yield[5] of school i in year $t+1$ or $t+2$, which will depend on which regression is run. The traditional intercept is denoted by α, while X_{it} is a vector of commonly used school quality controls such as log-controlled cost of attendance and average full-professor salary, as well as percent minority and standardized test scores of school i in year t. A log-transformation is used in the the dependent variable and the school controls to avoid larger schools biasing the estimate. Often times, these institutions' applications, enrollments, cost-of attendance, and full-professor salaries will dwarf the numbers of smaller institutions in comparison.

S_{it} represents the variable of interest, and consists of a vector of the various athletic success variables that are available in my data. This vector is measured with several different metrics, including win percentage, AP rank, and dummies corresponding to post-season berth and winning the National Championship. The traditional error term ϵ_{it} captures factors that vary across both schools and time. However, by using fixed-effects transformation, I eliminate λ_i (school-level heterogeneity). λ_i, also referred to as the unobserved-effect or "school-effect," captures all unobserved factors that vary across schools, but are fixed within a particular school. For example, this can include geographic differences, demographic differences, or attitudes towards sports culture. Additionally, λ_t, the year fixed-effect, controls for unobserved factors that are constant within each year but vary across time.

Note that this dependent variable of interest is lead by one or two years. This is done to account for timing issues in the data. Without the use of leads, the

[5]Yield refers to the number of students who were accepted to an institution that chose to attend that college or university.

model would simply be relating athletic success to academics without the study of impacts or causation. For example, "March Madness" occurs well after college applications for high-school seniors are due. Therefore, an increase in applications in the following academic years would be expected. By leading these academic variables, I am assessing the impact of the school achieving athletic success on academics, rather than just investigating a simultaneous correlation. That being said, I am more likely to achieve a model with causation rather than correlation by using these leads.

The aforementioned vector of athletic success variables creates some issues. The variables which constitute this vector include win percentage, rank, post-season berth, and national championship status. However, each of these explanatory "success" variables are highly correlated with one another, causing the standard errors of these effected variables to be substantially large.[6] To combat this issue, I investigated the F-value of this vector, which corresponds to the joint significance of these success metrics. The significance of this value is telling of the effect athletic success has on academic metrics.

In addition to the main model described in equation (1), I plan to employ a model with an interaction term to test for differences in region, public-private sectors, and Power-5 conference affiliation. For example, football is a more popular sport in the southern region of the US, and therefore success in that sport could play a bigger role in the variance of academic metrics than basketball. The same process can easily be modified to include other interactions, such as binary variables for private institutions or schools competing in the "Power-5" conferences. I will test the effect of these differences using an interaction term:

$$Y_{it+1,2} = \alpha + X_{it}\beta + \delta Q_i \times S_{it} + \gamma S_{it} + \lambda_i + \lambda_t + \epsilon_{it}. \tag{2}$$

[6]This multicollinearity issue does not cause biasedness in the estimators.

This interaction term, Q_i,[7] allows us to test for these differences between regions, sector, or Power-5 conference affiliation. For example, in testing for regional difference, Q_i would take on the binary value 1 if the institution is located in the southern region of the United States (as denoted by the US Census) and 0 otherwise. If testing for differences in public/private institutions, the variable would take on the value 1 if private, 0 otherwise. The same is repeated for differences in Power-5 and non-Power-5 affiliated schools.

In using a fixed-effects transformation, we can assume that each of the independent variables are uncorrelated with the error term due to institution-level heterogeneity (λ_i) being eliminated. Therefore, these within-school estimates of β, δ, and γ do not fall victim to the zero-conditional mean problem. However, that does not entail running a simple, effortless model.

The non-random assignment of success on the football field or basketball court needs to be accounted for in my study. One could argue that there could be an issue of reverse causality, as academic success may also impact athletic success.[8] As noted in Anderson (2012), schools with top-tier administrators could attract more applications, tuition revenue, and coaching talent. However, it is a long causal chain to assume high tuition revenues could lead to increased athletic success. For the sake of this paper, this difficulty in estimating the causal effects of athletic success will be accounted for by assuming zero correlation due to this extensive causal chain.

Equations (1) and (2) both explore the effects of athletic success on academic metrics using slightly different models, and thus will be the primary forms of estimation I will be using. In equation (1), if the F-value of γ is statistically different from zero, I am able to conclude that athletic success (measured by winning percentage, AP rank, post-season berth, and post-season success) impacts academic

[7] Note that there is no t subscript, due to this variable being invariant over time.

[8] Statistically, this was analyzed with a two-stage least-squares analysis. However, the data in this regression suggest this is not the case, as there was no evidence that found academic metrics to impact athletic success.

variables, holding other metrics fixed. Lastly, in equation (2) I am testing for differences across region, the private/public sectors, and Power-5 conference affiliated schools. If $\delta \neq 0$, I am able to determine that the interaction term in question impacts academic variables, ceteris paribus.

5 Results

5.1 The Effect of Athletic Success on Applications

The findings of equation (1) with log applications as the LHS variable are presented in Table 3. Note that a restricted model with solely win percentage as the success metric is included, alongside the unrestricted model with the vector of success variables. Out of all the athletic variables, win percentage appears to account for the most variation in applications and thus was included by itself to interpret without the problem of multicollinearity in the unrestricted model.

These results are intriguing, as they challenge some of the previously conducted literature such as Pope and Pope (2009) and Mixon and Ressler (1995). The data show that basketball success plays no role in a student's choice to apply to that university. However, there is significant evidence that success in football leads to a large increase in applications: as win percentage increases by 10 percentage points, applications rise by an estimated 1%, ceteris paribus. This figure may seem trivial at first glance, but these numbers accumulate quickly.

Given that the average collegiate football team plays between 12-13 games a season, the coefficient suggests that each additional win leads to an average of a 0.8% increase in applications.[9] For large, flagship institutions such as Penn State University, the University of Michigan, and the University of California, Berkeley who yield upwards of 50,000 applications a year, this coefficient suggests that

[9]This number represents the change in win percentage after winning a game in a 12.5 game season (the average, taken from Table 1).

roughly 400 additional high-schoolers will apply to that college after each additional win that institution achieves on the gridiron.

This number is significant both in the data and from an institutional research standpoint. Additional applications lead to several advantages for a university. Institutions can garner increased revenue from application fees, have a more qualified pool of applicants to chose from, and drive down acceptance rates to appear more selective. Not only does yielding a winning culture on the football field result in increased revenue, donations, and applications. Increasing football winning percentage can also aid in making the institution appear more selective. As the results show in Table 4, increasing football winning percentage leads to lower estimated acceptance rates and higher reported SAT scores.[10]

Furthermore, males respond to these variances in football success more so than females: displayed in Table 5. This is not surprising, considering that men tend to follow collegiate athletics more than females. Therefore, men would be more inclined to respond to these athletic successes. However, there are no significant effects across gender for collegiate basketball (Table 6).

Table 7 displays that these football effects are more significant for institutions who affiliate with a Power-5 conference. Furthermore, the data in Table 8 suggest that the effects are also more significant for the schools in the south. Lastly, the significance of the athletic success vector is greater for public institutions than private institutions (Table 9). However, when interaction terms are used with football success, no evidence is suggested that Power-5 affiliation, region, or the public-private sector play a significant effect in applications. These results also combat the findings of Pope and Pope (2009), who suggested that effects are much greater for private institutions than public, though interaction terms were not used in that analysis.

[10]These variables are commonly used metrics in the US News and World Report College Rankings index.

5.2 Collegiate Success on First-Year Yields

Due to there being no significant relationship between college basketball success and applications, it is not surprising that basketball does not effect first-year enrollments either. As displayed in Table 10, the F-value of the basketball success vector is neither significant for one-year leads or two-year leads. However, just as it was in the applications model, this value is significant for football: a 10 percentage point increase in football win percentage can lead to an estimated 0.4% increase in the number of first-year students who choose to attend that university the next fall. For large institutions that accept upwards of 10,000 students from their applicant pool, 32 additional students will attend that institution for each added win.[11]

Once again, this number is much more significant for males than females, as displayed in Table 11. It is intriguing that the magnitude of the F-test on the one-year lead is greater than that of the two-year lead. This suggests that football success during a male's senior year of high school could end up nudging them to attend that university. However, this significance does not apply to females.

In terms of differences in yield across Power-5 and non-Power-5 conferences, the public-private sector, and region, the trends follow similarly to that of applications. Responses to athletic success in yields are more significant for public, Power-5 universities than their counterparts.[12] However, there are no significant differences across region.

6 Conclusion

The results to come out of this research are interesting. To summarize, my results suggest that a college's success in basketball at the NCAA Division I level has no significant impact on a student's decision to apply to or attend that institution.

[11] This is also assuming a 12.5 game season.
[12] As displayed in Tables 12 and 13 respectively.

However, there are significant effects for college football. While football success during a student's senior year of high school plays a significant impact on applications, a greater impact comes from success during that student's junior year. These effects are greater for male prospective students. In addition, the data suggest that a college football team's success during the two years prior to a student's college decision could nudge them to end up attending that institution. Furthermore, my results show that there are no greater effects of football success impacting admissions for public, Power-5, or southern institutions.

As some of my findings align closely with the previously conducted literature, there are several aspects that disagree with some of the research conducted at this intersection of intercollegiate athletics and academics. For example, my findings of college football success impacting admissions aligns with the work of McCormick and Tinsley (1987), Tucker and Amato (1993), and Murphy and Trandel (1994). However, the lack of evidence that collegiate basketball success impacts admissions contradicts with the work of Pope and Pope (2009) and Mixon and Ressler (1995). It is informative to note why my findings are different Pope and Pope (2009). One likely reason is that there is a timing issue with the data, as I am using more recent years. This suggests that perhaps some of the effects have waned over time. However, by using more recent years with more robust variables, it is my belief that my "athletic success" vector leads to a more accurate model of prediction.

Institutional researchers are constantly thinking of ways to drive up admissions, yields, and the appearance of selectivity for their respective universities. However, they may not realize that success on the football playing field may be an additional avenue to explore.

References

Anderson, Michael L. 2012. "The Benefits of College Athletic Success: An Application of the Propensity Score Design with Instrumental Variables." National Bureau of Economic Research.

Bremmer, Dale, and Randall Kesselring. 1993. "The advertising effect of university athletic success: A reappraisal of the evidence." *Quarterly Review of Economics and Finance*, 33(4).

Mangold, William D., Luann Bean, and Douglas Adams. 2003. "The Impact of Intercollegiate Athletics on Graduation Rates among Major NCAA Division I Universities: Implications for College Persistence Theory and Practice." *The Journal of Higher Education*, 74(5).

McCormick, Robert E, and Maurice Tinsley. 1987. "Athletics versus Academics? Evidence from SAT Scores." *Journal of Political Economy*, 95(5).

Mixon, Franklin J, and Rand W Ressler. 1995. "An Empirical Note on the Impact of College Athletics on Tuition Revenues." *Applied Economics Letters*, 2(10).

Murphy, Robert G, and Gregory A Trandel. 1994. "The Relation Between a University's Football Record and the Size of its Applicant Pool." *Economics of Education Review*, 13(3).

Pope, Devin G, and Jaren C Pope. 2009. "The Impact of College Sports Success on the Quantity and Quality of Student Applications." *Southern Economic Journal*, 75(3).

Tucker, Irvin B. 1992. "The impact of big-time athletics on graduation rates." *Atlantic Economic Journal*, 20(4).

Tucker, Irvin B, and Louis Amato. 1993. "Does Big-Time Success in Football or Basketball Affect SAT Scores?" *Economics of Education Review*, 12(2).

Tucker, Irvin B., and L. Ted Amato. 2006. "A Reinvestigation of the Relationship Between Big-Time Basketball Success and Average SAT Scores." *Journal of Sports Economics*, 7(4): 428–440.

Table 1: Pooled summary statistics of NCAA Division I Institutions, 2004-2017

Variable	(1) Mean	(2) Std. Dev.	(3) Min.	(4) Max
School characteristics				
Basketabll games played	31.92	2.48	17.00	41.00
Basketball win percentage	0.51	0.17	0.00	0.97
Football games played	12.55	0.77	10.00	15.00
Football win percentage	0.52	0.22	0.00	1.00
12. mo FTE enrollment	15,734.36	11,543.83	247.00	69,248.00
Percent minority enrollment	0.39	0.23	0.05	1.00
Total number of applications	13,345.63	11,413.40	930.00	102,225.00
SAT 50th Percentile	1128.98	138.62	740.00	1535.00
Cost of attendance	$41,084.13	12,378.10	$0.00	$75,706.00
Avg. full professor salary	$117,859.12	28,416.68	$63,820.70	$249,490.50
Observations	5084			

Notes: Monetary Figures are in 2018 US Dollars.

Cost of attendance refers to in-state rates for public institutions.

Data sources: IPEDS, Sports-Reference.com

Table 2: Change in means of key variables from 2004-2017

Variable	(1) 2004	(2) 2017	(3) Avg. change
School characteristics			
Basketball games played	29.96	32.91	2.95
Basketball win percentage	0.51	0.52	0.00
Football games played	11.59	12.71	1.15
Football win percentage	0.51	0.52	0.02
12-mo. FTE Enrollment	14,628.49	16,490.74	1,862.25
Percent minority enrollment	0.35	0.44	0.09
Total number of applications	9,623.38	18,107.82	8,798.40
SAT 50th Percentile	1127.83	1187.67	69.13
Cost-of-attendance	$35,608.74	$47,223.90	$11,283.96
Avg. full-prof. salary	$116,616.63	$120,018.78	$4,030.02
Observations	322	322	

Notes: Monetary Figures are in 2018 US Dollars.

Cost of attendance refers to in-state rates for public institutions.

Data sources: IPEDS, Sports-Reference.com

Table 3: The Effect of College Athletic Performance on Applications

	Log applications: 1-year lead				Log applications: 2-year lead			
	Basketball		Football		Basketball		Football	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.022***	0.022***	0.024***	0.024***	0.019***	0.019***	0.021***	0.021***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Log of cost-of-attendance	1.018***	1.018***	0.684***	0.689***	0.995***	0.994***	0.688***	0.695***
	(0.039)	(0.039)	(0.054)	(0.054)	(0.041)	(0.041)	(0.058)	(0.058)
Log of full-prof. salary	0.480***	0.481***	0.730***	0.730***	0.367***	0.367***	0.602***	0.605***
	(0.069)	(0.069)	(0.106)	(0.106)	(0.073)	(0.073)	(0.115)	(0.115)
Percent minority enrollment	1.298***	1.297***	1.800***	1.814***	1.150***	1.152***	1.805***	1.825***
	(0.097)	(0.097)	(0.137)	(0.138)	(0.104)	(0.104)	(0.155)	(0.155)
Median SAT (*hundreds*)	0.093***	0.093***	0.143***	0.143***	0.073***	0.073***	0.128***	0.128***
	(0.013)	(0.013)	(0.020)	(0.020)	(0.014)	(0.014)	(0.022)	(0.022)
Win percentage	0.014	0.036	0.098***	0.072	0.038	0.056	0.109***	0.059
	(0.023)	(0.044)	(0.023)	(0.055)	(0.024)	(0.046)	(0.025)	(0.058)
Post-season rank		0.000		-0.000		0.000		-0.001
		(0.000)		(0.000)		(0.000)		(0.000)
Post-season berth		-0.011		-0.012		-0.007		-0.019
		(0.011)		(0.016)		(0.011)		(0.016)
National Champion		0.047		0.025		0.099		0.017
		(0.060)		(0.047)		(0.061)		(0.050)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		0.51		4.75***		1.41		5.82***
Observations	3830	3830	1438	1438	3512	3512	1321	1321
Schools	339	339	127	127	338	338	127	127
R-squared	0.46	0.46	0.62	0.62	0.41	0.41	0.57	0.57

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Post-season berth is a dummy responding to 1 if the institution was given a bid to play in the NCAA Division I Basketball Tournament or to play in a Football Championship Series (FCS) Bowl Game, depending on the sport being analyzed.

Table 4: The Effect of College Football Success on Selectivity

Variable	Reported SAT (1)	Acceptance Rate (2)
School characteristics		
Median SAT (hundreds)		-0.423***
		(0.008)
Log of 12-mo. FTE enrollment	-19.112	0.018
	(12.828)	(0.026)
Log of cost-of-attendance	6.297	0.021
	(11.894)	(0.024)
Log of full-prof. salary	45.892*	0.031
	(22.582)	(0.046)
Log of applications	35.570***	-0.075***
	(6.001)	(0.012)
Percent minority enrollment	2.39***	-0.071
	(0.318)	(0.064)
Win percentage	9.710*	-0.021*
	(4.777)	(0.010)
Observations	1329	1321
R-squared	0.23	0.12

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Dependent variables are used with a two-year lead.

Table 5: The Effect of College Football Performance on Applications by Gender

	Log applications: 1-year lead				Log applications: 2-year lead			
	Male		Female		Male		Female	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.023***	0.023***	0.025***	0.025***	0.020***	0.020***	0.022***	0.022***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Log of cost-of-attendance	0.637***	0.642***	0.716***	0.720***	0.641***	0.649***	0.712***	0.717***
	(0.055)	(0.055)	(0.055)	(0.055)	(0.059)	(0.059)	(0.060)	(0.060)
Log of full-prof. salary	0.726***	0.726***	0.736***	0.735***	0.592***	0.595***	0.623***	0.625***
	(0.107)	(0.107)	(0.108)	(0.108)	(0.116)	(0.116)	(0.118)	(0.118)
Percent minority enrollment	1.771***	1.786***	1.803***	1.815***	1.755***	1.775***	1.831***	1.849***
	(0.139)	(0.140)	(0.140)	(0.141)	(0.156)	(0.157)	(0.158)	(0.159)
Median SAT (*hundreds*)	0.164***	0.164***	0.124***	0.123***	0.147***	0.148***	0.110***	0.110***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.022)	(0.022)	(0.022)	(0.022)
Win percentage	0.111***	0.080	0.088***	0.071	0.120***	0.058	0.103***	0.063
	(0.024)	(0.056)	(0.024)	(0.056)	(0.025)	(0.058)	(0.026)	(0.059)
Post-season rank		-0.000		-0.000		-0.001*		-0.001
		(0.000)		(0.000)		(0.000)		(0.000)
Bowl game appearance		-0.013		-0.011		-0.019		-0.016
		(0.016)		(0.016)		(0.017)		(0.017)
National Champion		0.022		0.028		0.002		0.028
		(0.048)		(0.048)		(0.051)		(0.051)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		5.91***		3.75*		7.02***		4.76***
Observations	1438	1438	1438	1438	1321	1321	1321	1321
Schools	127	127	127	127	127	127	127	127
R-squared	0.61	0.61	0.62	0.62	0.55	0.55	0.56	0.57

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 6: The Effect of College Basketball Performance on Applications by Gender

	Log applications: 1-year lead				Log applications: 2-year lead			
	Male		Female		Male		Female	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.021***	0.021***	0.022***	0.022***	0.018***	0.018***	0.020***	0.020***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Log of cost-of-attendance	0.962***	0.963***	1.072***	1.071***	0.935***	0.935***	1.044***	1.043***
	(0.039)	(0.040)	(0.039)	(0.039)	(0.042)	(0.042)	(0.041)	(0.042)
Log of full-prof. salary	0.487***	0.486***	0.484***	0.485***	0.389***	0.388***	0.355***	0.356***
	(0.071)	(0.071)	(0.071)	(0.071)	(0.075)	(0.075)	(0.074)	(0.074)
Percent minority enrollment	1.236***	1.237***	1.331***	1.330***	1.094***	1.096***	1.189***	1.191***
	(0.099)	(0.099)	(0.099)	(0.099)	(0.106)	(0.106)	(0.105)	(0.105)
Median SAT (*hundreds*)	0.109***	0.109***	0.084***	0.084***	0.082***	0.082***	0.073***	0.073***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.015)	(0.015)	(0.015)	(0.015)
Win percentage	0.016	0.020	0.014	0.046	0.042	0.049	0.036	0.064
	(0.024)	(0.045)	(0.024)	(0.045)	(0.025)	(0.047)	(0.025)	(0.047)
Post-season rank		-0.000		0.000		0.000		0.000
		(0.000)		(0.000)		(0.000)		(0.000)
NCAA Tournament appearance		-0.009		-0.013		-0.002		-0.011
		(0.011)		(0.011)		(0.011)		(0.011)
National Champion		0.055		0.041		0.094		0.104
		(0.061)		(0.061)		(0.062)		(0.062)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		0.48		0.60		1.33		1.55
Observations	3821	3821	3821	3821	3506	3506	3506	3506
School	339	339	339	339	338	338	338	338
R-squared	0.43	0.43	0.47	0.47	0.38	0.38	0.42	0.42

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. NCAA Tournament appearance is a dummy responding to 1 if the institution was given a bid to play in the NCAA Division I Basketball Tournament.

Table 7: The Effect of College Football Performance on Applications by Power-5 Conference Affiliation

	Log applications: 1-year lead				Log applications: 2-year lead			
	Non Power-5		Power-5		Non Power-5		Power-5	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.020***	0.020***	0.026***	0.026***	0.018***	0.018***	0.020***	0.020***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Log of cost-of-attendance	0.604***	0.600***	0.677***	0.692***	0.590***	0.598***	0.754***	0.759***
	(0.076)	(0.077)	(0.076)	(0.076)	(0.081)	(0.081)	(0.083)	(0.083)
Log of full-prof. salary	0.423**	0.421**	0.954***	0.956***	0.412*	0.410*	0.709***	0.731***
	(0.149)	(0.150)	(0.160)	(0.160)	(0.160)	(0.160)	(0.176)	(0.177)
Percent minority enrollment	1.797***	1.811***	1.918***	1.941***	1.654***	1.666***	2.056***	2.080***
	(0.208)	(0.210)	(0.177)	(0.177)	(0.234)	(0.235)	(0.196)	(0.197)
Median SAT (*hundreds*)	0.136***	0.136***	0.151***	0.148***	0.124***	0.125***	0.121***	0.120***
	(0.029)	(0.029)	(0.026)	(0.026)	(0.032)	(0.032)	(0.029)	(0.029)
Win percentage	0.084*	0.040	0.106**	0.129	0.114**	0.085	0.103**	0.038
	(0.033)	(0.080)	(0.032)	(0.073)	(0.036)	(0.084)	(0.034)	(0.076)
Post-season rank		-0.000		-0.000		-0.001		-0.001
		(0.001)		(0.001)		(0.001)		(0.001)
Bowl game appearance		0.014		-0.045*		-0.019		-0.024
		(0.023)		(0.020)		(0.024)		(0.021)
National Champion		-0.048		0.012		-0.042		0.025
		(0.178)		(0.042)		(0.181)		(0.045)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		1.73		4.13**		2.95*		3.22*
Observations	782	782	656	656	724	724	597	597
Schools	62	62	84	84	62	62	84	84
R-squared	0.46	0.46	0.73	0.73	0.41	0.41	0.69	0.70

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 8: The Effect of College Football Performance on Applications by Region

	Log applications: 2-year lead							
	Northeast		Midwest		South		West	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.011*	0.010	0.027***	0.028***	0.016***	0.015***	0.024***	0.023***
	(0.005)	(0.005)	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)
Log of cost-of-attendance	1.647***	1.597***	0.006	0.021	0.747***	0.756***	0.825***	0.870***
	(0.224)	(0.226)	(0.135)	(0.135)	(0.079)	(0.079)	(0.131)	(0.132)
Log of full-prof. salary	-0.849**	-0.898**	0.732*	0.798*	0.828***	0.838***	0.516*	0.523*
	(0.299)	(0.307)	(0.335)	(0.334)	(0.163)	(0.163)	(0.214)	(0.214)
Percent minority enrollment	-0.768*	-0.731	3.354***	3.304***	1.520***	1.529***	2.060***	2.075***
	(0.376)	(0.379)	(0.285)	(0.286)	(0.228)	(0.229)	(0.373)	(0.374)
Median SAT (*hundreds*)	0.074	0.060	0.110**	0.098**	0.122***	0.124***	0.144**	0.143**
	(0.074)	(0.075)	(0.036)	(0.037)	(0.031)	(0.031)	(0.055)	(0.055)
Win percentage	0.011	-0.033	0.066	0.065	0.131***	0.097	0.101*	-0.058
	(0.067)	(0.162)	(0.049)	(0.102)	(0.038)	(0.088)	(0.050)	(0.119)
Post-season rank		0.001		-0.000		-0.001		-0.002*
		(0.001)		(0.001)		(0.001)		(0.001)
Bowl game appearance		0.063		-0.022		-0.041		-0.021
		(0.042)		(0.030)		(0.026)		(0.034)
National Champion		0.000		0.332*		-0.024		0.022
		(.)		(0.137)		(0.059)		(0.161)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		0.88		2.14		4.11**		2.17
Observations	99	99	283	283	632	632	307	307
Schools	9	9	27	27	65	65	26	26
R-squared	0.65	0.66	0.64	0.65	0.55	0.56	0.64	0.65

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 9: The Effect of College Football Performance on Applications by Public/Private Sector

	Log applications: 1-year lead				Log applications: 2-year lead			
	Public		Private		Public		Private	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.023***	0.023***	0.038***	0.039***	0.019***	0.019***	0.036**	0.036**
	(0.002)	(0.002)	(0.010)	(0.010)	(0.002)	(0.002)	(0.011)	(0.011)
Log of cost-of-attendance	0.757***	0.766***	0.441***	0.430***	0.805***	0.818***	0.355**	0.340**
	(0.062)	(0.062)	(0.114)	(0.115)	(0.067)	(0.067)	(0.118)	(0.119)
Log of full-prof. salary	0.701***	0.697***	0.787**	0.751*	0.625***	0.624***	0.540	0.481
	(0.118)	(0.118)	(0.291)	(0.295)	(0.129)	(0.128)	(0.314)	(0.320)
Percent minority enrollment	1.723***	1.741***	1.544***	1.563***	1.679***	1.703***	1.769***	1.811***
	(0.152)	(0.153)	(0.373)	(0.374)	(0.173)	(0.173)	(0.407)	(0.410)
Median SAT (*hundreds*)	0.134***	0.133***	0.238***	0.235***	0.131***	0.132***	0.171**	0.166**
	(0.021)	(0.021)	(0.059)	(0.060)	(0.024)	(0.024)	(0.063)	(0.063)
Win percentage	0.083**	0.070	0.185**	0.116	0.095***	0.052	0.209***	0.127
	(0.026)	(0.059)	(0.058)	(0.144)	(0.027)	(0.062)	(0.060)	(0.150)
Post-season rank		-0.000		0.000		-0.001*		0.000
		(0.000)		(0.001)		(0.000)		(0.001)
Bowl game appearance		-0.023		0.059		-0.031		0.071
		(0.017)		(0.042)		(0.018)		(0.046)
National Champion		0.033		-0.040		0.021		-0.056
		(0.049)		(0.162)		(0.052)		(0.163)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		3.47**		3.00**		4.71***		3.69**
Observations	1221	1221	217	217	1120	1120	201	201
Schools	109	109	19	19	109	109	19	19
R-squared	0.62	0.62	0.67	0.67	0.57	0.57	0.60	0.60

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 10: The Effect of College Athletic Performance on First-Year Enrollment

	Log yield: 1-year lead				Log yeild: 2-year lead			
	Basketball		Football		Basketball		Football	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.019***	0.019***	0.018***	0.018***	0.014***	0.014***	0.013***	0.013***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Log of cost-of-attendance	0.176***	0.176***	0.163***	0.165***	0.213***	0.216***	0.215***	0.218***
	(0.024)	(0.024)	(0.031)	(0.031)	(0.026)	(0.026)	(0.034)	(0.034)
Log of full-prof. salary	0.120**	0.120**	0.238***	0.237***	0.097*	0.093*	0.218**	0.220**
	(0.044)	(0.044)	(0.061)	(0.061)	(0.047)	(0.047)	(0.067)	(0.067)
Percent minority enrollment	0.285***	0.285***	0.285***	0.280***	0.278***	0.278***	0.278**	0.292**
	(0.061)	(0.061)	(0.079)	(0.080)	(0.066)	(0.066)	(0.090)	(0.090)
Median SAT (*hundreds*)	-0.013	-0.013	-0.014	-0.014	-0.010	-0.010	0.001	0.002
	(0.008)	(0.008)	(0.011)	(0.011)	(0.009)	(0.009)	(0.013)	(0.013)
Win percentage	0.028	0.022	0.040**	0.065*	-0.014	-0.064*	0.025	-0.038
	(0.015)	(0.028)	(0.014)	(0.032)	(0.015)	(0.029)	(0.015)	(0.033)
Post-season rank		-0.000		0.000		-0.000*		-0.001**
		(0.000)		(0.000)		(0.000)		(0.000)
Post-season berth		0.003		-0.008		0.001		-0.004
		(0.007)		(0.009)		(0.007)		(0.010)
National Champion		-0.007		-0.011		0.013		0.004
		(0.038)		(0.027)		(0.039)		(0.029)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		0.99		2.43*		1.29		2.51*
Observations	3830	3830	1438	1438	3512	3512	1321	1321
Schools	339	339	127	127	338	338	127	127
R-squared	0.19	0.19	0.36	0.36	0.14	0.14	0.29	0.29

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Post-season berth is a dummy responding to 1 if the institution was given a bid to play in the NCAA Division I Basketball Tournament or to play in a Football Championship Series (FCS) Bowl Game, depending on the sport being analyzed.

Table 11: The Effect of College Football Performance on First-Year Enrollment by Gender

	Log yield: 1-year lead				Log yield: 2-year lead			
	Male		Female		Male		Female	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.017***	0.017***	0.022***	0.022***	0.012***	0.012***	0.017***	0.017***
	(0.001)	(0.001)	(0.003)	(0.003)	(0.001)	(0.001)	(0.003)	(0.003)
Log of cost-of-attendance	0.158***	0.158***	0.111	0.114	0.201***	0.204***	0.169*	0.173*
	(0.035)	(0.036)	(0.076)	(0.076)	(0.038)	(0.038)	(0.077)	(0.077)
Log of full-prof. salary	0.205**	0.204**	0.422**	0.422**	0.196**	0.198**	0.346*	0.349*
	(0.069)	(0.069)	(0.149)	(0.149)	(0.075)	(0.075)	(0.152)	(0.152)
Percent minority enrollment	0.170	0.155	0.526**	0.554**	0.189	0.200*	0.513*	0.539**
	(0.090)	(0.090)	(0.193)	(0.193)	(0.101)	(0.101)	(0.204)	(0.205)
Median SAT (*hundreds*)	0.004	0.004	-0.054*	-0.053	0.014	0.015	-0.047	-0.045
	(0.013)	(0.013)	(0.027)	(0.028)	(0.014)	(0.014)	(0.029)	(0.029)
Win percentage	0.053***	0.105**	0.047	-0.056	0.031	-0.022	0.044	-0.083
	(0.015)	(0.036)	(0.033)	(0.077)	(0.016)	(0.038)	(0.033)	(0.076)
Post-season rank		0.000		-0.001		-0.001*		-0.001*
		(0.000)		(0.001)		(0.000)		(0.001)
Bowl game appearance (5-year lag)		-0.004		0.000		-0.006		-0.003
		(0.010)		(0.022)		(0.011)		(0.022)
National Champion		-0.030		0.032		-0.008		0.011
		(0.031)		(0.066)		(0.033)		(0.066)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		3.81**		1.25		2.12		1.64
Observations	1438	1438	1438	1438	1321	1321	1321	1321
Schools	127	127	127	127	127	127	127	127
R-squared	0.28	0.28	0.13	0.13	0.21	0.21	0.10	0.11

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 12: The Effect of College Football Performance on First-Year Enrollment by Public/Private Sector

	Log yield: 1-year lead				Log yield: 2-year lead			
	Public		Private		Public		Private	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.017***	0.017***	0.017***	0.018***	0.013***	0.013***	0.003	0.002
	(0.001)	(0.001)	(0.004)	(0.004)	(0.001)	(0.001)	(0.005)	(0.005)
Log of cost-of-attendance	0.186***	0.188***	0.123**	0.131**	0.245***	0.252***	0.162**	0.149**
	(0.037)	(0.038)	(0.047)	(0.047)	(0.041)	(0.041)	(0.050)	(0.050)
Log of full-prof. salary	0.267***	0.267***	0.378**	0.365**	0.223**	0.223**	0.674***	0.684***
	(0.071)	(0.071)	(0.119)	(0.120)	(0.078)	(0.078)	(0.133)	(0.134)
Percent minority enrollment	0.288**	0.287**	0.290	0.268	0.282**	0.296**	0.312	0.360*
	(0.092)	(0.092)	(0.153)	(0.153)	(0.105)	(0.105)	(0.173)	(0.172)
Median SAT (*hundreds*)	0.002	0.003	-0.097***	-0.095***	0.023	0.025	-0.122***	-0.128***
	(0.013)	(0.013)	(0.024)	(0.024)	(0.014)	(0.014)	(0.027)	(0.026)
Win percentage	0.043**	0.049	0.035	0.145*	0.036*	-0.024	-0.015	-0.152*
	(0.015)	(0.036)	(0.024)	(0.059)	(0.017)	(0.037)	(0.026)	(0.063)
Post-season rank		-0.000		0.001		-0.001**		-0.001
		(0.000)		(0.000)		(0.000)		(0.000)
Bowl game appearance		-0.005		-0.022		-0.011		0.033
		(0.010)		(0.017)		(0.011)		(0.019)
National Champion		-0.010		-0.056		-0.002		-0.010
		(0.029)		(0.066)		(0.032)		(0.068)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		2.07		1.71		3.15*		1.82
Observations	1221	1221	217	217	1120	1120	201	201
Schools	109	109	19	19	109	109	109	19
R-squared	0.37	0.37	0.37	0.38	0.30	0.30	0.34	0.36

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 13: The Effect of College Football Performance on First-Year-Enrollment by Power-5 Conference Affiliation

	Log yield: 1-year lead				Log yield: 2-year lead			
	Non Power-5		Power-5		Non Power-5		Power-5	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.018***	0.018***	0.018***	0.018***	0.013***	0.013***	0.012***	0.012***
	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Log of cost-of-attendance	0.104*	0.102*	0.202***	0.207***	0.158***	0.158**	0.286***	0.290***
	(0.045)	(0.045)	(0.042)	(0.042)	(0.048)	(0.048)	(0.047)	(0.047)
Log of full-prof. salary	0.142	0.143	0.341***	0.348***	0.209*	0.206*	0.258*	0.288**
	(0.088)	(0.088)	(0.088)	(0.088)	(0.094)	(0.094)	(0.100)	(0.099)
Percent minority enrollment	0.343**	0.319**	0.377***	0.382***	0.286*	0.299*	0.425***	0.446***
	(0.122)	(0.123)	(0.098)	(0.098)	(0.138)	(0.139)	(0.112)	(0.111)
Median SAT (*hundreds*)	0.041*	0.040*	-0.083***	-0.082***	0.054**	0.054**	-0.066***	-0.065***
	(0.017)	(0.017)	(0.015)	(0.015)	(0.019)	(0.019)	(0.016)	(0.016)
Win percentage	0.032	0.098*	0.060***	0.038	0.037	-0.009	0.018	-0.083
	(0.020)	(0.047)	(0.018)	(0.041)	(0.021)	(0.050)	(0.019)	(0.043)
Post-season rank		0.001		-0.000		-0.000		-0.001***
		(0.000)		(0.000)		(0.000)		(0.000)
Bowl game appearance		-0.006		-0.015		0.004		-0.020
		(0.013)		(0.011)		(0.014)		(0.012)
National Champion		-0.058		-0.003		-0.040		0.018
		(0.104)		(0.023)		(0.107)		(0.025)
School fixed-effects	X	X	X	X	X	X	X	X
Year fixed-effects	X	X	X	X	X	X	X	X
F-value		1.36		3.68**		1.14		4.15**
Observations	782	782	656	656	724	724	597	597
R-squared	0.26	0.26	0.50	0.50	0.20	0.20	0.41	0.43

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Bowl game appearance is a dummy responding to 1 if the institution was given a bid to play in a Football Championship Series (FCS) Bowl Game.

Table 14: The Effect of College Athletic Performance on Applications using OLS and FE

	Log applications: 2-year lead							
	Basketball OLS		Basketball F.E.		Football OLS		Football F.E.	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
School characteristics								
12 mo. FTE enrollment (*thousands*)	0.040***	0.041***	0.019***	0.019***	0.033***	0.033***	0.021***	0.021***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)
Log of cost-of-attendance	0.192***	0.195***	0.995***	0.994***	0.455***	0.456***	0.688***	0.695***
	(0.025)	(0.025)	(0.041)	(0.041)	(0.036)	(0.036)	(0.058)	(0.058)
Log of full-prof. salary	1.172***	1.186***	0.367***	0.367***	0.572***	0.572***	0.602***	0.605***
	(0.065)	(0.066)	(0.073)	(0.073)	(0.114)	(0.115)	(0.115)	(0.115)
Percent minority enrollment	0.393***	0.377***	1.150***	1.152***	0.181**	0.179**	1.805***	1.825***
	(0.040)	(0.042)	(0.104)	(0.104)	(0.067)	(0.069)	(0.155)	(0.155)
Median SAT (*hundreds*)	0.048***	0.049***	0.073***	0.073***	0.075***	0.075***	0.128***	0.128***
	(0.011)	(0.011)	(0.014)	(0.014)	(0.017)	(0.017)	(0.022)	(0.022)
Win percentage	-0.076	0.072	0.038	0.056	0.057	-0.010	0.109***	0.059
	(0.047)	(0.078)	(0.024)	(0.046)	(0.048)	(0.116)	(0.025)	(0.058)
Post-season rank		0.000		0.000		0.000		-0.001
		(0.000)		(0.000)		(0.001)		(0.000)
Post-season berth		-0.050*		-0.007		0.041		-0.019
		(0.025)		(0.011)		(0.038)		(0.016)
National Champion		0.048		0.099		0.025		0.017
		(0.140)		(0.061)		(0.113)		(0.050)
School fixed-effects			X	X			X	X
Year fixed-effects			X	X			X	X
F-value		2.48*		1.41		0.65		5.82***
Observations	3512	3512	3512	3512	1321	1321	1321	1321
Schools			338	338			127	127
R-squared	0.69	0.69	0.41	0.41	0.66	0.66	0.57	0.57

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Standard deviation in parentheses. Cost-of-attendance refers to in-state rates for public institutions. Monetary figures are in 2018 US Dollars. Rank is derived from the end-of-season Associated Press (AP) Poll. Post-season berth is a dummy responding to 1 if the institution was given a bid to play in the NCAA Division I Basketball Tournament or to play in a Football Championship Series (FCS) Bowl Game, depending on the sport being analyzed.