The Flutie and Anti-Flutie Effect:
The Impact of Football Championships
and Athletic Malfeasance on the University

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Abstract:

Athletics can impact the entire university, and there is evidence that administrators' peer rankings are influenced by athletics as well. We analyze both the positive effect of winning championships and the negative effects of football bowl bans and vacated games. We find that championship effects are positive: increasing peer rankings, alumni giving, and student academic quality. Surprisingly, peer rankings increase the year of the football bowl ban but decrease the year after the ban. Additionally, there is evidence that bowl bans increase a school's acceptance rate and decrease academic quality at the sanctioned university, whereas vacated games lower alumni giving.

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Introduction

University athletic programs are uniquely situated to serve as a signal of university quality to potential students, alumni, and even peer institutions. People outside of a university often find it difficult to discern if an institution is being managed or operated efficiently. For this reason, members of the public use different proxies for the perceived quality of a school, and one such proxy is a school's athletic successes or failures. For instance, Mulholland et al. (2014) found a Flutie Effect in the US News and World Report's (USNWR) *America's Best Colleges* rankings. They found that administrators and faculty provide higher peer ratings to schools with a highly ranked football program. In our article, we replicate one of their results and extend it by looking at additional measures at a university, specifically athletic malfeasance.

Additionally, Jacob et al. (2018) noted that for every dollar a university spends on academics, the institution spends forty-five to eighty cents on consumption amenities. Their finding suggests that many universities allocate significant monetary resources to dormitories, athletic programs, and student recreational facilities, hoping to attract students with a preference for these amenities. The affiliation between sports and education helps explain why higher learning institutions invest significant monetary resources in athletics as opposed to increasing their spending on academic endeavors.

Prior studies have illustrated how athletic successes can lead to increases in the quality and quantity of applicants in the overall student body. Our research expands on this prior work by detailing the influence of athletic malfeasance on a university as measured by peer rankings, alumni giving, and various student profile measures. For our study, we use data from the USNWR college rankings. Our findings indicate a negative effect on the student profile when a university's athletic program is caught cheating. When gross malfeasance is detected in an

athletics program, leading to the imposition of an NCAA football postseason bowl ban, there are negative impacts on alumni giving, student quality, and acceptance rates. Surprisingly, we find that a school's peer ranking in USNWR improves the year of the bowl ban; however, this is a temporary effect as the improved ranking falls by the same magnitude the following year after the ban.

An NCAA postseason bowl ban is a well-publicized signal that we identify as a global signal because it is known by all. A bowl ban is a noticeable sanction that is easily seen by peer institutions and prospective students. Vacated games at the time of occurrence, on the other hand, are a signal known by few, only those close to the university, such as current students and alumni. We identify this as a local signal. Vacated games only become a global signal when the athletic malfeasance is announced, which can vary from after the season has concluded to several years after the malfeasance has occurred. These different measures provide a test of the strength of the various signals. Our analysis shows that both bowl bans and vacated games lower alumni giving. Alumni givers closely follow the university and are more likely to be aware of malfeasance as it is occurring. Conversely, we find that vacated games do not influence peer rankings suggesting that administrators at peer institutions do not closely follow the university athletics department of the schools they are ranking.

Related Literature

Multiple studies have investigated the relationship between athletic success and student quality. An early study by McCormick and Tinsley (1987) found a positive relationship between SAT scores and athletic success when examining football performance. Mixon (1995) also found a similar positive relationship between basketball tournament games and student SAT scores.

Additionally, Mixon, Treviño, and Minto (2004) noted a positive association between football win percentages and SAT scores.

The relationship between academics and athletics has been tested in many studies, but the correlation between the two has not always proven to be beneficial for a school. While Bremmer and Kesselring (1993) found a positive association between athletic success and SAT scores, the results of this study were not statistically significant. Further, Tucker and Amato (1993) did not find consistent support that basketball success provides a boost to SAT scores (although they do support the idea that football success distributes higher-quality students towards those schools with successful programs). A later study by Tucker and Amato (2006) analyzed a multi-year sample of basketball success, allowing for lags in freshmen SAT scores, and discovered significantly positive results until the second half of the time period studied when the Bowl Championship Series (BCS) football was introduced.

Athletic success also has a disparate impact on the academic distribution of students. Pope and Pope (2009) noted that lower academically achieving students, measured by SAT scores, had a greater response to athletic success. In addition, Chung (2013) discovered a positive relationship between athletic success and SAT scores, noting that while all students are affected by athletic success, lower-scoring students seem to be more heavily impacted. Pope and Pope (2014) later expanded this study and discerned that students who were athletes, from out-of-state, Black, or male students were the most likely to be impacted by a winning sports season. They also observed that SAT scores increased based on winning seasons, and this effect continued if the team advanced in postseason matches.

Looking more specifically at results from football, Murphy and Trandel (1994) analyzed the relationship between a football team's winning record and the number of applications the

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institution received. They noted a positive and statistically significant increase in applications sent to a school, however, this increase was small in magnitude. Smith (2008) found similar results but indicated that merit-based criteria had a larger impact on potential students than athletic-based criteria. McEvoy (2005) also found a positive and significant relationship between sports and applications, with football being the primary driver of increased applications.

Additional research examining the impact of athletics on a university's academic profile has indicated that a school is likely to experience changes to the student profile when that institution is featured positively in a news story, had an upset victory, or was implicated in some form of controversy surrounding their championship season (Toma and Cross, 1998). Caudill, Hourican, and Mixon (2018) found that cutting a university's football program contracts the student applicant pool and lowers the incoming academic quality of students as measured by ACT test scores. Using "Cinderella" runs in the NCAA Basketball Tournament, Collier et al. (2020) noted that applications and freshman enrollments increase at schools that make these unexpected runs. Lastly, Eggers et al. (2021) showed that a "Flutie Effect" exists for both the winning team and the losing team in a game identified as a significant upset, with both schools seeing an increase in applications, and the winning school experiencing an increase in enrollment.

The impact of athletic success on a university is not only found in enrollment numbers or incoming student quality but is also present when analyzing current students enrolled at the institution. Both Lindo et al. (2012) and Hernández-Julián and Rotthoff (2014) found that athletic success at a school negatively impacted the overall GPA on campus. In contrast, prior research by Tucker (2004) showed that football success increased graduation rates. Mixon and

Trevino (2005) also found a positive relationship between football success and both freshman retention rates and graduation rates.

The correlation between athletics and the university has also been examined by looking beyond academic metrics, with one of these additional factors being the relationship between donor behavior and athletics (Monks, 2003 and Rhoads and Gerking, 2000). Faria et al. (2019) found a snowball effect for donations, that growing donations help grow more donations. Their model suggests that universities should invest in reputation-enhancing aspects of the university (arguing the results of this study are valuable not just for what happens within the peer-ranking category, but also for how university decisions impact future donations). Additionally, Humphreys (2006) found that state appropriations increase by having a big-time football program, and these results are even larger when fielding a successful big-time football team.

Alter and Reback (2014) discerned that student considering colleges are impacted by both academic and other quality-of-life rankings. Lovaglia and Lucas (2005) noted an association between highly visible athletics programs and increased university prestige in a survey of students at one institution. However, a separate study was inconclusive when examining the association between university rankings and on-the-field performance (Fisher, 2009). It has also been noted that championships affect academic rankings, but an on-the-field improvement from a sports team does not appear to have an impact on these metrics (Cox and Roden, 2010).

School rankings also drive both enrollments and student quality. Monks and Ehrenberg (1999) indicated that as school rankings fall, there is a decrease in academic quality among the incoming freshman class. Griffith and Rask (2007) have also shown that an increased ranking helps gain high-ability students, with those students who are non- financially aided being the most responsive. However, moving up in these rankings does not provide equal benefits for all

institutions. Bowman and Bastedo (2009) noted that moving up one position into a top 50 ranking, and again to a top 25 ranking, is more valuable than merely gaining five places in the 50-75 ranking. Furthermore, one study has shown that a positive media relationship is also essential to the advertising value of a university (Kim et al., 2007).

Additional literature has focused on whether athletic malfeasance has an impact on the academic profile of a university. The results on this topic are mixed. Hughes and Shank (2008) found that schools struggle to recover from athletic scandals within a short time period. Eggers et al. (2019 and 2020) also showed that postseason bowl bans in football, and postseason tournament bans in basketball, decreased applications, admittances, and enrollment of freshman students. Likewise, Chressanthis and Grimes (1993) also noted a negative enrollment yield correlated with sanctions being applied to a school. The Penn State Scandal was analyzed by Johnson and McCannon (2022), finding that post-scandal the school recruited students with lower GPAs and SAT Math scores. Groothuis, Eggers, and Redding (2018) also found that mean test scores fall when a university's basketball program is placed on probation by the NCAA. Conversely, Smith (2015) observed that sanctions such as the loss of scholarships imposed on either a basketball or football program had no impact on the institution in terms of applications.

Lastly, the literature examining the role of athletics on peer evaluation scores is relatively new. Volkwein and Sweitzer (2006) established a three-stage relationship in which institutional reputation, coupled with building a foundation for attracting high-quality faculty and students, resulted in productive outcomes for students and faculty. Mulholland, Tomic, and Sholander (2014) analyzed if football performance affected a university's USNWR peer assessment score and found the number of Associated Press (AP) votes a school's athletics program received increased the respective school's peer ranking for all schools in the Football Bowl Subdivision

(FBS). They additionally found that being listed in the Coaches' poll for football increased peer rankings; therefore, their study indicates that simply being a member of FBS football has a positive affect peer assessment scores.

Data and Methodology

To test the impact of athletic malfeasance at a university as measured by NCAA football bowl bans, we use data from 117 Division I football programs for twenty-one seasons from 1998 to 2018.[2] For our study, we utilize data similar to Mulholland, Tomic, and Sholander (2014) from the USNWR, including peer assessment scores. USNWR has been ranking colleges for many years and includes a peer ranking system that was first started in 1998. The USNWR reports data on graduation rates, university acceptance rates, alumni giving, class size, student-faculty ratio, and peer ranking scores.

The peer assessment score is the metric that allows us to test whether peers at other institutions penalize schools who undergo potentially adverse events, such as athletic misconduct. The peer assessment portion of the ranking is conducted via a survey and is sent to schools in which the institution shares its ranking category. High-ranking administrators at peer institutions then complete the survey; this includes presidents, provosts, admissions deans, or other individuals in comparable positions within the university (Morse and Brooks, 2020).

The individuals who respond to these surveys are asked to rank their peers based on "undergraduate academic programs on a scale from 1 (marginal) to 5 (distinguished)" (Morse

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[2]This sample represents all NCAA Division I FBS (formally D-IA) schools from the American Athletic Conference (AAC, with many of these schools formally in the Big East), Atlantic Coast Conference (ACC), the Big 12 Conference, the Big 10 Conference, Conference U.S.A., the Mid-American Conference (MAC), the Mountain West Conference, the PAC 12, the Southeastern Conference (SEC), the Sun Belt Conference, and the Western Athletic Conference. Schools from the FCS (Formally D-IAA) and NFS (No Football Schools) are excluded from this sample. Only schools that were in D-IA for the entire sample are included (so any school that entered the division during this time period is not in our sample).

and Brooks, 2020). If the respondent does not feel comfortable rating a school, they are asked to respond with "don't know," which does not factor into the ratings. These responses are then utilized by USNWR for university rankings that year.

The USNWR indicates the importance of this particular rating by stating, "Academic reputation matters because it factors things that cannot easily be captured elsewhere. For example, an institution known for having innovative approaches to teaching may perform especially well on this indicator, whereas a school struggling to keep its accreditation will likely perform poorly" (Morse and Brooks, 2020). We suggest this measure also provides a test of how athletics may serve as a signal of school quality.

These evaluations are sent in the spring of each year; therefore, Mulholland, Tomic, and Sholander (2014) referenced the most recent sports year that had already occurred for the purposes of their research. We also relate our measured events to the nearest USNWR survey, and all the schools with identified athletic infractions fall within the National Universities ranking in USNWR. This category is defined by USNWR as those institutions which offer broad undergraduate programs and graduate programs at both the masters and doctoral level with higher levels of research.

The data on football malfeasance comes from the NCAA website for both bowl bans and vacated games (Barnhart, 2012). During this period, there were fourteen universities that engaged in malfeasance resulting in a football postseason bowl ban, including four schools that received two bans. Postseason bowl bans occur for gross malfeasance, whereas vacated games generally result from violations of the NCAA Division I Manual.

The types of malfeasance that may result in bowl bans or vacated wins include, but are not limited to, recruiting violations, improperly paying student-athletes, academic fraud, and loss

of institutional control. According to the NCAA rules, violations are handled in a four-stage process, as outlined by Barnhart (2012). Firstly, the NCAA investigates the infractions that they believe occurred. Secondly, the NCAA charges the athletic program with the violations. Thirdly, the Committee of Infractions (COI) of the NCAA conducts a hearing. Fourth and finally, the COI deliberates and can impose sanctions. In table 1, we list all the football postseason bowl bans for each school by year, including the reason for the ban and whether it was self-imposed.

[Table 1]

In table 2, we report the forfeited and vacated football games of all schools within our sample that occurred between 1998-2018.[3] We specify whether the university vacated some wins, all wins, and the number of wins the university forfeited or vacated. Finally, we include why the wins at each school were vacated or forfeited. These include many schools that had to vacate all wins during the season, while some schools only had to vacate one win. Our analysis matches the vacated games to the season the malfeasance occurred and not the season that the sanction was announced. Once again, using this method, we suggest that a bowl ban provides a global signal that is identified by all, while vacated games provide a local signal of malfeasance that only is noticed by individuals close to the program.

[Table 2]

We report the institutions that won a championship in football during our study in table 3. We list the name of the school, along with the championship year, in chronological order. We include the championship years to examine and confirm that athletic success impacts the USNWR peer ranking. This measure is a positive global signal known by all.

[Table 3]

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[3] In our analysis, almost all of our games are vacated and not forfeited. This small nuance has the ability to change the record books of the two institutions impacted but does not have an impact on our analysis.

The variables we use as our dependent variables are reported in table 4. In the first three rows, we report the various measures of peer rankings. Initially, we report the mean peer score for a school, which was 3.1, with a minimum of 1.3 and a maximum of 4.9. We further report the change in peer rankings between each year, finding very little difference in these scores. This indicates that roughly the same number of schools increased as decreased in peer rankings for a mean of 0.01. In absolute value terms, the mean change is still small and equal to 0.061, suggesting that schools' reputations, as measured by peer rank, only change slightly each year.

[Table 4]

We further use two measures of alumni giving in our analysis. Our first measure indicates the percentage of alumni that donate to their alma mater each year. The mean percent giving is 16%, with a maximum of 52% and a minimum of 1.5% of alumni donating each year. Our second measure is the average amount that is given per alumni. This amount ranges from $1.00 to $273.00, with a mean of $98.73. These two measures can be used to test the Sanderson and Siegfried (2018) hypothesis that athletics may influence private donations.

We additionally use multiple measures of student success and academic quality in our analysis. One measure is the acceptance rate at a university, which indicates the selectivity of the school. This measure is calculated by the number of students that are admitted to a school, divided by the number of students that applied to the institution. The mean acceptance rate for schools in our study is 64%, and ranges between 5% and 100%. Another measure is the graduation rate for students within six years of enrollment. The mean graduation rate for the schools examined is 63%, with a maximum of 98% and a minimum of 21%. The higher the graduation rate, the more student success at that institution. The success of institutions in

retaining students is measured by the freshmen retention rate, which ranges from 59% to 99% with an average of 83.7%.

We further include several measures of the academic quality pertaining to the students at an institution. These measures include freshmen in the top 10 percent of their high school class, and the student's SAT or ACT score in the 75th percentile of their class.[4] The 75th percentile measure captures the top of the class with only 25 percent scoring higher than the 75th percentile student. In previous research, athletic success has been shown to affect student quality and graduation rates; therefore, we use these measures to determine if winning a national championship or if athletic malfeasance affects student quality and retention measures.

Lastly, we examine teaching quality at a school as measured by class size and student-faculty ratio. The first measure is large classes, or those classes with greater than 50 students. This category has a mean percentage of 12.62 and ranges from 0 to 36.8. A larger percentage in this category is considered lower teaching quality. Our second measure is small classes with less than 20 students, an average of 41.91 percent, that ranges from 15.2 to 97.1 percent. A larger percentage in this category is a signal of higher teaching quality. Our last measure of teaching quality is the student-faculty ratio, with a mean of 16.75 that ranges from 4 to 32. A lower ratio in this category is considered indicative of higher teaching quality. These measures can also be a proxy for the number of students who are enrolled in the university. Fewer students suggest smaller class sizes and smaller student-faculty ratios.

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[4] In the USNWR report data schools either reported an ACT score or an SAT score a few reported both, therefor our analysis of this measure is only on a subset of schools.

Methods and Results

In our empirical model, we include a dummy variable to measure the influence of detected malfeasance, either as a bowl ban or vacated games. We also test for this type of malfeasance by using variables during the year of the ban, with a one-year lead measure (estimated to check for an impact before the ban is served, since universities often know about or announce a potential bowl ban before it is implemented). We further include two lag variables after the ban (to measure if the detected malfeasance has a lasting effect on the university).

$$Y_{it} = \beta_1 Ban_{t-1} + \beta_2 Ban_t + \beta_3 Ban_{t+1} + \beta_4 Ban_{t+2} +$$

$$\beta_5 Vacated\ Games_{t-1} + \beta_6 Vacated\ Games_t + \beta_7 Vacated\ Games_{t+1} +$$

$$\beta_8 Vacated\ Games_{t+2} + \beta_9 Championship_{t-1} + \beta_{10} Championship_t +$$

$$\beta_{11} Championship_{t+1} + \beta_{12} Championship_{t+2} + \gamma U + \delta Y + \varepsilon$$

We use a fixed effect regression technique to control for both the differences between universities and the differences over time. The university fixed effect, *U,* controls for all university characteristics that are time-invariant, including whether the school is religious, private, or public. The year fixed effects, *Y,* control for changing demographics of students and macro-economic conditions that change over time. In our first specification on the change in peer ranking, we do not include control variables for university quality that change over time because our hypothesis suggests that athletic malfeasances serve as a signal for university quality and therefore are endogenous to the peer ranking. However, for all other specifications (which we use throughout the remainder of the regression estimates), we add school level controls, and controls for the conference the team played in during that year (controlling for the impact of conference realignments which occurred during the years of our study).

[Table 5]

In table 5, we report the results of athletic malfeasance on changes in the USNWR peer ranking. Column one includes only the bans and their lags, the championships and their lags, and the vacated games and their lags, as well as school and year fixed effects. However, in column two, we add multiple school control variables to make sure the results are not being driven by these controls changing over time. In this regression, we include the percent alumni giving, the amount of alumni giving, the freshman in the top ten percent of their class, the freshman retention rate, the graduation rate within six years, the percent of classes greater than 50 students, the student-faculty ratio, and the percent of classes less than 20. We also control for the conference the team played in for that year, which allows for any conference realignment effects to be controlled.

Surprisingly, we find that peer rankings increase for sanctioned schools the year of the bowl ban. The year the bowl ban is enacted, the change in peer ranking increased by 0.070, which is an increase of about one standard deviation. When including school controls, this estimate increases to 0.090. However, these positive impacts are short-lived, and the year after the ban this change decreases by essentially the same magnitude, thereby eliminating the entirety of the gain enacted the year of the ban. We further find that vacated games identified at the time of the malfeasance have no influence on peer rankings. These results support the idea that bowl bans are global signals while vacated games are local signals. Lastly, winning a national championship (global signal) increases peer ranking two years after winning a championship.

In table 6, we report the effects of malfeasance on alumni giving, analyzing both the percentage of alumni who give and the amount they give. In this, and the remainder of the estimates, we continue to use our preferred specification by including the school level and conference controls. When analyzing alumni giving, we find that the percentage of alumni giving

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increases before the bowl ban. However, when looking at vacated games, the percentage of alumni giving falls both before and after the vacated game (the magnitude of this drop for vacated games is about one-seventh the size of the gain before a bowl ban).

To put a value on these estimates, we find that each vacated game lowers alumni giving by 83 cents the year before the vacated game, lowers alumni giving by $1.32 the year after the vacated game, and by 75 cents two years after the vacated game. Given that the average number of vacated games for sanctioned schools is about six games, the amount of average alumni giving falls by $4.98, $7.92, and $4.50, respectively. Lastly, winning a national championship increases alumni giving by $9.94 two years after winning the championship. These results are consistent with the theory that alumni respond both to local and global signals, where championships increase alumni giving, and malfeasance decreases giving.[5]

[Table 6]

In table 7, we analyze the effect of athletic malfeasance and success on measures of student selectivity and quality. In this portion of our study, we measure student selectivity and quality by the acceptance rate, incoming freshman in the top 10% of their high school class, and the score of the student at the 75th percentile of their class for both the ACT and SAT test. We find that universities become less selective during a bowl ban and following vacated games, with acceptance rates of incoming students increasing by 3.7% the year before the ban, 3.3% the year of the ban, and 3.1% the year after the ban. The average acceptance rate for the schools in our study is 64%, suggesting these universities are about 5% less selective on average. We also see a

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[5] Following a bowl ban the average amount donated to a university decreased by $7.47 the year after the bowl ban and $4.31 two years after the bowl ban. Comparing the average giving of $100 a year to our coefficients, we find that postseason bans led to a 7% and 4% decrease in alumni giving the year after and two years after the bowl ban. The magnitudes of these effects are quite large but the standard errors are also large, so they are not statistically significant – but given we have population data, the results are suggestive.

smaller increase, 0.31%, in the acceptance rate for vacated games in both the year before and the year of the vacated games. Using the mean number of vacated games at six, this translates to a 1.92% reduction or a 3% less selective average. We find that championships have no statistically significant influence on the acceptance rate.

[Table 7]

Also in table 7, we measure changes to incoming freshman acceptance rates in the top 10% of their high school class and find a significant increase in this category before a bowl ban. There is no measurable impact on this metric when schools experience vacated games, but we do see a positive impact on this measure when schools win a championship, with an increase of 3.04 percentage points the year before the championship, 1.97 percentage points the year of the championship and 2.00 percentage points the year after the championship. Focusing on the subset of schools who reported SAT results, we find no changes in the 75th percentile test score. Focusing on the 75th percentile ACT test score, we find that championships increase the 75th percentile score by 0.51 and 0.44 or by 1.8% and 1.6% evaluated at the mean ACT 75th percentile score of 27 for the year after and two years after respectively.

[Table 8]

In table 8, we report the influence of postseason bans on student retention rates at a school. We find that a bowl ban has no impact on freshman retention. We do, however, find that there is an effect on the graduation rate for the year of the ban and two years after the ban is implemented. In the year of the ban, the graduation rate increases by 1 percent. The first year after the ban, the graduation rate increases by 1.33 percent, and two years after the ban, the 6-year graduation rate at the school increases by 1.8 percent. These results suggest in the years surrounding the bowl ban, that students are graduating within six years at a two percent higher

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rate than in other years when evaluated at the mean graduation rate of 63 percent. We also see, in the championship year, there is a 1.6 percent decrease in the six-year graduation rate. In the years surrounding the championship, there is a smaller decrease one year later of about 1.1 percent. These results support the theory that athletic success negatively impacts academic success, and the possibility identifies that malfeasance may positively impact academic success (Lindo et. al, 2012, and Hernández-Julián and Rotthoff, 2014)

[Table 9]

In table 9, we analyze variables that relate to the student-faculty ratios. Typically, these measures are used to identify quality and experience measures in the classroom. Smaller classes allow for more personal attention and a more personal experience in the classroom. However, this could also happen (unintentionally) when a school does not enroll the targeted number of students in classes. In column one, we find there are fewer students per faculty during, one, and two years after the ban. Thus, it appears, when matched with the acceptance rate changes in table 7, that fewer students are enrolling in the bowl banned schools.

We also see this result above played out in terms of vacated games, with a decrease in large classes two years out from the vacated games (column one), and an increase the year of vacated games in small classes (column two). There is also a smaller student to faculty ratio in the year of, and the year after, the vacated games. Regarding winning a championship, we find that there is an increase in larger classes and an increased student-faculty ratio that we might expect if athletics have a positive impact on enrollment at the winning universities. These results suggest that football success increases enrollment and malfeasance decreases enrollment.

Conclusion

Our study demonstrates that NCAA postseason football bowl bans and vacated games both reduce the academic quality of students opting to attend the sanctioned university, negatively impacts the amount of alumni giving at the school, and increase the acceptance rate at an institution – which together indicate the school is becoming less selective. Given the negative media attention surrounding a postseason ban, these events may serve as a global signal to prospective students and alumni regarding the overall quality of the university. Even without media attention, stake holders close to the school react negatively to malfeasance that leads to vacated games in the season they occur even before they are announced publicly. These schools then respond by increasing their acceptance rate (becoming less selective) and having classes that are smaller on average, given the lower enrollment. Our results suggest that an Anti-Flutie effect exists for students and alumni following detected athletic malfeasance at a university. Winning a championship has the opposite effect of increasing the academic quality of students, the amount of alumni giving, and even the peer assessment scores. This suggests that the Flutie effect exists for athletic success.

Unexpectedly, however, when schools face athletic malfeasance cases, their peer rankings improve in USNWR, although only temporarily. This could be a signal to other schools that the sanctioned university administration is willing to penalize bad behaviors (and thus, prioritize good behaviors). Alternatively, this could also indicate that there is no such thing as bad publicity. It is further plausible that schools facing athletic malfeasance penalties choose to devote additional resources to highlight that they have changed their behavior. We further find that more students graduate from the sanctioned school, suggesting that a bowl ban has a positive effect on the school for this academic measure. This potentially beneficial effect of athletic

malfeasance could be due to students paying more attention to academic work than athletic events.

One interesting result in this study is that the marginal impact of the Flutie effect is more pronounced than the impact of the anti-Flutie effect. Another way to think about this is that the marginal benefits of "cheating" could outweigh the expected marginal cost of this "cheating." This would take more detailed data to accurately tease out, but this is a good line of future research as this seems to be in line with what seems to be happening in collegiate sports. Ultimately, collegiate sports are an exceptionally visible aspect of a university, and athletic misconduct, culminating in highly publicized football bowl bans and vacated games, can have detrimental ramifications on an institution's overall academic profile. However, the malfeasance of these penalized schools does not have a lasting impact on the judgement of that school's peer administrators.

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Table 1: List of NCAA Football Postseason Bowl Bans

Season Year	University	Year of Ban	Reason for Ban
2002-3	University of Alabama	2002	Recruiting violations and repeat offender status. Ban appealed and upheld by NCAA appeals committee.
2002-3	University of California	2002	Academic fraud, academic eligibility, obligation to withhold ineligible student-athletes from competition, extra benefits, recruiting and lack of institutional control. Ban appealed and upheld by NCAA appeals committee.
2002-3	University of Kentucky	2002	Recruiting violations, academic fraud, lack of institutional control. Ban appealed and upheld by NCAA appeals committee.
2003-4	University of Alabama	2003	Recruiting violations and repeat offender status. Ban appealed and upheld by NCAA appeals committee.
2004-5	Mississippi State University	2004	Recruiting violations and repeat offender status. Ban not appealed.
2010-11	University of Southern California	2010	Improper benefits, lack of institutional control. Ban appealed and upheld by NCAA appeals committee.
2011-12	University of Southern California	2011	Improper benefits, lack of institutional control. Ban appealed and upheld by NCAA appeals committee.
2011-12	University of Miami Florida	2011	Booster violations, lack of institutional control. Self-imposed ban of two years of postseason competition.
2012-13	Pennsylvania State University	2012	Sexual abuse scandal. Four-year ban appealed and overturned by NCAA appeals committee, but only after the second year of the ban had occurred.
2012-13	University of North Carolina	2012	Academic fraud, impermissible agent benefits, participation by ineligible players and failure to monitor the football program. Ban not appealed.
2012-13	The Ohio State University	2012	Non-booster, shop owner providing impermissible extra benefits, loans and discounts in exchange for football awards and equipment. Preferential treatment violations, and unethical conduct. Repeat offender status. Ban not appealed.

2012-13	University of Miami Florida	2012	Booster violations, lack of institutional control. Self-imposed ban of two years of postseason competition.
2013-14	Pennsylvania State University	2013	Sexual abuse scandal. Four-year ban appealed and overturned by NCAA appeals committee, but only after second year of ban had occurred.
2017-18	University of Mississippi	2017	Recruiting violations. Self-imposed ban.
2018-19	University of Mississippi	2018	Same recruiting violations case. This ban is part of two-year ban imposed by NCAA committee (self-imposed 2017 counted as first year of the ban). Appealed and upheld by NCAA appeals committee.

Table 2: Forfeited and Vacated Games

Championship Year	University	Forfeit or Vacated Wins	Reason for Forfeit or Vacated Games
1998	Texas A&M	Forfeited one win	A forfeited win because of an academically ineligible player
1998	Southern Methodist University	Vacated ten games	Vacated wins from a player being academically ineligible
1999	University of California	Vacated all (four) wins	Vacated wins because Cal altered the grades of two players
2004	Syracuse University	Vacated all (six) wins	A local YMCA employee paid some football players
2004	University of Southern California	Vacated two wins	Penalized for a lack of institutional control (including numerous benefits to the running back)
2005	Syracuse University	Vacated all (one) Win	A local YMCA employee paid some football players
2005	University of Southern California	Vacated all (twelve) wins	Penalized for a lack of institutional control (including numerous benefits to the running back)
2005	Arkansas State University	Vacated four wins	Feilding ineligible athletes.
2005	University of Alabama	Vacated all (ten) wins	Athletes who were labeled by the NCAA as "intentional wrongdoers." They knowingly exploited the school's textbook system to secure books for friends and family members
2006	Syracuse University	Vacated all (four) wins	A local YMCA employee paid some football players

2006	Florida State University	Vacated all (six) wins	An academic cheating scandal
2006	Arkansas State University	Vacated all (six) wins	Feilding ineligible athletes.
2006	University of Alabama	Vacated all (six) wins	Athletes who were labeled by the NCAA as "intentional wrongdoers." They knowingly exploited the school's textbook system to secure books for friends and family members
2007	Florida State University	Vacated all (seven) wins	An academic cheating scandal
2007	University of Alabama	Vacated first five wins	Athletes who were labeled by the NCAA as "intentional wrongdoers." They knowingly exploited the school's textbook system to secure books for friends and family members
2008	University of North Carolina	Vacated all (eight) wins	Athletes accepting improper benefits and academic misconduct
2009	University of North Carolina	Vacated all (eight) wins	Athletes accepting improper benefits and academic misconduct
2009	Georgia Institute of Technology	Vacated one win	Using ineligible player
2010	Ohio State University	Vacated all (thirteen) wins	Using ineligible players
2010	University of Mississippi	Vacated all (four) wins	Vacated 33 football wins over six seasons (2010-2016) for fielding ineligible players
2011	University of Mississippi	Vacated all (two) wins	Vacated 33 football wins over six seasons (2010-2016) for fielding ineligible players

2011	University of Louisiana	Vacated eight wins	Exam fraud and payments to recruits
2012	University of Notre Dame	Vacated all (twelve) wins	Academic fraud and impermissible academic benefits
2012	University of Mississippi	Vacated all (seven) wins	Vacated 33 football wins over six seasons (2010-2016) for fielding ineligible players
2013	University of Louisiana	Vacated all (eight) wins	Exam fraud and payments to recruits
2013	University of Notre Dame	Vacated all (nine) wins	Academic fraud and impermissible academic benefits
2013	University of Mississippi	Vacated all (eight) wins	Vacated 33 football wins over six seasons (2010-2016) for fielding ineligible players
2014	University of Louisiana	Vacated two wins	Exam fraud and payments to recruits
2014	University of Mississippi	Vacated all (eight) wins	Vacated 33 football wins over six seasons (2010-2016) for fielding ineligible players
2016	University of Mississippi	Vacated all (five) wins	Vacated 33 football wins over six seasons (2010-2016) for fielding ineligible players

Table 3: NCAA Football Championships

Year:	Institution:
1998	University of Tennessee
1999	Florida State University
2000	University of Oklahoma
2001	University of Miami (Fla.)
2002	Ohio State University
2003	Louisiana State University
	University of Southern California
2004	University of Southern California
2005	University of Texas
2006	University of Florida
2007	Louisiana State University
2008	University of Florida
2009	University of Alabama
2010	Auburn University
2011	University of Alabama
2012	University of Alabama
2013	Florida State University
2014	Ohio State University
2015	University of Alabama
2016	Clemson University
2017	University of Alabama
2018	Clemson University

Table 4: Means

	Mean (Standard Deviation)	Minimum	Maximum
Peer Ranking	3.117 (0.665)	1.3	4.9
Change in Peer Ranking	0.010 (0.126)	-1.1	1.0
Absolute Value Change in Peer Ranking	0.061 (0.110)	0	1.1
Percent Alumni Giving	15.553% (9.030)	1.5%	52.1%
Amount Alumni Giving	$98.731 (64.96)	$1.00	$273.00
Acceptance Rate	63.96% (21.834)	5%	100%
Graduation within 6 years	63.250 (17.138)	21%	98%
Freshmen Retention	83.716 (8.499)	59%	99%
Freshman Top 10 Percent	83.193 (62.976)	1	300
SAT 75th Percentile	1290.781 (132.619)	24	1600
ACT 75th Percentile	26.796 (2.570)	21	55
Percent Class Size Over 50	12.624 (5.796)	0	36.8
Percent Class Size Under 20	41.913 (12.800)	15.2	97.1
Student Faculty Ratio	16.753 (4.511)	4	32

Schools=111 Years=21, Change in Peer rank: Schools=111 Years=20,

SAT and ACT 75th percentile: Schools=62 and 65 respectively Years 21

Table 5: Peer Effects

VARIABLES	Change in Peer Ranking	Change in Peer Ranking
Bowl Ban (t-1)	-0.009	-0.019
	(0.017)	(0.019)
Bowl Ban (t)	0.069*	0.090*
	(0.040)	(0.053)
Bowl Ban (t+1)	-0.067	-0.083*
	(0.043)	(0.045)
Bowl Ban (t+2)	0.019	0.017
	(0.026)	(0.028)
Champion (t-1)	0.010	0.005
	(0.010)	(0.017)
Champion (t)	-0.011	-0.010
	(0.013)	(0.018)
Champion (t+1)	0.021	0.025
	(0.021)	(0.028)
Champion (t+2)	0.022***	0.033***
	(0.007)	(0.011)
Vacated Win (t-1)	0.001	0.000
	(0.002)	(0.002)
Vacated Wins (t)	-0.001	-0.002
	(0.002)	(0.002)
Vacated Wins (t+1)	0.001	-0.000
	(0.002)	(0.002)
Vacated Wins (t+2)	-0.000	-0.002
	(0.001)	(0.001)
Percent Alumni Giving		-0.001***
		(0.000)
Amount Alumni Giving		-0.011***
		(0.003)
Freshman Retention		-0.002
		(0.002)
Acceptance Rate		0.000
		(0.000)
Freshman Top 10 Percent		-0.000
		(0.000)
Percent Class Size Under 20		0.000
		(0.001)
Student Faculty Ratio		0.000
		(0.002)
Graduation within 6 years		0.000
		(0.001)
Percent Class Size Over 50		-0.001

		(0.001)
ACC		0.034
		(0.042)
Big 10		0.037
		(0.045)
Big 12		0.017
		(0.044)
Pac 12		-
SEC		0.005
		(0.055)
AAC (formally the Big East)		0.017
		(0.043)
USA		0.021
		(0.028)
MAC		-0.019
		(0.038)
Mountain West		-0.009
		(0.034)
Sun Belt		-
Constant	0.033**	0.499**
	(0.015)	(0.220)
Observations	1,848	1,567
R-squared	0.082	0.192
Number of colleges	111	111

Specifications include Year and School Fixed Effects and School Controls
(clustered standard error in parentheses)
*significant at the 90% **significant at the 95% *** significant at 99% levels

Table 6: Alumni Giving

VARIABLES	Percent Alumni Giving	Amount of Alumni Giving
Bowl Ban (t-1)	1.108**	2.596
	(0.491)	(3.956)
Bowl Ban (t)	-0.013	-3.788
	(0.878)	(6.502)
Bowl Ban (t+1)	-0.773	-7.471
	(1.078)	(5.939)
Bowl Ban (t+2)	-0.316	-4.310
	(0.495)	(2.667)
Champion (t-1)	-0.471	-2.919
	(0.839)	(5.459)
Champion (t)	0.915	4.861
	(1.104)	(6.941)
Champion (t+1)	1.222	7.179
	(1.010)	(6.117)
Champion (t+2)	1.144	9.944**
	(0.875)	(4.579)
Vacated Win (t-1)	-0.155**	-0.832*
	(0.069)	(0.434)
Vacated Wins (t)	-0.044	-0.723
	(0.076)	(0.502)
Vacated Wins (t+1)	-0.171	-1.318**
	(0.106)	(0.598)
Vacated Wins (t+2)	-0.086	-0.746*
	(0.060)	(0.389)
Percent Alumni Giving		-7.184***
		(0.557)
Amount Alumni Giving	-0.073***	
	(0.008)	
Freshman Retention	0.011	-1.101**
	(0.048)	(0.553)
Acceptance Rate	0.010	0.293**
	(0.012)	(0.141)
Freshman Top 10 Percent	-0.009	0.041
	(0.022)	(0.165)
Percent Class Size Under 20	-0.002	0.059
	(0.023)	(0.193)
Student Faculty Ratio	0.002	-1.176**
	(0.046)	(0.500)
Graduation within 6 years	0.038	0.053
	(0.030)	(0.292)
Percent Class Size Over 50	-0.014	-0.028

	(0.048)	(0.455)
ACC	1.195	11.845
	(1.624)	(17.116)
Big 10	0.438	12.747
	(1.773)	(17.975)
Big 12	0.556	2.943
	(1.840)	(16.256)
Pac 12	-	-
SEC	2.475	-10.890
	(2.142)	(20.266)
AAC (formally the Big East)	1.656	26.732*
	(1.583)	(15.980)
USA	2.854***	25.306*
	(1.081)	(13.923)
MAC	1.535	22.187
	(1.517)	(15.917)
Mountain West	2.251	13.755
	(1.553)	(15.442)
Sun Belt	-	-
Constant	20.347***	300.909***
	(4.873)	(44.954)
Observations	1,567	1,567
R-squared	0.637	0.587
Number of colleges	111	111

Specifications include Year and School Fixed Effects and School Controls
(clustered standard error in parentheses)
*significant at the 90% **significant at the 95% *** significant at 99% levels

Table 7: Student Academic Quality

VARIABLES	Acceptance Rate	Freshman Top 10 Percent	SAT 75th Percentile	ACT 75th Percentile
Bowl Ban (t-1)	3.738***	2.887**	2.233	0.146
	(1.072)	(1.149)	(4.614)	(0.186)
Bowl Ban (t)	3.266***	1.039	-3.583	-0.184
	(0.916)	(0.818)	(4.731)	(0.133)
Bowl Ban (t+1)	3.102***	1.172	-0.123	-0.120
	(0.944)	(1.001)	(3.505)	(0.269)
Bowl Ban (t+2)	3.139**	-0.610	3.182	-0.378
	(1.554)	(1.187)	(6.977)	(0.251)
Champion (t-1)	1.802	3.042*	-0.566	-0.102
	(1.354)	(1.799)	(6.022)	(0.233)
Champion (t)	-0.551	1.972*	0.673	0.253
	(1.105)	(1.163)	(6.256)	(0.230)
Champion (t+1)	-2.289	1.999**	-8.814	0.512***
	(1.818)	(0.797)	(6.168)	(0.142)
Champion (t+2)	-2.488	1.009	-5.399	0.437*
	(1.824)	(1.315)	(8.781)	(0.281)
Vacated Win (t-1)	0.314**	0.158	-0.149	0.001
	(0.151)	(0.220)	(0.981)	(0.023)
Vacated Wins (t)	0.323**	-0.064	0.063	0.019
	(0.144)	(0.130)	(0.833)	(0.021)
Vacated Wins (t+1)	0.090	-0.313	0.213	0.001
	(0.181)	(0.210)	(0.708)	(0.014)
Vacated Wins (t+2)	-0.142	0.015	-0.087	-0.005
	(0.134)	(0.183)	(1.055)	(0.018)
Percent Alumni Giving	0.038**	0.002	-0.213***	-0.000
	(0.018)	(0.010)	(0.041)	(0.002)
Amount Alumni Giving	0.130	-0.056	-0.542	0.012
	(0.161)	(0.132)	(0.554)	(0.025)
Freshman Retention	-0.159	0.402**	2.579**	0.045*
	(0.222)	(0.162)	(1.134)	(0.024)
Acceptance Rate		-0.127***	-0.915***	0.002
		(0.036)	(0.197)	(0.006)
Freshman Top 10 Percent	-0.273***		0.920***	0.037**
	(0.095)		(0.290)	(0.015)
Percent Class Size Under 20	-0.059	0.075	0.396	0.033***
	(0.105)	(0.060)	(0.296)	(0.012)

Student Faculty Ration	-0.100	-0.167	-1.810***	0.009
	(0.185)	(0.177)	(0.645)	(0.029)
Graduation within 6 years	0.137	0.268***	0.453	0.006
	(0.140)	(0.093)	(0.330)	(0.012)
Percent Class Size Over 50	-0.055	0.333**	0.956	0.026
	(0.195)	(0.165)	(0.585)	(0.020)
ACC	-1.337	-11.345**	38.327**	-0.273
	(5.696)	(5.630)	(17.622)	(0.270)
Big 10	-0.718	-9.786*	59.561***	-1.618***
	(6.967)	(5.606)	(18.829)	(0.339)
Big 12	-4.439	-7.395	9.469	-0.929***
	(6.222)	(5.255)	(16.608)	(0.245)
Pac 12	-	-	-	-
SEC	-1.993	-5.363	-2.216	-1.841***
	(6.762)	(6.139)	(18.270)	(0.361)
AAC (formally the Big East)	-4.466	-9.932*	28.852*	-0.642***
	(5.016)	(5.275)	(16.676)	(0.227)
USA	0.323	-5.912	17.414	-0.621***
	(1.979)	(4.725)	(15.761)	(0.162)
MAC	-3.616	-4.402	20.192	-
	(5.703)	(4.864)	(16.196)	
Mountain West	-1.678	-10.573**	5.008	-
	(4.796)	(4.883)	(15.786)	
Sun Belt	-1.337	-11.345**	38.327**	-0.273
	(5.696)	(5.630)	(17.622)	(0.270)
Constant	83.102***	-2.699	1,053.651***	19.908***
	(17.883)	(12.204)	(89.543)	(2.010)
Observations	1,567	1,567	803	765
R-squared	0.277	0.259	0.595	0.554
Number of colleges	111	111	62	65

Specifications include Year and School Fixed Effects and School Controls
(clustered standard error in parentheses)
*significant at the 90% **significant at the 95% *** significant at 99% levels

Table 8: Student Retention Effects

VARIABLES	Freshman Retention	Graduation within 6 years
Bowl Ban (t-1)	-0.401	-0.090
	(0.567)	(0.590)
Bowl Ban (t)	-0.402	0.977*
	(0.283)	(0.523)
Bowl Ban (t+1)	-0.047	1.328**
	(0.249)	(0.622)
Bowl Ban (t+2)	-0.177	1.845**
	(0.174)	(0.785)
Champion (t-1)	0.367	-1.241*
	(0.274)	(0.694)
Champion (t)	0.469*	-1.566*
	(0.270)	(0.922)
Champion (t+1)	0.082	-1.099***
	(0.280)	(0.276)
Champion (t+2)	-0.235	-1.165**
	(0.246)	(0.560)
Vacated Win (t-1)	0.041	-0.107*
	(0.027)	(0.057)
Vacated Wins (t)	0.042*	-0.029
	(0.024)	(0.039)
Vacated Wins (t+1)	0.069	0.000
	(0.046)	(0.037)
Vacated Wins (t+2)	0.043	-0.009
	-0.009**	0.001
Percent Alumni Giving	(0.004)	(0.006)
	0.008	0.077
Amount Alumni Giving	(0.037)	(0.056)
	-0.401	-0.090
Freshman Retention		0.567***
		(0.091)
Acceptance Rate	-0.010	0.022
	(0.013)	(0.022)
Freshman Top 10 Percent	0.052**	0.091***
	(0.022)	(0.031)
Percent Class Size Under 20	-0.043	0.043
	(0.028)	(0.034)
Student Faculty Ratio	0.047	0.078
	(0.058)	(0.088)
Graduation within 6 years	0.216***	
	(0.027)	
Percent Class Size Over 50	-0.029	0.177**
	(0.045)	(0.071)

ACC	-0.313	9.478***
	(1.952)	(1.845)
Big 10	-0.424	9.107***
	(2.011)	(2.309)
Big 12	-1.103	5.581***
	(1.948)	(1.484)
Pac 12	-	-
SEC	-2.402	3.925**
	(2.019)	(1.676)
AAC (formally the Big East)	0.339	4.772***
	(1.839)	(1.247)
USA	-1.999	1.910**
	(1.752)	(0.958)
MAC	-2.117	-0.438
	(1.884)	(1.156)
Mountain West	-2.303	3.448***
	(1.855)	(1.206)
Sun Belt	-	-
Constant	71.154***	-2.260
	(2.675)	(7.898)
Observations	1,567	1,567
R-squared	0.479	0.640
Number of colleges	111	111

Specifications include Year and School Fixed Effects and School Controls
(clustered standard error in parentheses)
*significant at the 90% **significant at the 95% *** significant at 99% levels.

Table 9: Faculty-Student Measures

VARIABLES	Percent Class Size Over 50	Percent Class Size Under 20	Student Faculty Ratio
Bowl Ban (t-1)	-0.180	-0.184	0.299
	(0.247)	(0.801)	(0.574)
Bowl Ban (t)	-0.491*	0.242	0.135
	(0.254)	(0.755)	(0.407)
Bowl Ban (t+1)	-1.096***	-0.702	-0.032
	(0.371)	(1.154)	(0.249)
Bowl Ban (t+2)	-1.046**	-0.977	-0.268
	(0.476)	(1.072)	(0.338)
Champion (t-1)	0.688	1.147	0.582
	(0.452)	(1.730)	(0.400)
Champion (t)	0.790**	1.246	1.054***
	(0.314)	(1.072)	(0.262)
Champion (t+1)	0.243	1.353*	0.517
	(0.333)	(0.691)	(0.434)
Champion (t+2)	0.329	0.316	0.585
	(0.382)	(0.448)	(0.387)
Vacated Win (t-1)	-0.081***	0.015	-0.033
	(0.030)	(0.101)	(0.031)
Vacated Wins (t)	-0.015	0.095*	-0.055*
	(0.026)	(0.056)	(0.029)
Vacated Wins (t+1)	-0.019	-0.012	-0.073**
	(0.021)	(0.055)	(0.032)
Vacated Wins (t+2)	-0.077***	-0.008	-0.013
	(0.027)	(0.083)	(0.052)
Percent Alumni Giving	-0.000	0.002	-0.008**
	(0.003)	(0.008)	(0.004)
Amount Alumni Giving	-0.009	-0.008	0.001
	(0.030)	(0.087)	(0.030)
Freshman Retention	-0.024	-0.211*	0.039
	(0.038)	(0.123)	(0.049)
Acceptance Rate	-0.003	-0.017	-0.005
	(0.010)	(0.029)	(0.009)
Freshman Top 10 Percent	0.035**	0.047	-0.018
	(0.015)	(0.039)	(0.019)
Percent Class Size Under 20	-0.222***		-0.013
	(0.029)		(0.019)
Student Faculty Ration	0.186***	-0.077	
	(0.043)	(0.115)	
Graduation within 6 years	0.056***	0.081	0.025
	(0.021)	(0.066)	(0.027)
Percent Class Size Over 50		-1.325***	0.188***

		(0.158)	(0.046)
ACC	0.334	-5.694	0.844
	(1.840)	(4.654)	(2.140)
Big 10	1.765	-0.695	1.408
	(1.715)	(5.283)	(2.226)
Big 12	0.137	-6.171	0.779
	(1.483)	(5.121)	(2.250)
Pac 12	-	-	-
SEC	-0.457	-8.662	0.874
	(1.889)	(5.266)	(2.270)
AAC (formally the Big East)	0.742	-4.530	2.890
	(1.474)	(4.422)	(2.117)
USA	1.101*	-3.458	1.413
	(0.570)	(3.301)	(1.949)
MAC	1.169	-2.618	3.444
	(1.148)	(4.020)	(2.479)
Mountain West	2.337**	1.187	2.136
	(1.110)	(4.240)	(2.043)
Sun Belt	-	-	-
Constant	15.912***	74.388***	10.153**
	(4.438)	(10.415)	(4.376)
Observations	1,567	1,567	1,567
R-squared	0.447	0.377	0.203
Number of colleges	111	111	111

Specifications include Year and School Fixed Effects and School Controls
(clustered standard error in parentheses)
*significant at the 90% **significant at the 95% *** significant at 99% levels