Article

Cross-Sport Recruiting Effects in NCAA D1 Football and Basketball

Brent A. Evans[1] and Joshua D. Pitts[2]

Abstract
Using an extensive data set, we conduct an academic study of the determinants of recruiting success in Division 1 basketball and football. Among many findings, we show that football recruiting is correlated with on-court basketball success, although the relationship is not always positive. However, we do not find any evidence supporting the oft-held claim that on-field football success aids in basketball recruiting. Additionally, our models indicate that recruiting effects differ between "power" and "mid-major" conferences. These findings, among others provided herein, should enhance the literature on recruiting in college sports and could encourage administrators and coaches to reconsider recruiting tactics.

Keywords
recruiting, externalities, NCAA, college football, college basketball

Unlike many private markets, prices or wages cannot determine all outcomes in college sports, as despite the recent implementation of cost of attendance adjustments to athletic scholarships at some universities, there remains wage ceilings in place for college athletes. Thus, a highly valued recruit's college choice is determined by other factors. Prior research has shown that top recruits choose colleges for

[1] Department of Economics and Finance, Georgia College & State University, Milledgeville, GA, USA
[2] Department of Exercise Science and Sport Management, Kennesaw State University, Kennesaw, GA, USA

Corresponding Author:
Brent A. Evans, Department of Economics and Finance, Georgia College & State University, 402 Atkinson Hall, Milledgeville, GA 31061, USA.
Email: brentandrewevans@gmail.com

many reasons, such as recent on-the-field success, academic reputation, and relation-ships with coaches (Dumond, Lynch, & Platania, 2008; Klenosky, Templin, & Troutman, 2001; among others). In this article, we posit another possible recruiting effect. We test to see if success for a college's football team will lead to enhanced recruiting in basketball and vice versa.

On average, Division I (D1) college football and college basketball are the only profitable athletic programs at each university (Kahn, 2007). Furthermore, unlike many other athletes, elite professional football and basketball players have generally spent at least 1 year in the collegiate ranks. Thus, it seems fitting that these two sports would be subject to an analysis of recruiting effects since these sports garner the most attention and generate the greatest revenues. The importance of recruiting can be shown in the resources allocated toward recruiting. Between the 2008-2009 and 2012-2013 academic years, 19 DI colleges spent over US$1 million in recruiting expenses for basketball alone ("Database," 2014).[1] Spending was even greater for football—64 teams exceeded US$1 million for the period. Additionally, teams have trended toward more spending. Among the teams detailed in the report, 72% increased basketball recruiting spending between the 2009 and 2012 years, despite the poor economic conditions of this time span. During the same period, 78% of colleges increased recruiting spending in football.

Media have long considered the possibility that there are spillover effects between football and basketball teams in regard to recruiting. For example, an article on Sports Blog Nation (O'Donnell, 2015, para. 13) ponders if a boost in basketball recruiting is a result of college football success: "FSU can point (basketball recruits) to a football program as visible as any in the country—one that helped 18 players get drafted over the last two season—and tell them they can start a new tradition in basketball." Football coaches at top "basketball schools" have taken advantage of this potential spillover benefit. University of North Carolina's football head coach Larry Fedora states that the basketball team has "made it easier for us because they've paved the way" (Shanker, 2015, para. 6). At the University of Kentucky, one of the nation's top basketball programs, football coaches "usher recruits over to the basketball complex when they first arrive, where Wildcats basketball coach John Calipari often waits to meet them" (Shanker, 2015, para. 14). Likewise, former University of Florida basketball head coach Billy Donovan organized a meeting between elite basketball recruit Mike Miller and legendary football coach Steve Spurrier prior to a pivotal gridiron matchup versus the University of Tennessee (Thamel, 2002). Mike Miller, a South Dakota resident, would eventually sign with the University of Florida and lead the team to the Final Four in 2000, sparking a program turnaround that may not have been possible without the success of Florida's football program.

While head football coaches schmoozing with basketball recruits may be atypi-cal, football recruits are often invited to attend basketball games, and vice versa, to get a taste of the athletic atmosphere (Austin, 2015; Griffith, 2015; and Hunt, 2015). Presumably, the quality of the team fielded and the voracity of the fan base could

influence recruits' perception of the academic program, fan base, or the college as a whole. One might expect that football recruits would feel more favorable about attending a college when its basketball team puts on a good show and draws a large following. At Kansas University, football success still plays a role in basketball recruiting, even if basketball is the main draw. "Sometimes (basketball recruits) visit places and get emotional and commit right there just because the football team won that night or they stormed the field," stated head basketball coach Bill Self (Tait, 2011, para. 10). According to Self, having a full football stadium is just as important for basketball recruiting as it is for football recruiting. If this belief is any reflection of reality, then certainly football success could be positively correlated with basketball recruiting and vice versa.

However, recruiting spillover effects between basketball and football could also be negative. Top recruits in football, for example, may avoid colleges with a history of basketball success. Or, as Rival.com National Recruiting Director Mike Farrell puts it, "Football players prefer to go to football schools." According to University of Kentucky football recruiting coordinator Vince Marrow, rival football programs often "use Kentucky's 'basketball school' label against the football program" in an effort to steer recruits (Shanker, 2015, para. 6). Thus, the relationship between on-field and recruiting success in basketball and football is more complicated than one might initially imagine. Since there are feasible explanations for positive or negative spillover effects between the sports in regard to recruiting, we have no a priori expectation on the direction of any cross-sport recruiting effects.

Literature Review

Recruiting outcomes are nearly universally shown to enhance on-the-field success. For example, Bergman and Logan (2014) find that attaining a five-star recruit increases the odds of a college football team appearing in a Bowl Championship Series (BCS) bowl game by about 4% when including school fixed effects in the econometric modeling. Langelett (2003) finds similar evidence that recruiting rankings are correlated with on-the-field success. Additionally, he finds that success leads to better recruits. Thus, recruiting rankings could have long-term effects on college football success as improved recruiting leads to better seasons, which leads to better recruits, and so on.

Not surprisingly, luring a top recruit, which leads to better on-field performance, can also lead to higher revenues. Brown (2011) reports that a premium college football player is worth more than US$1 million to his college. Similarly, Lane, Nagel, and Netz (2014) estimate that the marginal revenue product of a college basketball player drafted into the National Basketball Association (NBA) also exceeds US$1 million at high-revenue-generating programs. Alternatively, at relatively low-revenue-generating basketball programs, the expected marginal revenue product of a player drafted into the NBA ranges from US$150,000 to US$275,000. In another study examining the marginal revenue products of college basketball

players, Borghesi (2015) estimates player values using revenue sharing methods that are similar to the NBA and National Football League, in which players earn 50% of a team's revenues. He finds that a five-star basketball recruit in his freshmen year is worth about US$613,000, while lower rates recruits are worth the following amounts: US$166,000 (four star), US$91,000 (three star), and US$50,000 (one and two stars).

Benefits extend beyond increased revenues. Achieving success on the field in both football and basketball has shown to increase the quantity and quality of the general applicants a college receives (Grimes & Chressanthis, 1994; Pope & Pope, 2009; and others). In basketball, simply reaching the "Sweet 16" of the National Collegiate Athletic Association (NCAA) tournament is associated with a 3.2% increase in applications for the following scholastic year, while winning the NCAA championship leads to 7.4% increase (Pope & Pope, 2009). Not surprisingly, tuition rates tend to increase for schools with recent football and basketball success (Alexander & Kern, 2009). Since recruiting is such a major part of building a winning team, and building a winning team can lead to profitable programs that improve a school's bottom line, attaining high-profile recruits is economically important for colleges, head coaches, and administrators alike.

Prior research on the determinants of recruiting success is largely focused on NCAA DI college football. Dumond, Lynch, and Platania (2008) find that on-the-field success, the quality of football facilities, inclusion in a "BCS Conference," scholarship restrictions, and the college's academic reputation all impact recruits' college choice.

Coaching experience is also shown to correlate with on-the-field success. For example, Adler, Berry, and Doherty (2012) show that middle-of-the-road teams experience a decline in success following a new coaching hire. However, a coaching change does not seem to have a short-run effect on success for college football teams that were already struggling. Regardless, coaching experience could certainly affect a recruit's choice of college. Indeed, a means-end investigation by Klenosky, Templin, and Troutman (2001) found that among the 27 D1 football players interviewed, 25 stated that a coach or a coaching staff was an attribute who influenced their decision to attend a given college. Other researchers have shown that a head coach's experience level might impact recruits' college choice; in particular, highly ranked recruits seem to avoid attending colleges with first-year coaches (Dumond et al., 2008; Pitts & Evans, 2016). Additionally, anecdotal evidence shows that players may choose to reopen their recruitment after a coach leaves a school (Bean, 2015).

In addition to on-the-field success and coaching experience, a school's academic prowess may influence a recruit's college choice. Generally, academic and recruiting outcomes are shown to be positively correlated. Dumond et al. (2008) show that colleges with a better academic reputation are able to lure more highly ranked recruits. Likewise, Huffman and Cooper (2012) find that the value of a school's degree and the nonfootball career opportunities afforded by attending the college were among the most important factors cited by recruits. Finally, Pitts and

Evans (2016) show that a school's acceptance rate is inversely correlated with recruiting outcomes.

There may also be differences in recruiting based simply upon a school's conference. For example, recruits may feel that there is more exposure to be gained by playing in BCS conferences, such as the SEC or BIG 10, even if the college is, otherwise, similar to colleges in non-BCS conferences. Schools in BCS conferences tend to attain more lucrative television deals and, unlike teams from other conferences, are guaranteed entry into a BCS bowl upon winning their conference. Thus, recruits may feel that BCS conferences offer greater opportunities than non-BCS conferences. Indeed, Treadway et al. (2014) find that membership in a BCS conference is a major determinant of a recruit's collegiate choice. There may also be differences among the BCS conferences as well—in terms of recruiting and the effects of recruiting. For example, Caro (2012) shows that recruiting success can be used to accurately predict on-the-field success in all BCS conferences except the Big East, Atlantic Coast Conference (ACC), and Pac-12. Pitts and Evans (2016) show that there are both positive and negative externalities associated with team success; for example, a BCS bowl win by one team is correlated with improve recruiting outcomes for other teams in the same conference, while a Heisman trophy for a given team is correlated with worsened recruiting among conference member schools.

Data

We construct models predicting recruiting success in both basketball and football. In an effort to create models with similar approaches and data, we use recruiting rankings from Rivals.com, one of the most prominent resources for recruiting information. We use data from 112 football and basketball programs that have competed in the Football Bowl Subdivision (FBS) college football subdivision since the 2002-2003 season, the first season of published recruiting data.[2] While we would prefer to provide virtually identical dependent variables as proxies for recruiting success, far more data are provided in football than in basketball. Thus, there are some small differences between the basketball and football recruiting dependent variables in our study.

For basketball, we construct our own measure of overall recruiting success by employing the "Rivals 250 Bonus Scale," a rating system that the website utilizes for football recruiting.[3] In this system, the number one overall recruit receives 100 points, the second overall recruit receives 83 points, and so forth; the point values exhibit an asymptotic decay with the 150th-ranked player earning 23 points. While this system is a bit arbitrary, it is used to partially determine the recruiting rankings for college football, which have been frequently utilized in the field of sports economics. The mean recruiting points attained by a team in a given year is 47.5 (roughly equivalent to signing one recruit ranked from #41 to #45, or perhaps, two recruits ranked from #146 to #150) for the entire sample. Our dependent variable for

basketball recruiting (BRECRUITING) is the recruiting points that each basketball team received in a given year, standardized for each year—thus, the mean for this variable is 1 and the standard deviation is 0.

Football recruiting data are far more expansive (and more complicated). While only the top 150 recruits are provided in the basketball Rivals.com ratings, Rivals provides team recruiting rankings for all FBS teams using a recruiting ranking points system.[4] As with basketball, we utilize the number of recruiting points a football team earns in a given year.[5] For football, recruiting points are calculated based on the average Rivals Rating of a team's top 20 recruits and the "Rivals 250 Bonus Scale." The mean for total football recruiting points is 917.7 and the standard deviation is 718.2. We construct the dependent variable, football recruiting points system (FRECRUITING), which is the recruiting points earned by a team in a year, standardized in each year.

Inclusion of control variables was inspired by research detailed in the literature review section and based on conventional wisdom of the determinants of recruiting success in football and basketball. Variables are described in Table 1. In Table 2, we provide the overall data summary statistics in addition to summary statistics for power conferences in football and basketball. The football power conferences are the ACC, Big Ten, Big 12, Pac-12, SEC, and the now-defunct Big East.[6] These conferences are also among the power conferences in basketball, along with the Atlantic 10 Conference. We hoped to create some control for the availability of recruits in proximity to the colleges. A casual perusal of the Rivals data clearly indicates that recruits are more likely to attend an in-state school than an out-of-state college. Thus, we create BSTATETALENT, which is the number of top 150 recruits going to high school in a college's state divided by the number of power conference teams in that state. For example, if there are eight top 150 recruits in Georgia, which contains two power conference teams, BSTATETALENT would equal four.[7] While this variable does not completely capture the availability of in-state talent, it does provide *some* control. Likewise, FSTATETALENT is the number of four- or five-star recruits in a state divided by the number of BCS colleges in that state. Typically, there are about 125 four- or five-star football recruits in a given year.

In college football and basketball, simple winning percentage is not a complete measure of overall success; for example, winning 80% of a season's games in a major conference typically leads to greater postseason outcomes than a mid-major conference team with the same winning percentage. For this reason, we provide multiple measures of on-the-field success. Recruits are likely influenced by the recent success of college teams. For basketball, recent on-court performance outcomes are estimated by BWIN1, BWIN2, BTOP255, BCHAMPS5, and BTOURNEYS5.

Of course, there are other possible motivations. Since top recruits are often hoping to reach the NBA, we include BDRAFT5. Additionally, players may prefer to play for coaches with a history of success. Thus, we include BCOACHTOURNEYS and BCOACHCHAMPS to account for the quality of the head coach. We also provide two simple dummy variables for coaching experience. BCOACHNEW1

Table 1. Variable Descriptions.

BRECRUITING[a]	Basketball recruiting points (standardized for each year)
FRECRUITING[a]	Football recruiting points (standardized for each year)
BSTATETALENT	Top 150 recruits divided by the number of power conference schools, in state
BWIN1	Basketball winning percentage in year prior to recruits' first year
BWIN2	Basketball winning percentage, 2 years prior to recruits' first year
BTOP255	Regular season finishes in the AP Top 25; 5 years prior to recruits' first year
BCHAMPS5	NCAA championships, 5 years prior to recruits' first year
BTOURNEYS5	NCAA tournaments, 5 years prior to recruits' first year
BDRAFT5	NBA draft picks from college, 5 years prior to recruits' first year
BCOACHTOURNEYS	Total tournament appearances by team's head coach
BCOACHCHAMPS	Total NCAA titles by team's head coach
BCOACHNEW1	Team has new head coach in recruits' first collegiate year
BCOACHNEW2	Team has new head coach in year prior to recruits' first season
FSTATETALENT	Four- and five-star recruits divided by the number of power conference schools, in state
FWIN1	Football winning percentage in year prior to recruits' first year
FWIN2	Football winning percentage, 2 years prior to recruits' first year
FTOP255	Regular season finishes in the AP top 25; 5 years prior to recruits' first year
FBCSBOWLS5	BCS Bowl appearances, 5 years prior to recruits' first year
FCHAMPS5	NCAA D1 FBS titles, 5 years prior to recruits' first year
FBOWLBAN	Equals 1 if team is under a bowl ban in recruits' first season
FDRAFT5	First round NFL draft picks from college, 5 years prior to recruits' first year
FCOACHBCSBOWLS	Total BCS bowl appearances by team's head coach
FCOACHCHAMPS	Total NCAA FBS titles by team's head coach
FCOACHNEW1	Team has new head coach in recruits' first collegiate year
FCOACHNEW2	Team has new head coach in year prior to recruits' first season

Note. NCAA = National Collegiate Athletic Association; NBA = National Basketball Association; NFL = National Football League; BCS = Bowl Championship Series; FBS = football bowl subdivision.
[a]Dependent variables.

equals one if the head coach is "brand new" to the team during the recruits first year. In this scenario, the head coach may have not even been a part of the recruiting process, and players may have enrolled prior to the head coach signing—we expect that players will shy away from brand new coaches. BCOACHNEW2 equals one if the head coach is in his second full season during the recruits first collegiate year. In this scenario, the head coach would have been a "new coach" during a recruit's senior year of high school, a pivotal time for recruiting.

Similar controls are provided for football; only minor changes were needed to account for differences in postseason structures (e.g., attaining a BCS bowl in college football is an accolade that is not comparable with any achievement in basketball). We also add one new variable, FBOWLBAN, which is a dummy

Table 2. Summary Statistics.

Variable	All FBS	Power (Football)	Mid-Major (Football)	Power (Basketball)	Mid-Major (Basketball)
BSTATETALENT	2.025 (1.731)	2.105 (1.755)	1.916 (1.692)	2.098 (1.750)	1.922 (1.699)
BWIN1	57.370 (16.275)	60.060 (15.198)	53.675 (16.977)	60.104 (15.202)	53.495 (16.957)
BWIN2	57.366 (16.297)	60.110 (15.338)	23.597 (16.827)	60.119 (15.329)	53.466 (16.837)
BCHAMPS5	0.041 (0.220)	0.063 (0.266)	0.010 (0.127)	0.063 (0.267)	0.008 (0.122)
BTOURNEYS5	1.713 (1.693)	2.302 (1.709)	0.904 (1.291)	8.688 (7.607)	0.882 (1.267)
BDRAFT5	1.617 (2.220)	2.401 (2.495)	0.540 (1.070)	2.388 (2.486)	0.525 (1.059)
BCOACHTOURNEYS	6.410 (7.016)	8.620 (7.589)	3.374 (4.676)	8.688 (7.607)	3.181 (4.387)
BCOACHCHAMPS	0.192 (0.668)	0.286 (0.826)	0.064 (0.304)	0.290 (0.832)	0.055 (0.255)
BCOACHNEW1	0.137 (0.349)	0.132 (0.339)	0.157 (0.364)	0.131 (0.338)	0.158 (0.365)
BCOACHNEW2	0.136 (0.350)	0.131 (0.337)	0.160 (0.367)	0.130 (0.337)	0.161 (0.368)
FSTATETALENT	5.291 (4.563)	5.189 (4.545)	5.431 (4.587)	5.176 (4.526)	5.455 (4.612)
FWIN1	52.007 (22.188)	56.312 (20.932)	46.095 (22.517)	56.091 (21.119)	46.221 (22.394)
FWIN2	52.007 (22.283)	56.378 (21.072)	45.687 (22.432)	56.029 (21.324)	45.987 (22.302)
FTOP255	1.103 (1.490)	1.665 (1.608)	0.331 (0.830)	1.644 (1.608)	0.337 (0.837)
FCHAMPS5	0.047 (0.258)	0.081 (0.335)	—	0.080 (0.333)	—
FBCSBOWLS5	0.0328 (0.749)	0.525 (0.910)	0.057 (0.259)	0.521 (0.906)	0.055 (0.255)
FDRAFT5	4.418 (2.219)	2.228 (2.552)	0.276 (0.735)	2.203 (2.546)	0.276 (0.739)
FBOWLBAN	0.005 (0.069)	0.007 (0.084)	0.002 (0.040)	0.007 (0.084)	0.002 (0.041)
FCOACHBCSBOWLS	0.674 (1.706)	1.081 (2.113)	0.116 (0.486)	1.067 (2.103)	0.118 (0.491)
FCOACHCHAMPS	0.118 (0.432)	0.197 (0.547)	0.008 (0.107)	0.195 (0.544)	0.008 (0.108)
FCOACHNEW1	0.167 (0.373)	0.151 (0.358)	0.190 (0.392)	0.151 (0.358)	0.190 (0.392)
FCOACHNEW2	0.164 (0.373)	0.148 (0.358)	0.186 (0.389)	0.150 (0.358)	0.184 (0.388)
n	1,454	842	612	852	602

Note. FBS = football bowl subdivision.

827

variable indicating whether a team will be under a bowl ban in a recruit's first year with the college. There are 10 instances of bowl bans in the data.[8]

Model

To analyze the effects of various sport-specific, coaching, and cross-sport variables on recruiting in college basketball and football, we estimate the following fixed effects model:

$$r_i = x_i'\beta + \alpha_i + \varepsilon_i, \tag{1}$$

where r_i is the recruiting achievement attained by team i, x_i' is the set of explanatory variables, α_i is the college-specific fixed effect, and ε_i is a random error term. We opt for fixed effects for each school based on the results of a test of joint significance.[9] We also conducted a Hausman test to compare random and fixed effects models and found clear evidence supporting a fixed effects approach.[10]

   Note that our fixed effects model will account for differences among colleges that are not captured by the data as long as these differences do not vary over time. For this reason, we choose not to include variables that vary little or none during the years studied. For example, a school's acceptance rate usually does not change much over time. Since the effect of acceptance rate is virtually constant during the years studied, fixed effects for each college will inherently account for acceptance rate and other academic characteristics. Likewise, we considered including a variable for each team's conference. However, as will other variables, conference alignment did not change for the vast majority of teams in the data set—college-specific fixed effects will naturally account for conference effects in most cases. We ultimately chose to omit conference variables to avoid multicollinearity concerns and found little change to results when conference variables were included.

   In total, we estimate six distinct models. For both football and basketball, we estimate one model including all data, one model including only power conference teams, and one model including teams not among the power conferences (mid-majors). In doing so, we are able to find overall effects and search for differences between major and minor D1 FBS colleges.

Results

Using data from Rivals.com and other sources, we estimate three separate models predicting basketball recruiting success. The first model includes all colleges in the FBS system from 2002 to 2015. The second and third models include only power conference teams and mid-majors, respectively. Results for models predicting basketball recruiting performance are provided in Table 3. We find, not surprisingly,

Table 3. Regressions Predicting Basketball Recruiting Points.

Variable	All FBS Colleges	Power Conference Teams	Mid-Major Conference Teams
BSTATETALENT	.069*** (.015)	.109*** (.024)	0.060*** (0.023)
BWIN1	.002 (.001)	.008*** (.002)	0.001 (0.002)
BWIN2	.000 (.002)	.004* (.002)	−0.001 (0.002)
BTOP255	.042 (.032)	−.008 (.044)	0.247*** (0.083)
BTOURNEYS5	−.017 (.026)	−.036 (.039)	0.032 (0.047)
BCHAMPS5	.150 (.125)	.163 (.161)	−0.091 (0.790)
BDRAFT5	.038** (.016)	.037* (.021)	−0.048 (0.047)
BCOACHTOURNEYS	−.009 (.007)	−.002 (.009)	−0.047*** (0.013)
BCOACHCHAMPS	.285*** (.109)	.091 (.150)	1.467*** (0.318)
BCOACHNEW1	−.241*** (.053)	−.349*** (.087)	−0.151* (0.078)
BCOACHNEW2	.074 (.054)	.134 (.088)	0.059 (0.079)
FWIN1	−.000 (.001)	−.001 (.002)	0.001 (0.002)
FWIN2	.000 (.001)	.003 (.002)	−0.002 (0.002)
FTOP255	−.003 (.027)	−.020 (.037)	0.005 (0.072)
FBCSBOWLS5	−.043 (.046)	−.062 (.060)	−0.259 (0.160)
FCHAMPS5	.067 (.102)	.066 (.122)	—

Note. Model 1, $R^2 = .587$; Model 2, $R^2 = .541$, $R^2 = .609$. FBS = football bowl subdivision.
***Significant at the 1% level. **Significant at the 5% level. *Significant at the 10% level.

that the level of talent in state is positively correlated with basketball recruiting. For the primary model, a one-unit increase in BSTATETALENT is associate with a 0.07 standard deviation increase in recruiting points—an increase of about five overall recruiting points. This variable is also positively correlated with recruiting in Models 2 and 3, but the significance is greater in Model 2, which includes only power conference teams. This is not surprising; power conferences are more likely to land top recruits, so the quantity of top recruits, in state, is more important for these programs.

Surprisingly, recent on-court success (BWIN1, BWIN2, BTOP255, BTOUR-NEYS5, and BCHAMPS5) is shown to be insignificant in predicting recruiting in the primary model. However, the two secondary models indicate differing effects of this variable between power conference teams and mid-majors. For power conference teams, a 1% increase in prior-year winning percentage is correlated with a 0.008 standard deviation increase in recruiting points. Likewise, there is a marginally significant effect of winning percentage 2 years prior to recruiting. However, these variables are not significant in the model containing only mid-majors. For mid-majors, it appears that top 25 finishes is a major determinant of recruiting outcomes. For each additional top 25 finish in the 5 years prior to recruiting, a team can expect to increase recruiting points by about 0.25 standard deviations (or 8.3 recruiting points). The other two on-court achievement variables (BTOURNEYS5 and BCHAMPS5) are not significant in any of the models.

Each additional NBA draft pick in the prior 5 years is associated with a 0.04 standard deviation increase in recruiting points in both the primary model and the model for power conferences. Among mid-majors, the effect is not significant. This may suggest that players with NBA aspirations are more likely to attend colleges with a pipeline of NBA talent—traditionally, power conference teams. Thus, NBA draft pick history is less important for mid-majors.

The differences between power conference teams and mid-majors continue in the coaching variables. Among the mid-majors, employing a head coach with tournament history actually harms the college's basketball recruiting efforts. For each additional tournament appearance for the head coach, the mid-major team can expect a 0.05 standard deviation *decrease* in recruiting points. Conversely, a head coach with championships can expect much improved recruiting outcomes—for each additional title, recruiting prowess jumps by about 1.47 standard deviations or about 49 recruiting points.[11] This is an increase in points equivalent to landing one recruit ranked #35–#40, nationally. BCOACHNEW1 is the only variable shown to be significant among all the three models. Having a new coach during recruits' first collegiate season is correlated with a 0.24 standard deviation decrease in recruiting points for the primary model, and the effect is greater for power conference teams. However, there is no clear indication that the teams with head coaches in their second year (BCOACHNEW2) will recruit differently from otherwise similar teams. Therefore, it appears that colleges can expect a decline in recruiting points at the time of coaching turnover, but the effect is short lived.

While these findings are interesting, our primary focus is on the cross-sport recruiting aspect. Is basketball recruiting a function of football success? According to our models, it is not. Five variables measuring on-field football success are included in the models, and not one of these variables is even marginally significant. While some media members have advocated the benefits of football success on basketball recruiting, we do not find no evidence that this is the case.

We now turn our attention to football recruiting. As with basketball, we construct three fixed effects models predicting football recruiting success. This dependent variable for football is far more descriptive than the dependent variable for basketball since recruiting points are provided for several hundred college football recruits each year compared to only the top 150 recruits in college basketball. Thus, it is no surprise to see a much higher R^2 for the football models. We provide results for all the three models in Table 4.

As with basketball, we find a strong positive correlation between in-state talent (FSTATETALENT) and the recruiting dependent variables in the model including power conference teams. For power conference teams, a one-unit increase in FSTATETALENT is associated with a 0.04 standard deviation (about 30 recruiting points) increase in recruiting points. This indicates that each additional top recruit in state, per team, is associated with an in-state power conference team landing one recruit with "limited propotential" that "may be more of a role player."[12] However, we find an insignificant effect of this variable for mid-majors; again, this is likely

Table 4. Regressions Predicting Football Recruiting Points.

Variable	All FBS Colleges	Power Conference Teams	Mid-Major Conference Teams
FSTATETALENT	.003 (.066)	.044*** (.011)	.012 (.018)
FWIN1	.001 (.001)	.005*** (.001)	.001 (.002)
FWIN2	.001 (.001)	.004*** (.001)	.002 (.002)
FTOP255	.052*** (.018)	.047** (.024)	.057 (.086)
FCHAMPS5	−.058 (.082)	−.088 (.101)	—
FBCSBOWLS5	.080** (.033)	.051 (.043)	.346* (.208)
FBOWLBAN	−.362** (.175)	−.394* (.234)	—
FDRAFT5	.006 (.009)	.012 (.012)	.034 (.055)
FCOACHBCSBOWLS	−.007 (.021)	−.032 (.026)	.381** (.163)
FCOACHCHAMPS	.134* (.076)	.291*** (.054)	−.854 (.638)
FCOACHNEW1	−.188*** (.032)	−.229*** (.054)	−.240*** (.085)
FCOACHNEW2	.116*** (.032)	.302*** (.053)	.084 (.086)
BWIN1	−.003*** (.001)	−.000 (.001)	−.003 (.002)
BWIN2	−.001 (.001)	.003** (.002)	.000 (.003)
BTOP255	.067*** (.020)	.047* (.028)	.069 (.088)
BTOURNEYS5	−.032* (.017)	−.030 (.026)	.022 (.054)
BCHAMPS5	.188** (.075)	.125 (.097)	−.660 (.442)

Note. Model 1, R^2 = .836; Model 2, R^2 = .761; Model 3, R^2 = .458. FBS = football bowl subdivision.
***Significant at the 1% level. **Significant at the 5% level. *Significant at the 10% level.

because mid-majors are unlikely to land many four- and five-star recruits, so the availability of these players is not necessarily important. This finding demonstrates the importance of running models for power conference teams and mid-majors separately, since the primary model suggests that in-state talent has no effect on recruiting. The results for FWIN1, FWIN2, and FTOP255 underscore this point—power conference recruits seem interested in recent on-field performance, but mid-major recruiting is not a function of recent on-field success, according to our model. The last on-field performance variable, FBCSBOWLS5, is found to be positive and significant in the primary model but insignificant in the other models.

Unlike basketball recruiting, the quantity of draft picks is not clearly correlated with football recruiting—FDRAFT5 is not significant in any of the models. However, we find a strong and significant coefficient for FBOWLBAN in both the primary model and the model including power conference teams.[13] This may indicate that bowl bans are effective punishments for rule violations.

The coaching variables are generally significant although the results are again highly dependent upon participation in a power or mid-major conference. Among mid-majors, a team possessing a head coach with BCS bowl appearance can expect improved recruiting outcomes, but there is no clear connection between BCS bowl coaching experience and recruiting for power conference teams. In the primary model and for power conference teams, there is a positive and significant effect for

FCOACHCHAMPS indicating that recruits are more likely to be lured by coaches with national titles.[14] As with basketball, teams with a "brand new" coach can expect to greatly suffer in recruiting. For power conference teams, having a first-year coach is associated with a 0.23 standard deviation (or about 138 points—equivalent to one very elite prospect) decrease in recruiting prowess. The effect is even stronger for mid-majors. While a first-year coach will field a team of lower quality recruits, second-year power conference coaches receive a massive boost in recruiting. Having a second-year coach is associated with a 0.30 standard deviation (about 207 points) increase in recruiting prowess. This finding may explain why coaching turnover has increased in recent years—while first-year power conference coaches recruit poorly, total recruiting after 2 years is actually improved, on net, after the signing of a new coach! However, this effect is apparently confined to power conference coaches as indicated by the insignificant coefficient for FCOACHNEW2 in model containing mid-majors.

Among the five basketball variables, four variables exhibit significance in the primary model. Yet again, there are discrepancies between power conference and mid-major teams. Thus, we will focus on these models in our discussion. In the primary model, basketball winning percentage in the season immediately prior to a football seasons harms recruiting for that football team. Likewise, recent NCAA tournament appearances in basketball are also inversely correlated to football recruiting prowess. Interestingly, we find positive effects for BTOP255 and BCHAMPS, and the coefficients are rather large. Each additional top 25 basketball finish in the prior 5 years is associated with a 0.07 standard deviation improvement in football recruiting, and each additional championships leads to a 0.19 standard deviation increase. For power conference teams, only two of these variables are found to be significant—winning percentage 2 years prior and top 25 finishes in the past 5 years are both positively correlated with football recruiting. Finally, we find no significance among the basketball variables for mid-majors. Considering these cross-sport effects as whole, it appears that on-court basketball success does influence football recruiting, but the effects are complicated and may differ from conference to conference and team to team.

Conclusions

On average, football and men's basketball are the only profit-earning programs at NCAA D1 colleges and revenues and profits have risen greatly in recent years. Recent economic data indicate the nearly unfathomable financial magnitude of these sports. For example, national TV advertising alone for the NCAA basketball tournament has topped US$1 billion for five straight seasons, greatly exceeding advertising spending for the lengthier NBA play-offs (Kantar Media, 2016). Meanwhile, ESPN is paying US$470 million per year to have exclusive rights to the three-game NCAA college football play-offs. Aside from the direct revenues that many NCAA schools

enjoy, success in these sports has been shown to increase enrollment applications (Pope & Pope, 2009), tuition rates (Alexander & Kern, 2009), and undoubtedly has the potential to greatly improve a college's image and expand its exposure.

Not surprisingly, D1 colleges have increased their willingness to invest in the recruiting of athletes, but players themselves are not permitted to receive payment. Thus, we seek to answer the question that a few other researchers have addressed, "What do top basketball and football recruits' value when choosing a college?" Positing a new possible motivating factor, we test whether football players base their decision not just on the team's recent football success but also on the performance of its basketball team. Likewise, do basketball players consider the success of a college's football team?

After estimating three different regression models for both sports, we find no evidence to support the purported belief that basketball recruiting is a function of football success. However, we find ample evidence that college football recruiting is impacted by on-court basketball success. In our primary model, four of the five basketball success variables are correlated with football recruiting. However, two of the four variables (top-25 finishes and NCAA titles in the past 5 years) are positively correlated with football recruiting, while the other two (winning percentage in prior season and NCAA tournament appearances in previous five season) are inversely correlated with football recruiting prowess. According to Duke University football coaches, basketball success is a "double-edged sword" that helps gain notoriety for the college but may discourage top recruits who are looking for an athletic program dedicated to football success (Shanker, 2015). Indeed, our findings are consistent with this anecdotal evidence. Football recruiting is a function of on-court basketball success, but the correlation is not unidirectional.

In addition to these cross-sport findings, we uncovered some other interesting results that sports researchers may find helpful in preparing models predicting recruiting success. Perhaps most interestingly, we find that new head coaches in football tend to receive a major recruiting boost during their second year, which more than overcomes the initial decline in recruiting prowess that occurs in the first year. This effect is not observed among mid-majors, which could indicate that power conference athletic departments should be more willing to facilitate coaching turnover than mid-major departments. In general, we find major differences between power conference and mid-major conference recruiting effects, indicating that recruiting strategies should greatly differ between these groups.

As with any research, but particularly true in recruiting studies, there are some limitations within the data. For example, the success (or failure) of one college has the potential to impact recruiting outcomes throughout the nation as top recruits flee or gravitate toward certain colleges. Unfortunately, fully accounting for these "recruiting competition" effects is not feasible. Additionally, the recruiting points system generated by Rivals.com is not necessarily an accurate depiction of player potential; perhaps college teams are able to more adeptly recognize player potential than Rivals.com. If this is the case, the dependent variables in our study may not

accurately reflect recruiting prowess. This is particularly problematic for basketball recruiting, which appears to receive much less attention by Rivals.com (and other recruiting databases). Since (arbitrarily) only the top 150 recruits are provided by the website, many valuable recruits are not included in the data set. Furthermore, certain attributes (height, quickness, etc.) may be in higher demand in certain seasons, which causes players with these attributes to receive more attention from colleges than they would in other seasons. Again, the data do not account for such possibilities. An improved dependent variable for recruiting success would greatly improve the validity of future research. Lastly, there is always a concern for omitted variable bias, and we certainly welcome any suggestions for other potentially relevant variables. While fixed effects account for important differences from college to college, these effects do not do a good job of handling *changes* in the differences among colleges. For example, college-level fixed effects will account for the beautiful weather in southern California, which may lure recruits to University of California, Los Angeles, but fixed effects may not adequately reflect the development of a new workout facility, stadium upgrade, or a new collegiate branding campaign. Indeed, there are limitless possible factors that influence a recruit's decisions, and we encourage future researchers to join us in testing for the magnitude of such effects.

Despite these potential limitations in the data, our study should further our understanding of recruiting outcomes in college sports. We analyze potential spillover effects between football and basketball success and recruiting, which is apparently the first time such possibility has been addressed in an academic nature. Clearly, this is our greatest value added, but the subfield will also benefit from simply having another study that includes newer data that were unavailable to researchers in the past. We hope that our study can spark future research in the field and ultimately lead to a better understanding of why some colleges can field successful sports programs while others cannot.

Appendix A

BRECRUITING

Points are applied based on a recruit's overall college ranking using the following scale, using the "Rivals 250 Bonus Scale." In basketball recruiting, Rivals.com only identifies the top 150 recruits (source: https://footballrecruiting.rivals.com/content.asp?SID=880&CID=1364602).

#1 = 100 points
#2 = 83 points
#3 = 82 points
#4 = 81 points
#5 = 80 points
#6 = 76 points

#7 = 75 points
#8 = 74 points
#9 = 73 points
#10 = 72 points
#11 = 69 points
#12 = 68 points
#13 = 67 points
#14 = 66 points
#15 = 65 points
#16 = 64 points
#17 = 63 points
#18 = 62 points
#19 = 61 points
#20 = 60 points
#21 = 59 points
#22 = 58 points
#23 = 57 points
#24 = 56 points
#25 = 55 points
#26–30 = 53 points
#31–35 = 51 points
#36–40 = 49 points
#41–45 = 47 points
#46–50 = 45 points
#51–55 = 43 points
#56–60 = 41 points
#61–65 = 40 points
#66–70 = 39 points
#71–75 = 38 points
#76–80 = 37 points
#81–85 = 36 points
#86–90 = 35 points
#91–95 = 34 points
#96–100 = 33 points
#101–105 = 32 points
#106–110 = 31 points
#111–115 = 30 points
#116–120 = 29 points
#121–125 = 28 points
#126–130 = 27 points
#131–135 = 26 points
#136–140 = 25 points

#141–145 = 24 points
#146–150 = 23 points.

Appendix B

FRECRUITING

Points are attained based on a team's top 20 commitments. Bonus points are given to players ranked among the top 250 national recruits. The process for obtaining points is thoroughly described below (sources: https://rivals100.rivals.com/aboutrankings .asp?Sport=1 and https://footballrecruiting.rivals.com/content.asp?SID=880& CID=1364602).

$$\text{Total points} \;=\; \text{Rivals rating points} \;+\; \text{Rivals 250 bonus points}.$$

   a.   Rivals Rating (RR) Scale (Top 20-rated commitments)

(Rivals rating = points)

Rivals.com has assembled the top team of recruiting analysts in the nation with both national and regional experts based on all throughout the country. With those strengths, players at a number of different positions will be ranked once a month from June until February. The rankings are compiled after countless hours of film evaluation; personal observations; and input from professional, college, and high school coaches. In the finished product, players are ranked a number of different ways, but the most important ways are numerically by position, qualitatively by stars and a new ranking system that grades players on the expected impact they will make in college. Players are ranked numerically on a national level at their positions. The numerical ranking at each position varies depending on the depth of the talent at the position. Players are also ranked on their quality with a star ranking. A five-star prospect is considered to be one of the nation's top 25–30 players, four star is a top 250–300 or so player, three stars is a top 750-level player, two stars means the player is a mid-major prospect, and one star means the player is not ranked. The ranking system ranks prospects on a numerical scale from 6.1 to 4.9.

- 6.1 Franchise player; considered one of the elite prospects in the country, generally among the nation's top 25 players overall; deemed to have excellent pro potential; high-major prospect.
- 6.0–5.8 All American candidate, high-major prospect, considered one of the nation's top 300 prospects, deemed to have propotential, and ability to make an impact on college team.
- 5.7–5.5 All-region selection, considered among the region's top prospects and among the top 750 or so prospects in the country, high- to mid-major prospect, deemed to have propotential, and ability to make an impact on college team,

- 5.4–5.0 DI prospect, considered a mid-major prospect, deemed to have limited propotential but definite DI prospect, may be more of a role player.
- 4.9 Sleeper; no Rivals.com expert knew much, if anything, about this player; a prospect that only a college coach really knew about.

6.1 = 150 points
6.0 = 135 points
5.9 = 120 points
5.8 = 105 points
5.7 = 90 points
5.6 = 75 points
5.5 = 60 points
5.4 = 45 points
5.3 = 30 points
5.2 = 15 points.

Prospects without an assigned rating will count for no points. All FBS committed prospects will have a rating once evaluated and rankings are updated.

Rivals 250 Bonus Scale (all commitments)

#1 = 100 points
#2 = 83 points
#3 = 82 points
#4 = 81 points
#5 = 80 points
#6 = 76 points
#7 = 75 points
#8 = 74 points
#9 = 73 points
#10 = 72 points
#11 = 69 points
#12 = 68 points
#13 = 67 points
#14 = 66 points
#15 = 65 points
#16 = 64 points
#17 = 63 points
#18 = 62 points
#19 = 61 points
#20 = 60 points
#21 = 59 points
#22 = 58 points
#23 = 57 points

#24 = 56 points
#25 = 55 points
#26–30 = 53 points
#31–35 = 51 points
#36–40 = 49 points
#41–45 = 47 points
#46–50 = 45 points
#51–55 = 43 points
#56–60 = 41 points
#61–65 = 40 points
#66–70 = 39 points
#71–75 = 38 points
#76–80 = 37 points
#81–85 = 36 points
#86–90 = 35 points
#91–95 = 34 points
#96–100 = 33 points
#101–105 = 32 points
#106–110 = 31 points
#111–115 = 30 points
#116–120 = 29 points
#121–125 = 28 points
#126–130 = 27 points
#131–135 = 26 points
#136–140 = 25 points
#141–145 = 24 points
#146–150 = 23 points
#151–155 = 22 points
#156–160 = 21 points
#161–165 = 20 points
#166–170 = 19 points
#171–175 = 18 points
#176–180 = 17 points
#181–185 = 16 points
#186–190 = 15 points
#191–195 = 14 points
#196–200 = 13 points
#201–205 = 12 points
#206–210 = 11 points
#211–215 = 10 points
#216–220 = 9 points
#221–225 = 8 points
#226–230 = 7 points

#231–235 = 6 points
#236–240 = 5 points
#241–245 = 4 points
#246–250 = 3 points.

Notes

1. These figures likely pale in comparison to the actual spending required for recruiting. For example, one major component of coaches' duties is to aid in recruiting players. Thus, one might consider that a portion of a coach's salary is indirectly spent on recruiting efforts.
2. Air Force, Army, and Navy were omitted from the data set. Other colleges that entered the Football Bowl Subdivision (FBS) system after 2002 were also excluded (Florida International, Old Dominion, etc.).
3. See Appendix A.
4. Unlike basketball, recruiting rankings are provided for all FBS teams. Thus, recruiting rankings could serve as a dependent variable. However, recruiting rankings provide less information than the Rivals.com points system. For example, the 2014 Alabama Crimson Tide football team earned 3,263 points, 419 points more than the second-ranked team. While the recruiting ranking difference would only be one unit, this is a huge margin in overall recruiting prowess that a recruiting ranking variable would not reveal.
5. See Appendix B for a full description.
6. These conferences were provided a guaranteed selection among the Bowl Championship Series (BCS) bowls. For this reason, we also include Notre Dame among the power conference teams, since it also was provided guaranteed BCS bowl placement if it finished among the top eight teams in the BCS poll.
7. In some states, there are no power conference teams, but there is a mid-major college. In these instances, we treated the number of power colleges as one, so as to not divide by zero. In future editions of this article, we plan to create more sophisticated variables to capture in-state talent.
8. We also created a "tournament ban" variable for basketball. However, we opted to drop the variable after discovering that only one team in our data set had experienced a tournament ban.

9. The *F*-test of joint significance for the fixed effects for each school yielded a test statistic of 4.49 for the primary basketball regression and 19.34 in the primary football regression. Thus, we reject the null hypothesis that fixed effects are zero. We also considered including fixed effects for each year and each conference, but these variables were found to be jointly insignificant.

10. A Hausman test comparing fixed and random effects yielded a χ^2 value of 136.26 for the primary basketball model and 631.81 for the primary football model. Thus, we reject the null hypothesis of the random effects model being preferable and use the fixed effects model.

11. Among the mid-majors, there are 33 instances of teams led by a coach with a national title.

12. This conclusion is based on the Rivals.com system for a player garnishing 15–30 points. Of course, a gain in points could also be a result of upgrading players rather than gaining a new recruit.

13. Note that only 10 teams were under a bowl ban, and 9 of them were in power conferences. For this reason, FBOWLBAN is excluded from "mid-major" model.

14. While FCOACHCHAMPS exhibits a negative coefficient in the mid-majors model, the finding is suspect. Among these teams, only four were led by a coach with at least one national title.

References

Adler, E. S., Berry, M. J., & Doherty, D. (2012). Pushing "reset": The conditional effects of coaching replacements on college football performance. *Social Science Quarterly*, *94*, 1–28.

Alexander, D. L., & Kern, W. (2009). The impact of athletic performance on tuition rates. *International Journal of Sport Finance*, *4*, 240–254.

Austin, K. (2015, September 11). *Oregon game marks pivotal recruiting weekend for Tom Izzo, Michigan State basketball*. Retrieved from http://www.mlive.com/spartans/index.ssf/2015/09/oregon_games_marks_pivotal_rec.htm

Bean, J. (2015, March 19). *Will Anthony Grant's firing dissolve Alabama's basketball recruiting class? No consensus from 3 players*. Retrieved from http://www.al.com/sports/index.ssf/2015/03/will_anthony_grants_firing_dis.html

Bergman, S. A., & Logan, T. D. (2014). The effect of recruit quality on college football team performance. *Journal of Sports Economics*, *4*, 578–600.

Borghesi, R. (2015). The financial and competitive value of NCAA basketball recruits. *Journal of Sports Economics*. doi:10.1177/1527002515617510

Brown, R. (2011). Research note: Estimates of college football player rents. *Journal of Sports Economics*, *12*, 200–212.

Caro, C. A. (2012). College football success: The relationship between recruiting and winning. *International Journal of Sports Science & Coaching*, *7*, 139–152.

Database: National Collegiate Athletic Association Division I men's basketball recruiting spending. (2014). *Des Moines Register*. Retrieved from http://db.desmoinesregister.com/college-basketball-recruiting

Dumond, J. M., Lynch, A. K., & Platania, J. (2008). An economic model of the college football recruiting process. *Journal of Sports Economics*, *9*, 67–87.

Griffith, M. (2015, November 12). *Curtis Blackwell explains complexities of Michigan State football recruiting*. Retrieved from http://www.mlive.com/spartans/index.ssf/2015/11/curtis_blackwell_explains_comp.html

Grimes, P. W., & Chressanthis, G. A. (1994). Alumni contributions to academics: The role of intercollegiate sports and NCAA sanctions. *American Journal of Economics and Sociology*, *53*, 27–39.

Huffman, L. T., & Cooper, C. G. (2012). I'm taking my talents to . . . An examination of hometown socio-economic status on the college-choice factors of football student-athletes at a southeastern university. *Journal of Issues in Intercollegiate Athletics*, *5*, 225–246.

Hunt, T. (2015, January 1). *Multiple football recruits expected to attend Rutgers-Michigan basketball game at the RAC*. Retrieved from http://www.nj.com/rutgersfootball/index.-ssf/2015/01/multiple_football_recruits_expected_to_attend_rutg.html

Kahn, L. M. (2007). Markets: Cartel behavior and amateurism in college sports. *The Journal of Economic Perspectives*, *21*, 209–226.

Kantar Media. (2016, March 14). *March Madness TV ads have generated $8.2 billion in revenue since 2006*. Retrieved from http://www.kantarmedia.com/us/newsroom/press-releases/march-madness-tv-ads-have-generated-8-billion-in-revenue-since-2006

Klenosky, D. B., Templin, T. J., & Troutman, J. A. (2001). Recruiting student athletes: A means-end investigation of school-choice decision making. *Journal of Sport Management*, *15*, 95–106.

Lane, E., Nagel, J., & Netz, J. S. (2014). Alternative approaches to measuring MRP: Are all men's college basketball players exploited? *Journal of Sports Economics*, *15*, 237–262.

Langelett, G. (2003). The relationship between recruiting and team performance in Division 1A college football. *Journal of Sports Economics*, *4*, 240–245.

O'Donnell, R. (2015, August 12). *Florida State is proving it can recruit 5-star talents in basketball, too*. Retrieved from http://www.sbnation.com/collegebasketball/2015/8/12/-9139407/florida-state-basketball-recuiting-dwayne-bacon-jonathan-isaac

Pitts, J. D., & Evans, B. (2016). The role of conference externalities and other factors in determining the annual recruiting rankings of football bowl subdivision (FBS) teams. *Applied Economics*, *48*, 3164–3174.

Pope, D. G., & Pope, J. C. (2009). The impact of college sports success on the quantity and quality of student applications. *Southern Economic Journal*, *75*, 750–780.

Shanker, J. (2015, December 3). *Duke, North Carolina's ACC master extends outside basketball to football*. Retrieved from http://espn.go.com/blog/acc/post/_/id/88999/duke-north-carolinas-acc-mastery-extends-outside-basketball-to-football

Tait, M. (2011, February 7). *Allen Fieldhouse helps Turner Gill recruiting for KU football, too*. Retrieved from http://www2.kusports.com/news/2011/feb/07/allen-fieldhouse-helps-gill-recruit-ku-football-to/

Thamel, P. (2002, December 31). *Basketball creating a buzz at Florida 'football schools.'* Retrieved from http://a.espncdn.com/ncb/columns/misc/1484965.html

Treadway, D. C., Adams, G., Hanes, T. J., Perrewé, P. L., Magnusen, M. J., & Ferris, G. R.
(2014). The roles of recruiter political skill and performance resource leveraging in NCAA
football recruitment effectiveness. *Journal of Management*, *40*, 1607–1626.

Authors Biographies

Brent A. Evans is an assistant professor of economics at Georgia College & State University.
He conducts research in the fields of sports economics and gambling. He holds a PhD in
economics from Mississippi State University.

Joshua D. Pitts is an assistant professor of sport management and economics at Kennesaw
State University. He received his PhD in applied economics from Mississippi State University
in 2010. His research interests include sports and labor economics.